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CLINICAL LECTURE

ON A

CASE OF DISLOCATION OF THE KNEE AND OF THE HIP.

Delivered at the Middlesex Hospital,

BY J. W. HULKE, F.R.S.,

Surgeon to the Hospital.

GENTLEMEN,—The case which I propose to review to-day is an instance of a very unusual injury—compound dislocation of the knee-joint; or, more correctly, of the upper articular end of the tibia.

The notes of the dresser (Mr. B. Lawson) mention that the patient, 44 years old, was admitted into Broderipp Ward on the 23rd of last month, having, within half an hour previously, been run over by a cab whilst crossing the street. He was not able to give a distinct account of the circumstances of the accident; but from the torn and muddy state of his trousers, it was probable that the wheels passed across his legs. Mr. Harratt, our house-surgeon, found his left leg abducted on the thigh, and the head of the tibia displaced outwards. Over the inner border of this latter was a bruised, jagged wound, one and three-quarter inches long, from which synovia and venous blood oozed freely. This wound divided the inter al lateral ligament, and it entered the joint, above and also beneath the internal semilunar cartilage, which was here separated from the tibia, leaving this bare and rough. This was not the only injury; for the head of the femur was dislocated upwards and backwards. It was clearly felt upon the dorsum ilii. The thigh also was inverted, adducted, and shortened to the extent of two and a half inches.

Anæsthesia having been induced with ether, both dislocations were easily reduced by manipulation. The wound and the interior of the knee-joint were thoroughly syringed with a 5 per cent. solution of carbolic acid, a compress was put on for the arrest of the oozing, and the limb was fixed with a back, and a long outside splint. On the following morning, when I first saw the patient, his condition was satisfactory. He had slept. Temperature, 99.2°; pulse, 96. As the dressings (boric charpie) were saturated with bloody serum and synovia, they were changed, and a drainage-tube was inserted to facilitate the escape of the discharge. On the evening of the second day after the accident (April 26th) he had a rigor, during which his temperature rose to 102.2° Fahr., in the armpit; two and a half hours later it had fallen to 98.8° Fahr. Next day the knee was very swollen, and on pressure upon it much bloody, grumous fluid, slightly fœtid, escaped from the wound. It was evident that the wound and the cavity of the joint were no longer aseptic. Incisions were therefore made into the joint at both sides of the knee, it was syringed for several minutes with a large quantity of a watery mixture of sulphurous acid of the strength $\frac{1}{8}$, and large drainage-tubes were put in. The original wound and the incisions were dusted with iodoform, and covered with protective oiled silk, over which was placed the usual carbolised gauze. For about one week these measures were followed by local and general improvement. Then the thigh swelled, and its cutaneous veins became very dilated; the temperature again rose, and his strength began to decline, although his appetite continued remarkably good.

On May the 14th, as it had become manifest that any further attempt to save the limb would probably entail fatal consequences, he acceded to amputation, which was done by a modification of Teale's method. The main artery was twisted, and the vein, as it continued to bleed after twisting, was secured with a carbolised catgut ligature. The surfaces of the flaps and an abscess were washed with a watery solution of zinc chloride (forty grains to one ounce of water), four large drainage-tubes were put in, and the edge of the flaps brought together with aseptic ligatures. He bore the operation well, and next day expressed himself as feeling much better.

On the morning of the third day an abscess broke near the lower border of the glutæus maximus in the left buttock, and gave escape to about two ounces of grumous bloody pus. Evidently this was not a bedsore. It was suspected that it might be connected with the injury of the hip-joint. However, on questioning him repeatedly, he always replied that he did not feel any pain worth complaining of in the hip. For a week after the amputation, he maintained his strength, he had a good appetite, slept well, and was cheerful.

On the 21st, hæmorrhage occurred, and although the femoral artery was promptly compressed, he lost so large a quantity of blood, that he became deeply collapsed. Having slightly rallied under a hypodermic injection of ether, the flaps were segmented, the clots removed, and a thread placed round the large vessels, as the bleeding seemed to have proceeded from their situation. He sank rapidly and died within about three-quarters of an hour, no further hæmorrhage occurring.

Dr. Fowler has furnished the following notes of the inspection of the body. The end of the femoral artery where it had been twisted was softened, and it had a small opening in it which had evidently been the source of the hæmorrhage. The artery in its whole course was atheromatously thickened, and no clot had formed in it. The femoral vein was plugged throughout its whole extent with an adherent thrombosis. At the inner side of the left buttock was an ulcer, from which a sinus extended through a ragged hole in the glutæus maximus, of a size of a sixpence, near the ischial tuberosity, to the hip-joint. In the substance of this muscle were several extravasations of blood, varying in size from that of a pea to a chestnut, and the space between this and the deeper muscles about the joint was filled with a grumous fœtid fluid composed of pus, broken-down clot, and gangrenous muscle-fibre.

The two other gluteal muscles and the pyriformis were uninjured by the accident, but shared in the inflammatory softening which involved all the muscles around the joint. The obturator internus and the gemelli were lacerated, but they were not torn through, as was also the obturator externus. All these last named muscles were extremely softened, so much so, that much of their tissue could be washed away by a stream of water. The quadratus was entirely ruptured. In the inferior and posterior part of the capsular ligament of the hip-joint was an extensive laceration, crossed, and divided into two parts by the tendon of the obturator externus. The femoral attachment of the ligament had been torn from the bone, leaving only there a fringe of its synovial membrane about a quarter of an inch broad, whilst its attachment to the acetabulum had been preserved. The ligamentum teres was ruptured, and through the laceration in the capsule the head of the femur could be easily slipped out of the acetabulum beneath the lower border of the obturator internus on to the dorsum, then resting there on this muscle and on the pyriformis.

I need not trouble you with the report of the condition of the thoracic and abdominal viscera. It will be sufficient to remark that they were free from traces of pyæmic disorders. An examination of the amputated knee revealed, in addition to the lesions already noticed, partial laceration of the anterior cervical ligament, inflammatory swelling of the synovial membrane, and ulceration of cartilage, particularly on those parts of the femoral condyles which were in contact with the tibia.

I give you these details of the careful dissection made by Mr. B. Lawson, because the opportunity of ascertaining precisely the anatomical lesions in dislocations of the hip very rarely occurs, and there has been much difference of opinion respecting the part taken

by the head of the bone; but it is not my present intention to say more on this subject, except that the dissection confirms the opinion respecting the production of backward dislocation held by Mr. Morris, who has given much consideration to this matter, and taught it to you in his surgical course.

A question of greater importance is: Why did suppuration of the joint and surrounding soft parts ensue upon the dislocation, which was simple and uncomplicated by external wound? I take it that the explanation lies in the febrile condition provoked by the putrefaction and suppuration in the knee; for experiments have demonstrated that subcutaneous operations, which, as you well know, are in non-fevering animals very inapt to suppurate, will often suppurate when inflicted on an animal in which fever has been previously induced by a local septic inflammation. The influence, therefore, of the septic inflammation of the knee in the injury of the hip may not be ignored.

Here, the fact that the dislocation of the knee was complicated by a wound communicating with the joint, added immensely to the seriousness of the injury, for simple dislocations of this joint are singularly free from risk; the inflammation which attends them is often very slight, and ultimate damage to the mechanism of the joint is much less than might be expected. It is remarkable how much displacement is possible without laceration of the coverings. The two following cases narrated by Pitha are good examples of this.

1. A countrywoman, carrying a heavy basket on her head, stumbled and fell on the bridge of Prague. Taken into the hospital, she was found to have a complete dislocation of the head of the tibia outwards, to the degree that four fingers could be placed on the upper articular surface.

2. A young man jumped from a carriage, the horses of which had bolted, and fell in front of the hospital. He was found to have sustained an outward dislocation of the upper end of the tibia, the displacement of which was so great, that an ordinary drinking-glass could be stood on its articular surface.

In both these cases, replacement was easily effected by manipulation, and the patients made good recoveries.

In the last ten years, the three following cases have been admitted into Broderipp Ward under my care.

1. A plumber, aged 40, slipped through treading on a piece of orange-peel, and, falling heavily, twisted his left leg. Brought to the hospital, the house-surgeon found an inward luxation of the head of the tibia, to the extent that half the upper articular surface was internal to a line dropped vertically from the inner aspect of the corresponding femoral condyle. A large ecchymosis was present over the inner side of the knee.

2. A shoemaker, aged 53, was thrown in wrestling, his opponent falling heavily upon him. Unable to rise, by an injury to his right knee, he was brought directly to the hospital, where he was found to have sustained an inward and forward displacement of the head of the tibia. A large part of the upper articular surface of the tibia, internal to its spine, could be plainly felt. The femoral condyles projected backwards, notably behind the plane of the tibia. The leg was rotated outwards.

3. A very athletic man, about 26 years old, was knocked down by a cab, one wheel of which, he thought, struck him on the right knee. Brought to the hospital, he was found to have a considerable inward displacement of the head of the tibia. In this way, the inner side of the joint was grazed and very bruised.

In all these three cases, reduction was easily effected by manipulation. Very little inflammation followed the injury. The early treatment was immobilisation of the limb and the extensive application of ice. Afterwards, the light mechanical support, with hinge-movement, was worn for a considerable time. In each instance, a very useful limb was retained.

These given cases were instances of lateral dislocation, though in the last the displacement was not purely transverse; backward or forward dislocations are, from the relations of the popliteal vessels to the bones of the joint, much more grave. In a case of backward dislocation of the tibia, recorded by Pitha, these vessels were crushed, and on the third day, when he first saw the patient, the skin of the ham was gangrenous. Here immediate amputation afforded the only chance of life. Reviewing all the circumstances of our present case, it is a matter of regret that the old rule of primary amputation was not followed here. Only a few years ago, immediate amputation would have been unhesitatingly practised, but, influenced by the teachings of the antiseptic method, we tried to save, where formerly we should have amputated; and the result has, unfortunately, proved that in face of the concurrent injury to the hip, the old rule might have been safer.

One word, before I conclude, about the final hæmorrhage. Does it prove the greater insecurity of torsion compared with ligature? I think not; for, at the date at which this hæmorrhage occurred, the ligature, in presence of the softened state of the end of the artery, and the total absence of clot within it, could not, I believe, have withstood the heightened arterial pressure consequent on the thrombosis of the vein.

REMARKS
ON
THE FATTY TRANSFORMATION OF THE KIDNEY.

BY EDWIN RICKARDS, M.B.,
Physician to the General Hospital, Birmingham.

IN fatty transformation of the kidney, there is a replacement of renal tissue by true adipose tissue, the contour of the organ being, to a varying extent, preserved. The condition is a rare one, and the cases on record are few. It has not, as far as I am aware, been before portrayed, numerous and excellent as are the illustrations of the various morbid changes in the kidney by Bright and others.

Whatever be the source of the fat, there can be no doubt that it is not degenerated renal parenchyma, and it is equally certain that the fat does not stamp out renal tissue. It seems probable that the fat is developed to fill up space created by the breaking down and discharge of renal substance, and that the process is one of physiological compensation, an effort of nature to prevent a vacuum. The origin of the fat may be accounted for in three ways; 1, hypertrophy of the circumrenal fat, which pushes its way into the interior of the organ at its hilum; 2, hypertrophy of the fat, which normally is found in small amount in the interior of the organ between the apices of the pyramids; 3, absorption of fat by the cells forming the stroma of the organ.

Rokitansky, under hypertrophy of circumrenal fat, says that it may increase to such an extent as to force its way into the hilus of the organ, and when this condition has advanced to its highest stage, the kidney presents the appearance of a mere piece of fat, surrounded by a mass of adipose tissue, without the slightest trace of renal organisation, the urinary passages being atrophied and obliterated; that excess of circumrenal fat accompanies atrophy of the organ, and is frequently found when the kidney is affected by moderate but lasting inflammation, especially that caused by calculi. Rayer, under fatty kidney, refers to a case observed by M. Bricheteau. A woman, aged 40, died with suppression of urine of fifteen days' standing; the kidneys appeared plunged in the midst of an immense quantity of fat; they retained their form and natural bulk, but were transformed into two masses of compact fat, in which some vestiges of tubular substance were traceable.

Dr. W. Roberts refers to a case by Godard, where the lower half of one kidney was converted into a mass of ordinary adipose tissue. A calculus of large size was lodged in the dilated pelvis.

In Dr. Browne's case (*Pathological Society's Transactions*, vol. xiii), small abscesses, communicating with each other, were found in the fat, and in one of the abscesses a calculus; there were sinuses in the left groin, extending to the left kidney, which was the one affected.

In Dr. Whipham's case (*Pathological Society's Transactions*, vol. xix), the right kidney was replaced by a pure piece of fat, which was surrounded by an abscess. There was a discharging wound in the right thigh.

In Mr. Heath's case (*Pathological Society's Transactions*, vol. x), there was no renal artery from the aorta.

In my case, from which the lithograph was taken, there was a calculus in the centre of the fat representing the kidney, and a history of calculus for twenty years.

Statistics, therefore, go to show that fatty transformation of the kidney is frequently associated with renal calculus. Even in Dr. Whipham's case, a calculus may have escaped from the kidney, and found its way out of the body through the wound in the thigh. It is reasonable to suppose the sequence of events in such cases

to be renal calculus, suppuration, and discharge of renal parenchyma and its substitution by fat.

The condition under consideration, though a rare one, must not be left out of calculation by the nephrectomist.

CASE.—Alfred Rowen, aged 24, was admitted into the Birmingham General Hospital February 16th, 1883. He was a broad-built, well-nourished man. When seen in the casualty-room at 10 A.M., he had extreme dyspnœa, sitting with his arms leaning on the arms of the chair. The alæ nasi and muscles of extraordinary respiration were working; his face was covered with beads of perspiration, and a little dusky. His mother, in answer to questions, said: "My son was operated on for stone in the bladder twenty years ago. For many years, he had known that his kidneys were diseased, because he sometimes passed matter in the urine. Occasionally he wetted his bed. Up to three weeks ago, I considered him a strong man; he never ailed, he ate well, and worked hard. Three weeks ago, he passed blood in his water, and vomited blood; he only vomited on that one occasion; at that time, he commenced making a noise in his throat, especially when asleep at night, and so loud was it that it kept awake fellow-lodgers, and, in consequence, he had to sleep in a separate room. He said he could not help it, and that he felt as though he had thrushes and skylarks in his windpipe." During the last fortnight, he had been off work, and a great deal in the house. He had been very drowsy, sleeping during the day in his chair for two or three hours at a time. He had frequently played cards; and, on many occasions, he had suddenly jumped up, and said: "I must leave off, I have got the cramps in my fingers and legs." The fingers and legs would be drawn during these cramps, which lasted about ten minutes at a time.

When examined in the ward, his breathing was very laboured. The dyspnœa was essentially inspiratory. The suprasternal notch, the lower intercostal spaces, and epigastrium, sank in during inspiration. Laryngeal stridor could be heard at the other end of the ward. He was unable to speak, but protruded his tongue when asked to do so. His pulse was 120; temperature 100°, respirations 40. Nothing abnormal could be heard in connection with the heart. On rapidly examining the lungs, mucous crepitant *râles* were heard over both bases behind. Examination of the fauces showed nothing. His legs and feet were not œdematous. Two ounces of urine were obtained, which was found to be alkaline, and to contain albumen and a large amount of pus. He became more comatose, the dyspnœa greater, and the breathing more stridulous. At 1 P.M. tracheotomy was performed, apparently without pain, but without manifest relief. He died at 4 P.M. on the day of admission.

Post Mortem Examination.—The body was well-nourished. The larynx was purple and œdematous. The lungs were œdematous. The heart was normal. The brain was not examined. The other viscera, except the kidneys, were free from morbid change. Both kidneys were imbedded in fat. The left kidney, which was half as large again as normally, on section, was found to be transformed into true adipose tissue. Its capsule was thin. At its hilum, there was a mass of tough, dense tissue, like cicatricial tissue, which extended to the centre of the organ, and in it was impacted a triangular calculus, the size of a tamarind stone; this mass was found to be composed of the obliterated pelvis and ureter, with blood-vessels mostly collapsed, and connective tissue. The adipose tissue was divided for the most part into pyramidal masses by paths of connective tissue, which radiated from the calculus. In this connective tissue ran large blood-vessels. The corpuscles of this tissue were proliferating, and absorbing fat. In two or three spots, near the periphery of the fatty mass, there were small patches of condensed tissue, which the microscope showed to be the remnants of atrophied renal tissue. The ureter remained as an impervious cord. In the right kidney, there were areas in various stages of degeneration; the secreting tissue was reduced to about one-third its normal amount, and this was intensely inflamed. There were circumscribed masses of putty-like matter, and several thick-walled empty sacs; in one sac was a smooth, round calculus, the size of a pea. The pelvis, which was thickened and dilated, contained a calculus, weighing half an ounce.*

REMARKS.—The case shows that life and apparent health may be maintained, when but a small amount of secreting tissue of one kidney only persists. The left kidney had been transformed into fat for many years; and doubtless, for some years, but a small portion of the right kidney had been capable of secretion. It appears that it was only when the remnant of the secreting tissue was acutely inflamed, about three weeks before death, that uræmic symptoms manifested themselves. The immediate cause of death is obscure. The laryngeal stridor present on admission, and which was of three weeks' standing, coupled with the fact that the dyspnœa was essentially inspiratory, led to the belief that the dyspnœa was the result of œdema of the larynx, and that the coma was due to imperfect oxidation of blood; the continuance of the dyspnœa and coma, after tracheotomy, went to show that they were due to some other cause, probably uræmia.

* A section of the left kidney is shown in the lithograph.

THE EPIDEMICS OF ENTERIC FEVER IN THE TRANSVAAL, ZULU, AND EGYPTIAN WARS COMPARED.

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BEFORE comparing the epidemic of enteric fever that followed the occupation of the Transvaal in 1878, and the Zulu war in the following year, with that of the late expedition in Egypt, I will put a few queries as to what is meant by enteric fever, its production, contagion, etc.

Is it to be understood that a specific germ produces a specific and non-failing fever of unvarying type, as propounded by Budd and others? If so, I fear the following facts will lead to more perplexity than ever, and we shall fail to reconcile them with the modern outbreaks of this disease, be they civil or military. But, if the possibility be admitted that there may be more than one form of this fever, in the same way that there may be more than one form of malarial fever produced under certain circumstances, with factors common to different countries, manifesting, it may be, the usual intestinal characteristic complications, then these facts may be reconcilable to new theories, and, under abler hands than mine, backed by statistical knowledge, may be the means of throwing some light on this increasingly complicated subject.

Modern research has effectually dispelled the idea of accident in the production of zymotic disease; and, daily, fresh discoveries pin down to a hard and fast line germs as centres of disease. I do not, therefore, mean to say that no infectious germ is present in enteric fever, any more than in relapsing fever; but, that causes foreign to the usual habits and customs necessary to the health of a man will produce certain symptoms recognisable as a fever which, for want of a more definite nomenclature, goes by the name of enteric at present.

"Contagium vivum seu animale," is as true now as in the days of the Romans, who firmly believed that poisons of malarial diseases consisted of living beings. Have they not received striking confirmation under the hands of Koch and others in their recent researches?

I cannot help thinking that a most important point in the theory of the production of epidemics, be they typhoid, typhus, or any other fever, is the vitality of the germ; always supposing, of course, that the presence of a germ is necessary to the production of infection, or of fever. One peculiarity of these germs is their rapid multiplication. Whether it be by fermentation, multiplication, by division, cell-contact, or some other plan, it is certain that rapid reproduction takes place, and with it infection. Now, can this reproduction take place in a perfectly healthy subject? Can the germs be carried in healthy blood for an indefinite time, subject to all the vicissitudes of climate and life, and still retain their reproducing or infective powers when favourable opportunities occur? Or, must their habitat at once be found in a system so slightly physiologically imperfect, a balance so equal in fact, that the slightest introduction of a poison renders the system pathological? If this latter idea be probable, then I can understand how a soldier taken from his quiet routine work at home in comfortable barracks, to live in a tropical climate, or undertake a campaign, when, in either case, exceptional duties are necessary under somewhat trying circumstances, may be a fit bed for the reproduction on an extension scale, of germs producing fever. But, is this fever typical enteric, or may it not be a variation of it? The atmosphere of Tel-el-Mahuta and Tel-el-Kebir produced no pestilence, although we slept on imperfectly buried bodies at the former place, and breathed a loathsome atmosphere for days at the latter place. Dysentery and diarrhœa there was in abundance, but not enteric fever. True, time was wanting to develop the period of latency; but would the conditions ever have ended in enteric fever without the presence of others capable of producing a similar disease? I use the word "develop" to refer to the reproduction of the specific germ only. Then, again, we have no evidence that enteric fever existed at those stations prior to their occupation by our troops.

had, then, the epidemic which subsequently occurred in Cairo, its origin at those stations? I am aware that it is within the limits of possibility that a special germ may have accompanied the troops from England, for I know no limit at present to the vitality of these germs, but it is rather vague.

This brings us to the question: Is enteric fever miasmatic, pythogenic, contagious, or a combination of these? I recollect a case in the Citadel Hospital, Cairo, where a man was admitted with a contusion over the nose. The cut did not heal rapidly, and he remained a considerable time in hospital. Three weeks after admission this man sickened and died from enteric fever, a most rapid and virulent case; the truth of the diagnosis being verified by *post mortem* examination; and yet we are told that direct contagion is doubtful, for the poison, like that of cholera, so Pettenkofer and others say, must go through an intermediate stage of development before it becomes infective. Another example. Many of our nurses in the hospitals at the Citadel, Abbasseyab, and Alexandria, were attacked with a mild form of this fever, and so were several of the orderlies. It may be taken for granted that all the usual sanitary precautions recommended in such epidemics were adopted, and yet direct contagion would seem to have been present. It must be remembered that these same sisters had not gone through the campaign, so that the cause of their illness could neither be laid to the water of the sweet water canal, nor to the atmosphere of Tel-el-Mahuta, or Kebir. Possibly it might have been of the "abortive" typhoid type spoken of by Lieberneister, where the temperature rose to 104° for a few days and suddenly subsided, leaving the patient free from fever, and in a fair way to convalescence. Many such cases did occur towards the end of the epidemic. But might this not have been another form of this fever of a contagious character? The local conditions in the hospital were alike for all, and gave one the impression of a system becoming saturated with a fever-stricken atmosphere, and breaking down in consequence. Towards the end of convalescence, in more than one case I saw this "saturation" so to speak, or, to be more correct, "hospitalisation," where patients, kept all through the disease in one room, would persist in a supernormal temperature, and nothing would break it, neither dieting or medicine; the very walls seemed to absorb the fever. A change to another room, or house, would break this at once. May not this have been the same fever seen among the nurses and orderlies?

We have hitherto been dealing with the contagion question. Now is enteric fever pythogenic? Decomposition, pure and simple, may, cause dysentery and diarrhœa, but can it produce the real enteric fever without the presence of the specific germ? Any answer must necessarily be speculative, so I will leave it, and content myself with comparing the epidemics that have come under my personal observation.

If the advocates of the theory that simple decomposing organic matter will produce the fever under consideration really believe what they teach, how can they reconcile their doctrine to the epidemic in the Transvaal? There were no dead bodies there, for a very good reason, there were no killed and wounded, and the water was as pure as one could desire; and yet we got the inevitable epidemic, and that among troops seasoned by residence in Malta and the Cape, but unseasoned to tent-life, and with it to the duties and fatigues inseparable from campaigning. If putrefying animal matter will produce enteric fever, why do not the Kafirs get it, who eat meat green from decomposition, and highly offensive to the smell? The Kafir is as keenly alive to the truth of the old saying, "Cleanliness is next to godliness," as any civilised being, yet he will eat the meat in a putrid state; and, in spite of this, enteric fever is unknown among his race. Again, surely the custom of eating game "high," as it is called, which prevails in the ranks of society, would have some influence in the production of this fever, if such were possible; but it is not so.

Now, let us look at the epidemic of this fever in Egypt. That the water was bad—unfit for drinking purposes, in fact—will be readily admitted. The foulness, however, was due chiefly to mud. I grant that dead bodies were occasionally found in the canal, but it was the exception, and their removal soon accomplished. The connection between the water and the common intestinal diseases is plain enough; not so enteric fever, however, for, even if fæcal matter, in addition to the other foulness, were present, it by no means follows that the epidemic which followed in Cairo was so caused. It has yet to be proved that human excrement alone will produce this fever. And again, in the Transvaal and Zulu wars, where the water could not but be pure, the usual epidemic followed.

Tropical heat in some way, unexplainable at present, must have a powerful influence on this disease; for, go where we will—India China, Egypt, or South Africa—all produce their typhoid fever among recent arrivals in the country, especially when campaigning is commenced in the hot months; for, strange to say, it does not accompany the troops for ever. We had no more enteric fever in the Transvaal after the epidemic had once expended its energy, even after a few weeks' rest, when we again set out on the march to Sikukuni's country, under as adverse circumstances as could well be conceived, as far as rations and tents were concerned. One great point, however, was always in our favour; a bountiful supply of pure water from the clear mountain streams was always procurable.

I am refraining from giving minute details as to the supposed causes of the outbreak of enteric fever during the Egyptian occupation, for they were exhaustively dealt with by the special correspondents to the BRITISH MEDICAL JOURNAL at the time. I hope now to bring forward a few more points not then noticed, more particularly bearing on the water as a supposed cause, and to compare them with other epidemics where the water was not in that suspicious state.

There were several peculiarities about the Egyptian epidemic worthy of notice, not the least being the absence of the usual "curves" in the temperature-charts. One case I recollect, of an officer who began a very serious and prolonged attack with a persistent night and morning temperature of 104° for three days, verified by more than one thermometer; then it broke down, and gave a few characteristic variations, but never settled down to the typical "ups" and "downs," so to speak.

In another case which I recollect came in, there was a high morning and low evening temperature, which persisted for many days, when suddenly it changed round to the usual evening exacerbations, without materially influencing the progress of the case in any way. Now, either we must discard temperatures as a diagnostic sign altogether, or the cases met with may not have been the true enteric fever, uncomplicated in character.

It can hardly be said that medicines influenced these cases, for little or none were given other than simple ones to combat some irregularity of the constitution; and, even had they been given, it would be hard to believe that they would have influenced so pointedly the course of the temperatures. Another marked peculiarity which may be said to have been almost persistent in this epidemic, was the slowness of the pulse, rarely rising above a hundred in the minute, except under excitement, or, later on in the case, from debility. It is to be regretted that *post mortem* examinations were not more systematically made. I know from experience how difficult and how unpleasant these are in tropical countries; but the idea was forced upon me that, had a skilled pathologist accompanied the expedition, as was done in the Crimea, many points might have been solved, among them being this slow action of the heart. One more peculiarity, and I have done, as far as this question is concerned. Relapses are said to occur in about 8 per cent. of enteric cases. Both in South Africa and in Egypt relapses were the rule instead of the exception, and yet the cases under observation certainly did not come within the category of relapsing fever as noticed by Griesinger in Cairo in the year 1850, in connection with the bilious typhoid and typhus then raging. They were simple relapses, accompanied by the usual gastric disturbances; and yet we were supposed to be dealing with plain unvarnished enteric fever.

We will turn to South Africa, and see how the case stands. It was about the middle of March, 1877, that the expeditionary force destined to overawe the Boers, and enforce the proclamation of annexation to be issued by Sir Theophilus Shepstone, left Pietermaritzburg, Natal. This force consisted of the 1st battalion 15th Light Infantry, under Colonel Montgomery; half a battery of Artillery, and details of Royal Engineers, Natal Mounted Police, etc., making a brigaded total of 1,000 men and two guns, under the command of Colonel, now Sir Charles Pearson, K.C.M.G.

It was in the days when the ranks were composed mostly of twenty-one years' men—men who had served for some time previously in most trying climates. Of course, there was a sprinkling of six and twelve years' men; but the majority were seasoned soldiers, who had seen a goodly lot of service, and some of it in Malta, not the best school in the world for campaigning. The average age of the force I am unable to give; but it could not have been as low as that in Egypt (twenty-four years about), for the short service had not then become general. Taking them all round, they were as fine a body of men as I ever saw begin a march. The truth of this was borne out by the few "casualties" on the line of march. A fortnight's marching brought us to Newcastle, on the borders of the Transvaal. Camp was pitched on a hill overlooking the town, and separated therefrom

by a river of considerable size—one of those numerous rivers arising in the noble Drakensberg close by, and which intersect the colony so plentifully. A rest of three weeks or so, awaiting orders to resume march from Sir T. Shepstone, was useful; and then the force set out for Pretoria, distant about two hundred and twenty miles. For the first thirty, the country traversed presented a series of mountain-spurs, each ravine having its mountain-stream fresh from the hills on the left. It is quite possible that, had a microscopic examination of the water been made, algæ and diatomes could have been discovered; but, as Professor De Chaumont says: "To condemn water on account of the presence of these living creatures, would be really to condemn all water, even rain." They may, therefore, be said to have contained pure water. Soon, however, this hilly country ceased, and a flat uninteresting plain took its place; a few stagnant pools supplanted the beautiful running mountain streams, and precautions had to be taken to prevent the men from using them. This was not difficult, as they did not suffer greatly from thirst. Night marching was resorted to; the men carried their rifles and ammunition only, and hourly halts were called. The result was little or no sickness, except the usual abrasions and excoriations. Diarrhœa was almost unknown, and sunstroke absolutely so. Even on this high flat plain—3,000 feet above the level of the sea—one of those mountain-streams was met with about every ten miles, when the men could drink their full with impunity, and replenish their water-bottles. I cannot imagine campaigning under more favourable circumstances. The heat certainly was great at mid-day in the bell-tents; but the nights were cool—so cool, in fact, that I often marched on foot in preference to riding. A fortnight sufficed to cover the two hundred and twenty miles, and Pretoria was reached on May 4th, 1877. Our camp was pitched above and on a higher level than the town, and had running through it a clear mountain-stream, contamination being out of the question; the sanitary state of the camp and neighbourhood receiving special attention.

We arrived at Pretoria on May 4th. On the 14th of the same month, there were nine cases of enteric fever in hospital, and two officers down with it, and this in a force of a thousand men all told. That it was enteric fever I will answer for, for I made *post mortem* examinations on all fatal cases with a small bush-knife; and the truth of the diagnosis was demonstrated by the condition of the small intestines, which were extensively attacked by the characteristic ulcerations. It was a sudden outbreak, and as suddenly ceased, but the cases were numerous enough in proportion to warrant the application of the term epidemic to it. Some positively affirm that for the production of enteric fever a specific agent must be present, and that common fæcal matter may produce diarrhœa, even of a febrile character, but not enteric fever. If this be correct, whence did the specific agent come in this case? The Transvaal had only been inhabited by Boers for a quarter of a century, and, as far I know, enteric fever was unknown among them. It comes to this, then either there was a specific germ carried with the troops from one knows not where, awaiting certain favourable circumstances for its growth, in which case this germ would be virtually everlasting, indestructible, capable of retaining vitality under almost any and every circumstance, in air, clothes, etc., capable of conveyance any distance and in any climate; or, there is no special germ producing enteric fever, but producing varied forms of fever with enteric complications, which fevers can be produced without specific agents, provided certain elements are in force dependent upon, and inseparable from, campaigning in tropical zones, or under somewhat similar states when an individual goes from a home to a tropical climate. We will now look at the enteric fever which accompanied the Zulu war. It must be remembered that the men forming this force (twenty-five thousand strong) came out straight from England. Operations were carried on in a comparatively young country, so far as European residents were concerned, and a persistence of this fever was not ascertained. Whence did the specific germ come from in this case? The large force was divided into several columns, one at Lower Tugela, one at Helpmakaar, and another at Utrecht. In all these columns, enteric fever showed itself; yet they were totally separate from one another, and the little communication between them that did exist was of the most indirect and roundabout form. Again, cases occurred at Maritzburg; men were left behind just after landing, before the poison, if it had been absorbed in the country, could have had time to develop. Others, again, were attacked after a lengthened life in tents, when they came back into the towns and took up their residence. How is this accounted for, if the specific agent theory be correct, or amenable to modern views? Rather was it not, as has been suggested by others, that "the altered circumstances under which the men lived led to an excessive physiological action, showing itself primarily on the intestines, and, overstepping the bounds of health, became pathological, expending its force in the form of a fever with the above manifestations?" The water in this case could hardly be blamed, for it was practically pure. True, the streams before reaching us had to pass through a few Kafir villages, for it follows that they must live near this commodity as well as other people; still, I venture to repeat, that they are as cleanly in their habits, and as refined in their tastes, according to their lights, as the most refined civilian of the day. Contamination, therefore, was unlikely from them, even supposing, for the sake of argument, that fæcal matter could produce enteric fever. In my notes on this fever made at the time, I find my impression then was that the epidemic was caused by drinking stagnant water. Subsequent experience has led me to doubt this impression, for it is very doubtful if much stagnant water was used by the men, even if it could have produced true enteric fever.

It comes to this: either the germs, if this theory be entertained, were carried from afar, or it is not necessary to have the presence of a specific poison to produce a fever, under special circumstances, manifesting intestinal complications. Here was an epidemic of enteric fever with pure water and fairly good sanitation. In Egypt, we also get it with impure water, but with other conditions similar. One thing was common to both: service under canvas, in a tropical or subtropical climate, under altered conditions from those in force in the native country of the men employed. Has the water so much to answer for? Are there not other and important factors at work producing similar results, and with equally fatal force? I offer no opinion, but ask others to make their own deductions.

ON THE ACTION OF VERY DILUTE SOLUTIONS OF ESERINE, AND THEIR USE IN THE TREATMENT OF WEAKNESS OF THE CILIARY MUSCLE.

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SOLUTIONS of the extract of Calabar bean, or of its active principle eserine, have for some years been used for the purpose of contracting the pupil or stimulating the ciliary muscle; but, as far as I can ascertain, these solutions have always been of a strength far greater than that of those, the use of which it is the object of this paper to advocate. Apparently, also, they have been recommended only in cases of decided paralysis of the pupil or the accommodation. Two important papers on the subject have been published. The first was read by Dr. Argyll Robertson before the Edinburgh Medico-Chirurgical Society in February 1863, when the use of solutions of the extract of Calabar bean was first recommended for cases of weakness or paralysis of the ciliary muscle. The second was by the late Mr. Soelberg Wells, in the *Medical Times and Gazette* for May 16th, 1863, recounting the effect on the pupil and accommodation of a strong solution of the extract (one minim corresponding to four grains of the bean; I may here mention that the yield of eserine is uncertain, so that the relative strength of it and the extract of the bean must be reckoned by the results of their application). Experiments were made upon Mr. Bowman, who graphically relates his own experience, and upon a patient with paralysis of the ciliary muscle and iris. Irregular and somewhat painful spasms of the muscle commenced after ten minutes, and continued for some hours, causing the nearer approach of both far and near points of vision. In Mr. Bowman's case, the pupil remained fully contracted for eighteen hours, and did not return to its normal size for three days. Attempts to use the eye while the drug was in full action caused much distress and pain in the eyeball. Mr. Wells ends his paper with the following remarks: "My next experiment will be to test the curative influence of the Calabar bean upon paralysis of the pupil and accommodation; and to ascertain whether we cannot succeed, by periodic applications of a very weak solution of the bean, in exciting the sphincter pupillæ and ciliary muscle to gentle contraction, without fatiguing and weakening them by over-stimulation." Accordingly, on reference to the last edition of his work on *Diseases of the Eye* (1873), I find that he relates his experience of the drug applied in cases of ciliary paralysis. But he seems to have used comparatively strong solutions, for he says that the drug should be applied of "a strength sufficient to cause considerable contraction of the pupil, and should be used at intervals of several days." Mr. Nettleship, in the appendix to his work on *Diseases of the Eye*,

lately published, mentions solutions of eserine of two strengths (one grain and four grains to the ounce), and remarks: "A very weak solution acts only on the pupil, not on the accommodation," a statement which, I think, my further remarks will show to be generally incorrect. Cases of restored power after paralysis of the ciliary muscle, by the use of fairly strong solutions of eserine, are recorded by Mr. Hutchinson (*Medical Times and Gazette*, September 1864), Mr. Wharton Jones (*Practitioner*, September 1869), and Professor Gübler (*Medical Times and Gazette*, vol. i, 1874, p. 174).

I have made experiments on myself and others with solutions of eserine, of strengths varying from gr. $\frac{1}{80}$ to gr. 1 to the oz. (gr. $\frac{1}{80}$, gr. $\frac{1}{40}$, gr. $\frac{1}{24}$, gr. $\frac{1}{20}$, gr. $\frac{1}{12}$, gr. $\frac{1}{4}$, and gr. 1), most of the trials being on my own eyes, which are, I believe, nearly normal in every respect.

I will now give the general results of a number of experiments carefully recorded at the time of observation. First, as to the effect on the ciliary muscle. It is a somewhat difficult matter to separate the result of increased power of accommodation from that produced by contraction of the pupil, for either will cause a greater acuity of near vision. The following effect was interpreted to mean increased action of the ciliary muscle, independent of any contraction of the pupil. A varying time after applying the solution to one eye, which, for distinction, we may call the affected eye, small type viewed with both eyes became indistinct, this being evidently due to dimness of the affected eye. When the latter was closed, the print was clearly seen by the normal eye; when, on the other hand, this was closed, sight with the affected eye was at first dim, but on relaxing the accommodation, or bringing the type closer, vision again became clear. With the weaker solutions (gr. $\frac{1}{12}$ to gr. $\frac{1}{80}$) this dimness was only noticed during near vision, letters at twenty feet being perfectly distinct; thus, I think, indicating that the action of these weak solutions is to cause increased irritability, rather than a state of spasm of the ciliary muscle, so that the same effort of accommodation causes a stronger contraction in the affected eye than in the other; hence, while the normal eye is naturally accommodated correctly, the other is sighted for too near a point, and the type is therefore indistinct. From this mode of action arises their great value; they do not cause an artificial state of myopia, such as is produced by a four- or even a one-grain solution, but only a more ready reaction of the ciliary muscle to nerve-stimulus, the very improvement that we desire when that muscle is deficient in tone. Now, in my own eyes, this peculiar action on accommodation was distinctly, though but slightly, evident after the use of the $\frac{1}{80}$ gr. solution, as also was the case in two other persons experimented upon; while, in a third, neither this nor the $\frac{1}{40}$ gr. solution had any effect. The accommodation commenced to be influenced from five minutes (gr. 1) to twenty minutes (gr. $\frac{1}{80}$) after instillation, and the effect lasted to a noticeable extent from two hours (gr. $\frac{1}{80}$) to four hours (gr. 1). The full action of the one-grain solution was accompanied by the well known pain of an over-worked hypermetropic eye, but the use of the weaker solutions caused no pain or distress of any sort, another recommendation for their use in preference to those of greater strength. The pupil was in each case contracted to a degree corresponding to the effect on the accommodation. The contraction always commenced very shortly after that of the ciliary muscle, but lasted for a much longer period, even for two or three days after the use of the stronger solutions. In the case of the $\frac{1}{80}$ gr. solution, the effect on the accommodation was noticeable for at least five minutes before the pupil could be seen to be contracted, and ceased long before the latter returned to its natural size, clearly proving that the increased power of near vision was not alone due to the smaller size of the pupil.

All the solutions caused twitching of the palpebral portion of the orbicularis—very slight with the weakest, considerable with the strongest. This commenced in from five to fifteen minutes after instillation, and continued for from fifteen to forty minutes. The twitching was increased by straining the accommodation to near vision. Thus, when testing the 1 gr. solution, I found that reading caused the twitching to recommence, though it had completely ceased when the eyes were at rest; just as clinically we constantly meet with blinking in hypermetropic children who have strained their accommodation. Therefore, this drug acts peculiarly on two muscles supplied by the third nerve, and also on a third supplied by the facial: and the action of the latter is increased by a nerve-stimulus (effort to accommodate) passing to one of the former. Again, the stimulus of increased light caused not only more contraction of the pupil, but also increased twitching of the eyelids of the affected eye, and I need hardly call attention to the irresistible contraction of these inner fibres of the orbicularis under a strong light. The associated action well known to exist between the palpebral portion of the orbicularis and the ciliary muscle and pupil is thus forcibly illustrated by the action of the eserine. The twitching of the eyelids always commenced a few minutes before the pupil or the accommodation were influenced; a fact which may be accounted for by a more rapid absorption of the eserine through the conjunctiva than through the coats of the eyeball; that is, supposing the drug to act directly on the muscular fibres, or on the nerve end-organs.

The therapeutic use of weak solutions of eserine was first pointed out to me by Mr. Bader, about a year ago; and since then I have made trial of them in a large number of cases of failure of accommodation, and with very considerable success. I generally order a $\frac{1}{40}$ grain solution to be used three times a day, and I warn the patient that he may experience some unpleasant twitching of the eyelids, and possibly a little dimness of sight, for a short time after applying the drops. In some cases benefit has accrued at once, has continued so long as the drops have been used, and has lasted for a varying period after their discontinuance. In some, the improvement has passed off, and I have been obliged to increase the strength of the solution in order to continue the effect. In other cases, and they have been few, no benefit whatever has resulted.

I have found these solutions more especially beneficial in two classes of patients.

The first and chief class consists of cases of slight hypermetropia in young adults, where the error of refraction has caused no defect of vision until—through some failure of general health, or perhaps from overtaxing the eyes by an excess of near work—the power of accommodation has failed, and then there has arisen an array of troubles sufficiently well known; headache after near work, and inability to continue at it for any length of time, especially if by artificial light, being chief among the number. In such patients the treatment is particularly valuable, and may keep the power of near vision at its normal standard, until, with rest and an improvement of the general health, the muscle recovers its normal power. As an example of this class I would mention the case of a young lady, who was sent to me suffering from all the troubles incident to the presence of an accommodating power insufficient to compensate for the slight amount of hypermetropia (1 D) which existed. Her sight had been good until a few months before coming to me, when she thought she strained her eyes by doing an unusual amount of near work by artificial light. Her far vision was good, and she could read D 0.5 Snellen for a short time with ease. The use of $\frac{1}{40}$ grain solution of eserine three times a day caused immediate improvement, and at the end of a fortnight she wrote to me saying that she was able to paint and read steadily and with comfort for a much longer period than she had been able to for six months before.

Secondly: patients with high myopia, even when fitted with suitable glasses, are sometimes unable to use them with any comfort for near vision, this being often in great part due to the feeble accommodating power such myopic eyes possess. These persons will speak gratefully of the benefit they derive from the use of weak solutions of eserine.

Considering how large a proportion of all the patients seen by ophthalmic surgeons are suffering from some error of refraction or accommodation, I feel that I need no apology for bringing before the profession this simple method of treatment.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—The members of this society dined together on Thursday, June 14th, at the Star and Garter, Richmond. Dr. E. Hart Vinen in the chair. The usual loyal and other toasts were drank, and, in proposing the toast of the evening, namely, "Success to the Society," the chairman congratulated those present on the prosperity of the society, on the favour with which its formation had been received by the medical men of the district, on the steady increase in the number of members, on the character of the papers, on the enthusiasm of the discussions, on the attendance at each meeting, on the state of the finances, and on the excellent prospects for the future.

DONATIONS AND BEQUESTS.—Mrs. Alderson Lambert has given £2,000 to the Beckett Hospital and Dispensary, Barnsley.—The Gloucester Infirmary and the Gloucester Dispensary, have each received £1,486 15s. 6d., under the will of Mr. John Burgess.—"Mrs. L., and Miss S.," have given a second £500 to the British Home for Incurables, for founding a Sister's Pension No. 2, of £20 per annum, to one of the present candidates.—Mr. Francis Marcet, of Stratton Street, has bequeathed £105 to University College Hospital.

REMARKS ON A CASE OF CYSTICERCUS IN THE VITREOUS BODY.

By THOMAS SINCLAIR, M.D., M.R.C.S.Eng.,
Surgeon to the Ulster Hospital for Children, Belfast.

DURING a lengthened stay in Berlin, I had the opportunity of observing the following case, which presents some points of interest.

G. R., a boy, ten years old, was brought into Professor Hirschberg's clinic on March 5th, for an amblyopia of the left eye. The mother said the eye had been struck with a snowball three months previously.

On examination, the right eye was found normal. In the left eye, the external parts were normal; he could only count fingers at two feet. The ophthalmoscope revealed peculiar opacities in the vitreous body, and two large infiltrations in the retina near the disc, which suggested to Professor Hirschberg the probability of a cysticercus in the retina not yet recognisable by the ophthalmoscope, being covered by the infiltration. After artificial mydriasis, a series of filmy opacities were visible, forming a polygon, distant from the retina about five millimètres (as observed by upright image). From this polygon other films proceeded towards the retina, the vitreous body being otherwise quite clear, as is the rule in recent cases of cysticercus. The disc, better seen in the inverted than upright image, appeared somewhat dim. There were two large retinal infiltrations in its neighbourhood, the lesser upwards and inwards, the greater immediately below. The most careful search could not detect a cysticercus either in the retina or in the vitreous body. There was no history of tænia in the patient or in his family.

The boy was attacked by a febrile angina after an error in diet, and discharged on the second day of the attack a long piece of tænia solium, which, of course, strengthened the suspicion.

March 29th. His general health was regained. Minute ophthalmoscopic search was made, and for the first time a cysticercus was detected free in the vitreous body. The films were present as before. The disc was clearer in consequence of the retinal irritation subsiding after the escape of the parasite. The lesser area in the retina was unchanged, whitish but partially red and excavated. Possibly this was the primary seat of the entozoon. The larger, which may have been the last lodging, was also whitish with partial vascularisation and excavated centre. The cysticercus appeared four times as broad as the disc (about six millimètres); it lay free in the outer and lower part of the vitreous body, not far distant from the retina; it was elliptical, with hydatid lustre at the edge. The head was within the cyst. Vision was better; he could see fingers at five feet. The cysticercus was growing rapidly from day to day.

An operation was performed on April 4th under chloroform. The outer canthus was divided to get more space. The conjunctiva bulbi was seized by forceps in the horizontal meridian, and the globe turned strongly upwards and inwards. In the equatorial region between the external and inferior recti, a flap of conjunctiva was turned over. Then a meridional section through the coats of the eye was made in the same region downwards and outwards, for about eight millimètres, by introducing Gräfe's cataract-knife deeply enough to cut through the vitreous layers between the coats and the cyst. The incision was not quite completed when the cyst appeared in the wound, and was easily removed without any loss of vitreous matter. The conjunctiva was replaced and closed by a stitch, the canthus likewise, and the usual bandage was applied. Healing took place without any irritation. The stitches were removed on the fifth and fourth days respectively. The conjunctiva was always white and the vitreous body clear during the healing process. The cyst when lying on the table was somewhat flattened, and measured eight by six millimètres.

Condition one Month after Operation.—The eyeball was free from irritation. He could count fingers at seven and a half feet. The filmy opacities in the vitreous body were markedly diminished in number and size. The fundus was clearly visible. There were a few small blood-spots in the retina and vitreous body. The patient was discharged, and after a short time the tænia was expelled by oil of male-fern in the usual way.

In the previous fourteen months, two other vitreous cysticerci were extracted by Professor Hirschberg, the results of which may be briefly noted. 1. A young woman could see fingers, before the operation, at two or three feet. One year after extraction, she read Snellen 3. There was moderate restriction of the field of vision above, owing to preretinal new formations of connective tissue, but no trace of retinal detachment. 2. A young man had a large cysticercus. The patient declined operation for three or four months. Vision before the operation was very trifling. Extraction was difficult; slow shrinking of the globe followed, and enucleation was done a few weeks later.

REMARKS.—In etiological respects, the case detailed above is noteworthy, as one in which the probability of self-infection is very manifest. Only in a small proportion of the cysticercus cases on record was it possible to determine the coexistence of tænia. Thus, A. von Gräfe (*Arch. für Ophth.*, Band xii, part 2, 1866), in eighty cases, could only verify the presence of tænia in five. It is very likely, as suggested by Hirschberg (Eulenburg's *Real Encyclopædie*), that, were cysticercus patients carefully watched for a longer period than is usually permitted, the cases of self-infection would be found more numerous than some respected authorities are inclined to suppose (see Leuckart, *Die Parasiten*, Band i, p. 275).

As facilitating a diagnosis, much value attaches to the peculiar opacities in the vitreous body, which is otherwise quite clear. These were very characteristic in the above case, and created the first suspicion of the presence of an entozoon. Their importance is all the greater when it is remembered that they occur in subretinal as well as vitreous cases.

In the treatment employed, the feature of interest is the spontaneous escape of the cyst, obviating the introduction or repeated introduction of forceps and other extracting instruments. This advantageous occurrence was clearly due to the section passing deeply enough to divide the vitreous layers intervening between the cyst and the coats of the eye; and, further, to the incision being ample in size, and made at a point exactly corresponding to the seat of the cyst, as estimated by the ophthalmoscope.

Considering that the prognosis, in cases where the deeper parts of the eye are concerned, is very grave, since vision is gradually and certainly lost in every case, the necessity of early diagnosing the presence of the parasite is apparent. If left alone, it grows frequently, as in the above case, with great rapidity, until inflammatory changes of a severe character are produced—not to mention the damage done to the delicate structures of the fundus by the mere mechanical pressure of the cyst. Plastic iritis, or iridochoroiditis, followed by shrinking of the globe, is the commonest result; less often, a glaucomatous condition. Sympathetic ophthalmia, much feared by some, has never been verified as the outcome of the inflammation caused; though it may, of course, follow the operative measures used for the removal of the parasite. The early diagnosis and consequent operative interference may effect a considerable improvement in vision; and, even where no great improvement follows the removal of the cyst, an eye is saved which otherwise would come to enucleation, as an examination of the three cases I note will show. Mr. Teale's case, often quoted as an exception to the rule that cysticerci always increase in size, is not considered by some Continental authorities as one of true cysticercus, but rather of a congenital formation in the vitreous body (Hirschberg, in Eulenburg's *Real Encyclopædie*).

There seems to be an agreement of opinion that extraction is the only treatment admissible in recent cases. Anthelmintics generally or locally, injecting fluids of various kinds into the eyeball, electricity, simple puncture of the cyst, etc., cannot be depended on, and usually do harm, without destroying the parasite.

The meridional incision appears to be the favourite method for extraction now-a-days. A. von Gräfe, in the earlier period of his practice used an equatorial incision for his advanced cases; later, he applied his peripheral linear incision, followed by iridectomy and extraction of lens, the cyst being then drawn out by a blunt hook. Good and permanent vision resulted only in a few cases. He never operated on a subretinal cyst. Arlt, of Vienna (1866) was the first to do this, and used a meridional incision, which has been variously modified by others since. A. Gräfe (of Halle), for instance, whose experience has been large, has operated many times with the best results by meridional incision, usually underneath an ocular muscle, which is first divided and reflected. In the foregoing case, the point selected was between two ocular muscles, which were in consequence untouched, thus excluding the possibility of subsequent strabismus.

The advantage of the meridional over the equatorial is, that the former much less often leads to shrinking of the globe; and, as it suits for subretinal as well as for vitreous cases, its superiority over the peripheral linear is obvious, apart from the smaller amount of disturbance of the vitreous body when the position of the meridional incision is well chosen.

Where great inflammation or shrinking exists, extraction is out of the question, for sympathetic ophthalmia is thereby favoured, without any compensatory improvement of vision. Enucleation only remains for such cases.

A few items of a statistical nature may be added. Cysticercus in the eyeball is rarer in England than on the Continent, and especially few are the cases from English sources where the deeper parts of the eye were concerned. On the other hand, where the anterior parts were the seat, the number is relatively large. In North Germany, in von Gräfe's time, the proportion was 1 per 1,000; but, in the last few years, a decline has been observed by Hirschberg, who met with only three cases in 8,000 new eye-patients during fourteen months—1882-83. This is probably the result of the compulsory examination of flesh-meats, both in respect of trichina and of cysticercus, which obtains in Germany. The occurrence of the parasite is much rarer in southern Germany, Austria, Italy, etc. In Vienna, for example, Tænia mediocanellata is the rule, T. solium the exception. As Cysticercus mediocanellata infests oxen, and cannot thrive in the human subject, it is never met with in the human eye. The only scolex found in the human eye is C. cellulosæ, and hitherto only one entozoon has been found in a given eye, though Becker (Mauthner's *Ophthalm.*) says he has seen two in the same eye. The greatest size and age on record in the human eye are 15 millimètres and two years respectively.

The number of cases reported where an anatomical examination of the eye took place is about twenty, and of these, ten were subretinal, ten in the vitreous body. Von Gräfe thought that the original seat of the parasite was twice as often beneath the retina as in the vitreous body, the entozoon in a number of cases subsequently breaking through into the latter.

ON THE COMBINED USE OF THOMAS'S AND FURNEAUX JORDAN'S LAMINATED SPLINTS.

By E. STANMORE BISHOP, M.R.C.S.Eng.,

Surgeon to the Ancoats Hospital and Ardwick and Ancoats Dispensary, Manchester.

In the British Medical Journal (July 15th, 1882), the use of laminated plaster splints is recommended and very clearly described by Mr. Furneaux Jordan. He advises their use in Pott's disease of the spine, in hip-disease, fractured femur, contracted knee, etc.; and he points out the fact, which must be at once patent to every one, that their application requires only one movement of the patient—namely, that on to the surface of the splint; and does away entirely with the very great annoyance and source of non-success in cases of fracture of the neck of the femur, that of constant relifting of the patient as each successive turn of the bandage has to be carried around the back.

In this communication, I wish to deal entirely with cases of hip-disease and fracture of the neck of the femur. There are good reasons for bracketing these two classes of cases together. First, in both there exists a necessity for some method of dressing which will allow the patient quickly and safely to get up. In hip-disease, the patients are generally already marasmic, and fresh air and a modicum of exercise are of immense importance to them. In fracture of the femoral neck, the accident usually occurs in elderly people, who bear confinement badly. Secondly, in both there exists a necessity for absolute immobility at the hip-joint.

If these reasons be taken together, it will be seen that a method of treatment which will suit the one, cannot be far wrong if applied to the other. This being granted, two methods naturally occur to our minds as being most likely to fulfil the indications presented; and both, at first sight, and on reading the papers of their introducers, appear the thing required. I refer, of course, to Thomas's splint, and to some form of plaster apparatus, of which, without doubt, Jordan's laminated splint affords the best example.

I suppose that no method has ever perfectly fulfilled the hopes and predictions indulged in by their authors; no practice of any plan proposed is so entirely *couleur de rose* as the original theory; and I wish to indicate certain points in which both these methods are likely to disappoint those who trust to either entirely—points in which, when used conjointly, each supplies the other's defect; then, as in some combinations of drugs, powers reside which are sought for in vain when these are separate—I will show that this conjunction renders possible a control over the limb, and, through it, over the joint, which cannot be obtained when either is used singly.

From my own observation, I should say that most surgeons pay but little attention to the actual measurements given by Thomas as to the thickness of his splints; or surely the weight of them would have been objected to long since. Probably, in the majority of cases, the size and weight are left to the instrument-maker, who proceeds on common-sense principles. In other cases, especially in the country, the surgeon will choose his iron in the most convenient blacksmith's shop, and be guided by his own ideas as to the weight his patient can carry, having it afterwards covered and padded by the local saddler; but, if any one who has been doing this, with comfort and ease to his patient and satisfaction to himself, come, like myself, to have to dictate actual thicknesses and widths of iron to a professional instrument-maker, and take them direct from Mr. Thomas's work, he will be amazed to find that he will have a splint which is so heavy that, in the majority of cases, instead of thereby enabling his patient to get up, he has still more certainly condemned him to bed, as the only place in which its weight can be supported.

When we consider that a child with hip-disease is already weakened and emaciated by the pain it is suffering, or has suffered, that its muscles are more or less degenerated by the state of tonic contraction in which they are kept by the irritation of the branches of their own nerves supplied to the joint, as demonstrated by Hilton, it is perfectly evident that we have not much to fear from any sudden or powerful contraction of them; and that the minimum amount of weight, compatible with the requisite rigidity, will be most conducive to the second object of the splint, that of allowing the patient fresh air and exercise.

The amount of weight in a splint made for me, according to Thomas's directions, for a woman aged 26, was 4 lbs. 5 oz., and she could only bear it on when in bed, or, if standing, for a few minutes.

Rigidity, too, may be equally obtained by making the hinder rod still thinner, and supplementing its action by the side-rod recommended by Morris, in the last edition of Holmes's *Surgery*. He, however, merely carries the side-rod to the thigh clip; whilst, for a reason which will be presently evident, I prefer to carry it to the lower or leg clip.

But, apart from the weight, Thomas's splint has another drawback—its readiness to slip round; and the bad effects of this are far more evident when we have cases of fractured neck of the femur to deal with than in hip-disease. It does not fit closely to the body—closely, that is to say, in the sense of having any particular grip upon it. As I read Mr. Thomas, he seems to think that the way in which the upper or body clip is fixed or bent on the opposite side to the disease will suffice to prevent this. I can only say that I have never met an instrument-maker who could give it this knowing set or bend; and that, in one or two cases in which this was supposed to be done, the patient complained so forcibly of the impediment caused to the free action of his ribs, that the cunning bend had to be unbent, as the lesser of two evils, and the irritating tendency to swing round remained as before.

This, I take it, is practically the great drawback in the use of Thomas's splint; the weight can be regulated, but how is the tendency to slip round to be remedied?

Before answering this question, I should wish to examine the working of Jordan's laminated plaster. Will this take the place of the other? Are there no faults to find with this?

The laminated plaster, as I began by saying, has a great advantage over all other methods, except perhaps the Bavarian, of applying plaster-of-Paris, in that the position of the limb can be fixed once for all, and not interfered with again until the plaster has set. It is light, can be well padded, and, when dry, fits closely and firmly to pelvis and limb. Can anything further be required?

Well, practice does not bear out its perfect rigidity. It is extremely difficult to keep that part of it which is most important, the flexure of the hip, firm and uncracked; indeed, I may say I have never seen one that fully bore out its theoretical advantages. This, no doubt, may be due to several things: bad plaster, unskilful application, etc.; but, in ordinary practice, the fact remains that these splints frequently fail to give satisfaction from this sole fact, that they, as ordinarily applied, have not sufficient rigidity.

Still, they have a good grip of the body and the limb; they have no tendency to slip round, are light, and add no appreciable weight to the burden the patient has to carry.

Thomas's splint, then, has for *advantages:* perfect rigidity; no possibility of flexion or extension at the hip-joint; for *disadvantages:* weight, if made according to the original directions; want of actual grip; and tendency to rotation around an axis represented by a line drawn upwards through the main axis of the limb.

Jordan's splint has for *advantages:* lightness; actual grip of the pelvis and limb; and no tendency to rotation; for *disadvantages:* want of rigidity; danger of flexibility over the most important point.

As tabulated, each shows strength exactly where the other is weak. This alone might appear to point to the advisability of their combination; but I would wish to point out that such combination has one or two definite advantages. And first, as to the way in which they may be used together. It is not enough that the one should be merely superimposed upon the other; not so are the best effects of their united action to be obtained.

In making the Thomas's splint use iron of No. 15 gauge, for the uprights; No. 21 for the clips; and, in fixing the uprights, let the hinder one be placed as Thomas recommends, following his line. In addition to this, let a second be fixed so as to lie in the midline of the side of the body and limb, hollowing it out in a curve over the trochanter, and riveting it to each of the three clips. It requires no padding, but a simple covering with leather, for the sake of appearance; straps and buckles as originally directed.

As to the laminated plaster, cut out five or six sheets of the stiff muslin used; the inner two require nothing further beyond saturating with plaster; but the outer three or four should have slits cut in them, the width of half-inch tape, and directly opposite the iron uprights. Two slits, *i.e.*, one opposite each upright, should be cut in three places: *a*, midway between the crest of the ilium and the trochanter; *b*, midway between hip and knee; *c*, two inches below knee. The *a* tape should also have another point of exit in front, by means of which it should be attached to a ring on the front strap of the upper clip. Now, lay the tape between the inner two and outer four sheets, allowing a good loop to pass out at each slit; and having saturated the sheets with plaster, and properly moistened them, lay the patient upon the whole.

Fix the plaster splint carefully and allow it to dry, carefully drawing out each loop as far as it is free, and dividing.

Thus, the upper tape will have three points of exit from the plaster splint: one behind, opposite the upright representing Thomas's original upright; one on the outside of the limb affected, opposite the additional upright; and one in front, opposite a ring attached to the strap connecting the upper or chest clip. The free ends of tape projecting from these openings are to be made fast to the points of Thomas's splint indicated; and thus that splint can be rendered perfectly firm and immovable.

The two lower tapes have each two points of exit, both opposite the respective uprights. Now it can easily be seen that, if the position of the limb with reference to the trunk be correct, by fastening these tapes such position is maintained; but, should there be too great eversion, by drawing the outermost tape up and over the anterior surface of the leg, until, by passing round the inner side, it reaches the hinder upright, passing around this and drawing upon it, any amount of traction can be exerted and maintained by fixing the tape in this position; such tape cannot injuriously compress the tissues of the leg, as it is warded off them by the stiff plaster casing. Inversion can be treated in the reverse manner.

Thus, then, the combination of the two splints permits of definite regulation of the amount of eversion or inversion of the limb. The upper part of the outer instrument is fixed in a definite position, from which it is impossible for it to slide; whilst the lower is thus made available as a rigid point or points, to and from which the leg can be drawn and fixed.

Such control over the position of the limb, as to rotation, is impossible with either of these appliances separately; combined, it is at once practicable and easy. To sum up: the advantages to be gained by the combination of the two splints are these.

1. It becomes possible so to lighten the weight of Thomas's splint that it can easily be borne by the weakest patient; and the weight of the laminated plaster is so inconsiderable, and so diffused over a large area, that the combined splints weigh about half the amount of an ordinary Thomas's splint, made after the original directions.

2. Whilst the Thomas's splint supplies the requisite impediment to flexion and extension of the hip, the laminated plaster supplies the firm grip of pelvis and limb, and forms an admirable *point d'appui* for any attempt at adjustment, in cases of fracture.

3. The combination permit of a more certain fixation of Thomas's splint itself, in any desired position; and renders it not merely a safeguard against flexion and extension, but a very certain appliance for remedying excessive rotation, either external or internal.

Of course, the patten on the opposite foot, the crutches, etc., are equally necessary, as they would be with the Thomas's splint alone.

INFLUENCE OF BENZOATES OF ALKALIES ON THE EXCRETION OF URIC ACID.

By EDMUND ALLEYNE COOK, L.R.C.P.Ed., F.C.S., etc.

Dr. Garrod, in his third Lumleian lecture, as reported in the British Medical Journal, April 21st, 1883, gives a summary of some interesting experiments on the influence of hippuric and benzoic acids on the elimination of uric acid, the conclusion he arrives at being that these two former, when in dilute solution, and alkaline, are capable of destroying the latter as a chemical experiment, and, when administered medically, of materially lessening the excretion. He gives some sets of experiments, which show that benzoates, when administered in set doses, have the effect of diminishing the uric acid. I have repeated his experiments so far as regards the administration of benzoates, and do not get results similar to his. On May 13th, the urine was collected, the diet having been regulated exactly for seven or eight days previously. The collections of 14th and succeeding days are as given in the following table.

Date.	Urine.	Specific Gravity.	Uric Acid.
May 14th...	38 ozs.	1020	13 grains.
„ 15th...	36 „	1022	12.3 „
„ 16th...	26 „	1030	13.0 „
„ 17th...	29 „	Not analysed	
„ 18th...	20 „	1030	13.2 „
„ 19th...	32 „	1023	13.0 „
„ 20th...	38 „	Not analysed	
„ 21st...	40 „	1023	12.4 „
„ 22nd...	48 „	1020	13.7 „
„ 23rd...	40 „	1026	14.0 „
„ 24th...	32 „	1025	13.2 „
„ 25th...	28 „	1025	Not analysed.

On the 20th, 30 grains benzoate of soda in solution were taken at night in one dose. On the 21st, three doses, of 20 grains each, of benzoate of soda, 6 ounces extra water. On the 22nd, two doses of 20 grains. On the 23rd, three doses of 20 grains. On the 24th, none.

The benzoate acted somewhat as a diuretic, although very little oxtra water was taken. The estimations of uric acid given were made by the zinc sulphate precipitation process; and to corroborate, quantities of the urine were precipitated by the zinc sulphate solution after removal of the phosphates, and the precipitate, washed and decomposed by dilute sulphuric acid, gave abundant crystals of uric acid, as proved by microscope and murexide test.

Results so divergent as these are from those of Dr. Garrod, certainly surprised me; for although I have not seen his paper to the Royal Society, I have followed his directions closely, as given in his lecture-report. His process for estimation, as given in his first lecture, is the acidulation process, and I sought in this some explanation of our difference.

A portion of the urine collection of the 21st, and also of the 22nd, 23rd, and 24th, were set aside after acidulation. These urines gave very little crystallisation of uric acid—a scarcely perceptible trace appearing even after seventy-two hours' standing, with occasional stirring. Of the urine collection of the 21st, 20 ounces were acidulated; and, on the 24th, the crystallisation from the whole 20 ounces was scarcely ponderable, but some feathery crystals were evident, probably benzoic acid.

From this, it is evident that the presence of a benzoate, or even of benzoic acid, can prevent the crystallisation of uric acid from urine; but it is also evident that it does not destroy it; and this result is in agreement with those of Kerner, and of Wöhler and Keller, as quoted by Parkes.

But Dr. Garrod states in his lecture that the uric acid is destroyed, and states that the murexide test failed to answer, after a mixture of a benzoate and a urate in alkaline solution had stood some time at a temperature of the body. He states that a dilute solution is necessary, and from twenty-five to fifty times as much benzoate as urate. In his lecture, he gives nothing more definite than a dilute solution, but I took uric acid, 2 grains, benzoic acid, 60 grains, water, 4 ounces, and dissolved till clear with caustic soda, the solution being alkaline to test-paper; the whole was put into a four-ounce bottle, and kept for nine hours at a temperature of 98° Fahr. One-half of this mixture, diluted and precipitated by zinc sulphate solution, gave nearly one grain of uric acid. The other half, diluted again to 4 ounces, was kept for twelve hours at a temperature of

110° Fahr., and then gave very markedly the murexide test in a single evaporated drop. It was left twelve hours more at 100° Fahr., and again tested, no change being apparent. It was then rendered more alkaline with a mixture of potassic and sodic carbonate, and left twelve hours at 100°, at the end of which time, one drop, evaporated as before, gave faint evidence of uric acid by the murexide test.

Again, a weighed quantity of 1 grain of uric acid and 60 grains of benzoic acid were dissolved in 6 ounces of water with soda to a clear solution, and left 12 hours at a temperature of 100°. One drop gave clearly the murexide test. A little mixed sodic and potassic carbonates were added, and the mixture again left 12 hours at 100°. There was now no evidence of uric acid, by the murexide test; but on precipitation with zinc sulphate solution, and solution of the precipitate in dilute sulphuric acid, abundant crystals deposited, of which a minute quantity gave very markedly the murexide test.

Again, a weighed quantity of one grain of uric acid was dissolved in 6 ounces of water by means of sodic and potassic carbonates in slight excess; and one drop of the solution evaporated rapidly (as in the other testings), gave a far fainter test spot of murexide than the drop from the same strength solution of the preceding experiment prior to digestion. This solution was then set aside, at 100° Fah., for ten hours. One drop then evaporated gave very slight evidence of uric acid by murexide test. After twelve hours, no evidence of uric acid could be obtained by this test.

The results of the above experiments seem to point to the fact that the uric acid is not destroyed by benzoic acid, but exists in a state of combination (it may be as a compound acid), and when this combination is evaporated with nitric acid it gives no murexide with alkalies, and when it is precipitated by zinc sulphate solution, the uric acid combines with the zinc oxide. And the last experiment seems to demonstrate that an alkaline solution containing soda and potassa is capable of really destroying uric acid if kept at a temperature 98° Fahr., even without the presence of benzoic or hippuric acids, probably by oxydation. This was a discovery of Schunk, who found the products of decomposition to be oxaluric acid, and finally urea and oxalic acid; and Dr. Basham has noticed that this takes place in the animal economy when potash salts are administered, coincidently with the diminution of uric acid (*Practitioner*, vol. v, 1870).

It is well known that there are many substances which, when present in a solution of uric acid, are capable of increasing its power of remaining dissolved, and benzoic acid certainly appears to be one of these.

I have not tried the effect of the administration of hippuric acid by mouth, because it is well known that if benzoic acid be administered, hippuric acid appears in the urine; and if this hippuric acid, formed in the animal, did not diminish the uric acid (though it did prevent its precipitation by acid), neither would hippuric acid administered by the mouth be likely to do so. Moreover, we have no guarantee whatever that hippuric acid, administered by the mouth, will appear unchanged by the urine; and, reasoning from the behaviour of uric acid when so administered or injected, it would certainly not do so.

It is tolerably certain that variations in diet will cause variations in the excretion of uric acid; and, if a strong vegetable variation in the diet of mixed feeders will cause it to be replaced by hippuric acid, it is reasonable to suppose that the same cause, acting in a less degree, will produce the same effect in a less degree; therefore, we may conclude that, in the urine of mixed feeders, we have more or less of a substance which will prevent the precipitation of free uric acid; that the quantity, and therefore the effect, varies with the diet. It must be evident, therefore, that a process of estimation, capable of being affected in this manner, cannot be reliable.

SANITARY INSTITUTE OF GREAT BRITAIN.—At an examination of local surveyors and inspectors of nuisances, held June 7th and 8th, the Institute's certificate of competency to discharge the duties of local surveyors was awarded to P. F. Comber and E. G. Mawbey; and the certificate of competency to discharge the duties of inspectors of nuisances was awarded to W. Dent, S. Edmondson, W. Hearne, G. Johnson, A. W. Merrie, and G. F. Wells.

LUMINOUS PAINT.—An ingenious use of luminous paint now provides, at the Lyceum, a reassuring safeguard against panic. The directions in the corridors and passages as to the "way out" are now as legible in darkness as in light, and thus if from fire or another accident the gas were suddenly cut off, the audience need experience no difficulty in finding their way to the several exits.

ON THE PATHOGENESIS OF PNEUMONIA.

BY GEORGE M. GILES, M.B., F.R.C.S.,
Surgeon to the Indian Medical Department, 2nd Punjab Cavalry.

THE publication of a leading article on the above subject in the JOURNAL of March 3rd, 1883, leads me to now make this communication, which I have been delaying until I should have cleared up in my mind certain points in connection with an organism I have been observing in the blood and tissues of cases of pneumonia.

In February 1882, I was sent to do duty with the 4th Punjab Infantry at Dera Ismail Khan, on the Punjab frontier, and found that there was then so great an amount of pneumonia among the troops, that it might be well called epidemic. Outbursts of pneumonia of epidemic characteristics are not uncommon among native troops in this part of India, during the cold season, and there is a very generally diffused opinion among the medical officers of the Punjab frontier force, that the disease is, at any rate occasionally, communicated by contagion.

At that time, I had not seen any notice of the observations alluded to in the JOURNAL, but so many diseases had been recently demonstrated to be characterised by the presence of micro-organisms in the blood, that I was led to carefully examine the blood of my patients.

On submitting the blood of a case to a power of about 800 diameters (Ross, $\frac{1}{12}$ immersion objective), I was surprised to find that it contained immense numbers of minute more or less spherical foreign particles; and further careful observation of cases brought out the following facts. These particles are present from the very commencement to the end of the attack, and often persist in scanty numbers, far into convalescence.

If the blood be examined in a case of pneumonia as soon as the earliest symptoms declare themselves, there will be observed a number of micrococcus-like bodies about one-eighth to one-tenth of the diameter of a blood-corpuscle, *i.e.*, about one micromillimètre. They appear spherical or nearly so, unless great care be taken in the adjustment of the lens. If examined in a warm, moist chamber, they will be found to possess two motions; first, the ordinary Brunonian vibration, and secondly, an independent locomotion of their own. On occasions when the adjustment of the screw-collar of the objective and the light have been favourable, I have made out, as they twist about, a pyriform outline, and have once or twice had a glimpse of an extremely fine lash springing from the smaller end. After two or three days, a second form appears, in the shape of a nucleated cell from two to three micromillimètres in diameter, the nucleus of which, in size and appearance, is much like one of the first described form. In these, no signs of locomotive power have as yet been observed. The smaller kind are still found in great numbers, and by this time will be often found joined into chains of from two to ten or more individuals. When this is the case, they too appear to have lost the power of locomotion.

Coincidently with the appearance of this nucleated form (or stage, as I take it, of the micrococcus), a third appearance manifests itself, in the shape of large colonies of the smaller sort, united together by a hyaline structureless material, forming masses as large as fifteen to twenty micromillimètres. These collections are probably zoogloea, and are of a consistence of some firmness; for, in specimens examined warm, I have not unfrequently observed the red corpuscles to run against them, the corpuscle becoming altered in form, while the zoogloea-mass yielded scarcely at all. If the blood be dried on a cover and stained by "Koch's method," these micrococci will be found to stain well with most anilin dyes. That best suited is one I obtained some years ago under the name of "anilin blue." I am unacquainted with its exact name, but it is a different article from methyl blue.

During the progress of the case, these zoogloea-masses commonly disappear, and a more or less distinct repetition of the same cycle may often be observed; but as a general rule the process appears to become confused.

The sputa, too, may, by Koch's method, be demonstrated to absolutely swarm with micrococci, and often, in fact, to be largely made up of them.

After death, both in man and, as will be described below, in rabbits, I have made out their presence in the tissues of all parts of the body, but especially in the capillaries of the lung, which are often found blocked with clot containing immense numbers.

In severe and fatal cases, I have frequently observed a curious circumstance. When the patient is at his worst, the drop of blood

for examination can only be made to flow with great difficulty; and when it is examined, few or no micrococci will be found free in the blood, all present being either in the zoogloea-stage, or, if single, firmly adherent to the red corpuscles, so as to make them, even in freshly drawn specimens, look like mulberries.

If currents be produced under the cover by pressing on it with a needle, some of these may occasionally be seen to become detached, and to float about free; but the moment they happen to come into contact with some corpuscle, they adhere to and are carried about by it.

Now, the pneumonia seen here often runs an extremely rapid course, death sometimes taking place in as little as twelve hours, with signs of pulmonary engorgement; but with no pronounced dulness on percussion, and, *post mortem*, with only deep congestion of the lungs, and often extensive pulmonary apoplexy. It is in such, especially, that I have observed the appearance of blocking of the capillaries.

Is it carrying too far "the scientific use of the imagination" to surmise, that this blocking may be caused by the corpuscles becoming matted together by the adherent micrococci, and by the infarction of zoogloea-masses, many of which reach dimensions too great to allow their passing through the finer capillaries?

The presence of these microphytes in the blood and sputa appeared to me to lend considerable probability to the theory of communication by contagion; and, with a view to test this, I performed the experiments described below.

Experiment 1.—I injected into the pleural cavity of a rabbit a small quantity of the freshly ejected sputa of a pneumonic patient. Twenty-four hours later, immense numbers of the smaller or non-nucleated form of the micrococcus were present in the blood. In thirty-six hours after the injection, the animal died. *Post mortem*, there were present effusions into the pericardium of clear fluid, and of a turbid fluid into both pleuræ. The lung on the side of the injection was covered with lymph, and partly adherent. Both lungs were intensely congested; the other organs were healthy. The blood and pleuritic fluid swarmed with the smaller form of micrococci. The next day, on examining some of the pleuritic fluid that had been put aside in a covered vessel, it was found to contain the nucleated form in addition.

Experiment 2.—I injected some pneumonic sputa into the subcutaneous cellular tissue of the back of a rabbit. As in the first experiment, the animal became ill. Micrococci, first of the smaller, and then of the nucleated form, appeared in the blood, and the animal died, but not until four days after the injection. *Post mortem*, the pericardium and pleuræ were filled with a turbid fluid, and the lungs showed signs of pneumonia more advanced than in the first case. The other organs were healthy, and no sign of the point of injection could be made out.

Dogs and rats proved incapable of being infected, either with the fluids of the dead rabbits, or with human pneumonic sputa.

During the past cold season, Experiment 2 has been repeated, and the fluids from this animal proved infective to another rabbit.

Potato-Cultivations.—A minute quantity of sputum was placed on a slice of boiled potato, after the method recommended by Koch for cultivating the anthrax and other germs. In a few days, a greyish-white scum was seen spreading out over the surface, from round the point of sputum. This scum, on microscopic examination, proved to consist of a micrococcus, of exactly similar size and appearance to those already described in the blood. The cultivation of this micrococcus was carried on a potato to the seventh generation; and the experiment was several times repeated, and carried on through several generations, there being apparently no limit to the number. A minute speck of blood was placed on a slice of potato in the same way, and round it grew a scum of exactly similar appearances, consisting of micrococci exactly like those in the blood, or grown from sputum.

A little of the third generation of one of the potato-cultivations from sputum was mixed with distilled water, and injected into the cellular tissue of a rabbit's back. The animal became obviously ill, and the blood for many days swarmed with micrococci—all three stages, nucleated, nonnucleated, and zoogloea, being detected. It, however, recovered, and about three weeks after was used in an experiment with the injection of sputa. The poison in this case must have been very virulent (the patient from whom it was taken died a few hours after it was collected), for this animal died within a few hours. *Post mortem*, the lung was found to be in a state of recovery after pneumonia.

Afterwards, some of a sixth generation sputa-cultivation was injected. In this case, again, the animal became very ill—so obviously so, that I was much surprised at its recovery. Three weeks after, it was killed, and the last traces of an attack of pneumonia were still apparent in the lungs.

Since I first noticed these bodies in the blood, in February 1882, I must have seen them in about fifty or sixty cases. They appear to be constant, for I have found them in every case that I have examined.

Under these circumstances, the *possibility* of communication of pneumonia by contagion can scarcely be doubted. Whether such an occurrence be at all common, or usual, is a matter by no means so easy to decide. At least, it appears that it is advisable to carefully disinfect sputa in this disease, before disposing of them where they will probably become constituents of the dust which fills the air in dry climates such as this.

Before concluding, I should add that, in the pneumonia we meet with in this part of India, a large number of cases, while running the same course, as to pyrexia and general symptoms, as seen in the typical acute pneumonia of Europe, are yet, as to physical signs, instances rather of lobular than of acute croupous pneumonia.

RE-FRACTURE OF THE PATELLA.

By HENRY PARSON, M.R.C.S.Eng.,

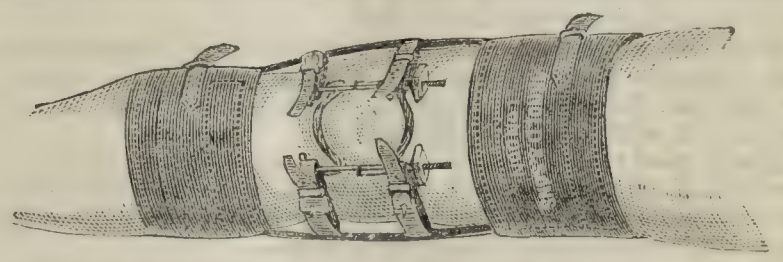
Assistant Medical Officer to the Surrey County Hospital, Guildford.

PERHAPS the following particulars of a case of re-fracture of the patella, together with a description of the appliances used during the treatment, may be of interest.

In December 1874, Mr. —— fractured his left patella at the junction of the upper and middle thirds. In October 1880, he fractured the same bone at the junction of the middle and lower thirds; and, in August 1882, he re-fractured the left patella at the seat of the last injury—viz., at the junction of the middle and lower thirds.

This last accident occurred on August 6th, whilst staying at Amsterdam. He was seen by a local surgeon, who applied suitable splints; and the patient started for England on August 8th, reaching his home on the 9th. I was called in on the 11th, and found considerable swelling over the joint, with about three-fourths of an inch of separation between the fragments. The amount of separation which existed directly after the accident, I could not ascertain. The lower fragment was small, and very movable. He was wearing a leather splint, with side supports, to which were strapped two semilunar soft leather pads. By drawing the pads together, and fastening them, I got the fragments into close apposition; and the patient continued to wear this contrivance until the primary inflammation had subsided.

I then devised the appliance, of which an illustration is here given



It consists of two semilunar pieces, made of some sound, narrow, unyielding material, shaped to fit the edges of the lower and upper fragments. One piece slides on the other, and admits of closing and separating them by means of screws, and without any other movement: so that, when adjusted and firmly strapped to the side supports of a suitable splint prepared for it, the upper and lower pieces are perfectly rigid, one with the other; it is then almost impossible for the patella to slip out of position. The semilunar pieces being narrow, they form grooves for themselves behind the fragments, and have a tendency to run under the bone, instead of over-riding, as most other appliances do; so that the pieces are kept firmly in good position, in their proper place, and have no tendency to tilting. This apparatus was applied about the end of the third week from the date of the accident, and the patient was removed to the couch.

At the end of the fourth week, he came down stairs with assistance, and went out in a Bath chair. At the fifth week, he walked round the garden with the aid of sticks. At the seventh week, he walked a mile with one stick. At the end of the eighth week, he returned to business, walking to and fro—that is, two miles daily. He could walk well wearing the appliance, and experienced very little inconvenience; and, to the best of my knowledge, the fragments never slipped once during the twenty weeks that he wore the

splint. The pressure was relieved at times by small tufts of cotton-wool, and by wearing an old splint at night; but, during the latter part of the time, nothing was worn at night—thus, abrasions from continued pressure were avoided entirely.

The patient now walks well, and is not particular as to distance; but still wears a contrivance to support the knee-cap, and limit the movements of the joint. The advantages claimed for the appliance are these.

1. As soon as the primary inflammation has subsided, and the apparatus firmly and properly adjusted, the patient can begin to move about, and in a short time follow his usual business pursuits.

2. The long confinement to bed is avoided; thus the patient retains his health and strength; and the condition is more favourable to the repair of tissues.

3. Easy adjustment of fragments, and the keeping of them in good position, without fear of slipping when the patient is walking.

4. The slight movement of knee in walking about prevents a stiff joint, and keeps up sufficient activity in the parts to complete the union.

Lastly, but not least, as far as the patient is concerned, the "doctor's bill" is reduced, as he will require much less attention.

I consider the case here mentioned to be a good test case for trying the merits of the invention; for, if the surgeon can secure a good union in a re-fracture, and under such adverse circumstances, surely the results will be far superior in the case of primary fracture.

SEA-SICKNESS.

By T. M. KENDALL, B.A.Sydney, L.R.C.P.Ed.

Many remedies have been suggested for the prevention of, and much time and patience have been expended in the attempt to relieve, sea-sickness. During a recent voyage, I had under my care about 200 cases of sea-sickness, and, from treating them, I learnt the following facts.

Many people, as soon as sea-sickness commences, have recourse to oranges, lemons, etc. Now oranges are very much to be avoided, on account of their bilious tendency, and even the juice of a lemon should only be allowed in cases of extreme nausea.

Champagne, too, is a very common remedy, and, without doubt, in many cases does good; but this appears to be chiefly due to its exhilarating effects, as, if it be discontinued, the result is bad, and a great amount of prostration follows.

Creasote is a very old but still very good remedy, and, in cases accompanied by great prostration, is very useful; but, if given in the early stages of sea-sickness, it is often followed by very bad results, and even increases the nausea.

Bicarbonate of Soda is useful in slight cases, as it relieves nausea, and checks the frequent eructations which often follow attacks of sea-sickness; but, in severe cases, it is absolutely useless, and, in fact, it very often prolongs the retching.

A very good remedy in the earlier stages of sea-sickness is a teaspoonful of *Worcester Sauce*. How this acts I cannot say; but it, without doubt, relieves the symptoms, and renders the patient easier. Its action is probably of a stimulant nature.

Hydrocyanic Acid is of very little service, and most acid mixtures are to be avoided, except that perhaps, for drinking purposes, when it is best to acidulate the water with a small quantity of hydrochloric acid.

Of all the drugs used, I found that the most effectual was *Bromide of Sodium*. When bromide of sodium is given in doses of 10 grains three times a day, the attacks entirely subside, the appetite improves, and the patient is able to walk about with comfort.

In all cases of sea-sickness, it is very desirable that the patient should take sufficient food, so that at all times the stomach may be comfortably full, for by this means, overstraining during fits of retching is prevented, and the amount of nausea is diminished. The practice of taking small pieces of dry biscuit is not of much use; as, although the biscuit is retained by the stomach, yet the amount taken is never sufficient to comfortably fill the stomach. Soups, milk-puddings, and sweets are to be avoided, as they increase the desire to be sick, and are followed by sickening eructations. Fat bacon is easily borne, and does much good, if only the patient can conquer his aversion to it. When taken in moderate quantity, it acts as a charm, and is followed by very good results.

But of all food, *Curry* is the most useful in sea-sickness, and is retained by the stomach when all other food has been rejected. Next to curry, I would place small sandwiches of cold beef, as they look nice on the plate, and are usually retained by the stomach.

In conclusion, I would advise that brandy should be used very sparingly, as, in many cases, it induces sea-sickness; and its chief use is confined to those cases where the prostration is very great, and even then, champagne is more effectual.

ON OCCIPITO-POSTERIOR CASES.

By CHARLES ROBERT THOMPSON, M.R.C.S., Westerham.

The occipito-posterior position of the fœtal head is by far the most frequent cause of tedious, lingering, exhausting labours. This position is estimated to occur, at the beginning of labour, in about one of every four cases; as the head passes through the pelvis, rotation takes place in about ninety-six per cent. of these cases, the remaining four per cent. being expelled with the occiput still posterior.

In cases of the first and second cranial positions, as the head enters the pelvis, the occiput presses against the pubes, whilst the wide forehead is in contact with the posterior wall of the vagina. As labour proceeds, the forehead advances much more rapidly than the occiput, and occupies fully the highly sensitive (excito-motor) posterior vaginal wall, sweeping along and distending it as the head gradually extends itself in an arc of a large circle, of which the occiput pressed against the pubes is the centre, thus irritating and exciting the expulsive uterine efforts.

On the other hand, when the forehead is against the pubes, and the head being gradually forced downwards, the tendency is, not for the occiput to extend itself and sweep over the hollow of the sacrum, but for the forehead and face to be more and more advanced below the pubes; the relations of the head for its movement of flexion and extension (Tyler Smith) being reversed. Thus, the posterior vaginal wall is not pressed on; the expulsive efforts fail to be excited; and the labour is tedious, unless rotation of the head take place, when the forehead is brought into the hollow of the sacrum, and active expulsion generally follows.

The obvious remedy would be to pull down the occiput, to make it occupy the hollow of the sacrum, whilst the forehead is necessarily made to recede, the head being flexed forwards by the movement. It is not easy to accomplish this with the forceps; when traction is made, the whole head is advanced in its faulty position, and it is very difficult to bring the occiput down, to flex the head forwards.

I have for many years adopted the plan of delivering these cases with the whalebone fillet. The position of the head being exactly ascertained, the fore and middle fingers of the left hand are passed up until the posterior fontanelle is reached, and, if possible, are pressed against the occipital bone. The fillet, held in the right hand, is compressed, and advanced gently along the left palm and palmar surface of the fingers till it rests on the head. It is now allowed to expand, and is guided upwards and directed by the fingers until it is felt to embrace the occiput, on which it is generally possible to obtain a firm purchase. Gentle traction is then made during each pain, the fingers of the left hand being still on the head to inform the operator of its exact position; the occiput is brought down, the forehead recedes, expulsive pains are immediately excited (in some cases spontaneous rotation takes place, although this is rare), and the labour is quickly terminated.

I select a few, from among a great many in my case-book, as examples of the result of this treatment.

Case I.—Second labour, at full term. Pains began at 4 A.M. At 10 A.M. I found the os dilated, the membranes protruding; the head at the brim, in the third position. I ruptured the membranes, passed the fillet over the occiput, and made slight traction with each pain, which brought the vertex down at once. Forcing pains were caused, which expelled the child at 10.15 A.M., with the face towards the pubes.

Case II.—Ninth labour, at full term. At 4 P.M. I found slight pains, at long intervals; the os was half dilated, and the head in the fourth cranial position; the eyebrow was to be felt at the right side of the pubes. At 5 P.M. the os was fully dilated. I passed the fillet over the occiput, and made traction with each pain. The head advanced rapidly, and a large child was expelled, with the face forwards, at 5.30.

Case III.—Twin case, at seven and a half months. The first child was a footling; the second child was in the third cranial position. There had been forcing, but inefficient pains, for some hours, under chloroform. At 5.45 I passed a fillet over the occiput, and made

traction during two pains, with no effect; then I rotated the head with the fillet, so as to turn the face to the left of the sacrum, and by the following pain, at 5.55, the child was expelled.

CASE IV.—Fifth labour, at full term. Small woman. The former labour was long and severe. At 10.15 A.M. I found the os dilated, the parts lubricated and soft, and the head at the brim in the fourth position. I ruptured the membranes and put a fillet on the occiput, making slight traction at each pain. The pains became expulsive directly; and, in twenty minutes, a large boy was born, with the face forwards.

CASE V.—Third labour, at full term. At 11.15 A.M. I found the pains regular, the os dilated, the vagina moist and capacious; the head coming in the fourth position. I ruptured the membranes, and put a fillet on the occiput. With slight traction at each pain, the child was born in seven minutes. In coming through the pelvis, the head rotated spontaneously, and was expelled with the face to the perinæum.

CASE VI.—Third labour, at full term. I found the os half dilated, the head in the fourth position; the pains regular, but slight, and at long intervals. After she had walked the room an hour, I found the os dilated, the head at the brim, with the anterior fontanelle under the right side of the pubes. I passed a fillet over the occiput during a pain. At the next pain, with slight traction, the head came well into the pelvis. At the following pain, it distended the perinæum, and, with a long expulsive effort, the child was born, face forwards, within ten minutes of the adjustment of the fillet.

SURGICAL MEMORANDA.

LIGATURE OF THE OCCIPITAL ARTERY: A DISSECTING-ROOM OPERATION.

SEVERAL operations are performed in the dissecting-room which are seldom, if ever, brought into more practical use. Properly carried out, at least two important purposes are served by their performance; surgical dexterity is acquired, and anatomy is learnt in a highly practical manner. To fulfil these conditions, the operation should not be too easy; it should present certain difficulties. If the ligature of an artery be in question, it is best to practise upon a vessel which is not too accessible. Definite landmarks should be obtainable, and the anatomy of the region should be well-marked and constant. The method of ligature of the occipital artery which is about to be described seems to fulfil these conditions. Its relations are very constant; its surgical landmarks are well defined; and it affords certain difficulties to be overcome. It possesses another advantage, from the point of view of a dissecting-room operation, that it requires an anatomical knowledge of a region of the body greatly overlooked by students. The reason for this may be, that no formal operative proceedings are undertaken in this region.

Before describing the operation of ligature of the occipital artery, it may be as well to glance at its anatomy. After its origin from the back of the external carotid, the artery ascends to the groove in the temporal bone beneath the mastoid process. After emerging from beneath this prominence, it lies in a triangle not usually mentioned. The boundaries of this triangle are as follows: above is the attachment of the splenius capitis to the superior curved line of the occipital bone and mastoid process; in front, the trachelo-mastoid; and behind, the complexus. The triangle is covered in by the scalp and splenius. In it, the occipital artery lies upon the occipital bone and superior oblique muscle. A line drawn from the apex of the mastoid process to the external occipital protuberance would indicate the course of the artery at this point.

To accomplish ligature of the occipital artery as it emerges from beneath the mastoid process, the following directions may be followed. The scalp having been shaved, an incision an inch and a half long should be made in the line of the artery from behind the mastoid process backwards towards the external occipital protuberance. To enable the operator to do this, the body must either be placed upon its face or the head turned strongly to one side. The scalp having been cut through, the fibres of the splenius are seen ascending, and should be divided layer by layer. The artery will be found beneath, lying in its triangle. No particular directions are required for the passing of the ligature. Although so briefly described, this operation will be found by no means easy to accomplish.

Circumstances can be imagined under which this method of operation might be of practical use. The thickness and great vascularity of the scalp would be sources of difficulty; but another objection would certainly be, that, at the point of ligature, a branch is given off—the princeps cervicis. In practice, this branch might easily be included in the ligature.

C. B. LOCKWOOD, F.R.C.S., Surgeon to the Great Northern Hospital; Demonstrator of Anatomy and Operative Surgery in St. Bartholomew's Hospital.

THE INFLUENCE OF POSITION DURING MICTURITION AS AN ALLEGED CAUSE OF STONE.

IN the BRITISH MEDICAL JOURNAL of June 30th, Surgeon Barnes, who appears to be serving in a part of India where stone is prevalent, attributes it to the combined action of hot curries, dâl (split peas), water of bad quality, and a squatting position during micturition, especially to the latter cause. India is, however, a large country, or rather collection of countries; and, while the factors he has enumerated are common to the whole of India, the prevalence of stone is far from being general. In the south of India the people eat hot curries, in which split peas are as common an ingredient as in Bengal; the water is, to my personal knowledge, no better than elsewhere, and the men, as elsewhere, micturate in the position which is only usual with women in Europe. And yet stone is remarkably rare; the series of the *Madras Medical Journal* would show that it is a rare disease among the thirty or forty millions of southern Indians. My own impression is that stone is very prevalent in certain districts of northern India (in the N. W. provinces if I mistake not), but not elsewhere. Mr. Barnes is probably stationed in one of those districts. I can imagine that a Hindoo medical graduate visiting the hospital at Norwich might attribute the prevalence of stone to the unnatural English mode of passing urine standing, acting on constitutions predisposed by a diet of beef and beer; but a more extended acquaintance with European hospitals would show him the error of his reasoning. After all, the error is of the same class as that which commonly ascribes the goître which is endemic in some parts of India to the use of water containing salts of lime in solution; this idea would have been dispelled by examination of the drinking water in parts where goître was unknown, for comparison with the results of examination in the places where it was endemic.

EDWARD NICHOLSON, S.Sc.Camb.,
Surgeon-Major, A.M.D., Guernsey.

DETECTION OF STONE IN THE BLADDER IN CHILDREN.

THE bimanual examination of the bladder of children, in cases of stone, is mentioned by a much earlier author than any of those referred to by Mr. Edwards in the JOURNAL of June 30th.

Celsus, the earliest writer who describes the operation of lithotomy, suggests that the proper subjects for it are children between the ages of nine and fourteen. He directs that, previously to being cut, the boy is to be placed in the lithotomy position, with assistants on each side to keep him steady. Then the surgeon, having carefully pared his nails, is to introduce first the index, and afterwards the second finger of the left hand, into the anus, and to make pressure over the bladder with the right. In this way, the stone is to be felt for and brought down to the neck of the bladder, and its general shape ascertained. If it be found to be oblong, it is to be placed so as to come out endwise; if flat, in a transverse direction; if larger at one end, the smaller end is to be placed to come out first. Celsus later on says that the operation for stone must not be undertaken till the calculus has been actually felt by the fingers, although other symptoms should indicate its presence.

EDWARD E. MEERES, M.D., Plymouth.

OBSTETRIC MEMORANDA.

CASE OF PROTRACTED GESTATION AND UNUSUAL WEIGHT OF THE CHILD.

ON the 15th of April, 1883, I was engaged to attend a stout healthy young woman, aged 28, in her second confinement, which was expected about May 20th, her last period having occurred on August 16th, 1882, and, according to her own statement, she quickened a few days after Christmas last. The labour, however, did not set in until June 20th, 1883, at 10 A.M., and delivery was completed at 3 A.M. on the 21st *idem*.

It was prolonged in the second stage, and the head rested on the perinæum for fully two hours, though the pains were very strong during the whole time. The head presented in the first

position, and just as I was preparing to administer chloroform and to apply the forceps, the head was expelled by the natural efforts, and a few minutes after the body was extracted with some difficulty, when it was found to be that of a highly developed and well nourished female child. The head was considerably elongated, the "caput succedaneum" being rather prominent. It weighed twelve pounds, and measured twenty-two inches in length; circumference of head fourteen inches, and round the shoulders fifteen inches. The pulse was rather quick after delivery, but a dose of ergot and kneading the uterus soon expelled the placenta without much hæmorrhage, and she is now convalescent. In her previous labour she suffered from *post partum* hæmorrhage, but made an excellent recovery.

The only notable feature about her late lying-in, was the unusual prominence of the abdomen before labour, so much so that she feared she might have twins. If her history can be relied upon as to the probable date of conception—and I have not the slightest reason to doubt it—gestation must have been prolonged to near the end of the tenth month.

K. N. MACDONALD, M.D., etc., Cupar, Fife.

THERAPEUTIC MEMORANDA.

CANNABIS INDICA: AS A MEDICINE AND AS A POISON.

THE numerous letters in late numbers of the JOURNAL on the medicinal effects of this drug, show how very variously it operates on different individuals and in different doses. I have always had a fondness for it, and therefore venture to send a few lines giving my experience of its effects, both as a medicine and as a poison.

Of the poison first: some time ago, I ordered for a phthisical patient a drachm of the spirituous extract in an eight-ounce mixture, by mistake for the tincture. The chemist, doubting the correctness of the prescription, came to ask my orders, and not finding me at home, went to a neighbouring colleague of mine, who, not recognising the mistake, advised the chemist to make up the mixture with half the quantity of the extract. This, as is usual, floated on the top of the mixture, and, as I afterwards found, it was nearly all swallowed with the first dose. Three hours afterwards I was called to the patient, who was said to be dying. The symptoms were, in some respects, those given in the authorities (Ringer to wit), and, in others, different from them. There was complete superficial anæsthesia, the patient declaring that he could touch nothing. He felt as if dead; could scarcely recognise anything. He had intense dread of death; a frightened countenance; the pupils were dilated, but contracted slightly to light. Vomiting, which was not present, was induced by mustard and water, and the green extract came up with the mucus of the stomach. During the whole time, I was cheered by the fact that the pulse did not fail, nor was there any clammy perspiration. The sight was so affected that all things appeared in multiple, and none of the senses acted true. I did not notice any of the sexual excitement mentioned by some authors. After a great deal of brandy, the patient, after two hours of my watching him, was removed to bed, fell into a deep sleep, and when I called in the morning, he was ravenously eating his breakfast.

Medicinally, I have cause to be thankful to cannabis Indica. A relative of my own took it regularly for six months, with bromide of potassium, every night, with the effect of removing acute bodily torture and mental anguish completely for the night. Dr. Clouston, some years ago, recommended large doses of cannabis with bromide of potassium in mania. Although I have had no personal experience of it in acute mania, in cases of melancholia, and, indeed, in all cases of mental depression with sleeplessness, I have found a valuable and almost certain ally in this drug. Half a drachm to a drachm of bromide, with a grain or two of the extract, or from twenty to thirty drops of its tincture, seldom fails in the object we have in view. It dulls the feeling of anxiety, relieves the depression, and gives restfulness, if not sleep. Hyoscyamus may be usefully combined if there be any visceral pain or disturbance.

A woman, in acute melancholia, said to me: "Doctor, I must kill my children. Send me to an asylum." I answered: "Will you promise not to kill them until I have tried the effect of one medicine upon you?" She thought she could promise. A drachm of bromide of potassium, with half a drachm of tincture of cannabis, two or three times a day, in a fortnight caused so much improvement, and even cheerfulness, that she declared she could now see the window open without the almost irresistible desire to throw her children down on to the pavement, which had possession of her whole mind before.

I think that this drug is seldom given in large enough doses. My usual dose is a grain of the extract, or from twenty to thirty minims of its tincture.

WILLIAM STRANGE, M.D., Senior Physician to the Worcester Infirmary.

GALIUM APARINE FOR THE RELIEF OF CANCER.

AN instructive paper which appeared in the JOURNAL of June 16th, by Dr. Quinlan, on the employment of this plant in the treatment of chronic ulcers, reminds me of some other uses to which it is put in parts of England, especially Kent and Hertfordshire. The fact of its having emanated, as in Dr. Quinlan's case, from the lay public, and of its having proved serviceable in cases of mammary cancer under my own observation, induces me to bring it under the notice of the profession.

The following are the directions given for its employment by a gentleman in Hertfordshire, to a poor woman suffering from cancer. The bowels having been previously cleared by aperient medicine, and the patient enjoined to live upon the most simple diet, five ounces of the juice of the plant, obtained by pounding and squeezing, are to be taken twice daily; at the same time, an ointment of the juice is to be applied to the cancerous ulcer, laying bruised clivers over it, and keeping them constantly applied and renewed. The amendment is very gradual, so that steady perseverance in the use of both internal and external means is necessary. According to one account, in three months, the wound had healed perfectly.

Cliver, or galium aparine, has also the reputation of reducing the size and diminishing the pain of cancer; the latter I have noticed in a marked degree in a case in which I recently employed it locally; my patient, indeed, rebuked me for not telling her of it sooner. It certainly seems to have power in arresting the ulcerative action, and in promoting a more healthy one. According to the *Medical Digest*, galium aparine was recommended by Dr. Winn in the *Medical Times and Gazette*, vol. i, p. 144, 1854; and vol. ii, p. 117, 1864, in the treatment of cancer.

CHARLES BOYCE, M.B., Maidstone.

TOXICOLOGICAL MEMORANDA.

TARTAR EMETIC FOR CREAM OF TARTAR.

ON June 20th, 1883, Mrs. W., aged 31, at about 6.45 A.M., put half an ounce of sulphur into a tea-cup, and upon it poured about half of an ounce paper-packet, labelled "Cream of Tartar." She had purchased this latter, two years before, in Barbadoes, and had never opened it till this day. She tasted it, but was not quite satisfied with the flavour; she then took out of the tea-cup about half of this powder and threw it away. The remainder was mixed with a quarter of a pound of treacle. This mixture was for her son of 6 years, but as he was asleep and she did not feel very well, she took two teaspoonsful of the mixture herself.

In a quarter of an hour she was purged twice in succession. This was followed by cold sweats and shivering, a peculiar sensation of numbness and pricking through the body; more purging, four times in all. She had also violent vomiting from the first, on two occasions streaked with blood; this continued till mid-day.

I saw her at 9.45 A.M. She had just vomited, was cold and shivering, lying on her back with knees drawn up, face anxious, dark circles under her eyes, lips crimson, tongue clean, pulse feeble, no particular pain on pressure over the pit of the stomach, a general soreness from excessive vomiting; she was excessively thirsty. She had felt no constriction of the throat nor burning sensation, but had a little pain at the pit of the stomach; no dysuria. To counteract the shivering and coldness, a draught of laudanum and ether was prescribed. She had taken some brandy, and had a hot water-bottle at her feet. For several days she felt much shaken, and her stomach was sore and sensitive to food or liquid.

The powder had an acid smell and taste; with hydrosulphuric acid, it gave the reaction for antimony. The paper, with its contents, was sent to Dr. Ferrier, who was kind enough to examine the powder for its exact composition, and found tartar emetic.

On the supposition that a quarter of an ounce was mixed with a quarter of a pound of treacle, she probably took at least 7½ grains of tartar emetic, possibly double that amount, which, if administered to her son, would most probably have produced fatal collapse.

CHARLES MOORE JESSOP, Fulwood Barracks, Preston.

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Vide. *Dr Rickard's paper on fatty transformation of the Kidney.*



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REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

SEAMEN'S HOSPITAL, GREENWICH.

A CASE OF COMPOUND DEPRESSED FRACTURE OF THE SKULL, WITH INJURY OF THE BRAIN: RECOVERY WITHOUT TREPHINING.

(Under the care of Mr. G. R. TURNER, Visiting Surgeon.)

ALBERT EDWARD M., aged 31, a shipbuilder, was admitted on January 4th. Whilst he was engaged in raising a mast out of an old ship, it gave way, and a portion falling about forty feet knocked him flat on the deck. He was picked up, and found to have a wound on the right side of his head. It is uncertain whether this was caused by the portion of the mast, or by his fall on deck. As he was brought to the Seamen's Hospital, he is said to have "fainted," and to have been sick.

On admission (at 6 P.M.), he was pale, rather cold, and slightly collapsed, but perfectly sensible and rational. Over the posterior superior angle of the right parietal bone was a small circular scalp-wound, through which the little finger could just be passed. At the bottom of this was a deep and well-marked funnel-shaped depression of the skull, towards the apex of which sharp edges of bone could be felt. There escaped from the wound a small quantity of white substance, undoubtedly brain-matter. His pulse was 64, full and regular; his pupils equal, and slightly dilated. Respiration was quiet, and there was no paralysis of any kind. The wound was gently syringed out with carbolic lotion (1 in 40), carbolic gauze was loosely applied, and an ice-bag put to his head. Up to 12 P.M., he vomited occasionally a green bilious matter, but had slept for short intervals. The pulse was 72; he was perfectly sensible; the temperature was 99° Fahr.

January 5th. He slept at intervals during the night, and was quite sensible in the morning. Occasional vomiting continued. The pulse was 56, full and irregular. The temperature was 99.6° Fahr. The tongue was coated. The wound looked quiet, but there was some blood-tinged discharge from it. In the evening, the temperature was 99.4° Fahr., the pulse still slow and irregular, and the bowels were confined.

January 6th. He slept fairly well during the night. The bowels were open after the administration of three grains of calomel. The pulse was 56, and occasionally intermittent. He vomited after trying to swallow some milk, complained of thirst, and was quite sensible. The temperature was normal. At 7 P.M., the pulse was 65, full, and more regular. At 12 P.M., he was asleep, and had only vomited once during the day. He slept well, and there was no sickness during the following night. The pulse was 56, and regular. The tongue was cleaning, and he looked better. The wound, which was dressed daily, looked very healthy, and there was but little discharge from it.

January 8th. He had not again vomited, but he was slightly restless. The bowels were confined, and the tongue furred and the breath offensive. The pulse was 58, full and regular; the temperature was normal. Another mercurial purge was ordered.

On January 10th, he complained of slight pain in the head. The pulse was 52; temperature remained about 99°. The bowels were not open. He was given another purge.

January 14th. His pulse was still slow, varying between 52 and 58, and there had been a slight rise of temperature to 100.2°. The wound was healthy, and there was rather more purulent discharge from it. He was slightly sick on January 15th after drinking a little tea. The temperature was 99°; the pulse had not altered. From January 18th to 28th the bowels were very obstinate, but he progressed well. The wound was gradually healing. He complained of occasional dimness of sight, and there was slight conjunctival injection, but nothing else wrong with his eyes. The pulse remained slow (52), but regular and free from intermission. The temperature was normal.

He continued to do well, and his pulse gradually became more rapid. On February 6th the wound had nearly healed. On February 13th he complained of occasional pain when moving his head "sharply." He was allowed to get up on February 6th. He complained of slight dizziness on February 28th, so was put again on a low diet and ordered back to bed. The dizziness at once passed away, and by March 4th he was up and about. He had no return of this symptom, and remained quite well until his discharge on March 22nd. He has since reported himself at intervals, and remains quite free from any head-symptoms.

ST. GEORGE'S HOSPITAL.

A CASE OF COMPOUND DEPRESSED FRACTURE OF THE SKULL, WITH INJURY OF THE BRAIN: RECOVERY WITHOUT TREPHINING.

(Under the care of Mr. HOLMES.)

[Reported by Mr. G. R. TURNER, F.R.C.S., Joint Lecturer on Practical Surgery, and late Surgical Registrar.]

G. C., aged 40, a wax-chandler, whilst driving a young horse, was pitched out of a cart on to some iron railings, striking his head; no insensibility followed, and he was taken at once to St. George's Hospital. On admission, December 2nd, 1880, there was a small scalp-wound over the upper part of the right temporal region, leading down to a punctured fracture of the skull, through which the tip of the little finger could be passed. The dura mater could be seen pulsating, and there was a considerable discharge of thin blood-stained fluid from the wound; the flow of this was increased on coughing. A small portion of undoubted brain-matter was found on some lint which had been used as a temporary dressing. The lower jaw was fractured to the right of the symphysis. This fracture united kindly, and no further mention of it is necessary. The man was hardly affected at all by the accident. There was no paralysis; his pupils were equal, and responded to light; the pulse was quiet. He complained simply of "bruising" of his head. The margins of the scalp-wound were brought together by three silver sutures, a horsehair drain introduced, and carbolic gauze applied as a dressing.

The next day he complained of considerable frontal headache. He had slept fairly; the temperature was 99° Fahr.; the pulse was 88, and rather hard and full. The wound looked very quiet.

December 4th. He had slept fairly. The pulse was 80, the temperature 99.4° Fahr. No pain in the head was complained of. The bowels were open.

December 5th. The wound was dressed under a carbolic spray. It appeared nearly healed, and there was no irritation about the sutures. The pulsation of the brain caused an upheaval of the integuments over the seat of fracture.

On December 6th, the pulse was 60 or 64; he complained of slight occasional headache.

December 7th. He complained of slight "numbness" of the head. His pulse remained about 60 to 64 for the next week; the temperature was normal. The sutures were removed on December 10th, and the wound afterwards dressed with carbolic lotion.

After December 14th the slowness of the pulse ceased, and it remained subsequently between 70 and 80.

By December 21st the wound had entirely healed, except for one small button of granulation. Around this was some bulging of the integuments. Pulsation could just be felt by placing the finger on the wound. He had no symptoms except occasional headache during the remainder of his stay in St. George's Hospital.

On February 16th, he went to the Convalescent Hospital at Wimbledon. Whilst there he still complained of occasional headache and pain in the eyeballs, with some dimness of vision of the right eye. He was given a mixture containing half a drachm of liquor hydrargyri perchloridi, five grains of iodide of potassium, and ten grains of bromide of potassium, internally, and a mustard poultice was applied to the nape of the neck. Under this treatment, these symptoms disappeared, and he was discharged on March 16th, 1881. The wound had quite healed, but pulsation could be felt for some time afterwards over the scar. This, when he was last seen (a year and a half after the accident), had ceased to be perceptible. He occasionally suffered from trifling giddiness, and very slight pain in the head, near the seat of the fracture, when the weather was warm. With this exception, he was perfectly well.

REMARKS BY MR. G. R. TURNER. (The following remarks apply to the two above cases of compound depressed fracture of the skull, both of which came under Mr. Turner's observation.)—Both of these cases, being instances of "punctured" fracture of the skull, belong to a class which many surgeons treat by the immediate application of the trephine, although there be no symptoms of compression of the brain. Of these patients, the one, under the care of Mr. Holmes at St. George's Hospital, was never unconscious; the other, under my own care at the Seamen's Hospital, Greenwich,

when first seen, was recovering from slight concussion, but otherwise resembled Mr. Holmes's case in the absence of all symptoms. Slowness of the pulse for some time following the accident was observed in both. Some sickness for three days in mine. Except for this, both made an uninterrupted recovery. They could hardly have done better had they been trephined, and they have escaped the additional risks of a severe operation. Some considerable time has elapsed since Mr. Holmes's case was discharged, and no bad symptoms have resulted. The occasional giddiness experienced by the man in hot weather is very trifling, and such as is often seen after head-injury, even when no fracture has been diagnosed. Four months have passed since the accident to my patient—a short time, I admit; but still he apparently is as well as ever he was. I think these cases are of interest as bearing on the question of trephining in cases of "punctured" fracture without symptoms. The notes on Mr. Holmes's case I took myself, when Surgical Registrar to St. George's; and the progress of it led me to leave my patient also to nature.

REVIEWS AND NOTICES.

SELECTIONS FROM THE WORKS OF THE LATE J. WARBURTON BEGBIE, M.D. Edited by DYCE DUCKWORTH, M.D. The New Sydenham Society. 1882.

THE editor prefaces this volume by a brief memoir of Dr. WARBURTON BEGBIE, which will bespeak for the selection of papers or essays placed before the reader, his considerate indulgence and studious perusal. Dr. Begbie was no maker of books. Only once did he assume that character, and then met with small encouragement. His merits were those of a most industrious practical physician, admirably gifted by nature, and as admirably trained for his work; and he restricted his ambition as a medical writer to the occasional production of essays, contributed to journals or to the proceedings of societies, which were the outcome of careful thought and clinical observation. In so saying, however, we must not forget that he made some approach to the position of a systematic writer by contributing several articles to Dr. Russell Reynolds's *System of Medicine*.

The pathological papers brought together in the volume before us are on various subjects, some of greater, others of less importance, and, as a matter of course, must be read from the standpoint of pathological science existing at the date of their production, for science knows no pause, and the advanced views, or the guesses at truth, of any one year, will have grown into accepted truths, or have else been rejected as unsubstantial within the cycle of a few subsequent years. But it is a marked feature of Dr. Begbie's papers that they are of an eminently practical character, and are founded on close and acute observation, and will consequently always possess material of value to the student of medicine, apart from whatever theoretical element is to be found in them, or else is absent from them.

Few men ever had more devoted personal friends and professional admirers than Dr. Warburton Begbie; and this circumstance alone would furnish apology for collecting his contributions to medicine, even had they been devoid of the sterling value that unquestionably belongs to them.

RECOLLECTIONS OF THE KABUL CAMPAIGN, 1879 AND 1880. By JOSHUA DUKE, F.R.A.S., Surgeon, Bengal Medical Service. Pp. 424. London: W. H. Allen and Co., 1883.

MR. JOSHUA DUKE, who was already to some extent known as an author, by his pamphlets on foods suitable for the mess-table in India, has now attempted a much more ambitious undertaking in the preparation of this volume, detailing his recollections of the last Kabul campaign. He served as medical officer with three branches of the native army in India, viz., mountain-artillery, cavalry, and infantry, and for a short time with General Roberts's staff. The original notes were written during the winter and summer of 1881, in the inhospitable region of Gilgib, Cashmere, and were completed after his return to Amritsar, in the Punjab. The proof, before being published, has been submitted to General Sir Frederick Roberts, who has permitted Mr. Duke to print in his preface a portion of a long letter in which the General has given his views of the book. The Commander-in-Chief of the expedition thinks that Mr. Duke has formed correct conclusions on some of the most important points mentioned in the book, particularly as to the deductions he has drawn regarding the attack on the Embassy, and in his remarks about Yakoob Khan's conduct during the advance on Kabul.

The volume opens by describing the author's arrival, in March, 1879, at the frontier station of Thull, whence he marched to Peiwar Kotul, and Ali Kheyl, and spent some six months amidst the lofty mountains of the Sufaid Koh range. The pages which recount the expeditions made in this territory of grand scenery are interspersed with notes of the natural history of the region, of the animals and plants which were met with in the daily excursions, of the dangers in precipitous places, and from the ambushed treacherous Afghans, which were constantly incurred. In fact, during the whole twenty months of the author's stay in Afghanistan, his life, as was that of every officer and man of the expedition, was in perpetual peril, and these pages give a vivid description of the risks run by those who live amongst a fanatical, turbulent, and hostile populace.

Upon the murder of Sir L. Cavagnari, and the other members of the British Embassy at Kabul, in September, 1879, of which a full account is given, and the subsequent advance of General Roberts over the Shutargardan Pass to the capital, Mr. Duke was selected to accompany the avenging army, and narrates the particulars of the advance, the meeting with the Ameer Yakoob Khan, the examination and treatment of the wounds of General Daoud Shah, who had been injured by the infuriated Afghan soldiery on the day of the attack upon the Embassy, the battle of Charasiab, the entry into Kabul in October, 1880, and his impressions of the city and the surrounding country. Then follows an account of the abdication of Yakoob Khan, and his departure for India; and of the explosion of the powder-magazines in the Bala Hissar, and of the wonderful escapes of officers and men. A chapter is given to the description of Kabul, its manufactures, markets, water-supply, and surroundings, of the troops' winter cantonment at Sherpur, and of the fighting around Kabul in December, 1879, when the whole country seemed to have come together with a determined effort to oust the British, and when there was a loss of some Horse-Artillery and mountain guns, accompanied by fighting on the surrounding heights, and when the British in Sherpur were invested for some time, but eventually beat off the enemy, and received reinforcements, after which there was a lull for a time in the military movements.

The last chapters of the book describe the advent of the present Ameer, Abdul Rahman, to Kabul, and give a detailed account of the wonderful march of General Roberts's army from Kabul to Kandahar, and of the various incidents which befel the author and those with whom he was mostly associated during the march. There is a description of the battle of Kandahar, and of the return march to India. Thus, it will be seen, there is a sufficiency of all the elements of stirring events in these pages to satisfy the longings of those who require a narrative of perilous adventures and hair-breadth escapes; but the dangers are never needlessly detailed, nor were the adventures undertaken for the mere gratification of sport, or from a mere love of the perilous; they were those which befel a painstaking medical officer in the simple discharge of his duty, and were probably not altogether unlike the experiences of other men of the same professional rank in various parts of the world. The book contains a few notes which may be chiefly of interest to the medical man, but the great bulk of its pages are quite devoid of the professional element, and this will doubtless render it all the more interesting to the general public. It contains a map of Kabul and the neighbouring country, a portrait of General Roberts, a picture of Mount Sika Ram, and six other illustrations drawn chiefly from photographs, and several appendices, which add much to the value of the work.

Mr. Duke certainly deserves praise for the pains he has taken to put into permanent form this most interesting account of his recollections of the Kabul campaign. Nor can we altogether ignore the part played by the publishers in this undertaking. The typography is good, and the general get-up of the volume is excellent.

CURVATURES OF THE SPINE. By E. NOBLE SMITH, F.R.C.S.Ed. L.R.C.P.Lond., Senior Surgeon and Surgeon to the Orthopædic Department of the Farringdon Dispensary. With Illustrations. London: Renshaw. 1883.

IT has been a pleasing occupation to read this small work upon curvatures of the spine, because it seems to contain a nearer approach to the practical solution of the question of "What is the best plan of treatment for lateral curvature of the spine?" than any which has hitherto been offered.

Mr. NOBLE SMITH writes very clearly and practically; he divests the subjects of all mystery, and points out the treatment which ought to be adopted in various cases. He advocates a plan of mus-

cular exercises to act specially upon the curves, which is avowedly based upon strict anatomical principles, and he maintains that the exercises hitherto advised for that purpose are opposed to such principles.

Mr. Smith disapproves of the old fashioned heavy constricting spinal machines, and advocates (for cases in which an instrument is really required) one which does not interfere with the use of the muscles, but which prevents the spine from subsiding into abnormal curves. This monograph throws much light upon an obscure subject. It is a very thoughtful and able production, and we recommend its perusal to our readers.

NOTES ON BOOKS.

On Bedside Urine Testing: Qualitative Albumen and Sugar. By GEORGE OLIVER, M.D.Lond., M.R.C.P. London: H. K. Lewis. 1883.—This pamphlet of about fifty or sixty pages forms the first part of the work which Dr. Oliver, as he states in a prefatory note, began some time ago, with a view to facilitate urinary examination at the bedside. It is divided into three chapters. The first deals with the old and the new methods of testing; it speaks of the inconveniences which arise from carrying about solutions of reagents, especially when they are caustic or corrosive, and of the advantages arising from the use of test-papers. In the next chapter, observations are made respecting the working of the old tests (nitric acid and heat) by the side of the new ones on the same urines, to the advantage altogether of the latter, which, in the instances cited, indicated the presence of albumen in each of twenty specimens, whilst nitric acid failed in sixteen, and boiling in fourteen instances of the same urines. The clinical aspects of the most sensitive albumen precipitants are next dealt with; the albumen test-papers devised by Dr. Oliver are described, as are the modes of using them, the fallacies which may be encountered, the forms of albumen and peptones met with in urines, and the considerations which should guide one in the selection of this or that test-paper in the various cases that may require their use. In the last chapter, the detection of sugar by means of test-papers is discussed, indigo as a test for glucose is noticed, and the alkaline indigo-carmine test, the use of the papers charged with the reagent, the nature of the reaction in the presence of glucose, and the mode of testing, are all fully described. The results of the testing by the side of Fehling's solution, and a tabulated account of the behaviour of different tests when boiled in the presence of various substances contained in normal and abnormal urines, together with a notice of the clinical advantages of the indigo-carmine test-papers in testing for glucose, bring this chapter and the pamphlet itself to a close, except for a short description of the apparatus which Dr. Oliver finds it convenient to use. The pamphlet is in a handy portable form, and will be particularly welcomed by all practitioners who would make it their constant practice to examine urines in the various cases that are submitted to their diagnosis and treatment.

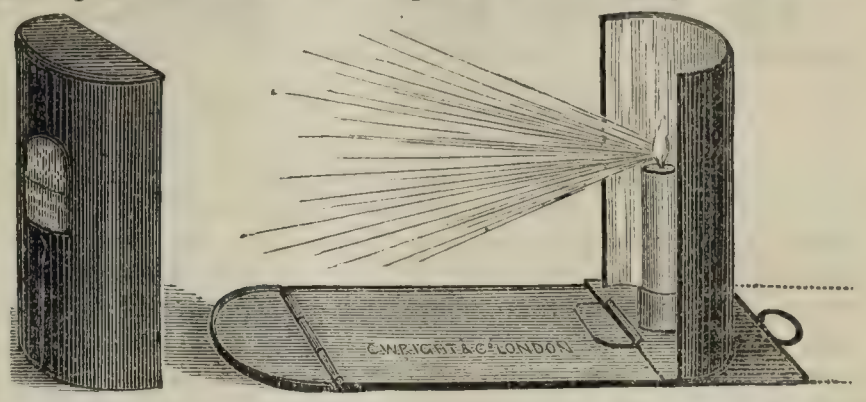
THE *Daily Clinical Charts*, designed by Dr. SAWYER, and published by Salt and Sons, Birmingham, are so arranged as to record and show at a glance, in an easily arranged tabular form, the patient's progress in respect to medicines, stimulants, sleep, excreta, etc.; with a broad column for remarks. They are bound in paper-cover volumes; and, so far as we know, these charts are more complete than anything of the kind hitherto issued, and will certainly be found very useful both in private and hospital practice.

BEQUESTS AND DONATIONS.—Mr. G. D. W. Digby has bequeathed £1,000 to the Yeatman Hospital, Sherborne.—The Queen's Hospital, the General Hospital, and the General Dispensary, all at Birmingham, have each received £500 under the will of Mrs. Sarah Jones.—The West London Hospital has received £100 from the Grocers' Company, £100 11s. 4d. from St. Mary Abbotts Church, Kensington, and £105 from Sir Charles J. Freake, Bart.—The Royal Hospital for Children and Women has received £75 9s. 6d., the proceeds of a concert by the Tulse Hill Choral Society, being the fourth amount from that source, and making a total of £286 5s. 9d.—The General Hospital, Birmingham, has received £100, less duty, under the will of Mrs. Ann Hunter.—Mr. William Gadsby has bequeathed £100 to the Queen's Hospital, Birmingham.—The Grocers' Company have given £100 to the London School of Medicine for Women.—University College Hospital has received £80 from the People's Contribution Fund.—Mr. William Cook has given £52 10s., and Lady Charles Wellesley £21, to Charing Cross Hospital.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW LAMP.

THE lamp shown in the accompanying figure has been designed by Dr. R. Barnes for use in gynæcological examinations. It is portable, and opens and closes. When opened, it is so arranged as to stand



firmly on the patient's bed. Wax candle is burnt in it, and projects an excellent light through the speculum. The lamp is made by Messrs. Wright and Co., of New Bond Street.

SCOTT'S EMULSION OF COD-LIVER OIL.

THIS is an American preparation of cod liver oil emulsified with glycerine. From the formula printed on the label, it would appear that it contains fifty per cent. of pure Norwegian cod-liver oil, with six grains of hypophosphite of lime and three grains of hypophosphite of soda to the fluid ounce. It is palatable; and we have no doubt that many patients who have a repugnance to ordinary cod-liver oil, would take it without difficulty.

CARNRICK'S BEEF PEPTONOIDS.

THE beef peptonoids introduced by the Maltine Company have of late been largely used in America in cases of extreme debility of the digestive organs. It is alleged that a four-ounce packet is equal in nutritive value to ten pounds of any extract of beef prepared according to Liebig's formula. They are said to be the most concentrated nutritive ever invented. They may be added to soups or other liquid food, or from one to two dessert-spoonfuls may be dissolved in six ounces of warm water, and used as an enema.

SQUIRE'S MEDICINE-CHESTS.

MESSRS. P. and P. W. Squire have recently introduced an improvement in travelling medicine-chests which deserves notice. In the older forms, great difficulty was experienced in avoiding leakage, especially if by any chance the bottles were inverted. In the new and improved case leakage is impossible, and the box may be carried upside down without the slightest fear of spilling the contents. The stoppers are all carefully ground down to the same level, and are retained in their places by a spring attached to a plate of cork inserted in the cover of the case. We have carefully examined and tested several of the chests, and are satisfied that the improvement is of real value.

EDUCATION OF THE BLIND.—Mr. George Laupmann, formerly a student of the Blind College, Worcester, has obtained a Second Class in the Cambridge Mathematical Tripos. This is the first mathematical distinction which the Blind College has gained, since it is a branch of study which presents peculiar difficulties to a blind student; but Mr. Laupmann's industry and ingenuity overcame most of the obstacles, and the mathematical literature which his success will be the means of creating will be available for all who follow. It is expected that Mr. Laupmann will take his place for a season as mathematical master in the Blind College. His tutor in mathematics at the Blind College was the Rev. R. H. Blair, rector of St Martin's, Worcester.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 7th, 1883.

CHOLERA IN ENGLAND.

THOUGH known for a long time in China and India, the history of cholera in this country may be said to date from the wide-spread epidemic of 1831-2. But though this may be true of the present century, there are those who believe that cholera, in the strictest sense of the term, was among the epidemics of the sixteenth and seventeenth centuries, and we must admit that the accounts given by Sydenham of the cholera epidemica of his day, lend no small support to this view. It is perfectly true that many cases of diarrhœa occur during hot weather, marked by vomiting, cramps and rice-water evacuations, identical with those of the exotic, and imported disease, though distinguished from it by an elevated temperature, and the absence of the symptoms constituting the algide stage; such cases, too, easily yielding to opiates, and rarely proving fatal to otherwise healthy adults. But the epidemic of 1669 and following years, graphically described by Sydenham, was marked, not only by "ventris et intestinorum dolor vehemens, cardialgia, sitis, pulsus celer ac frequens, aut vix micans, nausea molestissima, seu vomitio enormis, crurum et brachiorum contractura, spasmi dirissimi," etc., but also by "sudor frigidus, partium extremarum frigiditas," etc., which "etiam angusto viginti quatuor horarum spatio ægrum interimunt," in spite of his very rational treatment by full and frequent doses of laudanum and astringents.

But, passing on to our own times, we find that cholera, which had from time to time decimated our Indian troops since 1808, extended beyond the limits of Hindostan in 1821, ravaging Persia and Arabia, and reaching Astrakhan in 1823; it then subsided, and did not reappear in these quarters until three or four years later. In 1827-8, it again invaded Persia and Khiva, reaching Orenburg in September 1829, and Perm in November of the same year. In 1830, it extended itself over the whole of Russia, following the lines of human intercourse and traffic, whether by road or river. Every effort was made to keep it back from the German frontier, but without avail; and in 1831 it broke out in every country of Europe, advancing with such rapidity that its appearances in the most distant places seemed almost simultaneous.

The first cases in England occurred in July and August 1831, on board some vessels in the Medway, where numerous sail had arrived from Riga during the preceding weeks. In October, it broke out in Sunderland and Gateshead, speedily spreading to Newcastle and Edinburgh, and thence to Glasgow, Belfast, and Dublin, reaching London in February 1832, and the United States in June. The cold of winter did not check its progress, for the monthly deaths in England steadily rose from 97 in November to 1,519 in March. But, from whatever cause, this epidemic did not assume the same proportions as that which occurred in 1848, entering Europe by the same route. After raging throughout Southern and Central Asia during the four previous years, it invaded Russia and European Turkey simultaneously in the autumn of 1847. The aggregation of 800,000 Austrian, Russian, and Hungarian troops on the Danube, and their dispersion at the close of the war, led to its extension during 1848 to Germany and Italy, though it did not reach Paris until March 1849. The first fatal case in London appeared in September, and in Edinburgh and Dublin in November; and it was observed that, in many instances, the first cases in a town occurred in the same houses, and even in the same rooms, as in 1832. New York was reached in December.

Now, for the first time, the connection between cholera and unsanitary conditions was fairly investigated by the Royal Commissioners, among whom were Dr. Southwood Smith and Mr. Edwin Chadwick, and the descriptions given by them in their report would startle many of us now. The whole of Lambeth and Bermondsey were intersected by "open ditches of the most horrible description." St. Olave's and St. Thomas's were "a disgrace to the civilised world." In Whitechapel "there was neither sewerage, drainage, cleansing, paving, nor a good supply of water." "The characteristics of the streets of Hackney were overflowing cesspools and privies, cowyards and piggeries, with a loathsome ditch." The state of Battersea, Plumstead, and other low-lying districts was dreadful, and even parts of Kensington, Shepherd's Bush and Hampstead were not much better.

The picture presented by the Report of the General Board of Health in 1854 is, in all essential points, the same. Commissioners of sewers had been appointed, but no real improvement had been effected. Open tidal sewers, accumulations of filth, absence of sewers or drains in many places, and what there were no better than huge cesspools, offensive trades, slaughter-houses, piggeries and the like, still existed in the midst of dense populations, with defective water-supply, and pestilential effluvia arising from the river banks.

Such was still the state of the metropolis when the cholera, which had never entirely disappeared from the Continent, and was then ravaging Russia and Germany, again invaded our shores. A few cases occurred during the summer and early in the autumn in the low-lying districts around London, but it was not until October and November, when with the declining temperature diarrhœa fell off that the cholera became serious. In October 335 deaths were reported in London alone, and 288 in November; but from that time until the following June, they may be roughly said to have averaged one a week; the mortality from diarrhœa, however, remaining unusually high meanwhile.

Suddenly the cholera burst out in July, when 308 deaths were reported, exclusive of those from diarrhœa; in August 3,513; and in September 6,084, of which 1,177 occurred in the first three days. It declined towards the end of the month, and the deaths in October were 823; in November 52; and in December only 5.

Taking the whole epidemic period of July 1853—December 1854, we find that the mortality from cholera per 10,000 living varied greatly in the 135 subdistricts, viz., from 6, 10, and 11 at one extreme, to 142, 165, and 179 at the other; the range in the mortality from diarrhœa being far less, or from 11 to 54.

Density of population had no influence whatever on the mortality from either disease in this epidemic, or in that of 1849. In the nine most sparsely peopled districts, with from 2 to 21 persons per acre, the mean mortality of the two epidemics was 65 by cholera, and 22 by diarrhœa, in the 10,000. In the nine most densely populated, having from 196 to 290 per acre, the same rates are represented by 41 and 19. But when we divide these districts into groups according to their elevation, irrespective of all other considerations, we find it quite otherwise, the mean cholera-mortality of the two periods being for the districts at, or below, high water mark, 156 per 10,000, and for each successive terrace, 91, 44, 36, 23, 17, and 10; not that elevation *per se* made the difference, but elevation as offering greater or lesser facilities for the saturation of the soil, and the pollution of the ground water with the fæcal and specific matters Thus it was that, in 1853-4, the districts north of the Thames, with an aggregate population of 1,745,601, showed 5,440 deaths from

cholera; those on the south side, with only 616,635 inhabitants, had no less than 6,221. The distribution of diarrhœa presented no such striking feature, 4,150 deaths having been reported from the northern, and 2,108 from the southern districts.

But another factor than elevation, and its sanitary consequences, appears to have determined the incidence of the cholera, to a great extent at least. This was the pollution of the water-supply. The epidemic raged in proportion as the drinking water was impure. It was in the areas supplied by the Chelsea and the Southwark and Vauxhall Water Companies that the disease counted most of its victims. The water furnished by the former contained no less than 60 to 72 grains of residue, including 5.4 of organic matter, in the gallon; and that by the latter, 40 to 45 and 3.6, respectively; while the water supplied by the other companies did not show more than from one-third to one-half of these amounts. The Lambeth Company had, since the previous epidemic, removed its intake to a point higher up the river; and as a consequence, while the mortality per 10,000 among the population supplied by it had fallen from 125 to 37, that of the district dependent on the Southwark had risen from 118 in 1849 to 130 in this year. The test was a crucial one; for the companies did not then enjoy the same monopoly they do now, and their districts intersected one another. Indeed, the Southwark water differed little from unfiltered Thames water that had been allowed to stand for a few hours, being turbid with organic matter, and swarming with worms and crustacea. In a small district in St, Saviour's, one thousand families had no water-supply at all, and even in Chelsea many persons took theirs direct from the river.

Wells and pumps whose water, though free from visible—*i.e.*, suspended—impurities were, in fact, fouler than the river itself, being saturated with the organic matters contained in the sewage-sodden soil were in general use, and in some instances, as that of the Broad Street pump, in St. Giles's, in high favour, as sparkling with the carbonic acid evolved from adjacent graveyards.

All these epidemics had entered Europe by the Caspian route, *i.e.*, from Persia through Russia; but in 1865 it came for the first time by the way of the Red Sea. Cholera had frequently broken out among the thousands of pilgrims, poor and filthy, who yearly assemble at Mecca, from all parts of Asia and Africa, but it had not previously made its way directly, at least, to Western Europe. In June and July it appeared at Marseilles, Valencia and Southampton, and at the same time entered Eastern Europe, by Constantinople and Odessa, whence it spread with fearful severity over Germany. From Germany it was carried to America, the first cases being observed there in October. In England, however, there were only two small outbreaks of cholera, that at Southampton, and a second near Epping, whither it was brought by persons arriving from the first named place.

Beyond a few solitary cases of direct importation from France or Holland, no more was heard of the cholera till May 1866, when it broke out among the German emigrants stopping at Liverpool *en route* for America. During the following month it appeared at several other seaports, and in July a number of cases appeared simultaneously in London, the earliest in each locality being among seamen or others recently arrived from the Continent. The weekly mortality then rose with surprising rapidity from 6 in the last week of June to 904 in the last week of July, and 1,053 in the first week of August, from which time it sank gradually. The total deaths reported in London as due to cholera from June to December were 5,548, half of which occurred in the second month of the epidemic. In its distribution, it differed remarkably from the preceding ones; then the districts south of the Thames suffered most heavily, but now its full force fell on the East End. Of the 5,548 deaths, 3,909 were in the eastern, 702 in the southern, 409 in the northern, 329 in the central, and 160 in the western districts. As before, it bore no relation to density of population; but, while in the metropolis generally the mortality seemed unaffected by the altitude, in the east and north-east, where the epidemic was most severe, it was, as formerly, strictly in inverse proportion to the elevation. But why did the epidemic fall so heavily on the eastern districts? The sanitary condition of London as a whole had indeed greatly improved, but there were many areas in the south and south-west not a whit better, perhaps even worse, than Whitechapel, Stepney, and Poplar. The experience of 1849 and 1854 had taught the important part played by the water-supply, and Mr. Ernest Hart turned his attention thereto, and despatched Mr. Netten Radcliffe to examine the sources and conditions of the local water-supply. Once more the polluted drinking water was convicted as the death-carrier to the population. He found that the sudden outburst which occurred in the fifth week of the epidemic was almost confined to an area conterminous with that supplied by the East London Water Company from their reservoir at Old Ford. In Whitechapel, which receives its water chiefly from that source, the mortality was 84 per 10,000 of the population, whereas in Shoreditch, supplied for the most part from the New River, it was only 10.7. Analysing the mortality of the population of Whitechapel living under conditions similar in every other respect, the deaths among those who drank the water from the East London works were to those who were supplied by the New River as seven to three. A closer inquiry revealed the following facts, which Mr. Ernest Hart and Mr. Radcliffe and Dr. William Farr concurred in considering as conclusive of the origin of the outburst. The open reservoir at Old Ford is in close proximity to the river Lea, and liable to pollution by soakage therefrom. On certain days, and under a peculiar stress of circumstances, water from this basin had been passed into the covered reservoirs without filtration; this was admitted by the engineer, and the live eels found in the mains left no room for doubt; and lastly, a short time before the water from this open and foul basin was supplied to the district, the river Lea, about 600 yards above the point where it approaches the reservoir, received the overflow of certain cesspools known to contain the fæcal discharges of cholera patients, who had just before arrived at Southampton by ship, and travelled onward to a house on the River Lea. It is true that objections of various kinds were urged against Mr. Radcliffe's view, but the weight of probability is indisputably in its favour. The identity of the areas of the outbreak and the particular supply was too marked to have been due to accident, or to any other cause than the pollution of the drinking-water. The final report on the subject, by Dr. Farr, fully confirmed the facts, and left no room for doubt.

PROXY-VOTING AT THE ROYAL COLLEGE OF SURGEONS.

Now that the question of the mode of election of the Council of the Royal College of Surgeons of England has been once more made the subject of much discussion, it is interesting to recall the opinions of members of the Council and others, as expressed in our pages, a few years since, when the still unsolved question was already a subject of debate. First of all, in June 1879 (see JOURNAL, vol. i, 1879, page 957), Sir Spencer, then Mr. Wells, in answer to a letter from Mr. Reginald Harrison, stated his opinion that any Fellow had a right to inquire of candidates for election to the Council their opinion on the question of proxy-voting. Sir Spencer Wells also observed that the Council (of which he was then a member), at a meeting held a week previous to the issue of his letter, had replied to a petition, saying, that no alteration in the by-laws could alter the present mode of election, that being settled by charter. The question remained: Should an alteration in the charter, to legalise proxy-voting, be asked for? Sir Spencer Wells expressed his readiness to promote a scheme by which proxy-voting could be arranged without abolishing the ballot. For the abolition of the ballot and voting by

post, which is not voting by proxy, would involve many evils. Clever circulars and stamped envelopes might lead many to promise their votes, even before they knew who all the candidates might be. After all the candidates had declared themselves, some such list as is now supplied in the library in July might be sent to every Fellow, and those who could not attend might return the list, marked, in a closed envelope, to be opened in the presence of the assembled Fellows. If such a plan would satisfy proxy-voters, Sir Spencer Wells believed that it could be introduced; but expressed his hope that, if made law, it would not prevent provincial Fellows from coming to the elections personally, whenever possible; for bodily presence is the best kind of influence. More than a year later, in December 1880 (see JOURNAL, vol. ii, 1880, page 944), Mr. Pollock turned attention to the present unsatisfactory method of election. He desired the legalisation of proxy-voting, with regulations to prevent the extension of the evil system of canvassing for votes. Mr. Pollock urged that each Fellow should be permitted to vote by proxy, if he so desired, but not that this privilege be granted under the existing law of election to the Council. The following alterations he deemed necessary for the purpose. First, there should be established a "committee of election," half of which was to consist of London Fellows, and the President and Vice-Presidents of the College should be *ex-officio* members; this committee should consist of about thirty members. Secondly, the names of this committee of election should be advertised, and it should be summoned, as soon as convenient, to fill any vacancy in the Council caused by death or resignation. Thirdly, the same committee should appoint the President and Vice-Presidents, the former to hold his office for five, the latter for two or three years. Lastly, the members of the Council should be appointed for seven years only; and any Fellow who had held the appointment should be eligible for the presidential chair, or for the office of Vice-President, at any period after the termination of his service on the Council. The committee of election should be empowered to elect the President and Vice-Presidents from any members of the Council, or any who may have served on the Council

This arrangement would give more power to the general body of the Fellows, and make the offices of President and Vice-President less a matter of mere seniority and rotation. A fortnight later (JOURNAL, vol. ii, 1880, p. 1034), Mr. Holmes wrote in approval of Mr. Pollock's scheme. He spoke of the power and intelligence of the provincial Fellows, and stated that it was really a vital question for the College that the proportion between London and country Fellows on the Council should be settled by some manageable consultative body, and not by the haphazard process of a general election; and for this object only Mr. Holmes was ready to welcome Mr. Pollock's scheme, which would satisfy the constantly claimed and thoroughly legitimate demand for a voice in the affairs of the College, desired by the country Fellows, and would tend to extinguish the undignified system of personal solicitation which prevails under the present mode of election. But the difficulty of procuring a change in the College charter would require, Mr. Holmes indicated, strong support on the part of the Fellows and members of the College. It was, therefore, recommended, that the Branches of the Association should be consulted on the broad outlines of Mr. Pollock's proposal. The change in the manner of selecting a President was very advisable. Mr. Holmes also suggested that the Council should have more control over the details of the examinations, especially with regard to the Board. The College, too, should, he thought, be relieved of some part of the expense of maintaining the museum, a corresponding diminution could then be made in the diploma fee. Mr. Holmes finally urged some consideration of a scheme of amalgamation with the College of Physicians and Apothecaries' Hall, but this matter has become altered in aspect since the Medical Act Amendment Bill has appeared on the horizon. Such are the opinions of these highly experienced, calm, and influential metropolitan surgeons with regard to proxy-voting and kindred topics, and at this moment it seems very opportune to recall them to the minds of our readers, before whom they were first laid.

THE COLLECTIVE INVESTIGATION MOVEMENT.

IT has always been the hope and aim of those who have promoted this movement in our Association that the work should become international, and that it should obtain general recognition as a means by which our knowledge of medicine may be greatly advanced. It appears that this hope will shortly be realised. The work of collective investigation, we are glad to see, has already been taken up by the medical profession in Germany and in America. In each country, it has been brought before important societies by leading men, and committees containing names of world-wide reputation have been appointed to promote the work. It is gratifying that, in each case, most graceful allusions were made to the example set by the British Medical Association to the medical profession throughout the world, of first inaugurating this new method of observation and research; in each case, it was determined to follow upon the lines laid down by our own Committee.

At a meeting of a leading Berlin medical society (Verein für innere Medizin), held on May 21st, the President, Professor Leyden, submitted a report drawn up by Dr. Fräntzel and himself, upon the subject of collective investigation, and suggested that an inquiry should be instituted concerning phthisis, of a very elaborate and exhaustive nature, including its hereditary transmission, the sanitary and other conditions under which it occurs, its connection with disease in the lower animals, its contagiousness, its curability, and its relation, if any, to acute pneumonia.

If we may venture to give our German brethren a hint, it would be that they should beware lest they "strive after the shadow and miss the substance" in this matter. The chief aim of collective investigation, as applied to the main body of the profession, should be to collect simple everyday facts that can be easily observed and recorded, and which are of value only from their number, and not from the importance of individual observations. The questions suggested for the profession in Germany are of a more intricate and difficult character, so that the value of each observation must be judged by the skill of the observer. It is not, however, our present purpose to discuss the proper aims of the work, which may be safely left to the excellent "Central Committee" which was appointed by the Berlin Medical Society on June 4th, when the proposal of the President was considered. It was decided to enter upon the work, but the subjects of investigation are, we believe, still under consideration. The Berlin "Central Committee" consists of the following distinguished men: Professor Frerichs (President), Drs. Leyden and Fräntzel, Herr Wernich, the librarian of the Society, and Drs. Litten, Ewald, Jastrowitz, Löwenstein, Kalischer, Zander, S. Guttmann, F. Strassmann, Boerner, and Lublinski.

In America, great interest has been evinced in the movement by Dr. Billings of Washington, Dr. Austin Flint, Dr. Gross, and many others. At the recent meeting of the American Medical Association, held early in June, Dr. Billings brought the matter forward for consideration, and the subject was referred to a committee, charged with similar duties to those of our own Collective Investigation Committee. Of this committee, Dr. N. S. Davis of Chicago is chairman. Dr. Davis is to be the editor of the new journal of the American Association.

We already, by the extent of our own Association, cover a wide area, throughout which observers are being co-ordinated, and induced to answer definite and precise questions with regard to various diseases as they appear, not only in the British Isles, but in Australia, in India, in Jamaica, in Egypt, and in all parts to which the medical officers of our army and navy are sent; among these officers alone, we number over 400 observers. In Australia, our Association numbers 240 members; and, in some of our Australian Branches, the work has already been taken up with enthusiasm. It now remains

for us to join hands with America and Germany, and we shall have a vast field for observation. Though each country will continue to work independently, it may be possible to arrange that similar questions shall be asked about each disease, and a comparison of the replies obtained may then be made.

Our own organisation has been in working order for some little time, and we are now looking forward with no little interest to its results, which will shortly be published. It is believed that they will do more than anything else can to prove that the labour bestowed on it has not been in vain, and that the system can produce results worthy of the efforts that have been made to perfect it

THE INDIAN MEDICAL SERVICE.

LETTERS continue to pour in on us from all parts of India, complaining bitterly of the treatment to which young medical officers are subjected in the matter of pay. It is quite impossible for us to find space for even a small portion of them; nor, indeed, is it necessary to print more than one of them, for, substantially, the tale they tell is the same. As we have already shown, it is only too obvious, first, that the young medical officers who of late years have entered the medical service of India have done so under a complete misapprehension of the terms of the service. One and all of them believed that what is called "unemployed pay," sometimes "unattached pay," and occasionally "doing duty pay," is only to be drawn during the brief period of penal servitude embraced between the time of arrival in the country and the passing the prescribed examination in a native language, known as the "lower standard." Secondly, it is evident that this so-called "unemployed pay," amounting to considerably less than 300 rupees *per mensem*, is not enough to maintain the young medical officers in the decent comfort essential to health in the climate of India; and that, if moved about from station to station, or sent on service, it falls so far short of their modest requirements as to land them in debt. This view of the case is stoutly supported by the most influential and the best informed newspapers in India.

Is it useless to appeal once more to the Government of India to treat its medical officers with more justice and liberality? Admitting the necessity of economy, on the score of justice to the people of India, we submit that, in the long run, to starve an important branch of the public service into open discontent is not true economy, but something very much the reverse, as will be seen by-and-by, when young medical men of the class required for service in the army of India realise more than they have hitherto done what their prospects are if they commit themselves to serve in that army. We think it right to add that the discontent, of which we have the evidence before us, seems entirely confined to medical officers of less than five years' service—a fact which makes it more easy for the Government of India to deal with it in the only way in which it can be dealt with, viz., timely and just concession to a reasonable request.

THE INFLUENCE OF CALOMEL ON DIGESTION.

DR. VASSILIEFF has found, from experiment, that the presence of calomel, at least up to the amount of five grammes, in the alimentary canal, does not interfere with the gastric juice, nor affect the triple influence of the pancreatic fluid on albumen, fat, and starch; on mixing the latter fluid with fibrin and calomel, the formation of certain products, indol, etc., always appearing as a result of prolonged digestion under normal circumstances, is prevented. The gases generated in the process of pancreatic digestion contain none of the usual products of fermentation and decomposition when calomel is present: sulphuretted hydrogen and pure hydrogen are absent, carbonic acid is diminished to from two to ten per cent.; whilst, under natural circumstances, from fourteen to fifty-four per cent. is found in the gases evolved by the action of the pancreatic fluid. In fact, calomel prevents all other changes in nutritious substances, save those produced entirely by the digestive secretions, decomposition and retrogressive processes in albumens being entirely checked. Calomel also prevents butyric acid fermentation, as Vassilieff found by experiments on cheese. The action of calomel readily explains the cause of the green colour of fæces passed by patients to whom that drug has been administered. Hoppe-Seyler rightly attributed this coloration to the presence of unaltered bile. Now, under normal conditions, bilirubin and biliverdin are changed, by a process of decomposition, into hydrobilirubin, and thus become no longer recognisable in the excretion; but this process is arrested by calomel, and the colouring agents, unaltered, give the fæces their peculiar bright green hue.

These researches are described at length by Dr. Vassilieff, in the *Zeitschrift für Physiologische Chemie*, vol. vi, page 112. He has found that this action of calomel is due to its power over the micro-organisms intimately associated with the process of decomposition which takes place in food during digestion. The drug prevents the development of micro-organisms in the digestive fluids, and also destroys any bacteria and micrococci already developed. This fact was proved first by artificial digestion. Vassilieff then made a series of experiments to find whether calomel had the same influence in natural digestion. Thirty grains of calomel were administered to a dog, in two doses, and the animal was killed a few hours later. Under all precautions, the contents of the intestines were then carefully analysed. Neither indol nor phenol could be found; and it will not be forgotten by those who study contemporaneous physiological research, that other agents—such as salicylic acid—prevent the formation of indol; and that pancreatic mixtures, formed from natural pancreatic juice, or infusions of pancreatic glandular tissue, undergo septic changes with very great rapidity, in spite of all precautions. None of these changes, nor any formation of indol, occurred in the food taken by dogs to which Vassilieff administered calomel. On the other hand, leucin and tyrosin were found in abundance. Under natural circumstances, these products of pancreatic digestion are so rapidly decomposed, that they cannot be detected in semi-digested food. Hence calomel has no influence on the action of the digestive fluids, but entirely prevents those true retrogressive and putrefactive changes whereby the highly unstable products of these fluids are rapidly decomposed, and micro-organisms quickly developed in great numbers. When calomel enters the alimentary canal, leucin, tyrosin, bilirubin, and other substances, remain unchanged, and bacteria are checked and killed.

THE Dean of Llandaff (Dr. Vaughan, Master of the Temple) will take the chair at Dr. Ralfe's address, at the Parkes Museum (Thursday, July 12th, at 8 P.M.), on the Hygiene of Schools.

THE Baly medal, for physiological research, has this year been awarded by the College of Physicians to Dr. Brown-Séquard. It will be remembered that the last recipient of this medal was no less a person than Charles Darwin.

AN epidemic of scarlet fever is at present prevalent in the village of Strathaven. Several families have been attacked, and within the past week, three deaths have been recorded.

WE are informed that Sir T. Spencer Wells, Bart., will open the Hospital for Women, Liverpool, on the occasion of the annual meeting of the Association; and it is hoped that the Countess of Sefton, who is patroness of the institution, will also take part in the proceedings.

THE President of the Association, the Treasurer, and other members of Council, are expected to be present at the annual dinner of the Metropolitan Counties Branch at Greenwich on Wednesday next.

THE French Lunacy Commission leaves France for England at the end of September. The Commission will visit Broadmoor and Perth, and afterwards go to Gheel, in Belgium, to study the question of the treatment of lunatics, with a view to a modification of the French law.

THE Boylston Prize Committee, appointed by the President and Fellows of the Harvard University (U.S.A.), have awarded this prize (two hundred dollars) to Dr. Braidwood of Birkenhead, for his essay on "Measles, German Measles, and their Counterfeits."

Two new districts of the Metropolitan Counties Branch have hately been formed. One, the West Middlesex District, including a large portion of the western part of London, with the west part of Middlesex, was formed at a meeting held last month at Notting Hill. At a meeting held at St. Alban's on Wednesday last, it was decided to form a Hertfordshire District, to include the county of Herts and adjacent portions of Middlesex.

PROFESSIONAL KNIGHTHOODS.

WE are informed that it is intended to confer the honour of knighthood on Dr. Pitman, Registrar to the College of Physicians, in recognition of his long and faithful services to that important body, and on Mr. Edwin Saunders, F.R.C.S., for many years dentist to the royal family, and a liberal benefactor of the public institutions connected with his profession.

A VICTIM TO PROFESSIONAL DUTY.

ON June 8th, the profession in Russia suffered a severe loss in the death of Dr. Dubrovo, the editor of the annals of the Moscow Chirurgical Society, who sacrificed his life while fulfilling his noble duty. On June 2nd, he was called upon to perform tracheotomy on a diphtheritic girl. He became infected by the sudden coughing out of diphtheritic membranes from the patient's larynx. Six days later, he died of diphtheria.

THE CHOLERA IN EGYPT.

NOT a single death has occurred from cholera among the British troops in Egypt. Abundant supplies of antiseptics were already on the spot, and additional stores have been forwarded. The epidemic is almost wholly confined to Damietta and the surrounding low-lying district, as shown by the telegrams published further on. As far as can be seen at present, the panic which has spread over Europe, and especially in France and Spain, is not justified by the actual amount of disease in Egypt. As regards the treatment of the outbreak if it spreads to the British troops, the same precautions will be observed as under similar conditions in India.

NOTCHED TEETH.

IN a paper read at the Société de Chirurgie of Paris, M. Magitôt lately called attention to the notching and erosions of the teeth in inherited syphilis, and on the relations of this disease to rickets. He thinks that the notch is not characteristic, and states that it is never found in some races frequently affected by syphilis, such as the Japanese and Peruvians. According to Magitôt, not only inherited syphilis, but also all other serious troubles of nutrition, may cause diminution in the number and size of the teeth, or delay in the period of their eruption, but never erosion. Most frequently, the latter is caused by certain nervous affections of early childhood such as infantile convulsions, especially when accompanied by general debility.

THE HOSPITAL CHAPLAINCIES IN FRANCE.

A DISCUSSION on the suppression of the hospital chaplains came before the Senate on Tuesday, and the eloquent appeal of M. Berenger against the proposal was the means of considerably lessening the victory of the Government. The order of the day, pure and simple, was voted by 136 against 120, the number of abstentions being significant. The reply of M. Waldeck Rousseau to M. Berenger, reveals the fact that the Cabinet is in a dilemma. The Minister of the Interior was obliged to rely on legal technicalities to explain away what the clerical party naturally consider an act of tyranny and aggressive Jacobinism. M. Waldeck Rousseau declares that the requests to see clergymen were not so frequent as had been alleged. He added that proper measures had been taken to insure the hospital patients receiving religious consolation, and that, if any alterations in the present arrangements were found to be necessary, the Government would see that they were carried out.

THE MEDICAL SOCIETY.

THE President (Sir Joseph Fayrer) and Council gave a *conversazione* at the new building of the Society on Monday last. The proceedings were unusually interesting, inasmuch as His Royal Highness the Prince of Wales, Prince Lucien Bonaparte, and other distinguished guests, were present. The band of the Grenadier Guards performed an excellent selection of music. The President, Council, and Fellows of the Society are to be congratulated on the *renaissance* of this old institution in which they are assisting.

QUARANTINE.

FOR some time past, the Foreign Office have, it is announced, been pressing upon the authorities in Egypt the desirability of relaxing the vexatious quarantine arrangements. Definite proposals were made to the effect either that the days of observation should be reduced to nine, which would practically free ships coming from India, or that vessels passing through the canal without touching at any point should have a clear passage. The negotiations, which seemed to be approaching a favourable conclusion, have been brought to a close by the outbreak of cholera,

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ROYAL COLLEGE OF PHYSICIANS.

THIS College gave a *conversazione* in Pall Mall on Wednesday evening. As usual at these meetings the attendance of visitors was large and distinguished. The guests, who were received by the President, Sir W. Jenner, K.C.B., Dr. Munk, and Dr. Lionel Beale, included Lords Chelmsford, Denman, and Crewe, Sir Spencer Wells, Sir W. Mac Cormac, Sir W. Smart, Bishop Macdougall, T. R. Hill, Esq., M.P., and others. At an early period of the evening, H.R.H. the Duke of Albany arrived, and was received and escorted round the College by the President and Censors. Among the many valuable and interesting objects of art were some Wedgwood chessmen, designed by Flaxman, lent by Dr. Braxton Hicks, and an antique Moscow enamel, lent by Dr. Alfred Meadows. The President exhibited portrait etchings of George Eliot, Stuart Mill, and Carlyle. Dr. Farquharson, M.P., lent the exquisite drawing of the Royal Academy, May-Pole Dance, by Linley Sambourne. The brilliant gathering was enlivened by the spirited playing of the band of the Royal Artillery, led by the Cavaliere Zavertal.

HEALTH OF DOVER.

THE medical officer of Dover reports (June 5th, 1883) that, during the last nine weeks, the deaths from zymotic diseases had been low, only eight deaths being recorded from this class, four of which were referred

to whooping-cough, two to croup, one to erysipelas, and one to scarlet fever. The death-rate from zymotic diseases during the last two months was equal only to 1.5 per 1,000. The solitary death from scarlet fever was that of a gunner in the Royal Artillery, which took place at the Castle, where ten cases of mild sickness from this disease occurred, during the month of May, amongst the children of the soldiers stationed there. During the present month no fresh cases have been reported, prompt measures having been adopted by the military authorities for the suppression of the outbreak. The town itself is happily free from this scourge, and if the same care continues to be exercised at the Castle, which has hitherto been manifested by the Deputy Surgeon-General and the staff medical officers, it is reasonable to expect that the present trivial outbreak will be properly nipped in the bud, without any risk of extension to the civil population.

SPECULATIVE INSURANCES.

A CORRESPONDENT writes from Wigan:—Speculation, in the form of insuring lives, exists to a much greater extent amongst the working classes in towns, than is generally believed in. A case recently decided in the Wigan County Court, brings out this fact very prominently, for it was given in evidence that there had been eight policies taken out on the deceased member's life, amounting altogether to the sum of £222 6s. Six of these were effected by persons who had no interest in this man or his family, excepting in his death. It is, however, a pity that an industrial company should have a loop-hole by which it can evade payment of these policies, owing to no "insurable interest" being at stake, for unfortunately, it is not due to the party effecting the insurance, so much as to the canvassing and forgery of agents employed by these offices, who take lives *ad libitum*, the signatures of the insured being often forged, and no medical examination made or required. That insurance companies should take the premiums weekly from poor people, knowing full well that they need not pay the claim, being protected by Act of Parliament, is contemptible in the extreme, and demands that some steps should be taken to compel them to pay all claims, or that there should be some law to prevent them from lending themselves to this trafficking in lives to the extent that at present exists.

THE WORKING MEN'S CONVALESCENT HOME.

A CONVALESCENT Home for the reception of London working men, requiring the benefit of a few days' rest at the seaside after their discharge from hospital, was opened by Mr. Samuel Morley, M.P., on Saturday, June 30th, at St. Margaret's, near Dover. The Home is in connection with the Hospital Saturday Fund, although not depending upon it for finances, and is capable of accommodating six or seven hundred persons in the course of the year. A large company attended the opening ceremony, which took place in a marquee near the building. Mr. Frewer, secretary, explained that the establishment of the Home was the result of the adoption of a report by a large meeting of working men, presided over by Mr. Morley, in Exeter Hall, last year. The purchase of the freehold and seven acres of land involved an outlay of £2,500. The total receipts amounted to £3,200, which was chiefly made up by a voluntary loan of £2,000 by Messrs. Hoare, bankers, and several handsome contributions. There was a balance of £400 in hand, which was considered barely sufficient to carry on the Home through the year. Mr. Samuel Morley said it was because the working men of London had made such a noble effort, that he felt so much pleasure in according his hearty encouragement in any steps they might take with a view to self-action. He valued this movement, because it was the means of bringing classes together. He wished it to be clearly understood that there was no real connection, so far as finance was concerned, between this institution and the Hospital Saturday Fund, as he understood there was a little anxiety lest the funds might be trenched upon by this experiment. A resolution that the institution is worthy of the best efforts of working men, and another seeking the support of employers of labour, proposed by Mr. Marriott, Q.C., M.P. for Brighton, were unanimously carried.

THE COLLEGES AND THE PROFESSION.

THE following advertisement from the *Hackney Express* has been forwarded to us. "The Metropolitan Self-supporting Dispensary, 60, St. John's Road, Hoxton, close to the new board-school. Dr. Meyers, M.R.C.S., L.R.C.P., L.M., registered physician and surgeon, attends daily; mornings, 10.30 to 1.15 o'clock; evenings, 6.30 to 9.15 o'clock; Sundays, 11 till 1 only. No letters of recommendation required. Patients may rely on the best medical and surgical advice. Fees: Advice and medicine, 6d., or 1s. per week; vaccination, two places, 6d.; teeth skilfully extracted, 6d. each. Special method of treatment of the liver and nervous diseases." It is held out as a special reason for maintaining the connection of the profession with the colleges at whatever cost, that in this way only can professional discipline be enforced, and a high standard of professional conduct maintained. Hitherto the profession has been chiefly indebted to the medical journals for their vigilance in noticing and influence in bringing public opinion to bear upon those who set at naught the recognised rules of professional conduct. May we not expect that the colleges will now show some of that interest in the proceedings of their Members and Licentiates, which they have long carefully exercised in respect to their Fellows? We would commend this case and cases such as this, to their consideration. It would be interesting and highly important to have an authoritative decision from them on the subject.

THE EMPLOYMENT OF THE INSANE.

IN his report on the South Yorkshire Asylum at Wadsley, near Sheffield, Dr. Mitchell, the medical superintendent, remarks that much might be done in promoting not only the bodily, but the mental health of the insane, if a greater number of men could be induced to employ themselves. Wanting the familiar stimulus of wages, however, many obstinately refuse to begin work, saying that they have never worked without remuneration before, and will not do so now. The practice of paying the working patients a small proportion of the value of their labour has been found to answer well in prisons and at the State Asylum at Broadmoor, and would no doubt meet with equal success in other lunatic asylums generally, were it fairly tried in them. The Commissioners in Lunacy, to whom Dr. Mitchell referred the question of paying patients a small proportion of the value of their work, doubt whether an expenditure under this head could be legally sustained, in the event of objection by guardians or others who have to defray the cost of maintenance.

VACCINATION INQUIRY.

RECENTLY, at the meeting of the Islington Board of Guardians, a letter was received from the Local Government Board, transmitting copies of a complaint from Mr. Wightman, of Hampton Road, Upper Holloway, in reference to the death of his child, and also a letter from Dr. Thorne-Thorne, one of the Board's inspectors in the case. Mr. Wightman stated that, on April 18th, his child was vaccinated by Dr. Cotton, one of the medical officers for the parish, and it died nineteen days afterwards. He did not hesitate to say that the operation of the public vaccinator killed his child. It was thoroughly well up to the time of vaccination, but four days afterwards it was taken seriously ill. Vaccination was performed by four cuts in the arm, which rose up in most cases, but sank down in this, causing a depression of the size of a shilling. When the parents expressed their opinion that the death resulted from vaccination, Dr. Cotton did not deny it, but certified for death from convulsions. Dr. Thorne-Thorne, in his report, said he found that the vaccination was performed with

lymph taken from another child, aged four months, but no lymph was taken from the child Wightman for subsequent vaccination. Dr. Cotton found some signs of fugitive erysipelas, but apparently attached no importance to them, seeing that the child had been vaccinated the week before. The child from whom the lymph was taken was found to be an exceptionally healthy child. The Board passed a resolution expressing satisfaction with Dr. Thorne-Thorne's report, and their opinion that no blame could be attached to the vaccination-officer.

EXHAUSTED RAILWAY SERVANTS.

WITH alarming frequency we have lately heard of exhausted railway servants failing to keep awake at their posts. Last week, on one of the chief and busiest railroads in the kingdom, a disaster was imminent, because an engine-driver and his fireman fell asleep on their engine, in front of the Irish mail. We are informed that an engine had taken an excursion train to Bangor, and was returning with a train of empty carriages to Chester. Just after midnight this train left Llandudno Junction all right, and should have passed Colwyn some minutes afterwards, but, as half an hour elapsed and its passing was not signalled, the officials became alarmed. The Irish mail from London to Holyhead was due to pass Llandudno Junction about one o'clock; but, happily, the driver saw the lights against him and stopped his train. An inspector went down the line, and found the empty excursion train at a standstill on the rails. The driver and fireman were fast asleep on their engine, and the fire in the fire-box was nearly out. Had not the block system been in perfect operation an appalling accident might have resulted, as the mail train runs at great speed from Holyhead to Chester, without stopping. It is reported that the driver and fireman who fell asleep misrepresented at Bangor the time they had been on duty, or they would not have been allowed to proceed on their return journey. This striking instance again makes clear the peril to which the travelling public is exposed from the risk of exhausted railway servants succumbing to fatigue at their posts. The legislature has long ago limited by stringent enactment the hours of toil in our factories, but it still leaves the work of the railway servant unrestricted. If railway companies were liable to legal process for overworking their servants, and not merely for proved damages arising in consequence of such overwork, and if efficient care were taken to render misrepresentation impossible on the part of railway servants, as to the time they have been on duty, it is not improbable that railway "accidents" might become less frequent. With increasing traffic on our railroads, and with increasing speed in trains, the points to which we have referred urgently demand general and complete revision and safe adjustment.

CHOLERA AND DRINKING WATER.

THE relation between a polluted water-supply and enteric and choleraic disease receives fresh confirmation from almost every inquiry which is undertaken by competent authorities into outbreaks of typhoid fever and choleraic diarrhœa. The last official report of Mr. W. H. Power to the Local Government Board, on an epidemic prevalence of typhoid or enteric fever in the Hitchin district, which is just issued by the medical department of the Board, can be summed up once more in the words "pollution of the water-supply." The most direct relation is traced between the intermittent circumstances of pollution of the public water-service, owing to accidental difficulties, and the outburst of fever in the middle of January. The circumstances remind one somewhat of the history of the introduction of cholera into London on the occasion of the last outbreak at the East End. On that occasion, it was shown clearly enough that cholera was introduced into London and the epidemic was occasioned by the temporary disuse of certain filter-beds by a water company while alterations were in progress, and the taking of the water directly from the river Lea at a time when it was being polluted from a house in which resided a cholera patient who had been brought by ship to Southampton, and sent on to the banks of the Lea. So, at Hitchin, the special opportunity for pollution of the public water-supply consisted in the circumstance that, at the pumping station, an 8-inch overflow pipe, contrived to convey surplus water from the receiving-tank and pumping-well into the river, permitted, on occasion, reflux of the river-water into the tank. "Discovery of this defect," says Mr. Power, "in January last, was not only startling, but was in a manner satisfactory to the sanitary authority, for it went far to explain a difficulty that had for some time troubled persons concerned with the waterworks, viz., that without obvious cause, suddenly and at uncertain intervals, the water in the pumping-well had been apt to become turbid." This occasional turbidity of the water-service required coincidence of two separate conditions in reference to the level of the water in the river and in the tank, but this coincidence was not unfrequently present, and on these occasions the turbidity of the water was observed. It is significant to notice the vast importance of such turbidity in connection with the reports of Professor Frankland as to the turbidity of the Thames water-supply for the drinking of Londoners, and the frequent turbidity of town waters generally. Chemical analysis and physical analysis can only indicate the presence of this slight impurity, due to what Professor Frankland technically describes as "previous sewage contamination." The most recent researches of Professor Angus Smith, however, sufficiently indicate that the "previous sewage pollution" is not sufficiently indicated by ordinary physical and economical methods, and such cases as these at Hitchin, and such incidents, which ought always to be kept fresh in our memory, as that of the introduction of a destructive epidemic of Asiatic cholera into London, by the mere accidental pollution, during three days, of the water-supply of one company, ought to inspire the utmost caution in the use of water subject to previous sewage-contamination, until careful precautions have been taken to scrutinise the antecedents of our drinking water. This peculiar carefulness is especially necessary during seasons such as this, when the soil and the water, and the relative lowness of the rivers, afford special opportunities for the rapid development of any poisonous germs contained in the water, and at a moment when we are threatened with the possible introduction of choleraic disease from abroad, and when, owing to the character of the season, a great deal of summer and autumnal diarrhœa is undoubtedly to be expected.

PRECAUTIONS IN SEA-BATHING.

HOWEVER suitable, as a valuable tonic restorative, bathing in the open sea may be in the case of any particular person, the good effects of a sea-bath may be missed if the bather do not give heed to certain well ascertained rules which ought to guide his proceedings. The good effects of a plunge in the sea are in proportion to the vigour of the reaction which is excited in the bather's body by the shock of immersion. The more marked and prolonged the reaction the better; it should be the bather's object, to quote the words of an eminent physician, to secure the greatest possible amount of stimulation, and to ensure as long as possible the persistence of the increased vigour of nutrition. The time of bathing is important. It is a common error to suppose it is best to bathe before breakfast. The very robust may possibly bathe then with impunity, but, even for them, the practice of plunging into the sea in the early morning, fasting, is not free from risk; while, for the weakly, such course is positively prejudicial. After the long fast of the sleeping hours, the vital functions fall to a relatively low ebb, and they are liable to undue depression from such a severe shock as a cold sea-bath. Neither ought bathing to be practised immediately after taking a meal; it is then likely to cause troublesome symptoms by suddenly arresting the digestive processes. Probably the best results are obtainable

from sea-bathing at a time midway between breakfast and luncheon, that is, from two to three hours after the early morning meal, when the body has been nourished after the fasting of the night, and when the stomach has had time in great part to dispose of its contents. A bather should never enter the sea whilst under the influence of emotional excitement; if the nervous force be unduly concentrated in any single direction, a sea-bath is likely to produce nervous depression rather than stimulation. A bather should not stand hesitatingly by the water's edge until he becomes cold and shivering, but plunge boldly into the sea at once. It is another popular error to suppose that the skin should be cooled before entering the sea; if the bather be chilled just before his bath, circulatory depression rather than reaction is apt to arise, leaving him with a sense of coldness and weakness rather than of warmth and invigoration. To get its best results, a sea-bath must not be too prolonged. It has been laid down as a rule by a well known authority that no one bathing for health only should remain in the open sea for more than ten minutes. Even a shorter immersion than this will probably best suit all but the strongest persons. The bather must not stay in the sea until the reactive stimulation of his bath has passed away. His object ought to be to excite an energetic reaction, and then to leave the water. From too long immersion in the open sea, the skin becomes unduly cooled, and the circulation and nervous system depressed, so that exhaustion, *malaise*, and shivering are apt to arise, instead of a feeling of renewed vigour, well-being, and warmth.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

THE Annual Report of the Conservator, Professor Flower, to the Museum Committee, has just been issued. It contains details of the complete redecoration of the interior of the building, undertaken last year, and of the rearrangement of part of the osteological collection, so that the fossil and recent bones are now incorporated in one series. This improvement had been recommended by Professor Owen, and approved of by the Museum Committee in 1842; but it was not until last year that the Conservator could find a convenient opportunity of carrying it into effect, during a thorough clearing out of the bones in the wall-cases. The first volume of the new catalogue of the pathological series has been issued since the last report; and now the second, containing the series of morbid anatomy of the blood, and injuries and diseases of the organs of locomotion and the bones and joints, is printed, and will be ready for distribution in a few weeks. It has been carefully revised, in passing through the press, by Mr. Eve. A portion of the third volume is already in the printers' hands. The specimens themselves are undergoing a process of remounting after new and improved methods. No fewer than ninety new specimens have been added to the pathological series, including many tumours, prepared so as to be really instructive to visitors to the museum, and not mere records of surgical triumphs and scientific labour. The activity of gynæcologists is once more manifested by a fine display of uterine and ovarian specimens. Mr. De Lautour sends from New Zealand a second preparation illustrating the remarkable taste of performing operations in abdominal surgery on live sheep, in which the Kea parrot (*Nestor hypopolius*) delights to indulge. The specimen sent a few years ago by Mr. De Lautour proved that the rapacious bird was an expert colotomist; this second example shows that it understands how to perform gastrostomy. Mr. Carr Roberts's specimen of tubo-uterine gestation is the first of its kind in the College collection, and serves to complete the valuable series illustrating extra-uterine pregnancy. At the suggestion of Sir James Paget, it has been decided to form a collection of pathological drawings and photographs, as accessible to visitors as are the specimens themselves; and, in order to support the scheme in a practical form, Sir James Paget has generously presented to the museum a set of thirty-six boxes of appropriate size and construction, in which the drawings may be safely kept. The chief feature in the physiological department is a very interesting series of dissections, made by Mr. Pearson to illustrate Mr. Power's course of lectures on the "Lacrymal Apparatus and Accessory Organs of the Eye," prepared mostly from animals procured for the purpose by the lecturer. The osteological series falls short of its usual display, owing to the articulator's time having been much taken up in the removal and replacing of skeletons during the alterations in the buildings, so that he has had little time at his disposal for the preparation of articulated skeletons; but there are some valuable new skulls of savage races on view. The annual show of these specimens will be open till Monday, after which they will be at once transferred to their proper places in the museum.

RENAL FORM OF TYPHOID FEVER.

DR. DIDION has chosen this subject for an inaugural dissertation, and comes to the following conclusions. Typhoid fever produces a renal congestion, which plays an important part in the course of the disease. Albuminuria is almost constant, but generally slight and temporary; when abundant, it is a sign of true nephritis. The renal inflammation is both parenchymatous and interstitial, and produces certain characteristic symptoms, such as asthenia, stupor, dryness of tongue, œdema of the face and legs, lumbar pains, cutaneous eruptions (pemphigus, ecthyma, boils), and an alteration in the urine, which has a reddish colour and the odour of boiled bread; in the deposit, red and white blood-corpuscles are found, as well as casts; the urine contains a large quantity of albumen. The diagnosis can easily be arrived at by the above-mentioned symptoms. The termination is often fatal, either from asthenia or uræmia. As to the treatment, Bouchard recommends carbolic acid and the salicylates, Polli the sulphites, Klebs the benzoate of potash. Leeches, mustard poultices, and cupping in the lumbar region are useful; but blisters, even with the addition of camphor, must be avoided. In certain cases, the disappearance of the symptoms is accompanied by abundant diuresis, which ought, therefore, to be favoured if possible; but all diuretics are not equally good, those which possess irritating properties must be avoided. The best in these cases is milk, pure or mixed with water. Whatever may be the way in which it acts on the kidneys, it is always well borne, and its action is double; it increases the secretion of urine, and hastens the elimination of toxic principles, without producing any irritation, even in the most acutely inflamed kidney. Subcutaneous injection of pilocarpine might perhaps be useful; in one case, when the skin was dry and burning hot, Dr. Didion injected twice daily one-sixth of a grain of pilocarpine, and under its influence the skin became moist and abundant sweat was produced; the tongue also was less dry than before; the temperature fell in two days from 105.8° to 98.6° F.; but three days later the patient died, after the temperature had once again reached 104° F. New investigations are necessary before we can arrive at definite conclusions. As for the cold baths, Gubler thinks that they are contraindicated in case of nephritis, but Libermann considers their use as surely beneficial in spite of it. Several patients who had been subjected to that treatment did not complain of any inconvenience, and cold lotions rapidly applied to the trunk and limbs with a sponge seem to relieve the patient, lower the temperature, and re-establish the functions of the skin. All these advantages must be weighed against the danger of a renal congestion; but further experience alone can show which treatment is most advantageous.

THE MEDICAL SERVICE OF BRITISH GUIANA.

THE part taken by the BRITISH MEDICAL JOURNAL, in common with the medical press of England generally, on the unhappy relations which, for some time past, have existed between the authorities of British Guiana and the medical services of the colony, has given deep offence to the Government there. In a discussion that

took place on the subject at the Court of Policy of British Guiana, the Governor, Sir Henry Irving, and the Colonial Secretary, characterised the statements of this JOURNAL as "slanderous," and we were accused of writing on information derived from "discarded" and "worthless" members of the medical service, and promoting discontent and insubordination. It seems necessary to remind the local officials we have named, that this JOURNAL is the property and organ of the British Medical Association; not the least of the duties which this powerful organisation has to perform, is to watch over and protect the interests of the medical profession over the whole extent of the British Empire, and it is mainly by means of this JOURNAL that this duty is performed. It is due to ourselves, and the Association we represent, to say to those who have misrepresented our action and our motives, that, from first to last, the BRITISH MEDICAL JOURNAL has held no communication with, and derived no information from either "discarded" or "worthless" members of the profession in British Guiana or elsewhere. It is not, and never has been the practice of this JOURNAL to lend its pages for the unworthy purpose of fomenting discontent in any body of public servants, whether they belong to the medical profession or not. We have derived the information on which our remarks were based from sources open to the public, and from the accounts furnished to us by honourable men in no way connected with the profession, whose sense of justice was outraged by the contumacious treatment to which a body of indispensable public servants has been subjected, and who have been impressed by the way in which public interests have suffered thereby. We are not going to repeat, or dwell on, the facts which are now hardly in dispute, the insolent and offensive tone of the Government officials to its medical officers, the way in which they have been censured for not doing things that they have been forbidden to do by previous orders, as in the case of Dr. Moseley, now under appeal to the Colonial Office; the system of saving money at the expense of the medical officers by calling them "acting officers," and withholding nearly half their pay, and so on. Can our readers suppose that a service can be in a wholesome condition in which, as shown, not by a "discarded" or a "worthless" member of the service, but by the Hon. Mr. Russell, a member of the Court of Policy, in a speech made in the presence of the Governor and the Colonial Secretary, between the years 1873 and 1881, out of twenty-five medical officers, only eleven remained in the service in the last named year, the rest having either died or resigned, or been "superseded?" In the discussion which followed Mr. Russell's speech, both the Colonial Secretary and the Governor took part. The speech of the first named official was very remarkable, and it throws a flood of light on at least one of the grievances which has gone far to make service under the government to which this gentleman is secretary intolerable, viz., official insolence. After charging the medical press of London, in the manner already referred to, with making public the complaints of discarded servants, and giving a glowing description of the many and great advantages of the medical service of the country—a description, by the way, which we observe to be largely discounted by leading articles very temperately expressed in the local press—the Secretary goes on to trace the unhappy condition of the service to the fact that the doctors are overpaid! Who and what are they, says this gentleman, in effect, that they should receive so much more money than they deserve, or is good for them? "Men who, when they leave the hospitals, are glad to get £60 a year, to sleep in an attic, and take their meals in the nursery with the children." Have we written a line on the subject of this unhappy body of men and their treatment, half so well calculated to restrain those with an atom of self-respect from entering this service, as what we have just quoted? Our readers will be still further amused when they learn, from this gentleman's speech, that his scheme for rendering the service popular is mainly based on a considerable reduction of pay, more "discipline," or, as he elegantly expresses it, "putting the foot of Government down more firmly," or, in other words, trampling the colonial doctors under foot. Need we say more? After this, can either this Colonial Secretary, or his master, the Governor, say, with truth, that it is the medical press alone that prevents respectable professional men from seeking a career in British Guiana?

THE HOME AS A SANITARY UNIT.

No class have done so much for sanitation as the medical profession, and, indeed, it is mainly by their efforts, aided immediately in mechanical matters by the gentlemen who describe themselves as sanitary engineers, that the progress has been effected in public and private sanitation which has resulted in the annual saving of many thousands of lives. This addition, we have lately been told, on the highest authority, amounts to a gain of two years added to every individual life, in relation only to the progress of the last ten years. It must, however, always be remembered, and this is a lesson which medical men, who are largely occupied in the homes of the people, as well as being public advisers of local communities, can enforce better than any other persons, that it is to the work of the individual, and to private initiative, that we must look for the major part of the further victories yet to be won. The State can do much in the way of regulation and assistance, but it is for the householder, for the capitalist, for the philanthropist, for the working man, each in his own class and in his own capacity, to realise the vast importance of helping himself and helping his neighbour in this great work. Sir Thomas Brassey, speaking to the Working Men's Club and Institute Union, rendered an efficient service by bringing prominently under the notice of this influential union of working men the fact that, while it is admitted that sanitary matters ought properly to engage the attention of Parliament, yet too much ought not to be expected from the action of the State; for, while the State can ensure obedience to sanitary laws, it cannot raise the standard of living of a nation. The total loans advanced under the Artisans and Labourers' Dwellings Improvement Act of 1857 cannot be compared with the amount expended by the building societies of England and Wales. Between the returns of July, 1880, and those of May, 1881, the aggregate income of those societies had increased from £16,417,000 to £18,694,000, and the aggregate assets from £31,864,000 to £37,000,000; and those statistics represent a most gratifying amelioration in the homes of the people, compared with which the exertions of the State must have produced an insignificant result. As regarded the condition of the working classes, Sir Thomas said that, taking into view the rate of wages, the hours of work, the cost of living, and the general abundance of employment, the position of the British workman at the present time compared favourably with that of working people, even in the United States. There was no reason to apprehend a reduction of wages in this country, and he would be sorry to see anything which could lead to a retrograde movement. On the contrary, he cherished the hope that the increase and the improved application of capital might admit of additions to the reward of labour, but, at the same time, it was his duty to point out that the industrial position of this country was threatened in many quarters by those who were formidable rivals in skill and energy.

THE CONTAGIOUS DISEASES ACTS.

THE *Western Morning News*, referring to the discussion on these Acts, and subsequent resolutions passed at the South Western Branch, says:—

Surely no rational man can believe that a large and important body of professional gentlemen, such as the South Western Branch of the British Medical Association, can be utterly in the wrong when they are absolutely unanimous. Yet we find this body passing a resolution condemning in unqualified terms Mr. Stansfeld's motion, and deploring the action of the Government thereon, alike in the

interests of health and morality. They are medical men who are daily brought into contact with the evils they deplore, and who have watched the result of the Acts and of the practical abrogation of them that has lately taken place. Are they all and altogether wrong—deceived or deceivers? We knew how signally reformatory the operation of the Acts have been, but were scarcely prepared for Mr. Square's startling statement, that of the patients received into the Royal Albert Hospital forty-five out of every hundred had been induced to refrain from returning to an evil life. The existing prejudice has very largely resulted from two causes. One is that the reclamatory influences, although exerted by agencies called into existence by the Acts, have not been specifically mentioned in the Acts themselves. This is a blunder and a blot, and has given colour to the base fabrication so often put forward that the Acts exist only to provide means for the gratification of sinful indulgence. Another fact not taken into account is this. Knowing the prejudice which existed against the agents of the Acts and all their operations, the agents have been accustomed to work by circuitous means and to rescue through the agency of third parties. It is clear that no law can be efficacious which is not stringently compulsory. But if, while effectively providing for the sanitary side of the question, the Acts could be so remodelled as to include vigorously repressive measures, and definitely provide for reformatory work, half the genuine objections to the Acts would vanish, and the spurious sentimentality of the remaining opposition would become palpable. Without compulsion in some form there can be no repression of disease, and without moral reform compulsion would not be tolerated. The surgeon and the philanthropist must go hand in hand; they may have hitherto done so in fact, they must now do so in avowal. Whether compulsion be applied as heretofore, or by enlarging the number of the diseases included in the schedule of the Act which punishes the wilful or negligent spread of fevers, etc., is a question rather of detail than of principle. Perhaps an extension, in the direction indicated, of the laws for preventing the propagation of other infectious diseases would be the easiest and surest solution of the grave difficulty Mr. Stansfeld has created.

HOSPITAL ACCOMMODATION FOR THE INFECTIOUS SICK.

THE recommendations of the Royal Commissioners, contained in their report, that country hospitals should be provided for the reception of mild and convalescent cases of small-pox occurring in the metropolis, and that, so far as practicable, severe cases should be "sent down the river Thames to hospitals in isolated positions on its banks, or if this be found impracticable, to floating hospitals on the river itself," have met with the approval of the Local Government Board, who have advised the Managers of the Metropolitan Asylums District to provide one or more floating hospitals in addition to the *Atlas*, fifteen miles or more below London Bridge; adding that "probably land, at no great distance from the hospital-ships, could be secured for the erection of buildings to which convalescent patients could be transferred." The managers considered it necessary to supplement floating hospitals, etc., by the establishment of convalescent or other hospitals on land within a reasonable distance of the metropolis, a step which the great success that attended the Darenth experiment would amply justify; and they empowered their General Purposes Committee to institute inquiries with the view of ascertaining where such sites could be obtained. Dr. Dudfield refers in his report to the satisfactory progress that has been made in these matters, and to the fact that preliminary arrangements have been made for securing by purchase, with the approval of the Local Government Board (1) the "twin-ship" *Castalia*, as an additional floating hospital capable of being fitted for the treatment of a large number of small-pox patients, for the sum of £5,500; (2) land to the extent of eight and a quarter acres at Long Reach, where the hospital-ships are moored, for the sum of £1,000; and (3) the Gore Estate, consisting of 134 acres of land, adjoining the managers' property at Darenth, for the sum of £13,175. It is proposed, should the vessel be purchased, to moor her end-on to the *Endymion*, which would then serve as an administrative ship for both the *Atlas* and the *Castalia*. It is proposed to establish a hospital for convalescent small-pox patients on the above-mentioned Gore Estate, which is within easy distance of the river and the hospital-ships at Long Reach. The land at Long Reach, proposed to be acquired, is immediately abreast of the hospital-ships, and, as there is here but little foreshore, the water is rapidly deepening. At comparatively little cost, a suitable pier could be constructed (with a dummy rising and falling with the tides), from which convalescent patients from the ships could be disembarked at any time, and be conveyed by road to the contemplated hospital at Darenth. The land will also be suitable for the erection of buildings, if any be hereafter required in connection with the administration of the hospital-ships. The contemplated arrangements thus indicated will suffice for the provision of hospital accommodation for a very large proportion of the small-pox cases occurring in the metropolis, even in time of tolerably severe epidemic, should the estimate of the Hospitals Commissioners prove correct, viz., that provision will be required for "2,100, or by special exertions, 2,700 patients;" seeing that it is intended to provide at each of the existing hospitals beds for a certain number of patients "too ill to take a long land journey." It is estimated that from 400 to 500 such cases would have to be provided for in a severe epidemic, the remaining cases, "being probably more than three quarters of the whole number" of 2,100, being "provided for in two or three more country hospitals." The main difficulty hindering the collection of all cases capable of removal out of town, in the ships and at Darenth, is the distance that separates a large portion of the metropolis from the river. For the cases occurring in the northern parts of London, probably an additional hospital, at some distance from the metropolis, will have to be provided. Patients that can be conveyed to the river will doubtless be provided for at Long Reach in the ships, and at Darenth in the proposed convalescent hospital. Dr. Dudfield observes that the above proposed arrangements are in complete harmony with the views which, in the early part of 1881, he brought under the notice of the managers, and of the Local Government Board, recommending that mild and convalescent cases of small-pox should be removed for treatment to hospitals or *sanatoria* outside London.

SCOTLAND.

A FATAL case of poisoning by a druggist's assistant is reported from Partick, a suburb of Glasgow. The sad occurrence resulted from the substitution of a wrong drug for one in the prescription and, as a *post mortem* examination proved that this was actually the case, the assistant has been arrested on a charge of culpable homicide.

MORTALITY IN THE DISTRICT OF STRATHSPEY.

DURING the month of June, in the district of Inverallan, which (including Grantom) has a population of 2,746, not a death was registered. The low death-rate of the district on one occasion formed the subject of a paper by the late Professor Adamson, of St. Andrew's.

DISTURBANCE BY EDINBURGH STUDENTS IN A THEATRE.

LAST week, a painful occurrence took place in Edinburgh, in which, unfortunately, a number of students of medicine misconducted themselves. For several years, numbers of the junior students have, on a few occasions, attended the theatres, and collectively have made matters in the gallery rather lively. These have sometimes been tolerated good-naturedly, but on some occasions, when there was a considerable portion of the "rough" element present, matters have gone unpleasantly far, and this was what occurred in the Theatre Royal last week. Matters there went to such an extent, that several students, mostly medical, were apprehended and locked up for the night. They were tried at the police-court, found guilty, and fined heavily. The University authorities were compelled to take notice

of the affair. A thorough investigation was made, and, as a result, two students (one of law and one of medicine) have been rusticated for a summer and a winter session, while five others have been rusticated for the summer session. As evidence of the regret of the students in the University at this unhappy occurrence, in one day, nearly 300 of them signed a letter to the lessee of the theatre expressing their regret, and repudiating, on the part of the mass of students, such misconduct as had been witnessed in the theatre.

OUTBREAK OF MEASLES.

MEMBERS of the profession who have visited Orkney and Shetland, will remember a lonely island they passed between the two places mentioned, called the Fair Isle. It has lately experienced, among its inhabitants, a severe outbreak of measles, which is stated to be the most severe that has occurred there, so serious indeed that labour has been largely suspended. At Lockerbie there is also an outbreak of measles, which has effected the children to such an extent that it is alleged 200 out of 500 have been prevented from attending the public school. One death has been recorded, and several of the cases are such as to cause anxiety.

THE EDINBURGH ROYAL ASYLUM AND THE SUBURBAN RAILWAY.

AN important case was last week decided by arbitration, in Edinburgh, by Lord Kinnear, against the managers of the Royal Edinburgh Asylum, Morningside, who had raised an action against the Edinburgh Suburban Railway (at present under construction) for damage done to the Asylum by the construction of the railway. The sum of £17,550, with interest for nearly two years, was asked for by the managers. The railway company denied having done any damage. The merits of the case were fully entered into, and as a result, Lord Kinnear, as oversman in the arbitration, has issued his final award, which is that the managers of the Asylum are not entitled to compensation.

REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General for the week ending June 23rd show that the death-rate in the eight principal towns was 25.3 per thousand of estimated population. This rate is 2.9 above that for the corresponding week of last year, and 0.8 above that for the previous week of the present year. The lowest mortality was recorded in Leith, viz., 17.6 per thousand; and the highest in Glasgow, viz., 29.6 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.6 per thousand, or 0.8 below the rate for the previous week. Measles, whooping-cough, and scarlet fever, were the most prevalent of the epidemic diseases, the mortality from these diseases being most marked in Glasgow. There were 5 deaths from measles in Greenock. The deaths from acute diseases of the chest numbered 88, being 21 less than in the previous week. The mean temperature was 52.1°, being 2.2° below that of the week immediately preceding, and 3.1° below that of the corresponding week of last year.

FATAL CASE OF CHLORAL-POISONING.

A DEATH is reported from Glasgow arising out of the dangerous, and, we fear, too prevalent custom of resorting to the use of opiates and hypnotics as a remedy for sleeplessness, without the sanction of medical advice. The deceased had for some considerable time been in the habit of using laudanum to procure rest, but, on the recommendation of a friend, he made trial of chloral instead, and he provided himself with some of the drug. He retired to rest in his usual health, but in the morning was found dead in his bed, and circumstances seemed to point to his having taken an overdose of the substance. Instances such as these should warn the general public against resorting to the use of medicines of whose *modus operandi* they cannot but be ignorant, and which may be quite unsuited to the individual case; while they point also to the need of some further restrictions being placed on the sale of drugs such as chloral, which are at present vended to the general public in a manner fraught with much danger to the community.

THE UNIVERSITIES (SCOTLAND) BILL.

WHETHER the work of the present session will allow of this measure being passed seems uncertain. The opposition to the Bill still continues strong in Scotland, although the withdrawal of the clauses which provided for the abolition of St. Andrew's University has done something to lessen that feeling. A memorandum issued by the committee of the General Council of Glasgow University shows, however, that that seat of learning disapproves entirely of the proposed legislation, on the grounds that the principles of the Bill are wrong, and that it will be unwise to confer on a body of commissioners the power of making those changes in the constitutions of universities, which at present can only be done by Parliament Further, the memorandum points out how inadequate the financial proposals of the Bill are, and that the contemplated grant should not only be increased, but should be placed on a more equitable footing. Writing on this subject, a correspondent of one of the daily papers gives some figures which are of interest He points out that the total number of students attending the four Scotch universities during the past year was 6,612, while in the four English universities last year it was 6,081. Taking the population of Scotland at 3,734,000, and that of England and Wales at 25,968,000, the students in the former case are one to every 564 of the population; and in the latter, the university attendance is equivalent to one in 4,270 of the population. It is clear, therefore, he says, from these figures, that the Scotch give a much larger support to their universities than the English do, and that, judged by the population, there are nearly eight times as many university students north of the Tweed as there are south of it.

THE VITAL STATISTICS OF SCOTLAND.

THE publication of the report for last year of the Registrar-General gives an opportunity of ascertaining the vital condition of Scotland and of any special features in the social and economic history of the country. In 1882, throughout the whole of Scotland, there were 126,182 births, 72,966 deaths, and 26,574 marriages, which figures, on an estimated population of 3,785,400, indicate a percentage of 3.33 births for every hundred, 1.93 deaths, and 0.70 marriages. This birth-rate is the lowest since 1855, while the death-rate is the lowest on record. The low average of births arises from a falling off in the small towns and rural districts, for the large towns still seem to keep up that steady increase in the population which has been noticed for some years, Greenock heading the list with 400 births in every 10,000 inhabitants, while Edinburgh was the lowest with 314. Illegitimacy still unfortunately shows an increase over the previous year, there being 10,550 births, giving a proportion of 8.4 per cent. The county of Banff seems the chief offender in this respect, the percentage being 16.7. An examination into the relative proportion of the sexes shows that the tendency recently observed in England to a decrease in the male births is making its appearance in Scotland, where, last year, the proportion of boys to girls fell from 106 in the previous year to 104.8; that is to say, that for every 100 girls born in 1881, there were 106 boys, whereas in 1882 the proportion was 104.8 boys to 100 girls. During last year, only two deaths took place from small-pox in the principal towns of Scotland; and the vaccination returns show that, of the 126,277 children born in 1881, as many as 111,008 were successfully vaccinated, while 1,586 had their vaccination postponed, and 150 were declared to be constitutionally unsusceptible of the vaccine virus. While the small towns and rural districts are responsible for the lower birth-rate, they must be credited with having kept the death-rate at the lowest point it has ever reached in the statistics for

Scotland, the numbers being 193 for every 10,000 of estimated population. The principal towns, taken by themselves, display a rate slightly in excess of the previous year, the mortality of Paisley being highest with 257 per 10,000, and Glasgow only a shade better with 253. There seems no reason to doubt that a high marriage-rate is a very fair indication of the industrial prosperity of the country; and if this be taken as a standard, the record of 1882 is satisfactory, and speaks of a decided improvement in the social condition and surroundings of the people. The increase is most marked in great industrial centres like Glasgow, Dundee, Greenock, and Leith. A note, appended to the report of the Astronomer-Royal, as to the connection between the death-rate and the prevailing weather, completes a document which furnishes the only reliable and precise statistics that can be made available for ascertaining the real condition and tendencies of the country and its population.

HEALTH OF THE PRINCIPAL SCOTTISH TOWNS.

DURING the month of May there were registered in the eight principal Scottish towns the deaths of 2,780 persons, of whom 1,445 were males, and 1,335 were females; after making due allowance for proportional increase of population, this number is 112 above the average for the same month during the preceding ten years. The respective mortality of each town was, per 1,000 of its population, in Edinburgh and Aberdeen, 19; in Perth, 22; in Leith, 24; in Greenock and Paisley, 27; in Dundee, 29; and in Glasgow, 32. Of children under five years of age, the deaths of 1,241 were registered, equal to 44.6 per cent. of the entire mortality, and the respective percentage of such deaths in each of the towns mentioned, was in Aberdeen, 29; in Perth, 30; in Edinburgh, 36; in Paisley, 37; in Dundee, 39; in Glasgow, 50; and in Greenock and Leith, 52 per cent. Zymotic diseases contributed 545 deaths, or 19.6 per cent. of the whole, this rate was, however, exceeded in Leith and Glasgow. Measles proved the most fatal, having 7.6 per cent. of the entire mortality, while in Glasgow this disease alone caused 12.0, and in Greenock 8.1 per cent. of all deaths. Of 23 deaths due to fever, 5 were registered as typhus, 17 as enteric, and 1 as simple continued fever. Whooping-cough caused 154 deaths; scarlet fever, 46; diarrhœa, 42; diphtheria, 23; croup, 19; metria, 6; and dysentery, 3 deaths. In Leith and Dundee, whooping-cough was very fatal, having contributed 10.4 and 8.9 per cent. of all the deaths in these places respectively. To apoplexy were attributed 85 deaths; to paralysis, 77; to cardiac diseases, 162; to hydrocephalus, 87; and premature birth-debility, 64 deaths. Phthisis pulmonalis alone caused 274, or 9.9 per cent. of all the deaths, and inflammatory affections of the respiratory organs (other than those already mentioned) contributed 575 deaths, or 9.9 per cent. of the entire mortality. Of 96 deaths due to violent causes, five were of suicidal origin. Nine individuals died who were over 90 years of age, of whom 7 were females, and the oldest of whom, aged 103, was, of course, a widow. During the month, the births of 2,024 male and 1,932 female children were registered in these eight towns. As to the meteorological conditions prevailing during the month of May, the mean barometric pressure was less by 0.031 inch, and its monthly range less by 0.119 inch, the mean temperature was less by 0.8°, and its mean daily range greater by 0.2°; the mean humidity was less by 3, the rain in number of days was less by 2, and in depth of inches less by 0.62 inch, while the wind-pressure was greater by 0.55 pounds than the averages for the same month during the preceding 26 years. The lowest mean temperature, 48.0°, was at Aberdeen, and also the same at Greenock, while the highest, 50.0°, was at Leith. The greatest depth of rainfall, 3.65 inches, was at Greenock, and the least, 0.67 inch, was at Leith. The only noticeable feature during the month was the amount of wind, the predominant direction of which was from the north-west.

IRELAND.

DR. JOHNSTON has been elected chairman of the Holywood Town Commissioners for the ensuing year.

AT a recent meeting of the Lurgan Town Commissioners, Dr Scott stated that there were a great many cases of scarlet fever in the town, and that its sanitary condition was far from satisfactory

MALLOW UNION.

AT a meeting of the board last week, regret was expressed at the decease of Dr. Edward Fitzgerald, the late medical officer of the Union, and the board, having first passed a vote of condolence with his family, adjourned as a mark of respect to the memory of the deceased gentleman.

HEALTH OF BELFAST FOR JUNE.

DURING the four weeks ending June 23rd, 55 fatal cases of zymotic disease took place, which included one from small-pox, 22 from scarlet fever, and 14 from whooping-cough; while affections of the lungs caused 176 deaths. The births registered during the month amounted to 514, and the total deaths to 392, the latter being equal to a rate of 24 per 1,000.

THE TELEPHONE FOR THE DUBLIN HOSPITALS.

THE Public Health Committee of the Corporation of Dublin, which gives annual grants to most of the Dublin Hospitals, has passed the following resolution :—"That the secretary be instructed to inform the managing committees of the various hospitals subscribed to by the Corporation, that this committee considers it desirable that they should be placed in telephonic communication with their medical staffs, after the manner of Continental hospitals." This, of course, means that if these hospitals do not do what the committee considers desirable, the Corporation will withdraw its annual grant Already the King and Queen's College of Physicians, in Kildare Street, as well as several medical men in Dublin, are connected with the telephonic exchange.

DR. KIDD, M. A. O.

WE announced several weeks ago that the University of Dublin purposed conferring the honorary degree of *Magister in Arte Obstetriciâ* on Dr. Kidd at the summer commencement. It is unnecessary in this JOURNAL to recapitulate the reasons why such an honour should be awarded to Dr. Kidd, since his reputation as an obstetric surgeon is an extended one. The recognition of his merits by an University with which he has never been connected, and which is chary of granting its honorary degrees, is a compliment which Dr Kidd's professional brethren most heartily endorse. The commencements were held on the 29th ultimo, and the occasion was one of exceptional interest, from Lord Wolseley of Cairo getting the honorary degree of LL.D., at the same time. In presenting Dr. Kidd for the degree, Professor Webb, the Public Orator, addressed the Vice-Chancellor of the University, who presided, as follows:—

Et nunc mihi, Juno Lucina, fer opem! Ingenio parturienti meo adsis, precor; nam celebrandus adest castus ille sacerdos qui cærimoniis ac sacris tuis summâ cum religione præesse solet. An me ludit insania poetæ?

> Continuo auditæ voces, vagitus et ingens
> Infantum—

non infantum, ut in inferis,

> Quos dulcis vitæ exsortes, et ab ubere raptos
> Abstulit atia dies—

sed quos favente Junone suâ, ad auras produxit Artis Obstetriciæ Magister ille noster. Illius natalibus affulsit signum synonymum Hædorum—splendor, ut ferunt, pluvialis, sed quod de Danae refertur, pluvialis auro. Arti Obstetriciæ aliquid debemus omnes Artis præcipuæ magistrum præcipuum salutemus universi."

THE CHOLERA IN EGYPT.

FROM a telegram received on Thursday morning from Cairo, we learn that epidemic cholera had, up to that date, caused 916 deaths between June 22nd and July 3rd, at Damietta, with a population of 34,000. There were 13 deaths at Port Said (population 27,000). Seventy-two deaths occurred at Mansourah (population 27,000). One death, on June 27th, is recorded from Tantah. Between June 30th and July 3rd, 16 deaths occurred at Samanoud (population 34,000). On July 2nd and 3rd there were five deaths at Shirbeen (population 15,000); at Alexandria there was 1 death, on July 2nd. The maximum mortality was 157 on July 1st at Damietta, where persons of all ages and stations in life were attacked, some were carried away in four hours, others survived for three or four days; many have escaped observation, dying or even recovering without medical aid. When the Sanitary and Quarantine Medical Commissions met on June 24th at Damietta, it was unanimously admitted that the epidemic was cholera, though many have been deluded into the contrary belief. The Egyptian Government has taken active steps to stamp out the disease; sanitary cordons are now effectively maintained by the *gendarmerie* under English officers. All fairs have been stopped, towns and villages are being cleansed and disinfected, and medical aid sent to the infected districts. The inhabitants of Damietta are mostly under canvas in the fields outside the town; bonfires of wood and sulphur have been lit in the streets, and only stored water is drunk. The exertions of the Egyptian Government are most praiseworthy, and the progress of the malady appears to be checked; the weather continues very fine. On July 4th, 122 deaths from cholera were reported at Damietta. On the same day there was a slight but slow increase of the epidemic at Mansourah, Samanoud, and Shirbeen; no increase at Port Said, and no fresh cases at Alexandria.

Another correspondent, telegraphing from Alexandria, on Wednesday night, states that as yet there has been no proper investigation to verify the origin of the outbreak at Damietta. The general opinion of the residents is in favour of local origin; few believe that the epidemic has been imported. Dr. Chaffey reports that on Tuesday numerous carcases of animals were floating down the Nile, past Damietta, and exhaling an abominable odour. Until a few days ago, Damietta was without medical men, medicines, or disinfectants; the disease, as might be expected, is most severe in the poorer and dirtier part of the town, and a few thoroughly authentic cases of villagers visiting Damietta and returning to die of cholera in their native villages, shows the importance of the sanitary cordons, through which, however, some people still manage to escape. There has been a general panic and exodus, but the disease has become much less severe in type during the last two or three days, recoveries being far more frequent. The mercantile bodies of Alexandria have combined to attend to the sanitation of the town.

THE SPREAD OF CHOLERA.

AT a meeting of the Epidemiological Society, held on Wednesday, July 4th, Dr. J. M. Cuningham, sanitary commissioner with the Government of India, read a paper on the "Sanitary Lessons of Indian Epidemics." The President of the Society, Dr. George Buchanan, F.R.S., introduced the subject by some memoranda concerning cholera.

"Cholera reached Europe, by way of Egypt, for the first time in 1865. Before that date, its course from Asia had been through the Russian Empire. At the first appearance of cholera in Europe, it began in Great Britain, fifteen months after its introduction to Europe. At its second appearance, it began in England after about the same interval. Its third appearance does not admit of comparison with the others. At the fourth appearance of cholera in Europe, when it came by way of Egypt, it was epidemic in the Hodjaz, in May; it appeared at Alexandria on June 2nd; was at Malta, Smyrna, and Constantinople before the end of that month; and appeared in Spain and Italy, and at Marseilles, during July. Spreading somewhat widely in Europe during the next two months, it was at Southampton on September 17th, and on November 3rd it was witnessed at New York. In the spring of 1866, cholera acquired an increased diffusiveness; and by June had attacked many places in the United Kingdom, but hardly any cases occurred in London until July. The Suez Canal was opened in November 1869. Extension of cholera from Northern Arabia was next threatened in 1871; and the disease prevailed to a small extent in Europe during 1872 and 1873. Since that date it has occurred several times among the pilgrims to the Holy places, but has not established itself in Egypt, nor has it prevailed in Europe."

With regard to the question, When may cholera be expected to travel through Europe to England—how long after its present manifestations in Egypt? Dr. Buchanan said that no medical data exist for an answer. "But we in England," Dr. Buchanan said, "firmly believe that cholera is influenced in its spread by human intercourse. We do not affirm that it passes from person to person as small-pox or typhus does; but we believe that it extends, much after the fashion with which we are familiar in the case of enteric fever, by means of the discharges from the sick, particularly if those discharges be received into foul cesspools and drains, or if they obtain admission into drinking-water; and human intercourse is one of the conditions for the spread of cholera in such fashion as this. If we now suppose other conditions for diffusion of cholera to be today what they were in 1865, we may inquire how far the conditions of human intercourse have altered in such wise as to affect the probable dissemination and rate of transmission of cholera in and about Europe. It should be remembered that, though Egypt has doubtless incurred repeated risk from her communications with the Hedjaz, there is no evidence that even Egypt has been subjected to danger from cholera, at any time, through her direct maritime communications with more Eastern countries; that the Suez Canal has now been open for more than thirteen years; and it should further be noted that the present outbreak of cholera in Egypt is not on the line of traffic between Asia and Europe; and it will appear improbable that the use of the new highway will affect the course of cholera towards France and England. Still, it is not to be supposed that 1883 will find us in every respect under the same conditions of human intercourse as 1865; and it is possible that some of the changed conditions may be such as to affect the opportunities for the migration of cholera.

"'Quarantine' is not now regarded as capable of fulfilling its pretensions; and its least failure to exclude infection is seen to make the whole system irrational; its cost and its vexations unjustifiable. Accordingly, England, which long ago abandoned the system as of any avail against cholera, has now the consent of most European nations (as expressed by their delegates to the Vienna Conference of 1874) in preferring for the defence of her ports another system, which, under the name of "Medical Inspection," aims at obtaining the seclusion of infected persons, and the disinfection of ships and of articles that may have received infection from the sick. The details of this system, as formulated for practical application in the ports and waters of England, are set forth in an Order of the Local Government Board of July 17th, 1873. This Order is at present operative. From a statement by Earl Granville, I learn that it is proposed to reissue the Order, though without change in essentials. It represents the system upon which we rely, in preference to quarantine, for the protection of our shores. For the last ten years, the country has been thus prepared for the invasion of cholera, and the fact of this preparedness should be known.

"We have reason to hope that, if cholera should enter England, it will find fewer opportunities for doing mischief than at previous invasions. We are generally better provided with defences against a disease which spreads as cholera can spread. Some further precautions for use at the moment will doubtless be requisite; but it will be on our permanent sanitary works and procedure that we shall with most confidence rely."

COLLECTIVE INVESTIGATION COMMITTEE.

AT a meeting of the General Committee, held at the offices of the Association on Wednesday, June 27th, 1883, there were present Professor Humphry, F.R.S. (in the Chair), Dr. Lauder Brunton, F.R.S., Dr. Alfred Carpenter, Dr. Coupland, Dr. Dyce Duckworth, Mr. George Eastes, Dr. W. C. Grigg, Dr. Stephen Mackenzie, Mr. C. Macnamara, Dr. O. Sturges, Dr. Frederick Taylor, and Dr. Mahomed (Secretary).

Letters regretting their inability to attend, and in some cases offering suggestions, were read from Dr. Cheadle (London), Dr. J. Galton (Upper Norwood), Dr. Gibson (Edinburgh), Dr. Jones Morris (Portmadoc), Mr. Page (London), Dr. Rees Philipps (Exeter), Dr. E. S. Scott (Shrewsbury), Dr. A. Sheen (Cardiff), Dr. Sieveking (London), Dr. Markham Skerritt (Bristol), Dr. Uhthoff (Brighton).

The Committee was occupied throughout the whole sitting with considering and revising the proposed inquiries concerning acute gout. The Committee decided to adjourn the consideration of the inquiries concerning puerperal pyrexia until its next meeting.

CONFERENCE ON HOSPITAL ADMINISTRATION.

A CONFERENCE, convened by the Social Science Association, in reference to hospital administration, was held on Tuesday last, in the Hall of the Society of Arts, under the presidency of Sir T. FOWELL BUXTON.

In opening the proceedings, the CHAIRMAN alluded to the prominence given of late years to the question of hospital administration, the financial difficulties in which many hospitals had been placed, and to the disproportionate provision of hospital accommodation in various localities. It was believed, he said, that a conference on these subjects would be of good service, and he hoped that it might facilitate the appointment of a Royal Commission to take them into consideration.

After some explanation from Mr. F. POWELL as to the objects contemplated by the conference, a paper was read on the subject of the Governors and the Management of Hospitals, and the selection and appointment of committeemen, by Mr. B. BURFORD RAWLINGS, secretary of the National Hospital for the Paralysed and the Epileptic. The author recommended the appointment of a committee thus constituted: a medical member, a legal member, a member with actual experience of executive management, as an ex-treasurer or ex-house-governor, and two or three men of business with special inclination for work. Merely ornamental members ought to be rigidly excluded, and those who undertook the duties should be asked to give an explicit promise to perform them. Vacancies should be filled with due regard to the place the retiring member had occupied, so as to maintain unimpaired the structural constitution of the committee. A small highly organised committee of that kind, with a well-qualified chief-officer, would prove more effective than any other method that could be adopted.

A paper was then read on the Best Forms of Executive Government, by Dr. J. S. BRISTOWE, who explained the system of management recently adopted at St. Thomas's Hospital, viz., by a House-Committee, consisting of the treasurer, almoners, and six governors, including two past-physicians or surgeons in the hospital. The system, Dr. Bristowe, said, had worked well, and no unpleasantness had arisen between the governors and the medical staff. He did not approve of the proposal to allow all the members of the medical staff to attend the House-Committee, nor did he think that the medical members should have the power of voting. He approved of the constitution of the committee at St. Thomas's, but thought that the medical staff should be elected annually by their own colleagues, and not, as at present, by the treasurer; and he believed that that change would ultimately be made.

Lord POWERSCOURT alluded to certain changes carried out in the Dublin hospitals on the recommendation of the Board of Superintendence, and denied the assertion that that body did not exercise any efficient control.

Dr. TIBBITS, of the Bradford Infirmary and Fever Hospital, said that the medical staff at the institution sat on the Board of Management, and two of them in rotation attended the House-Committee. He strongly maintained that every member of the working staff should be paid.

Mr. BOUSFIELD, a member of the committee of King's College Hospital, said that a large proportion of the medical men were members of the committee, and that to that fact he attributed very largely the unanimity existing in that body. Proper responsibility was essential to good management, and it could only be obtained by a limited number of persons responsible for good government. He thought that government control would be disadvantageous in impeding the adoption of improved methods. It was impossible to adopt a theoretically perfect system, and the aim should be to secure the best practicable method, which might be improved from time to time.

Mr. MAUDSLEY deprecated the absorption of hospitals by the Government.

Dr. ALEXANDER, of the Western Infirmary, Glasgow, said most of the members of the committee were appointed at the annual meeting by qualified contributors. There were also representatives from the medical faculty, the senate of the university, and other bodies. The medical members of the staff were not on the committee, but they were always consulted on any question affecting them. A medical superintendent was responsible for the entire government of the hospital. The medical appointments were made by the managers. The same system was adopted in the large hospitals in Aberdeen and Edinburgh.

The Rev. E. BIRKETT, of the West of England Sanatorium, advocated a small executive committee, not exceeding seven, with an adequate representation of the medical staff. That it might not be a close body, a board should be formed, consisting of the Vice-President and a certain number of elected members, to whom appeal should be made in all important questions. That board should elect the committee by ballot.

Mr. JOSEPH WHITE, surgeon of the Nottingham and General Hospital, stated that the institution was managed by a weekly board, and an independent medical board for the control of everything connected with the welfare of the patients. The two boards held occasional conferences, the results of which were highly satisfactory.

Mr. H. BURDETT, of the Queen's Hospital, Birmingham, alluded to the importance of the school in connection with hospitals, and recommended the discontinuance of annual dinners. He thought that the medical staff should be elected by a special committee, consisting of all the members of the Committee of Management and of the honorary staff, with a certain number of governors chosen by ballot.

Mr. LEIGH GREGSON, of the Southern Hospital, Liverpool, said that the General Committee of that body was composed of twenty-five members; ten being elected as a Board of Management. A visitor was appointed from each body to go round the hospital almost daily. There was also a medical board, whose chairman attended the Board of Management. The house-surgeons were elected by ballot.

Mr. G. LLOYD, of the General Hospital, Birmingham, thought that hospitals, like public asylums and elementary schools, would have to be brought under the management of municipal bodies and county bodies. Where that system was adopted, there were twice as many beds provided in proportion to the population as in England. At the General Hospital, Birmingham, there was a committee of about fifty persons chosen once a year by subscribers of two guineas, and every medical officer was a member of the committee. The different departments were controlled by subcommittees. The medical gentlemen selected two members of the House-Committee, who practically managed the institution. There were six visitors, not members of either of the committees. The committee was about to receive two or three representatives of working men, who contributed largely to the charity.

Mr. GILLMAN (Baltimore) described the method proposed to be adopted at a hospital in course of erection in that city.

A paper was read by Mr. TIMOTHY HOLMES on the question "Can the system of free and paying beds, and of payment by out-patients, be successfully applied to existing hospitals?" The author expressed his approval of the system adopted at St. Thomas's Hospital, but thought that it was in some respects faulty. If paying out-patients were to be admitted to hospitals having medical schools, they ought not to be withheld from the observation of students. A change in that direction would involve the remuneration of the medical officers who attended paying patients. He saw no reason why out-patients should be treated on the paying system, unless as consulting patients. It would be very unwise to create a large department of people who would come to the hospital for sixpence a time.

Another paper on the same subject was read by Mr. J. S. WOOD, Honorary Secretary of the Bolingbroke House Pay-Hospital, and Secretary of the Chelsea Hospital for Women. The contributing system was strongly advocated in the paper, and it was stated that wherever it had been adopted the results had been thoroughly satisfactory. At seven general and twenty-eight special hospitals, the paying system was practised in one form or another.

Dr. FAIRLIE CLARKE, late Assistant-Surgeon to Charing Cross Hospital, read a third paper on the same subject, advocating the payment system, and recommending that all the applicants for out-patient relief should be well sifted and classified. Those who could not afford anything should be treated gratuitously; some of the remainder could afford to pay the charges of the general practitioners, while the great majority could pay according to the scale adopted at provident dispensaries. He recommended that free dispensaries should be converted into provident dispensaries, the officers of which should be remunerated in proportion to the number of cases treated.

A paper was read by Mr. A. G. HENRIQUES on "Provident Dispensaries," in which the author denounced the present system of out-patients in hospitals, which he proposed to limit to accidents and surgical cases. He advocated the system of relief introduced by the Metropolitan Medical Association for the Establishment of Provident Dispensaries throughout the Metropolis. Since 1880, nine such dispensaries had been established, through the efforts of the Asso-

ciation, or existing dispensaries had been taken over. Three of these only are self-supporting, and three others are expected soon to become so. The number of members required to make a dispensary self-supporting is 1,000. The scale of payments is: for members of benefit societies, 4d. per month; for non-members, 6d. per month; for a whole family, including all children under 16, 1s. per month. The system would, it was alleged, have been more successful but for the provision in the hospitals of first-class gratuitous medical advice for the artisan class who are able to pay.

Sir CHARLES TREVELYAN considered that the medical treatment of the vast population of London was far too great a task for private charity to deal with, and recommended the organisation of an efficient system of provident dispensaries, both for in- and out-patients.

Lord CORK said that, at St. George's Hospital, each medical man was limited to fifteen or sixteen new out-patients each day, so that fair time and attention could be given to every case. Provident dispensaries would, no doubt, assist in getting rid of many of the out-door patients at the large hospitals; but, as it was only in rare cases that they were self-supporting, the general public would have to support them, and thus subscriptions would be drawn away from the general hospitals.

Mr. JAMES CROPPER, M.P., said that in several large provincial towns self-supporting provident institutions were now at work; and he suggested that, in addition to the monthly subscription, a small sum should be paid for every attendance.

Dr. ACLAND recommended an union between the hospitals and the dispensaries. The dispensary officers would then visit the poor at their own homes, and send to the hospital such cases as ought to go thither.

Mr. MACKENZIE CHALMERS, of the London Fever Hospital, said that all the patients there paid something, and they were proud of not being regarded as paupers. In one of the wards the patients paid the full cost; and he thought if a similar system could be extended to the general hospitals, it would be a great advantage to the public.

Mr. RADLEY, of the Metropolitan Provident Association, thought that even if some of the subscriptions to the general hospitals were diverted to provident dispensaries, the poor would be really benefited by it, as it would encourage a feeling of independence, and have no tendency to pauperise them.

Mr. THOMAS RYAN (Queen Charlotte's Lying-in Hospital) said that, after working on the free system for one hundred and thirty years, that institution had tried to get payments from the patients, and they found them very willing to fall in with the plan. In the three months during which the system had been tried, four-fifths of the in-patients paid ten shillings each on an average, and one-half of the out-patients, who were very poor people, paid one shilling and fourpence.

Mr. BOUSFIELD thought the establishment of a network of dispensaries all over London was a necessary preliminary to any attempt on the part of committees of management to materially restrict the number of out-patients.

Sir RUTHERFORD ALCOCK proposed, and Sir CHARLES TREVELYAN seconded, a vote of thanks to the Chairman, which was agreed to, and the day's proceedings terminated.

The conference was resumed on Wednesday, when the chair was taken by Mr. F. S. POWELL.

The first paper read, was one by Mr. H. C. BURDETT, on "The Fnancial Difficulties of the Metropolitan Hospitals." The author severely criticised the general methods of keeping hospital accounts, and made some suggestions for their improvement. A number of statistics were given, showing an increasing deficiency of income, together with an increase of work, and consequently of expenditure. Among the suggestions made by Mr. Burdett for remedying the existing difficulties, were: increased efforts to raise the regular voluntary income; the removal of certain hospitals from their present sites (which could be disposed of advantageously) to localities where they were greatly needed; a more systematic localisation of hospitals, each appealing specially to its own district for support; and the appointment of a Royal Commission of inquiry.

Mr. BOUSFIELD referred to the competition with hospitals of poor-law infirmaries, which, he said, received very much the same class of patients; and he doubted whether the public would consent to support both classes of institutions. Referring to medical schools, he said that they greatly complicated the question of funds, and he counselled separation of the expenditure connected with the school from that connected with the hospital, suggesting a state-payment for each student trained. On the question of localisation, he said that a good deal of caprice was manifested by patients in their selection of hospitals. Many patients, for instance, went to King's College Hospital, who lived in the neighbourhood of Guy's.

Mr. CROSS criticised Mr. Burdett's statistics, and referred to a statement made by that gentleman in an article in the *Nineteenth Century*, to the effect that certain abuses in the hospitals had led to a great falling off in their income.

After some remarks from Mr. Ryan (Queen Charlotte's Hospital) on the subject of uniformity of hospital accounts,

Dr. TIBBITS (Bradford) expressed an opinion that all but the very poorest patients should contribute to the cost of their hospital treatment. Provident dispensaries often operated injuriously to medical men. Many of the members applied for relief, not because they needed it, but simply because they were members. Some of them had been in the habit of paying £5 or £10 a year for medical attendance, but they received treatment at the dispensary for 4s. 4d. a-year. At the Bradford Infirmary careful inquiry was made into the financial position of the inmates, and the result had been that many patients were discharged as unfit inmates of the institution.

Mr. BURDETT said that poor-law infirmaries were only intended for paupers, the refuse of the slums of the metropolis; and it would be cruel to compel respectable persons to apply to them for medical treatment. He did not think that the medical schools would prevent the localisation of metropolitan hospitals. There was a growing feeling in the profession that it might become desirable to have a central school, at which professors should devote their whole time to their students. At present there were no means for paying the professors, and hence they had to depend partly upon private practice. He hoped that the Council of the Hospital Sunday Fund would refuse payment to any hospital which did not keep its accounts according to a certain system.

"The Difference between the Systems of Raising Income and Controlling Expenditure at the Metropolitan and Provincial General and Special Hospitals," was the subject of a paper by Mr. THOMAS BLAIR, general manager, General Infirmary, Leeds. It pointed out that in the provinces the hospital authorities regarded the annual subscriptions as the most important source of income, whereas in London, reliance was principally placed upon spasmodic efforts to obtain donations to meet pressing necessities. In the provinces, too, a collector was employed to devote his whole time to the work, his remuneration being by salary, and commission on sums exceeding a fixed amount. Cricket and football matches, concerts, friendly societies' gatherings, etc., were also means of raising money, and regular subscriptions were often made by workpeople in mills and large establishments. Mr. R. HORDLEY, secretary to the North Staffordshire Infirmary, read a paper on the same subject, in which he strongly urged stringent and effective control of the expenditure by the managers. One means to obtain this would be by monthly detailed statements of the cost per head per day, so that any increase could at once be noted, and explanations requested.

Mr. ROWLAND HAMILTON contended that professional auditors were unable to present a really useful statement of hospital accounts, seeing that the means had to be adjusted to the end from day to day, or from week to week. Endowments, he thought, should not be tied down to localities, but rather to the people, many of whom, in large cities, went to live in the suburban districts.

Sir WILLIAM WHEELHOUSE recommended a closer scrutiny as to the financial position of hospital patients. Institutions meant for the poor should not be utilised without payment by those who were better off. Fortnightly or monthly audits of the accounts would enable the managers of hospitals to exercise a more complete control over the expenditure.

Mr. LLOYD thought that the difficulties experienced at present by the London hospitals were due to their having lost what he would call their democratic basis, and had, therefore, become less popular. What he would suggest was, that the management of those institutions should be in the hands of a large board, including all the honorary officers. He did not give much prominence to the crowding of hospitals in particular districts, because patients would always go where they could see the most eminent men, who were usually to be found in the larger hospitals. It had been suggested that the difficulties of London hospitals arose on account of local self-government; but he rather thought they were consequent upon the autocratic manner in which the management was carried on. The raising of funds in popular ways must depend upon the existence of popular interest.

Mr. SALMOND suggested that the plan adopted by special hospitals—viz., that patients should contribute to the expenses—should

be adopted by the larger hospitals. If they were allowed to attend in the evening, their work would not be interfered with; and they would, therefore, more cheerfully pay for the expense of treatment. As an instance of the working of this plan, he would mention St. Peter's Hospital for Stone, where the income amounted to £1,900, of which £1,204 was received from the patients themselves.

Mr. BLAIR was at one with Mr. Hordley in his conviction that monthly returns of the cost of the in-patients were very much needed. At the Leeds Infirmary, if a well-dressed person came in, he (Mr. Blair), after seeing him, filled up a form setting forth his occupation and income. By this means, he discovered whether the patient was able to contribute anything towards his maintenance. Last year, nearly three hundred persons were sent from the out-patient room, whose position in life would allow of their obtaining private medical advice; and, as the result of a proper system of weeding out trivial cases, nearly three thousand were sent away as really not requiring any treatment whatever. The number of new cases per day admitted to the out-patient department by the surgeons was twenty, and the same number for treatment by the physicians. He thought that the drug bill in many hospitals was far too large. In purchasing his drugs, it was his custom every quarter to send a list of those required, and the difference in price was amazing. If other hospitals would adopt a similar plan, and contract for their drugs, hundreds of pounds could be saved annually. Over twenty thousand patients passed through the Leeds Infirmary every year, but the drug bill was not more than £600 a year. Surgical appliances should never be given except in cases of real need; and, even then, inquiry should be made through some such channel as the Charity Organisation Society.

A paper was read on "The Relation of Convalescent Institutions to Hospitals," by Dr. B. J. MASSIAH, late Medical Officer, Barne's Convalescent Hospital, Cheadle. The paper advocated a closer connection of convalescent institutions to hospitals, and offered some suggestions in reference to their management. They should, Dr. Massiah thought, be of greater capacity and number than town hospitals; and a few very large seaside institutions would be better and more economical, than many small ones. The Charity Organisation Society had taken a wise step in renting beds at convalescent institutions, and placing them at the disposal of certain hospitals.

A paper was read by Mr. L. E. SCARTH, Honorary Secretary to the Convalescent Committee of the Charity Organisation Society, on "The Relation of Convalescent Institutions to Hospitals." The paper contained various proposals for the removal of the difficulties experienced in connection with the rush for convalescent beds during the summer months. The author proposed the adoption of the plan of a certain number of permanent beds, reserved by prepayment, either for the whole year or only for the summer, and kept exclusively for the use of cases sent by the hospital. The plan had been adopted to some extent, and it was satisfactory to the home—assuring it, by so much, a fixed income and less trouble; to the hospitals, because the accommodation was available with certainty; and to the patients, who were not kept so long waiting. An explanation was then given of the plan proposed by the Charity Organisation Society, for dealing with cases sent from the out-patient departments; and it was stated that the Society hoped to be able, by degrees, to take the entire charge of the convalescent needs of all the out-patients from the metropolitan hospitals.

Sir RUTHERFORD ALCOCK read a paper on "The Necessity for a Royal Commission of Inquiry." It pointed out the anomalies existing in the distribution and financial means of the metropolitan hospitals, and recommended either the reappropriation of funds already existing in endowments, or the levying of a hospital-rate in the districts surrounding the hospitals.

Mr. H. NELSON HARDY, late Surgeon to the City of London and East London Dispensary, also read a paper on the same subject, urging the appointment of a Royal Commission on the grounds of the largeness of the interests involved; the wide difference of opinion as to the nature and extent of the reforms needed; the lack of information in official circles; the independence of the great endowed hospitals, alike of public opinion and of Government control; the arbitrary abuse of power exercised by the governing bodies against any members of the medical staff who exposed the abuses of the present system; and, lastly, the futility of all efforts to reform hitherto made.

Dr. E. KENNEDY considered a Royal Commission necessary, if only to ascertain whether diseases were produced by hospitals, and whether it was not true that many of the sick poor were killed instead of cured by becoming in-patients.

Mr. MORRIS had no doubt that the large metropolitan hospitals were at the present time being slowly starved to death, on account of the large number of special hospitals; and it would be a lamentable day for London if the large general hospitals were to die out, and small special hospitals occupied their place. He asked that the Royal Commission should inquire, not only into hospital management and finance, but should also take cognisance of the question of the treatment of the poor.

Sir THOMAS ACLAND said that, if ever a public inquiry took place into medical schools, and if the mass of the people had their attention drawn to the relation between the cure of disease and the education of medical men, it would be fortunate if there was not a great row. An experiment was about to be tried at Guy's, of charging out-patients, after the first day of their appearance, a small sum for medicine. He was strongly of opinion that medical men were oppressed by the journals, and were not free agents, although some could afford to be independent.

Mr. BURDETT vindicated the action of the press; for, he said, without the aid of newspapers, it would not be known how the best managed hospitals were managed, nor would the charities unworthy of support be made so apparent as at present. With regard to the Royal Commission, he asked for it in defence of the well-conducted hospitals.

The CHAIRMAN, in drawing the proceedings to a close, said there appeared to be an almost universal opinion adverse to the management of hospitals by guinea governors, and in favour of the medical staff having a seat on the boards. It was no credit to the metropolis that the working men there showed such an apathy and dependence, while their brothers in the north manifested an active energy and liberality in the matter of hospitals. He thought it desirable that sick and benefit clubs should be in some way associated with the local hospitals. The presence of students was a great advantage to a hospital, and the medical schools were as important to the nation as the universities themselves. No one had said a word against the appointment of a Royal Commission to inquire into the evils that existed, and therefore it might be taken for granted that the managing bodies were no longer averse to such a Commission.

On the motion of Dr. GILBART SMITH, seconded by Dr. SEATON, a resolution was agreed to, appointing a committee to consider what steps should be taken to secure combined action among hospitals; and the conference terminated with the usual vote of thanks to the Chairman.

MEDICAL PROVIDENT SOCIETY.

THE following is a list of the names of gentlemen who have signified their desire to become members of the Medical Provident Society, in response to the circular issued on June 9th.

H. J. Alford, M.D.; H. I. Ashburner, Esq.; F. H. Alderson, M.D.; Robert Argles, Esq.; William Alexander, M.D.; George Abbott, Esq.; N. W. Allt, Esq.; H. A. Allbutt, Esq.; W. Anderton, Esq.; W. S. Anderson, M.B.; G. N. Adams, M.D.; S. Andrews, Esq.; H. G. Armstrong, Esq.; C. E. Abbott, Esq.; J. Allan, M.D.; E. J. Adkins, Esq.; R. S. Anderson, M.B.; W. L. Allott, Esq.; S. Arnott, Esq.; T. E. Atkins, Esq.; W. Armstrong, Esq.; F. J. Allan, M.B.; R. S. Archer, M.B.

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LORD WOLSELEY AT CHARING CROSS HOSPITAL SCHOOL.

On Thursday afternoon, the annual distribution of prizes to the students at the Medical School in connection with the Charing Cross Hospital took place at the School, Chandos Street. The Right Hon. General Lord Wolseley occupied the chair, and the theatre in which the meeting was held was crowded in every part.

The Subdean having read the annual address,

Lord Wolseley handed the medals and certificates to the various successful students.

Lord Wolseley: When I came here, I was not aware that I was to have the pleasure of addressing ladies as well as gentlemen; and the few remarks I have to make—very few, indeed—will be addressed, not to ladies, but to gentlemen, especially those whom I had the pleasure of seeing just now on parade. [*Cheers.*] I need scarcely tell you, gentlemen, that it is a very great pleasure for a man in my position to come here to-day, and that for very many reasons. First of all, I have not the opportunity very often of being brought into contact with a number of young gentlemen, a certain proportion of whom are about to begin life, to launch their ships out upon that sea which has a great number of storms to be encountered, and difficulties and trials to be met with. It is always a pleasure, and, in fact, a renewing of one's youth, to be brought into contact with young men. It reminds one of one's self years ago; and I cannot help looking back to that time, and thinking of the various occurrences that have taken place in my own career, and warning those who are now about to follow my example, and the example of others, who, like myself, embarked on the difficult and thorny path of life, above all things, never to be discouraged. If you find difficulties in your way, as every man does, you must remember that difficulties are only made for a brave man to encounter and overcome. It is the weak-hearted and poor-hearted who, when they get a bad fall in their race through life, become disheartened and do nothing, and go out of the race altogether. Brave men and sturdy men look upon a fall or a misadventure as something to be laughed at, and something, in fact, in the way of an instructive lesson with regard to their future conduct in life. It has been my good fortune in life to have been brought a great deal into contact with this noble profession into which you are all now about to embark, but more especially with that branch of the profession which belongs to the army. I have had a good deal to do with it; and I may say, perhaps, that they have had a good deal to do with me. [*Laughter.*] Like most men who have been in the army the length of time that I have, I have had my own share of knocks and blows, and I owe a great deal to the medical profession. I do not think any man in the army owes more to it. And looking back now over a great number of years, and a great number of campaigns, I can confidently say I have never been brought into contact with any body of men in my own branch of the service who have done their duty with greater devotion to the service and to humanity than the medical officers of the army. (*Cheers.*) There was a paper handed to me before I came here to-day upon the Volunteer Medical Organisation, and I looked over it—I have not had time, I am sorry to say, to read it—and my eye fell upon one paragraph in it: "We may say in passing that probably no battle-field since the world began was so promptly and efficiently cleared of its wounded as was the recent field of Tel-el-Kebir." That, of course, attracted my attention, particularly as it refers to an event with which I had a good deal to do last year; and I can bear testimony to the the truth of the statement made there. On no previous occasion, that I am aware of, were the wounded looked after more quickly than then. In the medical profession, which is a very large one, like all other professions and walks of life, it is absurd to imagine that there will not be some failures. There are some failures among the doctors, there are plenty among the generals, I am sorry to say, and in all branches of the army there are numerous failures; therefore, I should not try to make out to you that every medical man who took part in the wars in which I have been engaged was perfection; but, looking at them as a body, no men ever did work better, especially in the recent war. I am very well aware that in the medical branch of the army there are changes and reforms to be made, as there are in every department of the army. No army is ever perfect. An army must go on changing constantly, if they wish to keep themselves in an efficient condition, and the medical department is no exception to that rule. For instance, what could be more ridiculous than if we attempted at the present moment to carry on medical affairs in the army upon the same system as during the Peninsular, or even the Crimean War? The medical arrangements for the army require to go on changing, as we change our arms and munitions of war. Every branch of science, every invention in all scientific instruments, re-acts on the army, and there is no department in which modern discovery re-acts more forcibly than in the medical department. But, gentlemen, though I may find fault with the medical department in the army, that is no reason why one should find fault with the medical officers, and, as I have said before, I have never done so, and never seen any reason to do so, during my long career. I have always found them thoroughly and zealously anxious to carry out the duties they have to perform. [*Cheers.*] Now, as regards your own especial school, it is quite unnecessary for me, after the very able address which you have heard read, to go into any particulars as to the number of students, or the manner in which they are taught. The results, which have been explained to you in the address, speak for themselves. It tells you the number of men who have been successful at the various examinations last year, and the number of men who successfully competed to enter the army, navy, and Indian services. Those results are most creditable to this school, and, in common with everyone present here, I may say I wish this school and its members all success, most cordially and most sincerely. This paper, to which I have already referred, reminds me of the drill which I have just seen in the Barrack Square, a drill remarkably well done indeed, considering the amount of time you have at your disposal to learn it. I only wish that the system which now holds good in this school might be extended to all the medical schools in the country. Every man who really becomes a medical officer, or obtains a surgical certificate, should not only have the ordinary certificates hitherto given in medical schools, but should be able, in cases of emergency, to act as a military surgeon as well as a civil surgeon; and I venture to express a still further hope: I cannot see why, after a while, there should not be, especially in London, and perhaps in the other large towns, a volunteer medical corps. I think it would be a very popular corps; and if the other medical schools would contribute as many well-drilled gentlemen as those I had the pleasure of inspecting to-day, it would be a corps of the greatest possible service to the country, and to the army especially. I think, if those whom I have the honour of addressing, especially those who have the charge and direction of this and other medical schools, would think of this, it would be an immense boon to the army, and an immense boon to the country. Remember, although we have a large medical department, it is only just sufficiently large for our army in time of peace; and, in the event of war or invasion, or other difficulties overtaking us, requiring a large force of men to be put into the field at home or abroad, we have not the medical officers to supply the wants of the force; whereas, if a Volunteer Medical Corps were started and worked, as I am sure it could be worked, by such men as those whom I inspected to-day, it would supply a very great want, which all military men who have studied this question and thought over it deeply deplore. I hope you will think of this, and that if ever I have the pleasure and good fortune to come here again, I may be able to congratulate such a corps upon its formation and upon its success. I shall not say more than that it has been a great pleasure to me to give away these prizes, especially to those whose names I see repeated several times, like that of Morgan, who has taken four or five prizes. I congratulate them most sincerely upon their success, and I wish them in their future life all the success their profession can possibly bring. In congratulating them, I say I hope those who have not succeeded in getting prizes will not be disheartened by that fact. We can all start in a race, but we cannot all win; but, because you have not won this year, is no reason why you should not win next year; and I hope that those who have been unsuccessful this year may be fortunate enough to win medals and prizes next year. Gentlemen, I wish you good luck in the profession in which you are about to start. [*Cheers.*]

On the motion of Sir Richard Collingwood, a cordial vote of thanks was passed to Lord Wolseley for his kindness in presiding.

GRANTS FOR SCIENTIFIC RESEARCH.

The Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in the researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications should be made without delay to the General Secretary, at the office of the Association, 161A, Strand, W.C., and must include details of the precise character and objects of the research which is proposed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual election of Fellows into the Council of the College took place on Thursday last. There are over 1,200 Fellows of the College, of whom about 400 recorded their votes; twelve of which were invalid, in consequence of too many names being un-erased. Sir Spencer Wells, Bart., the President, occupied the chair. There were three vacancies to be filled by the retirement, in rotation, of Mr. John Birkett, Mr. Prescott Hewett, and Mr. Cooper Forster. The former two gentlemen did not offer themselves for re-election, but Mr. Forster, at present one of the Vice-Presidents, was a candidate, and, as a perusal of the votes recorded will show, was placed at the head of the poll. At five o'clock the counting of the votes commenced, and the result was announced by the President to be the following.

Mr. J. Cooper Forster	181	including	2	plumpers
Mr. Sydney Jones	125	„	21	„
Sir W. Mac Cormac	119	„	8	„
Mr. G. Lawson	98	„	4	„
Mr. A. E. Durham	91	„	0	„
Mr. O. Pemberton	88	„	7	„
Mr. R. Harrison	81	„	1	„
Mr. N. C. Macnamara	69	„	2	„
Mr. R. B. Carter	61	„	6	„

The three successful candidates were, therefore, Mr. Forster, Mr. Jones, and Sir W. Mac Cormac.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883:

ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, July 11th, and October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

November 9th, 1882.

COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Council Room of Exeter Hall, Strand, London, on Wednesday, the 11th day of July next, at two o'clock in the afternoon.

Committees and Subcommittees will meet as follows. At 161A, Strand, W.C.—Tuesday, July 10th, 1883: Scientific Grants Committee, 4.30 P.M.; Medical Reform Committee, 8 P.M. Wednesday, July 11th, 1883: Office and Printing Subcommittee, 10.30 A.M.; Journal and Finance Subcommittee.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, July 4th, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee,
161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—President, Thomas Bridgwater, M.B.; President-elect, Charles J. Hare, M.D.—The thirty-first annual meeting of this Branch will be held at the Ship, Greenwich, on Wednesday, July 11th, at 4 P.M. Dinner at 6.30 P.M.; tickets, 12s. 6d. each, exclusive of wine. Members intending to dine are requested to apply to one of the Secretaries on or before July 7th. —ALEXANDER HENRY, M.D., 132, Highbury Hill, N.; W. CHAPMAN GRIGG, 6, Curzon Street, W., Honorary Secretaries.—June 21st, 1883.

WEST SOMERSET BRANCH.—The annual meeting will be held at the White Hart Hotel, Martock, on Thursday, July 12th. The President-elect, J. D. Adams, M.D., will take the chair at a quarter-past three o'clock punctually. Dinner at 5 o'clock.—W. M. KELLY, M.D., Honorary Secretary, Taunton.—June 20th, 1883.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual general meeting of this Branch will be held at 198, Union Street, Aberdeen, on Saturday, July 28th, at 1.30 P.M. An address will be given by the President, Dr. Angus Fraser. Hospital visit at 11.30 A.M. The annual dinner will be held at the Palace Hotel, Union Bridge, Aberdeen, at 3 P.M. Dinner tickets, including attendance, but exclusive of wine during dinner, five shillings each. Those intending to be present at the dinner are respectfully requested to send notice to Dr. Urquhart. —N. J. GARDEN, J. URQUHART, Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Black Horse Hotel, Horsham, on Friday, July 20th; Mr. Bostock in the chair. Dr. Fuller will read a paper on Acute Rheumatism. Gentlemen intending to read papers or to bring forward subjects for discussion are requested to send notice to the Honorary Secretary, G. B. COLLET, 5, The Steyne, Worthing.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

THE Fifty-first Annual Meeting of the British Medical Association will be held at Liverpool, on Tuesday, Wednesday, Thursday, and Friday, July 31st, August 1st, 2nd, and 3rd, 1883.

President: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

President-elect: A. T. H. WATERS, M.D., F.R.C.P., Senior Physician to the Royal Infirmary, and Professor of Medicine in University College, Liverpool.

An Address in Surgery will be delivered by REGINALD HARRISON, F.R.C.S., Surgeon to the Royal Infirmary, Liverpool.

An Address in Pathology will be delivered by C. CREIGHTON, M.D., formerly Demonstrator of Anatomy, University of Cambridge.

The business of the Annual Meeting will be conducted in ten sections.

SECTION A. MEDICINE.—*President:* John Cameron, M.D. *Vice-Presidents:* Thomas R. Glynn, M.D.; Frederick T. Roberts, M.D. *Secretaries:* Richard Caton, M.D., 18A, Abercromby Square, Liverpool; Byrom Bramwell, M.D., 23, Drumsheugh Gardens, Edinburgh.

SECTION B. SURGERY.—*President:* Edward R. Bickersteth, F.R.C.S. *Vice-Presidents:* W. Hargreaves Manifold, M.R.C.S.; W. Mitchell Banks, F.R.C.S. *Secretaries:* Rushton Parker, M.B., F.R.C.S., 61, Rodney Street, Liverpool; Edmund Owen, M.B., F.R.C.S., 49, Seymour Street, Portman Square, W.

SECTION C. OBSTETRIC MEDICINE.—*President:* W. M. Graily Hewitt, M.D. *Vice-Presidents:* John Wallace, M.D.; David Lloyd Roberts, M.D. *Secretaries:* John E. Burton, L.R.C.P., 64, Rodney Street, Liverpool; W. C. Grigg, M.D., 6, Curzon Street, Mayfair, W.

SECTION D. PUBLIC MEDICINE.—*President:* T. P. Teale, M.B., F.R.C.S. *Vice-Presidents:* William Carter, M.D.; W. Honner Fitz-Patrick, M.D. *Secretaries:* F. Pollard, M.D., 52, Rodney Street, Liverpool; George Goldie, M.D., 123, Hyde Park Road, Leeds.

SECTION E. ANATOMY AND PHYSIOLOGY.—*President:* Professor E. A. Schäfer, F.R.S. *Vice-Presidents:* William Stirling, M.D.; Richard Norris, M.D. *Secretaries:* James Barr, M.D., 1, St. Domingo Grove, Everton, Liverpool; A. W. Mayo Robson, F.R.C.S., Hillary Place, Leeds.

SECTION F. PATHOLOGY.—*President:* T. H. Green, M.D. *Vice-Presidents:* E. H. Dickinson, M.D.; Joseph Coats, M.D. *Secretaries:* Frank Thos. Paul, F.R.C.S., 44, Rodney Street, Liverpool; James F. Goodhart, M.D., 27, Weymouth Street, W.

SECTION G. PSYCHOLOGY.—*President:* T. L. Rogers, M.D. *Vice-*

Presidents: G. H. Savage, M.D.; D. Yellowlees, M.D. *Secretaries:* G. E. Shuttleworth, M.D., Royal Albert Asylum, Lancaster; W. Julius Mickle, M.D., Grove Hall Asylum, Bow, E.

SECTION H. OPHTHALMOLOGY.—*President:* T. Shadford Walker, M.R.C.S. *Vice-Presidents:* E. Nettleship, F.R.C.S.; C. E. Fitzgerald, M.D. *Secretaries:* E. A. Browne, M.R.C.S., 86, Bedford Street, Liverpool; C. E. Glascott, M.D., 23, St. John Street, Manchester.

SECTION I. DISEASES OF CHILDREN.—*President:* Samuel Jones Gee, M.D. *Vice-Presidents:* M. G. B. Oxley, M.D.; T. R. Jessop, F.R.C.S. *Secretaries:* H. G. Rawdon, M.D., 42, Rodney Street, Liverpool; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION J. OTOLOGY.—*President:* G. P. Field, M.R.C.S. *Vice-Presidents:* Edward Woakes, M.D.; C. Warden, M.D. *Secretaries:* Thos. Barr, M.D., 10, Albany Place, Sauchiehall Street, Glasgow; R. Williams, L.R.C.P., 82, Rodney Street, Liverpool.

Honorary Local Secretary: Alexander Davidson, M.D., 2, Gambier Terrace, Liverpool.

Honorary Treasurer: W. Mitchell Banks, F.R.C.S., 28, Rodney Street, Liverpool.

TUESDAY, JULY 31ST, 1883.

10.30 A.M.—Church Service at Pro-Cathedral. Sermon by Bishop of Liverpool.
12.0.—Meeting of Committee of Council.
12.30 P.M.—Meeting of the Council, 1882-3.
3 P.M.—First General Meeting: Report of Council and other business. Adjourn at 5 P.M.
8.15 P.M.—Adjourned General Meeting: President's Address, and any business adjourned from meeting at 3 o'clock.

WEDNESDAY, AUGUST 1ST, 1883.

9.30 A.M.—Meeting of Council, 1883-84.
11 A.M.—Second General Meeting. Address in Surgery.
1 30 to 5 P.M.—Sectional Meetings.
8.30 P.M.—*Soirée* in the suite of rooms forming the Arts Gallery, the Picton Reading Room, and the Free Library, by the President and Local Committee. To this, ladies will be invited.

THURSDAY, AUGUST 2ND, 1883.

9 A.M.—Meeting of Committee of Council.
10 A.M.—Third General Meeting. Sectional Meetings. Adjourn at 1 P.M.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Philharmonic Hall.

FRIDAY, AUGUST 3RD, 1883.

10 A.M.—Fourth General Meeting. Address in Pathology. Sectional Meetings.
2 P.M.—Concluding General Meeting.
8.30 P.M.—*Soirée* by the Mayor of Liverpool, at the Town Hall. To this, ladies will be invited.

SATURDAY, AUGUST 4TH, 1883.

Excursions.

ANNUAL MUSEUM.

The museum will be in the same building as the reception-room, the general meetings, and the sectional meetings. In fact, all the business of the annual meeting will be carried on in one building, viz., the College, Shaw Street, Liverpool. The room which is specially devoted to museum purposes is a gallery, 300 feet in length, in the upper story, lighted from the roof. On the same floor are several additional rooms, so that the accommodation for exhibiting drugs and instruments is ample. On the second floor, adjoining the room where the Pathological Section meets, are two class-rooms, one of which will be used for the exhibition of pathological drawings and specimens, the latter for microscopes. A large hall on the ground-floor has been set apart for sanitary appliances, among which it is expected there will be a good exhibition of ambulances.

The museum will comprise: 1. Latest inventions in medical and surgical instruments, and appliances of all kinds, including No. 4. 2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids. 3. Drawings, diagrams, or models, or apparatus connected with sanitary appliances. 4. Microscopes, thermometers, and other instruments of investigation. 5. Pathological specimens, etc.

Communications should be sent to Dr. Davidson, the General Secretary, 2, Gambier Terrace, Liverpool, or to the following: drugs, Dr. T. Bushby, 32, Clarence Street; surgical instruments, Dr. Alexander, 102, Bedford Street; Rushton Parker, Esq., 61, Rodney Street; sanitary appliances, Dr. Imlach, 16, Canning Street; pathological specimens and drawings, F. T. Paul, Esq., 44, Rodney Street. General Museum Secretary, Dr. Whitford, 37, Shaw Street.

Notice to Exhibitors.—Applications to be made as soon as possible, mentioning the space required. Each object to be accompanied by a written description or reference, and it is important that these descriptions should be sent as early as possible, viz., not later than July 20th. All parcels to be delivered on or after July 23rd, and not later than July 28th, and to be removed within three days after August 3rd; they must be addressed: The Curator of Annual Museum, British Medical Association, the College, Shaw Street, Liverpool. All expenses of carriage and all risk to be borne by the exhibitors. A card bearing the name and address of the exhibitor to be inclosed in each package, ready to be fixed to the outside.

The following papers, etc., have been promised in the various Sections.

SECTION A.—MEDICINE.

1. A Discussion on Aphasia will be opened by Professor Gairdner of Glasgow. Dr. Hughlings Jackson, Dr. Broadbent, Dr. Ferrier, Dr. Antoine Cros (Paris) Dr. Thudichum, Dr. W. W. Ireland, Dr. Drummond, Dr. Ross, Dr. G. A. Woods, Dr. A. Cameron, and Dr. Wahltuch, are expected to take part.

2. A Discussion on the Causes and Consequences of Abnormal Tension in the Arteries will be opened by Dr. Broadbent. Dr. Milner Fothergill, Dr. B. Foster, Dr. W. F. Wade, Dr. Mahomed, Dr. Glynn, Dr. Eddison, and Dr. Carter, are expected to take part in it.

3. A Discussion on the Nature of Purpura will be opened by Dr. Stephen Mackenzie. Dr. Finny (Dublin) Dr. B. Foster, Dr. Stainthorpe, Dr. W. Russell, and Mr. Cauty, will take part.

The following papers are also promised.

BENNETT, A. Hughes, M.D. 1. Spastic Paralysis. 2. Hysterical Malingering.
BRAMWELL, Byrom, M.D. Note on the Mechanism of Cheyne-Stokes Respiration.
BRUNTON, T. Lauder, M.D., F.R.S. Headache.
CARTER, William, M.D.
CATON, Richard, M.D.
CAUTY, H. E., Esq. On Roseola.
CROS, A., M.D. (Paris). 1. Sur la Pleximetrie. 2. La Theorie Physiologique de l'Hallucination.
DAVIDSON, Alexander, M.D.
DRUMMOND, David, M.D. 1. Perforating Tumour of the Dura Mater. 2. An Unusual Case of Locomotor Ataxy.
DRYSDALE, C. R., M.D. Recent Innovations in the Doctrine of Phthisis Pulmonalis.
EDDISON, J. E., M.D. 1. On the Cause of Cardiac Murmurs in Anæmia. 2. A Series of Forty Consecutive Cases of Empyema treated by the Physicians of the Leeds Infirmary.
FLINT, Austin, M.D. (New York). Early Tapping in Cases of Ascites.
GABBETT, H. S., M.D. The Diagnostic Value of the Discovery of Koch's Bacilli in Sputum.
GLYNN, T. R., M.D.
GREVES, E. H., M.B. Notes on Cases illustrating Nerve-diseases.
HASSALL, A. H., M.D. 1. Further Observations and Experiments on Inhalation in Affections of the Lungs. 2. On the Principles of the Construction of Inhalation Chambers for Diseases of the Throat and Lungs.
LEECH, D. J., M.D. Duration of Action of Medicines.
LITTLE, J. F., Esq. Rheumatic Arthritis or Neurotic Arthritis.
MACKENZIE, J. A., M.D. Rupture of the Heart.
MOORE, W. W., M.D. Source of Heat in Fever.
MORRIS, Malcolm, Esq. The Use of Antimony in certain Skin-Diseases.
MYRTLE, A. S., M.D. Sweating to Death.
OLIVER, George, M.D. Bedside Urinary Testing.
OXLEY, M. G. B., M.D. The position of Syphilis as regards Classification and Treatment in this Country.
RIDGE, J. J., M.D. The Use of Non-alcoholic Tinctures as Remedies.
ROSS, James, M.D. 1. Rupture of the Brachial Plexus. 2. On Early Posterior Sclerosis.
RUSSELL, W., M.D. Three Fatal Cases of Purpura Hæmorrhagica.
SANSOM, A. E., M.D. Note on Percussion as a means of Diagnosis.
SMITH, Solomon C., M.D. Antiseptic Inhalations.
STRANGE, William, M.D. Sporadic Septicæmia, chiefly Puerperal, especially as to its relations with the Infectious Zymotic Diseases.
THOMSON, G., M.D. Rupture of the Brachial Plexus.
THUDICHUM, J. L. W., M.D. On Hay-fever or Hay-asthma, and its Frequent Connection with Structural Disease of the Nasal Cavity.
WAHLTUCH, A., M.D. On Electro-therapeutics.
WISE, Alfred, M.D. Climatological Studies at High Altitudes.
WOODS, G. A., Esq. Cerebellar Tumour.

Dr. Byrom Bramwell will give a demonstration on the Microscopic Pathology of the Spinal Cord.

SECTION B.—SURGERY.

1. Mr. Clement Lucas will open a Discussion on Surgical Diseases of the Kidney, and the Operations for their Relief, in which Dr. G. Elder and Mr. Bennett May will take part.

2. A Discussion on the Treatment of Intestinal Obstruction by or without Operative Interference will take place.

The following papers have been promised.

ATKINSON, E., Esq. Drainage of Joints.
BAKER, Morrant, Esq. Removal of the Tongue by Median Division.
BARTLEET, T. H., Esq. Roux's Amputation at the Ankle; its Superiority to Syme's.
BELLAMY, E., Esq. The Clinical Value of the Fasciæ.
BERNARD, Armand, Esq. Observations on Primary Venereal Sores.
BERRY, William, Esq. Strangulated Hernia and its Complications.
BROWNE, J. W., M.D. Cases of Hernia.

Cousins, J. Ward, M.D. 1. Photograph of a Dorsal Tumour which was removed to relieve Pulmonary and Cardiac Distress. 2. Explanatory Remarks on a New Needle for Closing Surgical Wounds.
Cross, F. Richardson, Esq. The Treatment of Arthritis by Incision.
Drysdale, C. R., M.D. Recent Experiments on the Treatment of Syphilis.
Fagan, John, L.K.Q.C.P. The Nature, Diagnosis, and Treatment of Hæmarthrosis of the Knee-Joint.
Hardie, James, Esq. Amputation by Oblique Circular Incision.
Heath, Christopher, Esq. The Use of Plaster-of-Paris Bandages in the Treatment of Recent Fractures.
Jessop, T. R., Esq. Some Results derived from Experience in Colotomy.
Jones, Thomas, Esq. Cases of Resection of the Ankle-Joint for Disease and Injury.
Keetley, C. B., Esq. An Analysis of Eight Cases of Osteotomy of the Femur.
Le Page, J. F., Esq. The Evacuation of Deep Abscesses: with Exhibition of Deep Abscess Evacuator.
Lowndes, F. W., Esq. Venereal and Sexual Hypochondriasis.
March. H. C., M.D. A Case of Resection of the Ankle-joint by an Artificial Pott's Operation.
Morgan, J. H., Esq. The Operative Proceedings in Cases of Intestinal Obstruction.
Morris, Malcolm, Esq. The Comparative Advantages of Scarification and Scraping in the Treatment of Lupus Vulgaris.
Norton, A. T., Esq. A Case of Excision of the Superior Maxilla for Melanotic Sarcoma of the Antrum.
Owen, Edmund, Esq. The Treatment of Large Nævi.
Pemberton, Oliver, Esq. Gastro-enterotomy.
Puzey, Chauncey, Esq. A Case of Malignant Goître.
Rabagliati, A., M.D. Cases of Osteotomy.
Roth, Bernard, Esq. The Treatment of Non-spasmodic Torticollis.
Silcock, A. Q., M.D. Some points connected with the Repair of Fractures.
Smith, E. Noble, Esq. The Treatment of Lateral Curvature of the Spine.
Southam, F. A., Esq. A Case of Femoral Aneurysm, treated by Injection of Fibrin Ferment, and subsequently by Ligature of the External Iliac Artery.
Stokes, William, Esq. Excision of the Shoulder-joint.
Stowers, J. H., M.D. 1. The Nature and Treatment of Paget's Disease of the Nipple (with Microscopic Specimens). 2. The Treatment of Vascular Hypertrophy of the Nose.
Thompson, James, M.D. Artificial Limbs.
Walter, Wm., M.D. A Case of Nephrectomy for Cystic Tumour of a Floating Kidney.
Warren, J. W., M.D. 1. Cure of Hernia by Subcutaneous Injection. 2. The Use of the Aspirating Needle in Strangulated Hernia and Obstruction of the Bowels.
Whitehead, Walter, Esq. 1. A Further Series of Twenty-five Cases of Excision of the Tongue with Scissors. 2. The Surgical Treatment of Hæmorrhoids.

Patients for exhibition will attend from 1.30 to 2.30 P.M. on Wednesday and Thursday, August 1st and 2nd, in a room adjacent to that of the Section.

Mr. John Croft will give a demonstration of the application of Plaster-of-Paris Splints for the Treatment of Fractures.

Section C.—Obstetric Medicine.

Special discussions are expected to take place in this Section on the following subjects.

1. Total or Partial Extirpation of the Uterus for Malignant Disease. Introduced by papers by Professor Schroeder (Berlin) and Dr. Wallace.

2. On Operative Treatment of Uterine Fibromata. Introduced by papers by Dr. Keith, Mr. Knowsley Thornton, and Mr. Lawson Tait. Dr. Wallace has promised to take part.

3. On Metria (so-called Puerperal Fever). Introduced by papers by Dr. Atthill and Dr. Thorburn. Drs. Grigg, T. More Madden, and Fancourt Barnes have promised to take part.

4. Porro's Operation. Introduced by a paper by Dr. Clement Godson.

The following papers are promised.

Alexander, William, M.D. On Shortening the Round Ligaments for the Cure of some Forms of Uterine Displacement.
Barnes, Fancourt, M.D.
Burton, J. E., Esq. A Plea for the more Persevering Treatment of Uterine Cancer in Cases in which Operation by Removal is Impracticable.
Duke, Alexander, M.D. On the Use of Additional Traction in Difficult Cases as an Alternative to Craniotomy.
Edis, Arthur W., M.D. The Treatment of Chronic Metritis associated with Retroflexion.
Lediard, A. H., M.D. Alexander's Operation on the Round Ligaments; with Cases and Remarks.
Le Page, John F., Esq. On Axis-Traction in Delivery with Obstetric Forceps. Mr. Le Page will also exhibit Le Page's Axis-Traction Forceps.
Madden, T. More, M.D. Further Observations on certain Mental and Nervous Disorders peculiar to Women.
Meadows, A., M.D. On the Diagnosis of the various forms of Uterine Fibromata.
Murphy, James, M.D. Short Notes of Fifteen Cases of Placenta Prævia, with Remarks on its Treatment.
Roberts, D. Lloyd, M.D. Inversion of the Uterus.
Smith, Heywood, M.D. On a Case of Porro's Operation.
Spanton, W. D., Esq. A Case of Extra-uterine Fœtation.
Tait, Lawson, Esq. Are Diseases of the Ovary (specially Cystoma) on the Increase?
Walter, Wm., M.D. A Case of Hysterectomy for Uterine Fibromata.
Williams, A. Wynn, M.D. 1. On Displacements of the Uterus and their Treatment. 2. On Epithelioma of the Uterus and its Treatment.

Section D.—Public Medicine.

Four topics have been selected for discussion in this Section.

1. Directions in which Public Health Law might be advantageously Amended or Extended. Mr. Charles Wills will read a paper on this subject. Mr. Ernest Hart will read one on the Advisability of an Extension of the Law for the Regulation and Registration of Plumbing in Houses. Dr. William Carter will open a discussion on these papers.

2. Quarantine. Dr. Imlach will read a paper on Quarantine; and Dr. Stocker, lately Government Emigration Inspector at Queenstown, will read one on a cognate subject.

3. Disposal of Town-Refuse. Dr. Goldie and Dr. E. Whittle will read papers on this subject.

4. Etiology of Diphtheria and Autumnal Diarrhœa. Drs. Alfred Carpenter, H. J. Alford, and E. F. Willoughby will read papers on Diphtheria; and Mr. M. D. Makuna one on Autumnal Diarrhœa.

Captain Douglas Galton, C.B., F.R.S., has promised to read a paper on Hospital Construction.

The following papers are promised.

Drummond, Edward, M.D. On the Climate of Rome.
Drysdale, C. R., M.D. The Mortality of the Rich and the Poor.
Hill, J. Higham, M.D. Suggestions for the better Police Treatment of Persons found Insensible in the Streets, and supposed to be under the Influence of Alcohol.
James, J. Brindley, Esq. On Cremation.
Kerr, Norman, M.D. The Present Position of the Habitual Drunkards Movement.
Lowndes, F. W., Esq. How to Make our own Houses Sanitary, with Personal Experiences.
Makuna, M. D., Esq. Small-pox and Vaccination Statistics; Diseases and Injuries to Health Attributed to Vaccination.
Martin, Johnson, Esq. On the Injury done to the Health of the Young by the Present System of Education.
Millican, K. W., Esq. Evolution in Disease.
Shearer, George, M.D. On the Opium-habit.

Section E.—Anatomy and Physiology.

The following papers have been promised.

Anderson, Edward C., M.D. Koumiss: its Modes of Preparation, Varieties Physiological Uses, etc.
Anderson, R. J. E., M.D. Human Ribs.
Archer, R. S., M.B. Note on Congenital Aortic Bands.
Barr, James, M.D. The Causes and Mechanism of the Cardiac Impulse.
Hadden, W. B., M.D. Westphal's Phenomenon, or the so-called Paradoxical Contraction of Muscles.
Thudichum, J. L. W., M.D. On the Chemical Constitution of the Brain.
Woods, G. A., Esq. The Anatomy and Physiology of the Sixth Nerve.

Mr. Lennox Browne will exhibit on the magic-lantern screen, by means of oxyhydrogen light, a series of photographs of the Larynx and Soft Palate in the production of various Musical Tones.

Afterwards, Mr. Emil Behnke, from whom the pictures have been taken, will exhibit his Larynx to the members present, so as to demonstrate practically the physiological facts illustrated by the photographs.

Mr. C. B. Lockwood will show an anatomical specimen illustrating the use of the Fossa at the Lower End of the Fibula.

Dr. E. H. Jacob will show (1) Photographs of Chick Embryos; (2) a Portable Polygraph.

Dr. Francis Warner will give a Demonstration of an Apparatus for obtaining Graphic Records of the Movements of Fingers, Hands, Head, etc., and enumerating them and their combinations.

Dr. John Harker will show a sketch of Abnormal Hands and Feet in the case of an Infant.

Mr. Sibley Hicks will exhibit a series of Embryos to illustrate the Development of the Chick.

Section F.—Pathology.

The following discussions will take place.

1. On Micro-organisms in Disease. To be opened by Dr. Dreschfeld.

2. On the Micro-organism of Typhus. To be opened by Drs. Mott and Blore. Drs. Davidson and Baum will take part.

3. On the Pathology of Dropsy. To be opened by Dr. Lauder Brunton. Drs. Saundby and Churton will take part.

4. On Chronic Inflammations of Bone. To be opened by Mr. Charters J. Symonds.

5. On Primary Growths of the Urinary Tract. To be opened by Mr. Frank T. Paul. Mr. Roger Williams and Mr. Rushton Parker will take part in the discussion.

Cirrhosis and allied conditions of the Liver will be brought forward, should time allow.

The following papers have been promised.

Hadden, W. B., M.D. On Lardaceous Disease of the Suprarenal Capsule.

Le Page, John F., Esq. On Neuropathic Plica.
Mansell-Moullin, C., M.B. On some Forms of Osteitis in Hereditary Syphilis.
Windle, B. C. A., M.B., and Barling, H. G., M.B. The Pathology and Relations of Lupus.

It is desired to illustrate in as complete a manner as possible, by means of preparations and microscopical specimens, the Primary Growths of the Urinary Tract, especially of the Kidney, Bladder, and Prostate. The object of this investigation is to collect all the information that is to be obtained in this country, with the view of deciding what are the primary growths that have been met with in this region. The specimens lent will be arranged in the museum, and a report of the investigation will be brought forward in the Pathological Section by Mr. Paul. The Subcommittee will be very glad to receive (1) recent specimens; (2) mounted specimens of rare growths; (3) microscopical sections (these are specially requested). The specimens and sections will be returned to their owners after the meeting.

Section G.—Psychology.

In this Section, the following special subjects have been selected for discussion.

1. The Employment of the Insane. Introduced by Dr. Yellowlees. Dr. David Bower, Dr. William W. Ireland, Dr. John A. Wallis, and others, are expected to take part in this discussion.

2. Bone-Degeneration in the Insane. Introduced by Dr. Wiglesworth. Dr. William W. Ireland and others are expected to take part.

3. Cerebral Localisation in relation to Psychological Medicine. Introduced by Mr. W. Bevan Lewis. Dr. James Ross, Dr. David Ferrier, Dr. W. W. Ireland, Dr. Fletcher Beach, Dr. Alexander Robertson, and others, are expected to take part.

4. General Paralysis. Introduced (if time permit) by Dr. W. J. Mickle. Several members are expected to take part.

The following papers are also promised.

Baker, John Henry, Esq., and Mickle, W. J., M.D. Some Acts during Temporary Epileptic Mental Disorder.
Hickson, Albert Thomas, M.D. Locomotor Ataxy and General Paralysis.
Huggard, William Richard, M.D. Definitions of Insanity.
Mercier, Charles A., M.B. An Epidemic of Delirium.
Mickle, William Julius, M.D. Visceral and other Syphilitic Lesions in Insane Patients, without Cerebral Syphilitic Lesions.
Sankey, William H. O., M.D. What Phenomena are included in the name of General Paralysis or General Paresis?
Savage, George H., M.D. Some Cases of General Paralysis with Lateral Sclerosis of the Cord.
Shuttleworth, George E., M.D. Is Legal Responsibility acquired by *Educated* Imbeciles?
Wiglesworth, Joseph, M.D. The Pathology of Mania.

Several members will also exhibit Microscopical Sections of the Brain and Spinal Cord.

Section H.—Ophthalmology.

Three subjects have been selected for discussion in this Section.

1. On Tests for Colour-sense and for Acuteness of Vision, with special reference to Schools and Sailors. Opened by Dr. W. A. Brailey, followed by Dr. Snellen (Utrecht). Messrs. Nettleship, Fitzgerald, and Higgens have promised to take part.

2. On the Use of the Magnet in Ophthalmic Surgery. Opened by Mr. Simeon Snell, followed by Dr. W. A. McKeown.

3. On the various methods of Treatment for Sloughing Ulcer of the Cornea, with especial reference to Incision and Scraping. Opened by Mr. T. Pridgin Teale, followed by Dr. Little.

The following papers have been promised.

Abbott, George, Esq. Obstruction of the Nasal Duct, and its Treatment by Styles.
Critchett, G. Anderson, Esq. Ulcers of the Cornea, their Varieties and Treatment.
Forbes, Litton, Esq. 1. On the Relations existing between certain states of the Sexual Organs and Visual Disturbance. 2. The Doctrine of Enucleation.
Higgens, Charles, Esq. On the Treatment of Painful Corneal Ulcers by Warmth and Eserine.
Jones, A. Emrys, M.D. 1. A Case of Orbital Abscess Communicating with the Brain. 2. A Case of Embolism (?) of the Central Artery of the Retina connected with Facial Erysipelas.
Juler, Henry, Esq. On the Relative Merits of the Various Methods of Testing the Refraction of the Eye.
Lee, Charles George, Esq. Notes on the Ophthalmic Conditions of Deaf-Mutes.
McKeown, W. A., M.D. The Treatment of Accidental Dislocation of the Lens.
Macnamara, Charles, Esq. On the Pathology and Treatment of Zonular Cataract.
Mules, P. H., M.D. An Electric Movement for Carter's Astigmatic Clock.
Shears, Charles, M.D. Tobacco Amblyopia.
Snell, Simeon, Esq. Miners' Nystagmus.
Taylor, Charles Bell, M.D. 1. On the Operative Treatment of Sympathetic Ophthalmia, with Cases. 2. On Transplantation of Skin with Temporary Pedicle without Scar. 3. Notes on the Operation for Cataract, with and without Iridectomy.
Watson, W. Spencer, Esq. Shot-silk Appearance of the Retina.
Wolfe, John R., M.D. 1. On the Transference of Conjunctiva from the Rabbit to the Human Subject for the Cure of Symblepharon. 2. On the Treatment of Suppuration of the Tear-passages.

Section I.—Diseases of Children.

Three special subjects have been selected for discussion.

1. Dr. T. Barlow will open a discussion on Rheumatism and its Allies in Children. The following gentlemen have promised to take part in the discussion: Dr. O. Sturges, Dr. Rickards, Dr. Finlayson, Dr. Sansom, Dr. Mahomed, Dr. J. S. Bury, Dr. Donkin, and Dr Byers.

2. Dr. Ballard: On the Etiology and Pathology of Summer Diarrhœa. The following gentlemen have promised to take part: Dr. Borchardt, Dr. Seaton, Mr. W. Hugh Hughes, Dr. Bruce Low, Dr. Strange, Dr. A. Ransome, and Dr. Maccall.

3. Mr. Morrant Baker: On Acute Epiphysal Necrosis and its Consequences. The following gentlemen are likely to take part: Mr. J. H. Morgan, Mr. R. W. Parker, Mr. G. A. Wright, Mr. G. Cowell, Mr. E. Owen, and Mr. A. Cæsar.

The following papers are promised.

Ashby, H., M.D. On Scarlatinal Rheumatism.
Bury, J. S., M.D. A Case of Osteo-malacia in a Child.
Day, W. H., M.D. A Case of Croupous Pneumonia in a Child, treated successfully by the Cold Bath.
Gee, Samuel J., M.D. Some Kinds of Albuminous and Purulent Urine in Children.
Morgan, J. H., Esq. A Case of Epiphysal Necrosis of the Humerus, followed by Considerable Shortening of the Arm.
Morison, B. G., M.B. Infantile Diarrhœa and its Treatment.
Oxley, M. G. B., M.D. Fatal Case of Chorea in a Child aged 10 Years.
Pughe, R. N., Esq. Operations for the Radical Cure of Hernia in Childhood.
Rawdon, H. G., M.D. On the Operation for Hare-lip.
Steavenson, W. E., M.D. On Electricity in the Treatment of Infantile Paralysis.
Sturges, O., M.D. On the Alliance of Rheumatism and Chorea.
Tomkins, H., M.D. On the Clinical Features of Typhus Fever in Children.
Wright, G. A., Esq. On the Value of Localising the Primary Lesion in Joint-disease, as an Indication for Treatment.

Section J.—Otology.

Discussions will take place on the following subjects.

1. A discussion on the more serious aspects of Chronic Purulent Inflammation of the Middle Ear will be introduced by Dr. W. Laidlaw Purves.

2. A discussion on the various forms of Artificial Tympanic Membrane, and their Comparative Value, will be introduced by Dr. F. M. Pierce.

The following gentlemen have expressed their intention of taking part in the discussions: Dr. Edward Woakes, Dr. Thomas Barr, Dr. Urban Pritchard, Dr. William A. McKeown, Dr. J. W. Browne, Dr. Richard Ellis, Dr. H. J. Hardwicke.

The following papers have been promised.

Barr, Thomas, M.D. Practical Observations on the Use of the Cotton-Pellet (Yearsley's Artificial Tympanic Membrane) as an Aid to Hearing.
Cassells, James P., M.D. An Analysis of Ten Years' Aural Surgery.
Forbes, Litton, Esq. The Indications for, and Therapeutic Value of, Myringectomy.
McBride, P., M.D. The Prognosis of Chronic Non-Suppurative Inflammation of the Middle Ear.
Torrance, Robert, Esq. Deafness in Cerebro-spinal Meningitis.
Williams, Richard, Esq. A Fatal Case of Chronic Purulent Inflammation of the Middle Ear, from Extension to the Intracranial Cavity.

No communication shall occupy more than fifteen minutes, and no person shall be permitted to speak more than once, or for more than ten minutes, during the discussion thereon. A short abstract of each paper must be sent to the secretaries of the Section in which it is to be read, not later than July 25th.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay with the secretaries of the respective Sections.

Francis Fowke, *General Secretary.*

London, June 21st, 1883.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ANNUAL MEETING.

THE annual general meeting of the Birmingham and Midland Counties Branch was held at the Medical Institute, Birmingham, on Thursday, June 28th. There were present: Dr. BALTHAZAR FOSTER (the President) and seventy-five members.

The retiring President, Dr. DEWES of Coventry, in vacating the chair, said he wished to express to the members of the Branch his sense of the kindness they had shown to him during his late illness. It was of the greatest possible concern to him, during two or three months in the winter, when he had to go abroad, as to the manner in which he should be able to adequately represent that Branch, but he was fortunate in securing the services of Dr. Foster. He had much pleasure in vacating the position of President, and introducing Dr. Foster. Dr. Foster then took the chair.

The late Mr. J. F. West.—The PRESIDENT moved the following resolution: "That this Branch desires to express its deep regret at the death of Mr. J. F. West, who, from an early date in the history of the Branch until his death, was an active and highly esteemed member." He said that, by the death of Mr. West, the Branch had lost one of its most energetic and ardent workers and supporters.

Mr. O. PEMBERTON seconded the resolution, which was unanimously adopted.

Vote of Thanks to the retiring President.—Mr. BAKER moved a vote of thanks to Dr. Dewes.

Mr. V. JACKSON seconded the motion, and it was enthusiastically carried.

Report of Council.—Dr. RICKARDS read the report. The Council congratulated the Branch on its continued prosperity. The work of the past session had been signalised by the reading of excellent papers on medical, surgical, gynæcological, and ophthalmic subjects; by the discussion of ethical questions; and by the exhibition of cases and specimens of unusual interest. Papers had been read by Dr. Russell, Mr. Furneaux Jordan, Mr. West, Dr. Malins, Mr. Lawson Tait, Dr. Savage, Mr. Priestley Smith, and Mr. Jordan Lloyd. Mr. Macnamara and Dr. Mahomed had addressed a large meeting on the subject of Collective Investigation of Disease.

The Committee of Council of the Association having appealed to this Branch, as to whether it was satisfied with its representation on that body, and also with the principle of the constitution of the Committee of Council, the matter had been considered at a meeting of the Branch, held on January 11th, when resolutions were passed to the effect: that the number of representatives from a Branch should be in proportion to the number of members of that Branch; and also, that the principle of direct representation ought to be applied to the government of the Association.

A special meeting of the Branch had been held, on February 22nd, to consider the desirability of forming a Medical Sick Benefit Society, when it was determined that such a society would be a boon to the profession, and, if instituted in conjunction with the British Medical Association, might be successfully maintained. In answer to a petition from that meeting, the Committee of Council had made arrangements for the further discussion of the matter at the meeting of the Association at Liverpool.

The average attendance at the ordinary meetings of the Branch during the past session had been 43; the total number of members of the Branch was 351. During the past year, ten members had been added, while six had been lost by resignation, and five by death, viz.: Mr. Allcock (Smethwick), Mr. J. S. Gaunt (Alvechurch), Dr. Rowland (Malvern), Mr. Swinson (Sparkbrook), and Mr. Watkin Williams.

At a meeting of the Branch, March 6th, the following resolution was passed: "That this meeting desires to express its sense of the loss the Branch and the Association have sustained in the death of Mr. Watkin Williams, who many years devoted himself to the work of the Branch, both as Treasurer and as one of its first members, and who was, moreover, one of the earliest and most loyal members of the British Medical Association."

At a special meeting, the Council authorised the President (Dr. Dewes) and the Secretaries (Dr. Rickards and Dr. Carter) to sign a petition in favour of the Medical Act Amendment Bill, on behalf of the Branch.

The Council concluded their report by congratulating the Branch on the prosperity of the parent Association, which now numbered over 10,000 members.

The report of the Treasurer, which was read by Mr. OAKES, showed that the Branch was financially in a prosperous state.

Mr. F. JORDAN moved, and Dr. BARLING seconded, that the reports be received and adopted, and the resolution was carried.

The reports of the Pathological and Clinical Section and of the Collective Investigation Committee were read by Dr. SAUNDBY, and were adopted.

Medical Benevolent Society.—Mr. OAKES proposed, and Mr. W. C. GARMAN seconded, a vote of £10 10s. to the Medical Benevolent Society, which was carried.

Medical Institute.—On the proposition of Mr. J. MANLEY, seconded by Mr. L. TAIT, it was agreed to contribute the sum of £10 10s. to the Medical Institute for the purchase of books.

Votes of Thanks.—Thanks were accorded to the Treasurer (Mr. Oakes) and to the secretaries (Dr. Rickards and Dr. Carter) for their past services.

On the motion of Mr. L. TAIT, seconded by Dr. E. UNDERHILL, votes of thanks were given to the chairman and officers of the Pathological and Clinical Section; and a similar compliment was paid to the retiring Council and to the representatives of the Branch in the general Council of the Association.

Officers and Council.—The following gentlemen were then elected. *President-elect:* J. J. Nason, M.B., Stratford-on-Avon. *Secretaries:* E. Rickards, M.B., and A. H. Carter, M.D. *Treasurer:* A. Oakes, Esq. *Council: County Members*, S. H. Agar, M.D., Henley-in-Arden; G. F. Bodington, M.D., Kingswinford; W. C. Garman, Esq., Wednesbury; H. R. Ker, Esq., Halesowen; F. E. Manby, Esq., Wolverhampton; John Manley, Esq., West Bromwich; T. W. Thursfield, M.D., Leamington; T. Underhill, M.D., West Bromwich. *Town Members:* T. H. Bartleet, M.B., T. F. Chavasse, M.B., E. Malins, M.D., D. C. Lloyd Owen, Esq., J. Russell, M.D., R. Saundby, M.D., J. Sawyer, M.D., Priestley Smith, Esq. *Representatives in the Council of the Association:* T. H. Bartleet, M B., J. Bassett, M.D., G. F. Bodington, M.D., E. Dewes, M.D.; B. Foster, M.D., J. S. Gamgee, Esq., J. Garner, Esq., J. Johnston, M.B., H. R. Ker, Esq., F. E. Manby, Esq., J. Manley, Esq., C. A. Newnham, Esq., A. Oakes, Esq., R. Prosser, Esq., R. Saundby, M.D., T. W. Thursfield, M.D., T. Underhill, M.D.

President's Address.—The President, Dr. BALTHAZAR FOSTER, then gave his address. It was published in last week's JOURNAL.

Mr. OWEN PEMBERTON, in moving a vote of thanks to the President for his eloquent and admirable address, said that the profession agreed with Dr. Foster that there was another side to their medical life—a side too little cultivated—probably because of the all-engrossing character of their daily work. But in the midst of their practice every day, they more and more realised the fact that there was a certain leisure time not unprofitably spent, not only for the benefit of the community, but for the large demands of legislation which they had so long been denied. The references made by Dr. Foster to the limitation to vivisection, to the obstruction of the Contagious Diseases Act, and to vaccination, were alone sufficient to constitute the basis for a movement of this kind.

Dr. STRANGE seconded the motion. He said that it was only by combination that the medical profession of the country could hope to occupy their proper position in the governing body of the country. This combination could be best effected by adherence to the British Medical Association, for whilst other medical bodies would decline in influence, the society of which he was the president, regarding as it did the true interests of the profession, must increase and prosper.

Dr. FOSTER thanked the meeting for their attention, and then left the chair.

SOUTHERN BRANCH: ANNUAL MEETING.

THE annual meeting of the Southern Branch was held at the Royal Hants County Hospital, Winchester, on Thursday, June 21st, 1883. Eighty members were present, and Dr. W. ENGLAND (President) occupied the chair.

Officers and Council.—The following gentlemen were elected officers for the ensuing year:—*President-elect:* W. M. Coates, Esq., Salisbury. *Vice-Presidents:* F. R. P. Darke, Esq., Salisbury; James Neal, M.D., Sandown. *Representatives to the General Council:* Professor F. S. B. De Chaumont, M.D., F.R.S., Netley; T. G. Sinclair Coghill, M.D., Ventnor; B. C. Gowing, Esq, Salisbury; W. E. Green, Esq., Sandown; Surgeon-Major G. C. Gribbon, M.B., Southsea; J. R. Kealy, M.D., Gosport; Charles Knott, Esq., Southsea; T. C. Langdon, Esq., Winchester. *Representative on the Parliamentary Bills Committee:* D. Nicolson, M.D., Broadmoor. *Members of Council:* J. W. B. Alder, Esq.; W. F. Brook, Esq.; W. Curtis, Esq.; A. G. Davey, M.D.; H. Dayman, Esq.; H. R. L. Veale, M.D. *Honorary Secretaries of Districts:* Isle of Wight—W. E. Green, Esq.; Southampton—

Theophilus W. Trend, M.D.; Winchester—T. C. Langdon, Esq.; South Wiltshire—H. G. Manning, Esq.; South-East Hants—J. Ward Cousins, M.D. Dr. Ward Cousins was unanimously re-elected Honorary Secretary and Treasurer of the Branch.

Papers were read on the following topics, and discussions followed.

1. The Pyrexia of Phthisis. By Dr. Sinclair Coghill.
2. The Quantitative Estimation of Albumen in the Urine. By Surgeon-General Veale, M.D.
3. A Case of Large Uterine Fibroid. By Dr. C. G. Beaumont.

President's Address.—The President delivered an interesting address on various medical topics.

Luncheon, etc.—Dr. England entertained the members at luncheon, and during the afternoon several places of interest were visited in the locality.

The Dinner took place at the Royal Hotel.

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held on Wednesday, June 27th, at the Museum and Library, Bristol.

New Members.—Messrs. J. S. Hunt, of Shepton Mallett, and A. B. Prowse, M.D., of Clifton, were elected members.

President for the ensuing Year.—The retiring President, Dr. SPENDER, made a few remarks, and resigned the chair to Mr. CROSSMAN, who delivered an able address.

Vote of Thanks.—A vote of thanks to Mr. Crossman for his interesting and valuable address was proposed by Dr. DAVIES, seconded by Mr. BARTRUM, and carried by acclamation.

Report of the Council.—Dr. MARKHAM SKERRITT read the following report.

"In presenting to you their annual report, the Council have much pleasure in drawing attention to the considerable increase in the number of members of your Branch during the past year. Thirty-four new members have been admitted, twelve in the Bath and twenty-two in the Bristol district; and there are now 240 names on the books, as compared with 216 in the previous year. Nine members have resigned during the year, and two have been lost to the Branch by death. Dr. Francis Ker Fox, long at the head of one of the largest alienist establishments in England, was one of the most eminent members of this Branch, and held in high esteem by a large circle of friends, professional and lay. Dr. Fox was President of this Branch at the time when the meeting of the Association was last held in Clifton, when, with Dr. Symonds and Dr. W. Budd—all now lost to us—he gave great *éclat* to that meeting. Mr. G. Edgar Lawrence's death was sad, from his early youth, and from the promise that he was giving of a successful career. His father was long a member of the Bath Council, and much esteemed.

"*Meetings.*—Five of the ordinary meetings of the session have been devoted to the reading of papers and the exhibition of patients and specimens. The following eighteen communications have been made during the year:—Consolidation of a Large Aneurysm without Surgical Interference, by H. Waldo, M.D.; Remarks on some of the more important Operations during Ten Years' Work at the Bristol General Hospital, by N. C. Dobson; Two Successful Cases of Colotomy, by W. H. Harsant; Notes on Cases of Placenta Prævia, by A. E. Aust Lawrence, M.D.; Notes on a Case of Diabetes Insipidus, and a Case illustrating the Effect of Salicylate of Quinine, by T. Cole, M.D.; A Case of Pernicious Anæmia, by A. W. Fox, M.B.; A Case of Gastrostomy, by F. K. Green; A Case of Successful Excision of the Shoulder-joint, by T. Chalmers Norton; A Case of Uterine Fibroid removed by Abdominal Section, by F. Parsons; A Case of Removal of Encysted Osteoma of Neck, by F. K. Green; Anæsthetics, by J. G. D. Kerr, M.B.; A Case of Removal of Angioma of Tongue, by H. W. Freeman; Periodic Squint in the Adult, by F. R. Cross, M.B.; Results of some Surgical Operations, by F. R. Cross, M.B.; Three Cases of Puerperal Convulsions successfully treated by Venesection, by J. Fuller; A Case of Lymphadenoma, by A. J. Harrison, M.B.; and the Utility of the Bacillus Tuberculosis for Diagnosis, by R. S. Smith, M.D. The sixth meeting was set apart for a discussion on the work of the Collective Investigation Committe, when Dr. Mahomed, Secretary to the Committee, delivered an able address; and a debate was afterwards opened by Dr. Field, on Pneumonia, one of the subjects selected by the Committee for observation.

"Your Council would here refer to the part taken by your Branch in the work of the Collective Investigation Committee during the past year. A local committee in connection with the central committee has been formed, consisting of eight members from the Bath district and nine from the Bristol section, which has distributed inquiry-cards and collected returns. Your Council would take this opportunity of urging upon the individual members of the Branch the importance of the work undertaken by this Committee, and they continue to hope that in the future a still more active and general interest in it will be taken.

"*Finance.*—The accounts for the past year show a balance in hand of £6 13s. 8d., and your Council have pleasure in recommending a donation of three guineas to the Medical Benevolent Fund.

"*Local Councils.*—The following gentlemen have been reported by the Secretaries as elected members of the Branch Councils:—For Bath: H. Hensley, M.D.; S. Craddock; A. W. Fox, M.B. For Bristol: E. L. Fox, M.D.; W. M. Clarke; J. G. Davey, M.D.; F. P. Lansdown; C. H. Collins."

On the motion of Mr. C. H. COLLINS, seconded by Dr. R. S. SMITH, it was unanimously resolved, "That the report and balance-sheet now read be adopted."

President-elect.—Mr. MASON proposed, and Mr. MICHELL CLARKE seconded the resolution, "That R. S. Fowler, Esq., be President-elect;" which was carried unanimously.

Votes of Thanks.—Dr. DAVEY proposed, and Dr. FYFFE seconded, "a very cordial vote of thanks to Dr. Spender for his able conduct in the chair during the past year." This was carried by acclamation. The following resolution was proposed by Mr. S. H. SWAYNE, seconded by Mr. GREIG SMITH, and carried unanimously: "That a vote of thanks be accorded to the Council and the Secretaries for their services during the year, and that the Secretaries be requested to continue in office."

Representatives of the Branch on the General Council.—The following members were elected: Messrs. F. Mason; E. L. Fox, M.D.; A. J. Harrison, M.B.; G. F. Burder, M.D.; J. S. Bartrum; E. Crossman; H. Hensley, M.D.; A. Prichard; R. S. Smith, M.D.; C. H. Collins; F. R. Cross, M.B.; and J. Stewart.

Annual Dinner.—The members of the Branch afterwards dined together at the Royal Hotel, Bristol.

MIDLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held in the Board-room at Derby Infirmary, on Thursday, June 21st. Dr. C. HARRISON, the retiring President, took the chair, and briefly introduced the President for the year, Dr. WEBB of Wirksworth.

A Vote of Thanks to the retiring president was proposed by Mr. Joseph WHITE, seconded by Dr. BUCK, and carried.

Officers and Council.—The following were elected. *Representatives in the General Council:* J. W. Baker, Esq.; W. E. Buck, M.D.; C. H. Marriott, Esq.: E. Morris, M.D.; E. Seaton, M.D.; T. Sympson, Esq.; W. B. Tate, M.D.; W. Webb, M.D. *Branch Council:* The same members were elected as last year, with the exception of Mr. Joseph Thompson, who was replaced by Dr. Appleby Stephenson. *President-elect:* J. Beddard, M.B. The Honorary Secretaries and Treasurer were re-elected.

New Members.—The following were elected members of the Association and Branch: Richard Steele, Esq., Lutterworth; George H. Grimoldby, Esq., Stickney; T. W. Graves, Esq., Belper. The following members of the Association were elected members of the Branch: R. Laurie, M.B., Derby; A. Francis, Esq., Derby; H. J. Blakesley, Esq., Leicester; C. J. Bond, Esq., Leicester; W. C. Mac Alevy, Leicester; D. W. Smith, Esq., Boston.

A *letter* was read from Mr. Myers of Somercotes on the parcels post, and how it may affect country practitioners.

Mr. J. W. Baker.—Dr. WEBB proposed, and Dr. GREAVE seconded, a resolution, "That this meeting desires to express its sincere sympathy with Mr. Wright Baker, and regrets the painful necessity which obliges him to be absent from the annual meeting of the Branch."

Collective Investigation of Disease.—It was proposed by Dr. BUCK that the sum of £7 be allowed for one year towards the expenses of the Collective Investigation Committee. Mr. WILKINSON seconded the proposal, which was carried unanimously.

President's Address.—The PRESIDENT then read an address, which was cordially received by all the members present, who passed a vote of thanks to Dr. Webb for his comprehensive and instructive paper.

Candidature of a Homœopath.—A question by Mr. SYMPSON, of which he had previously given notice, as to the action of the local secretary for Leicester in proposing a homœopath as a member of

the Branch, was discussed. At the commencement of the discussion, the gentleman in question (Mr. Bremner of Leicester) was found to be in the room, although he had previously been told that he must consider himself a visitor. He was requested to withdraw, but desired to make a statement before doing so. It was ruled that he could not be heard, when he at once left the room.—Mr. HODGES explained that he had received Mr. Bremner's subscription both to the Branch and Association, and had offered to return the guinea on the rejection of Mr. Bremner by the General Council; this was refused.—The meeting decided that Mr. Bremner, having been declined as a member of the parent Association by the General Council, could not be enrolled as a member of the Branch. All the members present (about sixty), with one exception (Mr. Clifton), voted in favour of this decision.

Papers.—Papers were read as follows.

1. Mr. Treves (London): Scrofulous Glands.
2. Mr. Sympson (Lincoln): A Case of Scleroderma affecting the Lower Limbs.
3. Mr. Hodges: A Holiday Visit to the Eye-Clinic of Heidelberg.
4. Dr. Norman: Treatment of Enlarged Bursa Patellæ.

Cases were shown by Mr. Willan, Dr. C. B. Taylor, Dr. Elder, etc.

Dinner.—The members afterwards dined at the St. James's Hotel.

CORRESPONDENCE.

MEDICAL PROVIDENT SOCIETY.

SIR,—Being greatly interested in the formation of a Medical Provident Society, it appears to me that not hundreds, but thousands should join—nay, every medical man in the kingdom or elsewhere.

The principle of our profession is charity in the highest sense towards the laity; but should not that principle be extended to ourselves? It can, if our professional brethren at large will not expect too much from the Society, and be content to put by yearly a small sum for the advantage, not of themselves, except indirectly, but of their neighbours.

The profession may be roughly divided into two classes: the one which enters it for a livelihood; the other *con amore*, leaving the emoluments to follow as a matter of course. For the first class, the Society may become a necessity, for the second it might not be. Nevertheless, on this *con amore* principle, they would join for the advantage of others, and increase their subscription if it suited them so to do.

My scheme would be to canvass every registered medical man for a yearly donation of twenty shillings as the maximum of joining, on the principle of small profits, quick returns. In case of total disablement, the member should receive £150 a year; no payments should be made for ordinary sickness, unless it extended over a ruinous period of time. At death, a pension or net sum should be paid to the widow.

I would consider that this Society should not be insulted by accepting sums of money from the laity; there are plenty of charities of a medical character for them to patronise. We can patronise ourselves; we have many generous men amongst us, and we like our independence.

In a few years, such a society would be possessed of enormous wealth; possibly then it might be extended, and payments made for advantages to be secured. The scheme of payments, and intended modes of acting proposed, are at present far too high and too complicated to be acceptable to the majority of men who merely wish to benefit their neighbours.

The first thing to be done (according to my humble view) is to get every medical man in the kingdom interested in the feeling that his wife will not be destitute if he be suddenly cut off. Such a feeling will bring relief to many an anxious-minded and hard-working man, who, in considering the benefit he may be possibly conferring on his neighbour, knows that he will not himself be forgotten should calamity overtake him; and this feeling will be purchased for eighty sixpences yearly.—Yours truly,

C. M. JESSOP

PRELIMINARY EXPENSES FUND.

THE following additional sums have been received:—

A. B. Munro, Bradford, 10s. 6d.; and Mr. Robert Head, Balsham, Cambridge, 10s. 0d.

MR. DURHAM AND THE ASSOCIATION OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—Mr. Durham's remarks at the West Kent Medico-Chirurgical Society are as erroneous as they appear to me to be in bad taste. Surely the inquiries made by the President of the Association of Fellows, of the candidates for seats upon the Council of the College, were very pertinent to the election; that they were not impertinent, in its more offensive sense, is, I think, shown by the fact that eight gentlemen either acknowledged or answered them; Mr. Durham being the only candidate who failed to do either. It is surely hardly reasonable for a candidate to expect to represent a constituency while refusing information of his views upon points of importance, when these are courteously solicited. A member of Parliament, even the Premier himself, is accustomed to issue an address, embodying his views, prior to election; and I think very few members would decline to answer reasonable inquiries.

It is quite an error to say that the Association is endeavouring to set provincial against London Fellows. Had this been its object, it would have been easy to have started it as an association of provincial Fellows. On the contrary, the meeting at which it was instituted was called by advertisement to the Fellows generally. Every Fellow attending this first meeting was appointed on the Committee. A metropolitan Fellow was elected as Secretary, and the first committee-meeting was held in London.

It will be a matter of great regret if the metropolitan Fellows, by their abstention (an abstention which, I think, the moderate tone and inoffensive "platform" of the Association hardly justify), should give a sectarian character to the Association, which was formed to carry out no class interest, but purely to obtain a machinery which as yet did not exist, and through which the interests of the Fellows, London and provincial, might be discussed and advanced.—Yours faithfully,

THOMAS BARTLEET.

Birmingham, June 30th, 1883.

INDIAN DIPLOMAS.

SIR,—If so much consideration is to be shown to American and some foreign degrees as many of your readers desire, might not the new Medical Act show a little consideration for the degrees and diplomas granted to assistant surgeons, apothecaries, and others in India? Many of the American graduates to be met with in India have a very hazy knowledge of their profession, which many have only studied for about two years, and only few for more than three years. The apothecary class in India has no analogue at home. Its members, after passing a general entrance examination, proceed to a military hospital for one year and thence to a presidency medical school, where they undergo a four years' course of study, pass examinations, and, after passing the final examination, become "passed hospital apprentices!" As vacancies occur, they are taken on to the establishment of apothecaries. As apothecaries, their duties are similar to those of house-surgeons in English hospitals; in later years, many of them become appointed civil surgeons to small "third class" civil stations. One effect, should the new Medical Act become law, will, I fear, be to set a more factitious value than ever on certain medical degrees, both British and foreign. It therefore behoves the 17,000 members of the English College of Surgeons, who constitute a very important majority of the 24,000 members of the profession, to take good care that all qualifications registered as "higher" qualifications, really are so. Personally, I have a great objection to the large exodus of English students across the Channel and Tweed to obtain, not higher qualifications, but the magic handle of "Dr." to their names. True it is, that the Universities of Oxford and Dublin require a degree in arts before graduation in medicine; but it is doubtful whether these "pass" examinations are as severe as the London University matriculation.

As regards the medical degree examinations, I believe, from all that I have heard from men who have so migrated, that, with the exception of the London University examinations, which stand far apart from many others, and possibly with the exception of the Edinburgh degrees, M.R.C.S. and L.R.C.P.Lond. are professionally equal to any university degrees granted in the United Kingdom.

I would propose that it should be made penal to add such letters to one's name as "M.B.," "M.D.," unless one add also the university

from which they are obtained. The present practice is one, I consider, savouring of quackery, *i.e.*, "trading on a name," more than of anything else. The only possible way for the two English colleges to obtain justice for their *alumni* is for them to obtain a charter constituting them an university, and so converting their diplomas into degrees; they both require a longer course of study than many of the universities do, and their examinations are more difficult. Why should not they then, like the Victoria University, grant degrees in medicine?

In conclusion, I maintain that the M.R.C.S. is the only qualification, with the exception of the L.K.Q.C.P.I.—which some people do not understand—which shows on the surface what its real value is. "M.D." may mean St. Andrew's, the Royal, or London—three very different things. F.R.C.S. may mean Edinburgh or England, which, your readers know, are not quite the same thing.

The Medical Act is required in the interests of the public, in order that they may be able to distinguish the qualified from the unqualified. If this be so, let there be no ambiguity about the way in which registration is to be carried out.—I am, etc.,

SHIRLEY DEAKIN, F.R.C.S.Eng., S.Sc.Cert.Camb.

Allahabad, India.

PULMONARY THROMBOSIS.

SIR,—In the transactions of the Academy of Medicine in Ireland, published in the JOURNAL of June 2nd, appears mention of a communication of mine on pulmonary thrombosis.

Dr. Bennett, who, as secretary of the section, is responsible for the publication of the abstracts of its work, did not ask me for an abstract of my paper, and apparently only mentions it for the purpose of throwing doubt upon it by the prominence he gives to his own disbelief. He never saw the specimen except in a glass jar, by gaslight, and, while mentioning his own disbelief, he omits the remarks of other speakers who agreed with me. I founded my opinions about the specimen upon the fact that the patient died with symptoms of thrombosis, and had no other lesion to account for death, upon the record of such a cause of death in a similar case, upon a careful *post mortem* examination I made myself, upon accurate examination of the specimen, and upon the judgment of persons to whom I had shown it, who are, I believe, competent to form a decision on such a matter.

In the abstract of a communication of his own on Malformations of the Thorax, made at the same meeting, Dr. Bennett omits all mention of a discussion on his case, although at least one speaker of repute expressed his doubts as to whether the condition exhibited was really a malformation, and was not rather caused by old disease.—I am, sir, your obedient servant,

W. THORNLEY STOKER.

16, Harcourt Street, Dublin, June 2nd, 1883.

MILITARY AND NAVAL MEDICAL SERVICES.

MILITIA SURGEONS.

IN recently commenting on the unexpected success which greeted Sir Eardley Wilmot's motion in the House of Commons, on the claims of militia surgeons to pensions and compensations, which, it will be remembered, was lost by so small a majority as to make it a subject of congratulation, we were not possessed of certain facts which have since come to our knowledge, and which show, what we then pointed out, that at a more favourable time and with a little additional effort the government would have been beaten. For it appears that no less than eighteen members who had given written promises to support this motion, were conspicuous by their absence; two members who had written promising to vote in favour of the motion, voted against it—no doubt from pressure brought to bear by the Government; one member, by mistake, went into the wrong lobby. No excuse, that we are aware of, has been offered by these gentlemen for their breach of good faith.

It is evident, therefore, that had these promises been fulfilled, as the militia surgeons were led to expect, there would have been a very substantial majority in their favour.

We are also informed, on good and reliable authority, that the statement by Sir A. Hayter, that the law-officers had agreed that the militia surgeons had no claim in law or equity, cannot be correct, as the Attorney-General stated immediately after the division, as his reason for voting against the motion, that there was no fund from which they could be pensioned or compensated; this is at variance with Sir A. Hayter's statement, that they had no legal or equitable claims.

We have already, in our former correspondence with Mr. Childers, demonstrated to him that no vote for extra money was required, which the militia surgeons were prepared to prove if the committee had been granted, as the Government effects a saving, we believe, from ten to twelve thousand pounds yearly by the removal of militia surgeons. For instance, we mention the fact that 56 militia surgeons have been displaced during the last three or four years, whose average income we will take at £200 a year each (but in some cases it was from £300 to £400 a year); this, at the lowest calculation, gives £11,200 a year saved at the expense of the unfortunate surgeons now, as there are not more than from 25 to 30 surgeons who could or would be entitled to compensation or pension at 6s. a day. This in round numbers would be £100 a year each; this amounts to but £3,000 a year, leaving a balance in favour of the Government of £8,200 a year, and this, be it remembered, at the expense of and out of the pockets of those surgeons deprived in their *old* age (in almost every instance) of their entire means of subsistence. The remaining 26 have either resigned voluntarily, or have been removed by death. Every year some one, two, or even more of the 30 surgeons would pass over to the "great majority," and it would be at least 20 years before any others, who are mostly young men in the prime of life, would be entitled to any pension or compensation. Sir A. Hayter's reply, we are sorry to say, was full of statements, all of which had been already confuted in the several articles which have appeared in this JOURNAL. His statement that there were only pensions granted to surgeons on the permanent staff has been shown to be incorrect, by the opinion of an eminent counsel whom we consulted.

There is not a word in the several Acts of Parliament we quoted in the article "The Legal Rights of Militia Surgeons to Pensions," which necessitated their being on the permanent staff; on the contrary, pensions were therein granted to surgeons (surgeons' mates, as they were then called), paymasters, and subalterns. None of the three latter officers were ever on the permanent staff. Another statement of Sir A. Hayter's we believe also to be incorrect, when he says that militia surgeons were not embodied more than two years. We are in a position to prove there were several who in two (almost) successive embodiments, served from five to six years. The warrant of 1876 to which Sir A. Hayter alludes as decisive against militia surgeons for pensions, only stated that they were not to be entitled to the same pensions granted to medical officers of the army. They do not ask for such, only that granted by the Militia Acts for six shillings a day; but that clause in the warrant of 1876 cannot be interpreted into their receiving no pension; besides which, no warrant can overrule an Act of Parliament. Before accepting the terms of that warrant, Mr. Hardy, then Secretary for War, was written to, and asked if, by accepting service under this warrant, militia surgeons forfeited any of their previous rights, and this of pensions was one of them. His reply was, that "no surgeon accepting service under the warrant would forfeit any of his previous rights." Had it not been for this assurance, no militia surgeon would have entered the Military Medical Department.

The statement that they received £1 a day when serving with their regiments, and that they were only out for a month, scarcely deserves attention. This granting only the minimum pay was one of gross injustice to the older militia surgeons, who, from length of service, were entitled to from 25s. to 30s. The £1 a day being the pay of a surgeon-major on first appointment, and by Acts of Parliament, all officers of militia were entitled, when called out, to the same pay as officers of the regular army; length of service entitled the older surgeons of militia to the higher rates of pay. The £1 a day for twenty-seven days, barely, if at all, suffices to meet mess, band, and other expenses, so there was no boon actually in granting this increase of 2s. 6d. a day for twenty-seven days. The gravamen of the case consists in this: that the older militia surgeons who served during the Crimean war and the Mutiny, sacrificed their practices and appointments, and accompanied their regiments on the faith of these pensions, remaining away from their homes from five to six years. On their return they found their practices gone, their appointments filled by others; and it can be proved that many advertisements for public appointments, contained a stipulation that no militia surgeons would be appointed. They therefore were obliged to content themselves with the emoluments derived from their regiments, and secured, as they were led to believe, by Acts of Parliament for their lives, which, though small, they considered a certainty. In a few years, most of these were taken away by the operation of the brigade department system, and for which, though they were promised compensation, they have never received a shilling. Finally, they were left little or nothing, except some few

who were so fortunate as not to be at head-quarters of a brigade department; and at last they find themselves turned adrift, at sixty-five years of age, too old to begin life anew, and left, as we know in many instances, in destitution and actual want. The plea, therefore, of having practice to fall back upon is only applicable to the younger militia surgeons appointed after the Mutiny, whose regiments have never been embodied, and who have had no disturbance to their practice, at least to any great extent; but even some of these have been taken from Ireland and Scotland, for six weeks to two months, to the camps in different parts of the country; and, though their practices have suffered to some extent, yet they were not kept away for years as the older militia surgeons were. It was only last year, several regiments were kept out for two months, at Aldershot, Shorncliffe, Portsmouth, etc.

The plea of having private practice or private means to fall back upon does not justify the depriving men of even a portion of their incomes in their old age, when it is most required, without a penny of compensation. The assertion made by Sir A. Hayter, "that if it could be shown that a militia surgeon suffered loss from being away from his practice longer than the usual month, that the case would be favourably considered," is delusive; similar statements have been made by three Secretaries for War in reply to questions addressed to them by different members of the House; and although several cases of undeniable loss of practice and income have been submitted to them, either no notice has been taken, or they have been met with the usual official reply, nothing would be granted. We do not plead for those surgeons appointed after the last embodiment, as they have not as yet come under the arbitrary rule of compulsory retirement; but we do earnestly protest against the cruel and unjust treatment the older militia-surgeons have been subjected to; they certainly have equity, if not strict letter of the law, on their side; and as we have clearly demonstrated that no extra expense need be incurred in granting them this small pittance, after so many years of good and faithful service, we trust, as we said in the JOURNAL last week, that the very strong minority which, but for the circumstances before mentioned, would have been a majority, the Secretary of War will reconsider his decision, and at least allow the surgeons to be heard; and if we fail in proving what we have asserted are facts, then they will feel at least satisfied that "might has not been allowed to prevail over right."

We are aware that they are advised that an action at law on the equity, if not the law, of the case, would result in their favour; but they are unwilling to have recourse to this step so long as any hope remains of their just grievances being redressed. We do trust, therefore, that their reasonable request to be heard before a Committee may be gracefully granted.

IRISH STUDENTS AT THE ARMY MEDICAL EXAMINATIONS.

SIR,—As a reply to Surgeon-Major Hamilton's letter, permit me to say that, at a physical examination at Whitehall not very long ago, a candidate was asked by the examiner, "Where are you from?" "From Edinburgh University," was the reply. "Ah! those are the men we want here," said the examiner. This candidate, who had a troublesome varicose vein (according to his own account), and another who had a "weak spot" in the apex of one lung, passed all right; while an unfortunate Irishman was rejected for the result of a slight accident, which had never interfered with health or the most efficient discharge of onerous duties, and which had been unnoticed by his most intimate friends during many years.—Yours, etc., L.R.C.S.I.

PROPOSED MEETING OF VOLUNTEER SURGEONS AT LIVERPOOL.

SIR,—I have great pleasure in supporting the suggestion of Surgeon-Major Evatt in reference to a meeting of volunteer surgeons at the yearly gathering at Liverpool. I trust it will be taken up by volunteer surgeons.—Yours faithfully, TH. M. DOLAN, Surgeon (p.), 4th W. Y. R. V.

Horton House, Halifax, June 1883.

SIR,—I have been trying to get from Dr. Carpenter his authority for the 22,469 French soldiers said to have died out of the "2nd army" of defence, 1870-1, of small-pox, and can only get from him that it is not disputed. I am informed thatit appeared in 1872 in the BRITISH MEDICAL JOURNAL. Can you tell me upon whose authority it appeared there? Dr. Léon Colin does not give the figures, although Dr. Carpenter apparently considers him specially well informed.—Yours truly, ALEX. WHEELER.

*** The statement referred to by our correspondent, which appeared in the JOURNAL in 1872 (vol. ii, p. 333) was made on the authority of the *Wiener Medizinische Wochenschrift*. The latter paper quoted it as a statement made at the International Statistical Congress in St. Petersburg.

WE regret to hear news has been privately received, by telegraph, that Dr. Charles Little, of the Indian Medical Service, Sanitary Inspector of Berar, has been killed by a tiger. No particulars of the sad occurrence are known. Dr. Little was regarded as one of the most rising of the sanitary workers in India. He was gazetted to the Madras Medical Service in March 1872.

THE two appointments of Honorary Physician and Honorary Surgeon to the Queen in the Indian Medical Service, which have been vacant for several months past in consequence of the deaths of Dr. Charles Morehead, C.I.E., and Inspector-General Sir J. Forsyth, K.C.S.I., C.B., have been conferred on Deputy Surgeon-General S. B. Partridge, and Brigade-Surgeon T. E. Charles, M.D., both being medical officers on the retired list. Dr. Morehead's decease took place in September of last year; and the long time which has elapsed before the appointment of a successor to the honorary surgeoncy which he held, has been a subject of frequent remark. Sir J. Forsyth died in January of the present year.

SURGEON-MAJOR R. HARVEY, M.B., Indian Medical Service, Professor of Midwifery in the Medical College of Calcutta, has been appointed Honorary Surgeon to the Viceroy of India, in succession to Brigade-Surgeon T. E. Charles, M.D., retired. Dr. Harvey is a son of Professor Harvey, who, a few years ago, retired from the Professorship of Materia Medica in the University of Aberdeen.

DEPUTY Surgeon-General J. Irvine, Principal Medical Officer of the army of occupation in Egypt, has recently reported that, out of the total number of troops at present in Egypt, 7,390 in number, 516, or 7 per cent., were on the sick list. Dysentery and ophthalmia are the prevailing diseases, but are mostly of a mild type.

INSPECTOR-GENERAL of Hospitals and Fleets David Lloyd Morgan, C.B., M.D., R.N., has been placed on the Retired List of his rank from May 30th.

DR. JOHN FELIX JOHNSON, formerly surgeon in the Royal Navy, died on May 26th, at Downham Market, aged 58.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES IN EDINBURGH AND GREENOCK.

IN the article on the compulsory notification of infectious diseases in the JOURNAL of June 16th, we expressed the opinion that what is now wanted is a "dispassionate and careful inquiry into the actual saving of live effected in those localities where compulsory notification has been for any considerable time in operation," with a view to such further general legislation as shall be acceptable and advantageous both to the public and the medical profession. In alluding to this article, Dr. Littlejohn alleged that the Act which has been in operation in Edinburgh since 1879 meets all the requirements; that "it is popular with the profession and with the general public;" and that it is thus popular because "the interests of the householder have been rigidly guarded against needless injury at the hands of injudicious inspectors," and because "the equally important interests of the medical attendant have been as scrupulously cared for." This we admit is good, but it does not fulfil our first requirement, and afford proof of the actual saving of live effected. All other results must be subordinated to this one. We are unable to gather much comfort from the figures given by Dr. Littlejohn. The Act was introduced "in order to diminish the risk of the spread of epidemic disease;" and yet, if the figures given by him in his letter, published in our issue of June 23rd, prove anything at all, they prove that, with the single exception of small-pox, every one of the diseases scheduled has steadily and progressively increased since the Act was introduced. Eighteen, twenty-three, and forty-five are the cases of typhus fever reported during 1880, 1881, and 1882 respectively; 336, 413, and 639 those of typhoid fever; 1,897, 1,904, and 2,111 those of scarlet fever; 172, 171, and 217 those of diphtheria. Do these figures prove that the risk of the spread of epidemic disease is diminished by the Edinburgh Act?

Dr. Littlejohn attempts to establish the advantages of the Act by stating that the average death-rate of Edinburgh was 20.08 in the four years before it was obtained, and only 19.41 since. But even if these figures are rigidly accurate (and we make this remark because others not quite so favourable have, on several occasions, been published in our columns, and never was contradicted), they surely cannot be held to prove much, if anything, when it is remembered that, throughout England generally, the unprecedentedly low death-rates of 18.9 and 19.16 were recorded for the years 1881 and 1882; and that similarly exceptional health characterised Scotland, her death-rate for 1882 being only 19.3, and that for 1881 only slightly higher, while this last was in its turn far lower than that of any

year since civil registration was first established in that division of the Empire. The death-rate for Edinburgh last year was 19.6, that for Scotland generally being 19.3. But comparisons of this kind prove but little, any more than does that given by Dr. Littlejohn between the zymotic death-rate since the Act, and that for an average of ten years before it. We might be tempted to ask why, in two consecutive sentences, a comparison was made of the general mortality for four years before the Act with that of the three years since, while for the zymotic mortality it was between ten years before and three years after, if we thought that any advantage could come from the reply; but we cannot see that there would be any. The only point to determine is whether Edinburgh has progressed sanitarily faster than other cities, whose conditions are very similar to her own, except in the want of such an Act as she possesses; and this point Dr. Littlejohn does not help to elucidate.

If the mere number of notifications is to be taken as indicative of the advantage of the Edinburgh plan, we are not sure that she will come out well in a comparison with such a town as Greenock, where notification is made by the householder. Thus, for the five weeks ending June 2nd, 245 cases of infectious disease were ascertained by the sanitary department of that town. If this number is about an average, it would give 2,548 notifications for the year; or a considerably higher proportion of notifications than for Edinburgh during 1882. If the latter city's notifications were proportionate to those just given for Greenock, they should have been 8,418, instead of 7,063. And if, in explanation of the difference, it be said: "We have every case reported, while Greenock cannot tell how many are unreported," this remarkable contrast presents itself, which certainly does not seem to tell in favour of the Edinburgh system, viz., that whereas no less than 81 out of 204 cases of measles were discovered by the Greenock sanitary officers, no medical man being in attendance, it was reported in this JOURNAL for April 22nd, 1882, that "a much greater number" than the 2,065 cases of that disease which had up to that time been reported in Edinburgh, probably existed, "as many parents do not send for a medical man in mild cases." The advantage in this case certainly seems on the side of Greenock, where they are sought out, whether attended by a medical man or not. But there are other facts in the history of these two towns which would make us hesitate to accept Dr. Littlejohn's conclusions. Greenock, in the three quinquennial periods before her Act, which placed the onus of notification on the householder, was obtained, had a death-rate which is said to have ranged from 29 to 33.6 per 1,000. During the five years 1876 to 1880, since the Act, it was only 23.3, and in 1881 only 22. The fall in the death-rate from zymotic diseases was equally marked and satisfactory. This seemed a more striking result than the fall from 20.08 to 19.41 relied upon by Dr. Littlejohn, and may, perhaps, be more fully cited as favouring notification by the householder than his can as favouring that by medical men.

ANTIVACCINATION RIOTS: A SALUTARY LESSON.

THE Halifax Antivaccination League have received a lesson which cannot fail to have a salutary influence in other towns. Resistance to the law has been tolerated in some towns. The Halifax bench of magistrates, however, seem fully alive to the necessity of vindicating the law, and we commend their policy to all magistrates and officials who have to deal with the enforcement of the Vaccination Acts.

The following remarks of Mr. Whiteley, mayor, explain what the antivaccinationists attempted to do, and the penalty which they had to pay for their ill-judged opposition to the law. At the Halifax Borough Court, Friday, May 4th, the Mayor spoke as follows. Before the cases were proceeded with, he wished to make a statement with regard to what had occurred on Monday, in the Market Hall, with reference to the subject of vaccination. On the day mentioned, bills were hung in many of the shop-windows, and a band of music was paraded through the streets, both of which were calculated to rouse the passions of the people and to incite to a breach of the peace, and also to prevent the due execution of the law by the officers of that court. The results showed that those acts were calculated to produce that effect, and did so, so far as to interfere with the carrying out of the law. That was a grave state of things to have occurred, and the watch committee of the Town Council had had to decide what they should do under the circumstances. They had, after careful consideration, come to the decision that they would require from the gentlemen whom they believed to be responsible for much of what the watch committee complained of, an apology to be made publicly, and also a promise not to give occasion or do anything which would cause a repetition of Monday's proceedings. If they failed to make that apology and to give the promise, the watch committee believed that they had no option whatever, but to take steps which would bring their conduct before a higher tribunal, in order that that tribunal might determine whether their conduct was legal or not, the watch committee declining to decide in the matter. The bench acquiesced with the committee entirely, and felt that they could not allow an offence of this kind to pass unnoticed. They were willing to hope that the parties did the acts complained of in ignorance of their probable result, and now regretted doing them; and if the regret was made known in a manner satisfactory to the watch committee, no further steps would be taken, but all parties who were brought before the court must understand that, when an appeal was made to the court to carry out the law, they (the bench) had no alternative but to do so; and further than that, he wished to say that, in the opinion of most if not all of the members of the court, they did not carry out this law with any feeling that it was an improper law; but even though this were the case with them, it was their duty to uphold the laws, and punish those who broke them. He made that statement so that those people whose cases were then about to be heard might see the danger incurred by any repetition of the scenes of last Monday. They (the antivaccinators) were at liberty to try by fair means to obtain a repeal of the law, but they must observe it as long as it remained the law; and in their agitation to get it repealed, they must see that they did nothing which would be likely to interfere with the due execution of the law. As he had intimated before, if such a thing did occur, the bench did not feel at liberty to dispose of it, and it would have to go before a higher court.

The result of the Mayor's statement was that the ringleaders published in the *Halifax Journal* of May 5th the following apology:

(*Copy.*) "Halifax, May 4th, 1883.

"We tender to the watch committee of the town our sincere regret that we should have in any way contributed to an obstruction of the due course of the law, by opposing, or recommending opposition to, the sale of goods taken under the authority of the law. And we promise that we will not repeat the offence.—JOSEPH WALSHAW, JOHN IMBERY, JOHN WALSHAW."

NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—If the Bill for Notification of Infectious Diseases is to be anything better than a sham, the profession must be prepared to bear the onus of notification, however ungrateful the task may appear to be. If left to the householder, difficulties will arise. There will be misunderstandings between him and the medical attendant as to the certainty of the diagnosis, and excuses will naturally, if not designedly, crop up for delaying the notification to the last minute.

Again, some householders will omit to notify, preferring to risk detection; and, if detected, will plead ignorance of the nature of the disease, or endeavour to cast the blame on the medical attendant for alleged inexplicitness.

Under any circumstances where delay in notifying may be accidentally or wilfully protracted, it is not difficult to see that serious results might occasionally follow.

Further, if notification is not to emanate from the medical attendant, or, in other words, if the responsibility is to be borne by the householder, it requires no stress of imagination to see that the sanitary authority will, if he choose, find ample pretexts for making officious inquiries that, although justifiable, must almost inevitably lead to friction, which, under other circumstances, would be avoided.

Now, if the notification of infectious diseases is to be general, that is, applicable to all classes of society, and not accompanied, as I understand, by irritating inquiries and interference on the part of the sanitary authority. I fail to see why the profession should not adopt a liberal-minded policy, and co-operate in a friendly manner for the attainment of a general good. It is often among the better class of patients that the advice of the medical attendant in enjoining measures for preventing the spread of infectious diseases (I allude especially to the too frequent early exposure after scarlet fever) would be made effective by the influence that could be brought to bear upon them, if necessary, through reference to the sanitary authority. As to the confidence of the patient being betrayed, as alluded to in your leading article, through notification by the medical attendant, this would surely prove the exception to the rule. The public would soon regard in its proper light the fulfilment of an habitual legal obligation. It should always be remembered that the good of the minority must yield to that of the majority.

The remedy for the apprehended encroachment on the rights of the profession through the Bill, lies in the possession of that qualification for prescribing such sanitary directions to our patients, as would make the unsolicited interference of the State officer manifestly supererogatory.—I am, sir, yours faithfully, W. F. CLEVELAND, M.D.

June 19th, 1883.

CORK MATERNITY.—At the recent examinations, at the close of the past session, the following gentlemen obtained prizes and certificates: Mr. W. J. Moynihan, first (prize); Mr. W. C. D. Prendergast, second (prize); Mr. R. Kelly, third (certificate).

SANITARY INSTITUTE OF GREAT BRITAIN.—The anniversary meeting of the institute will be held, by the kind permission of the board of managers of the Royal Institution, in their theatre, Albemarle Street, on Thursday, July 12th, at 3 p.m. The chair will be taken by Professor Humphry, M.D., F.R.S., and an address will be delivered by Mr. W. Eassie, on "The Relationship between Geology and Sanitation." The medals and certificates awarded to the successful exhibitors at the exhibition at Newcastle in 1882, will be presented at the meeting.

PERFORMANCE IN AID OF THE VICTORIA CHILDREN'S HOSPITAL.—On Saturday, June 9th, a dramatic performance in aid of the fund for erecting a new out-patient wing at the Victoria Hospital for Children, Chelsea, was given in St. George's Hall by a number of distinguished amateurs. Mr. W. S. Gilbert's "fairy comedy," *The Palace of Truth*, was rendered with great spirit. Mr. Quentin Twiss, in the part of the would-be cunning old king, was received with great applause; and Mrs. Beerbohm Tree appeared to much advantage as the heroine. The performance was due to the initiation of Mr. Walter Pye, one of the surgeons to the hospital, and has resulted, we understand, in a substantial addition to the fund for a much needed improvement.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, July 2nd.

The Cholera in Egypt.—The Earl of WEMYSS asked what precautions had been taken in consequence of the outbreak of cholera in Egypt, to prevent the disease from being brought into this country.—Earl GRANVILLE: Your lordships are aware that there has been an outbreak of cholera in certain portions of Egypt, chiefly at Damietta, and that at this time of the year that country is peculiarly unhealthy. There is not the slightest evidence of cholera having been brought by ships from India to Egypt. Her Majesty's Government have suggested no alteration in the regulations for protecting Egypt from the danger of disease, and we have no reason to believe that any changes will be made in these regulations. We are told that the Egyptian Government have displayed great energy in isolating the districts in which cholera has appeared. The Marquis of Hartington immediately telegraphed to the English military authorities to take the most stringent precautions with regard to the troops there, particularly calling their attention to the regulations adopted in India under similar circumstances. These instructions had been already anticipated before they reached Egypt. With regard to our Mediterranean ports, a quarantine of ten days has been ordered at Cyprus, twenty-one days at Malta, with precautionary measures, and twenty-one days at Gibraltar, also with precautionary measures. It is impossible for me to say anything of an official character about what amount of danger there may be to Europe from this disease that has suddenly broken out in Egypt; but I think it may be satisfactory to your lordships to have the opinion of Sir William Gull. He says, in a letter addressed to myself, "I have watched with some interest the character of the reported outbreak of cholera in Egypt. Up to this time I have not thought there was much ground of alarm either for Egypt or for the spread of the epidemic in Europe. Where epidemics of cholera have been extensive and severe, they have generally been preceded in the foregoing winter and spring by scattered cases. On this occasion it has not been so. The reported outbreaks have been local and sudden, and I believe that at present we may expect it will subside and not become epidemic."

Tuesday, July 3rd.

Lunatic Poor (Ireland) Bill.—Lord CARLINGFORD moved the second reading of this Bill, which, he said, would provide for the care of lunatics in Ireland being transferred to the Local Government Board. The afflicted poor, who were now wandering about the country, would be collected into the workhouses of the unions where they were found, and they would remain in such workhouses until they were discharged.—After discussion, in which the Marquis of Waterford, Lord O'Hagan, the Earl of Limerick, the Earl of Rosse, and the Earl of Longford took part, the Bill was read a second time.

HOUSE OF COMMONS.—Monday, July 2nd.

Promotion in the Indian Medical Service.—Mr. GIBSON asked the Under-Secretary of State for India whether there was not great stagnation of promotion and consequent dissatisfaction in the Indian medical service; whether that stagnation was not owing to the abolition of a number of higher grade appointments, and also to the disbandment of a number of native regiments; whether the prospects of promotion to the rank of deputy surgeon-general of several brigade-surgeons and surgeons-major in the Indian medical service had been destroyed by recent alterations and arrangements which did not exist when the officers affected joined the service; whether the Government would consider the propriety of granting increased pensions to such brigade-surgeons and surgeons-major as compensation for their altered prospects and as inducements to retire and make vacancies for the surgeons on the establishment who were now unemployed; whether the difference between the rates of pay drawn by brigade-surgeons and surgeons-major and the rates of pay that would be drawn by junior officers for the same duties would more than compensate Government for the increased expenditure that would have to be incurred to induce senior officers to retire; and whether the Government have any scheme ready to meet the grievances of the Indian medical service.—Mr. CROSS: The disbandment of native regiments, though it reduced the number of "independent charges," and thus added to the number of "unemployed officers," could not affect their promotion, which in the executive branches is governed solely by length of service. In my reply to the hon. member for Waterford on the 28th of May last, I explained that a considerable reduction in the number of appointments to the Indian Medical Service during the past and present years would shortly remove the difficulty temporarily experienced through the disproportion of officers to the number of independent charges. In this expectation, it is not considered expedient to have recourse to the offer of higher rates of pension as an inducement to the senior officers to retire, and it is unnecessary, therefore, to calculate what the financial effects of such a measure would be. With respect to the alleged abolition of a number of higher grade appointments, page 283 of the papers presented to Parliament in 1881 (C. 2,921), respecting medical officers in India, gives a dispatch from the Government of India showing that the total loss of administrative appointments for the whole of the medical service, consequent on the reorganisation of the medical administration, was only one. The injury to the service is, therefore, nominal, though doubtless the arrangements consequent on the reorganisation have retarded the possible selection of some few officers. Such chances, however, are to be looked for in all branches of the public service, and are not considered in this case to justify the grant of any special compensation. The question of the future organisation of the medical service for India is now the subject of discussion with the War Office, but it has no reference to any grievance of the Indian or British medical service, and it has not yet reached a state at which any statement could be usefully made to the House.

Hospitals in Ireland.—Mr. MOORE asked the Chief Secretary for Ireland whether he was aware that the workhouse hospitals were in many districts the only similar institutions available for paying patients and people in well-to-do circumstances who were suffering from infectious diseases; whether he was aware that there were powers of compulsory removal of such persons from their homes under certain circumstances; whether it was a fact that all persons, except the men of the Royal Irish Constabulary, were compelled to wear the workhouse uniform, provided by the guardians, while in the hospital, and that great exception was taken to this by paying patients; and whether, taking these facts into account, with a view to check the spread of infection, by removing every obstacle to such persons going into hospital, he would urge the Local Government Board to modify their rules in this respect.—Mr. TREVELYAN: The facts are as stated in the first two paragraphs of this question. With regard to the dress of patients, the present practice has been in force since the year 1862. Boards of Guardians were then advised by the Local Government Board, that persons in fever hospitals ought not to be allowed to wear their own clothing, but that a simple form of hospital dress, having nothing in common with the ordinary workhouse dress, should be provided. The Local Government Board believe that in some instances guardians relax this rule in the case of the constabulary and other paying patients; but they regard this relaxation as very objectionable. They think that persons returning to their own homes in the dress they have worn in hospital, are likely to spread infection. This opinion appears to be well founded, and I fear, therefore, that any change in the regulations such as is suggested by the hon. member, would not be likely to tend towards the restriction of the spread of infection.

Cholera in Egypt.—Mr. GOURLEY (for Sir E. WATKIN) asked the Under-Secretary of State for Foreign Affairs whether, considering the appearance of epidemic cholera in Egypt in the vicinity of the Suez Canal, Her Majesty's Government were taking steps to bring about an international convention as to quarantine, with a view, not merely to check the progress of the disease, but also to minimise inconvenience and loss to the shipping interest and to travellers; and whether Her Majesty's Government had considered the scheme for international agreement as to quarantine formulated in 1879 by Sir Sherston Baker, and published in that year by the Association for the Reform and Codification of the Law of Nations.—Lord E. FITZMAURICE: Her Majesty's Government have no present intention of taking steps to bring about an international convention or congress as to quarantine, nor have they received any proposals to that effect. Her Majesty's Government are acquainted with the proceedings of the Association for the Reform and Codification of the Law of Nations, and the views of the author referred to.

Medical Act (1858) Amendment Bill.—On the motion of Dr. LYONS, this Bill was read a second time.

Lunatics in Ireland.—Colonel KING-HARMAN asked the Chief Secretary to the Lord Lieutenant of Ireland whether he would give some information during the present session of the manner in which Her Majesty's Government proposed to deal with the question of harmless lunatics and idiots in Ireland; and whether he would endeavour to bring in a Bill early next session to legislate on this

important subject.—Mr. TREVELYAN: I do not think I could satisfactorily enter upon this subject in reply to a question, but perhaps I may find an opportunity of doing so when the estimate for the Lunacy Department is under consideration. I will endeavour to bring in a Bill next session, should the Bill which has already been introduced in another place not reach the House this session.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE LINCOLN LUNATIC HOSPITAL.

THE value of the annual report of the Lincoln Lunatic Hospital would be much enhanced by the addition to it of a statement of the results of treatment, and the system of management pursued, by the Resident Medical Officer. The reports of the Committee and of the Commissioners in Lunacy, and the statistical tables appended to them, fail to afford information on many points which can only be suitably dealt with by a medical officer. In almost every other asylum in England, a report by the medical superintendent is published with the other official documents, and the Lincoln Lunatic Hospital would do well to follow the general example. Various improvements have been carried out in the old lunatic hospital, which was the cradle of the non-restraint system of treating the insane in this country, and the governors are now able to give a satisfactory account of its financial condition. Under the zealous superintendence of Dr. Russell, the number of patients has considerably increased. The Commissioners suggest that the profits could not be better expended than in providing such accommodation for the Medical Superintendent as would enable him to marry. The veto upon the marriage of the Medical Superintendent now existing must, they point out, prevent any efficient medical man from holding the post, except as a stepping-stone to something better; and frequent changes of the chief officer must certainly militate against the success of the institution.

MEDICO-LEGAL NOTES AND QUERIES.

ACTION FOR BREACH OF CONTRACT.

IN the High Court of Justice, Chancery Division, the following case (Hollman *v.* Pullin) has been heard before Mr. Justice Pearson.

This was an application by the plaintiff, as chairman and on behalf of the Tunbridge Wells Benefit Societies' Medical Association, for an injunction to restrain the defendant, a doctor of medicine, from practising his profession within three miles of Tunbridge Wells, contrary to the terms of an agreement entered into between him and the plaintiff, by which the defendant agreed to attend the sick members of the society, and not to engage in any private practice whatever; and the agreement contained a provision that, upon leaving the service of the Association, the defendant should not be allowed to practise, either by himself, or in copartnership, or as an assistant to any other medical practitioner, within a radius of three miles, under a penalty of £200, which sum might be recovered at common law.

Mr. Glasse, Q.C., and Mr. Warrington appeared in support of the application; and Mr. Cozens Hardy, Q.C., and Mr. Chadwyck Healey for the defendant.

Mr. Justice PEARSON alluded to the question which had been raised as to whether the Court could grant an injunction in such a case as this, where a penalty was provided in the event of the contract between the parties being violated. His Lordship said he would not, on the present application, decide that question; but the inclination of his mind was that he should not consider the clause in the agreement to signify any more than this: that if the defendant chose at any time to leave the service of the Association, he was at liberty to do so upon payment of the penalty of £200. All his Lordship would now decide was that there was no case for granting an injunction before the hearing of the action.

OBITUARY.

GEORGE B. WHITELEY, M.D.

DIED suddenly, near the end of June, at Aix-les-Bains, George Benjamin Whiteley, M.D., aged 75. He was educated at St. Thomas's Hospital, London, and at Edinburgh, where he graduated in 1832, and was President of the Royal Medical Society in 1831. After graduation, he went to Syria as medical missionary from the Christian Medical Missionary Association, and there remained three years. He afterwards settled in Tours, then much frequented by English, and stayed till 1848, when the revolution obliged strangers to leave that town. He then became private physician to an English lady of title at Orleans, till 1858; when, on account of his health, he removed to Cannes. Here he was the first English physician established in practice, in the time of Lord Brougham, and remained ever since much respected by both English and French residents, and taking a prominent part in promoting the welfare of this favourite health-resort. He was a member of the British Medical Association. His loss will be much regretted by his numerous friends.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentleman was duly admitted Fellow on June 28th, 1883:

Herbert Watney, M.D.Cambridge, 1, Wilton Crescent, S.W.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners on the 4th instant, and, when eligible, will be admitted to the pass examination, viz.:

Messrs. A. C. Purchas, J. E. Gemmell, and T. G. Churcher, students of Edinburgh; J. T. Winter, and T. J. Brown, of the Manchester School; C. E. Cameron, McGill College; S. A. Erulkar, of the Bombay School; Henry Shackleton, of the Dublin School; J. G. Adams, of the University of Cambridge; Richard Pearson, of St. George's Hospital; J. F. H. Edwards, of the Birmingham School; and Gaspar Griswold, of the New York School.

Nine candidates were referred for three months, and three for six months.

The following gentlemen passed their primary examinations on the 3rd instant, viz.:

Messrs. A. J Briant, A. E. Davis, C. L. Martin, and Benjamin Sumner, of the Liverpool School; John Barker, and R. M. Hay, of the Newcastle School; Evan Evans, of St. Mary's Hospital; J. E. Mirza, of the Bombay School; D. McB. Greig, of University College; E. E. Bowden, of the Manchester School; W. D. Oakley, of McGill College; S. R. O. Dudfield, of the Cambridge School; C. J. Glasson, of the Bristol School; and F. D. Bird, of the Melbourne School.

Ten candidates were referred for three months.

The following gentlemen passed on the 4th instant, viz.:

Messrs. H. H. Corbett, T. S. Heaton, and Herbert Blackburn, of the Manchester School; John Jeeves, and C. E. Baxter, of the Sheffield School; J. G. Laing, of the Liverpool School; J. H. Collymore, of Guy's Hospital; H. H. Crickitt, of St. George's Hospital; W. K. Clayton, of the Leeds School; P. G. Meldrum, of the Toronto School; B. C. Simpson, and R. J. Burns, of the Newcastle School; Thomas Richards, of the Bristol School; and G. W. F. Paul, of University College.

Nine candidates were referred for three months, and two for six months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, June 28th, 1883.

Brown, William Henry, Parkhurst Road, Bexley, Kent.
Cox, John Henry, Doddington Grove, Kennington.
Hill, Thomas James Cooke, Bonython, Grampound, Cornwall.
Fletcher, Wilfred William Ernest, Malvern Cottages, Thornhill Road, N.
Marling, William Haygarth, Sunderland.
Mills, Robert, Edward Street, Hampstead Road, N.W.
Scott, Bernard Charles, Derwent Road, Anerley.
Strugnell, Walter Thomas, Portsdown Road, Maida Vale, W.

AT the recent Examination for the Prizes in Botany, given annually to Medical Students by the Society of Apothecaries, the successful candidates were:

Hoffmeister, George Bernard, St. Bartholomew's Hospital, Gold Medal.
Green, Frederick William, St. Bartholomew's Hospital, Silver Medal and a Book.

UNIVERSITY OF DURHAM.—At the examination for degrees in Medicine and Surgery, in the Easter Term 1883, the following satisfied the examiners:

Degree of Doctor in Medicine for Practitioners of Fifteen Years' Standing.—Matthew Coates, F.R.C.S.; Edward G. Gilbert, M.R.C.S., L.S.A; Matthew Hill, M.R.C.P.E., F.R.C.S.Edin.

Degree of Doctor in Medicine.—James T. Callcott, M.B,, M.R.C.S.; Basil W. Walker, M.B., M.R.C.S., L.S.A.

Degree of Bachelor in Medicine.—First Class Honours: None. Second Class Honours: George H. Rodman, L.S.A.; Joseph A. Hutchinson and Septimus T. Pruen, M.R.C.S. (equal). *Pass List.*—Edmund L. Archer, M.R.C.S., L.S.A.; Richard Brown; William M. Buxton; Ambrose E. Lea Charpentier; Frederick Eastes, M.R.C.S.; Henry M. Fenwick; Arthur Hepworth; Llewellyn A. Morgan; George W. Ridley; Walter B. Tomson; Charles A. Wigan, M.R.C.S.

UNIVERSITY OF DUBLIN.—At the Trinity Term examination for the degree of Bachelor of Medicine (M.B.), held on Monday and Tuesday, June 11th and 12th, the successful candidates were arranged in the following order of merit:

Alexander Ambrose, John Harrison Scott, Alworth E. Wright, Francis James Drury and Arthur F. Geoghegan (equal), Hugh Falconer Oldham, Monckton O'Dell Braddell, Frederic Conway Dwyer, Charles Thomas Poland, George M. Dobson, Henry McQuade, James Sullivan Green and Henry Neville Thompson (equal), Robert Edward Sproule, Hugh Nugent Kenny, Henry Edmund Blandford, George Cowen and William Fenton (equal), John J. Cochrane, Edmund F. Beveridge, Charles H. Blood, and Cecil A. Digby.

At the Trinity Term examination for the degree of Bachelor in Surgery (B.Ch.), held on Monday and Tuesday, June 18th and 19th, the successful candidates passed in order of merit as follows:

Alexander Ambrose, John Harrison Scott, Monckton O'Dell Braddell, Francis James Drury, Thomas W. Haughton, Hugh Falconer Oldham, Charles W. Hamilton, George Cowen, Charles Thomas Poland, Frederic Conway Dwyer and Henry Neville Thompson (equal), Alworth E. Wright, Cecil A. Digby, James Sullivan Green, Edmund F. Beveridge, and Charles J. Fagan.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH OF SHEFFIELD.—Resident Medical Officer. Salary, £200 per annum. Application by July 17th.

CHILDREN'S HOSPITAL AND DISPENSARY, Gartside Street, Manchester.—Dispenser. Salary, £93 per annum. Applications by July 10th.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Two Assistant-Surgeons. Salaries. £160 per annum (out-door). Applications to the Secretary, Mr. J. Bullivant, 58, Abbey Street, Derby, by July 24th.

GLASGOW EYE INFIRMARY.—Resident House-Surgeon. Salary, £75 per annum. Applications by July 10th.

GLASGOW ROYAL INFIRMARY.—Physician to a New Department for Skin Diseases. Applications by July 16th.

HACKNEY UNION.—Vaccination Officer for the West District of the Union. Remuneration estimated at £62 per annum. Applications by July 10th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Physician. Applications by July 11th.

HOSPITAL FOR WOMEN, Soho Square, W.—Dispenser (Non-resident). Salary, £100 per annum. Applications by July 14th.

JOINT COUNTIES ASYLUM, Carmarthen.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Hearder by July 7th.

LEEDS PUBLIC DISPENSARY.—Medical Officer. Applications to Mr. H. B. Hewetson, 11, Hanover Square, Leeds.

OWENS COLLEGE, Manchester.—Assistant Lecturer in Materia Medica and Pharmacy, and Curator of the Materia Medica Museum. Stipend, £120 per annum. Applications by July 18th.

QUEEN'S HOSPITAL, Birmingham.—Honorary Surgeon. Applications by July 9th.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Brighton.—Dental Surgeon. Applications by July 12th.

ST MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Demonstrator of Physiology and Histology. Salary, £100 per annum. Applications by July 7th.

ST. THOMAS'S HOSPITAL.—Assistant Dental Surgeon. Applications to Mr. Tritton, the Counting House, Westminster Bridge, by July 10th.

STOCKTON-UPON-TEES HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £200 per annum. Applications by July 14th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon. Salary, £90 per annum. Applications to W. H. Kitson, Esq., Hemsworth, Torquay, by July 16th.

VESTRY OF LAMBETH.—Medical Officer of Health for the Parish. Salary, £300 per annum. Applications, endorsed "Application for Appointment of Medical Officer," by July 12th.

MEDICAL APPOINTMENTS.

BATE, H. H., L.R.C.P., appointed Medical Officer to the Tisbury Union, Hindon District, *vice* S. R. Holdsworth, L.R.C P.

BENHAM, H. A., M.D., appointed Assistant Medical Officer to the City and County Lunatic Asylum, Stapleton, near Bristol, *vice* R. Fullerton, M.B.

BICKLE, L. W., M.R.C.S., appointed Resident Medical Officer to the Queen Charlotte's Lying-in Hospital, *vice* H. L. P. Hardy, M.R.C.S., resigned.

BUTCHER, J. O., L.D.S., appointed Dental Surgeon to the Dental Hospital of London, *vice* W. F. Cornelius, L.D.S., resigned.

HEWETSON, H. B., M.R.C.S., appointed Surgeon to the Eye and Ear Department of the Leeds General Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

CASH.—July 2nd, at Drumearn, Earlsfield Road, Wandsworth Common, S.W., the wife of J. Theodore Cash, M.D., of a son.

MAINE.—On June 27th, at The Laurels, Clacton-on-Sea, the wife of Walter Maine, of a son.

SANKEY.—July 1st, at Hatton, near Warwick, the wife of Herbert R. O. Sankey, M.B.Lond., of a daughter (still-born).

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Medical Titles.

SIR,—When an extra-licentiate of the Royal College of Physicians passed his examination before leaving the College, he was styled "Doctor" by the College authorities. After having addressed him as "Doctor" for many years, the College, with feminine fickleness (*varium et mutabile*), now calls him "Mr." The problem is, what is he to call himself under the new Act? His Alma Mater adopted him and now repudiates him, he not having sinned against her. No illegitimate was ever so cruelly treated.—I am, faithfully yours,

A FOUNDLING.

SIR,—Your correspondent signing himself "Honestas," in a recent number of the JOURNAL, is very irate at the Irish and Scotch Physicians styling themselves Doctor. If "Honestas" will take a common-sense view of the case, and read the history of the Colleges, and, in addition, the legal decisions given, one especially in the trial Trinity College, Dublin, *versus* King and Queen's College of Physicians, he will see that the judge held very different opinions to his. As one of those who use the prefix Dr. as a "right," I have no objection to relinquish it, provided that some legal status and distinctive designation be given, as it is desirable for the licentiates and members of Royal Colleges of Physicians, who are under great restrictions as to practice, and pledged not to do any act compromising the honour and dignity of their colleges, should be distinguished from M.D.s, so many of whom are vendors of Windsor soap, tooth-brushes, jujubes, and porous-plasters, and retail bottles of physic at sixpence each.

It is noticeable that many medical men lack that want of courtesy which is due to each other; the M.R.C.S. is much offended if not dubbed Esquire; but what right has he to it? While he, in addressing a Member of a College of Physicians, gives him no title other than the one he himself takes, assuming an equality of qualification too often the offspring of a jealous mind, perhaps not to be wondered at when so many are in the profession who have risen from a comparatively low position to what they feel is a high one. Some of these persons illustrate the truth of the old adage of a "beggar on horseback." The public care nothing for qualification; if they like the man, and have confidence in him, the title is of no consequence to them; but they are often much amused at the paltry professional jealousies and squabbles, especially among those men who think to raise their own status by trying to depreciate others. A M.R.C.S. and L.S.A., who gives his neighbour the M.R.C.P. no other title than the one he claims for himself, deserves to be addressed by what I believe to be correct, "Surgeon-Apothecary." Would he like it? Probably not. Why shouldn't he? I would suggest, to settle the question, that a man should be known by his qualification; M.D.s as such, and not Physicians, unless members or licentiates of a college; L. & M.R.C.P. as Physicians; and Surgeons as such; Apothecaries as such likewise. I may mention the opinions of Chief Justice Coke, Mansfield, Denman, and Ellenborough, were that "physicians are doctors."—Yours obediently,

K.Q.C.P.

Miscarriage at Seven Months: Monstrous Fœtus.

SIR,—A. C., a tradesman's wife, aged 27, miscarried on June 19th when in her first pregnancy. She had been frightened by a drunken man two days previously. Her health during gestation had been fair, though she was never very strong. The fœtus had been dead sufficiently long to allow epidermal peeling to begin. It was about the ordinary size of a seven months' child, but both arms and legs were rotated on themselves, and towards the mesial line. The female genital organs were normal, as also was the anus. The eyes and mouth were well-developed, but no trace of nose or nasal cavity could be found. The space from the occiput to the middle dorsal vertebræ was occupied by a cyst under the cuticle, containing about four ounces of serous fluid.—I am, etc.,

GERALD E. BARRON, M.B.

Winkfield, Windsor.

HAMPSTEAD.—The power of conferring such medical degrees has, we believe, been abolished.

Cystocele complicating Labour.

SIR,—The record of this very rare complication of labour, in the JOURNAL for May 12th, induces me to write you a note of a similar case that occurred here recently.

Six weeks ago, a woman presented herself complaining of a "bearing-down" that had existed for some months, causing much discomfort in walking, and intense pain and difficulty in micturition. She was seven months pregnant of a third child. On examination, the bearing-down proved to be the anterior wall of the vagina prolapsed to the size of a large orange, and carrying the fundus of the bladder with it. The mucous membrane of the prolapsed vaginal wall was dried and tanned and cracked from long exposure to the air and friction against the thighs in walking. The cystocele was replaced, and, next day, a globular pessary (a tennis-ball did admirably) was introduced, with the effect of giving immediate relief. She now walked comfortably, and micturated with ease that had long been strange to her. When seen four days afterwards, the improved condition still continued. No more was seen or heard of her till Saturday, May 5th, when a message came that she was in labour, and flooding severely. She was at once seen, and, on examination, the cystocele was found to be much larger than before, its surface covered with superficial ulceration from the continued exposure and friction. There was also slight prolapse of the posterior wall. When questioned, she admitted that she had removed the pessary after wearing it for a week, and gave no good reason for her conduct. The os was with difficulty found, and was of the size of half-a-crown; the cervical segment of the uterus was fully dilated. The cause of the flooding was not evident; but, as it had now quite stopped, and the head presented normally at the brim, and there were only slight pains, the cystocele was carefully returned, she was left for two hours, absolute quiet in bed being insisted on. On examining her afterwards, the os was as before, but the membranes were ruptured, and an arm prolapsed alongside of the head. The arm could not be returned, and I resolved to turn at once—a difficult undertaking, considering that only the index and middle fingers could be inserted through the os. With these fingers alone, unaided by the thumb, diagnosis of hand from foot is not easy, and firm prehension of a slippery foot almost impossible. The foot was brought down by inserting the index nail into the dorsum of the foot—a proceeding adopted without compunction, as the cord was quite pulseless. Delivery of a fairly large child was effected in half-an-hour, notwithstanding the obstructing cystocele. The passage of the head was accomplished by making traction with the left hand, while the fingers of the right kept up the cystocele and let the occiput slip past. On account of the large ulcerated surface, weak injections of permanganate of potash were begun next day, and the woman has since made a rapid and perfect recovery, without a single untoward symptom.—I am, etc.,

ASSISTANT.

Concealed Syphilis.

SIR,—In your leading article on the Contagious Diseases Act, in speaking of compulsory examination, you remark: "But there is another point which has never been sufficiently strongly put. It is the ignorance of women themselves that they are in a condition to communicate disease." Having a very extensive field for the observation of venereal disease in this town, where the Act is not in force, I can testify most decisively to the truth of that statement.

In as far as my experience goes, without compulsory examination, the Act would, without doubt, fail in its most important point. I could relate many cases where, without doubt, disease, more particularly syphilis, has been communicated; and only on being accused of the fact, and referring to a medical man, has the fact come to light that the woman has had anything whatever the matter with her. In several cases it has been in kept women, who, under most cases, would be the last to run the risk, knowingly, of infecting their friends.

The common prostitute, in most towns, is placed in such a position, that she cannot but infect, knowingly or unknowingly. During my recent absence from home, my *locum tenens* was called to a woman in private apartments, whom he found to be suffering from advanced secondary syphilis. He advised her to go at once to the dispensary. On the Friday after my return, a gentleman applied to me suffering from gonorrhœa, and on the Saturday another gentleman came with an indurated chancre. Both these cases could be distinctly traced to this woman. In consequence of my strongly condemning this poor creature, she, having no hospital or infirmary where she could be admitted, transferred her trade to Sheffield.

Two nights afterwards, in conversation with the chairman of the Board of Guardians, I warmly advocated that some proper accommodation ought to be provided for these wretched cases to recover in; he told me that recently they had thirty cases in the workhouse infirmary, but, on these women refusing to work, they were turned out to earn their own living, as they must have been aware they would be obliged to do.

A case of decided ignorance of the existence of disease came under my notice very recently. A gentleman came to me with the primary lesions of syphilis. He could not, he informed me, have got it from any source but from the woman he kept; and so convinced was he of her innocence, that it was some time before I convinced him that it was not an ordinary excoriation. However, it was arranged that I should examine the girl, which she was most anxious to have done, and then I found an indurated, but already healed, chancre. Subsequently, both the cases confirmed my diagnosis by becoming covered with secondaries.

I write you these few facts, and could multiply them tenfold, for what they are worth. To my mind they are most forcible, more so, perhaps, in coming from a town, which, not being anywise under the Act, enables me to place this statement in a perfectly free way before you, whether I advocate the Act or not.—I remain, yours very truly,

EDW. B. HOLWELL, M.R.C.S.Eng.

34, Park Square, Leeds.

Medical Life Peers.

SIR,—The elevation to the peerage of Sir Beauchamp Seymour and Sir Garnet Wolseley, and the granting of a baronetcy to Sir Spencer Wells, are enough to cause thoughtful Englishmen to ask themselves if they distribute their honours and rewards with justice and wisdom. A sailor and a soldier, because they have brought a petty war against a feeble foe to a speedy conclusion, are granted peerages, pensions, decorations, and rewards; whilst a surgeon, who has raised an operation, which a few years ago was looked upon as an act of butchery, to be one of the most successful in surgery, is given a baronetcy. It is true that this sailor has commanded a fleet, and this soldier an army, each of which has killed a thousand Egyptians; but, on the other hand, this surgeon has saved the lives of a thousand Englishwomen by his own hand. The soldier and sailor have had distinctions showered upon them by a Christian nation, that mockingly prays to the Almighty, "Give peace in our time, O Lord," whilst it glorifies war in the persons of those who carry it on, and selects them as the fittest men in the nation to produce a race of hereditary senators.

Which of these three men have done most for the good of England and the human race? Which should have had the greatest honour done them? How long will the noble profession of medicine allow itself to be passed over with cold disdain, whilst soldiers, sailors, lawyers, clergymen, porter-brewers, and even secretaries to prime ministers, are made peers of the realm? Are there not amongst our leaders men who would confer more honour on the peerage than the peerage could confer on them? Life-peerages, and not baronetcies, are the only just rewards of our foremost men.

As this is not a subject that the heads of the profession can take up, it remains for the members of our Association in their Branches to agitate for this reform.—Yours faithfully,

JOHN FLETCHER LITTLE.

Ben Rhydding, June 19th, 1883.

Suicide by Carbolic Acid.

SIR,—The following brief notes of a case of poisoning by carbolic acid may be interesting. On Saturday morning, June 9th, I was called to see C. P. H., a member of the metropolitan police force, who was doing duty at Ascot during the races. He had got out of bed, gone to a tin of Calvert's No. 5 carbolic acid, of which he had charge for flushing sewers, etc., drawn about apparently eight ounces of it in a mug, gone back to bed, laid down on his back, and poured it down his throat, spilling some over his cheeks, beard, etc., but swallowing the greater part of it.

When I saw him, which was about three-quarters of an hour after he had taken it, he was dying, being totally unconscious and pulseless; his pupils were contracted to pin-holes. He died ten or fifteen minutes afterwards, without any struggle or convulsion. The time from his taking the poison to his death was a little over an hour. No *post mortem* examination was allowed. The coroner's jury did not elicit any reason for the act. He was a sober steady man of many years' service, and, as far as appeared, with no particular trouble on his mind. He had, however, I believe, stated to a comrade a day or two before that he did not feel very well.

His comrades, within five minutes of his taking the acid, poured milk, oil, etc., down his throat, and endeavoured to cause vomiting, but without success. The case seems interesting from the deliberateness of the act, the apparent absence of motive or of insanity, and the rapidly fatal termination, though remedies, appropriate as far as they went, were immediately made use of.—I remain, yours truly,

GERALD E. BARRON, M.B.

Winkfield, Windsor, June 17th, 1883.

HYPODERMIC USE OF ERGOTIN.

SIR,—In reply to "Inquirer," I have used ergotin hypodermically for several years, principally in cases of hæmoptysis, and occasionally in *post partum* hæmorrhage, and can speak very highly of its effects. I do not remember using it more than twice in the day, the first injection usually having a decided effect on the hæmorrhage. In the case of a lady who died of phthisis, I used it very frequently; it always stopped the bleeding, and so marked was its effect, that the patient when sending for me for the hæmoptysis, always asked me to take the injection-case. In the case of a *postpartum* hæmorrhage I have not used it so frequently, but always found it useful. I have never seen the injections, even when used separately, cause local disturbance more than with morphia. I use the following solution. The quantity for injection appears large, but I prefer it to a more concentrated solution. The formula I copied from, I believe, the pages of this JOURNAL some years ago.

Dissolve 200 grains of the extract of ergot in 250 minims of water by stirring, filter, and make up to 300 minims by washing the residue in the filter with water. Each minim represents six grains of powdered ergot, ten to twenty minims for a hypodermic injection.—Yours faithfully,

Whitby, June 5th, 1883. T. TINLEY, M.R.C.P.E.

STATUS OF FOREIGN GRADUATES.

SIR,—It may probably interest your correspondent "M.D.Brussels," and scarcely less, perhaps, no inconsiderable section of the profession in this year 1883, to learn, as matter of historic fact, if not legal precedent for all time, that, as founder and first president of the "Association of Foreign Graduates" (1858) comprising, as it then did, nearly 500 of the best known medical men in Great Britain, I have had the good fortune, or otherwise, of being instrumental in the legal adjustment of the status of Continental M.D.'s in this country.

Dr. Thorn, of Harrow Road, was the able and zealous honorary secretary, who shared with myself protracted labour, cost, and anxiety on this question; and we numbered amongst us Fellows of Royal Societies, Colleges of Physicians and Surgeons, and other *savants*. Mostly, alas, like the hunter and the deer, a shade.

Coincidently with a variety of kindred causes elsewhere, there was the trial of Ellis *v.* Kelly in the Exchequer of Pleas, in the course of which, all the judges concurred in the revision of issues in courts below, as expounded by the Lord Chief Baron, to this effect, briefly: "A Doctor in Medicine of the Protestant University of Bavaria (the Erlangen degree being the document impeached), is entitled, in equity, to the rights and privileges belonging to the academic title of M.D. in this country, whether registered under the Medical Act or not; and no court of law or justice, other than the University Court, which created the Doctor, or conferred the grade and rank, has authority, power, or prerogative to unfrock him."

The above cause was tried in November 1860, and fully reported, with "verdict for defendant, with costs," in the law journals, as well as in the *Times*, *Standard*, *Daily Telegraph*, etc; in fact, it was noticed by the press generally. Although Dr. Kelly had English qualifications besides, I regret to add that, like "M.D.Brussels," he was previously the innocent victim of egregious invective and professional obloquy.—I am, etc.

A FOREIGN GRADUATE OF FORTY YEARS' STANDING.

SUBSCRIBER.—Under the circumstances stated, "Subscriber" would have been justified in referring the applicant to the parochial medical officer, whose duty it is to attend to such calls.

JOKES WHICH MIGHT BE DISPENSED WITH.

AT a meeting of the Toxteth Board of Guardians held on May 17th, it was reported that a letter had been received from the Local Government Board, stating that the district auditor had reported to them that no account of the consumption by paupers, of drugs supplied to the outdoor dispensary by the guardians, was kept by the dispenser. The Board desired to be furnished with the observations of the guardians on the matter.

The clerk had prepared the following reply, which he read. "My lords and gentlemen,—I am directed by the guardians to acknowledge the receipt of your letter of the 11th instant, in which you state that the auditor had reported that no account of the consumption by the paupers of the drugs supplied to the outdoor dispensary by the guardians is kept by the dispenser. I am to say that as pills, plasters, decoctions, syrups, and other medicines are dispensed on the order of the medical officers from drugs bought in bulk, it is difficult to see how any acount in detail could be kept of their consumption by the paupers. The drugs are contracted for, ordered through the order cheque book, invoices for them are examined by the guardians and myself, and a stock-book is kept. The guardians, even with the assistance of members of the Pharmaceutical Society who have seats on the board, felt incompetent to formulate an efficient, or anything like an efficient, check beyond their personal watchfulness and observation; and as any extravagant use by the dispenser of prussic acid, belladonna, nitric acid, arsenic, nux vomica, sulphuric acid, strychnine, or castor-oil as condiments would be followed by immediate exposure and detection, they thought a graceful confidence in his integrity would be a better protection against a depraved palate such as an apothecary might have acquired by long familiarity with his pharmacopœia, than the institution of a worthless check." The guardians approved of the reply, and ordered it to be sent to the Board.

A YOUNG MEMBER.—The form "I hereby certify" is, we believe, sufficient in England.

NAQUET'S HAIR-DYE.

SIR,—In reply to "Hirsutus," Naquet's dye is not a success. Though carefully prepared according to the published directions, and also in a modified form by adding the equivalent quantity of hyposulphite of soda to liq. bismuthi am. cit. P.B., which fluid is almost the same strength as the tartaric solution of Naquet, the result is that a reddish colour is produced on the hair which stains both night and day linen, for which reason there is an almost insuperable objection to its use. Possibly, if it were persevered with, the requisite shade of brown or black might be attained for the hair, but it would also involve pillow cases, etc. A solution of permanganate of silver appears to answer best, and can be obtained from any wholesale druggist.—Yours, etc.,

B. B.

BORACIC DUSTING POWDER.

SIR,—As the allusion to Mr. S. Huggett's letter on this subject in the last issue of the BRITISH MEDICAL JOURNAL might lead your readers to infer that our "Sanitary Rose Powder" contains starch, we shall feel obliged if you will allow us to state that our preparation does not contain starch of any kind.—

We are, yours respectfully, JAS. WOOLLEY, SONS, AND CO.

69, Market Street, Manchester, July 3rd, 1883.

COMMUNICATIONS, LETTERS, etc., have been received from:

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AN ADDRESS
ON
CHANGE IN MEDICAL PRACTICE.

Delivered at the Annual Meeting of the Midland Branch.

By WILLIAM WEBB, M.D., F.R.C.S., J.P. Co. Derby,
President of the Branch.

GENTLEMEN,—You have paid me a great compliment and done me much honour in appointing me your President for this year; and I should be wanting in common gratitude if I did not, whilst offering to you all a most cordial and hearty welcome once more to Derbyshire, convey to you at the same time the expression of my most sincere thanks. You have on this occasion departed from the usual custom, and have been pleased to select as your President one who does not reside in the county town; and I am the first country doctor in Derbyshire who is the fortunate recipient of this honour. I do not owe it, I am sure, to any special merit of my own, but probably to my long connection with the British Medical Association. Having been a member of this society for the long period of thirty years, having attended during that time at least a third of its annual meetings and many of these Branch meetings, and having, by your favour, held for some years a place on the General Council—a body now almost *in articulo mortis*—it is, I think, due to this combination of circumstances that I occupy the position in which you have been so good as to place me this day; and, as I regard it as the highest position to which any medical practitioner resident in these four midland counties of Leicester, Lincoln, Nottingham, and Derby can hope to aspire, you will not be surprised when I say that I enter upon its duties with very great diffidence; and, indeed, I should shrink altogether from the responsibilities of such a position, were I not assured of your kind indulgence, sympathy, and support, during my year of office. Relying, therefore, most fully upon you in this respect (and I know that I shall not rely in vain), let me state at the outset that, whatever may be my own shortcomings, it will be the object of my most earnest endeavour to discharge the duties with which you have entrusted me to the best of my ability, and to emulate the excellencies of those eminent men who have preceded me in the work. I can well remember the first Branch meeting which I attended at Derby, in the year 1855—a meeting over which the late Dr. Heygate presided; and can call to mind, even at this distant period, the substance of some of the papers read at that time, and especially of one, an exceptionally able paper on Cerebral Pathology by my esteemed friend Dr. Hitchman, the accomplished physician of that day at the Derby County Asylum. I have a very pleasant recollection of that meeting—a recollection which has verified to me the prophecy of the well-known quotation from Virgil—

"Hæc olim meminisse juvabit."

Bnt, alas! there is a melancholy as well as a pleasant side to the picture before my mind's eye at this moment; for, looking round this room to-day for the faces of old members who were present at that meeting, I can see but very few. They have, with few exceptions, disappeared from amongst us; they are gone from us—gone, we trust, to reap their great reward, after a life-long devotion to the responsible duties of their calling.

There are many subjects to which I might with advantage direct your attention to-day, and the first that occur to me are the changed character of medical practice and the altered views in pathology in the present, as compared with those in the past generation of medical men. When I was serving an apprenticeship many years ago, it was a common practice to bleed, and to bleed largely from the arm in many diseases, especially in acute rheumatism, or, as it was then called, rheumatic fever, and in inflammations. In these days, a better acquaintance with the pathology of rheumatism, and the chemical as well as physical changes which we believe in a great measure produce it, thanks to the researches of Garrod, of Latham (of Cambridge), and others, has made us abandon this remedy altogether, and resort to a more rational treatment; and we now either give alkalies in large doses or try to cut short the disease by salicylic acid or the salicylates. Sydenham was a great hand at bleeding in rheumatism; for he says, after advising a single free bleeding in a case of acute rheumatism (Sydenham, Thomas, *Opera Universa*, Section vi, Caput v): "Die sequente tantundem detrahi præcipio, atque intercalato die uno alterove pro ægri viribus tertio: dein interjecto trium quatuorve dierum intervallo (prout ægri vires, ætas, constitutio, aliæque circumstantiæ, suadent monentque) quarto atque ultimo, ut plurimum venæ sectionem repeto." It appears, therefore, that Sydenham, two centuries ago, bled generally four times in a case of acute rhematism; and so did he also in some other inflammatory diseases. Now, however, inflammations are often presented to our notice in such an adynamic type as to render the very reverse of the antiphlogistic the most approved treatment. It is true that we do see now and then a case of pneumonia in a young athletic subject, in which the dyspnœa is at once relieved, the distress mitigated, and the disease apparently cut short, by a single free bleeding from the arm; whilst other cases of pneumonia assume a typhoid form from the first, and present themselves in numbers at one place, as it were in an epidemic wave. I have seen four such epidemics of pneumonia in Derbyshire in the last two years. It is in these latter cases that depletion is altogether inadmissible, and we resort rather to a good supply of nutriment and stimulants, in the form of beef-tea, brandy, wine, and ammonia. There are, I think, very cogent reasons for believing that these are cases of true blood-poisoning.

The same remarks apply to some extent to typhoid fever. There are cases of this disease, in which the Peyer's glands do not proceed either to the sloughing or the ulcerative stage; whilst there are others of extreme gravity from the first invasion of the disease. There is in these latter cases serious disturbance of the nervous centres, and rapid destruction of tissue; and these are the cases, I think, which require the most judicious management. The incautious removal from bed, the administration of other than a milk-diet, or the neglect of stimulation at the proper time, may place the sufferer from typhoid in a condition of imminent peril. As a rule, I believe, the more delirium in typhoid fever, the more brandy. In these cases, good nursing is our sheet-anchor; and happily, now-a-days, we have not to rely upon the "Betsy Prigs" and "Sairey Gamps" of the last generation; but, thanks to the large-heartedness of Dr. Ogle, in this county, and others of our profession, as well as of many benevolent persons in this and the neighbouring counties, we have now nursing institutions from which competent, skilled, and well-trained nurses can generally be obtained. Pardon me, whilst I acknowledge with gratitude in this place, the indebtedness of our profession to one who was certainly the pioneer of this great movement: whose self-denying labours for the benefit of the sick and injured in the Crimea have now become a matter of history, and will be remembered for all time; whose efforts to provide skilled nurses for our hospitals and other public institutions, and whose interest in every good work which has for its object the welfare of her suffering fellow-creatures, continue unabated. You know to whom I refer. It is to one whom it is my privilege to call my friend; after whom has been named the new wing of this hospital—our own Derbyshire heroine, Florence Nightingale.

The localisation of the functions of the brain has marked a new era in the progress of medicine. Ferrier has shown by experiments upon animals, and by watching cases of disease and injury, that special functions reside in, or belong to, certain parts of the grey matter of the encephalon. This knowledge is, I take it, but yet in its infancy; and there has been work cut out for the present, and perhaps the next, generation of practical observers. Notwithstanding the obstruction occasioned by the prevention of experiments on animals on the part of the legislature, I look for important results in this matter, as well as in clearing up many disputed points in reference to acute and zymotic diseases, to the Collective Investigation Committee of this Association. For changes of a practical kind, which the gradual advance of pathological research has made in our knowledge, I might refer you to a hundred examples; but I shall be content to refer you to one only—viz., Bright's disease of the kidneys. We now recognise various changes in these organs, having as a common symptom, albumen in the urine; and it is only by reference to the history of the patient, and a careful microscopical, as well as chemical examination of this secretion, that we are enabled to determine the specific organic change with which we have to deal. There is the kidney of acute desquamative nephritis, or acute Bright's kidney, so often an associate of scarlet fever—indeed, I may say, its constant associate; and the various forms of chronic Bright's disease: as the large white kidney, the common result of the acute affection; the amyloid, so frequently noted in strumous disease, and in necrosis of bone with long-continued discharge; and the contracted granular, or gouty kidney. The contemporaneous changes, which are now, mainly through the labours of Dr. George Johnson, known

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to take place in the heart and arteries in chronic kidney disease, have also formed matter for interesting pathological research. These changes have been called an *arterio-capillary fibrosis* by some authorities; but, as they probably owe their origin to the increased specific weight of the blood, from the defective excretion of the urea, I am inclined myself to the general belief that they consist mainly in a hypertrophy of the muscular coat of the arteries, and of the left ventricle of the heart, by reason of the difficult work thrown upon these parts of the organism by the poisoned blood. There may also be a condition of *fibrosis* in some cases, especially in those who have indulged largely in spirit-drinking. Be this as it may, the retention of urea, and the changes to which it undoubtedly gives rise, go far to explain the tendency to death in chronic Bright's disease by coma and apoplexy. The examination of the retina by the ophthalmoscope has given us another help in our diagnosis in Bright's disease. Certain changes in the retina—such as "an ill-defined disc, the presence of ecchymoses, of white spots, and subretinal effusions"—in other words, the existence of albuminuric retinitis, affords very strong presumptive evidence of the coexistence of chronic Bright's kidney. I need not ask if such an aid to our diagnosis had ever been suggested, or even thought of, a quarter of a century ago.

I might go on to enumerate the changes which have taken place in our pathological knowledge in reference to all the other organs. I might talk of tubercle being an inflammatory disease, having its primary origin in an organism or bacillus, and of the close alliance between the breaking up of lung-tissue in phthisis, and of the softening of a pneumonic consolidation; or I might tell you of cases of diabetes which have fallen under my own observation, and which have resulted from over-work of the brain, or to the damage which that organ has sustained by accident, causing by this brain-damage some change in the portal blood, and consequent interference with the glycogenic function of the liver; but I have said enough, I think, to prove that medicine has made marked progress in the last quarter of a century.

In surgery, as in medicine, rapid strides have likewise been made. The antiseptic method in the dressing of wounds and the use of the Listerian spray have done much to advance the surgical art, and decreased, I believe, the mortality after severe injuries and operations. The practice of excision of joints, long since advocated by Fergusson, was an important step in conservative surgery, as it can be done in many cases in which amputation would otherwise be called for; whilst the use of anæsthetics enables us now to cut down upon, and remove, either piecemeal or in their entirety, without suffering to the patient, bones undergoing the processes of caries or necrosis. In these days, we do not hesitate to open the large serous cavities, and remove organs, which, in the event of their being retained much longer, would be certain death to the sufferer. Witness the interesting case of the successful removal of one of the kidneys by Dr. Elder of Nottingham, brought before our notice at the last annual meeting of this Branch; and also a case of resection of a portion of bowel, reported by Mr. Treves a short time since; and, in cases of empyema, numberless instances have proved the wisdom of making a free incision into the cavity of the pleura, evacuating the pus, and washing out the pleural cavity twice a day, or as often as may be required, with a weak solution of carbolic acid and water; whilst in cases of simple pleuritic effusion, the serous fluid is now readily removed by aspiration, without the least risk of the introduction of air, or, in other words, of the carrying in of germs with the atmosphere, and so converting a case of simple effusion into one of empyema.

I may just allude to the many improvements in the methods of amputation with which the names of Carden, Teale, and Furneaux Jordan are connected; to the treatment of irritable growths by the external application of ethylate of sodium, and of nævi by electrolysis, so ably brought before our notice and illustrated by many successful cases by Dr. Newman of Stamford, and to the many improvements in the treatment of diseases of the urinary organs, associated with the names of Sir H. Thompson and Harrison of Liverpool. The radical cure of hernia by exciting adhesive inflammation, and so blocking the inguinal and crural canals, and preventing the subsequent escape of the intestine into its abnormal position, practised at first by Wützer, by Wood, and by Redfern Davies, has latterly received important additions, and been rendered, I think, more simple and secure, by the ingenious contrivances of Mr. Spanton, of the North Stafford Infirmary.

In the practice of midwifery, and the diseases of women, there has also been exhibited marked progress. Practitioners do not wait now, as they formerly did, in cases of lingering and protracted labour, without manifest reason for doing so, till the strength of the patient is well nigh exhausted; but the forceps is applied in good time with very little risk to either the mother or child; and the danger arising through long continued pressure from sloughing, of vesico-vaginal fistula, and other serious consequences, is immeasurably lessened. There is no department of the profession in which the doctrine of antisepticism is of more signal service than it is in midwifery practice. By the use of carbolic acid, terebene, and other well known antiseptic fluids, the germs which arise in putrid animal secretions are destroyed, and are no longer in danger of multiplying themselves indefinitely. Dr. W. Roberts[1] has quoted from some authority (who, I forget at this moment) "that bacteria doubled themselves in twenty minutes, and that in a fortnight they had a thousand successive generations, which was equivalent to a thousand years in the life of the wheat plant, and thirty thousand in the life of a man." The expression of Shakespeare, "the life of all the blood is touched corruptibly," aptly illustrates the manner in which puerperal fever is induced by living germs locked up in the cavity of the uterus, and absorbed therefrom into the circulation. The doctrine, therefore, of "omne vivum de vivo" appears to be as true in reference to bacteria, or the germs of putrid animal secretions, as it is in reference to other organic bodies. Is it too much to expect, that by care and attention, as well as by Listerian helps, puerperal fever will become by-and-by a thing of the past?

The operation of ovariotomy, so much dreaded thirty years ago, and then undertaken only in well selected cases, is now performed daily with the most favourable results, thanks to the aid which Listerism gives; and also to the improvements in the operation itself made by Sir Spencer Wells, Keith of Edinburgh, and others. But I am bound in justice to say in this place, that the statistics of Lawson Tait are equally good without any Listerian precautions, but with the most rigid attention to every detail, and the utmost cleanliness. I must not detain you longer on this point; but I think I have said enough to show that every branch of medicine has made decided progress in our time, and that this progress has been brought about by a better understanding of the minute microscopical and cellular structure of tissues and organs, and by a truer pathology, or, in other words, a better knowledge of the changes which these cells of tissues and organs undergo in disease.

Socially, I think, the prospects of the profession are brighter. The poor-law doctor still remains, however, a very hard-worked and ill-paid individual. He is at the beck and call of any person, by night as well as by day, who can get an order for his attendance, and he is often severely handled by those in authority, and who know, or ought to know, the many difficulties with which he has to contend. Such an officer is expected, both by the poor and the authorities, to be almost ubiquitous; and if he be a public vaccinator, he is often made responsible for any strumous peculiarities in the children he vaccinates. There is a better look-out even for him, for the Poor-Law Medical Officers' Association, and its indefatigable chairman, Dr. Rogers, will not rest until they have materially improved his position. Taking Derbyshire as a standard, the salaries of the poor-law medical officers ought to be at least doubled, and to be made dependent upon the area, population, and pauperism of the districts. It is not satisfactory to us to note the low salaries in Derbyshire, as compared with the salaries in many other counties.

The passing of the "Public Health Acts," the formation of areas, and the appointment of medical officers of health thoughout the country, have been, I think, productive of much benefit to the public, insomuch as the general and zymotic death-rates are certainly lower; it is estimated that men have gained about 4, and women about 6 or 7 per cent. of life.[2] There is still much to be done before zymotic diseases are effectually stamped out. Public opinion, and a supposed interference with the liberty of the subject, often oppose themselves to the legitimate work of the health-officer, and necessarily cripple his efforts, as well for the public as for individual good.

It is an opprobrium to sanitary science, that we should ever again see another case of typhoid fever: essentially a filth fever, and owing its origin to germs, present always in the secretions of a typhoid patient, and probably, during the process of decomposition, in all decomposing and putrid matter, germs which enter the body from without, whether through the medium of the water we drink, the food, or the air being charged with them. It would be better were officers of health appointed uniformly over a large area, well paid for their services, and debarred from practice. This would

[1] *Transactions of the International Medical Congress*, London.

[2] Noel Humphreys.

prevent the public interest clashing in any way with private professional work.

There is only one other point to which I beg leave to refer, and that is, the abolition of the system of apprenticeship in the medical profession. This question was well discussed, you will remember, at a Branch meeting held at Matlock Bath some years ago; and I then advocated, as I do now, a return to a modified apprenticeship of about two years. Any medical practitioner who has been in the habit of employing assistants in his work, will bear me out in the truth of what I now say, that those men are the most useful, in the country at least (I had almost said the only useful men), who have spent some time in a surgery under experienced eyes, and are practically conversant with the details of general practice.

In conclusion, gentlemen, I think you will admit that we belong to a profession which is largely unselfish, and which is doing an amount of gratuitous work amongst the poor (and also, I fear, amongst those who can afford to pay for it), the benefit of which cannot be estimated. The members of it, often regardless of remuneration, work hard by night and by day, and for what? Wealth and position? Most emphatically, no. These rewards fall to the lot of but few of our *confrères*; witness the records of the Medical Benevolent Fund and the Medical Benevolent College, two institutions which I recommend most strongly to your support. Medical men are placed daily and hourly in positions of imminent peril. A cut at a *post-mortem* examination, or the contraction of germs of disease, may either kill them outright, or prostrate them for weeks and months upon a sick-bed, and in the end imperil their usefulness. The late lamented Dr. Anstie, a man whom the profession could ill afford to lose, died, you will remember, six days after an injury at a *post mortem* examination. Notwithstanding these dangers and perils, which are always before him, the doctor never hesitates, but, like a brave and gallant soldier as he is, he goes boldly to the front, and wages incessant war against those enemies of our race, disease and death.

> "A wise physician, skilled our wounds to heal,
> Is more than armies to the public weal."

The services of the profession of medicine are not, I think, recognised as they ought to be. There are scarcely half a dozen members of it at present occupying seats in the House of Commons, and not a single member has as yet found his way into the House of Lords. Would that august assembly, think you, lose one jot or one tittle of its dignity by adding to its ranks a Paget, or a Jenner?

No, gentlemen, we cannot, like the clergyman, however meritorious our services may have been, whether in a public or private capacity, or whatever help we may have given to the progress of our art, see, even in a far-off view, a place on the episcopal bench, or anything corresponding to it, or a seat in the House of Lords, as a reward for our work; neither can we, like the lawyer, behold—it may be, looming in the far distance—the woolsack as the "ultima Thule" of our ambition. No, these rewards are not for us; these honours descend not to the votaries of physic; but other rewards and other honours we can and do obtain; not the least of which, I take it, are the pleasure and delight which arise in every well-regulated mind from the conscious knowledge of work well done, of labour honestly performed; and there is not, I believe, a single medical practitioner, whatever may be his position, whether he be practising his profession in any of the great centres of population, in the which he may have achieved a far and wide fame—a fame extending far beyond the area of the town or even the county in which he lives—or whether he be pursuing his more arduous and certainly not less responsible work in a much more humble sphere, perhaps in a remote country village, having secured, by dint of his own industry, skill, and perseverance, a reputation equally sound, but limited and confined within a very narrow circle—I say, there is not a single practitioner who may not derive pleasure, and comfort, and satisfaction—a satisfaction far greater than that arising at any time from the acquisition of either gold or place—from a knowledge of the fact that he has endeavoured, and is endeavouring, through evil report and through good report (however much he may have fallen short of his own hopes, wishes, and aspirations in this respect), faithfully, honestly, and conscientiously to fulfil the duties and the obligations which belong to the responsible position and station in life in which Almighty God has been pleased to place him.

Bequests.—The late Mr. James Carlisle, J.P., of Belfast, among other bequests, has left £500 to the Belfast Charitable Society; £500 to the Belfast Royal Hospital; £200 to the Belfast Hospital for Sick Children; and £200 to the Belfast Ophthalmic Hospital.

AN ADDRESS
ON
THE GERM THEORY OF DISEASE.

Delivered at the Annual Meeting of the East Anglian Branch.

By JOHN LOWE, M.D.,
Consulting Surgeon to the West Norfolk and Lynn Hospital; President of the Branch.

Gentlemen,—In occupying the honourable position which I do to-day, through your good-will and sufferance, my first and most pleasing duty is to offer you on my own behalf, and on that of my professional brethren in this town, a most cordial and hearty welcome to the "ancient and loyal borough" of King's Lynn, and to assure you that we value highly the honour you do us in coming amongst us. We do not doubt that the annual interchange of kindly feeling, promoted by these meetings, tends greatly to keep alive in our midst that healthy professional life and zeal which our great Association has done so much to foster. We have one advantage over some other societies and congresses, that the topics brought under our notice are never old and effete; there is always something new in theory or fact to add interest to or throw fresh light on subjects which seem to have become exhausted. Each busy practitioner, whose arduous duties leave no time for original investigation, has yet the opportunity of gleaning important items of knowledge and practical detail to add to the general fund; while we have the advantage also of more extended observation from some whose lives are given to more deliberate study and research. The names of those who have consented to come and read papers to-day will prove that our time will be usefully employed. It is now fifteen years since the first visit of our Association to Lynn, under the presidency of my late respected colleague, Dr. Hawkins. Many have passed from among us since that time; but I rejoice to see present to-day, and to be able to welcome, some who were here on that occasion also. I would venture to express a hope that so long a period may not be allowed to elapse before our next meeting within these walls.

At our last annual meeting, you had the advantage of hearing, from our ex-President, Dr. Crowfoot, a most able and instructive address on the Germ-Theory of Disease, in which you had presented to you an admirable *résumé* (since published) of the present aspect of a theory which has had, and will have in the future, an influence on medical thought and medical treatment which it is impossible yet to measure justly, which in many respects has revolutionised both practice and theory in some forms of disease, and which, in its startling revelations and important bearings on the health of the community, is full of interest to us all.

In thinking over a subject on which to address you to-day, it seemed to me that some points of practical utility might be elicited from the same topic in its relation to surgery. I would thus avoid, as far as possible, travelling over the same ground so well worked by Dr. Crowfoot. Though it is so wide and comprehensive a subject, and familiar as it must be to many amongst you, there are certain features in it which seem to require greater prominence than they have generally received, and from a consideration of which I think we may possibly derive some practical advantage, though there may be nothing novel or original in what I have to bring before your notice.

The germ-theory of disease naturally gave rise to the antiseptic theory of treatment, and to the brilliant results which the experiments of Mr. Lister, and his practice, with that of his followers, have brought about, and which have, in the last twenty years, worked so striking a change in surgery. The two theories are so closely connected, that it would seem, at first sight, if one be true, the other must be true also; and no doubt this is so in fact, though it is possible for the antiseptic treatment to show points of failure, or to be proved in a measure unnecessary, without invalidating the germ-theory of disease.

But if we arrive at a point at which it is fully proved that all fermentation is the result of germs; that all septic poison in wounds is produced by germs; that within the body there is no sepsis, and without the body no putrefaction, where germs are excluded; and, finally, that antiseptic treatment prevents putrefaction and septic poisoning,—it would not be unreasonable to conclude that both

theories were absolutely true, or rather it would be the height of unreason to come to any other conclusion.

If, on the other hand, it can be shown that germs may exist in wounds without producing evil, and that the antiseptic treatment may be so modified that it is practically abolished, then its opponents have apparent grounds for repudiating the theory in a measure, and for denying its entire validity.

Now, this is just what is happening at the present time. It has been shown that germs may and do exist in wounds without causing sepsis; and splendid results have been obtained in the most formidable surgical operations, where sepsis was formerly the rule rather than the exception, without having recourse to those details which have been insisted on by Professor Lister and his followers as the *sine quâ non* of antiseptic treatment. You will remember that the late Professor von Bruns, after discarding the use of spray, found his cases recover as well under the use of carbolic irrigation; and that he had no deaths from pyæmia or septicæmia.

In ovarian operations, Drs. Keith and Bantock have alleged that the carbolic acid was actually injurious, and have also relinquished the spray as useless and troublesome; and, in the later operations, the mortality has been under 3 per cent.

Mr. Lawson Tait, an uncompromising opponent of the antiseptic treatment, denounces it in most emphatic language, and asserts that, without it, his mortality is not more than 3½ per cent. in cases of ovarian operations. He says: "I have already said enough of the so-called antiseptic system of Lister, to be able to say that it has finally been dismissed from this department of surgery, as having done far more harm than good. I venture to predict a similar fate will meet it everywhere else." (*Medical Times and Gazette*, November 5th, 1881.)

It is probable that the large majority of operations do not carry out the Listerian method in its integrity, and that, in by far the greater number of cases, the degree of antiseptic treatment is, compared with that of Lister, merely nominal; and even Mr. Lister himself now regards the use of spray as of secondary importance.

Then there is the mode of treatment, without antiseptics, by what is called the "dry method," in which no antiseptic treatment is employed, which yields excellent results in giving union by first intention, without any trace of suppuration. In all these cases, there must be a free admission of germs which do not prove hurtful in preventing an aseptic result; and, if this be so, it is not surprising that there should be a tendency to revolt against the exactions of a precise, tedious, and costly method. We have, finally, the statement of Mikulicz: "The original theory on which Lister's treatment of wounds is founded is not absolutely correct. Two remarkable facts stand to controvert this theory: 1. Viable elements of coccobacteria are found beneath carbolic dressings, even in cases which run a faultless course. 2. The Listerian precautions do not by any means suffice to keep out of wounds, or to destroy, the germs, as has been shown by Nägeli and Büchner." (*Medical Times and Gazette*, March 5th, 1881.)

It may not be without advantage, therefore, if I crave your attention and indulgence, while I endeavour to put before you some points, in connection with this subject, which seem to me capable of yielding practical fruit in the explanation of apparent discrepancies. For it must be to us all a most important question, whether facts of this nature assail the germ-theory with any force, or whether there are other modes of accounting for the success of two different lines of treatment; and the question is important for this reason, if for no other, that, if all sepsis be preventable by antiseptic treatment, we are greatly culpable if we allow lives to be sacrificed by our neglect in carrying out the proper method in its entirety.

The theory of fermentation, as at present received, is, as you know, that in all fermentive processes, with the exception of a few which are termed chemical ferments, germs are always present as the originating and maintaining cause; and that, without them, no such change is begun. I need not remind you that these points have been fully established by the experiments of Pasteur, Lister, Tyndale, and others; and that they are as absolutely true as any other scientific fact. The most important agencies produced by them are of a putrefactive character; in wounds, those germs which produce septic poison are regarded as common forms, having more or less identity of action; in disease, they are thought to have a distinct specific character for each form of malady.

As there are important differences in function in the several varieties of common or "surgical" germs, I would ask your attention for a few moments to some of the leading peculiarities which characterise them—a consideration of which may assist materially in the inquiry we have undertaken.

The germ-forms which act as ferments are represented by three types—viz., the yeast-cell, the bacterium form, and the micrococcus. Other intermediate forms exist, which are known as bacilli of various kinds, but they are all referable to one or other of these groups. In the familiar form of yeast the germs are spherical. During the process of growth, they multiply with great rapidity by germination or budding, setting up at the same time a chemical change in the saccharine fluid. It is not, as yet, precisely known how this change is effected: whether, as some suppose, by the secretion of a ferment, or whether by the abstraction of certain chemical elements, thus allowing a rearrangement of the particles. There is no evidence of a secreting power, though some recent observations (such as those of Hoppe and Traube) seem to render this possible. But it is certain that the germs abstract oxygen from the fluids, and, looking at the enormous increase in their bulk, it is evident that they also largely abstract carbon from the sugar, and this readily explains the production of alcohol and carbonic acid. During active growth, the nuclei may be seen moving rapidly within the cells. The growth of the germ-cells is found to be checked very quickly by variations of temperature, and by the addition of various chemical substances—such as acids, alkalies, spirit, and especially by excess of oxygen; and also by excess of sugar, as is seen in the resistance offered to fermentation by saturated solutions. This kind of resistance seems to negative the idea of there being a secreting power in the germ; and it clearly points to a principle which is of vast practical value in explaining the mode in which germs become inert in the tissues, and renders clear the part which dilution of fluids plays in favouring molecular mobility and chemical change.

The yeast-cell shows a certain power of selection in the matter of food, so that, when it has been grown in one kind of medium, it acts with difficulty in another. It becomes educated, as it were, to its special work.

If we trace the life-history of the cell, we see that there is no such thing as a distinct species, but that several, if not many, species are combined under one form; and, though these are large bodies, compared to morbific germs, no microscopist has yet ventured to assert that he could distinguish one species from another, in the way that has been done with bacteria and micrococci. It is only when they are allowed to develop and fructify aerially, that the specific distinctions become manifest.

When yeast becomes mature, the cells are filled with nuclei, and if it be dried the cell-walls disappear, and nothing remains but a mass of coccobacteria, the original nuclei. The substance, when dried, is hard and horny, and will keep for a long time in this form, and portions, if it be grown in wort, will at once redevelope into yeast. Even after seven years, I have found the germs active and capable of thus redeveloping. If the recent yeast-cell be dried on a microscopic slide, it does not shrivel, but, after losing its water, assumes an oval form exactly like bacterium termo; a similar form is assumed when it is placed in acid or in alkaline solutions.

Yeast plays no part in surgical affections, being only formed in the human body in certain affections of the stomach. It is worthy of note that it exists nowhere naturally, but is a purely artificial product in saccharine solutions. In wine and other spontaneous fermentations, the initial forms are not yeast, but lower forms which develope into yeast. The lower forms of germ which are concerned in pathogenic processes, require for their development some albuminous compound, in which they set up putrefactive changes, and produce a septic poison. Like yeast, they require oxygen to commence the fermentation, but are said to be killed by excess of oxygen.

Nägeli asserts that a form which is thriving in one particular fluid, may have its action destroyed by another form grown in a different fluid; and he maintains further, that it is possible, by cultivation, so to alter the properties of a bacterium, that it no longer has the power to produce the changes originally associated with it, and that thus, by change of conditions, varied functions may be set in action.

Billroth held, too, that one species may produce various results according to soil; but this is denied by Klebs and Cohn. Professor Büchner found that hay-bacillus acquires virulent properties when cultivated in albuminous fluids, and Dr. Gräwitz has seen the same result occur in the case of aspergillus.

The poison generated in dead albuminous substances has been shown by the researches of Gaultier (*Journal de l'Anatomie*, September 5th, 1881) to be a fixed alkaloid with very active properties. Selmi, who confirms Gaultier's experiments, has shown that these alkaloids, or ptomaines, cause "dilatation and irregularity of the pupil, instantaneous retardation of the heart's action, convulsions

and death." (BRITISH MEDICAL JOURNAL, December 17th, 1881.) It is asserted by Klebs that the poisonous principle in such a disease as anthrax, is not communicated except through the germs; that if these be removed by filtration through clay, the filtered fluid is innocuous if injected into the blood. Harley's experiments, on the contrary, show that filtered fluids which have undergone previous decomposition, caused death with great rapidity.

I may mention here an observation which I made in 1864, which is not without interest on the subject of bacteria. In the hospital here, which at that time, from defective sewers and bad ventilation, was in a bad sanitary state, we had some severe cases of erysipelas, and one or two of pyæmia. At my request, the then house-surgeon, Dr. Buckle, sent to me a chip from the floor under each of the beds. These were numbered, but the position of the beds was unknown to me. I had no difficulty, however, by microscropic examination of the wood, in determining, from the presence and number of bacteria, which were the beds occupied by the severe cases.

Micrococci, or coccobacteria, have been found in various diseases, as in measles, small-pox, cattle-plague (Beale), in erysipelas, in acute abscess, and the discharge from wounds antiseptically treated. They have been regarded as the contagia in these forms of disease, and are considered by Dr. Sanderson to be mainly composed of albumen, and he considers that there are innocent as well as malign organisms; and from the observations of Nägeli, Büchner, and others, it is pretty certain that the injurious character of germs is acquired by cultivation in albuminous fluids, and that, when so acquired, the new properties are capable of indefinite extension in the same form. This is very nearly the view held by Mikulicz. That these minute organisms exist in blood-poisoning, is made fully evident, but as Dr. Ogston points out, a single negation destroys them all. One set of observers, as Pasteur, Billroth, etc., ascribe to them all blood-change, while others, as Dr. Watson Cheyne, regard them as harmless. (BRITISH MEDICAL JOURNAL, March 12th, 1881.)

From this it would appear that the species of ferment is determined by this newly acquired power of selection from the surrounding media, or else that the germ carries with it a portion of virus, the germ itself acting only as the originator of catalysis, the virus determining the form and fermentation. If this change of appetite in the germ be proved, as I think it can be very easily, it affords a rational explanation of the so-called "specific" forms, a belief in which rests solely on the varied phenomena of contagia, and not on actual differences of forms as distinguished by the microscope; for it would be the height of absurdity to suppose that anyone can make such distinctions between the most minute initial forms of contagia, which, as Dr. Maclagan admits, must often be invisible with the highest powers of the microscope. But this is not the time to enlarge on this question. I would merely mention here one fact in connection with the subject of specific germs, and it is, I think, one full of meaning.

The germs met with in surgical processes are, as we have seen, of non-specific or indifferent kinds. If, in a strictly surgical case, we were to find a form of germ arising, with a power of exciting a new form of fermentation, highly infective, and generating the same form of disease, just as occurs in any of the eruptive diseases, we should, I imagine, be justified in regarding "specific" forms as of very doubtful reality. Now, in puerperal fever we may find the condition I have mentioned. A new power of fermentation springing up under surgical conditions in which it would be unreasonable to suppose specific forms to exist, and in which, therefore, we can only account for the new properties by an alteration in the ordinary forms of germ.

It has been asserted by some observers that these forms are capable of passing one into the other. Nägeli holds this opinion, and Billroth has made observations which tend in this direction.

Dr. Klein's researches on bacillus anthracis are opposed to the change of pathogenic into septic bacteria, neither does he find the virulent character of the bacilli diminish by cultivation as Pasteur asserts. (*Medical Times and Gazette*, March 10th, 1883.)

M. Pasteur asserts that micrococcus is never converted into bacillus: that he has never seen it, and that therefore it cannot be; that any such belief is wrong, and that everyone is wrong who does not believe in the specific nature of germs.

If dogmatic assertion could be received as equivalent to demonstration, Pasteur's position in this matter might be regarded as unassailable. But I venture to think that the fact of his not having witnessed the process of transformation is no evidence at all of its not occurring. He might on the same grounds deny the specific identity of a hen and her chicken, because he had never seen the one developed from the other. It would require long and patient and incessant watching over many days to see this process continuously to its completion, even could the conditions necessary for growth under observation be maintained, and this is by no means easy. But there are certain facts which can easily be observed. Just as in the development of the chick, you can see as it were the egg laid. Yeast can be so manipulated that you have nothing but eggs, or micrococci; with other changes, you can see the yeast become a bacterium. You can see and watch the growth of this into bacillus, the chain of tubes gradually diminishing to the extreme attenuation of vibrio, and spirillum-forms, without any break of continuity. This I have observed any number of times and can readily demonstrate.

In the cultivation of microbacteria they can be seen to undergo change into bacilli. Mr. Cheyne says he has never met with an instance in which a micrococcus has become a bacterium or *vice versâ*. (P. 243.)

If they do not grow into bacteria—into what do they grow? It would be strange indeed if they existed continually as micrococci, and if bacteria retained always that form. Any such supposition as this is certainly negatived by much observation and many facts.

Since this paper was written, I have made some experiments with pus as a ferment, and have found it capable, under certain conditions, of producing alcoholic fermentation in saccharine solutions. The pus contained, when examined microscopically, only a few bacteria and very few micrococci. A distinct vinous odour was produced with an escape of carbonic acid, and the formation of a "yeast" on the surface. The test solutions exhibited no change whatever. The ferment therefore must have been the bacteria, the micrococci, or the pus itself.

There are thus two distinct forms concerned in the septic process, the first of which, bacteria, are specially concerned in causing putrefactive changes, and are very susceptible to the action of carbolic acid, while the coccobacteria are said to be of two kinds, innocent and malign, and to be unsusceptible to the action of carbolic acid.

Koch states that the spores of bacillus anthracis can resist 1.20 watery solution of carbolic acid for a considerable time. (Cheyne, *Antiseptic Surgery*, p. 258.)

The resistance which germs offer to the destructive action of antiseptics is not less remarkable than the fact of putrefaction being prevented by solutions which are admitted to be insufficient to kill the germs.

Those of you who followed the controversy on spontaneous generation which took place some years ago will remember the extraordinary difficulties which have to be surmounted in the destruction of germs, which were proved to possess a singular degree of vitality. And it must have occurred to you as at least a curious fact that when all these precautions had failed to ensure perfect asepticism, this should nevertheless be easily accomplished by a one or two per cent. solution of carbolic acid.

It may also have occurred to you as equally curious that if germs were destroyed with such difficulty, they should be so readily killed in vitalised animal fluids, which must themselves be more easily killed than the germs they contained.

"Once micrococci have gained access to a wound, it is not easy to eradicate them. Ordinary Lister's dressings will not do so (eight cases). After weeks of dressing with carbolic lotion (three cases); carbolic oil, 1:16 and 1:8 in strength (eight cases); after the use of dressings with boracic lint (four cases), salicylic acid (one case), and chloralum (one case), all carefully and thoroughly applied, they were found in the wounds and ulcers in nearly as great numbers as before; and it was clear that these applications, at least as ordinarily employed, *although generally sufficient to kill bacteria and bacilli, are powerless to eradicate the micrococci.* The only way in which I succeeded in destroying them in wounds, where they had once established themselves, was by cauterisation with strong solution of chloride of zinc, or by strong frictions with five per cent. watery solution of carbolic acid—the ordinary 1:20 lotion." (Dr. Ogston, BRITISH MEDICAL JOURNAL, March 12th, 1881.)

Many observations have been published proving that the blood and tissues have the power of ridding themselves of germs. Dr. Ogston's experiments on this point are of singular interest. He found that micro-organisms were present in all acute but not in chronic abscesses. Twenty experiments were made on guinea-pigs and mice by injecting pus from cold abscesses into the tissue of the back. "The invariable result was that no illness or abscess ensued; that the pus was, within a week, dried up into a film pervaded by living cells; and that within ten days this film had become totally absorbed; so that no trace of it remained when the animals were killed, and the site of it was undiscoverable."

But when pus containing micrococci was injected in the same manner, symptoms of blood-poisoning ensued, and lasted from two to five days. "The mice showed the purulent conjunctivitis described by Koch, in his experiments on septicæmia" (a symptom which occurs also in pyæmia in the human subject); "but after a time varying from five to seven days, the animals became active, and seemed well. Those which were killed during the period of fever were found to have the blood teeming with micrococci, eight or nine times more numerous than they were in the fluid injected; and, at the point of injection, an abscess-cavity had formed, with more or less disintegration of the surrounding tissues. In those killed during the stage of convalescence, micrococci were found more rarely in the heart-blood, and the infiltration of the organisms into the tissues around the abscess no longer existed, having been replaced by a firm thick wall of granular tissue, in which micrococci could seldom be detected."

Mr. Lister, referring to these experiments, admits that micrococci must not be regarded as the essential cause of inflammation, and that their occurrence in acute abscesses was due to lowered vitality; an admission which rather increases than solves the difficulty, for one would have supposed that lowered vitality was rather characteristic of the cold abscesses in which germs did not exist.

Mr. Cheyne asserts that micrococci grow with greater rapidity in pure oxygen "than under any other circumstances which he has tried" (page 255); and yet, in speaking of the open method of treatment, he says that "another antiseptic advantage is gained by the free admission of oxygen to the discharge."

Though always believing fully in the germ-theory of disease, I have long had the conviction that destruction of germs by the Listerian method did not fully explain all the success in surgical operation. It was in 1866, in the early days of the system, that a case came under my care which seemed to warrant the belief that the whole truth was not thus conveyed. A man, aged 74, while in a state of intoxication, fell over the threshold of his stable, and sustained a fracture of the tibia and fibula in the upper third. Unable to make himself heard in his calls for help, he attempted to walk, and thus forced the broken tibia through the skin and through his trouser, the end of the bone coming in contact with the manure. He bled very profusely, and when I saw him was in such a state of collapse, that amputation was out of the question. The bone, which was covered with dirt, having been carefully wiped, but not washed, the wound was enlarged to admit of reduction. The clot in the deep and extensive cavity in the leg was left untouched, no water being used. A compress soaked in blood was laid over the wound, and the limb put up in splints. A piece of lint soaked in strong carbolic acid was laid over the compress, fresh acid being poured on from time to time. There being no discharge from the wound, the limb was not disturbed for a month; and, at the end of that time, the wound was found perfectly healed, without a trace of suppuration, and the bone was well united. Here we see an aseptic result without antiseptic treatment, properly so called. In this case, germs must have been present in abundance, and yet the blood-clot with which the wound was filled became organised. Mr. Lister considers that the organisation of clots depends on the exclusion of germs, but one such instance as that I have given shows that this is not the real explanation.

It has been asserted that the organisation depends on the inherent vitality of the clot, but this, again, can only be in a measure true, because the circulating blood, which is as fully vitalised, does not always resist the action of germs, which it ought to do, if this supposition be sufficient to account for the resistance.

Mr. Lister's later experiments on this subject tend to prove that germs have no power of causing fermentation in thin layers of blood-clot or albuminised fluids placed between two healthy tissues.

Mr. Cheyne points out the fact that extravasated blood, clotted and free from odour, if opened and the air admitted, becomes in a few hours fœtid and putrefied; whereas, if kept in a flask, the same blood would remain sweet for weeks, even after the admission of germs; and the same is true of pus from chronic abscess connected with carious bone; so that it would seem that some other conditions are necessary for putrefaction besides the admission of germs.

What are these conditions? or rather, what are the conditions which oppose putrefaction, and how are they maintained? These are questions which must lie at the root of the matter; and, if they can be answered, it seems to me that the main points of antiseptic surgery become greatly simplified.

As to the success of abdominal operations without antiseptic precautions, Dr. Bantock states that, in a series of cases in which they were omitted after the operation, no bacteria appeared in the drainage-tube, though this was many times exposed to the air. And he remarks, on the value of the drainage-tube, "It has been shown over and over again that the leaving even a small quantity of bloody serum to the chance of being absorbed, is a much more serious matter than the leaving a like quantity of blood."

It can scarcely be alleged, in the cases of colloid tumour removed by Dr. Bantock, that the tissues were in a healthy state, and yet they were capable of resisting the action of germs; so that there would appear to be some other factor at work than "a healthy condition," otherwise, all unhealthy conditions should lead to disaster.

Ogston found that pus and micrococci injected into the peritoneum of mice and guinea-pigs, produced symptoms of blood-poisoning for several days, after which they recovered (BRITISH MEDICAL JOURNAL, March 1881). He inquires how it can be explained that germs "so deleterious when injected, as they are found in the pus of acute abscess, into the subcutaneous tissues of animals, are yet so harmless on the surface of wounds and ulcers."

The reflection would then naturally arise, that, inasmuch as the germs may fail to act, and, instead of developing, may actually disappear, there must be some other mode of explaining their disappearance than the mere action of the so-called germicide; and, when it became evident that germs disappeared, if not with equal certainty, in some conditions where germicides were not used, we have to fall back upon some such explanation as this, "that the blood and tissues, when in a healthy state, have the power, as Cheyne says, of destroying germs when they are introduced into the body."

It is quite true, as shown in Harley's and Ogston's experiments, that the blood is capable of getting rid of germs when injected into the circulation; but it would be strange indeed if this were by any germicide power in the blood itself; strange if the blood were able to kill where carbolic acid is alleged not to kill germs. And so with the tissues; if healthy blood and healthy tissue suffice to kill germs, where is the need of antiseptics?

We have, in truth, no evidence whatever of any such power in either blood or tissues, and I can see no ground for such a belief, beyond the fact that germs disappear when in contact with them. How they disappear is another question. But is it not reasonable to suppose that when unable to act on any fluid, by reason of its stability, and thus obtain their proper food, they die, and become disintegrated? The maintenance of the healthy state which is thus able to resist germ-action must depend on the removal of impurity and the supply of new material; hence, every healthy function of the body is antiseptic, because it tends to maintain this equilibrium.

In speaking of yeast, I mentioned a fact of importance in connection with surgical treatment, and one helping to explain the class of cases under consideration—viz., that a certain degree of saturation is an obstacle to fermentation, even when germs are present in abundance. For instance, simple syrup will not undergo fermentation, even though the surface be covered with fructifying fungi. Pasteur alleges this to be due to exposure to the air, which destroys the activity of the germs; but this is only a partial explanation, because it will not ferment, if air be excluded, so long as it is kept at rest; but if it be so placed that it can absorb water, or if water be added and the fluid be shaken, fermentation at once begins.

So with bacteria. Concentration of fluids hinders, and dilution favours, their action. Now, why is this? Because dilution favours movement of particles, and hence promotes the catalytic action of the germs. No other change than this would seem to be necessary.

In wounds, this concentration may be effected in several ways.

1. In open wounds, as formerly advocated and practised by Professor Humphry, inspissation of fluids is produced by exposure to the air; and I need not remind you how excellent and aseptic were the results thus obtained.

2. The same kind of action occurs in healing by scabbing.

3. Then there is the process of drainage, which leads to the same end, by carrying off the watery secretions.[1]

4. There is the inspissation which occurs through the absorption of fluid by the peritoneum in abdominal operations.

This concentration of fluids then limits mobility; and we saw that one of the most striking features in the active yeast-cells was the movement of its nuclei. Recent observations have shown that a similar condition of bacteria, in which the so-called spores are

[1] Mr. Cheyne claims this as an antiseptic method, and remarks: "It is quite clear that if discharge flows away as fast as it is formed, there can be no marked development of bacteria or *their products!*" In other words, they will not grow without something in which to grow.

developed, is the sign of increased virulence in action, and all germs in a state of activity are endowed with motion. Whatever hinders motion retards germ-action, and so we are brought to see the force of those admirable lectures of the late Mr. Hilton, on the value of rest in surgical treatment. If anything in the world is antiseptic, it is rest.

But if concentration hinders catalytic motion, it is equally certain that dilution favours it, and thus sluicing the wound with water is eminently calculated to produce this end. But water does more than this; it devitalises the clots which are hanging from the cut vessels, and thus leaves so many foreign bodies to undergo septic change.

In the history of the antiseptic treatment you must have noticed how gradually some of the details which were originally considered essential to successful results, have lost a certain amount of importance, while other details have acquired greater prominence. Thus, as the spray has lost ground, more importance is attached to drainage and ligatures capable of absorption.

And it is noticeable also that of late more and more prominence is given to aseptic treatment. Thus, Dr. Cheyne, in his recent work, the most admirable and complete yet produced on the subject, says, "the method we have agreed to term the aseptic method of treatment, is nothing more or less than a series of experiments on the germ-theory of putrefaction. Experiments made with the object of rendering atmospheric dust inert before it reaches the wounds."

This statement, so far as it goes, is fairly expressive, but it is apparent that its scope is too limited. Aseptic surgery, meaning that which prevents putrescence in wounds, must mean a great deal more than is here stated.[1] For it has been shown already that wounds in which the germs have not been thus rendered inert, are still capable of being made to heal aseptically—and it may be fairly asserted that the aim of all good surgeons is and always was to produce an aseptic condition; though it was left to recent times to explain on what this condition depends. Much of the old treatment, moreover, was, as Mr. Cheyne points out, antiseptic, and there is perhaps no better or earlier instance of this than the oil or wine mentioned in the parable of the Good Samaritan.

With some show of reason is the complaint made, by Mr. Morris I think it was, that we might imagine before the Listerian system there was no surgery. It must be admitted that the system has appropriated to itself the whole domain of surgery—for we now find that it claims as antiseptic every detail of surgical procedure. But when these are said to be antiseptic, it is, in fact, only another way of stating that the aim of all surgery is antiseptic. That surgery is good only when it fulfils these conditions, and favours the healing of wounds.

Now, as germs only grow—for the most part at least—injuriously, in dead or putrescent material, the object of surgery must be to leave no nidus for them to grow in, and the more completely it fulfils this end the better and more antiseptic it becomes.

If we wish for an example of perfect surgery, we may take the gardener's art of grafting. Here is an operation, not performed "antiseptically," which yet yields an aseptic result, though the juices of the plant are as much exposed, and as liable, to the attacks of microzymes as are those of the human subject. This result is obtained by the wound being cleanly made without leaving any dead or foreign matter in it, the cut surfaces being perfectly brought together and maintained in a fixed position in a state of rest. If these conditions be fulfilled there will certainly be union, for there is no nidus on which germs can develop. If, on the other hand, there were vessels to be tied, sloughs to separate, clots of blood hanging out of cut vessels and devitalised by sluicing with water—said water commonly teaming with germs; if there were a bone to be sawn asunder, leaving the dust in the wound, and jagged edges to irritate the cut tissues; if the increased secretion of fluids, caused by this kind of irritation, were pent up in the wound; if the graft were loosely inserted, so that it could be blown about by the wind, leaving the edges of the wound in a constantly varying position, would the gardener, think you, look for a successful issue?

Similar conditions to those found in grafting are needful in surgical operations. There must be the clean cut; the thorough removal of all dead or decomposable matter, of all vegetalised clots, and all sloughing tissues—the vessels closed by ligatures, which are absorbed; there must be perfect adaptation of surfaces and edges; and complete rest of all the parts until union is secure. According to the extent to which these points are carried, will be the degree of asepticism.

In perfecting the details which aid in obtaining this result, no one, I suppose, has done so much as Mr. Lister, with his improved forms of ligature and drainage; to say nothing of his varied antiseptic appliances, and all the thorough cleanliness of instruments and surgical material on which he so much insists. Of these I need make no mention here, my object being to point out the mode in which we may explain the production of an aseptic result without the aid of the so-called antiseptic treatment; not that any of such aids are to be undervalued or neglected, but because if we once arrive at the *rationale* of healing under the simplest conditions, it cannot fail to help us to a better mode of dealing with the more complex.

From what has been stated, then, we may conclude that in all wounds the healing process depends on three conditions: First, the complete removal of all decomposable matter, so that there is nothing in which germs can develop. Next, that the fluids which of necessity remain in the wound should be so drained of their watery elements as to leave sufficient concentration as a bar to catalysis. And thirdly, since motion is the material excitant of ferment, absolute rest of the wounded parts tends to prevent effusion of fluids and to favour absorption, and thus helps to fulfil the second condition. Assuming that these three propositions are true, and that they are adequate to explain the healing of a simple incision, it is obvious that they must also lie at the root of all surgical procedures; and you will observe that this view in no degree opposes, but rather supports, the germ-theory.

In putting before you these crude and imperfectly digested remarks, I have purposely left out of view the method of Lister; not, you may be sure, as undervaluing it, for no thinking person can fail to see the enormous benefit which has accrued from it, but with the view of trying to show on what simple conditions the healing process depends, and how these may be insured. I am well aware how imperfectly I have succeeded in my endeavour, and I can only throw myself on your generosity to pardon those shortcomings of which no one is more painfully conscious than I am, and offer you my thanks for the patient hearing you have given me.

[1] I need not here do more than point out the real elasticity of the term "aseptic," which covers all the ground of healthy healing—from the prevention of putrescence to the complete exclusion of germs and their devitalisation.

AN ADDRESS
ON
MODERN OBSTETRICS.

Delivered at the Annual Meeting of the Yorkshire Branch.

By J. H. KEELING, M.D., F.R.C.S.,
Surgeon to the Jessop Hospital for Women, and to the Sheffield Public Hospital and Dispensary.

GENTLEMEN,—Acknowledged talent, or respectable seniority, is the *ultima ratio* which guides us in the choice of a president for this and similar societies. The talented ones are few in number; the recognition of their gifts is slow; hence the advantage of having a second class from which to choose in case of need. Were talent and attainment the sole admissible qualification, the large majority of us would be hopelessly excluded. As it is, all things come to him who can wait, and any of us may hope in time to acquire such age and respectability as will lead to the presidency, should there happen to be a dearth of other and more valid claims. In the name of the respectable seniors I beg to thank you, very heartily, for the honour you have done them and me in choosing a president from their ranks, and to express a hope that, as the alternative of choice which puts them in possession is only an occasional one, the *prestige* of the chair will not thereby be seriously diminished.

Some philosophers assert that man has won his supremacy in the animal kingdom mainly by the saving grace of speech; by his superior power of communicating and perpetuating his slowly increasing stock of knowledge. To whatever extent heredity and surrounding circumstances might develope the admirable instincts of contemporaneous animals, they were ultimately left far behind in the race with man; because he alone, or in a far higher degree than they, could accumulate knowledge, diffuse it readily through the primitive communities which his gregarious nature led him to form, and hand it down to his successors as a starting point for further accretion. Be this theory of olden time a tenable one or not, it is unnecessary, in modern days, to dwell on the advantages

which men, medical or otherwise, gain by taking counsel together. For ourselves—by associated work in our hospitals; by the joint labour of a teeming medical press, luxuriant to rankness if you like, but intensely vital; in our various societies, haunted though they be by repetition and common-place, we have an admirable apparatus for increasing, spreading, and perpetuating our store of information.

In this way, conjoint work has a twofold value. For, whilst it aids in the discharge of a duty which each medical generation undoubtedly owes to its successor—that of handing down an unimpaired, and, if possible, extended heritage of knowledge—it serves the more imperative and immediate purpose of bettering the equipment of all who are daily battling with disease and death. In fulfilling the latter object, there can be no doubt of the value of societies such as this. Where else shall we find so easy and pleasant a discipline; where, so varied and interesting a supply of information? There is always some uneasy, ardent, soul at work, tilling a corner of the medical vineyard, and inviting us to share the fruits of labour which we have been too tired, too lazy, or too dull to share. There is always an indulgent, sympathetic audience for the young member, who can back his careful notation by a good pathological specimen. Disease is no respecter of persons; in his early days he may chance on a morbid product in every way presentable. However unprofitable in the way of pelf, his field of observation is generally large and miscellaneous enough to furnish matter worthy of at least a passing record. Though he may have misgivings as to the value of his work to others, of one thing he may rest assured, viz., that in preparing a paper or case, or in noting the points in a specimen, he, at least, is a gainer; his own wits, at any rate, have been sharpened; those of others also, but he must not expect to hear of it.

The well-found practised observer can take care of himself; in the meantime, he is none the worse for the good-humoured criticism of a competent audience. Human nature, in its abounding conceit, ever needs a mentor to recall it to a juster and more modest estimate of its achievements. Even the work of our experts is the better for challenge and scrutiny. As to the greyheaded veteran, listening with sceptical interest to some new and erroneous view of an old topic, or noting the weak point in a novel attack on some ancient malady, he, too, finds his account in being present; for, whether he gains new light for himself, or mercifully helps in the general interest to extinguish a misleading will-o'-the-wisp; whether he witnesses some practical advance, or merely wiles away an hour in nodding to old acquaintances in the pathological tray; if he would keep clear of the mildew and rust of old age, he will do well to frequent the gatherings of his younger and more active friends.

In our provincial and local meetings, we cannot of course expect the keen discussion of advanced points, the exhaustive inquiries into special topics, which characterise metropolitan societies. Our *rôle* is an humbler one; I venture, however, to think that, within its proper range, it is equally useful. As the electrician gains intensity by adding cell to cell, so does advantage result from the direction into a given channel of a number of intellects, even though none be of the highest order. What the Royal Medico-Chirurgical, the Pathological, the Obstetric Societies are to leading spirits and special departments, such are local and provincial meetings to the rank and file of the profession—illustrative of, and helpful in the daily emergencies of practice. In this way, our meetings form trysts, which no one can leave without feeling that a stimulus has been applied, impelling him to fresh and clearer thought, and investing with renewed interest the task of his daily life.

Whilst our Association thus affords, in the meetings of its various Branches, recurring opportunities for the exchange of scientific thought and the promotion of good fellowship, it has imparted a unity, and power of combined action, to the profession, which it did not previously possess. This has already been repeatedly manifest, and will become more and more evident as the Association gains in numbers and cohesion. As yet, I think, we scarcely realise, and certainly do not fully use, the advantages which combination on a large scale brings with it. Much energy and time have necessarily been consumed in the detail of organisation. Now and then, the distribution of place, rank, and office has created heartburning, and the tumultuous young blood amongst us has grown restive under the guidance of those who have witnessed the birth, and fostered the youth of the Association. These ephemeral disorders are inevitable; in time, they will right themselves. We shall all be glad when our growing power and funds can be directed more definitely and exclusively to objects of common professional interest. Amongst these may be named the simplification and reduction of our absurd system of degrees and qualifications; the fostering of scientific inquiry by grants, prizes, and collective investigation; the combination for mutual defence and succour against quackery, adverse legislation, and poverty. We have, of course, standing committees whose object is to promote effort in these directions, but the interest of the members, as a whole, is by no means roused. When this has been effected, we shall find in our Association an instrument of great power in raising the status of the profession, both in its collective and individual aspects.

The address with which we commence the business of the year has one excellent peculiarity; it is exempt from discussion. The speaker is free to propound truth or heresy, to indulge in vague generalities, or trot out a favourite hobby. All is forgiven him, even dulness, provided only he be brief. On past occasions, whilst medical and surgical topics have received becoming attention, the ladies, I think, have not. I venture, therefore, to-day, to detain you in the department of obstetrics, whilst we glance briefly at a few of its salient and, I trust, progressive points.

Some, no doubt, will murmur. Fancy, out for a sort of half-holiday in the warm summer-time, and led back to our galley-oar in the lying-in room! Surely the mine is worked out. It is well known that every accoucheur is a past master at thirty, and needs naught but his own experience to draw upon. Let but a midwifery topic be introduced, and mark how each man will tell you what he has seen, and the marvels he has wrought.

Well, *is* the mine worked out? Are we really without hope or need of further advancement, where Smellie and Blundell and Ramsbotham left us? Surely not, with that big mortality bill, which includes one in one hundred and twenty of all women giving birth to children. Certainly not, so long as we are harassed by those qualms of conscience which the best of us have felt when a valuable life has passed through our fingers, at a moment when its value was more than ever apparent.

Promising all malcontents that labour shall be rapid and bristling with complications, permit me, first of all, a few words on the plague which haunts the whole domain of midwifery—*puerperal or childbed fever*—that factor which more than any other, by its frequency and fatal character, justifies the proverb of our German neighbours, "A lying-in woman has already one foot in the grave." Do we know more about it than we did? Can we treat it, or ward it off more effectually?

The *old* notion of this disease, or group of diseases, is embodied in the definition published in the nomenclature of the Royal College of Physicians: "A continued fever, communicable by contagion, occurring in women after childbirth, and often associated with extensive local lesions, especially of the uterine system." The *new* notion is, that it is no fever at all in the true sense of the word; that the "extensive local lesions" are at the bottom of the mischief; that the metritis, peritonitis, phlebitis, cellulitis, lymphangitis, or whatever "itis" or "æmia" the unlucky certifier may choose, under which to mask the cause of that death in childbed which he has just had to report to the registrar—that all these conditions simply mark the track taken by a septic poison arising in, or introduced into, the parturient canal during or after labour.

And thus we have this formidable malady relegated to the same class as the septicæmic and pyæmic complications of general surgery, and we look to the same means of redress. Where shall we find, in the whole range of surgical accident or disease, a more ingenious arrangement for septic mischief than that which results from difficult and protracted labour? Think of the lymphatics of the uterus, enlarged by pregnancy, ready for their beneficent work in the involution of that organ, but ready also to take up the decomposing secretions of the bruised, abraded, lacerated tract, in and around which they lie. Think of the huge, blind-ended, deeply hidden sinus formed by the parturient canal—no; not a sinus, guarded as this often is by a barrier of protecting lymph, but a tunnel with damaged walls, pierced far down by treacherous badly-closed apertures through which disease-spreading germs and infecting ichor may make their way, along veins, lymphatics, and connective tissue, into the system of their unfortunate proprietor. And then the general condition of the patient—emaciated by pregnancy, fatigued to the last degree by recent suffering, and often enough with kidneys embarrassed in a way which we dread in the candidate for an ordinary surgical operation. How do we deal, in general surgery, with a mischief-breeding tract such as I have described? Cleanse, drain, prevent the entrance of septic matter from without; destroy it, if it arise within. Similar measures are becoming the watchword of modern obstetrics. Our safety lies in fastidious surgical cleanliness of patient, nurse, and doctor. Whether we adopt the fashionable antiseptic creed, or think that the bubble has

been pricked by a Birmingham pin; whether we believe the cause of the mischief to be the dirt itself or the dirt-loving bacteria, we are coming to see that all must be scrupulously banished, and we are inquiring with increasing care into the best way of accomplishing this. One man trusts to soap and water, another swears by Condy's fluid or carbolic acid, a third shuts his eyes and takes a bath of iodine in his—well, in the smallest and handiest room of his house. The occasional value, in medicine, of a little hocus-pocus has been recognised ever since the days of Naaman. There are people who will wash in carbolic acid and water who will not wash in Jordan.

I am quite aware that a few of our leading obstetricians do not yet fully accept the septic theory of puerperal fever; that its contagiousness is urged, and its liability to be mixed up with erysipelas, scarlet fever, and other zymotic diseases. Let us see how far such objections hold good in the domain of general surgery.

What becomes of a surgical ward which gets overcrowded, or is used too long; when stumps grow septic, healing wounds reddened and loosened by erysipelas, or when scarlet fever creeps in to undo our pet resections? The inmates are liable to die poisoned, just as they do in an unhealthy lying-in ward. Making allowance for the presence in the latter of half-a-dozen of those interesting but dirty little animals called babies; bearing in mind differences in surroundings, and differences in the anatomy of the parts concerned, I believe there to be the strictest analogy between the causes of death in the two instances.

The most recent, and in every way the best classification of cases of puerperal fever, is into those by *auto-infection*, and those by *hetero-infection*. Now, does not such a classification hold equally good for a group of surgical cases going wrong? *Auto-infection*, where decomposing pus, or serum, or urine, is shut up in contact with living tissues; *hetero-infection*, by means of a careless dressing, the dirty teeth of a saw, or a hand still redolent of yesterday's *post mortem*. Can you suggest a more humiliating record than the one we should have if the recording angel would tell us how many men and women have been killed, in pre-Listerian days, by dirty sponges alone?

If surgical and obstetric poisoning be thus strictly analogous in their causation, so, also, are they in their antidote. For both, disinfection, isolation, rigid cleanliness.

When the idea has fairly taken possession of the professional mind, as I believe it will, that the phenomena of puerperal fever are mainly the surgical sequelæ of labour; when a more rigid antiseptic procedure has been introduced into the lying-in chamber, whether in the mansion or cottage; when the dirty, ignorant, "Sairey Gamp" type of midwife has been suppressed (of which there is now happily a prospect), and replaced by a trained woman, whose first lesson, for herself and her clients, is "Wash, and be clean"—we shall have a marked diminution in the death-bill of the first four weeks following labour.

There is even just a fear that, in adopting the newer view, we are in danger of forgetting that our old enemy has not changed his nature or tactics, but only his name. "This is a case of puerperal fever," said a medical friend to me lately, "but I think it is caused by a foul drain just outside." Good; we accept the drain-theory, if only it be recognised that the most dangerous part of the drain is its proximal end, the inside of the vagina and uterus. "Not puerperal fever," was the remark on another case, "but pyæmia following labour." "Not lying-in fever, I think," said a friend in another instance, "but blood-poisoning." Now, we do not care very much what the thing is called. By any other name, it would stink as badly, and kill as certainly. Let us only beware of being lulled into a false security by a change of name; let us use the fresh light, which this change indicates, in contending with an old and dangerous foe.

Leaving, now, our septic theory to its fate, there are other points in obstetrics where recent and useful work has been done; time, however, is pressing, and a mere glance must suffice.

In spite, then, of their fearful nomenclature, we have gained in our knowledge of distortions of the pelvis; we have a clearer appreciation of the condition of the uterus in obstructed labour, and the dangers which this condition implies; we have gained in the more frequent and earlier use of the forceps; in our safer management of the third stage of labour; in our extended use of version, especially as an alternative to high forceps operations; in our notions as to when and how to induce premature labour; in our methods of dealing with hæmorrhage, whether concealed, inevitable, or *post partum;* in our knowledge of missed labour and extra-uterine fœtation; in our acquaintance with puerperal eclampsia, embolism, and thrombosis. When we are compelled to sacrifice the child, we do our spiriting, so far as the mother is concerned, more gently and quickly. When we decide to give the child a chance by submitting the mother to the knife, it is no longer the classical Cæsarean section which forms our sole resource. We have now the promising alternative of Porro's operation, and possibly that of laparo-elytrotomy. If even we choose to abide by the ancient section, it is not unlikely that, by earlier operation and careful antiseptic measures, we shall rob it of some, at least, of its hoary and evil reputation. Finally, we have learnt to distinguish between surgical and obstetric anæsthesia, and when we have safely delivered our sleeping patient without checking her pains or involving her in hæmorrhage, we stitch up, there and then, any unlucky tear in the perinæum (if our patient be in America, any tear also there may be in the cervix), and we complete our task by feeding her better than our forefathers did, and by a more wholesome and common-sense management of her surroundings. In all these points I think we have advanced. There is not one of them, however, nor are many put together, so important in the lessening of maternal mortality, as the exclusion of that septic mischief, which is the foe alike of the simplest and most difficult parturition.

Permit me, gentlemen, to glance very briefly at one or two points presented by that young and vigorous branch of obstetrics—gynæcology. Profiting, in common with general surgery, from the beneficent aid of anæsthesia and antiseptics, the surgery of the female pelvic organs has been pushed forward with a rapidity bordering on rashness, but justified by signal success. Here surely the same thought will be the first to occur to many of us; nameiy, that in this department has been won the brightest and most complete triumph of modern surgery. I allude, of course, to ovariotomy.

Some of us are old enough to remember, thirty years ago, the earnest pleading of such men as Sir James Simpson, when ovariotomies were counted by the dozen, and their mortality anxiously compared with that of amputation of the thigh. "Fellows like you should simply be handed over to the Public Prosecutor," was the half-angry, half-kindly remark of Mr. Syme to his old favourite house-surgeon, Keith, when this now eminent operator was commencing a work destined to become so brilliant. In London, the storm of opposition was so violent as to drive one or two of the pioneers, bruised and battered, from the field. Exploratory incisions, now regarded as a legitimate diagnostic procedure, were pounced upon, dragged to the light, and branded as murderous. Amidst the turmoil and fray a man arose, plucky, skilful, resolute above his fellows, determined to solve the question in dispute, and soon confident of his power to do so. As his numbers rolled up, and his mortality steadily diminished, the thunderous opposition died away in a distant growl. Fellow labourers took fresh heart; imitators sprang up on all sides; distinguished men from France, Germany, Russia, Italy, and America came and sat at his feet; then followed scientific honours, social distinction, and wealth; at last, amid the acclaim of the whole profession, a baronetcy has been conferred on him by his Sovereign, for whose sex he has done more than any man living. Those marvellous lists will be for ever one of the brightest records in the annals of surgery, and the domain which Spencer Wells has done so much to conquer for us, will remain fruitful of blessing to the end of time.

Good work of this kind is essentially pregnant with further gain. In groping amongst the bosses of ovarian tumours, separating adhesions and peeling off clinging viscera, the old fear of operations involving the peritoneum has vanished, and we now handle this once dreaded membrane with as little ceremony as serves us when we deal with the pleural cavity as with an abscess, or fill the knee-joint with bone-dust and blood. Our periodic literature teems with evidence of gain in this direction, but I will cull only from our midst. Not long ago we had, from Huddersfield, an example of the removal of the cancerous pylorus of the stomach; a new and bold operation which, in its design and execution, has certainly been aided by the impunity of previous rambles in the abdomen. At our last meeting we had, also from Huddersfield, an admirable illustration of peritoneal surgery; and our President capped the tale, by relating how an inevitably incised bladder failed to hinder the successful result of a difficult operation. Not very long ago, I was unlucky enough to tear open the colon to the extent of more than two inches, in attempting to detach a firmly adherent tumour. The rent was sewn up, a cyst or two tapped, and then, with her operation abandoned, the patient was carried off to her bed to die. Nothing of the sort. She recovered from her mauling rapidly, full of that pathetic, ignorant gratitude which now and then rewards very blundering work. A few months later, *post mortem* examination revealed a mere faint line at the point where

the bowel had been torn. Last summer, in attacking a doubtful abdominal tumour, we found that, instead of an ovarian, we had a cystic tumour of the kidney to deal with. The tumour was extirpated, and the patient made a good recovery; thus another gain was added to the many which have followed in the wake of ovariotomy. A few weeks ago, one of my colleagues delivered a woman of a heap of fœtal bones and a hatful of stinking pus, by abdominal incision; the patient is now walking about quite well. Such cases could easily be multiplied, but this is needless; most of us will probably admit that abdominal surgery, in its recent and rapid advancement, owes much to the operative treatment of organs which ought to be, and once were, tenants of the female pelvis.

From ovarian to uterine tumours the step is short and natural. Already the latter are beginning to fall before the knife of the surgeon; and, though we can never hope for the same success with them as with their predecessors, we must remember that effort in this direction is as yet tentative and young. And then those tempting side-curtains and tasselled fringes of the uterus, which carry in their folds so much of the happiness and woe of human kind; can we not remove them with safety when, through disease, they have cast a vicious blight over the physical and moral nature of our patients? Can we not, by their simple ablation, put an end, in certain cases, to death-threatening hæmorrhage from an uterine fibroid? Dr. Battey and his followers think so. By-and-by, when time and experience have shed their sobering light on the venture, we shall find, as usual, a solid residuum of truth in a practice which is as yet in its experimental stage.

Our fair friends are so much the votaries and victims of fashion, that we cannot be surprised if fashion has invaded even the sacred precincts of the uterus. "Propter uterum mulier est, quod est," has been the cry, whilst the conservative and physiological school has contended with the mechanical school for the possession of that valuable organ. Thus, when Dr. Henry Bennet had fought his way with speculum and porte-caustique, and won the ground for congestion, ulcer, and erosion, he had in his turn to yield to a band, armed with pessary and sound, whose cry was all for flexions and displacements; and now these men in possession are threatened by American competitors, who brandish curiously shaped needles, and swear by lacerations of the cervix and ectropion.

For my own part, I like those free lances who break away from old tradition and explore new paths. Let each mount his hobby—be it cautery, intra-uterine stem, or cleverly devised needle—and let us see who will ride furthest and best. Should any one, in his eagerness, deviate on to the forbidden ground of vivisection, his good intentions, and the warning afforded to others, shall serve to absolve him.

Amidst these changing problems and their varying solutions, there remains one, sphinx-like in its mystery and mournfulness, which has hitherto baffled the keenest brain and most dexterous hand. Not long ago, the medical atmosphere was charged with the fragrance of a resinous balm, destined, as was fondly hoped, to heal our wounded sisters who were suffering under the cursed malady I allude to. But time passed, hopes were disappointed, and now the remedy has disappeared in the limbo of forgotten panaceas. Nor has the knife as yet done much for us. Cancer, wherever it can be reached, demands, as our only reliable remedy, the early and unsparing use of the knife. By the time a diagnosis has been established, the chance of successful interference has wellnigh slipped past. Here, the organ it loves to attack is so hidden, so closely connected with bowel, bladder, and ureter, the early inroads of the malady are so reluctantly made known, that, when at last the surgeon is consulted, he has to pronounce the verdict—"Too late," and can occupy himself only in finding for his patient the gentlest and easiest path to the grave. In view of the necessity for wide removal of the disease, complete extirpation of the uterus was long ago proposed, and in numerous instances has been carried out—through the vagina, or by abdominal incision. Freund, Billroth, Schröder, Martini, and others, have been working at the subject of late; as yet, however, without any marked success. Let us hope that another generation of patients and their doctors will have a better tale to tell.

Perhaps the general diffusion of a knowledge of women's diseases is even more noticeable than its increase. The speculum and sound have now definitely taken their place in the *armamentarium* of the general practitioner, by the side of the stethoscope and thermometer, the probe, and the catheter. Compare the position of our younger men with that of the greybeards, when *they* were young. The abundant supply of admirable text-books, the marvellous variety of instruments of research and treatment, the fierce uterine impregnation of our hospital teaching and periodic literature—all this is very new, all of it very useful, if only we can retain a healthy sense of due proportion and fitness. The result of it all is, that the young men of the present day are in a far better position for dealing with the diseases of women than their predecessors of twenty-five years ago were.

Will you pardon me an illustration? A short time since, I was called to see a case of pelvic tumour with a younger practitioner. He had been summoned the day before to see the woman, who was suffering from retention of urine. Excepting this, and some previous slighter difficulty in micturition, the patient was apparently in good health, and able to follow a laborious occupation. Having relieved the bladder, the doctor proceeded to inquire into the cause of retention, and found a pelvic tumour of considerable size pressing on the urethra and lower part of the bladder. Next day, on seeing the case with him, I found—and this is my point—a full and careful diagnosis ready to hand. The relations, size, and position of the tumour had been ascertained, its probable character and degree of mobility estimated; the widely separated uterus had been found, and the fact determined that it was but little connected with the growth; the amount of pressure on the rectum had been inquired into; in a word, a tolerably complete and searching examination of the pelvic viscera had been made, and the conclusion arrived at that the case was one of solid ovarian tumour, still in the pelvis, and growing from the left side. My examination confirmed all these points, and there remained only to discuss the line of treatment; but this is a question taxing the brains of men who are in the very first rank of obstetric specialists. Observe, this is an examination conducted, and a diagnosis made, by a junior. The case was not so difficult to unravel as some, but this much is certain: at his age I could not have done what he did, nor would it have been within the range of the great majority of my contemporaries. Such knowledge and skill did not, as a rule, exist among us; now it is, or may become by a little application, a common possession; for my colleague is no hospital man, simply a general practitioner who uses his brains and the light of modern research to guide him.

In concluding this hasty and imperfect sketch, I think we may venture to affirm that, whilst medicine proper and surgery have rendered invaluable aid to the sister department of obstetrics, they have found in her an ally in every way worthy of the rank to which she has been raised. That brimming bucket of wisdom, laboriously drawn up from the well of truth by Sir "Dispenser" Wells, as depicted recently by *Punch* in his clever and kindly portraiture, would alone entitle her to respectful consideration. The progress of medicine is at best slow and hesitating; problems old as the hills are still unsolved; gain in pathological knowledge too often entails loss in cherished treatment; new discoveries are apt to prove fallacious, and new remedies delusions. All this is true and trite enough. And yet, in the never resting spirit of inquiry which animates all departments of medicine, in the ready light and aid they mutually render, we claim to possess a sure guarantee for further advance in the worth and usefulness of that profession to which, which all its drawbacks, we are proud to belong.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.—The annual meeting was held, in London, on July 4th; Dr. Philipson, the president, being in the chair. Besides other business, the following resolution was carried unanimously:—"That this Association receives, with a feeling of great satisfaction, the announcement of the formation of a chair of anatomy in the University of Durham College of Medicine, Newcastle-upon-Tyne. At the same time it urges upon the Senate the necessity of forming additional chairs of physiology and surgery, thereby creating professorships in the four more important subjects, and placing the faculty of medicine of this university on the same footing as the sister universities." The following officers were elected for the ensuing year. *President*, Dr. Philipson. *Vice-Presidents*, Dr. L. Armstrong, Dr. Travers. *Secretaries*, Dr. Mears, Dr. Milson. *Council*, Drs. Arnison, Bowman, Drummond, Bedford, Fenwick, Fielder, Goldsmith, Morton, Porter, Tyson, W. T. Wilson, Gibb, and W. Robinson. In the evening the members united with the Durham University Association at dinner, at the Freemasons' Tavern. Amongst those present were the following:—The Earl of Ravensworth, the Bishops of Dover, and Aberdeen, Bishop Mitchinson, Bishop Piers Claughton, Sir J. Mowbray, Bart., M.P., Sir G. Elliott, Bart., M.P., Sir J. Watt Reid, K.C.B., Sir Farrar Herschel, M.P., Mr. Justice Manisty, Canon Waite, Dr. Hornby, Hon. and Rev. G. W. Bourke, Dr. Broadbent, Dr. Douglas Powell, Dr. Samuel Fenwick, Dr. Crichton Browne, Dr. Philipson, Dr. Pyle, Dr. Glover, Mr. Christopher Heath, Dr. Bedford Fenwick, Dr. Travers, Dr. Milson.

AN ADDRESS

ON THE

MAINTENANCE OF THE HONOUR AND RESPECTABILITY OF THE MEDICAL PROFESSION.

Delivered at the Annual Meeting of the Bath and Bristol Branch.

By EDWARD CROSSMAN, M.R.C.S., L.R.C.P., L.S.A.,
President of the Branch.

GENTLEMEN,—The post I have ventured to accept at your kind invitation is one of no small honour, but it is one of great responsibility. Our Association having met in annual assembly, and gathered together the fragments up to date, disperses into Branches for the year, committing to the presidents and officers of these the stewardship of its interests until returning time reunites them all again.

The year gone by has been our jubilee, and now we start again to work; our motto always "Onward." But few of us can hope to see another fifty years—yet let us hope that each in his way will lay some little stone in the great fabric.

Amongst the several objects contemplated by the founders of our Association, we find "maintenance of the honour and respectability of the profession generally in the provinces, by promoting friendly intercourse and free communication of its members, and by establishing among them the harmony and good feeling which ought ever to characterise a liberal profession." It is satisfactory to be able to reflect, at the end of fifty years, that at no time in the history of the Association has it been more thoroughly united in feeling or pervaded by a more active sentiment of fraternal goodwill and social and scientific fellowship; and that in great measure to the influence of this Association we owe it that, great as has been the advance made during the last fifty years in the scientific pursuits of the profession, equally great has been the rise in our social rank and standing.

History tells us of the barber-surgeon, the empirical leech or apothecary; and our President last year drew an amusing figure of the provincial physician of former times: "as with solemn step and well poised cane he descended from his lumbering postchaise at the door of some opulent patient. The arrival of the great man in some country town was quite an event, and a signal for all the blind, and halt, and lame, to turn out literally for a touch of the great man's hand. Those who could pay, pulled out their guineas; those who could not, might perhaps count upon getting a glance and a word from the 'Great Doctor,' as he was called. As he passed through the admiring crowd to his carriage in the courtyard of the inn, his grand and pompous manner denoted that he felt himself a head and shoulders taller than the poor apothecary, who stood by meekly trying to catch at the incontrovertible dicta as they fell from the mouth of the medical oracle."

The social history of our profession is one of alternate rise and fall. The origin of the healing art, probably coeval with the human race, was traced in classic times to Apollo; and Esculapius, the son or descendant of Apollo, became to the Greeks their god of healing. Machaon and Podalirius, the sons of Esculapius, are represented as exercising the art of surgery at the siege of Troy; so that, at this time, medicine took the position of a divine art. But in the time of Homer, on the other hand, although there remained considerable knowledge of anatomy, the art and position of the surgeon was little above that of the butcher. With Hippocrates (B.C. 400), a great step in advance was made again, for he wrote six surgical treatises, in which he described important operations conducted in a manner little behind that of the present day. The next step forward was made by the Alexandrian school (B.C. 300), amongst whom was Ammonius the lithotomist. And then again was a relapse; for at Rome, the first who cultivated medicine were Greek slaves, and these, being permitted to establish public baths, associated medicine, and especially surgery, with bath-keeping and barbering.

Once more, after an interval, medicine and surgery were studied as a science; for, about the time of the Christian era, we find Celsus upon the field, whose works are a great advance upon those of Hippocrates. In a well known passage, Celsus thus pourtrays the model surgeon. "He should be young, at least not very advanced in age; his hand firm, sure, and never tremulous; he should be as dexterous with the left hand as with the right, his eyesight should be clear and penetrating, he should be intrepid, and his sensibility should be such that, determined to cure his patient, he should be unmoved by his cries, and should neither hasten the operation, nor cut less than he ought, but proceed as if the complaints of the patient made no impression on him."

With Celsus were associated several men of distinction, amongst whom was Galen, the well known physician; and then succeeded (A.D. 200) the dark age, when surgery and medicine, in common with other sciences, were lost. Medicine was rudely practised by the monks, and surgery again became attached to the trade of the barbers.

The earliest revival in Europe arose from contact with the eastern nations in the Crusades; and, before the close of the eleventh century, Salerno, in Italy, became a school of medicine, claiming the right to confer the degree of Doctor of Medicine and Master of Surgery. But with the Renaissance, surgery sprang afresh, and the year 1514 saw the birth of Vesalius in Belgium, who, studying in Italy, became the parent of modern anatomy. His book, *De Humani Corporis Fabricâ*, was published in Venice in 1543, and prepared the way for Ambroise Paré, who did for surgery what Vesalius had done for anatomy. Soon afterwards, born in 1578, came our own Harvey, describing the circulation of the blood, and Wiseman, who founded the first genuine English school of surgery.

Gentlemen, the position we occupy this day is one to which the profession has never before attained, whether regarded from a social or a scientific standpoint. There have been times when the world pointed to an individual physician or surgeon to whom it would render homage; but there never was a time when the profession as a body held the social, moral, and intellectual status it does at present. To the British Medical Association we owe much of this position, and it behoves us, upon whom the mantle has fallen, to see that we hand it on to our successors unsullied by its passage through our time.

Gentlemen, I invite you to spend the hour at our disposal to-day in thinking over some of the social and ethical responsibilities cast upon us by the founder of the Association. In his first address, Dr. Hastings said: "With regard to medical ethics, with the exception of a few essays, no attempt had been made to establish a code for the guidance of those needing such direction. In a well organised profession, there could be no difficulty in adapting to its exigencies the doctrines of general ethics, the principles of which exist in every well governed mind, and are identical in all circumstances, however variously they might be applied."

"But the organisation of the profession which obtained was not what it ought to be; the whole system of medical polity in this country was both defective and erroneous; opinions differed widely as to the evils and remedies; but few commended the existing state of things. This subject was," he added, "closely connected with the advancement of science; for if the profession were constituted as it ought to be, the harmony that would be established could not fail to be a direct means of more cordial and efficient co-operation in extending the science and improving the practice of medicine."

Taking this as our text, let us examine our professional polity, and see in what it is still defective, and what remedies we can suggest for its improvement.

Our first and elementary social factor is the class from which our ranks are recruited. There seems something in the study of medicine specially captivating to youths casting about for employment. They seem to see the pleasant side, and realise nothing of the opposite. They enter at once upon interesting work, with little of the dull drudgery required for other professions. It is of paramount importance, therefore, that our portals should not be opened too easily or too wide to those who select medicine as a cheap and easy walk in life, but that a process of testing and weeding out should be adopted.

Preliminary examinations were instituted with a view to secure that every student should have had a liberal education; but education has so much advanced of late that some further check is now required upon indiscriminate admissions to the *rôle* of medical student, and this would come best in the form of competitive matriculation. There is a limit to the capacity for instruction in our schools and hospitals; and it would be a great advantage if the number of students admitted each year was limited, the vacancies being filled by competitive matriculation. There ought to be no difficulty in the Medical Council limiting the number of students received at each school and hospital, in proportion to its teaching capacity. The Committee of Council of our Association, in its report on Medical Education (January 1881), says: "The number of students entering at any particular medical institution will very much depend

on the reputation of its professors, but it by no means follows that the size of a hospital connected with a school is in proportion to the number of students attending its classes.....In the hospital it is indispensable, in order to ensure a reasonable amount of real progress among the students generally, that they should not be merely lookers-on at work done, and listeners to instruction given to large numbers, but that each should be personally and systematically engaged in the examination and management of patients, under the direction of a teacher—one of the medical officers of the hospital. The student should have duties and responsibilities in his own sphere, as the teacher has in his. In order that practical teaching and learning in this case, or, indeed, in any other, may go on to a useful purpose, it is necessary that the number of pupils in any one class shall not be larger than may with convenience be taught individually by one teacher."

"Supposing, however, the number of students attached to a medical school are so numerous, that in place of about fifteen or twenty men attending the visit of one of the members of the staff, double this number of students go round the wards with him, it is almost impossible that efficient bedside teaching can be carried out; nevertheless, these students must attend hospital practice, and having purchased tickets for three years' admission into the wards, they have a right to go round the hospital.....Industrious men, under these unfavourable circumstances, manage to pick up a considerable amount of practical knowledge, but this class of students is not more numerous among medical pupils than among young men following other vocations; and the great difficulty we have to contend with is to teach the practice of their profession to the careless and less industrious pupils who form a large proportion of our students.....Under any circumstances, clinical teachers must be held individually responsible for their pupils, and so should only undertake to instruct as many men as they could teach efficiently. For this purpose, their pupils must be limited."

"And in many cases additions are absolutely necessary in the teaching element, that is, in the number of physicians and surgeons attached to our hospitals.....It is the duty of our examining authorities to endeavour to obviate the abuse of the system we advocate, and to guard the profession as far as possible.....We are convinced that so long as medical students find that if they fail to pass the examination of one licensing body, they can gain an entrance into the profession by passing the less severe examination of another licensing body, it is impossible to raise the standard of medical education to the point which our students are capable of, and which the public have every right to demand. As an instance in point, we may mention the case of a student who presented himself before a licensing authority, and was rejected. He immediately started for a second licensing body, and was again rejected; upon this, he went at once to a third licensing body, and passed. He registered as a qualified practitioner, paid certain sums of money, and, as a qualified practitioner, was admitted to a higher grade without further test by the very college which had not long before rejected him as unfit by examination to be granted a licence."

The old system of apprenticeship, with all its drawbacks, had this benefit—that it was an obstacle to the indiscriminate admission of youths, for every candidate was bound to find a master willing to stand sponsor for him.

We must not fail to recognise that the medical student of the present day is a very different character from his predecessor. No further back than the days of Mr. Pickwick he was *sui generis;* the materials out of which the profession was then formed were rude and unhewn in the extreme. Now, the average student is a gentleman admitted to society; drinking, card-playing, and midnight rioting, are no longer essentials in his curriculum; frequently he has secured for himself the status of graduate or undergraduate of a university; more often he has been reared in a public school, and entering upon his technical education with all the rawness and inexperience of a schoolboy, has nevertheless an intellect prepared for theoretical instruction. But many there are who enter the student's life without their minds so disciplined; and it is to restrict these that a competitive matriculation is so much to be desired.

While upon this topic, I cannot refrain from a few remarks upon the one public school associated with our profession—the Royal Medical Benevolent College. So early as the thirteenth annual meeting of the Association, a resolution was carried that a committee be appointed to "consider the best means of establishing a school for the comprehensive and liberal education of the sons of medical men." The following year, this committee presented a report, the gist of which was that "subscriptions to the amount of £1,610 only had been promised;" and the next year the report stated "that, notwithstanding the general assent with which the proposition was at first met, it had been received with such general indifference, and the amount of contributions was so inadequate, that the scheme must be abandoned; at the same time, it was hoped that the project might be revived at some future time under happier auspices, and with a better result." Alas! that time has not yet come, notwithstanding the general advance in educational facilities throughout the country.

No one desires more than myself to see the charitable objects of the Epsom College fully developed; but, gentlemen, the time has come when the medical profession should have a public school worthy of itself. The Army has its Wellington, the Church its Marlborough, and Medicine ought to have its college. The Medical Benevolent College was no doubt intended partly to fill this place, but such it has not done, and such it cannot do, until its tone and *prestige* are altered; its very name condemns it. Who of us cares to send his son to a Benevolent College, unless our means compel us to accept charity? and why should not our sons form the nucleus of a school giving us financial advantages similar to those of other professions which, like ourselves, reap their reward in honour, but not in loaves and fishes?

The student of the present day has great advantages over his predecessor in the systematic teaching in our schools and hospitals; his opportunities of acquiring theoretical knowledge are much greater; much more is required of him, and much more is obtained. But a time comes when more than theoretical knowledge is required, and then appears a vacuum in our modern system. The rough-and-ready sawbones of the past was not the intellectual equal of his compeer of the present; but, when cast loose upon the world to kill or cure, it is matter of grave doubt which is the better of the two. The old system of apprenticeship had given the student an insight into practice before he was cast loose upon the world; a period of "greater freedom and less responsibility" had prepared him for the details of practice; and, faulty and obsolete as the system was, something of the same nature is still required to replace it.

Turning to the report of the Committee of Council on Education again, we find "a large proportion of general practitioners express their conviction that there is a want in the education of medical students as regards the art of prescribing, and that a thorough knowledge of pharmacy is indispensably necessary to the general practitioner. Further, it is urged that, at present, medical men commencing practice are frequently unacquainted with much they ought to know concerning the ordinary routine of the general practitioner's work; and that, when called upon to take charge of a practice (including, perhaps, a parish and club patients), the young practitioner is not only incapable of dispensing his own medicines, but is also at a loss in various matters of detail; a neglect of which brings discredit upon himself, and endless trouble to his employer. .....Lastly, it is argued that no inconsiderable number of recently qualified medical men have no idea of the real nature of the duties of general practitioners until they are actually engaged in practice; many of them then discover that their work is hardly that which they had anticipated.

"It has been found necessary to establish a medical school at Netley, through which men have to pass before they are allowed to become army surgeons, among other reasons, because our metropolitan and provincial schools cannot give their pupils a special training for the duties connected with the medical charge of a regiment. Now this practical kind of teaching is what general practitioners so strongly contend for. They argue that, before a medical man is considered qualified for the duties of a general practitioner, he should have had that special training in the work that lies before him—work which, beyond a knowledge of his profession, is as peculiar in its details as any that a regimental surgeon can have to perform."

It is for these reasons that the unqualified assistant is so much in demand. To the busy practitioner, the student fresh from college is of little service; he wants his work done *tuto, cito, et jucunde.* In the majority of cases, the assistant is the book-keeper and dispenser, attends to the trifling ailments which crowd the surgery, receives messages and orders, and makes engagements for his principal in his absence. All these duties the recently qualified man has to learn; and in too many instances, instead of setting himself to learn them, inflated by his newly acquired titles, he is rather disposed to teach his principal than be taught by him.

The outcry against the employment of unqualified assistants only comes from those who really do not know the need; no doubt, in many instances, unqualified men are placed in positions of responsi-

bility most unjustifiably; but the busy practitioner must have assistance of the kind he requires, and, if he cannot obtain it from those admitted to the profession, he must seek it amongst outsiders.

Under the old system, the principal received payment for teaching those elementary duties, and the apprentice, being bound for a given time, repaid his master for much of his trouble; now, we have no one to take this place but the unqualified assistant, and he, alas! is but a sorry substitute; for, as we all know too well, he is generally a man who has tried and failed to qualify, and is only retained in a subordinate position by his legal inability to rise higher.

The remedy for this want would be provided, if the proposal contained in the last paragraph of the report, from which I have already quoted, were carried out, thus:

"A student, before being granted his licence to practise, should work for a time under a general practitioner, or at a public institution, where he has personal charge of patients at their own homes. Work of this kind should certainly not be undertaken before a pupil has passed his examination in anatomy and physiology; probably the best time would be after he has completed his examination, and before actually assuming charge of a practice."

This is only the regulation adopted in the Church, where, after due preparation and examination, the minister is ordained deacon to assist the priest for a given period; at the expiration of which, and after some further examination, he is admitted to the full duties and responsibilities of the priesthood. Such a class of probationers would be invaluable in the profession, furnishing the general practitioner with what he requires: a properly educated assistant, bound to him for a definite period, dependent upon him for testimonials, and securing to him thereby a faithful service; while the probationer would probably earn more in such a position than he now does during the first few years of independent practice.

But it is not only for general practice that a period of probation is required; it is equally desirable as a prelude to special practice—whether medical, surgical, or obstetric. The minor offices in hospitals and colleges might well be filled by those who, in probation for the higher grades of practice, were articled to physicians or surgeons. Such a commencement of professional life would remove from our midst the host of impecunious young men who, in order to gain a livelihood, resort to every kind of unworthy stratagem, lowering the fees and degrading the social tone of the profession.

Passing from the student to the qualified practitioner, let us consider for a while the organisation of the profession.

The public, and, indeed, we ourselves, have a very hazy idea of the distinctions between the different branches of practice; the *Medical Register* is our only authority, and from this it is impossible to learn to which branch of practice any individual devotes himself. It would be much more satisfactory if we were allowed to register with our diplomas the particular branch we elect to practise.

It is the ambiguousness of our position which has given rise to the great anxiety displayed of late to claim the title of "Doctor"—a title implying an university degree, and in former times associated with a pure physician. The claim put forward by the licentiates of any College of Physicians is so ridiculous and unreasonable, that it would hardly deserve notice, but that the correspondence in our periodicals shows that there is a strong feeling upon, and two sides to, the question. The reason is obvious: the profession has no distinction of grades and no definition of practice, and each one desires to put such a handle to his name as shall imply that he is one of the "upper ten."

Our friends address us all indiscriminately as "Doctor." Our patients speak of us as "the doctor." We are all, in fact, in our professional capacity "doctors," just as the manager of a mine, or the master of a merchant ship, is called by his professional designation "Captain." But, in our social and individual position, there can be no question that those only who have the university degree can claim any title of precedence.

This is scarcely more than a subject for ridicule, but a question of real importance is the organisation of the profession and the distinction of its grades. The three great classes, physician, surgeon, and obstetrist, to which must now be added the modern public health-officer, are pretty clearly defined, but the subdivisions of these are not so. The general practitioner, the family attendant, the consultant—how are these to be distinguished?

The general practitioner, constituting the rank and file of the profession, has a pretty clearly defined position and practice.

The family attendant is a more ambiguous individual. He may be physician, surgeon, obstetrist, or general practitioner; he may be a young M.D. struggling to exist, or a surgeon whose hair has grown grey in consulting practice; it is around this class the greatest jealousy gathers, for it has no beginning and no end.

And then the consultant? What constitutes a consultant—how is he to be distinguished from his brethren? It is not age, it is not always education, it certainly is not experience, and it frequently is not talent.

The Church and the Bar are divided into grades so distinct, with the duties and privileges of each so clearly defined, that no friction arises between the one and the other, and hence the high tone prevailing amongst their members, the social position accorded to them, and the respect and deference shown them by the public. If the social status of our profession is to reach a point at which it can claim comparison with these, a reorganisation of our ranks must take place, the duties and privileges of each must be defined, so that all cause for heart-burnings and jealousies may be removed, and a spirit of honour and mutual confidence established.

The first line requires to be drawn between the general practitioner and consultant, the former corresponding to the attorney-at-law and the latter to the barrister. As the attorney is precluded from practising as an advocate, so is the barrister forbidden to practise as an attorney; the same restrictions should exist in medicine, and at once one of the most fruitful sources of jealousy would be removed—viz., the possibility of the consultant supplanting the consultor. But, further, the relations between the attorney and barrister are those of cordial confidence, because communication between the client and the counsel can only take place through the attorney. How different would our consultations be if such a safeguard were given us? The consultor would then meet the consultant with perfect confidence, and accept and act upon his advice with cordiality and respect.

Far be it from me to complain of those with whom I come in contact, but it must occasionally happen to all of us, that upon subsequent occasions patients have of their own accord placed themselves under the treatment of physicians or surgeons, to whom they have been introduced by the regular attendant in consultation. This occurs often from no misconduct of the consultant, nor from intentional disrespect on the part of the patient, but simply because the one is as accessible as the other. Protected by the safeguard I have mentioned, consultations would be of daily occurrence; general practitioners would be only too glad to share responsibility the moment any difficulty arose, and consulting practice would correspondingly increase.

But it is not only between the general practitioner and the consultant that a line of demarcation must be drawn. There should be two grades of consultants, corresponding to the outer barrister and the Queen's counsel; and as the outer barrister must sit without for a certain number of years before he is called within the bar as Queen's counsel, so the junior consultant should be required to practise for a given time before he is called to the position of select consultant. The practice of the former would be in consultation with the general practitioner, but the select consultant would be precluded from practising, except in those difficult cases in which a third opinion is required; and as the junior consultant would only be brought into contact with the patient through the general practitioner, so the select consultant should only be allowed to practise with a junior.

At first sight, it may seem unreasonable to restrict the practice of all those who consider themselves, or desire to become, consulting practitioners; but it requires but little reflection so see that our present position is a most anomalous one. There is absolutely nothing to prevent any qualified practitioner dubbing himself consultant; and, as a matter of fact, the same individual is the family attendant in one house and the consultant in another.

Again, it must strike everyone as ridiculous, that the time and talents of our leading men should be occupied in prescribing for many of the simple ailments which crowd their consulting-rooms, and that custom should require them to accept the same fees as those so much beneath them in professional status. If our great men were only consulted in select cases, and their fees proportionately raised, their talents would be much more available for the benefit of the public; their labour would be diminished, while the financial position of themselves and those beneath them would be vastly improved.

The business of the general practitioner would be ordinary confidential attendance upon the public, medical, surgical, or obstetric; and those appointments alone would be open to him in which such practice is required. He would either himself supply the medicines and appliances required by his patients, or make arrangements with a druggist to do so for him; for, however much the rising

generation may turn up their noses at the indignity of handling drugs, there must be a class in the profession to do it, and it is only a question whether they will do it themselves or compel the public to introduce another grade to do it for them. Nothing is more narrow-minded than the petty jealousy shown towards prescribing druggists by those who affect to be too pure themselves to handle drugs. Their affectation is "for the safety of the public;" in truth, it is the safety of their own pockets. The answer to all that has been written of late about "dispensing practice" is simply this, that throughout England there are to be found, both in town and country, general practitioners professionally eminent and esteemed, and socially most highly respected, who have always supplied the medicines they prescribe. Let us not confound "dispensing medicines" with "selling drugs." There is a legally constituted body of pharmaceutical chemists, whose privilege and business it is to sell drugs. This privilege is not ours, and we have no right to poach upon it. We practise a profession; they carry on a trade; and it is essential to the honour and respectability of our profession that no member of it should be allowed to trade in drugs. So long as it is possible for a qualified doctor to keep an open shop, so long must we shut our eyes to the druggists prescribing. The question of charging for medicines separately, or, indeed, charging for them at all, is quite distinct from that of furnishing the medicines. It may or may not be to the advantage of the profession to desist from the old custom; but, in the sister profession of law, no objection is raised to the solicitor's charges for folios engrossed, and no question is raised whether the engrossing is done in the solicitor's office or at his law-stationer's. There is no pride so false as that of being "too big for one's clothes."

On the other hand, from the class of consultants would be filled all those numerous appointments which do not involve ordinary attendance upon the sick—teachers and lecturers, the staff of hospitals, lunacy practitioners, health-officers, assurance-officers, inspectors of factories, and others. The divisions of medicine, surgery, and midwifery would be subdivided into special branches; for the very *raison d'être* of the consultant would be that he had devoted special attention to one particular subject. No general practitioner, however talented, or however much at leisure, can in the present day keep pace with the advance in every branch of practice; and it would be to obtain the opinion of a specialist that, in the majority of instances, a consultation would be desired.

The class of select consultants would not only furnish our great teachers and professors, but would also provide us with an aristocracy, who being paid by large fees, would have time to devote to sharing those honourable public positions which reflect lustre and influence on the profession. We should be represented by them in Parliament and at the Council-table. Their pre-eminent position would qualify them for patents of nobility, and Medicine, like the Church and the Bar, would have its most honoured members sitting in the House of Peers.

With the division into distinct orders would follow a more satisfactory adjustment of fees.

The general practitioner licensed to practice as such would be paid by charges—a legal claim. The consultant by fee—an honorarium. Such theoretically is the custom now, but practically we find a large body of practitioners claiming the position of consultants who intermingle with their consulting a family practice, for which their remuneration is upon the same scale, and received in the same manner as the general practitioner's.

The charges for general attendance must in all cases be regulated by local circumstances, and the social and pecuniary position of patients, but there ought to be a tariff established by statute, to which reference could be made in case of dispute.

It would be no more necessary that charges should always be based on this tariff, than is the case with the bills of costs of solicitors, who, having a standard by which their bills can be taxed if required, do nevertheless charge for their services in proportion to the pecuniary position of their clients or their own professional status. But at present we have nothing to guide us, and no standard by which our charges can be regulated.

On the other hand, the consultant's fee being an honorarium, and not recoverable at law, would be subject to no tariff; the old guinea would be the minimum, there would be none of the subdivisions of this which now exist; with which the amphibious practitioner salves his conscience by dividing the guinea into shillings while competing with the general practitioner for family practice.

The younger consultants would be content to pocket the guinea, looking forward to the time when this would multiply itself, while the select consultant would never accept less than five or ten guineas.

But to enable the consultants to live during the earlier years of their career, gratuitous hospital service must cease, the medical staff like all other officers must be paid for their services. So early as the fifth annual meeting of the Association (1836), a Committee was formed "to consider the best means of affording medical relief to the sick poor." And in the report presented we find the following passages: "Your Committee are aware that the vast amount of gratuitous medical assistance that has been at all times afforded to the needy by all grades of the profession has been productive of at least one very injurious effect; it has induced the unthinking portion of the public to conclude that there was some sort of conventional, if not legal, obligation on the medical profession to attend, without reward, to the ailments of the poor. This kind of misapprehension, or ignorance, of the real state of the case, has doubtless been the source of many recent grievances.

"It is, therefore, worthy of consideration whether it does not become the duty of the profession to prove the fallacy of this popular notion, by some limitation and greater discrimination in the supply of their gratuitous advice, by resenting all attempts to convert their spontaneous benevolence into a forced enaction; and by demanding a proper remuneration from those who are bound, not only by the dictates of rational humanity, but by the laws of the country, to provide the necessary assistance for the destitute sufferers.

"There is yet another reason for suspecting the real advantages of the gratuitous services of our body: viz., the effect which is thereby produced on the poor themselves. It cannot be denied that a great proportion of the attendance afforded by the medical charities of this country tends to perpetuate the injurious habit of dependence upon others for the supply of necessaries which, by timely forethought and frugality, the working classes might procure for themselves. And it is no less obvious that benefactions which were intended for the relief of the indigent, are frequently applied for the assistance of those who do not really require them, and who have no legitimate claim on the unrewarded exertions of medical practitioners."

In what other walk in life do we find such philanthropy—if it may be so called? Barristers waiting for briefs do not offer their services gratuitously to the public. The clergy, however badly paid, are not asked to work for nothing, and yet the prizes at the Bar and in the Church are far superior to anything to be obtained by the greatest success in the medical profession.

The public do not require or demand gratuitous medical service. We have thrust it upon them almost against their will, and we ourselves are responsible for the abuse which is made of our liberality. The charitable founders of our medical institutions originally made a liberal provision for the payment of their physicians and surgeons, and this, in addition to the dignified position accorded to them, furnished a fair reward for the labour bestowed; but now hospitals and medical charities are ever increasing in number, and we provide all the professional labour without pay. Alas! the public knows too well that it is not the interest we take in the poor, it is not our charity or philanthropy which induces us to undertake so much, but it is the desire for notoriety, the professional advertisement we covet.

To estimate this question fairly, we ought to regard the profession as a body, and see what a grand increase would be made to the common fund, if only a small stipend were attached to each hospital appointment. Take, for instance, ten large London hospitals, employing, in round numbers, a staff of 250 physicians and surgeons. Suppose that the senior half of these received £200 a year and the juniors £100, the profession would be enriched by £37,000 a year. Multiply this by the number of physicians and surgeons serving gratuitously throughout the country, and see what a vast income would be added to our badly paid profession. But is it not unfair that men, in the position of the majority of these, should be asked to work for nothing? Are most of them rich and independent men? Is it not a fatal obstacle to many a good man who, with talents and capability, would gladly devote himself to the advancement of scientific medicine, if only he could meanwhile find the means of living? Ask many of our great men what was their position in early life. Was it not a struggle for existence? And would not £100 a year have been a godsend to them in those days?

Of course, it is said that hospitals are educational establishments, and the staff are paid by their pupils. But this is beside the question. There are many hospitals without schools attached, and consequently without a regular system of pupillage. Pupils' fees are for services rendered to the pupils, and are not on such a liberal scale as to more than compensate the trouble and exertion of teaching. If it were so, it would be manifestly unjust that the pupils

should be called upon to pay for all the professional service rendered to the hospital. It is the service to the public that demands remuneration. Public polity has established the axiom that one portion of the community must assist another portion, when sick or afflicted, with medical attendance and comforts; but no one has a right to say that the duty of providing for these emergencies shall fall exclusively upon the medical profession.

But it is not only a direct injustice to those who are aiming at future distinction, it is an indirect injustice to the larger body who are content with the lower grades of practice; for, if candidates can be found ready and anxious to fill gratuitously all the hospital appointments, can it be wondered that the salaries of workhouse and dispensary officers are fixed at such a miserable figure?

Arising immediately out of the question of the payment of the medical staff is the corresponding one of the free admission of patients to hospitals. There are two modern institutions which conclusively prove that the class from which hospital patients are derived are able and willing to pay something towards the benefits they receive during sickness—the first is the modern village hospital, and the second the provident or self-supporting dispensary.

The village hospital is essentially a rural institution—established for the benefit of the doctor as well as the patients. It saves the country doctor much time and labour, by centring under one roof his worst cases, providing him with the assistance of an experienced nurse, and enabling him to order, with a certainty of its being provided, whatever is necessary in the course of treatment. The patients are mostly his own; those for attendance upon whom he is paid in some way or other—by the Poor-law, benefit-clubs, dispensaries, and so forth. But the characteristic feature in its management is, that a weekly payment is required from each patient towards his maintenance in the hospital. The amount is usually made dependent upon the circumstances of the case, and varies in different hospitals, according to the cost of maintenance or the endowment provided; but the inquiry necessary to fix the sum furnishes the authorities with an opportunity of preventing the funds being wasted on undeserving recipients. The payment has a salutary influence in checking the dependent spirit which is the parent of pauperism. It enhances the appreciation of the benefits derived; while, by adding to the general funds, it enlarges the field of usefulness of the charity. It has been asserted that the poor are unable to make any payment, and that the required contribution will exclude many deserving cases. Experience proves the fallacy of this assertion. Not only are the payments made with cheerfulness by those who really need the assistance, but it has been shown that, as a rule, the poor actually prefer the hospital in which they pay to that in which they do not.

Without going closely into figures, it may be assumed that one fourth of the total expense of maintaining a village hospital can be met by the payments received from the patients; and if this is the case with the rural poor, may not as much, or more, be expected of the urban population? Such an addition to the income of our large hospitals would remove the financial obstacle to the remuneration of the medical staff.

The provident, or self-supporting dispensary, provides for the home attendance upon the families of the urban artisans. The funds are derived from small payments made at stated intervals, upon the principle of mutual insurance, and these amount in the aggregate to large sums. Thus, at Northampton, 17,849 members pay £2,218 per annum, at Derby 5,696 members pay £997 per annum, and at Manchester 13,759 members subscribe £2,881 per annum. The class from which these payments are received is identical with that which furnishes the patients to free hospitals, and there seems to be no reason why they should not be able to contribute towards their medical benefits in the one institution as well as in the other.

The patients' payments in the village hospital go towards their maintenance, in the provident dispensary towards the remuneration of the doctors, but in both cases it is a contribution in aid of the assistance rendered them, and embodies the true principle upon which medical charity should be dispensed, and proves that the working classes are able and willing to contribute towards their medical benefits.

The Medical Acts Amendment Bill now before Parliament seems to recognise some of the positions we have been contending for. It paves the way for the establishment of professional grades by providing, first, a class of general practitioners, licentiates of the Medical Council in medicine, surgery, and midwifery; and then recognising a distinction between qualifying titles and higher titles, and requiring them to be separately registered. The proposal to require every practitioner to register annually, is a step towards requiring each to register the grade in which he is entitled and elects to practise; and if authority were delegated to the corporate bodies—the College of Physicians on the one side and the College of Surgeons on the other—to "call" those possessing higher titles to constitute a superior grade, the distinction between general practitioners and consultants would at once be established.

In passing, I would observe that it can hardly have escaped the notice of consulting surgeons that by this Bill the surgeon is not recognised as holding the same distinguished position as the physician, for the fee of the surgeon is made a legal charge, while that of the physician is an honorarium. This is a relic of the past, and should no longer exist, for it can scarcely be held that in the present day a leading surgeon does not hold a position equivalent to that of a leading physician.

The principle for which our Association has so long contended, viz., the direct representation of the profession in the Medical Council, is at last conceded. For many years a contest has been carried on over medical reform, the combatants being the universities and corporations on the one side, and the British Medical Association and the profession on the other. Victory seems now with us; at any rate, the representative principle for which we have contended is accepted by the Government.

A Medical Council, composed of six Crown nominees, eight representatives of the universities and corporations, and four representatives elected by the registered practitioners, will constitute a medical parliament from which we may hope for improved professional legislation.

The one qualifying licence of the Council will remove the unseemly competition between the nineteen licensing bodies, which has hitherto been such a scandal; while the separate registration of the higher titles will act as a stimulus to each university and corporation to raise the standard of its diploma, regarding the quality rather than the quantity, of those who affiliate themselves. But while we congratulate ourselves on the accomplishment of our wishes in regard to representation, we must, as law-abiding citizens, cheerfully acquiesce in the professional status given by the Bill to women, and those who in legal phraseology "adopt, or refrain from adopting any particular theory of medicine or surgery," by which, of course, is meant homœopathists, hydropathists, *et hoc genus omne*.

The admission of women is rather a question of sentiment than of principle, and there are many in the profession who think that the position to which woman aspires in this nineteenth century is only her due, and an evidence of our advancement in true civilisation. For my own part, I think otherwise, and believe that in the interests of society, and for the sake of woman herself, the position occupied in former times was much more to her advantage, and more in keeping with the object for which she was created, viz., as a helpmate to man. But as regards homœopathists, the question is quite different. We have here to deal with a heresy—a schism; and it is most important that the position taken by orthodox medicine should be carefully and prudently established.

In a country like our own, in which the utmost liberty of thought, word, and deed is permitted to every one—in religion, in politics, and I had almost said in morals—it can hardly be expected that any restriction should be permitted in medical belief or practice, and we can scarcely find fault with the State for establishing homœopathy, or any other theory of medicine or surgery, upon an equal footing with our own; but while we admit the justice of liberty in this respect, it is our bounden duty to remain firm and loyal to the truth of the principles we profess. We do not and cannot ourselves countenance, or hold communication with, those who practise upon principles which we believe to be false and heretical.

It seems difficult to understand how the Board of Examiners, constituted under the Act for the final examination of all candidates for the licence of the Medical Council, can pass those adopting any other theory than that of orthodox medicine. Yet the Act provides "that a candidate shall not be required to adopt or refrain from adopting the practice of any particular theory of medicine or surgery." But, as members of the British Medical Association, it is our duty to remain true to the principles which our Association has from its infancy ever maintained, viz., "that orthodox medicine, basing its science on the investigation of nature, apart from theory or doctrine, cannot countenance any who assume designations implying the adoption of exclusive theories or modes of treatment."

To admit to our membership homœopaths would be to acknowledge a doubt of the truth of the principles we profess, and to ignore the objects for which our Association was formed.

To consult with homœopaths in practice is equally irrational and immoral; not that we should decline on principle to hold intercourse with a homœopath, because he thinks differently to ourselves, but because it is our duty, in honour, to sink all other considerations but the good of our patients, and no possible benefit can accrue to the consultee from a consultation between those who regulate their treatment by opposite views of disease, and attribute to remedies opposite effects.

But while we refuse to hold professional intercourse with homœopathists, we should carefully avoid injustice to them; we must give them credit for honesty, the time is past when the imputation was current that a homœopathist must be a "knave" or "fool;" we must acknowledge that there are many men of learning, ability, and rectitude in their ranks; and if these can believe and practise what appears to us such a palpable imposture, we must admit that the less learned, less highly educated, and less scrupulous, may also be conscientiously deceived; we should never condemn others simply because they entertain convictions which to us seem foolish, mischievous, or illogical; this is bigotry as much in medicine as in religion.

Above all, we should take care to avoid anything like an appearance of irritation or jealousy towards them; there is room for us all; there are to be found amongst the public many who like to be treated through the imagination, who prefer miraculous cures to restoration by simple means; and this is the class who furnish the *clientèles* of the homœopath; to us they are not satisfactory patients, our plain and simple treatment is irksome to them; as of old, they desire something less commonplace than the waters of Jordan to effect their cure.

But while we give the homœopathists credit for honesty and integrity of intention, and endeavour to do to them as we would others should do to us, it is our bounden duty by every means in our power, and whenever opportunity occurs, to expose the fallacy of the principles upon which they base their theory, not in a spirit of ridicule or contempt, but in serious defence of those scientific truths which have been built up for us by a long line of ancestral workers. Let us never hesitate or fear to do this, but let us do it in a spirit of charity, with the firm conviction that truth ever will prevail.

It is a wise counsel never to wash your dirty linen in public; but while condemning others for pinning their faith to abstract theories, it is well for us to remember that we are now and then the slaves of theory and fashion. We have only to recall the old system of blood-letting to remind us that orthodox medicine was the victim of a delusion as absurd and as universal as any we can imagine. I am old enough to remember those sanguineous days—when as an apprentice I have had half a dozen arms bleeding in the surgery at a time—and have heard the doctrine gravely preached to students "when in doubt, bleed." Fashion has now carried us to the opposite extreme, and induced us to neglect what in appropriate cases is probably a most valuable agent. I doubt not that many who pass the college now would be plucked if passing depended upon their capability to perform the operation of phlebotomy.

Again, think of the days of Todd, when every acute inflammation was treated by alcohol, and almost by alcohol alone. How is it now?

And then, pause for a moment on the fashion of the day. Is there not an antiseptic wave passing over us, a wave which will probably recede as rapidly as it has advanced, leaving a modicum of truth behind it? At the present time are we not in danger of drifting into a theory of organisms, attributing all morbid actions to their presence, and all therapeutics to their destruction?

But now, let us dwell for a few moments upon a subject which ought to interest us all, which has always been a prominent object of the Association, and yet has never made the progress it deserves—I allude to our charities. Probably no class of the community does so much for the commonwealth in charity, in philanthropy, and in disinterested kindness as our profession. And yet it must be confessed we do not help each other as we ought; while we are constantly giving our time, our talents, and our money, for the benefit of others, the seeds of a benevolent institution sown in the early days of this Association have not yet yielded ripened fruit.

One of the earliest resolutions of the Association (Oxford 1836) was the establishment of a Medical Benevolent Fund, to afford immediate pecuniary relief to distressed qualified members of the profession, their widows or orphans; and to grant annuities to the aged or disabled among them.

It was originally proposed to compass two objects: (*a*) a benefit club with stipulated payments, securing certain corresponding advantages; and (*b*) a benevolent fund, having for its object the relief of distressed medical men and their families, irrespective of all claims but their misfortunes. The first of these was speedily given up, and the benevolent fund alone established.

Probably no relief fund has ever been or is better managed, or has succeeded in affording more unostentatious charity than this. Its affairs are managed by a committee of professional men; the working expenses are confined within very narrow limits. Applicants have no trouble or expense in canvassing for relief, nor are they subjected to the pain of publicity, while the assistance is given *tuto, cito, et jucunde*; if for no other reason these advantages should commend the fund to the liberal support of the profession and the public.

The Medical Benevolent Fund is essentially the charity of the British Medical Association, and, as such, has pre-eminent claims upon its members. I would venture to ask, Do we support this fund as we ought? Do we each one of us contribute annually to the utmost of our ability towards this object? If we do not, then I say we neglect one of our obligations to this great Association, of which we are proud to be members.

The other great medical charity is the Royal Medical Benevolent College, established in 1855, through the instrumentality of John Propert, in order to provide an asylum and pensions for duly qualified medical men, and the widows of such, in reduced circumstances, and a school for the sons of duly qualified medical men.

The asylum contains twenty-four residents, called pensioners, each of whom is provided with three furnished rooms, and receives a pension of £21 a year, with an allowance of coals. In addition to the resident pensioners, there are twenty-six annuitants, who receive £21 *per annum* without residences. All must be legally qualified medical men, or widows of such, not less than sixty years of age, and with a yearly income not exceeding £60. By the liberality of an old friend and neighbour of our own, there are also three Morgan annuitants, daughters of duly qualified medical men, who receive £20 a year each; so that, in all, there is provision in this charity for fifty-three annuitants.

The school provides free board, clothing, and education for fifty boys, sons of duly qualified medical men, besides receiving the sons of all qualified medical men at very moderate charges; thus, in the Royal Medical Benevolent College, we have a really magnificent charity.

Unfortunately, the good work of this great institution is somewhat marred by the vice of election by governors, which entails upon candidates great trouble and expense, and results in the success of those having most friendly interest rather than those who are most in need. Nevertheless, this charity has claims upon us all, and it is much to be regretted that in the last report (1882) the council are obliged to say that "the financial position of the College has been for some time a source of great anxiety to them, so much so that they deemed it necessary, at the end of last year, to issue a special appeal, showing that the expenditure during the five years from 1876 to 1880 had exceeded the income by nearly £700 a year, and that this deficit had only been met by spending such legacies as had not been bequeathed for defined purposes, and by selling out a part of the small amount of funded property possessed by the College, while the number of deserving candidates for pensionerships and foundation scholarships is so much in excess of the vacancies, that it would be matter of deep regret if it should become necessary, for lack of funds, to reduce the number maintained by the College."

Here again we have a great call upon our benevolence, and I would ask, do we all bear our share of this burden of love? Referring to the accounts, we find that, while the medical practitioners in England and Wales number about 15,000, the annual subscriptions to the Benevolent College only amount to £2,734, and of this sum a considerable proportion is contributed by friends outside the profession, so that we are bound to conclude that a very large number of us do nothing towards the support of these brethren in distress.

But the stigma of improvidence and unthriftiness which has so generally attached itself to our profession seems to be resented by some of us just now, and another effort is being made to establish a provident fund or sick benefit club. Thrice before such a society has been proposed, twice in connection with the Association. First, in 1836, when the Benevolent Fund was opened, a branch was suggested "for the assistance of contributors who may be unable, through sickness or casualty, to continue in the performance of their professional duties;" but the committee reported that they recommended the scheme for a benefit club to be abandoned and the

charitable scheme alone established, the result being the commencement of our British Medical Benevolent Fund. The second attempt was made at the Bristol meeting of the Association in 1863, upon a proposal by Dr. Richardson to establish a provident association. A committee was appointed, and a long report presented and discussed at the following annual meeting at Cambridge, and a society established; but its lifetime was only two years, for before the meeting of 1867 it had been dissolved in consequence of the lack of support. The third sick benefit club was suggested by Sir John Forbes in 1850, but, like the others, it either never existed or speedily ceased to exist.

The object is most estimable, but the difficulties and obstacles have hitherto proved insurmountable. The professional income of a medical man depends entirely upon his own personal exertions; he cannot delegate his duties to others for any length of time without sacrificing his practice, and is, therefore, in the same position as an artizan, and equally in need of assurance against disablement. But really, to meet our needs, a provident society should fulfil two distinct requirements: 1, assistance during temporary disablement by sickness or accident, and, 2, provision for widows and orphans after death. There can be no doubt we are open to the charge of improvidence, from the frequency with which death or disablement overtakes us before we have made adequate provision for those dependent upon us. But the explanation of this is, that we are called upon to do so much in early life gratuitously, in the hope that success may attend us later on. If life and strength be given us this good time may come, but too frequently it has not come before death has found a widow and orphans unprovided for, or the necessities of early days have so involved our finances, that even when success has come, it has not been sufficient to enable us to lay by a store.

The sick club now proposed may be a wise provision for mutual support, and may do much to help us during life, but it will not remove the responsibility resting upon us to make provision for those whom we may leave after death, or free the profession from the reproach that in too many instances the widows and orphans of those who have lived in affluence and luxury are suddenly reduced to penury and want.

What seems needed, is the addition of a scheme drawn upon the lines of the Society for the Relief of Widows and Orphans of Medical Men in London, a Society now nearly 100 years old, which has successfully combined the advantages of providence with benevolence. It is provident, inasmuch as by the small yearly subscription of two guineas, the members do, through it, protect their own families from destitution, should they unexpectedly need it. And it is benevolent, as its benefits are conferred only on those who are left in indigent circumstances. The report says: "The experience of ninety years, has fully proved the need that existed for this Society; 194 widows and 277 children of members of this Society have been placed in comparative comfort by an aggregate sum of over £100,000 paid in half-yearly instalments. Many of these would have been in a state of absolute poverty, had not the Society stepped in to succour them."

But, gentlemen, my time is exhausted, and I fear your patience also; if it were not so, I would gladly enter upon other topics bearing upon the great problem of "maintenance of the honour and respectability of the profession," and, as a stimulus to further exertion, I would invite you to recall what has already been accomplished through the instrumentality of this Association and its powerful organ, the JOURNAL, in the army and Poor-law medical services, in sanitary science, State medicine and medical reform.

I cannot expect the views I have propounded to be in accord with the opinions of all who have so kindly listened to me; but I trust that nothing I have said has wounded the susceptibilities of any.

Ours is a noble work, and we should be noble in our bearing. It is a great and glorious calling we have chosen; and it rests with us individually to make its disciples respected and esteemed. We cannot all be great, but we can all be good; we can all be inspired with the desire to maintain the honour and respectability of our profession; each in his little sphere can do his social duty, remembering—

> "This above all. To thine own self be true,
> And it must follow, as the night the day,
> Thou can'st not then be false to any man."
>
> "God and the doctor all alike adore,
> But only when there's danger, not before.
> The danger o'er, both are alike requited;
> God is forgotten, and the doctor slighted."

Gentlemen, before I sit down, allow me to express my sense of the honour you have done me in making me your President. I will ask you to accept my assurance that it shall be my endeavour, to the best of my ability, to do my duty in the position to which you have called me. But let me remind you that I am but an humble unit, that the maintenance of this large and important Branch in its ever increasing sphere of usefulness and efficiency must depend upon its members, and that it is only with your kind consideration and support, I can hope to pilot it safely through my year of office.

CASE OF COEXISTENCE OF DIPHTHERIA AND TYPHOID FEVER.[1]

BY G. E. PAGET, M.D., F.R.S.,
Regius Professor of Physic in the University of Cambridge.

THE recent illness of the Postmaster-General may add interest to the following case. The patient was Mrs. J. K., a married woman, about twenty-eight years of age, living in Manor Street, Cambridge. Three days before her illness began, one of her children had died of diphtheria, two of them having been affected. Mr. Carter, who attended them, had no doubt as to the diagnosis. The children had sore-throat, and exudation upon it.

When I first saw Mrs. K. (on December 14th, 1861), she had been confined to her bed about a week. From Mr. Carter I learnt that her illness had begun with sore-throat, and that there had been small white diphtheritic patches upon the throat. When I examined it, I could find none, nor any signs of diphtheria; but upon her abdomen were some of the rose-spots characteristic of typhoid fever; and at the base of her right lung, to the extent of two or three inches, the percussion-sound was dull, and small crepitation could be heard. She was feverish; her pulse was 130; her bowels loose. She was in the seventh month of pregnancy.

For six days she continued in much the same state, as an ordinary case of typhoid fever, with moderate pneumonic complications; her bowels loose; her pulse above 120; her tongue dryish; and a general condition requiring wine and brandy. During these six days, her throat remained free from diphtheritic appearances; but on the morning of December 20th it again became sore, and in the evening the uvula and soft palate were covered with a white exudation, the adjacent parts being bright red. Her pulse then became a little less frequent, falling to 116. Chlorate of potash was now prescribed in small frequent doses, and next day tincture of perchloride of iron. On December 28th, her urine contained albumen. The exudation, after its reappearance on December 20th, was seen from day to day; it had a diphtheritic character, and was very extensive. It was still present, though somewhat reduced in extent, on January 2nd. When I saw her on January 5th, it had been completely cleared off.

Early in January, she began to suffer much from retching and vomiting. She was troubled also with cough. The right lung was consolidated at its base, but to a small extent only. The vomiting so persisted from day to day as to bring her into great peril. On January 20th, the liquor amnii escaped. Active delirium now came on, and continued for upwards of twelve hours, when she suddenly aborted of a seven months' child, which lived half a day. The mother nearly died during the removal of the placenta, though scarcely any blood was lost. After labour was completed, the vomiting ceased, and she gradually recovered.

Mrs. K. had been nursed during her illness by her mother, Mrs. S., aged 58, who lived in the outskirts of Cambridge, in an isolated cottage within a large garden. On February 14th, 1862, she took to her bed with typhoid fever. She had the ordinary symptoms: the rose-spots, loose stools, etc. She went on favourably until March 13th, when, after sitting up near an open door, she had rigors, ushering in double pneumonia and hæmorrhage from the bowels. She died on March 24th.

The chief interest of Mrs. K.'s case is in the disappearance of the local signs of diphtheria, and their suspension for six days during the continuance of the typhoid fever, and then their reappearance and persistence for thirteen days or more. This appears to me a fact, not perhaps contrary to what might be expected, but at least worth notice. It differs from what was reported in the case of Mr. Fawcett.

Nine years previously, I had attended a severe case of typhoid fever in the same house, in Manor Street, in which Mrs. K.'s illness occurred. The patient was a young man of a different family.

[1] Read at a meeting of the East Anglian and Cambridge and Huntingdon Branches.

The recorded cases of co-existence of diphtheria and typhoid fever are not numerous. If they were, they would afford some countenance to the view, that the poison of diphtheria is identical with that of typhoid. It is, of course, conceivable that they might be. But so many epidemics of typhoid fever occur without diphtheria, and so many of diphtheria without typhoid, that the evidence at present is strongly against the identity of these essential causes.

CASCARA SAGRADA IN CONSTIPATION.

By R. A. DOUGLAS LITHGOW, LL.D., M.R.C.P.Ed., etc.

New remedies succeed each other with such remarkable rapidity now-a-days, that, notwithstanding the ephemeral existence of the majority of them, a fresh series is ever ready to take their place, and "the cry is still, they come." Amid this infinite progression, it is pleasant and instructive to find even one agent that may be regarded as a valuable addition to the medical *armamentarium;* and that such an agent exists in cascara sagrada, time will, I think, inevitably show.

Like many useful remedies, cascara sagrada (a term of Spanish derivation, and signifying "sacred bark") was well known to early writers, and is mentioned by Peter de Crescentius in a botanical work published by him in Bologna in the thirteenth century, in which it is recommended as a remedy for constipation. Its efficacy is also referred to by many Continental authors during the seventeenth and eighteenth centuries. As Dr. Eddmon has pointed out, the term "sacred bark" has been applied to this plant from a very early period. Thus, Pausanias, who flourished during the reigns of Hadrian and the Antonines, in the second century, says: "Æsculapius held the tree sacred; and Bion, who was superstitious, had branches from the rhamnus purshiana fastened over his door;" and Diogenes Laertius, who lived during the reign of Severus or Caracalla, in the third century, observes: "Branches and bark of the rhamnus purshiana were burned as a sacred offering in front of houses when a person died." Verily, "there is no new thing under the sun."

At least three species of the rhamnaceæ are more or less known in medicine; viz., rhamnus catharticus (the common buckthorn), rhamnus frangula (the black alder), and the rhamnus purshiana, now under consideration. The former is such a powerful cathartic as to be now seldom or never used, and the second is still less laxative than the cascara sagrada. It is quite possible, however, that the aperient property which seems common to all the rhamnaceæ may be supplemented in each of the species by such other properties as might result from the action of analogous but not identical chemical constituents.

My attention was first directed to cascara sagrada by an American pamphlet which fell into my hands some years ago, since which time I have prescribed it with almost invariably successful results, and cannot but regard it, under favourable conditions, as a specific in cases of chronic constipation.

Cascara sagrada seems to act as a tonic to the pneumogastric and sympathetic supplies of the *primæ viæ*, aiding the general processes of digestion, whilst especially promoting those of nutrition and assimilation. At the same time, it so influences the secretory system as to increase deficient, and to improve and restore vitiated secretions, by regulating the action of proximate visceral and intestinal glands. From this it will be seen that its use is especially indicated in cases characterised by torpidity of the liver and an atonic condition of the stomach and bowels.

Where habitual constipation depends upon derangement of the intestinal glands, with consequent defective or perverted biliary and intestinal secretions, associated with an adynamic condition of the muscular and nervous forces of the alimentary canal—involving congestion of the portal circulation, and also of the gastro-intestinal mucous membrane—the action of cascara sagrada will be found most satisfactory, and I have repeatedly known it to succeed in relieving and regulating the bowels when all the other usual remedies had failed. I am glad to find its usefulness is being recognised in British practice, and have little doubt but that increased experience of its therapeutic action will be found to justify the encomiums pronounced upon its value by our professional brethren in America.

As far as my own experience extends, I have seen no reason to withhold its use in any case of habitual constipation of a functional character, even in those occurring amongst children; but it must be admitted that it acts differently in different individuals, some requiring more, and others less; in some, occasionally producing griping pains, while in most cases its action is quite painless. Symptoms of tenesmus can, however, be readily obviated, either by limiting the dose or by combining some suitable antispasmodic with the active agent.

In the numerous cases in which chronic constipation is associated with hæmorrhoids, cascara sagrada is of especial service, as its efficient action as an aperient relieves the venous congestion; whilst, instead of irritating, as many cathartics do, it seems to exercise a soothing effect upon the rectal mucous membrane.

With regard to the dose and mode of administration, I need scarcely say that, as in all other cases, the physician should exercise some discretionary power in suiting the remedy to the morbid condition, and in combining it with such other remedies or adjuvants as may seem desirable. My own opinion is that small doses, frequently repeated, will be found more satisfactory than large doses; and this is what we might naturally expect from the physiological action of the drug. When chronic constipation is complicated with flatulent dyspepsia, deficient gastro-intestinal secretion, and impaired muscular tonicity of the bowel, ten to fifteen drops three or four times a day, either before, with, or immediately after meals, will be found to give the most gratifying results. Two to five drops may be given twice or thrice daily to children of a month old. Except in one case, in which an overdose had been taken without medical sanction, I have never known cascara sagrada produce any undue local or systemic disturbance, such as nausea, tormina, impaired appetite, or eructations; and, in fact, I know of no therapeutic agent which is altogether so reliable and satisfactory in the numerous class of cases to which I have alluded.

Ten or fifteen drops should be taken regularly twice or thrice daily for a week, after which time, if no material improvement has been effected, the dose may be increased until the bowels have been freely relieved, when it may be gradually decreased in amount and frequency until healthy intestinal secretions and increased peristaltic action have restored the alimentary canal to its normal condition. Lactopeptin, dilute hydrochloric and nitric acids, tincture of nux vomica, liquor strychniæ, glycerine, extract of malt, aromatic syrups, etc., may often be advantageously combined with the cascara sagrada, according to circumstances.

The preparation I have been in the habit of using is the fluid extract manufactured by Messrs. Parke, Davis, and Co., and it has invariably given satisfaction.

ON THE CONDITIONS AFFECTING PRECIPITATION OF PHOSPHATE OF LIME FROM URINE BY HEAT.

By WALTER G. SMITH, M.D.Dublin,

King's Professor of Materia Medica; Physician to Sir Patrick Dun's Hospital.

The fact that clear urines, free from albumen, and neutral or even faintly acid in reaction, frequently yield a precipitate upon heating, is familiar to every one. The explanation commonly given is the expulsion by heat of the free carbonic acid, which is supposed to hold the calcium phosphate in solution. This explanation does not rest upon a sound basis, and is disproved, *inter alia*, by the fact that the precipitate will frequently clear away in part or whole when the urine is thoroughly cooled. This latter curious fact appears to have been unaccountably overlooked until pointed out by E. Salkowski, in a recent number of the *Zeitschrift für Phys. Chemie*, 1883, p. 119. As a rule, no alteration in the reaction of the urine is noticeable after boiling. Salkowski adduces experimental reasons for believing that the phenomenon depends upon the formation of a combination of calcium phosphate ($Ca_3 P_2 O_8$) and alkaline phosphate, which is easily decomposed by heat; but he does not attempt any precise explanation of the facts.

From some experiments which I have made in conjunction with Dr. Emerson Reynolds, it appears probable that the production of the precipitate depends upon a nice adjustment in the proportions and basicity of the phosphatic salts existing in the urine.

The following equation may express the precipitation which occurs upon applying heat: $2 (Ca_2 H_2 P_2 O_8) + Ca H_4 P_2 O_8 = Ca_3 P_2 O_8$ (insoluble); $+ 2 (Ca H_4 P_2 O_8)$ (soluble). Upon reduction of the temperature, the inverse change takes place, attended with resolution of the precipitate in part or full, according to the relative amount of acid phosphate present. In short, the phenomenon in question seems to be one of unstable equilibrium among certain phosphatic salts, the balance of solubility being easily disturbed by changes of temperature.

These considerations tend to throw some light upon the deposition

of calcium phosphate within the bladder, and upon the formation of urinary calculi, as showing how phosphatic precipitation may take place in a feebly acid condition of the urine.

Fuller details will appear in a paper to be published in an early number of the *Dublin Journal of Medical Science*.

THE CHOLERA: A NEW METHOD OF TREATMENT.

By HENRY CUMBERLAND TAYLOR, L.R.C.P., M.R.C.S., Jersey.

On December 4th, 1872, I published in the *Guy's Hospital Gazette* a mode of treatment for cholera, founded on *post mortem* appearances, and on the symptoms observed during life. At that time I hoped to evoke a discussion on its merits, or at least to have provoked criticisms; in this I was deceived, and I now once more present this theory to my professional brethren, in order to arrest this terrible scourge by a method which, though untried, could not be less successful than the common treatment, the results of which are sufficiently unsatisfactory.

The especially remarkable changes presented in the dead body after an attack of cholera are the clotty state of the blood and the distension of the liver and gall-bladder by bile. The absence of bile from the intestines, vomit, and stools, is also to be noted. This is to be explained in two ways; for the liver extracts all the bile from the blood without being able to discharge it into the intestine, because the bile-duct is blocked by the intestinal inflammation; and on the other hand, if it were possible to cause the bile to enter the intestine, this latter, for the same reason, would not be capable of absorbing it. Thus it is that its administration in doses by the mouth, or rectum, in the form of ox-gall, is inert.

But why should we wish to restore the bile to the blood? There are two reasons for so doing. Persons attacked by jaundice suffer from an excessive fluidity of the blood, and experience great difficulty in arresting blood flowing from a cut, however slight. Bile also hinders decomposition. I am forced to conclude that this absence of bile causes the thick and clotty state of the blood present even during life, and the decomposition of matters present in the intestines.

An experiment performed by M. Magendie shows us that the injection of bile into a systemic vessel causes immediate death, whilst when injected into a portal vessel no harm ensues. Thus common bile will not answer.

The treatment I propose to introduce, as an adjunct to those generally carried out, consists in injecting the active principle of bile, the substance called bilin, which is derived from the crude secretion by a chemical process, the steps of which I shall presently indicate. It is this bilin which is restored to the blood by the lacteal vessels, and from this fact we may conclude that the injection into one of the veins of the arm will not cause bad results, if precautions be taken against the introduction of air. In several instances I remember that the injection of warm water, and even of a saline solution, has been productive of good effect, sometimes followed by a complete restoration to health.

Unfortunately, the practice of my professional duties now prevents me from trying the experiment. I have published this proposed treatment, in order to enable those attending the unfortunate sick who are attacked by this fearful disease to try its merits; the last occasion on which I witnessed a case of cholera was in 1866, on board a ship when we were placed in quarantine.

Bilin is prepared from ox-bile by first adding ether to extract the fatty matter. This is separated by decantation, and the residue is treated with acetate of lead, which forms the tauro-cholate of lead. After filtration, this precipitate should be suspended in water, and sulphuretted hydrogen gas passed through; from this the deposit of sulphide of lead is obtained, and the tauro-cholic acid (bilin) left in solution. After another filtration, the solution of tauro-cholic acid is submitted to the action of carbonate of soda, thus forming tauro-cholate of soda, the best preparation for the injection. This salt should be purified by crystallisation. The quantity employed in the twenty-four hours should be one hundred grammes, dissolved in a litre of water at the temperature of the blood (37° Centigrade); that quantity corresponds to the bile usually secreted by the liver.

In the hope of doing good to my fellow-creatures, if possible, as well as of opening the field to those who may be fortunate enough to be able to study the nature and treatment of this frightful ill, I shall await with the greatest pleasure the efforts of those physicians who, regardless of their safety, may be willing to honour me with their experience and esteemed assistance.

THERAPEUTIC MEMORANDA.

THE TREATMENT OF HAY-FEVER.

It is just over five weeks since a lady placed herself under my care for the treatment of hay-fever, or summer catarrh—a very much better name. She had suffered severely for many years, and sometimes from the end of May to near the end of July with little or no intermission unless she kept indoors. Her mother, it is worthy of remark, was very sensitive to the odour of certain flowers, and was affected by some of them even to the extent of fainting. She was not subject, however, to summer catarrh.

Knowing how exceedingly unsatisfactory is the treatment recommended and practised for this disease, as is sufficiently evident from the recent communications to the JOURNAL on the subject, I sought for rational indications that might guide me to the selection of a remedy. I thought of the neurosis that seems to underlie most cases of this kind, and to constitute the essential cause or predisposition on which the disease depends; of the characteristic symptoms of the malady: the injection of the conjunctiva, the hyperæmia and hyperæsthesia of the nasal cavities, the excessive secretion of tears and mucus; and then I bethought me of a drug whose physiological action might indicate the possession of the power to control such symptoms. Belladonna was the drug that suggested itself at once, and I determined to give it a trial, all the more hopefully because I remembered how strikingly useful on similar indications, and by a parity of reasoning, I had often found it in ordinary conjunctivitis and simple catarrh. I began with the following prescription: ℞ Succi belladonnæ ♏xxiv; aquam ad ℥iij. Misce. A teaspoonful to be taken every hour till relief is obtained. The medicine was taken without the production of any undesirable effect, and with very marked advantage indeed—an advantage that became still more evident and unmistakable, both to the patient and myself, when the dose was increased from one minim to one and a quarter (half a drachm in three ounces). Once, too, when the eyelids were especially tender, the patient was advised to use the mixture as a lotion to the affected parts, and this local application was found to be a most useful addition to the internal administration of the remedy. Repeatedly, when the symptoms of an attack had been allowed to begin, the patient found prompt relief after a few doses of the drug, the catarrhal affection disappearing first, and then the asthmatic; and on taking it regularly every day after the malady had been subdued, she has found to her delight that she can take her walks abroad through blooming grass and flowers without the least protection or precaution—a thing she had not been able to do for years before.

The patient, remembering no doubt the failure of past treatment, pronounces the remedy "a great success;" but, however satisfactory the case may be, it is, as far as I know, a solitary one, and therefore stands in need of confirmation and support.

W. F. PHILLIPS, St. Mary Bourne, Andover.

OBSTETRIC MEMORANDA.

HOT-WATER ENEMATA IN DELIVERY.

The value of hot-water enemata as a means of hastening delivery, apart from its use in the removal of fæcal accumulation, in such cases of tedious labour in which either ergot or the forceps are admissible, has been hitherto unaccountably ignored in practice, as far as my experience extends. I formerly had warm-water enemata given with the usual object of removing fæcal obstruction from the rectum; in most cases, an increased rate of dilatation of the os followed. Latterly, I have had enamata of hot, not merely warm, water administered, whether there were any appreciable collection of fæces or not, and always with the result of an accelerated rate in the progress of labour. The fact of the os dilating under the influence of the enema, whether there were an appreciable quantity of fæces or not in the rectum, proves that their presence does not prevent dilatation by causing spasm; at least, not in the majority of cases. It follows that the hot enema must act as a direct and powerful stimulant to the uterine muscle, and I feel convinced, I may add, as a result of close observation, also to the voluntary muscles engaged in the act of parturition. Judging from the sense of relief which follows its administration, it has, at the same time, a relaxing and soothing effect on these same parts; analogous, in short, to the effect of hot water applied in the familiar form of a fomentation to an inflamed and painful swelling.

I believe I am justified in adding that there is less atony of the

uterus after delivery, when a hot enema has been given, and consequently less tendency to *post partum* hæmorrhage. On this account, it has not the after-relapsing effect of chloroform on the uterus it otherwise commonly has.

I submit that it would be as well to give so simple a means of treatment as hot-water enemata a trial, in cases in which either ergot or the forceps would be used, as it possesses obvious advantages over both. D. L. BECKINGSALE, M.D., Chiswick.

SURGICAL MEMORANDA.

OPERATIONS IN OLD AGE.

As an instance of recovery from a serious operation at extreme old age, the following case may be of interest. M. S., a farmer, aged 90, a patient of Mr. Lumley of Northallerton, who sent for me on April 28th, had for many years had right inguinal hernia, for which he had worn a truss, but which had occasionally become strangulated, Mr. Lumley being always able to reduce it previously. When first seen by him on the morning of the 28th, there was then stercoraceous vomiting, the hernia having been down for a week, and it could not be reduced. Before operating, taxis was again tried under chloroform, but failed.

The operation presented no unusual features beyond great thickening of the sac, and some adhesions of the bowel to the neck, which had to be broken down before reduction could be effected. The bowels acted early next morning, for which purpose the patient was got out of bed to a commode. No harm, however, ensued, and his recovery has been uninterrupted, with the exception of a scrotal abscess, the result, as Mr. Lumley thinks, of his restlessness and childish attempts to remove the dressings. Mr. Lumley, in writing to me, says, "the case is remarkable from the old man's age, and also from the constant absence of any inflammatory or other unpleasant symptoms; his appetite never failed for an hour. So much for a simple life, and one of almost rigid temperance, so far as regards alcohol." The case bears out the truth of Mr. Wyke-Smith's remarks on the cases reported by him in the JOURNAL of June 23rd. W. C. ARNISON, Newcastle-on-Tyne.

TOXICOLOGICAL MEMORANDA.

WHITE PRECIPITATE INSTEAD OF PRECIPITATED CHALK.

THE interesting case of poisoning by tartar emetic, used instead of cream of tartar, recorded by Dr. Jessop in the JOURNAL of July 7th, 1883, under the head of Toxicological Memoranda, brings to my mind a somewhat similar mistake that came under my observation some years ago. A gentleman, a friend of mine, had been recommended to use precipitated chalk for cleaning his teeth. He went to a neighbouring chemist to procure some of it. The principal, not being at home, had left his shop in charge of a lad about fifteen years old, who had been promoted from the condition of errand-boy to that of assistant. The youth had sold red and white precipitate scores of times, for killing pediculi and curing sore heads. His knowledge, however, had not gone so far as to know the meaning of the word precipitate, nor had he heard of its connection with any other drug than the two last mentioned; but, from the colour of chalk, he thought it could not be the red that was required, so he at once weighed out an ounce of the white variety (*Hydrargyrum ammoniatum*). My friend, who unsuspectingly took it home, commenced to use it to his teeth with a stiff brush, making his gums bleed at the same time. After a few days' use of the same, he presented himself to me suffering from intense ptyalism, with fœtid breath, swollen jaws, and teeth ready to drop out, as well as the other symptoms of mercurial poisoning, altogether a piteous object. A little inquiry into the cause of his condition revealed the facts as above stated. The patient was, of course, greatly irritated as the cause of his illness dawned on him, but charitably forgave and overlooked the matter, all parties concerned in the affair being neighbours.

R. CHARNLEY SMITH, M.D., D.Sc., Ardwick, Manchester.

THE *Philadelphia Medical and Surgical Reporter* contains a notice of an outbreak of diphtheria among a barnyard of fowls, attributable to infection from the sweepings of a room in which some affected children were confined. It has been remarked before that a disease is prevalent amongst domestic birds that bears a close analogy to diphtheria.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LEEDS GENERAL INFIRMARY.

CASE OF SEPARATION OF THE LOWER EPIPHYSIS OF THE FEMUR, WITH DISPLACEMENT: RESECTION OF THE EPIPHYSIS AND OF THE JOINT: RECOVERY.

(Under the care of Mr. ATKINSON.)

[Reported by G. F. S. ARTHEY, M.R.C.S.]

CHARLES THACKERAY, aged 15, mill hand, a healthy, slenderly-built, but rather tall lad for his age, was admitted into the Leeds General Infirmary on February 3rd, 1883, under the following circumstances.

On the previous day, about twenty hours before admission, he was attempting to place a belt round a drum attached to a main shaft in motion, when his dress became entangled, and he was carried several times round the shaft before the machinery could be stopped. When extricated he remained unconscious for about five minutes, and was carried to a neighbouring house, where he lay until he was brought to the hospital.

On admission, both legs below the middle of the thighs were discoloured from severe bruising, and were enormously swollen, especially about the knees, so that it was impossible to ascertain the exact amount and character of the injuries to these parts. A slight amount of obscure crepitus could be elicited about the head of the left tibia; but the extensive effusion in and about both knee-joints completely obliterated their natural outline, so that none of the bony landmarks, not even the superficial outline of the patella, could be made out. There was hæmorrhage beneath the ocular conjunctiva of both eyes, without any superficial bruising, but no other signs of fractured base, or other head-injury. Any symptoms of concussion that may have existed had quite disappeared. The soft tissues of the back were much contused, with extensive abrasions of the skin. These are all the injuries made out at the time. No pulse could be found in either leg below the knee. Both legs were placed on ordinary back-splints reaching to the nates, and evaporating lotion applied.

At the end of a week the swelling of the left knee had so far diminished, that the existence of a fracture through the head of the tibia could be clearly demonstrated, but the contour of the right knee was still much obscured by effusion, and there was marked œdema of the leg.

February 13th. The right knee was aspirated, and about two ounces and a half of dark, fluid blood removed, but without much alteration in the outward appearance of the joint.

March 1st. The swelling having somewhat subsided, a peculiar deformity of the knee became apparent. As the patient lay in bed, it was seen that the leg was altogether in a higher plane than that of the thigh, the tubercle of the tibia being at a distinctly higher level than the patella, which appeared to be sunk in a hollow in front of the lower end of the femur. Upon removing the splint, two rounded prominences were found projecting posteriorly, one on each side of the popliteal space, at the normal level of the condyles of the femur; and, even in face of the marked shortening of the whole limb (one inch and a half as compared with the left leg), the diagnosis made at the time was that of partial dislocation of the tibia forwards. As the swelling about the knee and the œdema of the leg subsided very slowly, it was not until March 14th that the pulsation of the tibials became faintly perceptible. At the same time, the bony prominences on the posterior aspect became more clearly defined, and entirely lost their previous resemblance to the condyles of the femur. There could now be distinguished a sharp margin, with a prominent pointed angle at each extremity. From this margin, the outline of the femur could be traced upwards, but the articular portion of the condyles seemed to have disappeared entirely. Upon now examining the front of the knee more fully, it was evident that, between the anterior surface of the lower end of the shaft of the femur and the superimposed patella, there was a large irregular mass of bone.

March 21st. At a consultation of the surgical staff, the injury was diagnosed as a fracture through the line of junction of the

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lower epiphysis, with complete displacement of the condyles forward. This accounted for the shortening, the deformity and the œdema. A specimen was sent for from the museum, of the parts in precisely the same position, only where the injury was complicated by laceration of soft parts, in which Mr. Wheelhouse had amputated some years ago; this preparation fully confirmed the diagnosis.

March 29th. Mr. Atkinson decided to cut down upon the fragment, removing it to the patella, together with the articular surface of the tibia, and a thin slice of the upper fragment of the femur; *i.e.*, practically, a modified excision of the knee. However, before this could be put in practice, a train of curious symptoms developed about the right side of the face and the orbit, with considerable elevation of temperature (103°).

April 4th. The right eye was distinctly protruded, and chemosed, but not painful. He complained, however, of sore throat, and there was a blushy condition of the faucial mucous membrane.

April 10th. He complained of pain in the eye, which was still more swollen. Some fear began to be entertained that the fracture of the base of the skull through the anterior fossa, suspected when he was admitted, might have happened after all. From this day, however, the eye and throat symptoms gradually disappeared, so that on April 20th the deferred operation was fixed for the following week.

April 26th. An incision straight across the front of the joint found the patella lying upon the upturned condyles. Having removed the former, Mr. Atkinson proceeded to resect the epiphysis, but found it was firmly united by callus to the front of the diaphysis, requiring two or three strokes of the mallet and chisel to detach it. This done, a thin section was sawn from the end of the shaft and surrounding callus, and another from the articular surface of the



tibia. When brought together, the cut surfaces were found to be better proportioned to one another than might have been expected; they were drilled in the centre, and a single strong silver wire, twisted six times, kept them in accurate apposition. The limb was then put up in an excision splint, a short drainage-tube being inserted at each extremity of the wound, and the wire being left long and brought through the skin immediately opposite the junction of the bones.

The operation was performed under full antiseptic precautions.

The subsequent history may be briefly summarised. From the first the dressings were changed under the spray on alternate days for three weeks, after that every third day; the discharge, which had been rather copious, then diminishing, but remaining perfectly sweet throughout.

May 25th. The wire was removed, and the bones felt to be firmly united.

June 1st. The drainage-tube on the outer side was removed.

June 8th. The spray was discontinued, and the drainage-tube on the inner side shortened. Wound entirely healed, except at the angles where the tubes had been, that at the outer side being now quite superficial. The discharge continues to lessen, and remains quite sweet.

June 20th. The patient's general health is much improved, and he is able to lift the leg when removed from the splint; although it has been again steadied upon the splint for additional safety and comfort, until the remaining short sinus shall be completely healed.

The drawing, kindly supplied by Mr. J. Dacre, represents the relative positions of the bones at the time of operation.

THE British Government have notified the Egyptian authorities of their desire to render them every assistance during the prevalence of the cholera, and have offered to provide medical aid. Their offers have, however, been declined by the Egyptian Government.

REPORTS OF SOCIETIES.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

ORDINARY MEETING, MAY 4TH, 1883.

J. E. EDDISON, M.D., President, in the Chair.

Femoral Hernia.—Mr. W. H. BROWN gave details of the following case. A woman, aged 60, had for many years a large femoral hernia, which defied all attempts at mechanical support. It had latterly become painful, and twice been strangulated for short periods. In operating, the ordinary incision for colotomy was made, the bowel was returned, and the ring was then plugged with a large piece of omentum which was lying in the sac, the omentum being fixed in position by a silk ligature. The sac itself was dissected out and tied in front of the omental plug; the distal portion was then removed. The patient made a perfect recovery, and five months after operation there had been no sign of return of the hernia.

Scarlet Fever with Complete Relapse.—Dr. BARRS read notes of this case, which will be published.

Fragment of Brass Ten Years in the Eye: Removal.—Mr. HARTLEY related this case. In December, 1872, the patient's left eye was struck by a piece of brass-chipping. The surgeon who examined the eye could not detect in it any foreign body. It remained painful, however, and was subject to frequent inflammations. When Mr. Hartley first saw the patient, in September, 1882, the iris was tied down at its lower and outer part by a nodule of lymph. Iridectomy upwards made the eye more free from pain than it had been for several years. But in February 1883, he still complained of a pricking sensation in the site of the iritic adhesions where the original injury to the eye had been received. On close examination, the nodule of organised lymph seemed to project towards the surface of the eye. Exploration with a fine needle found a hard body. By means of a pair of iris-forceps, inserted through a small incision, a piece of metal, measuring nearly a quarter of an inch in length, was withdrawn. Quick recovery followed. The metal probably entered the eye through a wound near the corneo-scleral junction, and, without injuring the lens, lodged behind the iris, thus escaping detection.

Lithotrity.—Mr. MAYO ROBSON read notes of the case of a man, aged 60, upon whom he performed lithotrity, completing the operation at one sitting, in September 1881. Bladder-symptoms had existed for two and a half years. Under ether, the bladder was emptied of urine; three ounces of warm water were injected; Sir H. Thompson's fenestrated lithotrite was introduced, and immediately grasped a stone an inch and a half in length. The stone was broken up; the largest Bigelow's curved catheter was then passed, and the bladder was thoroughly washed out. Some large fragments remaining, a second and a third crushing and washing were effected, leaving the bladder at length apparently clear. The whole operation occupied three-quarters of an hour. The patient passed urine the same night. On the second and third days he had frequent desire to micturate; temperature, 101°. The bladder was twice syringed through a soft catheter with weak carbolic lotion (1 in 150); this gave him great relief. For a few days there was some mucus in the urine and a little fine sand, but in ten days he passed urine only thrice daily, and it was perfectly clear. Three or four days afterwards he walked three miles, and reported himself quite well.

Salicylate of Soda.—Mr. ERSKINE STUART made some remarks upon the value of this drug as an antipyretic and an antirheumatic. While admitting that it is usually of the greatest efficacy in assuaging the pain and reducing the temperature in rheumatic fever, he had met with some cases in which it had signally failed. In one of these cases, arsenic seemed ultimately to cure the patient.

Enlargement of Clitoris.—Mr. HEWETSON described the method of operation employed in a case of enlargement of the clitoris occurring in a woman aged 38, who, some years ago, had suffered from syphilis. The tumour, which was highly vascular, was ligatured at its base piecemeal before the removal was effected. The patient was well in a fortnight.

Poisonous Wine.—Dr. J. BRAITHWAITE gave details of four cases in which the patients had been made ill in various ways by drinking claret at a particular hotel. One of them had been twice disordered by the claret. In two of the cases, there was vomiting, followed by *malaise*, lasting two or three days; in a third case, there were indefinable sensations of something wrong, with loss of energy and

incapacity for business for a day or two; in the fourth case, the patient had a roseolous eruption, which lasted several days, besides being otherwise disordered and made unfit for work. Dr. Braithwaite thought it probable that the wine was an artificial compound, and contained some injurious chemical body, possibly fuchsine.

REVIEWS AND NOTICES.

A SYSTEM OF SURGERY, THEORETICAL AND PRACTICAL. In Treatises by various Authors. Edited by T. HOLMES, M.A.Cantab., Surgeon to St. George's Hospital, Memb. Corresp. de la Société de Chirurgie de Paris; and J. W. HULKE, F.R.S., Surgeon to the Middlesex Hospital and to the Royal London Ophthalmic Hospital. Third Edition, in Three Volumes: with Illustrations. London: Longmans, Green, and Co. [SECOND NOTICE.]

WE have already considered the third edition of the *System of Surgery* as a whole, and in the same notice we briefly reviewed the papers contained in the first volume. The second includes Surgical Diseases of the Organs of Special Sense, of Innervation and Locomotion, of Respiration and Digestion, and of the Skin. The section on Diseases and Injuries of the Eye is not, to say the least, conspicuous for its novelty. Thus, the chapter on Glaucoma is almost identical with the same chapter in the last edition, excepting a short paragraph on sclerotomy with a reference to the use of eserine. Far more might have been said on disordered accommodation, especially with regard to the subjective symptoms of hypermetropia, often taken for "bilious headache," "weakness," and other general conditions. Still, the ophthalmological section constitutes a good solid essay by two authorities, who may have omitted the record of certain novelties because their judgment and experience have led them to believe that such novelties are unimportant. The section on Diseases and Injuries of the Ear has been re-written by Mr. Dalby, who speaks with little enthusiasm about the numerous operative proceedings on the tympanic membrane, which have been introduced chiefly by foreign surgeons. In division of the tendon of the tensor tympani muscle, Mr. Dalby has little belief, after close scrutiny of the results of that operation. As regards the value of incision of the membrane for clearing out morbid products from the tympanum, so strongly advocated in this essay as it stood in the former editions, Mr. Dalby contents himself with saying that, where there is distinct evidence of serous or mucous accumulation within the tympanum, if a vertical incision be made in the posterior section of the membrane, and the secretion be evacuated by blowing through that incision, very great benefit to the hearing constantly follows. Still, the use of the words "very" and "constantly" in the last part of the sentence implies that the author approves of the principle that the tympanic membrane may be incised for the better treatment of diseases of the middle ear.

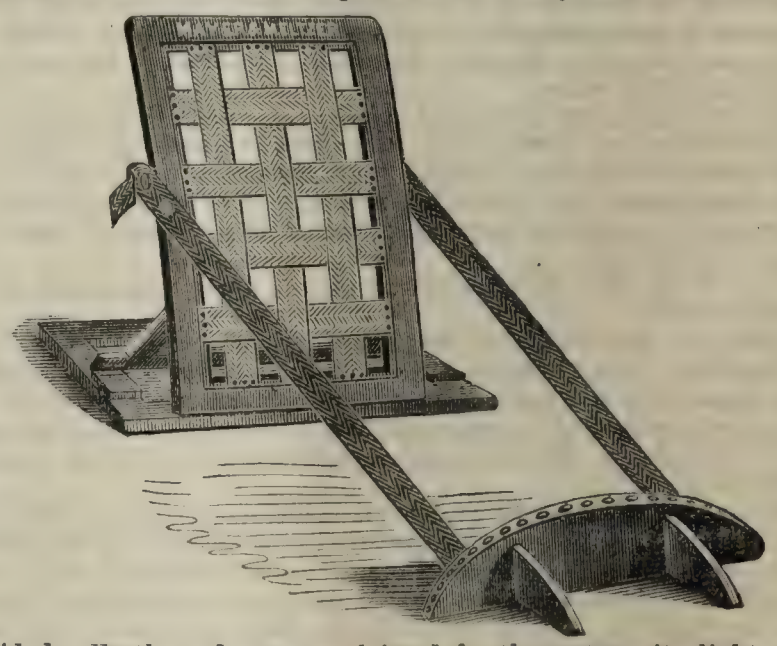
The special essays on diseases of muscles and nerves do not err on the score of incompleteness. They are far too profound for the superficial criticism which our space alone could allow; it is necessary, at least, for us to observe that Mr. Barker has revised Dr. Lockhart Clarke's monograph on Affections of the Muscular System in a very satisfactory manner, and Professor Brown-Séquard has, in the same way, edited two other essays originally written by the deceased neurologist. In these treatises on Diseases and Injuries of Nerves and Locomotor Ataxy, Professor Brown-Séquard, who is the original author of that part of them which he has not merely re-edited, has made abundant use of recent researches without rejecting all old opinions in favour of those which are at present quite new. Dr. Little's Orthopædic Surgery is unavoidably limited in scope by the very conditions of the *System*, since osteotomy and the treatment of spinal affections, both involving subjects that have been introduced to the medical world since the issue of the last edition of the *System*, belong to other sections. Mr. Holmes's Diseases of the Bones is a compact and well written article, particularly valuable from a purely surgical point of view, where the consideration of visible pathological changes are of greater importance than purely microscopical questions. Mr. Athol Johnstone's Diseases of Joints has been carefully revised by Mr. A. E. Barker, who has also undertaken the revision of Mr. Shaw's Diseases of the Spine, excepting the portion relating to scoliosis, which is contributed by Dr. Little. Want of space prevents us from dwelling on Mr. Salter's Diseases of the Teeth, Mr. Birkett's Hernia, or Mr. Henry Smith's Diseases of the Rectum. These well known essays are little, if at all, altered. Mr. Smith dwells on the superiority of the cautery to the scissors in removing hæmorrhoids secured by his special clamp. He is not strongly in favour of excision of the rectum, except "in rare instances, where the disease is limited to the lower two inches of the bowel, and where the finger can be got behind the diseased part." Mr. Haward has revised Dr. Barclay's treatise on Diphtheria and Croup, making, avowedly frequent use of the valuable material contained in the Report of the Scientific Committee of the Royal Medical and Chirurgical Society, on the "Relations of Membranous Croup and Diphtheria." Mr. Hensman has re-edited Mr. Durham's Diseases of the Larynx, adding the experiences of Billroth and Foulis in operations for the extirpation of the larynx and other novelties of value and interest. Dr. Bristowe and Mr. Rickman Godlee have revised the two treatises on Skin-diseases, and Mr. Haward has added an account of Rouge's operation for the exploration of the nasal cavities, in his revision of Mr. Durham's Diseases of the Nose. He warns the reader not to be over-sanguine about successful results after this operation, because, in many cases of ozæna, there is a carious surface at the base of the skull which cannot be removed, and, as long as this remains unhealed, the discharge will continue. Mr. Barker's Diseases of the Tongue is an exceedingly good treatise; rare, but interesting affections, like macroglossia, are not dismissed in scanty paragraphs, and the portion where cancer of the tongue is discussed deserves a particularly favourable mention. In fact, this essay is a model of all that is required in a publication professing to be a standard work of reference. In Diseases of the Intestines, Mr. Pollock has devoted a few pages to the consideration of the removal of the pylorus for cancer, first performed by Péan in 1879, and since undertaken by Billroth, Caselli, Nicolaysen, Czerny, and Wölfler. These two latter surgeons, it must be remembered, have alone succeeded in prolonging life for some time after the operation.

After due consideration, we feel bound to state that, in abundance of matter of real interest to the practical surgeon, and in thoroughness of revision as befits a new edition, this second volume of the *System of Surgery* is by far the best of the three.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BED-REST WITH FOOT-SUPPORT.

THE principal feature in this bed-rest is the foot-support attached to the back-rest by adjustable bands; by this contrivance, the patient is prevented from slipping down in bed, and off the inclined plane formed by the back-rest; in this way, the exhaustion and distress which the necessity for constant lifting up in the bed and shifting of pillows causes to patients in a very weak condition, is



avoided. Further advantages claimed for the rest are its lightness, its adjustability to any angle, and the substitution of webbing in place of cane to prevent the pillows slipping. We have been informed on independent authority that the rest works well in practice; it is equally well adapted for use in a hospital and in private houses. Messrs. Mayer and Meltzer, of 71, Great Portland Street, are the manufacturers.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 14th, 1883.

THE ELECTORAL PRINCIPLES AT THE ROYAL COLLEGE OF SURGEONS.

THE election at the College of Surgeons last week gave results which, however satisfactory they may have been in respect to the personality of the Councillors elected—and on this score no one will be disposed to find fault with them—cannot be regarded as satisfactory to either of the opposing parties among the electors, and have left all questions of principle unsettled, This election, like many which went before it, was clearly ultimately decided, to a very large extent, by personal considerations. Many of the voters announced in the library of the College that they should give their votes to the surgeons whom they knew personally, and whose professional standing and skill and personal ability were such as to satisfy them that they might safely gratify their personal predilections, or their favour for particular schools and for metropolitan surgeons, by voting in favour of those candidates. It is neither possible nor desirable, from the largest point of view, to eliminate from all such elections these personal elements; and there are always a great number of Englishmen who will be guided in their voting by the principle—"men rather than measures." The results of the poll, as stated in our impression of last week, must have been disappointing to those members who desired to see obstructive principles triumph, and who aimed at arresting the progress of reform, and sought by their votes to mark their resentment at the organised effort which is being made to secure the application, at College elections, of progressive principles. Such resentment had been very hotly and somewhat indiscreetly expressed by two of the candidates, whose sensibilities were irritated by being questioned, before their election, as to their views on two important questions of principle; the one being the principle of the admission of voting by proxy, or by papers, as an alternative method, in the election of the Council; the other being the willingness of the Council to allow a larger and more liberal use of the College building by the Fellows, and medical men generally, on suitable occasions. Neither of these two gentlemen was elected. On the other hand, neither of the two provincial Fellows was elected; and this, we think, is a matter which those who wish best to the College must lament. No one has yet ventured to express the opinion that the provincial Fellows are represented on the Council in proportion at all adequate to their numbers, or to their just claims to influence in the government of the College, and the conduct of its educational and administrative business. Such a thesis is, indeed, not sustainable; nor has any reasonable person, so far as we know, openly put it forward. Neither have we ever heard any reasonable effort to support the thesis that the provincial Fellows are not fully entitled to such a proportion, On this occasion, there were two provincial candidates: one of them, Mr. Reginald Harrison, had, on a previous occasion, been a candidate, and retired to secure the election of Mr. Cadge. This gave him an obvious claim for votes on the present occasion. The other was Mr. Oliver Pemberton, a provincial surgeon of great eminence, considerable experience, and enjoying the confidence of his colleagues throughout the country, as well as in London. The want of support accorded to them by the metropolitan Fellows on this occasion, and their failure at the poll, must be taken, therefore, as an index that, for the moment at least, the metropolitan Fellows do not adequately recognise the principles of equal and general representation, which must in the end prevail in all representative institutions, and on the basis of which alone can they be carried on with equity, with solid claims to the confidence, and with due regard to the objects represented by them.

The position of the College is sensibly weakened in this respect by the results of the last election; and the claims for voting papers for proxy-voting, or some such modification as shall ensure that fair representation of the provincial element which has been so signally denied on the occasion of this last election, have been strengthened It would have been more graceful, had justice been done without compelling those who aim at reform to band themselves together more strongly, and put forward their claims to the sympathy and support of all well-wishers to the College with greater vigour and earnestness. In the end, we cannot doubt that the whole body of Fellows, and among them the great majority of the metropolitan Fellows, will be willing to grant that measure of justice which, on this occasion, the metropolis arbitrarily refused.

The question may now be looked at irrespectively of persons. The election is over, and anything which is said now is not tainted by the supposition of concealed partisanship of individual candidates, such as attaches, for the moment, to any argument used on the eve of election. It is in this moment of calmness which succeeds the stir of the election, that the whole question has, perhaps, the best chance of being fairly dealt with and deliberately considered. A committee of the College has the matter in hand; and, without repeating the arguments, which are now tolerably familiar to all, in favour of a modification of the mode of voting, we may say that it is plain and indisputable that, in a collegiate institution, surrounded by a large inner circle of voters, but having equal duties in respect to a great body of voters spread over the whole country, and not less qualified for voting than are the immediate residents, it is plain that the system which admits only personal voting, imposes a practical disability, amounting to a large measure of disfranchisement, on the more distant electors. Such an anomaly in the mode of election is one which is alien to our national institutions, and opposed to our national spirit of justice. It cannot stand; and those will be best advised who set themselves to consider how the evident measure of reform required can be carried out in a manner least calculated to injure whatever interests may be considered likely to be compromised by granting the measure of justice demanded. A blind opposition can only produce a sense of tyrannical retention of power on the part of a small number, which is as injurious to themselves and to the institution whose interests are at stake, as it can be to those whom they unjustly deprive of their equitable privileges, to whom they deny the rights, and whom they incapacitate from the duties which properly devolve upon the electoral body generally of the College of Surgeons.

Some irritation has been expressed at the fact that candidates for election were on this occasion questioned by an Association of Fellows as to their opinions on voting by proxy, and on college meetings. Very little consideration is needed to see that such irritation is unfounded substantially, and that it has been ungracefully and unjustly manifested in the mode of expression employed by those who feel it. Surely if there be any question on which electors have a right to receive information from those who seek their suffrages, it is their opinions as to the mode of election itself. To assert that only those who have passed through the Council, or who are in the Council, have the right either to hold, or to express, or demand expression of

opinion on this subject, is, in fact, to strike at the root of all electoral privileges whatever. As a correspondent this week not inaptly suggests, if such opinions are to prevail, election altogether becomes a farce, and it is only necessary to allow those who are in the Council to nominate their successors. Such, however, have never been the opinions held in this country on electoral questions by any considerable or thoughtful body of persons. The electors have made it their duty to ascertain from candidates their opinions on large questions of an administrative character, and especially questions such as this which affect the rights of electors, and of the whole body of persons connected with the institution concerned. Such queries are rightly and properly put to candidates: we will go further, and say that the candidate who declines to answer them does not consult his own dignity or honour, his own reason, or his constitutional knowledge. It becomes every candidate to have weighed the larger principles affecting the government and the interests of the body he seeks to enter, and it does not consort with his dignity to refuse to announce to the electors the opinions which he holds on such subjects, and as to which they have the right and the duty to interrogate him. The refusal to answer them cannot be considered either a mark of self-respect or of intellectual superiority, for it ignores alike public duties and public claims, and is in opposition to all the principles of representation and election which have guided this country in its progress towards rational self-government and to the consolidation of representative institutions.

THE COMBATANT AND MEDICAL OFFICERS OF THE ARMY.

It appears strange to those who are engaged in the practice of the medical profession in civil life, that complaints should be uttered so publicly and so strongly against the members of the profession who are occupied in military practice, and such objections taken to the manner in which they perform their hospital duties, as were made by Lord Wolseley and a number of other military officers to the Committee that was lately inquiring into the subject of hospital management and nursing in the field, under the presidency of Lord Morley. Civilian surgeons are aware that the medical officers have to attain the same standards of general and professional education as themselves, and that, in addition, they have to go through a struggle of professional competition, in order to obtain their appointments in the public service. The army surgeons are, therefore, a specially selected class of practitioners. What is the influence which acts upon them after they enter the army that leads to the repeated failures with which they are charged as regards their departmental work? The pursuits of the medical profession in civil life are sometimes misunderstood, and motives are occasionally misinterpreted; but, when attacks on these grounds are made, they usually proceed from bodies of persons very limited in numbers, are often dictated by obviously interested motives, and are generally cleared away without any such prolonged and searching inquiries as seem necessary to rebut the charges made against the medical branch of the army. A portion of the public press joined with the mass of the combatant officers of the army in accusing the medical department of breaking down in the performance of their important functions at the time of the Crimean War; the same thing occurred during the late wars in South Africa; and now again attracts notice as regards the recently concluded campaign in Egypt. We are not aware that similar complaints have been made against the medical service with the forces that have been engaged in recent wars in India and Afghanistan; if they have been made, they have certainly not atttacted general attention in England. India, however, seems to afford an exception to the general rule in this respect. We do not perceive a similar tendency to enlarge upon, and inquire into, the shortcomings of the purely military parts of the army. An enormous amount of suffering and loss of life has been caused by military failures within the last two or three years—by the great disaster at Maiwand in India, by the dreadful sacrifice at Isandula in Zululand, by the rash attack on Laing's Nek, the ill-advised *reconnaissance* on the Ingogo, and the defeat at Majuba Hill in the Transvaal, all the acknowledged results of military want of foresight and mismanagement—yet no investigation into these occurrences has been made like the searching and prolonged inquiry that has been recently concluded regarding the alleged break-down of the medical department with the army in Egypt. It has been officially stated in the House of Commons, that Lord Morley's Committee has not been inquiring into the conduct of individuals; but anyone who will take the trouble to wade through the mass of questions and replies in the published evidence, will see that complaints against the particular medical officers directing the various hospital establishments, or employed in them, are much more dwelt upon, than are objections against the official regulations or system under which they were acting. What are the charges made by Lord Wolseley in his evidence before the Committee, if they be not charges against certain medical officers for not taking the initiative in doing things which they did not do, and which, according to Lord Wolseley, they ought to have done? What forms the bulk of the complaints of the combatant officers who appeared before the Committee? Are there not complaints of want of attention on the part of medical officers, and that they were not supplied with things which they required, and that, in their opinion, they ought to have been supplied with by the surgeons? However disguised it may be in words, and whatever may have been the original design of the inquiry, the fact cannot be denied that the scrutiny, as conducted, or a very great part of it, has been into the manner in which the medical department performed its functions, and its officers met the responsibilities which had become entrusted to them. It is little to the purpose that the Committee has found there was no break-down of the medical service, and has declared that the medical officers did the duties which devolved on them zealously and efficiently; this result only makes the fact of the charges to the contrary, and of the scrutiny itself, all the more remarkable. It is a matter of notoriety that the inquiries after the Crimean War had a similar issue. The extended investigations which were made by Royal Commission and Parliamentary Committees at that time led equally to the surgeons being exonerated from blame. All the more difficult is it for the civil members of the profession to understand the spirit of hostile criticism that causes reiterated complaints to be made against the medical officers, which, when they are fully investigated, are shown to be groundless.

We published in the JOURNAL of last week a full report of the remarks made by Lord Wolseley on the occasion of the annual distribution of prizes to the students at the medical school in connection with the Charing Cross Hospital. A reference to those remarks will show that his lordship acknowledged in the strongest language the obligations he had been under in all his campaigns to the medical officers, not only for acts of personal attention to himself, but also for the excellent manner in which they had performed their professional duties to the service in general, and especially in the recent war in Egypt. He concluded the portion of his address which had reference to the army medical service by observing that, though he might have found fault with it as a department, he had never found fault with the medical officers, and had never seen any reason to do so, during his long career. He had always found them thoroughly and zealously anxious to carry out the duties they had to perform. As these are the views entertained by Lord Wolseley of the medical officers and their work—and we cannot but remember that they quite coincide with the General's official despatches from Egypt, excepting that in them, not only the medical officers, but the medical service at large was commended—it is much to be regretted that his lordship expressed himself in language which produced so different an impression when replying to the questions put to him

by Lord Morley's Committee. The whole tenour of Lord Wolseley's remarks before the Committee was of a disparaging character with respect to the army medical officers, as well as with regard to the departmental system. Here are a few extracts from his lordship's replies: (Question 6207). "The great complaint against the doctors was that they did not do for their patients all that they could have done." (Question 6213). "I found very great fault indeed with the way in which the hospitals were conducted at Cairo. At Ismailia, I made great allowances for the medical officers, but in Cairo there was no excuse whatever." (Question 6254). "The medical officers of the army are too timid to take any responsibility upon themselves; there is a disinclination to assume responsibility." (Question 6278). "One great fault I have to find with the medical officers is that they have failed to accept the responsibilities the high position granted them has thrown on them." These replies, and the rest of the evidence given by Lord Wolseley to Lord Morley's Committee and presented to Parliament, remain as a lasting record; his lordship's observations at the Charing Cross School have not this permanent character. When we join such disparaging expressions as those above quoted, by the general officer holding the chief command in Egypt, to the long list of complaints made by a number of combatant officers, there need be no astonishment at a very adverse opinion having been formed in the public mind against the medical officers of the army as soon as the evidence taken by Lord Morley's Committee was made public. Nor, in the second place, can it be a matter of wonder that the civil part of the profession should be at a loss to understand why such complaints against the medical officers should have been put forward and subjected to such an imposing inquiry at all, when, after a full consideration of the subject, it is shown that, instead of there having been any real fault to be found with the medical officers, there are abundant proofs that they worked with all possible devotion, and with the efficiency to which Lord Wolseley himself now bears ample testimony; and that, in short, the only subject for surprise is that the medical service should have been conducted so successfully as it was in Egypt, considering the impediments under which the department acted.

It is obvious that, from some cause or other, there is a certain amount of estrangement between the fighting and the medical parts of the army; if there were not, there could hardly be the repeated complaints by combatant officers against the medical service that there have been. We do not notice the same tendency to find fault with other departments of the army—the chaplains, the commissariat, the transport departments for example. When any outcry is raised against these branches, there is no lack of military officers ready to defend them. Nor can it be believed that, without some special alienation and umbrage in the background, military officers would be found to advance such trivial personal grievances as have been made in many instances before Lord Morley's Committee. Some of them we should be almost ashamed to repeat in print. It has been alleged that the change from the regimental to the general hospital system has set the combatant and medical branches of the army at variance with each other. It is difficult to believe this. It is well known that the medical officers had personally little to do with the change, which was one of general policy. Moreover, the regimental was the prevailing system at the time of the Crimean War, and the outcry against the medical service at that period was even more general, and the inquiries which followed more numerous and prolonged than any which have occurred since. One thing is very noticeable. Many combatant officers still speak as if the medical officers were specially employed for their service, and not for the general service of the State. They do not seem to regard the army as a complex machine, maintained for a special purpose by the country at great cost, all the parts of which, the medical included, are essential to the well-being and proper working of the whole. They rather speak of the medical department as if it were maintained for the purpose of ministering to their own section in particular. This sentiment, which constantly appears in the evidence furnished by combatant officers to Lord Morley's Committee, is put forth very forcibly in a passage of a memorandum by Colonel Sir C. Pearson, K.C.M.G., which is printed in the appendix to the Committee's report. This officer holds the appointment of commandant of the Royal Hospital at Netley, and, although it is not shown that he was engaged in the Egyptian expedition, it appears that he submitted his views regarding the "alleged shortcomings of the Army Medical Department during the campaign" in the paper which has just been referred to. In the course of his observations, Sir C. Pearson expresses his anxiety that everything should be done for the department which shall place it in the highest state of efficiency, "and which shall ensure a contented spirit among all ranks, and, before all, a loyal feeling towards the combatant branches of the army, *for whom they should remember they exist.*" (See Appendix No. 44, p. 712.) The italics are the gallant writer's, not ours; and, as they are the only words throughout the memorandum so printed, it is obvious that a special stress is intended to be laid on them. They form, indeed, the keynote to a great part of the views expressed in the memorandum. Now, if pressure is applied to make the medical officers feel this to be their position in the army, we can readily understand the divergence of sentiment such a proceeding may gradually engender. After all, are not the combatant officers, equally with the medical officers, employed and paid by the country for the service of the State, and is not the medical branch as necessary in these days for maintaining the efficiency of the army as the combatant branch? Until an agreement is come to on these questions, it seems almost idle to expect that the duties of different parts of the army can be carried on without a certain amount of friction, that will every now and then show itself in the utterance of such complaints as have lately attracted general notice. This is a subject which, among others, it appears to us, ought to be well considered in any attempt that may be made to explain the frequent accusations of failure brought against the medical department of the army.

REVACCINATION IN FOREIGN ARMIES.

BESIDES that class of antivaccination literature which consists simply of the outpourings of a blind and angry prejudice, there is another class in which, combined with a large amount of prejudice, there is a show of argument, based upon a substratum of so-called facts. It is this class of literature which is most calculated to impress the ignorant lay mind, and to which we owe, in a great measure, the considerable antivaccination prejudice which exists among a section of the community. This class of literature is exemplified by a letter published in a recent number of a journal which deals with health; and, as it illustrates in a notable manner the character of the facts and arguments of antivaccinationists, a brief notice of its chief contents will not be amiss. The writer—Mr. Wheeler, a well-known antivaccination agitator—has perused the work on small-pox by the eminent French physician, Dr. Léon Colin; and he has found therein "some interesting information," which he thinks ought to be set against the facts adduced in Dr. Carpenter's vigorous letters.

One of the strongest and most patent evidences of the efficacy of vaccination, is the immunity from small-pox enjoyed by vaccinated attendants on cases of small-pox. In Mr. Wheeler's eyes, this is a profound mistake; and he is confident that, with the aid of Dr. Colin, he has shown that, whatever the immunity be owing to, it is, at any rate, not due to vaccination. In combating the opinion that the aggregation of large numbers of small-pox patients in one hospital is injurious to the patients and to the staff, he relates that, of eighty medical and nursing attendants employed in the Bicêtre Hospital, not one contracted small-pox. He mentions that many of these were unwilling to have themselves revaccinated; but he does not tell how many of them remained unvaccinated, nor does he inform us whether these

were protected by a primary vaccination, or by a previous attack of small-pox. It is, of course, possible that they were all unprotected either by vaccination or by a previous attack of small-pox; but it is also possible—and, indeed, probable—that they were so protected. In the absence of positive information, however, there is obviously no ground on which to form a conclusion as to the immunity enjoyed by them. There is certainly no justification for the conclusion which Mr. Wheeler draws, that "thus it becomes clear that such immunity as our nurses enjoy is not due to revaccination," especially in face of the fact that our nurses do actually contract small-pox if they escape revaccination.

A similar method of reasoning enables Mr. Wheeler to affirm the failure of revaccination among the Gardes Mobiles in Paris. During the siege, M. Lanoix, a strenuous advocate of animal vaccine, received permission to revaccinate these troops. According to Dr. Colin, it was extremely doubtful whether it were possible to obtain suitable animals for the supply of lymph, and at any rate it does not appear how far M. Lanoix was able to carry out his intention. There are no data as to the number of these troops on whom the operation was performed; still less are there any data as to the number of them protected by successful revaccination. Yet in the absence of such information—absolutely necessary to the formation of any reliable conclusion—and merely from the fact that the Gardes Mobiles did suffer severely from small-pox, Mr. Wheeler infers that "the revaccinated suffered heavily." Truly a remarkable conclusion! Its evolution, however, becomes clearer when we find that Mr. Wheeler wholly ignores Dr. Colin's very positive expression of belief in the efficacy of animal vaccine, based on his personal experience at the hospital.

After this sort of reasoning, it is not astonishing to find that, in speaking of revaccination in the French and German armies, Mr. Wheeler ignores the fact that, although the operation was enforced in each, it was by no means universally successful in either. In the German army about 70 per cent. of the revaccinations were successful, in the French army about 35 per cent. (Lotz and Colin). It is, of course, not the mere performance of the operation, but the result of its successful performance (viz., the production of vaccinia), that is presumed to be protective against small-pox. Hence it is obvious that in these two armies about 30 per cent. and 65 per cent. of the whole strength were in reality unprotected by revaccination. The mere fact, therefore, that small-pox occurred in both armies, does not afford proof even of the partial failure of revaccination to protect against small-pox. On the other hand, the fact that the well revaccinated German army suffered to a very much less extent from small-pox than the imperfectly revaccinated French army, affords strong proof that revaccination was not wholly useless. Moreover, when the comparative losses of the two armies from other diseases whose diffusion depends on unsanitary conditions, are taken into consideration, this proof becomes so strong as almost to amount to demonstration. The following comparison, instituted by Lotz *(Pocken und Vaccination)*, between the Prussian army and the French garrison (of 15,000 men) at Langres, is instructive on this point.

	Deaths per 10,000 Men in Prussian Army from July 1870 to June 1871.		Deaths per 10,000 in French Garrison at Langres from September 1870 to March 1871.
From small-pox	5.8		222.6
,, dysentery	32.3		19.3
,, enteric	118.8		80.6

Comment on these figures is surely unnecessary.

The only other point in Mr. Wheeler's letter to which we shall allude is the proof he apparently believes he has discovered of the inutility of vaccination in the epidemic at Berlin. In that city, during the epidemic of 1871, the small-pox death-rate was excessively high. This was not due to neglect of vaccination, Mr. Wheeler declares, "for Dr. Colin says, p. 18: 'The gravity of the evil at Berlin shows us how much already, all to the contrary notwithstanding, the practice of vaccination and revaccination leaves much to be desired among our neighbours,' the Germans." To us, it seems that the sentence thus quoted from Dr. Colin was an expression that there was neglect of vaccination and revaccination at Berlin. Be that as it may, however, it is a well ascertained fact that, for several years previous to the great epidemic, there had been very serious neglect of vaccination in the German capital. According to the official reports of Dr. Guttstadt, the infantile vaccinations during the six years prior to the outbreak were only about 45 per cent. of the births. "Hence," writes Dr. Seaton (Report for 1874 of the Medical Officer to the Privy Council), "when this epidemic broke out, large numbers of children were found in Berlin who had attained school age without vaccination having been performed; and it was to this accumulation of unvaccinated children that the high mortality of the epidemic in that city was, according to Dr. Guttstadt, in great measure attributable." The decrease in the number of infantile vaccinations in Berlin was due, there is little doubt, to the active anti-vaccination propaganda in operation for several years prior to 1871 and there can be little doubt that to that, also, was due a large part of the excessive small-pox mortality in Berlin. It is to be most sincerely hoped that the agitation kept up by Mr. Wheeler and a few others of like mind will not lead to similar deplorable results in this country.

SIR HENRY THOMPSON will deliver an address at the Fisheries Exhibition on Tuesday, July 17th, at 2 P.M., on Fish as Food.

DR. HILTON FAGGE has been appointed physician to the Deaf and Dumb Asylum.

THE Duke and Duchess of Connaught have accepted an invitation conveyed to them to open the new buildings of the Norfolk and Norwich Hospital in August or September.

IT is stated that 270 candidates have entered their names for the examination for the diploma of Member of the Royal College of Surgeons of England, now in progress.

DR. REGINALD SOUTHEY has been appointed Commissioner in Lunacy in the place of Dr. Robert Nairne, resigned, and has therefore, in due course, resigned his appointment of physician to St. Bartholomew's Hospital.

MR. J. FURLEY publishes, in the *Army and Navy Gazette*, an interesting and warm tribute to the work done by the Army Medical Department in Egypt, and comments on the unreasonable and hasty character of the complaints and charges which have been made in respect to the care of the sick in that campaign.

THE Committee of the Dalrymple Inebriate Home announce that a drawing-room meeting will be held (by the kind permission of Lord Shaftesbury) at 24, Grosvenor Square, W., on Monday afternoon, the 16th instant, at 3 o'clock, when Lord Shaftesbury will preside.

LORD STANLEY of Alderley intends next week to call attention to the increase of insanity, in regard to which he will ask the Lord President of the Council if he has inquired into the effects of overwork in elementary schools, and whether he will withdraw the sanction of the Education Office to compulsion by board schools in the matter of home lessons.

OF the 370 Fellows of the Royal College of Surgeons who recorded their votes at the election of members of Council on the 5th instant, no less than 135 attended for that purpose from distant

provincial towns. On the evening after the election, 73 Fellows were present at the annual dinner; Mr. Luther Holden was chairman on this occasion. The total number of Fellows in the last Calendar of the College of Surgeons is 1,186, of which number 621 have attained the diploma by examination.

MR. GLADSTONE has announced the intention of the Government to go on with the Medical Acts Amendment Bill, but the Scotch members have by no means withdrawn their opposition to the clauses fixing the representation of the universities and of the medical bodies, and it is understood that the Government is not prepared to make the concessions desired.

M. PASTEUR having offered to organise a mission for investigating the cholera in Egypt, the Hygiene Commission has endorsed the scheme. The mission will consist of M. Roux and M. Thuillier of M. Pasteur's laboratory; M. Strauss, of the Faculty of Medicine; and M. Nolaco. M. Pasteur has written to Lord Granville to solicit the grant of facilities to the mission in Egypt.

A MEETING of the London Sanitary Protection Association will be held in the Kensington Town Hall on Tuesday, July 17th, at 8.30 P.M. Professor Huxley, who has been president of the association since its formation in 1881, and who now retires, will be succeeded by His Grace the Duke of Argyle, who will address the meeting. A paper will be read by Mr. Burton on the Domestic Electric Lighting of the Future from a Sanitary Point of View, illustrated by experiments and examples.

THE first cremation at Rome took place last week, in the cemetery at San Lorenzo. About two hundred persons assembled there to witness the operation of cremating the body of the late Senator Cipriani; and when the coffin containing the body was placed in the lighted furnace, Signor Giammarioli, President of the Cremation Society, delivered a long inaugural address on the advantage which Italy and Rome would, from a hygienic point of view, derive from the introduction of this system.

THE election of Professor Huxley, as president of the Royal Society, in place of the late Mr. Spottiswoode, has met with warm approbation on all sides. The distinguished biologist on whom this honour is conferred, is not less popular than he is eminent, and under his direction there is every reason to hope that the services rendered to biological science by the society, will be yet further enhanced.

WE are informed that the statement that the ambulance company of students of the Charing Cross Hospital had volunteered their services during the cholera epidemic in Egypt is so far correct, that Mr. Cantlie, assistant-surgeon to Charing Cross Hospital, and at present the working head of the corps, tendered his own services, and those of some of the members of the corps who were willing to volunteer for this humane purpose; but that the information at present existing was not such as to justify the belief that their services were required—at present, at least—for the purpose. The offer, however, is one which does the highest honour to those who have made it, and it has been forwarded to the authorities at Alexandria, from whom further communications may be expected on the subject.

THE new Chelsea Hospital for Women, Fulham Road, was opened on Tuesday by the Duke and Duchess of Albany. The official inspection had taken place on the previous Saturday. The hospital will be wholly devoted to the treatment of cases of gynæcological disease. The physicians are—Drs. J. H. Aveling, J. James, A. W. Edis, D. Lendon, Fancourt Barnes, and J. Phillips. The hospital is replete with the most modern arrangements for the comfort and well-being of patients. The decoration and character of the material used in the furnishing, fitting of the wards, construction of the walls, etc., are not only extremely satisfactory, as evincing regard for the hygiene of the place, but are bright, pretty, and cheerful. The hospital will accommodate sixty persons. It is divided into small wards, which have an extremely comfortable and homely appearance. The beds, bedding, and bedside cupboards have been selected with great judgment in regard to the comfort of the patients. The administration of the hospital is excellent, it has made remarkably rapid progress, thanks in a great measure to the singular zeal and ability of the secretary, Mr. Wood, and his intelligent comprehension of the relation of providence to charity, as well to his energy in emphasising the claims of the hospital and his fertility of resource in opening up sources of provident and benevolent contributions.

THE CONTAGIOUS DISEASES ACTS.

THE Home Secretary has consented to receive a joint deputation from the Canterbury, Dover, Maidstone, Eltham, Sheerness, and other boards of guardians, and also representatives appointed by th municipal authorities of the various Kentish towns affected by the withdrawal of the operation of the Contagious Diseases Acts.

REGULATIONS AS TO CHOLERA.

THE Central News understands that the regulations as to cholera, to be issued in the course of a few days by the Local Government Board, will be addressed to all port sanitary authorities, to all local sanitary authorities in England whose districts abut on the coast, and to all officers of Customs. The regulations will prescribe that if any officer of Customs, on the arrival of a ship within the limits of any port or district, ascertain or suspect that the vessel is infected with cholera, he may detain such ship and order it to be moored in such place as he may direct. Whilst the ship is so detained, no person is to be allowed to leave it. The officer of Customs is then to give notice to the sanitary authority of the detention of the ship, and that authority is required to continue the detention of the ship, in order that it may be visited and examined by their medical officer of health, with the object of ascertaining whether it is infected with the disease. Any ship found to be so infected, is to be moored at such place as may be then appointed. All persons on board are to be medically examined, and those who are not certified to be suffering from cholera, are to be permitted to land immediately. Every person certified to be suffering from cholera is to be removed, in accordance with regulations made by the local authority under the Public Health Act of 1875, to a hospital or place appointed for the reception of such patients. No such person is to leave such hospital until he shall be certified to be free from the disease. If any person suffering from cholera cannot be removed, the ship is to remain in the charge of the medical officer. In case any death from cholera occurs on board while the ship is being so detained, the master of the vessel is required to cause the dead body to be taken out to sea and committed to the deep, properly loaded to prevent its rising. All clothing and effects of persons who have died on board are to be disinfected or destroyed, and every part of the vessel, where necessary, is to be disinfected and purified.

THE CHOLERA EPIDEMIC.

IT is stated that no regular committee has been appointed by the Government, but that medical authorities have been asked to inquire into and discuss the cholera epidemic with a view to determining what steps should be taken to prevent its spread. The orders of the Local Government Board on the subject will be considered at a meeting shortly to be held at Whitehall, when Sir William Jenner, Sir Lyon Playfair, Sir Edmund Currie. and Sir Joseph Fayrer, have

been invited to meet the representatives of the Medical Department of the Local Government Board, and of the Home Office, the Foreign office, and the Customs.

PRECAUTIONS AGAINST CHOLERA.

AT the ordinary meeting of the Tyne Port Sanitary Authority, held at Newcastle on the 9th instant, Mr. Alderman Wilson, who presided, stated that the most vigilant precautions had been taken to prevent the introduction of Cholera into the Tyne from Egypt, both the Custom-house officers and those of the Port Sanitary Authority being on the alert to detect any case on vessels arriving in port. The patient would be immediately transferred to the floating hospital, which, however, was not large enough to accommodate many inmates. It was, therefore, proposed to apply to the Admiralty for the use of an old wooden war-ship, to serve the purpose of a hospital.

IMBECILE TEA.

A GOOD deal has been written from time to time as to the dangerous influence of strong tea on the nerves. Apparently, the Devonport Board of Commissioners are determined to spare the nerves of the patients under their charge from the slightest risk of deterioration from this cause. The Lunacy Commissioner inspecting the wards found that, in the fluid distributed as tea in that workhouse, one ounce of tea is allowed for fourteen pints of water; and the price paid is one shilling and a penny per pound. The correctness of the statement was questioned by one of the members, but the chairman indicated that it was correct. At any rate, the inmates are not likely to be kept awake by the undue strength of the beverage which is served out to them. Is not this carrying economy and consideration much too far?

DEATH WHILE UNDER CHLOROFORM.

THE following appears in the *Liverpool Daily Post* of July 3rd. An inquest has been held by Mr. Henry Churton, coroner, at Little Brighton, on the body of Matthew Meredith, a middle-aged seaman, who resided at New Brighton. It appeared that on Thursday, while the deceased was fighting at New Brighton, with a man named William Evans, with whom he had a drunken quarrel, he fell and broke his thigh. The injured limb was set in due course, but did not remain in the socket, and on Saturday, Mr. Bell, of New Brighton, and another medical man, administered chloroform to him for the purpose of resetting it. During the operation, and while Meredith was under the influence of the chloroform, he was seized with an epileptic fit, and died in a few minutes. The deceased had been a heavy drinker, and the jury returned a verdict to the effect that he died from an epileptic fit, accelerated by excessive drinking.

OPHTHALMOLOGICAL SOCIETY.

THE annual meeting of this Society was held on July 6th, in the new rooms of the Medical Society of London. Mr. William Bowman, the retiring President, who has occupied that position since the foundation of the Society, was in the chair. The Treasurer's report showed that the financial position was most satisfactory. The following officers were elected for the year 1883-1884: *President:* *Jonathan Hutchinson, F.R.S. *Vice-Presidents:* *William Bowman, F.R.S.; C. E. Fitzgerald, M.D. (Dublin); Henry Power; Frederick Mason (Bath); Augustin Prichard (Clifton); *J. C Wordsworth. *Treasurer:* J. F. Streatfeild. *Secretaries:* John Abercrombie, M.D.; *W. A. Brailey, M.D. *Other Members of Council:* Edwyn Andrew, M.D. (Shrewsbury); *George Cowell; *G. A. Critchett; R. Marcus Gunn; *George Johnson, M.D., F.R.S.; George Lawson; Stephen Mackenzie, M.D.; Charles Macnamara; *E. Nettleship; *Priestley Smith (Birmingham); T. Shadford Walker (Liverpool); *W. Spencer Watson. The gentlemen whose names are marked with an asterisk were not in the Council, or did not hold the same office, during the preceding year.

MIDWIVES' BILL.

MR. ERNEST HART has received a communication from the Lord President of the Council, stating, with reference to previous correspondence on the subject, that in consequence of the unavoidable delay in the introduction of the proposed Midwives' Bill into Parliament, it will be impossible to proceed with it, with any probability of its becoming law, this Session.

FACTS FOR ANTIVACCINATORS.

THE following pregnant facts are recorded by Mr. Armstrong in his last report on the health of Newcastle-on-Tyne. A man and his child were removed to the hospital suffering from small-pox. The man's mother, who happened to be in the patients' house when the health-officer called, was urged to be revaccinated with the rest of her family. She went to her home at Stepney, taking infection with her, but she did not do as advised. About a fortnight after, another of her sons, living with her, fell ill, and was removed to hospital. Revaccination was again advised and again neglected. About two weeks later the father and mother and another son fell ill. When asked why she had not got revaccinated as urged, the mother said she "didn't know." This poor woman and her husband both died.

PROSPECTS OF THE LONDON HOSPITALS.

MR. ERNEST HART, in speaking at the official inspection of the Chelsea Hospital on Saturday, said that an examination of the figures produced at the recent conference, showed that to the hospitals of London had been added, in the eight years between 1873-81, nearly 1,000 beds. The income of the hospitals of London had increased from £205,000 in 1873, to £230,000 in 1881, and he found that the income was summed up as being £5,000 a year in excess of the expenditure. Thus the amount of hospital accommodation for the metropolis had been largely increased, and if some hospitals were not so well off as others, it must be considered to be partly due to the defects in their management, partly to the continual displacement of population and change of interests, which led to a larger expenditure on those hospitals which best supplied the local wants of the increasing population of new districts. The fountains of charity were flowing as liberally as ever, and there was no reason to reproach the metropolis with being insensible to the claims of its public institutions.

THE CONTAGIOUS DISEASES ACTS.

A SAVING to the Exchequer of £4,700 is said to be effected by the official support given to Mr. Stansfeld's resolution against the Contagious Diseases Acts. The administration of the law last year cost no less a sum than £13,565, while the cost to the Exchequer this year will be less than £9,000. According to an amended estimate, the sum now asked for is to be spent only on hospitals. The *Western Morning News*, commenting on these facts, remarks: "So that, though the health of the population may suffer, the Exchequer will benefit; which, perhaps, justifies our retrograde action in the eyes of an economical Chancellor of the Exchequer." But the Chancellor of the Exchequer should, it thinks, consider at what cost his saving has been made. There were 460 women in hospital on the day of the passing of Mr. Stansfeld's resolution. There are seventy now. In other words, 390 centres of contagion are at liberty. The fact that so few remain in hospital is, it thinks, fatal to Lord Hartington's Bill. A voluntary system will produce better results than compulsory detention after voluntary admission; and there is good reason, it says, to believe that his lordship is himself inclined to surrender his Bill. In other words, the proposal made by Mr. Childers is condemned by a short experience before it has been tried.

PHARMACEUTICAL JURISPRUDENCE.

THE following decision of the Tribunal of the Seine is of considerable importance in reference to the responsibility of druggists. A lady became a morphomaniac, owing to the complaisance of a druggist, who supplied her with morphia from two old prescriptions. The lady's husband sued the druggist, and claimed damages for the expenses he had incurred from being obliged to have his wife treated in a *maison de santé*. The most interesting portion of the judgment runs as follows. The court condemned M. Armand Vassy, druggist, of Paris, to one week's imprisonment and a fine of £40, being "accused and found guilty of having, from May 21st, 1881, to October 29th, 1882, being 516 days, sold to Madame Junot 693 grammes of hydrochlorate of morphia, which is classed amongst poisonous substances, in successive divisions of 10, 15, 20, 40, 50, 60, 100, and 110 packets, amounting in value to 1,650 francs 50 centimes," and "of being satisfied for supplying this medicine in such large quantities with the authority of two prescriptions, dated March and June 1881, which prescriptions both prescribed a stated dose, divided into ten packets, and stamped with that figure." M. Vassy was likewise fined 2,000 francs, or £80, by civil process. He has, however, appealed against this judgment.

THE TOTTENHAM SANITARY ASSOCIATION.

THIS society, which has now reached its tenth year of existence, continues its useful career. It has already done much to excite popular interest in sanitary matters, and to rouse the local board of health to a proper sense of its duties. The ninth report deals with the sanitary history of Tottenham during 1882, which, so far as mortality statistics show, compares unfavourably with previous years. The death-rate, on the most lenient computation, represented 18.0 per 1,000 of population—the highest rate since the years 1871-3, when the district was suffering from the effects of several years of inefficient sanitary administration. The death-rate was also considerably in excess of that recorded in the twelve suburbs, which was 16.51 per 1,000; and it is noticeable that, while in Tottenham the death-rate in 1882 was higher than in the previous year, in the twelve suburbs it was somewhat lower. This excess represents a large number of lives, for if the deaths in Tottenham had been no higher than in these suburbs, the actual number of deaths would have been fewer by 81. The report deals at some length with the increased zymotic death-rate, especially from scarlet fever and diphtheria; and it points out that this mortality was also confined to Tottenham, and did not extend to the neighbouring parishes. Commenting on the large fatality from diphtheria, which caused no fewer than 27 deaths, the committee refer to the mischievous influence of sewer-gas in spreading the contagion of this disease, and it views with grave concern the tendency which has lately been shown by the sanitary authority to disregard the important precaution of sewer-ventilation.

THE TREATMENT OF CHLOROSIS BY BLOOD-LETTING.

WELL may one despair of arriving at a definite, orthodox, and certain treatment of disease. To read such a title as this makes one rub one's eyes, and, with that disappointed feeling we know so well on awaking from a dream of pleasant unrealities, exclaim, "then it is not true that quinine cures ague, that mercury and iodide of potassium are the proper treatment for syphilis; that chlorosis is amenable to an iron treatment." Man is proverbially ill-tempered when just aroused; therefore Dr. Dyes, who has forwarded to us a paper on this subject and with this heading, must excuse us if, under the circumstances, we venture to ask him to give us his credentials ere we can allow him to teach us such an astounding doctrine. If there is one fact certain in medicine, it is this, that iron given in sufficient doses will rapidly ameliorate many cases of chlorosis. Naturally enough, a disease such as this, which is a resultant of many conditions, will require a careful adaptation of means to the particular case on hand, but that a large number are rapidly relieved by iron, none with adequate experience can dispute. It is one of the unfortunate results of the competition of the present day, of the inevitable pitting of man against man, that everyone of us is trying to say something that no one else has said before him. Success in the struggle is not easy; the dishes served up by us are mostly *entrées*, old friends in new and unsubstantial dresses, but we are compelled to admit that Dr. Dyes has accomplished it in saying that the blood of the chlorotic is thick and dark coloured, and that bleeding will remove these abnormalities. It has been said before, and the statement applies here, that what is new is not true. That what is true is not new is often made part of the proverb, but this does not apply so well, for if facts depend upon the teachings of experience, there are none. Dr. Dyes does not think that simple loss of blood can ever produce anæmia, because he has never seen it do so. He should have waited to write upon the subject until a riper experience had come to him.

CRIMINAL ABORTION.

AT the late June Sessions of the Central Criminal Court, Arthur Jallands, a dog-dealer, who was said to have formerly been a medical student, and in whose possession a diploma of the Royal College of Surgeons, in the name of Owen, was found, was convicted, along with a man named Cardinal, a commercial traveller, of attempting to procure abortion. Jallands was stated at the trial to have been at one time, as was believed, in partnership, in Bermondsey, with a medical man named Owen. It seems that a young woman, named Cooper, Cardinal's servant, became pregnant by him, and was eventually taken by him to Jallands' house, in Rotherhithe, and the offence was there alleged to have been committed. The girl returned to her home, and, becoming dangerously ill, she informed her parents of what had taken place, and the police were communicated with. On searching the parlour in Jallands' house, where the offence was alleged to have been committed, a number of instruments and some medicine were found, and an entry in a diary which was contended to support the allegations of the prosecution. The girl Cooper gave a detailed account of what had occurred, and her statements were supported by the medical evidence. She, moreover, stated that Jallands had told her not to be afraid, as he had been successful in ninety out of one hundred cases. In passing sentence, Mr. Justice Lopes said the prisoners had been convicted on the clearest possible evidence; that Jallands was, he believed, a professed abortionist, and that he thought the statement of the prisoner as to the number of cases in which he had been successful, was probably correct. Jallands was sentenced to seven, and Cardinal to nine years' penal servitude.

THE POLLUTION OF RIVERS.

IN reference to this subject, a correspondent writes to a daily contemporary: "With a possible visit to this country of Asiatic cholera, and the probability of hot weather, I may, perhaps, be doing good service by calling attention to the very unsatisfactory state of some of our northern rivers in their passage through the more thickly populated manufacturing districts. I refer to the Aire, the Calder, the Dearne, the Don, and other tributaries of the Ouse, as well as to the Weaver, the Irwell, the Darwen, and other tributaries of the Mersey and the Ribble, which, owing to a succession of wet seasons and low temperatures, have remained for several years past in a comparatively harmless condition. To realise their true state, it is only necessary to pass along the banks of the Calder from Halifax to Wakefield, inasmuch as that river may be taken as typical of the others mentioned. It would appear that, with the exception of Dewsbury—where the liquid filth discharged from the borough has has been converted into perfectly clear water—very little has been done in pursuance of the recommendations made by the Rivers Pollution Commissioners some fifteen years back although

in the instance referred to, all that the Commissioners required has been effected. It was hoped that Local Conservancy Boards would preserve the rivers from the extreme pollution that now exists. Is it a fact that the Rivers Conservancy Bill has been shelved for this session? It would be well to remember that cholera is both endemic and epidemic, and that rivers in a polluted condition may invite the localisation of this dreaded disease should the intercommunication between India and the centres of manufacture in England through Egypt unfortunately bring it to our shores."

ST. MARY'S HOSPITAL FESTIVAL DINNER.

A FESTIVAL dinner, in aid of the funds of St. Mary's Hospital, was held in Willis's Rooms on Thursday, July 5th, 1883. The Right Hon. the Lord Mayor presided; and, in proposing the toast of the evening, said that the hospital had its beginning in 1851, when the late Prince Consort laid the foundation-stone of the first building. The original hospital proving too small for the demands made on it, on account of the rapid increase in the density of the population in the district in which it stood, it was enlarged in 1862, and at the present time a large new wing is approaching completion. The cost of erecting this new wing was defrayed by the munificence of the late Mr. J. F. Stanford; but, by the terms of this bequest, the committee of the hospital were debarred from investing any part of it in order to ensure a larger income to meet the larger expenditure which the wing would inevitably entail. The Lord Mayor made an earnest appeal to the benevolent to come to the aid of the committee of the hospital, and to place at their disposal funds sufficient to furnish and maintain the new wing, and to make up the deficiency in the last year's income—a deficiency which was not due to extravagance or to increase in the cost of management, but solely to a falling off in the annual subscriptions and in donations. We are gratified to be able to add that, before the close of the proceedings, Mr. St. Leger Bunnett, secretary to the dinner committee, announced donations amounting to £2,367 11s., and new annual subscriptions amounting to £81 18s., making a total of £2,449 9s. Mr. Lewis Loyd, one of the treasurers of the hospital, in responding to the toast of "Success to St. Mary's Hospital," paid a just tribute to the medical staff, to whose exertions and ability it was, he said, largely due that the hospital held so high a place in public estimation. After the health of the Lord Mayor had been proposed by Dr. Alfred Meadows, and that of the Sheriffs of London and Middlesex by Mr. Herbert Page, a vote of thanks to the dinner committee, which was responded to by Mr. Field, brought the festival to a termination.

THE CONTAGIOUS DISEASES ACTS.

ON Saturday was published the Government Bill for the detention of women affected with contagious diseases in hospitals certified by the Admiralty or the Secretary for War. The preamble sets forth the desirability of making a provision similar to that which already exists for workhouses under the Poor Law Amendment Act of 1867. The Bill then proposes to authorise the chief medical officer of a certified hospital within the specified limits to detain there any woman who is therein and is so affected, until he certifies that she is in a condition to be discharged. The woman is, however, to have a right of appeal to a justice, and he will order her discharge if he be satisfied upon reasonable evidence that she is free from a contagious disease. If a woman leave the hospital without authority, she may be apprehended without warrant, and taken back to the hospital by any person authorised by the chief medical officer. When a woman has been under medical treatment in a certified hospital, she will, on her discharge, be entitled to be sent, without expense to herself, to her ordinary place of residence if that be situate in any of the scheduled places, or within ten miles of it. Efficient inspection of the certified hospitals is to be provided by the Admiralty and the Secretary for War, and the same authorities are to make regulations for the preservation of order in them. Finally, the Bill proposes to repeal the Contagious Diseases Acts, 1866-69. The places brought within the scope of the measure are Aldershot, Canterbury, Chatham, Colchester, Dover, Gravesend, Maidstone, Plymouth and Devonport, Portsmouth, Sheerness, Shorncliffe, Southampton, Winchester, Windsor, Woolwich, the Curragh, Cork, and Queenstown.

BOARD SCHOOLS EXERCISES: PLAYGROUNDS AND GYMNASIA.

THE physical education of the children of the poor is, we see with the greatest satisfaction, receiving attention from the London School Board in a systematic and most useful manner. Great credit is due to Mr. North Buxton, the chairman, for the encouragement which he affords to this most important branch of the work of the School Board; and the public entertainment at which he was honoured by the presence of the Prince and Princess of Wales, for the purpose of reviewing the drill classes of the students of the School Board, is an occasion on which not only the School Board itself, but the whole population of London may be congratulated. It marks, we may hope, a new departure in education. The subject of the education of the body is lamentably neglected, especially among those who have charge of the children of the poor, male and female. The introduction by the School Board of the Swedish system of exercises, under the charge of Miss Bergman, promises well; at the display before the Prince, the marching of the girls is reported excellent, and they were afterwards put through a series of movements of extension and flexion by which the muscles of the neck, spine, joints, and the various other parts of the body, were brought into active and harmonious exercise; the lungs being also exercised by singing and counting. These exercises were all done in good time, by word of command. This display of physical training, it may earnestly be hoped, will spread from the London School Boards to other girls schools throughout the country. There are unfortunately hardly any teachers in Great Britain capable of carrying out this system, and the School Board will have rendered an essential service if it can arrange a normal school for the training of teachers from which other board schools and private schools could be supplied. May we hope that this successful display of the results of physical education will inspire the Board with a somewhat more liberal policy in respect to fitting up gymnasia in their playgrounds for boys and girls? These playgrounds have been acquired at a cost of upwards of half a million; they are very little used, chiefly for the reason that they are not fitted with suitable gymnasia for the active training of the pupils, nor provided with instructors to show them how to use gymnastic apparatus, and how to play—a lesson which our town children sorely need. By the liberality of the Public Gardens and Playground Association, and the generosity of its president, Lord Brabazon, a sum of £400 has been offered to the School Board for the construction of suitable gymnasia in one boys' and one girls' school. This sum the Board has accepted. We are glad that it has done so; but it must be felt that it is a reproach to a great public body, such as the London School Board, that it should need to be urged by private liberality, and wait for voluntary subscriptions, before supplying so necessary an adjunct to their magnificent system of schools. Mr. Ernest Hart, as Chairman of the National Health Society, has, during the last two or three years, been engaged in a correspondence with the Board on the subject of these playgrounds; and, as Vice-President of the Playgrounds Association, he has joined in this presentation of a gymnasium to the London School Board; but, in a further recent communication, on behalf of the National Health Society, he has taken opportunity to express the opinion, which will, we believe, be largely endorsed by public sentiment, that the provision of such gymnasia, within the precincts of the school grounds of board schools, lies directly within the province of every board school in the country; and that no School Board can be considered to have

adequately done its duty to the children, whom the State compulsorily entrusts to its care, except by providing adequate means for the physical as well as mental education and recreation of the children in the board schools.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual meeting of the Council of the College of Surgeons was held on Thursday, the 12th instant. The minutes of the ordinary meeting, held on the second Thursday of last month, were read and confirmed. A committee, consisting of the President and Vice-Presidents, Sir James Paget, Sir Spencer Wells, Professors Humphry, Erichsen, and Lund, and Messrs. Holmes and Cadge, was appointed to consider Mr. Cadge's motion regarding the advisability of introducing voting by papers as well as in person at the annual election of members of Council. Professor John Marshall of University College, senior Vice-President, was unanimously elected President, in place of Sir Spencer Wells, whose term of office has expired. Mr. J. Cooper Forster was elected senior Vice-President, and Mr. Savory, of St. Bartholomew's Hospital, junior Vice-President. Sir William Mac Cormac and Mr. Sydney Jones took their seats in the Council for the first time. Mr. Lund was appointed to the seat in the Court of Examiners, vacant by the expiry of Mr. Timothy Holmes's period of office. The various annual committees were appointed.

THE NIGHTINGALE FUND.

THE Report of the Nightingale Fund for the year 1882, which has just been issued, is a record of the working of the efficient organised system of trained nursing which has been carried out with so much success at the school of St. Thomas's Hospital since the year 1860. The report shows that, from the opening of the school in June 1860, to the end of 1882, a total of 686 candidates have been admitted, and 414 have left the school, after completing a year's training, as certified nurses. There were remaining in the school on January 1st 32 probationer-nurses; there were admitted during the year, 36; of these 68, 9 resigned, or were discharged as unsuitable for the work, and 32 completed their year's training, and received appointments. The annual gratuity of £2, allowed by the regulations for the term of three years to certified nurses who have completed a year's service in some approved hospital satisfactorily, was awarded to 57 nurses. Thirty-two probationer-nurses were entered on the register as certified nurses, after satisfactorily completing their year of training, and received appointments. The class-instruction given during the year consisted of clinical lectures, by Dr. Bristowe (medicine and medical nursing) and Dr. Ord; lectures on anatomical and surgical nursing, by Mr. Croft; and twelve lectures on elementary chemistry and hygiene, by Dr. Bernays. These courses of lectures were followed by examinations held by the several lecturers. Elementary and other classes have also been given by Miss Crossland, the home-sister, which were of great value. The practical work of the probationers as assistant-nurses in the wards, which forms the foundation of the training, has been continued as heretofore; here they receive definite teaching from the ward-sisters and nurses in nursing duties, and the ward-sisters are required to note weekly, under different heads, upon a printed form, their estimate of each probationer's work and progress, and to send in their report monthly to the matron. The monthly results are entered by the matron in a register, which is submitted periodically to the authorities. With a view further to test the progress of the probationers, each one is required once a month, without previous notice, to record a detailed account of her day's work, such as nursing treatment of critical cases, dressings, washing helpless patients, cleansing utensils, ventilation of the ward, etc., how it has been carried out, and any special instructions given to her by the ward-sister or nurse. Thus the record affords some indication both of what the probationer has done, and also of what she has been taught. It is satisfactory to note that the number of probationers, viz., 32, who completed their course of training satisfactorily, and became entitled to be entered on the register as certified nurses, was larger than in any previous year. To many institutions, a large number of nurses, forming, in some cases, a complete nursing staff, has been provided from the Nightingale Fund school, with the result, the Committee believes, of gradually introducing into our hospitals an organised system of trained nursing, and thus to attain, in some degree, the main object for which the school was established, though much, it believes, is required yet to be done. It is gratifying to be able to refer to the fact that, in several of these institutions, good schools of nursing have been set on foot. The report concludes with a cordial expression of thanks to the matron, Mrs. Wardroper; the home-sister, Miss Crossland, and to members of the hospital staff, for their valuable services to the school.

OUT-BREAK OF SMALL-POX IN STAFFORD.

IN a recent report to the Public Health Committee, Mr. W. E. Clendinnen, the Medical Officer of Health for the Stafford Urban Sanitary District, describes an outbreak of small-pox which occurred in that district. The presence of the disease was first brought to the knowledge of the sanitary authority on February 5th, when three cases were reported. Two of these cases occurred in a public-house, and they were at once transferred to the workhouse infectious hospital, while the inn was closed and thoroughly disinfected. The third case, a mild one, was isolated at home, and Mr. Clendinnen believes the isolation to have been perfectly successful. On February 21st, a fourth case was reported, and, during the following week, seventeen more cases occurred. Up to February 28th, therefore, twenty-one cases had occurred, of whom seven had been admitted into the workhouse hospital, one had died, and thirteen remained at home. On March 2nd, hospital-tents were erected, with a view to the more effective isolation of the small-pox cases, and eleven of the thirteen cases above mentioned were at once placed in them. Henceforward during the outbreak, these hospital-tents were alone used. For the next few weeks, the disease seemed to be making headway, but by April 6th—thanks to the prompt measures of isolation—the epidemic was practically over. During the week ending April 13th, only one case was admitted; in the following fortnight, three cases were admitted; and about three weeks elapsed before the next (the last) case occurred. As to the origin of the outbreak, Mr. Clendinnen believes it can be readily traced. The first cases, he points out, occurred at an inn "where several persons had been lodging while attending the sessions, and some of them had come from infected districts." These cases were transferred to the workhouse hospital, a building unsuited for isolation, from which, "through want of proper carefulness," the disease spread to the adjoining streets. Mr. Clendinnen calls special attention to the success which attended the treatment of the cases in the hospital-tents. During the outbreak, fifty-one cases (seven of them being unvaccinated) were treated in the tents, and only three deaths occurred, giving a mortality of under six per cent. All three patients who died were unvaccinated. These figures speak favourably "for the advantages to be derived from hospital-tents." They also serve to illustrate a fact which antivaccinators seem wholly incapable of grasping.

CHOLERA AMONGST COOLIE EMIGRANTS.

IN a recently published blue-book, the Sanitary Commissioner with the Government of India draws attention to the history of coolie emigration during recent years, especially as regards the mortality which has occurred amongst coolies proceeding through Eastern Bengal to Assam. It has been maintained that the marked exemp-

tion from cholera amongst these emigrants during 1880, was solely due to improved arrangements which had been made in the water-supply of the steamers in which they were carried. But the variations in mortality from cholera amongst the general population of the districts through which the coolies passed were just as marked, and even more marked than amongst the emigrant coolies themselves (see BRITISH MEDICAL JOURNAL, July 29th, 1882, p. 198). This evidence, it was remarked, so far as it yet goes, seems to prove only that there has of late been a remarkable diminution in cholera over those parts of the country which the emigrants traverse, and that from this the emigrants benefited in common with the inhabitants of those parts. In the earlier part of 1882, a striking illustration of the general correctness of this view was furnished by the experience of four steamers during their passage with coolies up the Brahmaputra, when 62 deaths from cholera were reported, out of a total of 1,791 emigrants. One of the steamers, with 484 coolies, lost 40 emigrants from this cause during the month of March. The accommodation on board, and all the arrangements, were pronounced to be good, and the only explanation offered as the probable cause of the outbreak was that the disease may have been imported at one of the embarking stations. The Commissioner remarks that it does not seem to have occurred to those who gave an opinion on the matter that some light might be thrown upon it by ascertaining whether it had or had not prevailed at the same time in the district through which the emigrants had passed. As a fact, the general population were at that time suffering much more than they had done for years. During February and March, cholera was much more prevalent in the districts of Assam than it had been in either 1880 or 1881; and, what is of still more importance, in Kamrup—the district through which the vessels were passing when the outbreak chiefly occurred—the number of deaths from cholera, which in February of 1880 had been 40, and in 1881 only 10, rose in 1882 to 210. For March the figures are: 46 for 1880, 5 for 1881, and 734 for 1882. It requires but little reflection to see that the cause from which the coolies suffered, whatever it may have been, must have been widespread, and that any explanation of the outbreak which applies to the coolies only, and leaves the people generally out of account, could but prove futile. Of the importance of providing a pure water-supply there can be no two opinions, and it is to be hoped that the results of future years may show that the reforms introduced on board the Assam steamers have aided in reducing the mortality among the emigrants. The practical lesson which the experience of these three years amongst coolie emigrants in the Assam Valley inculcates, is a very important one, though, as the Commissioner remarks, it is but one more added to the number of lessons so frequently taught in connection with the management of troops and pilgrims. If men, and especially men wearied by travel, under-fed or improperly-fed, pass through a place where cholera prevails, they are very liable to be attacked, and that in a larger proportion than the ordinary residents. When bodies of men have to pass through cholera-affected localities, they should do so rapidly; any attempt at quarantining them in such territory would be cruel, and would be analogous to detaining persons in a malarious swamp, lest they should disseminate the fever they had contracted in it in another part of the country.

THE WAY WE BUILD HOUSES.

ON the 26th ult., Mr. Justice Matthew tried, without a jury, a case of Corrie *v.* Reddin, of great public interest. It was an action of a serious nature, under these circumstances. The plaintiff, the Rev. Edgar Corrie, had an estate in fee simple on the south side of the Grand Surrey Canal, in Camberwell, subject to a lease for a term of years, from which, however, the gravel, clay, sand, or minerals, were reserved and excepted. The lease had become vested in the defendant, a well known dust contractor, but excepting the gravel, clay, or sand, etc. In 1879 the defendant entered into possession, and afterwards proceeded to excavate and remove large quantities of earth in or under the land, and his excavations formed a large pit in the land. He removed the earth to a great depth, and got many thousands of loads of sand from it, and sold for his own benefit the gravel or earth. After the excavation of the pit, he bought large quantities of filth, refuse, dung, rubbish, and generally the emptyings of dustbins, and filled the pit with these materials, so that, according to the evidence, it would be impossible, with safety, to build any houses upon it, or otherwise to use the site of the pit while it thus remained full of filth. The plaintiff claimed an injunction, and also an inquiry as to damages. The defendant proposed himself to build houses upon the site. The learned judge gave judgment in very decided terms in favour of the plaintiff. The case for the plaintiff was that there had been a deliberate invasion of his right of property. As to that there had been no defence, and the only dispute had been as to the extent of injury, and he awarded £2,000 damages. Then, as to the injunction, what the plaintiff claimed was a mandatory injunction ordering the defendant to remove the filth and refuse from the excavation, and, as far as possible, to restore the soil; and the case for the plaintiff was that, as the leases reserved or excepted the soil under the surface, the defendant had, in taking it away, violated the plaintiff's rights, and committed a trespass, and had inflicted a further injury by filling up the excavations with filth and refuse. And certainly the stuff put in was of the foulest description. To call the pit a dung-heap would really be a moderate, and, indeed, a flattering phrase. Then it appeared that it was intended to build houses upon the site; and the medical evidence of Dr. Stevenson was clear that dwellings built upon such a soil would be mere pest-houses, and that no persons could live in them without injury to their health, and serious risk to their lives. On the part of the defendant it was contended that, as the surface was devised to him for a long lease, which would not come to an end until 1939, there was no practical grievance to the plaintiff until then, and that the measure of damages would be the amount of the expense which would then be incurred by the restoration of the soil, and that the payment of it should be reserved as a security until the expiration of the lease. But the effect of this would be that the defendant, at the expense of a few shillings, would be enabled to take the property of the plaintiff against his will, and inflict injury upon him with impunity. The Court could not be asked in such a case to impose upon the owner the terms of a compulsory purchase of his property against his will and without his consent. It had often been held that a trespasser or wrongdoer had no right to call upon the Court to place the owner in such a position. If the mere expense of restoring the soil were all that he could be awarded, the plaintiff would have no security for its being restored, as he could have no means of effecting the restoration, the defendant being in possession, and having the power of preventing it. Moreover, in the meantime, there might be complaints of neighbours, or the risk of interference by the sanitary authorities. It was not right that the plaintiff should, at the instance of a wrongdoer, be placed in such a position. The Court in such a case had full power to award an injunction as asked for, and an injunction accordingly would be granted.

BATHERS' CRAMP.

SOME recent bathing fatalities have again drawn attention to the important subject of bathers' cramp. If the nature and causes of this dangerous affection were more generally known, it is probable that many deaths from drowning in the bathing season might be prevented. Cramp is a painful and tonic muscular spasm. It may occur in any part of the body, but it is especially apt to occur in the lower extremities, and, in its milder forms, it is limited to a single muscle. Pain is severe, and the contracted muscles are hard and exquisitely tender. In a few minutes the spasm and pain cease, leaving a local sensation of fatigue and soreness. When

cramp affects only one extremity, no swimmer or bather, endowed with average presence of mind, need drown; but when cramp seizes the whole of the voluntary muscular system, as it probably does in the worst cases, nothing, in the absence of prompt and efficient extraneous assistance, can save the individual from drowning. Although the intimate nature of muscular cramps, and the precise mode in which they are established, are still unknown, experience has furnished us with sufficient data on the subject to enable us to recognise the chief conditions of their causation. These conditions are; a peculiar individual susceptibility or idiosyncrasy; the shock of cold applied to the general surface of the body; prolonged muscular exertion; and forcible and sudden muscular exertion, especially in the direction of the extension of the extremities. There can be no doubt about a liability to muscular cramp being an individual peculiarity. The disorder is especially apt to arise in persons of irritable temperament. While cramp has been met with in all ages, sexes, temperaments, and climates, it has been observed that it occurs far more frequently in warm climates than in cold, and chiefly in the hottest of warm climates, and that persons of middle age suffer most from the affection, and men more so than women, and the robust and vigorous more so than the weakly. Neither can there be any doubt that the shock of cold applied to the surface of the body, especially when the body is unduly heated, is the commonest determining cause of the worst and most extensive forms of bathers' cramp. On this fact is founded the common prejudice against bathing when the body is much heated. Many fatal cases have illustrated this point. Only a short time ago, a robust soldier, who was an expert swimmer, rowed in a boat, upon a sultry evening, to a deep pool; here, with his body glowing from muscular exertion, he plunged into the water with the intention of taking a refreshing bath, when he was immediately seized with general muscular cramp, so that the poor fellow was at once drowned. That mere prolongation of muscular exertion, as in continued swimming, and forcible and sudden muscular exertion, particularly in the extension of the extremities, as in swimming with very vigorous and rapid strokes, are, respectively, efficient and frequent determining causes of cramp, familiar experiences to every swimmer. These muscular conditions, however, usually give rise only to the slighter and more localised forms of cramp. Serious cramp is a peril which menaces most persons with highly developed muscles. Its most powerful and most avoidable cause is the sudden immersion of the body, when its surface is highly heated, in water of a relatively low temperature.

SCOTLAND.

CHARITABLE BEQUESTS.

AMONG the notices of some bequests to charitable and religious institutions by a deceased lady, who resided in Edinburgh, is one of £500 to the Edinburgh Antivivisection Society. Considering the platform of such a society, there is some difficulty in describing a donation to it as going either to a charitable or religious institution.

ABERDEEN ROYAL INFIRMARY.

THE managers of this institution have issued an appeal to the clergymen and office-bearers in the churches of all denominations in Aberdeenshire and Kincardineshire, requesting that steps be taken to provide for yearly subscriptions being obtained by paid or honorary collectors throughout these counties, with a view to prevent further shortcomings in the funds of the institution, and to keep the income equal to the expenditure. This is what ought to have been done long ago; nothing succeeds like systematic canvass instituted regularly. We are glad to be able to state that the accumulated debt of over three thousand pounds is nearly liquidated.

ABERDEEN PHILOSOPHICAL SOCIETY.

A LARGE number of the members of this society held their annual excursion on Saturday last. The place visited was the Den of Airlie and Castle of Airlie. The Castle of Airlie was destroyed by the Duke of Argyle in 1640, and is celebrated in the fine old ballad of "The Bonnie House o' Airlie." Sheriff Dove Wilson, the president, presided at the dinner, which took place at Kirriemuir on the return journey.

THOMSON LECTURESHIP IN ABERDEEN.

SUBJECT to the approval of the College Committee of the Free Church, Mr. W. Carruthers, of the Natural History Section of the British Museum, is likely to be appointed Lecturer on Natural Science for next session in the Free Church College, Aberdeen, upon the foundation of the late Mr. Thomson of Banchory. Mr. Carruthers's subject is expected to be Fossil Plant-Life. This lectureship has been held in turn by Dr. Lauder Brunton, Professor McKendrick, Mr. Buchan, and Professor Macalister.

EDINBURGH ROYAL INFIRMARY.

ON Monday, the managers of the Royal Infirmary, Edinburgh, elected a fourth assistant-surgeon. This is a new appointment, as there have only been three up till the present time, and previous to changing to the new infirmary, only two. Increase of work, however, requires four. The candidates were C. W. Cathcart, M.B., C.M.Ed., F.R.C.S.Lond., etc., Lecturer on Anatomy, Surgeons' Hall, Edinburgh; J. M. Cotterill, M.B., C.M., F.R.C.S.Ed., Clinical Surgery Tutor in the University of Edinburgh; and F. M. Cand, M.B., C.M., F.R.C.S.Ed., Assistant to the Professor of Surgery, Edinburgh University. The managers, having considered the applications of the candidates, appointed Mr. Cotterill to the post.

THE BEN NEVIS METEOROLOGICAL OBSERVATORY.

METEOROLOGICAL observations are being carried on as usual this summer on the summit of Ben Nevis. In Mr. Clement Wragge's unavoidable absence, the work is being done by two of his assistants, and the observations are being conducted on the same lines as previously. Some improvements have been introduced, and one of the most striking has been in force since July 1st, carrier pigeons being now despatched to Fort William with the results of the readings on the summit at 8 A.M., so as to allow of their being telegraphed to London and Edinburgh only a few minutes after they have been recorded. Up to the present date, above £3,000 has been received for the building of the permanent observatory on the summit of the mountain.

UNIVERSITY OF EDINBURGH.

THE Edinburgh University Court has received an Order of Her Majesty in Council approving of the alteration in Section 9 of Ordinance No. 5, Edinburgh No. 2, of the Scottish Universities Commissioners, 1858, recently proposed in the interests of junior students. It now stands thus: "that students who profess themselves ready to submit to an examination in the first division of these subjects at the period of examination immediately preceding their second winter session of professional study, may be admitted to examination at that time; provided always that students who commence their medical studies in the summer session shall not be admitted to a degree in medicine unless their course of study subsequent to the completion of the summer session in which they commenced their medical studies shall not be less than the minimum course of four years prescribed in Section iv hereof." When this alteration was first proposed last year, its advantage to junior students was fully pointed out in the JOURNAL. At a meeting of the University Court, held on Monday, Dr. Wm. Macewen of Glasgow was recognised as a Lecturer in Surgery, whose lectures would qualify for graduation in medicine in Edinburgh. Recognition was continued to Messrs.

Nunneley and Robinson, and granted to Mr. A. F. McGill, as Joint Lecturers on Anatomy in Leeds. Mr. W. A. Selden, D.Sc., was recognised as a Lecturer on Chemistry in Birmingham; Mr. John B. Haycraft was recognised as a Lecturer on Physiology in Birmingham; and Mr. T. W. Bridge, M.A., was recognised as Lecturer on Zoology in Birmingham. In consequence of a letter from Dr. Moore, of Dublin, intimating that he had ceased to lecture on Practice of Medicine, the recognition was withdrawn; and in consequence of a communication from the Registrar of Victoria University, Manchester, intimating that that University had received a supplemental charter, conferring on it the right to grant degrees in medicine, the recognition of its lecturers was withdrawn, as they are now entitled to more extended privileges as professors connected with Victoria University. The major part of the final examination is now completed, and lists have been issued of the successful candidates, several of whom have passed with distinction. A complete list of the successful candidates and of the honours list will appear in the JOURNAL subsequent to their graduation on August 1st. The second professional examination commences on Friday, and the session terminates on July 27th.

IRELAND.

ONE-THIRD of the beds in the Meath Hospital, Dublin, have been closed for the present, in consequence of the financial state of the institution.

THE annual meeting of the Society for Providing Nurses for the Sick Poor of Belfast takes place this week; and it is interesting to learn that the report of the proceedings for the past year is very satisfactory.

THE President and Fellows of the Royal College of Surgeons, in Ireland, will, during the ensuing week, confer the Honorary Fellowship of their College upon Dr. Crawford, the Director-General, Army Medical Department, and on Sir James Hanbury, K.C.B., the principal medical officer of the recent Egyptian Expedition.

A CENTENARIAN.

A WOMAN named McLoughlin died this week in the Lurgan Workhouse at the alleged age of 106 years. It is interesting to note that, up to the last, she was a most inveterate smoker.

CORK DISTRICT LUNATIC ASYLUM.

AN Order in Council was last week received by the governors, authorising the appointment of a second assistant to the resident medical superintendent, at a salary of £100 *per annum*, with furnished apartments, fuel, etc., and £50 yearly in lieu of rations.

WAKES.

IN the course of a discussion on an outbreak of fever in Jones Court which took place at Monday's meeting of the Dublin Corporation, Mr. Gray, M.P., said that the outbreak appeared to have been due to the holding of a wake on the body of a person who had died of fever. There was a special obligation on the clergy, doubly binding on the Catholic clergy, to put a stop to these wakes. If the Archbishop of Dublin and the Catholic clergy of Dublin would set their faces at all times practically and earnestly against the horrible custom of wakes, they would soon be given up. The practice is one repugnant to decency.

AT an inquest held at Bristol on the body of Ruth Soilary, a girl of fifteen, the medical evidence showed that she had died through accidentally swallowing a pin while at school.

THE CURRENT PRECAUTIONS AGAINST CHOLERA.

ALTHOUGH the measures for the prevention of the spread of cholera in Egypt are, as Lord Fitzmaurice stated in the House of Commons on Monday, under the control of the central Government in Cairo, there can be no doubt that English advice and assistance have been accepted in a friendly spirit by the Egyptian Government, and have to some extent been acted upon. With Dr. Grant, the medical adviser of Her Majesty's consular court, upon the Sanitary Board of Cairo, and Dr. Mackie at Alexandria, we have full confidence that all measures likely to be of utility have been suggested. Dr. Mackie's recent report on the unsanitary condition of Alexandria shows how much needs to be done in that city. The slaughter-houses are filthy. They are without proper means of flushing and draining, and several acres of ground around them are full of unburied and half buried *débris*, entrails and carcases, exhaling a most offensive odour. Nearly all the closets communicate directly in each case with the sewer under the house, and the house-sewer communicates with the street-sewers. All these channels are unventilated, and many even of the high-class houses contain open latrines in the centre of the kitchen. But a chief Sanitary Commission has been formed, consisting of forty-four members, with a smaller executive commission. The city has been divided into several districts, and each has its departmental board. The drinking water has been analysed, and the fellaheen are prevented from throwing the carcases of diseased cattle into the Mahmoudieh Canal. The streets are washed with disinfectants. Unwholesome fish and fruit are seized. Official instructions have been issued, showing how infection may be avoided, and what is the proper medical and dietetic treatment of the sick. In short, if a house-to-house visitation were enforced by the Egyptian Government before it is too late, and cholera patients were strictly isolated while they are still few, then almost all that English sanitarians have found serviceable in the suppression of cholera morbus in English towns will have been attempted. Notwithstanding the early panic and flight, the belief is that the outbreak is a local one, and that it may not visit Alexandria severely.

But methods applicable to English towns would certainly fail to stamp out the cholera that has scattered from Damietta throughout the towns and villages of the Delta of the Nile. The sanitary cordon, which is the favourite Egyptian mode of dealing with cholera, has failed to effect its object. The cordon set about Damietta was too small, and a large proportion of the population escaped; but the cordon that is now about Mansourah is said to be so strict that all communication has ceased, and the people herded within it are without food or medicine. On July 3rd, however, the Council of Public Health at Cairo (near which the British troops are stationed) gave orders that the population of Damietta should be removed from their dwellings, and scattered in tents and wooden structures, and that the infected quarter of the town should be partly burnt and partly disinfected. This was a laudable attempt to substitute the Indian mode of dealing with cholera in place of the Egyptian method. In striking contrast with the unhappy plan of surrounding a town with soldiers, and leaving the inhabitants to "stew in their own juices," is the plan of frequent removal from infected quarters to healthy camp, and, if possible, to high land. The healthy are separated from the sick, and are scattered in tents. During the last twenty years, this plan has been generally adopted throughout India, when cholera has broken out among troops or prisoners. But to be successful, it must be thorough; and the Egyptian Government would be amply justified in seeking the aid of our troops and Indian medical officers in carrying it out. While English sanitarians almost unanimously ascribe the spread of cholera epidemics to the pollution of wells and rivers, many Indian sanitarians hold this to be an insufficient explanation. The medical officers in charge of the health of our Indian troops are often compelled to disregard

the pollution of streams, which it is impossible for them to prevent. In the Delta of the Nile, unless perhaps by forced native labour, it would also be impossible to clear the water-courses of infection, and the epidemic must be otherwise dealt with.

But, though we suggest the employment of Indian experience, we are unable to admit that there is as yet any evidence, beyond the outcry of French journalists, that this epidemic was brought from India. In Dr. Grant's opinion, indeed, it is true imported Asiatic cholera; but the reasons for his opinion have not proved to be well founded. That our Indian troops did not introduce it into Egypt, is fully admitted by M. Fauvel in a paper read before the Académie des Sciences on June 4th. The season of the pilgrimages to Mecca had not commenced when the cholera was first reported, and hence the favourite explanation of the introduction of cholera is inadmissible in this instance. Moreover, the banks of the Suez Canal have remained free from the disease; and Dr. Flood, who alleges that a stoker left the English steamer *Timor* at Port Said, and went to Damietta, does not even say, much less does he prove, that the man had cholera. The facts, indeed, appear to be of a contrary character.

As the subject of quarantine is to be discussed at the approaching annual meeting, it only need here be repeated, in the words of Sir Charles Dilke, that, in developing the method of medical inspection in place of quarantine, England is only carrying out the recommendations of the International Congress at Vienna. If the other European nations are unwilling to adopt recommendations of which they had the making, at least they should be willing to take part in another International Congress, where the experience of the medical officers of our Indian empire might for the first time be brought before them.

PARLIAMENTARY BILLS COMMITTEE.

NOTIFICATION OF INFECTIOUS DISEASES.

In pursuance of a resolution of the Parliamentary Bills Committee, the General Secretary addressed to the President of the Local Government Board a request that he would receive a deputation on the subject of the notification of infectious disease, in reply to which he received the following communication:

Sir,—In reply to your letter to Sir Charles Dilke, I am directed to say that as he has received two public deputations on the subject of the Notification of Diseases Bill, he feels that it would serve no end were he to receive another, especially as there is no chance of it being thoroughly discussed this session.

Sir Charles Dilke, however, is about to see Mr. Hart on another subject, and he will be very glad then to take the opportunity of hearing his views on the Bill.—Your obedient servant,

F. Fowke, Esq. (Signed) J. E. C. Bodley.

June 28th.

On Tuesday, July 11th, Mr. Hart had an interview with Sir Charles Dilke, who then expressed himself as willing to receive a small deputation at an early date, in order to enable them to lay before him a statement of the views of the Association on the subject of notification of infectious disease; and further expressed his willingness to receive a larger and public deputation next session should the question again come before Parliament with the prospect of further legislation on the subject. Sir Charles Dilke also stated that, in case of any private local Bill coming forward which should involve the question of compulsory notification of infectious disease in any town, he would be willing to receive deputations from the practitioners of such town, expressing their views in reference to such local Bill. The willingness thus expressed is extremely important, inasmuch as it not only gives the pledge that the Government will carefully consider the views of the medical profession in reference to any large general measure, but also that they will, in future, afford those facilities which have not hitherto existed for the adequate representation of the views of the medical profession regarding any local Bills aiming at imposing any obligation upon them in relation to the compulsory notification of disease.

CHOLERA IN EGYPT.

SPECIAL TELEGRAMS TO THE BRITISH MEDICAL JOURNAL.

(*From our Special Medical Correspondents.*)

Alexandria, July 11th.

The number of deaths which have occurred, from cholera, during the last twenty-four hours has been, at Damietta, 52; at Mansourah, 102; and at Samanoud, 16; at Menzaleh, 20, up to Monday, since when there has been no report. These returns show a noticeable increase in numbers at Mansourah. According to an official despatch from Damietta, Mr. Goodall has been sent from Cairo to clear the river. He has already buried sixty carcases, and there yet remain two hundred to be similarly disposed of. There are loud complaints from Damietta and Mansourah, of the serious want of doctors, medicines, and food; these reports, though mainly true, have, in consequence of the panic, been exaggerated. The European part of the population, naturally anxious, expect measures to be carried out with a precision and completeness which is impossible, with the present want of organisation and of an efficient staff of organisers. The malady is still confined to the districts of Damietta, Mansourah, Samanoud, Menzaleh, and Shirbeen. There are but few people among the better class who have been attacked. Another case has occurred at Alexandria, on Sunday. The type of disease at Mansourah is reported to be very severe (*Foudroyante*).

The Sanitary Board at Cairo maintain that the cholera outbreak has been an importation from India, but no proofs of this have yet been adduced. The establishment of sanitary cordons has largely tended to increase the panic. The population in the infected towns, feeling themselves shut up and in want of help, become despairing; and efforts are at last being made to evacuate the infected parts of Damietta, and to form an encampment.

Nothing has yet been done for Mansourah. A report has been dispatched to Lord Granville. The Egyptian Sanitary Board are unable to furnish any useful information.

Alexandria, July 12th.

There has been a diminution in the number of deaths at Mansourah since the last bulletin, but one case has been reported as occurring at Zifta, a village on the same branch of the Nile.

Cairo, July 11th.

There have been upwards of two thousand deaths from cholera up to the present date. The outbreak at Damietta is decreasing; but at Samanoud, Shirbeen, and Menzaleh, the deaths are increasing. Other towns have been attacked. Active measures are being taken; and twenty-two extra doctors, six chemists, with fourteen portable pharmacies, with abundant disinfectants, have been sent to the different infected districts. The Egyptian medical resources are greatly strained. There have been no fresh cases at Port Said during the last eight days. Tantah is at present free, and Alexandria is isolated. Four cases are reported from Shirbeen, two cases at Falkha, and one at Shebeen-Elkom.

MEDICAL PROVIDENT SOCIETY.

The following is an additional list of the names of gentlemen who have signified their desire to become members of the Medical Provident Society, in response to the circular issued on June 9th.

H. M. Allen, Esq.; J. H. Ashworth, Esq.; B. Addy, M.D.; Hugh Bennett, Esq.; F. R. Bernard, M.B.; J. Buckenham, Esq.; J. R. Crease, Esq.; E. R. Cowcher, Esq.; T. Clark, Esq.; J. M. Chadwick, Esq.; J. A. T. Cartwright, Esq.; John Clare, Esq.; F. A. Davey, Esq.; W. R. D. Davies, Esq.; R. N. Denning, M.D.; W. Draper, Esq.; W. Easby, Esq.; G. B. Fraser, Esq.; John Gason, Esq.; G. Guthrie, M.B.; Arthur Graham, Esq.; J. P. Gaunt, Esq.; J. Hunt, Esq.; A. A. Hayes, Esq.; F. G. Hayes, Esq.; W. Culver James, M.D.; A. Kempe, Esq.; M. Long, M.D.; P. R. Littleton, Esq.; W. C. Lucey, M.D.; T. Leigh, Esq.; R. Mason, Esq.; T. H. Moxon, Esq.; Geo. Mundie, Esq.; W. H. D. Mence, Esq.; W. M. Noott, Esq.; L. Paulley, Esq.; W. L. Rankin, Esq.; F. M. Sandwith, Esq.; E. Fowler Scougal, M.B.; F. H. Thompson, Esq.; T. P. Tuckey, M.B.; W. H. Twort, Esq.; H. T. Wharton, Esq.; W. L. Winterbotham, M.B.; C. W. Whistler, Esq.; A. Wallace, M.D.; R. B. Wall, Esq.

LORD HARTINGTON ON HONORARY QUEEN'S CADETSHIPS.

THE following letter has been received by the Chairman of the Parliamentary Bills Committee from the Minister of War on this subject.

War Office, July 6th, 1883.

Sir,—I am desired by the Marquis of Hartington to acknowledge the receipt of your letter referring to the exclusion of sons of army medical officers from honorary Queen's cadetships, and to state that the subject was very carefully considered by his lordship's predecessor, who declined to alter the regulations. The number of honorary Queen's cadetships is so limited, that his lordship does not think it would be possible to open them to the sons of officers not now qualified for the privilege, and any increase of the number would raise some important questions which would have to be considered as a whole.—I remain, sir, yours faithfully, R. H. HOBART.

E. Hart, Esq., Chairman, Parliamentary Bills Committee, British Medical Association.

COLLECTIVE INVESTIGATION OF DISEASE.

LIST OF RETURNS RECEIVED DURING JUNE 1883.

PHTHISIS (8).

William J. Brown, M.B., Chester-le-Street; J. M. Finzi, Esq., Sutherland Gardens, W.; C. L. H. Pemberton, Esq., Banbury; G. D. Powell, M.D., Dublin; James T. Rudall, Esq., Melbourne; W. D. Sheppard, Esq., Cyfarthfa; Alfred Shewen, M.D., Sydney; Herman Weber, M.D., Grosvenor Street, W.

I. PNEUMONIA (90).

James Barr, Esq., Bolton (3); G. W. Beattie, M.D., Failsworth; G. A. Brown, Esq., Tredegar; John Brown, Esq., Bacup; W. R. Buckell, Esq., Stoke-on-Trent; T. J. Burroughs, M.D., Crondall (2); Charles W. Chaldecott, Esq., Dorking; C. P. Coombs, M.D., Castle Carey (2); D. Arthur Davies, M.B., Swansea (2); G. H. Davis, Esq., Mortimer; E. Drummond, M.D., Rome; Alfred Eddowes, M.D., Market Drayton (2); A. P. Fiddian, M.B., Cardiff (2); Wm. Frew, M.B., Galston, N.B. (3); De Vere Hunt, Esq., Bolton; Samuel Johnson, M.D., Stoke-upon-Trent; J. Johnston, M.D., Bolton (3); J. W. Lane, M.D., Bishop's Castle (8); A. W. Leachman, M.D., Fairley (2); W. E. Luscombe, Esq., Collingham, (2); A. M. McAldowie, M.D., Stoke-on-Trent (2); A. W. Macfarlane, M.D., Kilmarnock (2); D. J. Mackenzie, M.D., Glossop; J. A. Mackenzie, M.B., Bolton (2); W. A. MacLachlan, M.D., Dumbarton (3); A. Cowley Malley, M.B., Munslow; Thomas Martin, Esq., Piltown (3); T. Frederick Pearse, M.D., Haslemere; C. H. Phillips, Esq., Hanley; T. F. Raven, Esq., Broadstairs (6); James Reid, Esq., Canterbury (3); Charles J. Renshaw, M.D., Ashton-on-Mersey; J. Bruce Ronaldson, Esq., Haddington; E. S. Scott, M.B., Shrewsbury (2); J. E. Smith, M.D., Grimsby; W. Shaw, M.D., Maidstone; Herbert Sloman, Esq., Farnham (7); S. G. Sloman, jun., Esq., Farnham; Samuel W. Smith, M.D., Pershore (letter); A. Stewart, M.D., Pendleton (3); Chas. E. Underhill, M.B., Edinburgh; J. G. U. West, Esq., Stoke-upon-Trent; Wm. White, M.D., Hadfield (4); Geo. G. Whitwell, M.B., Shrewsbury.

II. CHOREA (22).

James Alexander, Esq., Leslie, N.B. (2); William H. Day, M.D., Manchester Square, W.; H. Handford, M.D., Nottingham (10); Samuel Johnson, M.D., Stoke-upon-Trent; A. W. Leachman, M.D., Fairley; C. Macmillan, Esq., Nottingham; S. H. Owen, M.D., Manchester; T. Frederick Pearse, M.D., Haslemere; J. E. Scowcroft, Esq., Bolton; John K. Spender, M.D., and A. R. Busby, Esq., Bath; T. W. Trend, M.D., Southampton; Chas. E. Underhill, M.B., Edinburgh; J. G. U. West, Esq., Stoke-upon-Trent; J. P. Wills, M.B., Bexhill.

III. RHEUMATISM (32).

James Barr, Esq., Bolton; H. W. Boddy, M.B., Cheetham Hill; T. J. Burroughs, M.D., Crondall; E. MacDowel Cosgrave, M.D., Dublin; C. A. Greaves, M.B., Derby; T. L. Jardine, Esq., Capel; Samuel Johnson, M.D., Stoke-upon-Trent; A. W. Leachman, M.D., Fairley; W. E. Luscombe, Esq., Collingham (2); Duncan J. Mackenzie, M.D., Glossop (3); J. A. Mackenzie, M.B., Farnworth; William J. Mackie, Turvey (2); J. Foster Palmer, Esq., Chelsea; Charles Parsons, M.D., Dover; T. Frederick Pearse, M.D., Haslemere (2); C. H. Phillips, Esq., Hanley; Thomas F. Raven, Esq., Broadstairs; James Reid, Esq., Canterbury; Charles J. Renshaw, M.D., Ashton-on-Mersey; W. Shaw, M.D., Maidstone (2); C. E. Underhill, M.B., Edinburgh; J. G. U. West, Esq., Stoke-upon-Trent; William White, M.D., Hadfield; George G. Whitwell, M.B., Shrewsbury; J. P. Wills, M.B., Bexhill (2).

IV. DIPHTHERIA (18) CLINICAL.

Arthur J. Brodie, Esq., Ambleside; Charles W. Chaldecott, Esq., Dorking; E. Drummond, M.D., Rome; A. R. Graham, M.B., Weybridge; William Thomas Jackman, Esq., Coggeshall (2); F. W. Jordan, Esq., Heaton Chapel; J. W. Lane, M.D., Bishop's Castle; William Nettle, Esq., Liskeard; A. Newman, M.D., Bowness; Thomas Partridge, Esq., Stroud; T. Whitehead Reid, Esq., Canterbury; Herbert S. Renshaw, M.D., Sale; Herbert Sloman, Esq., Farnham (3, with letter and map).

IV (A). DIPHTHERIA (18) ETIOLOGICAL.

E. W. Bawtree, M.D., Abberton (2); G. H. Fosbroke, Esq., Bidford (4); F. W. Jordan, Esq., Heaton Chapel; William Nettle, Esq., Liskeard; David Page, M.D., Kendal (2); Thomas Partridge, Esq., Stroud; T. Whitehead Reid, Esq., Canterbury; Herbert S. Renshaw, M.D., Sale; Herbert Sloman, Esq., Farnham (3).

Total returns received in June 188

The Committee beg also to acknowledge the receipt of a volume of the *Transactions of the Massachusetts Medical Society*.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Committee of Council will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary*.

November 9th, 1882.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, on containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee, 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The annual general meeting of the Branch will be held at 5, St. Andrew's Square, Edinburgh, on Tuesday, the 24th instant, at 4.30 P.M. —CHAS. E. UNDERHILL, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of the Branch will be held at the "Green Dragon," Hereford, on Tuesday, July 24th, at 3.40 P.M. Business: The President, Dr. Roden, will give an Address. To ballot for Members of the Association and Branch. To appoint Officers and Council for ensuing year. The annual dinner (5s. exclusive of wine) will be at 5.15 P.M. Members who have papers or cases to read will oblige by sending title at an early date to the Honorary Secretary.—GEO W. CROWE, Honorary Secretary, Shaw Street, Worcester.—July 10th, 1883.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual general meeting of this Branch will be held at 198, Union Street, Aberdeen, on Saturday, July 28th, at 1.30 P.M. An address will be given by the President, Dr. Angus Fraser. Hospital visit at 11.30 A.M. The annual dinner will be held at the Palace Hotel, Union Bridge, Aberdeen, at 3 P.M. Dinner tickets, including attendance, but exclusive of wine during dinner, five shillings each. Those intending to be present at the dinner are respectfully requested to send notice to Dr. Urquhart. —R. J. GARDEN, J. URQUHART, Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Black Horse Hotel, Horsham, on Friday, July 20th; Mr. Bostock in the chair. Dr. Fuller will read a paper on Acute Rheumatism. Gentlemen intending to read papers or to bring forward subjects for discussion are requested to send notice to the Honorary Secretary, G. B. COLLET, 5, The Steyne, Worthing.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

THE Fifty-first Annual Meeting of the British Medical Association will be held at Liverpool, on Tuesday, Wednesday, Thursday, and Friday, July 31st, August 1st, 2nd, and 3rd, 1883.

President: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

President-elect: A. T. H. WATERS, M.D., F.R.C.P., Senior Phy-

sician to the Royal Infirmary, and Professor of Medicine in University College, Liverpool.

An Address in Surgery will be delivered by REGINALD HARRISON, F.R.C.S., Surgeon to the Royal Infirmary, Liverpool.

An Address in Pathology will be delivered by C. CREIGHTON, M.D., formerly Demonstrator of Anatomy, University of Cambridge.

The business of the Annual Meeting will be conducted in ten sections.

SECTION A. MEDICINE.—*President:* John Cameron, M.D. *Vice-Presidents:* Thomas R. Glynn, M.D.; Frederick T. Roberts, M.D. *Secretaries:* Richard Caton, M.D., 18A, Abercromby Square, Liverpool; Byrom Bramwell, M.D., 23, Drumsheugh Gardens, Edinburgh.

SECTION B. SURGERY.—*President:* Edward R. Bickersteth, F.R.C.S. *Vice-Presidents:* W. Hargreaves Manifold, M.R.C.S.; W. Mitchell Banks, F.R.C.S. *Secretaries:* Rushton Parker, M.B., F.R.C.S., 61, Rodney Street, Liverpool; Edmund Owen, M.B., F.R.C.S., 49, Seymour Street, Portman Square, W.

SECTION C. OBSTETRIC MEDICINE.—*President:* W. M. Graily Hewitt, M.D. *Vice-Presidents:* John Wallace, M.D.; David Lloyd Roberts, M.D. *Secretaries:* John E. Burton, L.R.C.P., 64, Rodney Street, Liverpool; W. C. Grigg, M.D., 6, Curzon Street, Mayfair, W.

SECTION D. PUBLIC MEDICINE.—*President:* T. P. Teale, M.B., F.R.C.S. *Vice-Presidents:* William Carter, M.D.; W. Honner Fitz-Patrick, M.D. *Secretaries:* F. Pollard, M.D., 52, Rodney Street, Liverpool; George Goldie, M.D., 123, Hyde Park Road, Leeds.

SECTION E. ANATOMY AND PHYSIOLOGY.—*President:* Professor E. A. Schäfer, F.R.S. *Vice-Presidents:* William Stirling, M.D.; Richard Norris, M.D. *Secretaries:* James Barr, M.D., 1, St. Domingo Grove, Everton, Liverpool; A. W. Mayo Robson, F.R.C.S., Hillary Place, Leeds.

SECTION F. PATHOLOGY.—*President:* T. H. Green, M.D. *Vice-Presidents:* E. H. Dickinson, M.D.; Joseph Coats, M.D. *Secretaries:* Frank Thos. Paul, F.R.C.S., 44, Rodney Street, Liverpool; James F. Goodhart, M.D., 27, Weymouth Street, W.

SECTION G. PSYCHOLOGY.—*President:* T. L. Rogers, M.D. *Vice-Presidents:* G. H. Savage, M.D.; D. Yellowlees, M.D. *Secretaries:* G. E. Shuttleworth, M.D., Royal Albert Asylum, Lancaster; W. Julius Mickle, M.D., Grove Hall Asylum, Bow, E.

SECTION H. OPHTHALMOLOGY.—*President:* T. Shadford Walker, M.R.C.S. *Vice-Presidents:* E. Nettleship, F.R.C.S.; C. E. Fitzgerald, M.D. *Secretaries:* E. A. Browne, M.R.C.S., 86, Bedford Street, Liverpool; C. E. Glascott, M.D., 23, St. John Street, Manchester.

SECTION I. DISEASES OF CHILDREN.—*President:* Samuel Jones Gee, M.D. *Vice-Presidents:* M. G. B. Oxley, M.D.; T. R. Jessop, F.R.C.S. *Secretaries:* H. G. Rawdon, M.D., 42, Rodney Street, Liverpool; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION J. OTOLOGY.—*President:* G. P. Field, M.R.C.S. *Vice-Presidents:* Edward Woakes, M.D.; C. Warden, M.D. *Secretaries:* Thos. Barr, M.D., 10, Albany Place, Sauchiehall Street, Glasgow; R. Williams, L.R.C.P., 82, Rodney Street, Liverpool.

Honorary Local Secretary: Alexander Davidson, M.D., 2, Gambier Terrace, Liverpool.

Honorary Treasurer: W. Mitchell Banks, F.R.C.S., 28, Rodney Street, Liverpool.

TUESDAY, JULY 31ST, 1883.

10.30 A.M.—Church Service at Pro-Cathedral. Sermon by Bishop of Liverpool.
12.0.—Meeting of Committee of Council.
12.30 P.M.—Meeting of the Council, 1882-3.
3 P.M.—First General Meeting: Report of Council and other business. Adjourn at 5 P.M.
8.15 P.M.—Adjourned General Meeting: President's Address, and any business adjourned from meeting at 3 o'clock.

WEDNESDAY, AUGUST 1ST, 1883.

9.30 A.M.—Meeting of Council, 1883-84.
11 A.M.—Second General Meeting. Address in Surgery.
1 30 to 5 P.M.—Sectional Meetings.
8.30 P.M.—*Soirée* in the suite of rooms forming the Arts Gallery, the Picton Reading Room, and the Free Library, by the President and Local Committee. To this, ladies will be invited.

THURSDAY, AUGUST 2ND, 1883.

9 A.M.—Meeting of Committee of Council.
10 A.M.—Third General Meeting. Sectional Meetings. Adjourn at 1 P.M.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Philharmonic Hall.

FRIDAY, AUGUST 3RD, 1883.

10 A.M.—Fourth General Meeting. Address in Pathology. Sectional Meetings.
2 P.M.—Concluding General Meeting.
8.30 P.M.—*Soirée* by the Mayor of Liverpool, at the Town Hall. To this, ladies will be invited.

SATURDAY, AUGUST 4TH, 1883.

Excursions.

ANNUAL MUSEUM.

The museum will be in the same building as the reception-room, the general meetings, and the sectional meetings. In fact, all the business of the annual meeting will be carried on in one building, viz., the College, Shaw Street, Liverpool. The room which is specially devoted to museum purposes is a gallery, 300 feet in length, in the upper story, lighted from the roof. On the same floor are several additional rooms, so that the accommodation for exhibiting drugs and instruments is ample. On the second floor, adjoining the room where the Pathological Section meets, are two class-rooms, one of which will be used for the exhibition of pathological drawings and specimens, the latter for microscopes. A large hall on the ground-floor has been set apart for sanitary appliances, among which it is expected there will be a good exhibition of ambulances.

The museum will comprise: 1. Latest inventions in medical and surgical instruments, and appliances of all kinds, including No. 4. 2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids. 3. Drawings, diagrams, or models, or apparatus connected with sanitary appliances. 4. Microscopes, thermometers, and other instruments of investigation. 5. Pathological specimens, etc.

Communications should be sent to Dr. Davidson, the General Secretary, 2, Gambier Terrace, Liverpool, or to the following: drugs, Dr. T. Bushby, 32, Clarence Street; surgical instruments, Dr. Alexander, 102, Bedford Street; Rushton Parker, Esq., 61, Rodney Street; sanitary appliances, Dr. Imlach, 16, Canning Street; pathological specimens and drawings, F. T. Paul, Esq., 44, Rodney Street. General Museum Secretary, Dr. Whitford, 37, Shaw Street.

Notice to Exhibitors.—Applications to be made as soon as possible, mentioning the space required. Each object to be accompanied by a written description or reference, and it is important that these descriptions should be sent as early as possible, viz., not later than July 20th. All parcels to be delivered on or after July 23rd, and not later than July 28th, and to be removed within three days after August 3rd; they must be addressed: The Curator of Annual Museum, British Medical Association, the College, Shaw Street, Liverpool. All expenses of carriage and all risk to be borne by the exhibitors. A card bearing the name and address of the exhibitor to be inclosed in each package, ready to be fixed to the outside.

DINNER.

The annual dinner will be held as a banquet in the Philharmonic Hall on Thursday, August 2nd, at 6.30 P.M. The number of tickets is limited to 500, and none will be sold after Wednesday night, August 1st. Application must be sent to Dr. Dickinson, 162, Bedford Street, Liverpool (Secretary to Dinner Committee), accompanied by a remittance of 21s.

The following papers, etc., have been promised in the various Sections.

SECTION A.—MEDICINE.

1. A Discussion on Aphasia will be opened by Professor Gairdner of Glasgow. Dr. Hughlings Jackson, Dr. Broadbent, Dr. Ferrier, Dr. Antoine Cros (Paris) Dr. Thudichum, Dr. W. W. Ireland, Dr. Drummond, Dr. Ross, Dr. G. A. Woods, Dr. A. Cameron, and Dr. Wahltuch, are expected to take part.

2. A Discussion on the Causes and Consequences of Abnormal Tension in the Arteries will be opened by Dr. Broadbent. Dr. Milner Fothergill, Dr. B. Foster, Dr. W. F. Wade, Dr. Mahomed, Dr. Glynn, Dr. Eddison, and Dr. Carter, are expected to take part in it.

3. A Discussion on the Nature of Purpura will be opened by Dr. Stephen Mackenzie. Dr. Finny (Dublin), Dr. B. Foster, Dr. McCall Anderson, Dr. Stainthorpe, Dr. W. Russell, and Mr. Cauty, will take part.

The following papers are also promised.

ATKINS, R., M.D. Hysterical Hemianæsthesia.
BENNETT, A. Hughes, M.D. 1. Spastic Paralysis. 2. Hysterical Malingering.
BRAMWELL, Byrom, M.D. Note on the Mechanism of Cheyne-Stokes Respiration.
BRUNTON, T. Lauder, M.D., F.R.S. Headache.
CARTER, William, M.D.
CATON, Richard, M.D. On Brain Tumours.
CAUTY, H. E., Esq. On Roseola.
CROS, A., M.D. (Paris). 1. Sur la Pleximetrie. 2. La Theorie Physiologique de l'Hallucination.
DAVIDSON, Alexander, M.D.
DRUMMOND, David, M.D. 1. Perforating Tumour of the Dura Mater. 2. An Unusual Case of Locomotor Ataxy.
DRYSDALE, C. R., M.D. Recent Innovations in the Doctrine of Phthisis Pulmonalis.

EDDISON, J. E., M.D. 1. On the Cause of Cardiac Murmurs in Anæmia. 2. A Series of Forty Consecutive Cases of Empyema treated by the Physicians of the Leeds Infirmary (Drs. Allbutt, Eddison, and Churton).
FINNY, J. Magee, M.D. A Peculiar and hitherto Undescribed Condition of the Hairs of the Human Axilla.
FLINT, Austin, M.D. (New York). Early Tapping in Cases of Ascites.
GABBETT, H. S., M.D. The Diagnostic Value of the Discovery of Koch's Bacilli in Sputum.
GLYNN, T. R., M.D.
GREVES, E. H., M.B. Notes on Cases illustrating Nerve-diseases.
HASSALL, A. H., M.D. 1. Further Observations and Experiments on Inhalation in Affections of the Lungs. 2. On the Principles of the Construction of Inhalation Chambers for Diseases of the Throat and Lungs.
LEECH, D. J., M.D. Duration of Action of Medicines.
LITTLE, J. F., Esq. Rheumatic Arthritis or Neurotic Arthritis.
MACKENZIE, J. A., M.D. Rupture of the Heart.
MOORE, W. W., M.D. Source of Heat in Fever.
MORRIS, Malcolm, Esq. The Use of Antimony in certain Skin-Diseases.
MYRTLE, A. S., M.D. Sweating to Death.
OLIVER, George, M.D. Bedside Urinary Testing.
OXLEY, M. G. B., M.D. The position of Syphilis as regards Classification and Treatment in this Country.
RIDGE, J. J., M.D. The Use of Non-alcoholic Tinctures as Remedies.
ROBERTSON, R., M.D. Modern Uses of Blood-letting.
ROSS, James, M.D. 1. Rupture of the Brachial Plexus. 2. On Early Posterior Sclerosis.
RUSSELL, W., M.D. Three Fatal Cases of Purpura Hæmorrhagica.
SANSOM, A. E., M.D. Note on Percussion as a means of Diagnosis.
SMITH, Solomon C., M.D. Antiseptic Inhalations.
STRANGE, William, M.D. Sporadic Septicæmia, chiefly Puerperal, especially as to its relations with the Infectious Zymotic Diseases.
THOMAS, W. R., M.D. On the Varieties of Phthisis, and the Curability of some in certain Stages.
THOMSON, G., M.D. Rupture of the Brachial Plexus.
THUDICHUM, J. L. W., M.D. On Hay-fever or Hay-asthma, and its Frequent Connection with Structural Disease of the Nasal Cavity.
WAHLTUCH, A., M.D. On Electro-therapeutics.
WISE, Alfred, M.D. Climatological Studies at High Altitudes.
WOODS, G. A., Esq. Cerebellar Tumour.

Dr. Byrom Bramwell will give a demonstration on the Microscopic Pathology of the Spinal Cord.

SECTION B.—SURGERY.

1. Mr. Clement Lucas will open a Discussion on Surgical Diseases of the Kidney, and the Operations for their Relief, in which Dr. G. Elder and Mr. Bennett May will take part.

2. A Discussion on the Treatment of Intestinal Obstruction by or without Operative Interference will take place, in which Sir William Mac Cormac, Mr. Bellamy, Dr. Norman Kerr, and others, will take part.

The following papers have been promised.

ATKINSON, E., Esq. Drainage of Joints.
BAKER, Morrant, Esq. Removal of the Tongue by Median Division.
BARTLEET, T. H., Esq. Roux's Amputation at the Ankle; its Superiority to Syme's.
BERNARD, Armand, Esq. Observations on Primary Venereal Sores.
BERRY, William, Esq. Strangulated Hernia and its Complications.
BROWNE, H. Langley, Esq. Treatment of Enlarged Prostate by Continuous Elastic Pressure.
BROWNE, J. W., M.D. Cases of Hernia.
COUSINS, J. Ward, M.D. 1. Photograph of a Dorsal Tumour which was removed to relieve Pulmonary and Cardiac Distress. 2. Explanatory Remarks on a New Needle for Closing Surgical Wounds.
CROSS, F. Richardson, Esq. The Treatment of Arthritis by Incision.
DRYSDALE, C. R., M.D. Recent Experiments on the Treatment of Syphilis.
FAGAN, John, L.K.Q.C.P. The Nature, Diagnosis, and Treatment of Hæmarthrosis of the Knee-Joint.
HARDIE, James, Esq. Amputation by Oblique Circular Incision.
HEATH, Christopher, Esq. The Use of Plaster-of-Paris Bandages in the Treatment of Recent Fractures.
JESSOP, T. R., Esq. Some Results derived from Experience in Colotomy.
JONES, Thomas, Esq. Cases of Resection of the Ankle-Joint for Disease and Injury.
KEETLEY, C. B., Esq. An Analysis of Eight Cases of Osteotomy of the Hip.
LE PAGE, J. F., Esq. The Evacuation of Deep Abscesses: with Exhibition of Deep Abscess Evacuator.
LOWNDES, F. W., Esq. Venereal and Sexual Hypochondriasis.
MARCH, H. C., M.D. A Case of Resection of the Ankle-joint by an Artificial Pott's Operation.
MORGAN, J. H., Esq. The Operative Proceedings in Cases of Intestinal Obstruction.
MORRIS, Malcolm, Esq. The Comparative Advantages of Scarification and Scraping in the Treatment of Lupus Vulgaris.
NORTON, A. T., Esq. A Case of Excision of the Superior Maxilla for Melanotic Sarcoma of the Antrum.
OWEN, Edmund, Esq. The Treatment of Large Nævi.
PEMBERTON, Oliver, Esq. Gastro-enterotomy.
RABAGLIATI, A., M.D. Cases of Osteotomy.
ROTH, Bernard, Esq. The Treatment of Non-spasmodic Torticollis.
SMITH, E. Noble, Esq. The Treatment of Lateral Curvature of the Spine.
SOUTHAM, F. A., Esq. A Case of Femoral Aneurysm, treated by Injection of Fibrin Ferment, and subsequently by Ligature of the External Iliac Artery.
STOKES, William, Esq. Excision of the Shoulder-joint.
STOWERS, J. H., M.D. 1. The Nature and Treatment of Paget's Disease of the Nipple (with Microscopic Specimens). 2. The Treatment of Vascular Hypertrophy of the Nose.
THOMAS, William, M.B. 1. On the Accurate Measurement and Comparison of the Lower Limbs. 2. The Application of India-rubber Bands in the Treatment of Talipes
THOMPSON, James, M.D. Artificial Limbs.
WALTER, Wm., M.D. A Case of Nephrectomy for Cystic Tumour of a Floating Kidney.
WARDEN, Charles, M.D. On Osteotomy in Genua Vara and Valga.
WARREN, J. W., M.D. 1. Cure of Hernia by Subcutaneous Injection. 2. The Use of the Aspirating Needle in Strangulated Hernia and Obstruction of the Bowels.
WHITEHEAD, Walter, Esq. 1. A Further Series of Twenty-five Cases of Excision of the Tongue with Scissors. 2. The Surgical Treatment of Hæmorrhoids.

Patients for exhibition will attend from 1.30 to 2.30 P.M. on Wednesday and Thursday, August 1st and 2nd, in a room adjacent to that of the Section.

Mr. John Croft will give a demonstration of the application of Plaster-of-Paris Splints for the Treatment of Fractures.

SECTION C.—OBSTETRIC MEDICINE.

Special discussions are expected to take place in this Section on the following subjects.

1. Total or Partial Extirpation of the Uterus for Malignant Disease. Introduced by papers by Professor Schroeder (Berlin) and Dr. Wallace.

2. On Operative Treatment of Uterine Fibromata. Introduced by papers by Dr. Keith, Mr. Knowsley Thornton, and Mr. Lawson Tait. Dr. Wallace has promised to take part.

3. On Metria (so-called Puerperal Fever). Introduced by papers by Dr. Atthill and Dr. Thorburn. Drs. Grigg, T. More Madden, Alderson, and Fancourt Barnes, and Messrs. Donovan and Burton, have promised to take part.

4. Porro's Operation. Introduced by a paper by Dr. Clement Godson.

The following papers are promised.

ALDERSON, F. H., M.D. A Case of Extra-uterine Pregnancy.
ALEXANDER, William, M.D. On Shortening the Round Ligaments for the Cure of some Forms of Uterine Displacement.
BARNES, Fancourt, M.D.
BURTON, J. E., Esq. A Plea for the more Persevering Treatment of Uterine Cancer in Cases in which Operation by Removal is Impracticable.
CROOM, J. Halliday, M.D, 1. Basilysis. 2. On some Relations of the Bladder and Uterus during Labour.
DOLAN, T. M., Esq. Defective Lactation in Modern Times, its Causes, and how far it may be influenced by Drugs.
DUKE, Alexander, M.D. On the Use of Additional Traction in Difficult Cases as an Alternative to Craniotomy.
EDIS, Arthur W., M.D. The Treatment of Chronic Metritis associated with Retroflexion.
LEDIARD, A. H., M.D. Alexander's Operation on the Round Ligaments; with Cases and Remarks.
LE PAGE, John F., Esq. On Axis-Traction in Delivery with Obstetric Forceps. Mr. Le Page will also exhibit Le Page's Axis-Traction Forceps.
MCDONALD, A. Drummond, M.B. Position in Labour.
MADDEN, T. More, M.D. Further Observations on certain Mental and Nervous Disorders peculiar to Women.
MEADOWS, A., M.D. On the Diagnosis of the various forms of Uterine Fibromata.
MURPHY, James, M.D. Short Notes of Fifteen Cases of Placenta Prævia, with Remarks on its Treatment.
ROBERTS, D. Lloyd, M.D. Inversion of the Uterus.
SMITH, Heywood, M.D. On a Case of Porro's Operation.
SPANTON, W. D., Esq. A Case of Extra-uterine Fœtation.
TAIT, Lawson, Esq. Are Diseases of the Ovary (specially Cystoma) on the Increase?
WALTER, Wm., M.D. A Case of Hysterectomy for Uterine Fibromata.
WILLIAMS, A. Wynn, M.D. 1. On Displacements of the Uterus and their Treatment. 2. On Cancer of the Neck of the Uterus and its Treatment.

SECTION D.—PUBLIC MEDICINE.

Four topics have been selected for discussion in this Section.

1. Directions in which Public Health Law might be advantageously Amended or Extended. Mr. Charles Wills will read a paper on this subject. Mr. Ernest Hart will read one on the Advisability of an Extension of the Law for the Regulation and Registration of Plumbing in Houses. Dr. William Carter will open a discussion on these papers.

2. Quarantine. Dr. Imlach will read a paper on Quarantine; and Dr. Stocker, lately Government Emigration Inspector at Queenstown, will read one on a cognate subject.

3. Disposal of Town-Refuse. Dr. Goldie and Dr. E. Whittle will read papers on this subject.

4. Etiology of Diphtheria and Autumnal Diarrhœa. Drs. Alfred Carpenter, H. J. Alford, and E. F. Willoughby will read papers on Diphtheria; and Mr. M. D. Makuna one on Autumnal Diarrhœa.

Captain Douglas Galton, C.B., F.R.S., has promised to read a paper on Hospital Construction.

The following papers are promised.

DRUMMOND, Edward, M.D. On the Climate of Rome.
DRYSDALE, C. R., M.D. The Mortality of the Rich and the Poor.
HILL, J. Higham, M.D. Suggestions for the better Police Treatment of Persons found Insensible in the Streets, and supposed to be under the Influence of Alcohol.

JAMES, J. Brindley, Esq. On Cremation.
KERR, Norman, M.D. The Present Position of the Habitual Drunkards Movement.
LOWNDES, F. W., Esq. How to Make our own Houses Sanitary, with Personal Experiences.
MAKUNA, M. D., Esq. Small-pox and Vaccination Statistics; Diseases and Injuries to Health Attributed to Vaccination.
MARTIN, Johnson, Esq. On the Injury done to the Health of the Young by the Present System of Education.
MILLICAN, K. W., Esq. Evolution in Disease.
SHEARER, George, M.D. On the Opium-habit.

SECTION E.—ANATOMY AND PHYSIOLOGY.

The following papers have been promised.

ANDERSON, Edward C., M.D. Koumiss: its Modes of Preparation, Varieties, Physiological Uses, etc.
ANDERSON, R. J., M.D. Human Ribs.
ARCHER, R. S., M.B. Note on Congenital Aortic Bands.
BARR, James, M.D. The Causes and Mechanism of the Cardiac Impulse.
HADDEN, W. B., M.D. Westphal's Phenomenon, or the so-called Paradoxical Contraction of Muscles.
THUDICHUM, J. L. W., M.D. On the Chemical Constitution of the Brain.
WOODS, G. A., Esq. The Anatomy and Physiology of the Sixth Nerve.

Mr. Lennox Browne will exhibit on the magic-lantern screen, by means of oxyhydrogen light, a series of photographs of the Larynx and Soft Palate in the production of various Musical Tones.

Afterwards, Mr. Emil Behnke, from whom the pictures have been taken, will exhibit his Larynx to the members present, so as to demonstrate practically the physiological facts illustrated by the photographs.

Mr. C. B. Lockwood will show an anatomical specimen illustrating the use of the Fossa at the Lower End of the Fibula.

Dr. E. H. Jacob will show (1) Photographs of Chick Embryos; (2) a Portable Polygraph.

Dr. Francis Warner will give a Demonstration of an Apparatus for obtaining Graphic Records of the Movements of Fingers, Hands, Head, etc., and enumerating them and their combinations.

Dr. John Harker will show a sketch of Abnormal Hands and Feet in the case of an Infant.

Mr. Sibley Hicks will exhibit a series of Embryos to illustrate the Development of the Chick.

SECTION F.—PATHOLOGY.

The following discussions will take place.

1. On Micro-organisms in Disease. To be opened by Dr. Dreschfeld. Dr. Shingleton Smith will take part in the discussion.

2. On the Micro-organism of Typhus. To be opened by Drs. Mott and Blore. Drs. Davidson and Barrow will take part.

3. On the Pathology of Dropsy. To be opened by Dr. Lauder Brunton. Drs. Saundby and Churton will take part.

4. On Chronic Inflammations of Bone. To be opened by Mr. Charters J. Symonds.

5. On Primary Growths of the Urinary Tract. To be opened by Mr. Frank T. Paul. Mr. Roger Williams will take part in the discussion.

Cirrhosis and allied conditions of the Liver will be brought forward, should time allow.

The following papers have been promised.

HADDEN, W. B., M.D. On Lardaceous Disease of the Suprarenal Capsule.
LE PAGE, John F., Esq. On Neuropathic Plica.
MANSELL-MOULLIN, C., M.B. On some Forms of Osteitis in Hereditary Syphilis.
ROECKEL, W. J., M.B. The Pathology of Internal Hæmorrhoids.
SILCOCK, A. Q., M.D. Some points connected with the Repair of Fractures.
SMITH, R. SHINGLETON, M.D. 1. Tubercular Bacilli in the Urine. 2. Cirrhosis of Liver Simulating Acute Yellow Atrophy.
STOWERS, J. Herbert, M.D. 1. Paget's Disease of the Nipple. 2. Various Affections of the Skin.
WINDLE, B. C. A., M.B., and BARLING, H. G., M.B. The Pathology and Relations of Lupus.

It is desired to illustrate in as complete a manner as possible, by means of preparations and microscopical specimens, the Primary Growths of the Urinary Tract, especially of the Kidney, Bladder, and Prostate. The object of this investigation is to collect all the information that is to be obtained in this country, with the view of deciding what are the primary growths that have been met with in this region. The specimens lent will be arranged in the museum, and a report of the investigation will be brought forward in the Pathological Section by Mr. Paul. The Subcommittee will be very glad to receive (1) recent specimens; (2) mounted specimens of rare growths; (3) microscopical sections (these are specially requested). The specimens and sections will be returned to their owners after the meeting.

SECTION G.—PSYCHOLOGY.

In this Section, the following special subjects have been selected for discussion.

1. The Employment of the Insane. Introduced by Dr. Yellowlees. Dr. David Bower, Dr. William W. Ireland, Dr. John A. Wallis, and others, are expected to take part in this discussion.

2. Bone-Degeneration in the Insane. Introduced by Dr. Wiglesworth. Dr. William W. Ireland and others are expected to take part.

3. Cerebral Localisation in relation to Psychological Medicine. Introduced by Mr. W. Bevan Lewis. Dr. James Ross, Dr. David Ferrier, Dr. W. W. Ireland, Dr. Fletcher Beach, Dr. Alexander Robertson, and others, are expected to take part.

4. General Paralysis. Introduced (if time permit) by Dr. W. J. Mickle. Several members are expected to take part.

The following papers are also promised.

BAKER, John Henry, Esq., and MICKLE, W. J., M.D. Some Acts during Temporary Epileptic Mental Disorder.
HICKSON, Albert Thomas, M.D. Locomotor Ataxy and General Paralysis.
HUGGARD, William Richard, M.D. Definitions of Insanity.
MERCIER, Charles A., M.B. An Epidemic of Delirium.
MICKLE, William Julius, M.D. Visceral and other Syphilitic Lesions in Insane Patients, without Cerebral Syphilitic Lesions.
SANKEY, William H. O., M.D. What Phenomena are included in the name of General Paralysis or General Paresis?
SAVAGE, George H., M.D. Some Cases of General Paralysis with Lateral Sclerosis of the Cord.
SHUTTLEWORTH, George E., M.D. Is Legal Responsibility acquired by *Educated* Imbeciles?
WIGLESWORTH, Joseph, M.D. The Pathology of Mania.

Several members will also exhibit Microscopical Sections of the Brain and Spinal Cord.

SECTION H.—OPHTHALMOLOGY.

Three subjects have been selected for discussion in this Section.

1. On Tests for Colour-sense and for Acuteness of Vision, with special reference to Schools and Sailors. Opened by Dr. W. A. Brailey, followed by Dr. Snellen (Utrecht). Messrs. Nettleship, Fitzgerald, and Higgens have promised to take part.

2. On the Use of the Magnet in Ophthalmic Surgery. Opened by Mr. Simeon Snell, followed by Dr. W. A. McKeown.

3. On the various methods of Treatment for Sloughing Ulcer of the Cornea, with especial reference to Incision and Scraping. Opened by Mr. T. Pridgin Teale, followed by Dr. Little.

The following papers have been promised.

ABBOTT, George, Esq. Obstruction of the Nasal Duct, and its Treatment by Styles.
ANDREW, Edwyn, M.D. Treatment of Lacrymal Obstruction.
CRITCHETT, G. Anderson, Esq. Ulcers of the Cornea, their Varieties and Treatment.
FORBES, Litton, Esq. 1. On the Relations existing between certain states of the Sexual Organs and Visual Disturbance. 2. The Doctrine of Enucleation.
HIGGENS, Charles, Esq. On the Treatment of Painful Corneal Ulcers by Warmth and Eserine.
JONES, A. Emrys, M.D. 1. A Case of Orbital Abscess Communicating with the Brain. 2. A Case of Embolism (?) of the Central Artery of the Retina connected with Facial Erysipelas.
JULER, Henry, Esq. On the Relative Merits of the Various Methods of Testing the Refraction of the Eye.
LEE, Charles George, Esq. Notes on the Ophthalmic Conditions of Deaf-Mutes.
MCKEOWN, W. A., M.D. The Treatment of Accidental Dislocation of the Lens.
MACNAMARA, Charles, Esq. On the Pathology and Treatment of Zonular Cataract.
MULES, P. H., M.D. An Electric Movement for Carter's Astigmatic Clock.
SHEARS, Charles, Esq. Tobacco Amblyopia.
TAYLOR, Charles Bell, M.D. 1. On the Operative Treatment of Sympathetic Ophthalmia, with Cases. 2. On Transplantation of Skin with Temporary Pedicle without Scar. 3. Notes on the Operation for Cataract, with and without Iridectomy.
WATSON, W. Spencer, Esq. Shot-silk Appearance of the Retina.
WOLFE, John R., M.D. 1. On the Transference of Conjunctiva from the Rabbit to the Human Subject for the Cure of Symblepharon. 2. On the Treatment of Suppuration of the Tear-passages.

SECTION I.—DISEASES OF CHILDREN.

Three special subjects have been selected for discussion.

1. Dr. T. Barlow will open a discussion on Rheumatism and its Allies in Children. The following gentlemen have promised to take part in the discussion: Dr. O. Sturges, Dr. Rickards, Dr. Finlayson, Dr. Sansom, Dr. Mahomed, Dr. J. S. Bury, Dr. Donkin, and Dr. Byers.

2. Dr. Ballard: On the Etiology and Pathology of Summer Diarrhœa. The following gentlemen have promised to take part: Dr. Borchardt, Dr. Seaton, Mr. W. Hugh Hughes, Dr. Bruce Low, Dr. Strange, Dr. A. Ransome, and Dr. Maccall.

3. Mr. Morrant Baker: On Acute Epiphysal Necrosis and its Consequences. The following gentlemen are likely to take part: Mr. J. H. Morgan, Mr. R. W. Parker, Mr. G. A. Wright, Mr. G. Cowell, Mr. E. Owen, and Mr. A. Cæsar.

The following papers are promised.

ASHBY, H., M.D. On Scarlatinal Rheumatism.
BURY, J. S., M.D. A Case of Osteo-malacia in a Child.
DAY, W. H., M.D. A Case of Croupous Pneumonia in a Child, treated successfully by the Cold Bath.
GEE, Samuel J., M.D. Some Kinds of Albuminous and Purulent Urine in Children.
MORGAN, J. H., Esq. A Case of Epiphysal Necrosis of the Humerus, followed by Considerable Shortening of the Arm.
MORISON, B. G., M.B. Infantile Diarrhœa and its Treatment.
OXLEY, M. G. B., M.D. Fatal Case of Chorea in a Child aged 10 Years.
PUGHE, R. N., Esq. Operations for the Radical Cure of Hernia in Childhood.
RAWDON, H. G., M.D. On the Operation for Hare-lip.
STEAVENSON, W. E., M.D. On Electricity in the Treatment of Infantile Paralysis.
STURGES, O., M.D. On the Alliance of Rheumatism and Chorea.
THOMAS, W. R., M.D. On Intermittent Fever among Children in Low-lying Districts: its Frequency, and the importance of recognising it, owing to its Curability,
TOMKINS, H., M.D. On the Clinical Features of Typhus Fever in Children.
WRIGHT, G. A., Esq. On the Value of Localising the Primary Lesion in Joint-disease, as an Indication for Treatment.

SECTION J.—OTOLOGY.

Discussions will take place on the following subjects.

1. A discussion on the more serious aspects of Chronic Purulent Inflammation of the Middle Ear will be introduced by Dr. W. Laidlaw Purves.

2. A discussion on the various forms of Artificial Tympanic Membrane, and their Comparative Value, will be introduced by Dr. F. M. Pierce.

The following gentlemen have expressed their intention of taking part in the discussions: Dr. Edward Woakes, Dr. Thomas Barr, Dr. Urban Pritchard, Dr. William A. McKeown, Dr. J. W. Browne, Dr. Richard Ellis, Dr. H. J. Hardwicke.

The following papers have been promised.

BARR, Thomas, M.D. Practical Observations on the Use of the Cotton-Pellet (Yearsley's Artificial Tympanic Membrane) as an Aid to Hearing.
CASSELLS, James P., M.D. An Analysis of Ten Years' Aural Surgery.
FORBES, Litton, Esq. The Indications for, and Therapeutic Value of, Myringectomy.
MCBRIDE, P., M.D. The Prognosis of Chronic Non-Suppurative Inflammation of the Middle Ear.
TORRANCE, Robert, Esq. Deafness in Cerebro-spinal Meningitis.
WILLIAMS, Richard, Esq. A Fatal Case of Chronic Purulent Inflammation of the Middle Ear, from Extension to the Intracranial Cavity.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay with the secretaries of the respective Sections.

Notice is hereby given that it will be proposed, in accordance with resolution passed at special meeting of Council held at Birmingham, viz.: "That the return first-class railway-fares of every member to meetings of the executive body be paid by the Association."

Dr. Eyton-Jones, Wrexham, hereby gives notice that he will move at the annual meeting at Liverpool an amendment to the proposal to pay the travelling expenses of Branch representatives on the Committee of Council, of which the following is a copy:

"That it would be unfair and unjust, to pay the travelling expenses of one section of Members of Committee of Council, without at the same time paying the like expenses for all Members of the New Council and for all attendances at Committee Meetings of the Parent Association, and as such attendances would amount in the aggregate to a very large annual expenditure, it is impolitic and unwise to adopt such a resolution."

Dr. Boyd Mushet hereby gives notice that he will move:

"1. The British Medical Association universally and absolutely condemns the acceptance and tenure of all *gratuitous* medical appointments—whether to general, special, home, or cottage hospital, dispensary, infirmary, convalescent home, or other institution. It resolves that a permanent committee be appointed to accomplish their speedy and utter abolition.'

"2. That the same committee report on the inadequacy of the salaries of medical officers in the service of the Local Government Board, and devise prompt and energetic measures for equitable payment."

"3. That the committee also determine a scheme to ascertain and register a list of defaulting patients throughout the country."

FRANCIS FOWKE, *General Secretary.*

London, June 21st, 1883.

SOUTH-WESTERN BRANCH: ANNUAL MEETING.

THE forty-third annual meeting of the South-Western Branch was held at the Royal Albert Hospital, Devonport, on June 26th, under the presidency of Mr. Christopher Bulteel. Fifty members and some visitors were present.

Report of Council.—The report of the Council was read as follows. During the past year three meetings of the Branch were held, namely, the annual meeting at Barnstaple, and quarterly meetings at Plymouth and Exeter. A quarterly meeting at Falmouth was unavoidably postponed on account of the serious illness of Dr. Hudson, with whom the arrangements for the meeting would have rested.

The subjects that have specially engaged the attention of the Council and Branch were the following.

1. The homœopathic question. On this the views expressed by the Branch in the preceding year were reaffirmed. There are indications that the Committee of Council will be forced to abandon its present position of passive toleration of homœopathic practitioners in the ranks of the Association, and to carry out the regulations which have been clearly laid down by the Association at the annual meetings of 1852, 1858, and 1861.

2. The proposed alterations in the laws relating to the education and registration of medical practitioners. The Council presented a petition to Parliament in favour of the Government Bill (practically the Bill of the Association) entitled "An Act for the Consolidation and Amendment of the Laws relating to Medical Practitioners," and requested the local Parliamentary representatives to support it.

3. Mr. Hastings's Bill for compelling all medical men under a penalty to notify all cases of infectious disease under their care to the public authorities. Copies of resolutions passed in opposition to this Bill at the last annual meeting were sent to the members of Parliament for the various divisions and boroughs of Devon and Cornwall, and a special petition against the Bill prepared and presented to Parliament.

4. The constitution of the chief executive body of the Association, the Committee of Council. Changes were suggested at meetings of the Branch on April 17th and June 22nd, 1882, and January 10th, 1883, and it is satisfactory to report that the Committee of Council has now itself felt the necessity of recommending important alterations in the constitution and government of the Association, all tending in the direction of the suggested reforms. These alterations in the rules of the Association will be proposed for adoption at the annual meeting at Liverpool, and we urge our representatives on the General Council to make every effort to attend the meeting and support them.

A petition was presented to Parliament in favour of the Midwives Bill, drafted by a subcommittee of the Parliamentary Committee of the Association. This Bill has been approved by the Government, and will be brought forward at an early date.

Six members of the Branch have died since last report, and our numbers now stand at 187. The balance in hand is £13 8s. 11d., against £10 18s. 10d. at the time of our last annual meeting.

Election of Officers.—The following were chosen for the ensuing year:—*President:* C. Bulteel, Esq., Stonehouse. *Seven Members of Council:* Lewis Shapter, M.D., Exeter; W. Henderson, M.D., Exeter; A. Blomfield, M.D., Exeter; G. Pycroft, Esq., Kenton; J. D. Harris, Esq., Exeter; J. Deans, Esq., North Tawton; W. Budd, Esq., Exeter. *Honorary Secretary:* S. Rees Philipps, M.D., Exeter. *Nine Representative Members on the General Council:* W. Gervis, M.D., Ashburton; H. Greenway, Esq., Plymouth; J. Thompson, M.D., Bideford; J. Harper, Esq., Barnstaple; A. Bampton, M.D., Plymouth; W. Pearse, Esq., St. Tudye; W. D. Stamp, Esq., Plympton; J. Rolston, M.D., Devonport; C. Bulteel, Esq., Stonehouse. *Representative on Parliamentary Bills Committee:* S. Rees Philipps, M.D., Exeter.

New Members.—The following were elected: Mr. A. S. Perkins; Mr. F. W. H. D. Harris; W. Laing, M.B.; H. Swale, M.B.; Mr. J. Moone; J. Mortimer, M.B.; Mr. F. C. Bennett; Mr. J. Cockburn; Mr. J. Harrison; Mr. J. R. Rolston; Mr. F. C. Rowe; and J. Reid, A.M.D.

President's Address.—The PRESIDENT delivered an interesting address on sanitary matters.

Communications.—The following communications were made.

1. Mr. W. Square: Some Practical Remarks on the Diagnosis of Early Glaucoma.

2. Mr. W. Pearse: Case of Intestinal Obstruction.

3. Mr. C. Bulteel: Ligature of Femoral Artery for Popliteal Aneurysm.

4. Mr. George Jackson: Specimen of Aneurysm of Subclavian Artery.

5. Dr. Bampton: 1. New Urinary Tests; 2. Specimens of Bacillus Tuberculosis; 3. Large Vesical Calculus.

6. Dr. Davy: Case of Retention of Menses from Imperforate Hymen.

7. Mr. M. H. Bulteel: Two Cases of Craniotomy.

8. Dr. Spencer Thomson: On the Use of Alcohol in Health and Disease.

Medical Provident Society.—Mr. GEORGE JACKSON brought the question of the proposed Medical Provident Society before the meeting, and pointed out its advantages.

Contagious Diseases Acts.—The recent action of the Government in suspending the operation of these Acts was strongly commented on, and much testimony was adduced as to the good that had accrued from them. The subjoined resolution was passed unanimously: "That, in the opinion of this meeting, legislation which tends to check the ravages of venereal disease is most important, and demands the full support of the medical profession." A second resolution was passed, with only one dissentient: "That this meeting greatly deplores the action of the House of Commons and the Government which has led to the withdrawal of the metropolitan police, and to the abolition of periodical examination of women under the Contagious Diseases Acts."

Luncheon.—The members were hospitably entertained by the President at his residence in Durnford Street, Stonehouse.

Annual Dinner.—The dinner was held at the Duke of Cornwall Hotel, Plymouth. Among the guests were the Mayors of Plymouth and Devonport, and the Chairman of the Stonehouse Local Board. Some excellent vocal and instrumental music greatly increased the enjoyment of the evening.

During the afternoon, the park and gardens of Mount Edgcumbe were thrown open to the members of the Association.

SOUTH MIDLAND BRANCH: ANNUAL MEETING.

THE twenty-eighth annual meeting of this Branch took place at the Harpur Charities Trustees' Room, Bedford, on Friday, June 29th, under the presidency of R. H. KINSEY, Esq.

New Members.—Mr. A. L. Perkins, of Wellingborough, and Mr. E. Coultin Rogers, County Asylum, Fulbourn, were elected members.

Autumnal Meeting.—It was proposed by Mr. C. J. EVANS, seconded by Mr. H. BULL, that the autumnal meeting be held at Wellingborough the first week in October.

Combined Meeting.—The members of this Branch, in conjunction with those of the Cambridgeshire and Huntingdon Branch, adjourned at 3 P.M. to an excellent luncheon given by Mr. R. H. Kinsey, who took the chair, and to whom a vote of thanks was given for his sumptuous entertainment. At 3.45 P.M. a combined meeting of the Branches took place at the Harpur Trustees' Room. There were present: Mr. R. H. Kinsey (President), and more than forty members of the two Branches.

President's Address.—The President read an address, having reference principally to the subject of alcohol. Thanks were proposed by Dr. PAGET, seconded by Dr. HOUGH, for the address and luncheon.

Communications.—The following communications were made.

1. A discussion was opened by Dr. Bradbury on some points in the Etiology, Symptoms, and Treatment of Pneumonia.

2. Dr. Buszard introduced a discussion on Croup and Diphtheria.

3. Dr. Jones exhibited some specimens of Tubercle-Bacilli, with remarks.

Professor HUMPHRY proposed that those who had taken part in the discussion on pneumonia, should send notes of their remarks to the honorary secretaries.

The Medical Acts Amendment Bill.—Mr. R. W. WATKINS made a few remarks on the Medical Act Amendment Bill, and proposed a resolution thereon. Mr. Watkins thought the new Medical Bill provided a safeguard. Dr. Paget considered the safeguard insufficient. Scotland having power over their own Board, the Medical Council would not be able to control the Scottish and Irish Boards. It was proposed by Dr. BUSZARD, and seconded by Mr. C. JOHNSON, and resolved, that action on the Medical Amendment Act be deferred.

Collective Investigation.—A report was presented by the Collective Investigation Committee of the Cambridgeshire and Huntingdon Branch. Cards and explanatory memoranda relating to acute pneumonia, chorea, acute rheumatism, diphtheria, and syphilis were had from the honorary secretaries, Dr. B. Anningson and Mr. G. F. Kirby Smith.

CORRESPONDENCE.

THE POLITICS AND FINANCE OF THE PROFESSION.

SIR,—I think we are very much indebted to Dr. Balthazar Foster, for his admirable exposure of our corporate shortcomings. It is lamentably true that, however great and influential certain members of our body may be, as a whole we do not command that influence to which, from our education and services to the commonwealth, we might fairly be deemed to be entitled. But it hardly seems to me that Dr. Foster has gone far enough in pointing out the real cause of our impotence. No doubt he is perfectly correct in ascribing a great deal of it to want of union. That is, unhappily, too patent, and that it should be a source of weakness cannot be denied. It is melancholy to think how the corporations examine us, take our fees, and turn us adrift in the world, without another thought for us or our welfare, as if we were not members of a common profession, whose prosperity or otherwise must rest upon the whole body. In all the struggles against injustice in high places undergone by the army, the naval, and the poor-law medical services, the powerful corporations have stood by as if the affair were none of theirs, and left their members and licentiates to shift for themselves. And as to the General Medical Council, instead of being a source of strength to the profession, it has simply added one more to the list of those who have devoured us.

But there is another source of weakness, even worse than want of union, for it has been to a great extent the parent thereof. We are poor. Take away the princes of medicine, whose wealth and position place them above the struggles of, and out of sympathy with, the bulk of their brethren, I very much doubt whether the average income of the medical man of England exceeds £600 a year. I do not know much sadder reading than the advertisements in medical papers. Without reckoning the terrible appeals for alms, pure and simple, which shock us almost weekly, there is a constant stream of such exposures of our poverty as these:—"A very old established practice, averaging £318." "A very old established practice of £500 a year, including appointments of £200." "In a rich agricultural district, near a large town, an unopposed practice, worth about £500, including appointments, £100. Held by vendor twenty years."

What a world of pathos lies in these. Fancy the wearing struggles of twenty years to pay one's way, bring up a family, and appear like a gentleman, on £500 a year, with a horse to keep and drug-bill to pay out of that. "In a rich agricultural district!" What kind of influence would the impecunious doctor have over the moneyed bucolics, many of whom probably are members of clubs, that represent the £100 a year, and claim his best attendance from several miles distance, for half-a-crown per annum? What is a man likely to think of one whom he can order about at his sweet will and pleasure for half-a-crown a year? The wonder is, not that we have so little influence, but that we have so much as we have. For this thing reflects itself. It not only degrades the individual, but his profession; and, even as we all derive a certain measure of reflected glory from the discoveries of Harvey and Jenner, so do we derive vicarious shame from this cheap barter.

I do not desire to blame those who do it. That would be to blame the bulk of the profession. Most of us hold appointments which our poverty and not our will consents to take; but the very fact that so large a proportion of us accept clubs at a few shillings, and parish patients at a few pence a head, to eke out our incomes, shows, as conclusively as anything can, how slender are the incomes that are so eked out.

And we are not only poor, but busy. If we were only poor from having little to do, our very idleness might be dangerous to a dull-eared Government. A large crew on the high seas in fair weather is kept holy-stoning the desk, lest their unemployed energies might become troublesome. But we are too busy to agitate, and are poor only because we are ill-paid. This is fatal in a country which is governed by agitation, and in which the noisiest win.

Not only are we poor, but we are poorer relatively than we were; for all classes, except perhaps the labourers, are richer. And I cannot agree with Dr. Balthazar Foster, that "as the power of other learned callings wanes, as the proud predominance of wealth is lessened, it is the scientific intelligence that must gain in power," at least, not if he means that that process is already in operation. It seems to me quite the reverse. Men who would go to a hospital rather than pay a few pounds to a medical man, will pay heavy bills to

a lawyer, an engineer, or a schoolmaster. And at no time that I ever heard of (in England at least), was a man so distinctly valued for the depth of his purse, by what means soever, righteous or unrighteous, its contents may have been obtained. At no time was the worship of Mammon so open and shameless. Within my memory, it was considered honourable to belong to the professional classes, even if one did not make as good an income as a thriving tradesman. Now one hears a professional man spoken of with supreme contempt if "he does not earn as much as my clerk."

This growing contempt of poor doctors, coupled with the depressing effect of chronic *res angusta domi*, cannot fail to be a great hindrance to any effective organisation for our elevation.

Can we better ourselves in this respect? To some extent, yes; to a great extent, I am afraid not. We have, more than any other profession, the poor for our clients. We cannot raise our charges to them. They cannot pay more. The classes next above them can pay small bills; beyond that they either go into hospital or cheat the doctor. And, of the well-to-do, the number that accept the charity of hospitals is disgraceful to our national character, and a great discouragement to provincial medical men. And for the better classes how can we raise our fees, as almost every other class has done, without union? What can we do when some of our Nestors will drive three miles into the country to attend a confinement for a guinea? when five shillings will pay for a visit at five miles distance?

Yes, union by all means; but let one of the first-fruits of our union be a general movement in the direction of higher remuneration. The more one is paid, the more one is thought of. Then we shall be able to speak—unitedly—in a way that will command respect. Is it thought that personal qualities are sufficient of themselves to command respect? Then what is meant by giving an official such a salary as will enable him to maintain the dignity of his office?

In conclusion, let me thank Dr. Foster most heartily for his trumpet-call to the profession to unite to claim their rightful positions. See what the trades' unions have been able to achieve by the united force of numbers alone; and what may not we be able to accomplish with our superior advantages, and, I trust, higher aims? Their aspirations are to better their own positions, simply; we would improve our position pecuniarily, in order that we may improve it socially, that we may be more independent, have more influence—that we may be better, more zealous, and efficient servants of the body politic.—I am, etc.,

Cardiff, July 4th, 1883. JAMES MILWARD, M.D.

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

SIR,—The Association of Fellows of the College of Surgeons may be very well satisfied with the result of their first year's campaign. Five of the candidates informed the Council of the Association that they were in accordance with its views on two important subjects: voting by proxy at the election of Council; and the right of Fellows and members to meet at proper times, and under suitable regulations, within the walls of the College. Mr. Reginald Harrison, Mr. Macnamara, Mr. Lawson, Mr. Pemberton, and Mr. Sydney Jones, are the five who assented. They may be still further satisfied at having elicited from one candidate, Mr. Brudenell Carter, a document which is in itself, perhaps, a more ample vindication of the course pursued by the Fellows of the Association than could readily have been anticipated from its warmest friend or its most injudicious enemy. Mr. Carter challenges the Association to publish the letters of reply which it received. If he had taken the trouble to ascertain the facts before venting his insinuations, he would have learned that these replies were sent to each member of the Association of Fellows, to the number of 210, on June 23rd. He implies that Sir William MacCormac was printed as one of the members of the Association without his consent. Sir Wm. MacCormac made a written application for membership. He was a member when the list was circulated, but has ceased to be so. That which does duty for argument in Mr. Carter's memorandum is not less remarkable for the support which it affords to the cause which he attacks, than is the manner and spirit of his action. He will only admit that it is conceivable that those Fellows who have served as Councillors can be able to arrive at a decision concerning the desirableness or otherwise of any suggested changes.

It is hardly conceivable that any human being could, in a moment of calm reflection, suggest such a proposal to his reasonable fellow creatures. If such be the case, no candidate for Parliament would ever have been asked whether he approved of the ballot, or of raising or lowering the qualification of voters, or of any change in the constitution, or methods of working of the House of Commons.

The questions which were asked of the candidates for the Council of the College of Surgeons on this occasion, were of a kind, of all others, least open to the objection which Mr. Carter raises. To say, as he says, that the Fellows generally cannot form an opinion whether or not the elections to the Council should be conducted by voting papers, so as to enfranchise the country Fellows, now practically disfranchised; and whether or not the College should permit occasional meetings of the Fellows and members within its walls, is to suggest a proposal so devoid of reason, so opposed to all political precedents, so contrary to justice, that it only needs to be plainly stated to carry with it its own final refutation. On behalf of the Association, I think myself entitled to thank Mr. Carter for having made himself the mouthpiece of opinions so advocated and so expressed, as to afford, by the inverse method of reasoning, an irrefutable conclusion in favour of the principles on which the Association has based the rights which it maintains, and the liberties which it protects.—I am, sir, yours faithfully, X.

SIR,—In common, I suppose, with other Fellows of the College of Surgeons, I have received a circular from the Association of Fellows, and an antidote to the same from Mr. Brudenell Carter. As I do not belong to the former, and know nothing of the latter beyond what his reputation as a surgeon tells me, it is possible that the comparative impartiality of my view may give it a value that it would not otherwise possess.

It appears that the Fellows composing the Association desire to know the views of the several candidates for election to the Council before deciding for which candidate they shall vote—a curiosity which may be unseemly, but which does not impress a bystander as being morally reprehensible. Mr. Carter, who, to judge from his circular, holds very strong views on some subjects, and expresses them in the plainest terms, either has no views whatever about the management of the College on whose governing body he wishes to sit, or he refrains from expressing them. Under these circumstances, it is significant that his name is at the bottom of the poll.

The question at issue appears to be this: Do the members of the Council represent themselves only, or do they represent the Fellows who elect them? In other words, are they responsible or irresponsible? If they enter the Council merely to secure a dignified position, and to carry on a traditional policy on ancient lines, why go through the form of an election? Why not let the Council fill up its own vacancies by co-optation? Surely the fact that an election is provided for by the charter, shows that the Council was intended to be truly representative of, and responsible to, the general body of Fellows; and it is evident that a considerable number of Fellows are determined that this intention shall be carried out. Let future candidates for election to the Council ask themselves whether it is likely that those who have no policy, or refuse to divulge it, will stand a chance against others who show that they are willing to work for the aims that the great body of electors have in view.—I am, sir, your obedient servant, CHARLES MERCIER.

A SANITARY SERVICE.

SIR,—The lecture delivered by Mr. Rawlinson at the Parkes Museum hall, and the proposition growing out of it which was supported by Mr. Chadwick—viz., that the medical department of the army should be dissociated from all sanitary work, and confined entirely to "curative" duties, is one that demands more extended consideration than you were able to give it in a short paragraph in your issue of the 30th ultimo. Any one reading Mr. Rawlinson's lecture, and Mr. Chadwick's remarks, would, if not better informed, be led to the conclusion that the army in Egypt, in the late brief war, had suffered to the same extent, and from the same causes, as the army in the Crimea. It is strange that men so able and competent should fall into so absurd an error as this. In the Crimea, an army was destroyed; in Egypt, as has been over and over again demonstrated, the death-rate from all causes was less than in any war ever waged by this country. In the Crimea, the sufferings and hardships to which our men were subjected during the memorable winter of 1854, reached the acme of human endurance; in Egypt, when all has been said, the rapidity with which the military operations were pressed on somewhat outran for a few days complete arrangements for the comfort of the sick and wounded, the result being that a

small number of officers had to wait a few hours longer than was desirable for their food, and, until the requisite appliances were landed from the delayed hospital-ship, had to put up with some trumpery discomforts, such as British officers and soldiers in bygone days not only submitted to without a murmur, but laughed at as inevitable in war; inconveniences so trifling, that it would be an abuse of language to apply the term hardship to the sum of them. "War," in the words of Carlyle, "is not an overfond mother, but a sufficiently Spartan one;" and those who shrink from the discipline to which this Spartan mother subjects her sons should stay at home and do their soldiering within easy distance of their London clubs.

It is strange that Mr. Rawlinson should select the Parkes Museum hall to announce that, in his opinion, the sanitary and curative functions of the medical department of the army are incompatible, and that a retrograde step should be taken, the effect of which would be to reduce it once more to the helpless condition in which the Crimean war found and left it. Such a scheme as this strikes a blow at the best part of Lord Herbert's work. For a quarter of a century, Dr. Parkes, and his successor, Dr. De Chaumont, have taught in the Army Medical School the principles and practice of military hygiene as this branch of science has never in this country been taught to any class of the community; and Parkes, years before his death, placed in the hands of army surgeons the most complete and exhaustive treatise on the subject in our language; and his able successor has, in new editions, kept this valuable work abreast of the science of the day. The result has been, that no men in the medical profession, take them as a whole, have a better knowledge of the laws of health as applicable to armies than the medical officers of the British and Indian armies who, in the last twenty-three years, have passed through the Army Medical School. If this invaluable knowledge is not allowed free and legitimate scope, particularly in war, the fault lies not with the officers, but with those who deny them the requisite authority to use their knowledge.

I entreat those who are, or soon will be, engaged in considering how defects in army medical organisation are to be remedied, to take note of this undeniable fact: the public look to "army doctors" to preserve the health of the army in peace and war; they hold them responsible for every miscarriage. Military commandants may be placed in military hospitals; outsiders may be appointed as sanitary officers without stint or limit, but if anything goes wrong affecting the interests and well-being of the sick and wounded, the medical department must bear the blame. So true is this, that only a few days ago the leading journal, in an article intended to laud the medical profession and magnify its work, plainly told its members, doubtless with an eye to its own cruel, one-sided, and unjust strictures on the work of the medical department in Egypt, that doctors must be prepared to suffer blame for the faults of others. If the commissariat supply unsuitable food, the needful transport for the sick and wounded is not forthcoming when required; if hospital stores and equipment required for use in Cairo have been sent by the authorities to Cyprus, the cry of a "breakdown" at once arises; then military commandants, transport and commissariat officers, and authorities generally, retire into the background, leaving the medical department to face the storm alone.

This way of dealing with its officers is not confined to the outside public. The evidence taken by Lord Morley's Committee points to the fact that the combatant ranks of the army, from the commander-in-chief in the field to the raw subaltern whose experiment of soldiering has consisted in marching from London to Windsor and back again, take the same view of the matter, and abuse the department, tied and bound by red-tape and regulations, "for not taking the initiative," and undertaking duties which other departments are paid for doing, or not doing, as the case may be.

Now, sir, my humble contribution to the work of reorganisation is short and simple: let authority go with the responsibility. We have seen on whose shoulders the responsibility rests; give the men who have to bear it the means and the authority to do the work they, and they alone, are capable of doing as it should be done. Any remedy short of this will be futile, most of all the preposterous scheme of placing yet another department between the principal medical officer in the field, and the general in command.—I am, sir, your obedient servant, W. C. M.

WESTON-SUPER-MARE.

SIR,—A report, calculated to seriously injure the town of Weston-super-Mare, having been persistently circulated to the effect that typhoid fever, diphtheria, and other zymotic diseases, are epidemic in Weston at the present time, we, the under-mentioned medical men practising in Weston, beg to state, most emphatically, that such report is absolutely devoid of any foundation whatever.

The "Report" for the last quarter of the medical officer of health shows that the state of the town is exceptionally good, and will bear favourable comparison with that of any other health-resort of its size. *No epidemic of any sort* exists, and very little sickness has been prevalent during the last three or four months. The town authorities have expended large sums of money in adopting a thorough system of drainage in accordance with the latest scientific ideas; and by thoroughly ventilating all the sewers, have placed the sanitary condition of the town above suspicion.

We therefore hope that you will give this statement the fullest publicity in your columns, and so help in contradicting a malicious and false libel.—We beg to remain, yours truly,

RICHARD ALFORD, F.R.C.S.Eng., L.S.A.; ROBERT ROXBURGH, M.B., F.R.C.S.E; EDWARD F. MARTIN, M.B., M.R.C.S.; FRANCIS W. S. WICKSTEED; W. HARFORD G. PHELPS, M.D., M.R.C.S.Eng.; GEORGE F. ROSSITER, M.B.Lond., M.R.C.S.Eng.; GEORGE ERNEST ALFORD, L.R.C.P.E., M.R.C.Eng.; GRÆME B. FRASER, M.R.C.S.Eng., L.S.A.; WILLIAM JONES, F.R.C.S.Eng.; JOHN WILDE, L.R.C.P., M.R.C.S., L.S.A.; WILLIAM BLUNDELL, M.R.C.S., L.S.A.; ALFORD WILLMOTT, M.D.Edin.; P. B. BURROUGHS, M.R.C.S., L.S.A.

July 11th, 1883.

P.S.—The medical officer's report, published this evening, is inclosed with this letter.

MILITARY AND NAVAL MEDICAL SERVICES.

THE INDIA MEDICAL SERVICE.

ON Monday last, in the House of Commons, a series of questions, having reference to the Indian Medical Service, was put to the Government by Mr. Gibson, and replied to by Mr. Cross. The replies, though in no case absolutely inaccurate, were, in their general tenour, misleading, tending as they did to impress the House with the belief that a widespread feeling of disappointment and discontent does not prevail amongst the junior officers of the service, that there are no grievances calling for redress, and that there has been no such general supercession in the case of the senior officers as to justify the grant of any special compensation. We venture to think that the impression thus conveyed is altogether a wrong one. There is discontent amongst the juniors, and it is based upon reasonable grounds; there has been very general supercession of senior officers as a result of the recent administrative changes; and by such supercession, not one or two but many officers, have been absolutely shut out from promotion to administrative rank, to which, from the constitution of the service when they entered it, they were entitled to look forward with certainty; and there are other grievances which, if the service is to maintain its old efficiency, the Government would be wise to consider and remove.

Unfortunately, the questions put by Mr. Gibson were not calculated to elicit the truth. These questions, briefly summarised, were the following:—Does stagnation of promotion and consequent dissatisfaction prevail in the Indian Medical Service? If so, is it due to the abolition of several higher grade appointments, and to the recent disbandment of native regiments? Have the prospects of many senior officers of obtaining administrative rank been destroyed by the recent changes in the service, and does Government contemplate giving increased pensions to such officers as compensation and in order to induce them to retire? Would their retirement, by transferring many appointments to men of lower rank and pay, practically compensate for the increased outlay? and, finally, has Government any scheme under consideration for rectifying the grievances of the service?

To these questions, Mr. Cross replied to the following effect; and the general tenour of his answers is such as we have already indicated. The disbandment of the native regiments, though it reduced the number of "independent charges," and thus added to the number of "unemployed officers," could not affect their promotion, which, in the executive branches, is governed solely by length of service. "In my reply to the honourable member for Waterford, on May 28th last," Mr. Cross said, "I explained that a considerable reduction in the number of appointments to the Indian Medical Service, during the past and present years, would shortly remove the difficulty temporarily experienced through the disproportion of officers to the

number of independent charges. In this expectation, it is not considered expedient to have recourse to the offer of higher rates of pension as an inducement to the senior officers to retire; and it is unnecessary, therefore, to calculate what the financial effects of such a measure would be. With respect to the alleged abolition of a number of higher grade appointments, page 283 of the Papers presented to Parliament in 1881 (C. 2921), respecting medical officers in India, gives a despatch from the Government of India, showing that the total loss of administrative appointments for the whole of the medical services, consequent on the reorganisation of the medical administration, was only one. The injury to the service is, therefore, nominal; though, doubtless, the arrangements consequent on the reorganisation have retarded the possible selection of some few officers. Such changes, however, are to be looked for in all branches of the public service; and are not considered, in this case, to justify the grant of any special compensation. The question of the future organisation of the Medical Service for India is now the subject of discussion with the War Office; but it has no reference to any grievances of the Indian or British Medical Service, and it has not reached the state at which any statement could be usefully made to the House."

The dissatisfaction universally prevalent amongst the junior officers is not based, as Mr. Gibson supposes, upon stagnation of promotion; for, as Mr. Cross correctly pointed out, such stagnation does not exist, promotion in the executive branches being governed solely by length of service; but it is based upon what they consider a distinct breach of faith on the part of the Indian Government. Candidates for the Indian Medical Service are furnished by the India Office with an official memorandum detailing the advantages of the service; and from this they are led to believe that, after arrival in India and passing an examination in Hindustani, they will, if professionally employed, draw a salary of not less than 450 rupees *per mensem*. This prospect naturally attracts many; but a short experience in India soon dispels their hopes. They find that many professional charges, involving much responsibility and much hard work, are not gazetted appointments; that they carry with them no pay and allowances; and that the individuals filling them are looked upon as unemployed, and are considered as only entitled to the unemployed rate of pay. They are frequently transferred from one such appointment to another, and in every case have to pay their own travelling expenses; and even at last, when fortunate enough to obtain a recognised gazetted medical charge, for many years they hold it only in an officiating capacity, and draw a portion only of the salary attached to the office. This state of things persists in many cases for five, six, even eight years; and can it be considered unreasonable if the feeling naturally engendered is one of dissatisfaction and disgust? The India Office memorandum, by its reticence on these points, is practically untruthful, and ought to be modified without delay. At present, undoubtedly, young men are inveigled into the service on false pretences, and the inevitable result is disappointment and discontent.

We have already, on many occasions, called attention to the hardship of the supercession of the senior officers by the promotion of the members of the sanitary department to administrative rank, after twenty-five years' service, instead of, like their military brethren, according to seniority, and have also remarked upon the recent promotion of Brigade-Surgeon Walker, to the surgeon-generalship of the North-Western Provinces, over the heads of many of his seniors. The injuries thus inflicted involve not one or two, but many men, they are real, serious, and permanent, and, in spite of Mr. Cross's opinion to the contrary, we maintain that in equity they do call for personal compensation.

There are other grievances, such as the subordination of the military branch of the service to the Army Medical Department by the abolition of the office of the Indian military surgeon-general, and the inequality of the unemployed rates of pay in the two services, which also call for redress, and which we trust will not be lost sight of in the new scheme for the future organisation of the medical service for India, which Mr. Cross asserts is now the subject of official discussion with the War Office.

VOLUNTEER AMBULANCE INSPECTION.

THE ambulance detachment of the 2nd North Yorkshire Volunteers was inspected twice during last week, when the regiment was under canvas at Ripon. On Monday, June 25th, Major-General Cameron, commanding the Northern District, saw the detachment go through their stretcher-drill, and questioned closely the medical officer in charge, Surgeon-Major J. W. Taylor, regarding his duties in the field. The General expressed himself much gratified by the manner in which the men did their work; and a compliment coming from so strict an officer was greatly appreciated by the whole battalion. On Friday, June 29th, Colonel Barrett, commanding the 19th Regimental District, officially inspected the regiment. The ambulance detachment marched past with the rest of the men, and were put through a series of movements by Dr. Taylor before the inspecting officer, who afterwards addressed the bearers in feeling terms. The surgeon-major, in the presence of Colonel Barrett, questioned the men on the anatomy of the principal blood-vessels, and on the treatment of wounds and fractures. The inspecting officer also addressed a few words to the junior medical officers (Drs. W. T. Colby and R. Bruce Low), who were present with the detachment. Colonel Barrett presented the official certificates of proficiency to those men who had not received them previously. It is admitted that no regiment of volunteers in the North is as well equipped in this respect as the 2nd North Yorkshire Volunteers. Great credit is due to Dr. J. W. Taylor (Scarborough), the surgeon-major, for the pains he has taken to bring his detachment of bearers (twelve men and a sergeant), who are all certificated) to such a state of efficiency. His labours are greatly appreciated by Sir W. Worsley, the colonel of the regiment, who, on many occasions, has expressed his satisfaction with the ambulance arrangements in the warmest terms. It appears to be a good sign that, after so long a period of neglect, the volunteer medical service should be thought worthy of a separate inspection by a general in command, as well as by the inspecting officer of the district. It is surely time that every volunteer surgeon bestirred himself to see that he has a detachment of proficient bearers attached to his regiment.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, July 5th.

Cholera.—Mr. O'DONNELL asked the Under-Secretary for India whether he had heard that cholera in a severe form was reported by the editor of the Madras *Hindu* to have broken out in Salem; that the collector remained at a distance in a mountain sanitarium, and that the native municipality had been dissolved since the late riots; and whether he could state what authorities were responsible for the care of public health in Salem.—Mr. CROSS: I have not seen the Madras *Hindu*. The last health returns received (dated May 23rd) do not state that cholera existed in Salem, nor have we been informed that the municipality has been dissolved. The magistrate, or, if he be absent, his *locum tenens*, is responsible for the public health.—Mr. O'DONNELL gave notice of his intention to ask whether the Government received information that cholera had been raging at Salem; that there was a total absence of Government supervision; that there were deaths from cholera at Bombay and Calcutta; and whether these facts were made known by the Government to the Egyptian Board of Health.

Monday, July 9th.

Cholera in Egypt.—In reply to a question from Sir H. WOLFF, Lord E. FITZMAURICE said: I propose to give the House a short summary of the information which has reached Her Majesty's Government from Sir E. Malet and Consul Cookson regarding the measures taken for preventing the spread of cholera in Egypt. These measures are under the Control of the Central Government in Cairo. Sir E. Malet states that the Sanitary Board at Cairo is composed of native and foreign doctors, among whom is Dr. Grant, the medical adviser of Her Majesty's Consular Court. They have, from the beginning of the outbreak, sat every evening, in conjunction with the Minister of the Interior and General Baker; and Sir E. Malet adds that doctors, medicines, and food have been supplied to the infected places, and he expresses the opinion that the Government have done all in their power to stamp out the disease. At Alexandria, Consul Cookson states that a commission has been working hard in inspecting nuisances and suggesting sanitary measures, and he trusts that good results will ensue from the appointment of subcommittees, to whom the Government have left, on Mr. Cookson's representation, great latitude of action. An independent British committee has, moreover, been formed to visit the houses of British and Maltese residents at Alexandria. The infected houses have been isolated by cordons of police. With regard to the steps taken by Her Majesty's Government, I may state that a Departmental Committee has been appointed by my right hon. friend, the President of the Local Government Board, on cholera precautions generally, and a competent medical authority connected with the India

Office is about to be despatched to Egypt under the direction of the Board. The Egyptian Government has been informed of the desire of Her Majesty's Government to afford them every assistance in the difficult task they have to perform.—Mr. O'DONNELL asked whether the diminution in the number of deaths in Damietta was not due to the fact that many thousands of persons had taken refuge in the surrounding villages, and whether inquiry would be made as to the number of unregistered deaths which were now occurring everywhere over a large space of country in small villages.—Lord E. FITZMAURICE: No, sir, I cannot give accurate detailed information on this point; but I may say, that, so far as I have read the papers, it would appear that a very different complaint has been made—namely, that the cholera-cordon, in some places, has been kept up with such strictness, that painful scenes have been the result. While I am touching upon this subject, I may refer to what may be called the more pleasant side of the question—namely, that during the last few days there has certainly been a diminution in the number of deaths in the very district to which the hon. member has alluded. I will read to the House the figures relating to the number of deaths in the Damietta district since July 1st. On July 1st they were 141; on the 2nd, 130; on the 3rd, 112; on the 4th, 111; on the 5th, 109; on the 6th, 107; on the 7th, 92; and on the 8th, 88. These figures show, at all events, there has been a gradual diminution in the number of deaths in that district. In the Mansourah district there has also been a diminution in the number of deaths, although not so marked. On July 5th, they were 68; on the 6th, 39; on the 7th, 45; and on the 8th, 48. On the whole, that shows a certain diminution as compared with previous dates. There has been a very slight increase in the number of deaths in three other districts.

Disinfection of Mails from the East.—Viscount FOLKESTONE wished to ask, as the Postmaster-General said that the next mail from the East would be a heavy one, and instructions had been given for it to be sent by sea to England, whether the Government thought it necessary to establish a quarantine at Plymouth or other ports, or what precautions were to be taken to prevent the importation of cholera.—Mr. FAWCETT said that he had communicated with the Privy Council on Friday last. Every care had been taken to disinfect the bags by soaking them in tar. The Sanitary Committee of the Privy Council thought that was a sufficient precaution, and the matter rested with them.—Viscount FOLKESTONE said that such a process would not disinfect the persons on board the vessels.—Mr. FAWCETT thought the noble lord would see that the question was not one for the Post Office. The question ought rather to be addressed to the Local Government Board, or other authority whom it concerned.

Cholera in Bombay.—In reply to a question from Mr. O'DONNELL, Mr. CROSS said: The figures given by the hon. member regarding cholera in certain places in India are generally correct, but I may say that cholera has been little, if at all more prevalent in Indian ports during the last six months than it usually is. In Calcutta the deaths in April were 459, against 318 in April, 1882; in May they were 383, against 380 in 1882; and in June 150, against 254. The health statement of Indian ports is always telegraphed fortnightly for communication to the sanitary boards in the Levant; and cholera deaths in Bombay are telegraphed weekly to the Consul-General at Cairo. Her Majesty's Government have objected to the imposition of special measures of quarantine against arrivals from India with clean bills of health, and having no suspicious cases on board after a voyage of ten days.—Mr. O'DONNELL asked whether it was true that at a meeting of the Alexandria Board of Health the English delegate protested against immediate action being taken in reference to vessels arriving from India; and whether it was true, as stated in the Egyptian official journal, that a passenger landed at Port Said on June 18th, and proceeded to Damietta a few days before the outbreak of cholera in that town.—Mr. CROSS: Perhaps the hon. member will give notice of that question to the noble lord (the Under Secretary of State for Foreign Affairs).

Disease in Emigrant Ships.—Mr. MOORE asked the Secretary of the Local Government Board whether he had any objection to lay upon the table Dr. Bloxall's report on infectious diseases in emigrant ships.—Mr. RUSSELL: It is proposed to publish the report of Dr. Bloxall in the appendix to the report of the medical officer of the Board, and it is intended that in this form the report shall be presented to Parliament.

Irish Prison Surgeons.—Mr. GIBSON asked the Chief Secretary to the Lord-Lieutenant of Ireland whether the Government had come to any decision as to the claim of the surgeons of Irish prisons for additional remuneration for the extra work under the Peace Preservation Acts; whether the Irish prison surgeons were not promised by the Executive that they would be suitably remunerated for this extra work; and whether any offer had been made to them on the subject.—Mr. TREVELYAN: The Government have decided that they cannot entertain claims of this character merely on the ground of a temporary increase of work; but the cases of any prison officers who can show that they were put to any expense will be specially considered. The right hon. gentleman is, no doubt, aware that this was the principal ground upon which the claims of the police were entertained. I am not aware that any promise of extra pay was made to the prison surgeons, or that any special offer had been made to them on the subject.

The Contagious Diseases Acts.—Sir HENRY WOLFF asked the Secretary for War whether he could state what were the numbers of diseased women in hospital in the protected districts previous to the abolition of compulsory examination; and how many there were now in hospitals, specifying in both cases the respective numbers at each station.—The Marquis of HARTINGTON: The number of diseased women in hospital at the time compulsory examination was suspended was 267; the number now in hospital is 134. If the hon. member wishes for the information by stations, perhaps he will be good enough to move for it as a return.—Captain PRICE gave notice that on the second reading of the Hospitals Detention Bill he should move that it was not expedient to repeal Acts which had proved of great value to the health and morality of the public as well as satisfactory to the inhabitants of those districts where they had been in operation, in order to substitute for them a measure in regard to which the Minister in charge had stated that he had no great hopes of its efficiency.

Tuesday, July 10th.

Precautions against Cholera.—Viscount FOLKESTONE asked the President of the Local Government Board what precautions were proposed to be taken to prevent the importation of cholera by the ships carrying the Indian mails and other ships arriving in England through the Suez Canal or from any Egyptian port.—Mr. MACLIVER also asked whether any precautions had been taken at Plymouth with a view to the landing of passengers; and whether the inspectors of that port would examine the passengers on arrival.—Sir C. DILKE: With regard to the question of the hon. member, I can only say that that will depend upon whether, in the opinion of the inspector, there is any chance of infection; but I should think that in the course of a voyage from Trieste he would consider a vessel quite free from infection. With regard to the question of the noble lord, in the eighth annual report of the Medical Officer of the Privy Council (Mr. Simon), laid before Parliament at the time; and again in 1879, the noble lord will find a full examination of the value of quarantine as against cholera. Mr. Simon pointed out that a quarantine which is ineffective is a mere irrational derangement of commerce, and a quarantine of the kind which insures success is more easily imagined than realised.....Quarantine purporting to be effectual cannot rest satisfied with excluding from entry such persons as are obviously sick, but, indispensably for its purpose, must also refuse to admit the healthy till they shall have passed in perfectly non-infectious circumstances at least as many days of probation as the disease can have days of incubation or latency..... In 1832-3, when some sort of quarantine against cholera was adopted here, the results gave no encouragement to a repetition.....The thought of quarantine in England became more and more obsolete: and the possibility of enforcing it, if ever so much desired, fell more and more towards nothingness.....I dare say that quarantine in England was never otherwise than lax. At all events, for many years past it has, in a medical sense, been abolished. Quarantine, meaning by the word a system which professes to prevent the entry into a country of persons from another country until assurance is attained that no infection can be introduced by those persons, is not now regarded by the English Medical Department as capable of fulfilling its pretensions; and its least failure to exclude infection is seen to make the whole system irrational, its cost and vexations unjustifiable. Accordingly, England, which long ago abandoned the system as of any avail against cholera, has now the consent of most European nations (as expressed by their delegates to the Vienna Conference of 1874) in preferring, for the defence of her ports, another system, which, under the name of "medical inspection," aims at obtaining the seclusion of actually infected persons, and the disinfection of ships and of articles that may have received infection from the sick. The details are set out in an order of the Local Government Board, in which provision is made for the detention of ships at appointed places, for the visiting and medical ex-

amination of ships and passengers, for the removal to hospital of persons suffering from suspected cholera, and for their detention, for the destruction of clothing or bedding, and for the purification of the ship. Ever since 1873, this country has been thoroughly prepared for the invasion of cholera. Mail steamers coming from India through the Canal in quarantine, and not touching at any infected port, would not be suspected by us. Steamers direct from Alexandria, where there has been one reported case, would, owing to the length of the voyage, also seem to be safe enough if no sickness had shown itself on the voyage.—Mr. O'DONNELL asked whether that form of quarantine which consisted in isolating cases of sickness had been condemned, or whether it was approved, and took the name of medical inspection.—Viscount FOLKESTONE asked whether the President of the Local Government Board would send down to the inspectors of ports orders to examine passengers.—Sir C. DILKE thought the object of the noble lord would be met by the issuing of a new order on the subject. With regard to the question of the hon. member, there was a great distinction to be drawn between the old quarantine and the medical inspection he had described. The old quarantine never could be enforced under ordinary conditions in this country, the idea of which was to exclude all persons coming from infected places until they had undergone a period of isolation. It was of course absolutely impossible to work the absolute quarantine system.—Mr. O'DONNELL asked the Under Secretary of State for Foreign Affairs whether it was true that at the meeting of the Alexandria Board of Health on May 14th, the English delegate, acting on instructions from Lord Granville, protested against action being taken with reference to subjecting vessels from Bombay to quarantine; and whether arrivals from Bombay continued to be free from quarantine.—Lord E. FITZMAURICE: It is not true that deaths from cholera at the rate of many hundreds a week were occurring in Bombay and vicinity in May last. At the meeting of the Egyptian Maritime Sanitary and Quarantine Board held on May 14th last, a resolution was passed by which arrivals from Bombay were subjected to quarantine. The British delegate voted against this resolution on the ground that the Bombay medical officers declared that cholera was not epidemic, and returned the number of deaths at 28 in a week. On this occasion Mr. Miéville acted on his own opinion in the matter, and not on instructions from Lord Granville. The quarantine so established continued till June 27th, five days after the first outbreak of cholera, when it expired without any interference on the part of Her Majesty's Government. On June 19th intelligence was received by the Netherlands Consul-General at Alexandria that cholera had been epidemic at Padang, Sumatra, since the 14th, and the same day the Board's regulations against cholera were ordered to be applied to arrivals from that locality. No information has been received as to a notification relative to cholera in Java; but subsequent to this date the Constantinople Board of Health decided to place pilgrims to Arabia from Java in quarantine, on account of the prevalence of cholera at Padang. As regards the last part of the hon. member's question, no information has been received, but at Sir E. Malet's suggestion inquiry has already been made.—Mr. O'DONNELL asked whether the noble lord would inquire how it was that his colleague, the Under-Secretary for India, had admitted that there were hundreds of deaths from cholera occurring in a single week in the neighbourhood of Bombay.—Mr. CROSS said that he had referred to cases which were not in the immediate neighbourhood of Bombay.—Mr. O'DONNELL asked the Under Secretary for Foreign Affairs whether cholera had broken out at Menzaleh and Tantah among fugitives from Damietta; whether the towns already affected by cholera contained a population of more than 300,000, and what was the number of troops and police at the disposal of the Egyptian Government for the complete isolation of so large a multitude; whether Her Majesty's Government had been notified by Ismail Hamdy Pasha, that the Egyptian Government possessed no adequate means of dealing with the infected population; whether upwards of 200 persons had been brought in from the country round Alexandria, and confined in the lazaretto at Mekx, on suspicion of being fugitives from cholera centres; and whether Her Majesty's Government would advise the recall of the Egyptian troops from the Soudan, or the employment of the British Army of occupation for the purpose of restraining the spread of the disease.—Lord E. FITZMAURICE: Yes, sir; it is unfortunately true, as I stated yesterday, that cholera has broken out at Menzaleh. I have not heard whether any cases have occurred at Tantah. It does not appear whether or not the outbreak of cholera at Menzaleh and other localities has been occasioned by fugitives from Damietta, but a report on the outbreak of cholera in Egypt, from Mr. Miéville, British Delegate to the Egyptian Marine, Sanitary, and Quarantine Board, is on its way to this country, and will be presented to Parliament as soon as it is received. I cannot inform the hon. member of the exact population of the infected district, nor of the exact number of police and troops at the disposal of the Egyptian Government for the isolation of the infected districts. Her Majesty's Government have not been notified by Ismail Hamdy Pasha, that the Egyptian Government possesses no adequate means of dealing with the infected population. I have no information as to the number of persons brought in from the surrounding country and confined at Mekx; it is possible that Mr. Miéville's expected report may contain these details. Her Majesty's Government will not advise the recall of the Egyptian troops from the Soudan, and have not directed the employment of the British Army of occupation for the purpose of restraining the spread of the disease. They attach more importance to sanitary precautions than to cordons of soldiers and police.—Sir W. BARTTELOT asked whether the attention of the noble lord had been directed to the following telegram, which had appeared in the *Times* of that morning from their Alexandria correspondent: "Alexandria, July 9th. I have received the following from Dr. Mackie, which I send without comment: 'There was one death from cholera yesterday evening, that of a European adult male. He had been formerly in good health, and had not been in an infected district, nor in contact with any infected persons, so far as he knew. The sanitary subcommission have made a visit of inspection to the slaughter-houses from which all the meat is supplied to Alexandria and the troops. They found them in a most filthy state, without proper means of flushing or cleansing. These slaughter-houses are the monopoly of a European company, but are under the local sanitary inspection. Acres of ground around them are full of unburied and half-buried *débris*, entrails, and carcasses, exhaling a most offensive odour. The animals are slaughtered and dressed in the rooms with open drains smelling abominably. The establishment is within a short distance of Ramleh, where are the barracks of the 46th Regiment. I am of opinion that it constitutes a source of danger to them when westerly winds prevail, or on calm nights.' The 46th Regiment has 116 sick, out of a total of 802."—Lord E. FITZMAURICE asked the hon. members to give notice of the questions to the Secretary for War.—Mr. HOPWOOD asked whether, notwithstanding the state of things referred to, the official bills of health did not describe the sanitary condition of Alexandria as being exceedingly good.—Mr. ECROYD asked whether the Government had received any information as to the truth of the report in the morning newspapers that there had been a serious outbreak of cholera in China.—Lord E. FITZMAURICE: No information has been received on the subject.

HOSPITAL AND DISPENSARY MANAGEMENT.

ST. ALBAN'S HOSPITAL AND DISPENSARY.

THIS institution is evidently doing a good work, and the committee deserves no ordinary praise for the enlightened spirit in which their charity is administered. It has become necessary to extend and improve the accommodation afforded by the hospital, and this subject is now engaging the serious attention of the committee. During the past year, 105 persons were admitted as in-patients; while only 65 had been received in 1881. The number of new out-patients during the year was 909. During the past few years, the number of out-patients has been decreasing. This, it is believed, is due to the establishment of a provident sick-club, the payments for which have, for the sake of convenience, been received at the dispensary. The committee very properly say in their report that they cannot regret this decrease, as it tends to show a greater disposition to thrift among the working classes. It would be well if all hospital committees were co-operating in a similar spirit with the provident institutions in their neighbourhood, and were equally willing to see their out-patients decrease in number, because habits of thrift were spreading in the neighbourhood.

THE MEDICAL PROFESSION AND THE FRIENDLY SOCIETIES' MEDICAL ALLIANCE.

WE alluded recently to the meeting of medical men which was recently held at Plymouth, to consider what course should be adopted towards the Three Towns Branch of the Friendly Societies' Medical Aid Alliance. Mr. W. N. Elliott, President of the Friendly

Societies' Medical Institution, has written to the *Western Morning News* complaining of the action taken by the meeting. "As to the charge that our aim is to cheapen medical services," says Mr. Elliott, "my reply is that our first aim has been to secure efficient medical attendance and good drugs, their cheapness being a very secondary consideration." If this be the case, and if cheapness be really a very secondary consideration, let the Friendly Societies' Institution adopt the same scale of payments as the leading provident dispensaries of the neighbourhood, and the difficulty will vanish. Medical men will then be glad to see habits of thrift extending among the working classes, and will be ready to aid them in every way. But if the evils of club practice are to be perpetuated, in an exaggerated form, by these medical institutes, the managers of such institutions must not be surprised if the profession, as a whole, regards them with great disfavour.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

MR. LOWSLEY OF READING, THE GUARDIANS OF THE WOKINGHAM UNION, AND THE LOCAL GOVERNMENT BOARD.

THE issue of the *Berkshire Independent* of June 28th contains the copy of a correspondence which has passed between a guardian and an overseer of the Wokingham Union, Mr. Lowsley, a local practitioner at Reading, the Wokingham Board of Guardians, and the Local Government Board, which is of some professional interest. It would appear that on January 7th of this year, an urgent letter was sent to Mr. Lowsley, requesting that he would give immediate attention to a poor woman who was suffering from puerperal convulsions. The letter was signed by Mr. John Winter, guardian, and Mr. Thomas Wilson, overseer. Armed with this letter, Mr. Lowsley promptly went; and although he did all he could by delivering the poor woman of a dead child by instrumental means, she subsequently sank and died, after some hours' attendance. Considering that the Wokingham board of guardians were legally bound to pay him for the service which he had rendered at the urgent call of one of their colleagues and their overseer, he sent a letter describing the difficult and dangerous character of the case, and preferred a claim of £2. The board are empowered to pay under such circumstances; but they declined to recognise this gentleman's services, and refused all acknowledgment of the claim he had set up. Thereupon Mr. Lowsley wrote to the Local Government Board, detailing the circumstances, and asking their interference. This the central Board declined to do, alleging that they had no power to intervene.

Mr. Lowsley is, for the present, left out in the cold; but we would point out to him that he has still his remedy, and that is, to sue either the guardian, or the overseer, or both, who requested his services. If he does this, we have no hesitation in recording our belief that he would get paid for his services.

Our contemporary the *Berkshire Independent*, in a very able and generous comment on the correspondence, points out very clearly how insufficient are the means provided by the Wokingham board of guardians for dealing with the necessities of their sick poor, and with justifiable severity enlarges on the gross injustice implied in requiring the services of medical men, and then meanly shirking all consideration. We suppose this will go on until a more decided stand be made by gentlemen engaged in general practice against these unfair exactions by the public, who seem to think that they are at liberty to call on anyone who has his name on a door-plate for any amount of sacrifice of his time and professional ability.

THE LOCAL GOVERNMENT BOARD FOR SCOTLAND.

THE Bill just introduced by the Home Secretary for the purpose of finding room in the Ministry for Lord Rosebery may be shortly described as a Bill for giving the Scotch Board of Supervision an ornamental head and a change of name. It does not appear to have been received by the Scotch members with the enthusiasm that Sir William Harcourt seemed to look for. Doubtless, the Scotch members are waiting, with the caution of their race, to see what assistance in the despatch of Scotch business the new appointment of President of the Local Government Board for Scotland is likely to be, before committing themselves to an opinion on the Bill. It is no part of our business to inquire into the administrative merits of such an appointment as is proposed; but, from the point of view of the conduct of business, it seems open to objection to have the chief administrative official residing for a considerable portion of the year hundreds of miles from the department over which he presides. The main features of the Government Bill are as follows. The Board is to consist of a President, with a salary of £2,000 a year, and, as *ex officio* members, the Lord President of the Council, all the principal Secretaries of State, the Chancellor of the Exchequer, and the Lord Advocate. The President of the Board, if not a member of the House of Lords, or a peer of Scotland, is to be capable of being elected a member of the House of Commons, and the presidency of the Board is to be one of those offices of profit, the acceptance of which in succession to another is not to vacate a seat in Parliament. The powers and duties of the new Board are to be those that are now vested in the Home Secretary, the Privy Council, and the English Local Government Board with respect to certain Scotch subjects. These matters relate to the poor-law, lunacy, Fishery Boards, registration of births, marriages, and deaths, vaccination, marriage notices, general police, borough police and improvement, division of burghs into wards, markets and fairs, prisons, public parks, county general assessment, turnpike accounts, roads and bridges, locomotives regulation, Glasgow police, sheriff courthouses, rivers pollution, burial grounds, food and drugs, contagious diseases (animals), artisans and labourers' dwellings, local taxation returns, alkali, vivisection, factories and workshops, industrial schools, reformatories, mines, public health, and loans by the Public Works Commissioners. One clause expressly declares that the Bill is not to prejudice or interfere with any rights, powers, privileges, or duties of the Lord Advocate.

THE appointment of Mr. Harris Butterfield to the health officership of the West Kent combined Sanitary district, rendered vacant by the resignation of Dr. C. O. Baylis, has now been officially confirmed. The appointment will be a distinct acquisition to the district, for in his capacity of medical officer of health to the borough of Bradford, a post which he has held since 1873, Mr. Butterfield has shown that he possesses, in a high degree, those qualities necessary for the proper management of large and populous areas.

DR. DAVID PAGE, of Kendal, who has for some time been designated as the new inspector of the medical department of the Local Government Board, in place of Dr. Thorne Thorne, promoted to be assistant medical officer, has now entered upon his official duties. Dr. Page has for a considerable period been health officer of a large district in Westmorland, and has thus acquired an intimate acquaintance with sanitary work.

DUTIES OF MEDICAL OFFICERS OF HEALTH.

SIR,—Is it usual, as the law now stands, for a medical practitioner to report to the medical officer of health of his district cases of infectious disease when they occur in his practice? and is it the duty of the latter to inspect the house and premises of the patient, to see that the proper disinfectants are used, and to make inquiries of the friends of the patient as to source of infection, etc.?—I am, sir, yours faithfully, G. R.

July 2nd, 1883.

*** As to the first question, we can only say that the general statute law has not imposed any obligation to report on the medical attendant, and it must be a matter for his own discretion whether he does so report or not. In some districts, much voluntary reporting of this description goes on. As to the second question, it is the duty of the health-officer to take all practicable means for ascertaining the causes and arresting the spread of infectious disease in his district, but not in such a way as to interfere in the medical attendant's treatment of the case. Hypothetical questions of this sort must be considered in connection with the actual circumstances which have prompted them, before a complete or satisfactory answer can be given to them.

OBITUARY.

INSPECTOR-GENERAL J. PAYNTER, M.R.C.S.Eng., C.B., J.P.

DR. PAYNTER, who served for many years as surgeon of the Rifle Brigade and 13th Light Dragoons, and was afterwards principal medical officer at Gibraltar, died on June 19th, at Tenby, South Wales. He served in the Kaffir war of 1846-47 with the Rifle Brigade; was surgeon of the 13th Dragoons on the occasions of the battles of Alma, Balaklava, and Inkerman; and as an administrative officer in the 3rd and 4th divisions during the latter part of the siege of Sebastopol. He was decorated with the medal of the Kaffir campaign, the Crimean medal, with four clasps, the 5th class of the Medjidie, and the Turkish medal. He was made a Companion of the Bath in May 1871.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners on the 6th instant, and, when eligible, will be admitted to the pass examination, viz.:

Messrs. W. S. Cunliffe, H. E. Winter, G. E. A. Evans, J. L. Thomas, and T. C. Pagden, students of St. Bartholomew's Hospital; J. J. Weaver, and G. H. Lang, of University College; H. D. Archbutt, and P. S. Webster, of the London Hospital; J. A. Ward, and E. S. Simpson, of Guy's Hospital; A. L. Marshall, and W. H. Brown, of the University of Cambridge; George Spear, of St. Mary's Hospital; G. C. Fitzgerald, of St. Thomas's Hospital; and O. J. Kauffmann, of the Manchester School.

Eight candidates were referred.

The following gentlemen passed on the 7th instant, viz.:

Messrs. R. G. Smith, Cecil Christopherson, and Robert Spear, of St. Bartholomew's Hospital; E. A. Farr, C. J. Cressy, E. B. Harris, and A. M. Jones, of Guy's Hospital; B. T. A. Robinson, F. H. Bonnefin, and W. C. Anstie, of University College; L. H. Smith, E. B. Chamberlain, and William Davis, of the London Hospital; S. W. Thompson, and C. D. Christmas, of the Charing Cross Hospital; W. J. Richardson, and A. H. L. Cox, of King's College; and R. S. Steman, of St. Mary's Hospital.

Four candidates were referred for three months, and two for six months.

The following gentlemen passed on the 9th instant, viz.:

Messrs. F. W. Gee, W. Harries, G. K. Pearson, C. J. Parson, and E. G. Blaxford, of University College; Robert Capes, E. S. Blake, G. H. Reynolds, and H. A. Reed, of Guy's Hospital; J. H. White, Montague Cheale, and J. W. Cockerill, of St. Bartholomew's Hospital; B. A. Lewis, Sanderson Mellor, and W. F. Pool, of the London Hospital; and Thomas Lyons, of St. Thomas's Hospital.

Eight candidates were referred for three months.

The following gentlemen passed on the 10th instant, viz.:

Messrs. E. H. Biddlecombe, C. P. Crouch, and Arthur Matthey, of St. Bartholomew's Hospital; H. O. Preston, R. G. D. Speedy, and G. H. Williams, of St. George's Hospital; Lancelot Bathurst, and G. E. Rawlinson, of St. Thomas's Hospital; C. D. Freeman, and A. H. Whicher, of the Charing Cross Hospital; J. E. N. Joly, and P. W. Fraser, of University College; W. J. Spoor, of the Middlesex Hospital; S. H. Seccombe, of Guy's Hospital; H. M. Wood, of St. Mary's Hospital; and W. D. Buncombe, of the London Hospital.

Six candidates were referred for three months, and one for six months.

The following gentlemen passed on the 11th instant, viz.:

Messrs. S. C. Buckland, Ifor Davis, and F. M. Sealy, of the Middlesex Hospital; John Wreford, J. G. Rusher, and T. E. A. Pearman, of the London Hospital; F. H. S. Raven, and D. T. Davies, of St. Bartholomew's Hospital; M. J. Finucane, of St. Thomas's Hospital; H. A. W. Coryn, of Charing Cross Hospital; A. J. Pickthorn, and R. C. G. Dill, of St. George's Hospital; and W. P. West, of Guy's Hospital.

Twelve candidates were referred for three months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 5th, 1883.

Beardmore, George Russell, Upper Street, Islington, N.
Bennett, Frederick Thomas, Instow, North Devon.
Burrows, Walter Horncastle, Cobden Road, Chesterfield.
D'Aguiar, Joao Gomes, Demerara.
Gostling, Thomas Preston, Lady Margaret Road, N.W.
Hentsch, George Frederick, Richmond Road, Barnsbury, N.
Kitching, John Lea Walton, The Infirmary, Derby.
Pauli, William Kirman, Luton, Bedfordshire.
Power, Henry d'Arcy, Charlwood Street, W.
Sutton, Henry Martyn, Lambeth Palace Road, S.E.
Whicher, James Charles Francis, Westcombe Park, Blackheath.
Willett, Edgar William, Great Ormond Street, W.C.
Wingrave, Thomas, Hemel Hempstead, Herts.

The following gentleman also on the same day passed his Primary Professional Examination.

Bradshaw, William Lucknow, Belfast Royal Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH OF SHEFFIELD.—Resident Medical Officer. Salary, £200 per annum. Application by July 17th.

BRIGHTON, HOVE AND SUSSEX THROAT AND EAR DISPENSARY, 23, Queen's Road, Brighton.—Honorary Assistant-Surgeon. Applications by July 29th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Application by July 30th.

CORK DISTRICT LUNATIC ASYLUM.—Second Assistant to Resident Medical Supe intendent. Salary, £100, with £50 in lieu of rations, per annum. Applications by August 6th.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Two Assistant-Surgeons. Salaries, £160 per annum (out-door). Applications to the Secretary, Mr. J. Bullivant, 58, Abbey Street, Derby, by July 24th.

DOWNPATRICK LUNATIC ASYLUM.—Assistant Resident Medical Officer. Salary, £100 per annum. August 4th election.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E. Dental Surgeon. Applications by the 24th instant.

GATESHEAD DISPENSARY.—Assistant-Surgeon. Salary, £120 per annum. Applications to Mr. J. Jordan, 2, Side, Newcastle-on-Tyne, by July 20th.

GLASGOW ROYAL INFIRMARY.—Physician to a New Department for Skin-Diseases. Applications by July 16th.

HOSPITAL FOR WOMEN, Soho Square, W.—Dispenser (Non-resident). Salary, £100 per annum. Applications by July 14th.

LEEDS PUBLIC DISPENSARY.—Medical Officer. Applications to Mr. H. B. Hewetson, 11, Hanover Square, Leeds.

LONDON HOSPITAL, Whitechapel.—Junior Assistant-Surgeon. Applications by July 17th.

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch.—Assistant Medical Officer. Salary, £150 per annum. Applications by July 25th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to Robert Calder, Secretary, 4, Commercial Court, 17, Water Street, Liverpool, by August 15th.

OWENS COLLEGE, Manchester.—Assistant Lecturer in Materia Medica and Pharmacy, and Curator of the Materia Medica Museum. Stipend, £120 per annum. Applications by July 18th.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Junior Resident Medical Officer. Applications by July 25th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Refraction Assistant. Applications by July 23rd.

SALOP INFIRMARY, Shrewsbury.—House-Surgeon. Salary, £100 per annum. Applications by the 27th instant.

STOCKTON-UPON-TEES HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £200 per annum. Applications by July 14th.

STRABANE UNION, Strabane Dispensary.—Medical Officer. Salary, £120 per annum, and £25 as Medical Officer of Health. Election, July 18th.

TORBAY HOSPITAL AND PROVIDENT DISPENSARY, Torquay.—Junior House-Surgeon. Salary, £90 per annum. Applications to W. H. Kitson, Esq., Hemsworth, Torquay, by July 16th.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer. Salary, £140 per annum. Applications by July 18th.

MEDICAL APPOINTMENTS.

BAKER, G. L., L.K.Q.C.P., appointed Resident Obstetric Assistant to the Westminster Hospital, *vice* P. Jackson, L.S.A.

BUTLER, G. E., M.R.C.S., appointed Junior House-Physician to the Westminster Hospital, *vice* H. Larder, M.R.C.S.

CLAPP, R., L.R.C.P., appointed Assistant Medical Officer to the Devon County Lunatic Asylum.

CORNISH, C. N., L.R.C.P., appointed Physician's Assistant to the Bristol General Hospital, *vice* H. L. P. Anstead, L.R.C.P., resigned.

FERGUS, S., M.D., appointed Medical Officer to the Armagh Union, Blackwatertown Dispensary, *vice* T. Martin, M.D., deceased.

FIRTH, Charles, M.D.Lond., F.R.C.S., elected Honorary Surgeon to the Gravesend Infirmary and Dispensary.

FRAZER, WILLIAM, M.D., appointed one of the Honorary Physicians to St. Mary's Home for Invalid Ladies, Bournemouth.

GLOVER, J. P., L.R.C.P., appointed House-Surgeon to the Cheltenham General Hospital, *vice* H. Ewbank, L.R.C.P., resigned.

HARDING, W., M.B., appointed Senior House-Surgeon to the Carlisle Dispensary and Fever Hospital, *vice* T. Larcher, L.R.C.P., resigned.

LAXTON, T. L., L.R.C.P., M.R.C.S., appointed Medical Officer and Public Vaccinator to the Fulstone District of the Huddersfield Union.

MACLEAN, C., M.B., appointed Medical Officer to the Pennygown and Torosay Union.

SWIFT, H., M.B., appointed Junior Resident Medical Officer to the Hospital for Sick Children, Great Ormond Street, *vice* M. Read, M.B., resigned.

TAYLOR, H. E., M.R.C.S., L.S.A., appointed Assistant-Surgeon to the Eye and Ear Hospital, Bradford, Yorkshire.

WALFORD, EDWARD, S.Sc.C.Camb., reappointed Medical Officer of Health to the Urban Sanitary District of Ramsgate for a period of three years.

WARREN, F. W., M.B., appointed Surgeon to the Adelaide Hospital, Dublin, *vice* B. W. Richardson, F.R.C.S., deceased.

WILLIAMS, T. H., L.R.C.P., appointed House-Surgeon to the Denbighshire Infirmary, *vice* J. J. Lloyd, L.R.C.P., resigned.

WILSON, J., M.D., appointed Medical Officer to the Castleblayney Union, to the Workhourse and Fever Hospital, *vice* S. Gilmore, L.R.C.P., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

HOWE.—On July 5th, at Castle House, Llanidloes, Montgomeryshire, the wife of J. Howe, L.R.C.P., L.R.C.S., L.M.Ed., of a daughter.

MARRIAGES.

CLARKE-TAYLOR.—July 5th, at St. Stephen's, East Twickenham, by the Rev. W. M. Johnstone, M.A., vicar, assisted by the Rev. John Bell, M.A., and the Rev. B. Savory, B.A., of St. George's, Hanover Square, Ernest Clarke, M.B., B.S., of 21, Lee Terrace, Blackheath, to Kate Litton, second daughter of John Hirst Taylor, Esq., of Cambridge Park, Twickenham, and late of Grove House, Windermere. No cards.

COLLIER-MOORE.—July 5th, at Limavady, by special licence, John T. Collier, M.D., M.Ch., of Lincoln, to Melinda, daughter of George Moore, Esq., of Limavady.

DEATH.

TYLECOTE.—On July 6th, at Saudon, Staffordshire, Emily Sarah, wife of J. H. Tylecote, M.D.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

PLUMBING AND DISEASE.

MR. ERNEST HART will feel much obliged by any references to or copies of reports concerning epidemics due to imperfect house-drains or bad plumbing work, as well as by copies of any local regulations, made under by-laws or private Acts, for ensuring proper supervision over plumbers.

MEDICAL BOOK-KEEPING.

SIR,—I was much struck the other day, at the house of a general practitioner, and a little amused, at the long and laborious system of keeping his accounts, which he tells me is the one commonly in use. He had a visiting-list of six hundred patients, which he *re-wrote weekly*, and from which he entered up his day-book nightly, giving the same details in both books. He analysed the latter monthly on large sheets of paper (another repetition), and from these sheets he posted his ledger. The cash appeared in the day-book and visiting-lists also. He complained bitterly of the labour, and asked me to send some suggestions to your JOURNAL. After keeping books for thirty years, it seems to me that it is only necessary for a medical man to keep two books.

1. An index containing an alphabetical list of names and addresses, with sufficient space left against each name to enable him to copy in prescriptions or make notes; or an ordinary index for names only, writing copies of prescriptions on slips or on multiplex paper, giving them a number and filing them.

2. The nature of the second book renders unnecessary the day-book, cash-book, analysis-sheets, and ledger.

I forward a form to illustrate how my system would work. Cash and visits would be posted straight to this book daily, which might be cross-cast at any time, and the totals carried forward to the end of the quarter. The total on the last page of the quarter would show total work done for three months, total cash received for book-debts, total ready money received, total work done for each patient and amount paid by him, and balance against each patient, and also money received relating to a previous quarter. A separate line should be kept for ready money received, at the end of the names, as shown in the specimen page herewith. As a page would hardly accommodate more than forty names, the book would be divided into so many parts, one for each forty, with consecutive numbers to the pages to suit the index; or there might be a number of books, one for each forty, instead of one large one sub-divided.

It seems to me that this would meet every requirement; but, of course, it might be modified to suit particular cases. I should be gratified to know that these suggestions have been of any service to the profession.—Yours obediently,

J. A. DOW.

City, July 9th, 1883.

MEDICAL PROVIDENT ASSOCIATION.

THE names of Dr. Casey (Windsor) and Dr. Trend (Southampton) were by an error inserted in the list of adherents to the proposed Medical Provident Association published last week.

AN APPEAL.

SIR,—Perhaps you will kindly insert this appeal in your next issue. The case is a really distressing one. The late Dr. Stewart conducted an extensive, but very poorly remunerated practice, in a widely scattered parish in the extreme north of Scotland. He was seized with double pneumonia on June 15th last, and died three days afterwards, leaving his family totally destitute. I am sure that when these facts are known to many of the more opulent members of the profession, they will subscribe towards the fund now being raised to assist his widow and children in their dire misfortune. Perhaps you will receive any subscriptions which may be sent in, and forward them to the Rev. James McPherson, The Manse, Canisbay, Caithness, N.B.—Yours faithfully,

Burton House, Great Yarmouth, July 3rd, 1883. ALEX. MITCHELL.

MEDICAL PUBLISHERS.

DR. FOTHERGILL'S work, *Indigestion, Biliousness, and Gout*, is published by Mr. H. K. Lewis, and not by Messrs. Baillière, Tindall, and Cox, as stated in a recent number of the JOURNAL. Mr. Berkeley Hill's work, *The Essentials of Bandaging*, and Messrs. Hill and Cooper's work on *Venereal Diseases* are now also published by Mr. Lewis, and not by Messrs. Smith, Elder and Co.

THE SUNDERLAND CATASTROPHE.

SIR,—The somewhat hurried communication I recently sent you (p. 1291) contains, I am sorry to say, an error, which, with your kind permission, I should like to correct. I may first explain that my statements of the internal arrangements of the hall were made from memory; but from a visit which I paid on Saturday, June 30th, I personally ascertained that the doors leading out of the dress-circle and the body of the hall are all swing-doors, and so far I was incorrect in saying that they opened inwards. In every other respect, the facts are as I stated them to be.—I am, sir, yours truly,

27, John Street, Sunderland, July 2nd, 1883. JAMES BARRON.

LOCUM TENENS.

SIR,—A correspondent writes to a contemporary to inquire whether there is a medical agency in Ireland through which locum tenentes, assistants, etc., could be secured. As there is no such agency in Ireland I shall be glad to furnish the names, etc., of several highly qualified gentlemen for such positions who, while awaiting appointments, are constantly reading in the library of this College.—Yours, etc.,

G. F. BLAKE, Assistant Librarian, Royal College of Surgeons, Dublin.

July 4th, 1883.

SALOP INFIRMARY.

THE election to the vacant post of house-surgeon of the Salop Infirmary will, we are asked to state, be in the hands of the directors, the medical staff, and twenty-five chosen trustees—forming a special board. The old plan of advertising in the local papers, and soliciting the votes of the subscribers—an expensive and troublesome process—is entirely abolished.

Poisonous Pigments.

After our article on this subject had gone to press, the secretary to the committee of the National Health Society received a communication from the Foreign Office, in which Mr. Sackville West, H.M. Minister at Washington, stated that there were no federal laws on the use of poisonous pigments, and that the authorities of thirty-three of the forty-six States and Territories informed him that none whatever existed in their respective districts. From private information, the secretary finds that there are no restrictions imposed by the laws of Belgium.

An Unqualified Assistant.

The following advertisement, extracted from the *Birmingham Daily Post*, has been sent to us from two correspondents for publication.

"A Medical Student.—For the information of those of our readers who may not know Mr. S. E. L. Smith, medical assistant to J. J. Hues, surgeon, of Park Road, Aston, and Handsworth, and medical student of Queen's College, Birmingham, we may state that we have before us a large number of testimonials to that gentleman, some of which we publish, extending over a period of thirteen years, which speak of Mr. Smith in terms of the highest praise. Dr. R. A. Cotterell, of West Bromwich, whose assistant Mr. Smith was, speaks of him as 'perfectly familiar with the performance of surgery duties, a faithful and clean dispenser, a pleasing visitor, and a good and cautious accoucheur.' Mr. Hues writes as follows of Mr. Smith: 'I have much pleasure in stating that Mr. S. E. L. Smith has been my faithful and valued assistant for upwards of six years. (Signed) J. J. Hues, L.R.C.P. and M.R.C.S. (England).' There are also testimonials from Mr. W. Gibson, surgeon; Mr. J. H. Clay, surgeon, Birmingham; Mr. A. Whitehead, surgeon, Edgbaston; Dr. Drever, Winson Green; Mr. T. G. Vaudrey, L.R.C.P.(London), M.R.C.S. (England)."

Our correspondents desire that we should ask whether such an advertisement was inserted with the view of inviting attention to the merits of a gentleman who (it is alleged), though unqualified, is in charge of Mr. J. J. Hues's branch practice, or for what legitimate purpose.

Melancholia.

Sir,—Will you permit me to state, in answer to "E. W.'s" inquiry, that his patient may be treated at her own home, so long as she is there kept under proper care and control, and not cruelly treated nor neglected; and that, as the husband presumedly does not derive any profit from such charge, this may be without any order and medical certificates; but I would advise "E.W.," if only for his own protection, to insist that the husband or other proper person, in the same manner not deriving profit from such charge, be actually resident, and take the responsibility of all acts that may be necessary for the well-being of his patient.

If "E. W." be of opinion that his patient is now actually dangerous, or that, for other reasons, she cannot be in this way properly treated, I apprehend that his wisest course will be to formally give the husband notice of this, and even, if necessary, to report the case to the Commissioners in Lunacy.

Undoubtedly, many very severe cases of melancholia are successfully and happily treated in their own homes.—I am, sir, your obedient servant,

Brooke House, Upper Clapton, July 2nd, 1883. J. O. Adams, M.D.

Unqualified Practitioners.

Sir,—Will you allow me to suggest the substitution of a clause, like the following, in the Medical Acts Amendment Bill, instead of Subclause 3 of Clause 27, which is appended as a note to the letter of Dr. Parsons, of Bristol, in last Saturday's Journal?

"Any person who shall assume the possession of any degree or title registerable under this Act, or who shall practise medicine or surgery for gain, without being duly registered, shall, upon a summary conviction before two justices of the peace, be convicted in a penalty not exceeding £20, or equivalent imprisonment."

Past experience proves that nothing but a penal clause like this, will prevent the practice of medicine by unqualified persons.—I am, sir, your obedient servant, W. Webb, M.D., President of the Midland Branch.

Wirksworth, July, 1883.

One of Them.—Clause 69 of the new Medical Bill provides: "This Act shall not make illegal the use by any person, after the passing thereof, of any medical title which he was actually using, and was entitled to use, at the date of the passing of this Act." The Bill will have no retrospective effect on the rights and privileges of existing medical authorities.

Moist Hands and Feet.

Sir,—Your correspondent of a week or two since will find the following formula a valuable application to moist hands and feet. ℞ acidi salicylici, ʒij; naphthol, ʒij; pulv. amyli, ʒiv; misce et adde olei eucalypti, ʒij; pulv. terræ cimoliæ (Taylor's), ʒiv. The parts should be previously washed with 20 per cent. carbolic soap.—I am, sir, yours very truly, C. J. Boyd Wallis.

23, Brook Street, Grosvenor Square, W., July 2nd, 1883.

Lewis's Histological Labels.

Mr. Lewis, of Gower Street, has printed, on a gummed sheet of paper, the various labels that are likely to be required in a class of practical physiology, by teachers or students. They will be found useful for the purpose for which they are intended.

Treatment of Gouty Dyspepsia.

Sir,—Will any medical brother kindly advise me as to the treatment of the following case? A gentleman, aged 50, in whose family gout is hereditary, and who frequently suffers from gouty dyspepsia, has for some time been under my care for the above complaint, accompanied by a considerable amount of debility, irregular action of the heart, great lassitude, etc. The temperature is remarkable: during the greater part of the day it is slightly subnormal, but about 9 P.M. it begins to fall, and by 11 P.M. it generally ranges from 96.2° to 96.7°; this fall is followed by buzzing in the head and ears. With a view to keep the temperature from falling, I have tried quinine, digitalis, Easton's syrup, arsenic, maltine, with the phosphates of iron, quinia, and strychnia, and various other nervine and general tonics, but hitherto without much success. I may also state that about twenty years ago my patient had an attack of Greek fever when at Malta. L.R.C.P., M.R.C.S.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. H. Cumberland Taylor, Jersey; Mr. Shirley F. Murphy, London; Mr. Henry Greenway, Plymouth; Mr. J. S. Parkes, Swinton, near Manchester; Mr. J. A. Dow, London; Dr. F. P. Atkinson, Kingston; Truth; Dr. George A. Hetherington, St. John's, Canada; Mr. E. Lister, Swarthdale, Ulverston; Mr. E. Watford, Ramsgate; Dr. Ralfe, London; Dr. Norman Kerr, London; Mr. R. Vacy Ash, London; Dr. James Yates, Oldham; Mr. Malcolm Webb, Cheadle; Dr. J. M. Finny, Dublin; Dr. Joseph Rogers, London; Dr. Hilton Fagge, London; Mr. Thomas Benjamin Luscombe, Teddington; Mr. J. P. Gaunt, Alvechurch; Dr. C. H. Robinson, Dublin; Dr. J. Middleton, Torquay; Mr. C. B. Keetley, London; Mr. Arthur Graham, London; Mr. R. H. Milson, Durham; Mr. A. F. Clay, Birmingham; Messrs. Challis and Priest, Brighton; Mr. T. B. Curling, Brighton; Mr. T. Stone, London; Our Aberdeen Correspondent; Mr. Sidney Thorp, Halstead; Mr. E. White Wallis, London; Dr. Manson Fraser, London; Mrs. Reid, Glasgow; Mr. A. Jackson, Sheffield; Mr. Gordon Jackson, London; Dr. J. W. R. Tilanus, Amsterdam; Dr. F. Beach, Darenth; Dr. J. Kennedy, Elie, Fifeshire; Dr. William Frazer, Bournemouth; Mr. J. Brindley James, London; Mr. Claudius O'Donel, Mullingar; Mr. T. W. Haslehurst, Claverley; Dr. W. H. Giddings, Calverley; Mr. S. B. Mason, Pontypool; Mr. Robert Jones, Liverpool; Messrs. Oetzmann and Co., London; Mr. R. T. Allan, London; Dr. Eddowes, Shrewsbury; The Secretary of the Netherfield Institution of Infectious Diseases; Mr. Reginald Harrison, Liverpool; Mr. James Arthur, Ferryhill, Durham; Dr. R. Carnley Smith, Ardwick, Manchester; Dr. Paul, London; Mr. William Bourne, Liverpool; Mr. J. Vesey Fitzgerald, London; Dr. Ffrench Blake, London; Mr. Alexander Anderson, Belfast; Mr. Crossman, Bristol; Dr. Dawson Williams, London; Dr. H. Mac Cormac, Belfast; Mr. J. M. Hardcastle, Dumfries; Mr. J. Milward, Cardiff; Dr. C. West, London; Mr. T. Litton Taylor, Twickenham; Mr. Hardman, Blackpool; Mr. Darwin Gisborne, Marden; Dr. Ransome, Bowden; Mr. W. T. Ansell, London; Mr. Edward Casey, Windsor; Dr. Imlach, Liverpool; Mr. Thomas M. Watt, Horningham; The Secretary of the London Sanitary Protection Association; Mr. Wm. Hitchman, Liverpool; The Secretary of the South Wales and Monmouthshire Branch; Mr. Simpson Powell, Newcastle-on-Tyne; Dr. Atthill, Dublin; Mr. Edwin Goadby, Clifton; Mr. W. Alpin, Abingdon; Miss Kate Prentice, London; Dr. Oliver, Harrogate; Dr. A. Drummond Macdonald, Liverpool; Mr. Charles Mercier, Greenhithe; Mr. Charles Roberts, London; Mr. S. J. J. Kirby, Grays, Essex; Mr. Leonard W. Sedgwick, London; Mr. John Furley, London; Dr. A. Waters, Liverpool; Mr. T. W. Trend, Southampton; Mr. John Clare, Hanley; Mr. F. Gillett, Southsea; Dr. Hare, London; Dr. Dunns, Southsea; Dr. Sawyer, Birmingham; Mr. Herbert H. Meyer, Hoxton; Mr. J. T. Hurst, London; Mr. J. S. Abraham, Dublin; Mr. Barri L. Tandy, Haverhill; Mr. W. Rogers Williams, Enfield; Mr. W. F. Phillips, Andover; Dr. Mackie, Alexandria; Dr. Grant Bey, Cairo; Mr. R. Alford, Weston-super-Mare; Mr. C. B. Lockwood, Leeds; Dr. Macpherson, London; Income Tax; Dr. B. J. Guillemard, Southsea; Members of the South-Western Branch; Dr. J. Brydon, Hawick; L.R.C.P.; Dr. Pearse, Haslemere; Dr. W. T. Watson, Tottenham; Mr. M. D. Makuna, London; Mr. W. H. Stickland, London, etc.

BOOKS, ETC., RECEIVED.

On the Treatment of Wounds and Fractures. By Sampson Gamgee, F.R.C.S.E. With Forty-four Engravings on Wood. Second Edition. London: J. and A. Churchill. 1883.

The Mother's Guide to the Management and Treatment of Infants. By J. Keating, M.D. In great part Rewritten and Revised throughout by Armand Semple, B.A., M.B. London: H. Kempton, 82, High Holborn.

Practical Histology and Pathology. By Heneage Gibbes, M.D. Second Edition. London. H. K. Lewis. 1883.

A Handbook of the Theory and Practice of Medicine. By Frederick T. Roberts, M.D., B.Sc., F.R.C.P. London: H. K. Lewis. 1883.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE "BRITISH MEDICAL JOURNAL".

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Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office, High Holborn. Small amounts may be sent in postage stamps.

AN ADDRESS
ON
ALCOHOL AND ON DRAINAGE.

Delivered at the Annual Meeting of the South Midland Branch.

By R. H. KINSEY, M.R.C.S.,
Surgeon to the Bedford General Infirmary; President of the Branch.

GENTLEMEN,—To you, the members of the South Midland Branch, who have conferred on me to-day the honour of electing me your President, I beg to return my warmest thanks; and, together with my friends in Bedford, rejoice in having once more an opportunity of social meeting and profitable discussion.

And, in the name of all the members of our Branch, I give a hearty welcome to those gentlemen of the Cambridge and Huntingdonshire Branch, who have so cordially responded to our invitation to join us, and see, with the greatest pleasure, among us so many of those whose lifelong endeavour has been, by their zealous pursuit of science, by their ardour in research, and by their enthusiasm in teaching, to restore to an ancient University its School of Medicine; and who now, by the excellence of their work, are successfully striving to restore Medicine to its legitimate and dignified position by the side of Theology and Law.

It is the custom and privilege of the President, on these occasions, to give an address to the members. I will not detain you to express my sense of unfitness; and if this do not make me entirely forego the privilege, it is because I believe that every one so placed is called upon to show in some way with what seriousness and with what loyalty he looks upon the duties of his professional life, and the interests which are thereby entrusted to him.

It is not my intention to dwell on general topics. I wish to make some observations on two questions which, at the present time, are frequently before us.

The first of these is alcohol. Alcohol, chemically, holds an intermediate position between the carbohydrates and the fats. It resembles them, in that it undergoes combustion in the body, furnishing warmth. It helps to sustain life, when taken together with other food, and is only excreted when given in excess. But, far beyond this, alcohol exerts a power over the mental functions and the moral faculties of men, which convinces us of the futility of resting satisfied when we have merely compared it with other substances as an article of diet, or given it a place in our *Pharmacopœias* as one among many other of our medicinal agents.

In the United Kingdom, nearly £130,000,000 are spent upon it annually, and almost as much more must be added as the indirect cost of drinking. Out of 80,000 persons taken into custody in London in one year, 30,000 were taken in consequence of drink.

In the Report of the Lunacy Commissioners, January 1st, 1881, it is stated that there were 73,113 persons of unsound mind in our asylums, and intemperance was reported to have been the exciting or predisposing cause in 12.6 per cent. of the new admissions. Of the pauperised class, we have between two and three millions, costing the country about twenty-five millions of money annually; and a great proportion of this poverty is hereditary, and due to drunkenness and profligacy.

When to this we add the experience of all present of the misery caused in families of every rank, of the blighted lives and ruined prospects, of the degradation and wretchedness which it causes, we begin to realise how vast a power for evil is alcohol in our own land.

Now, if we compare this country, with its 35,000,000 of inhabitants, and its 180,000 persons pursuing the traffic in drink, with Sweden, a country whose population numbers just one-tenth of our own, we find that there there are only 450 places for the sale of spirits, and that that little country, which, thirty years ago, was the most drunken in Europe, has, under the influence of wise restrictive legislation, emerged from moral and material prostration, and is now showing signs of comfort and independence among all classes. (Hoyle.) Seeing this, we cannot wonder that there should be a great endeavour to check the evil which is so great a curse to our country. But, greatly as we deplore the evil, and warmly as we sympathise with those who are grappling with it, we cannot but regret that many of their arguments are unfair and inconclusive, and we fear that in denying too much they may injure the cause they wish to serve. Recognising, then, the vastness of the evil on the one hand, and on the other, regarding the attempt to deny that any advantage can be derived from alcohol, I wish briefly to survey the question, to consider some of the conditions under which it is useful, some under which it is injurious, and to urge the necessity of strict and rigid moderation.

Is alcohol food? In many respects, it resembles sugar, which certainly is a food. It was long denied that alcohol underwent combustion in the body; but the latest experiments of Dr. Dupré confirm those of Anstie, and prove that "the amount eliminated in both breath and urine is a minute fraction only of the amount of alcohol taken," that is, unless the quantity be excessive. We may, then, infer that alcohol undergoes oxidation in the body, and that force is liberated. We have no proof that it is stored up; and, according to the experiments of Dr. Frankland, the burning of one gramme of alcohol yields sufficient heat to raise seven litres of water 1° Cent., and the burning of one gramme of cod-liver oil suffices to raise nine litres 1° Cent. That is to say, three tablespoonfuls of oil yield about the same amount of warmth to the body as four tablespoonfuls of alcohol; but the alcohol is more easily assimilated than the oil. But, though there are conditions under which, from its high diffusion-power, alcohol is undoubtedly useful—as, *e. g.*, in fevers—wide and repeated experience proves that in health it is not a necessary, nor even an useful, article of diet. It diminishes the power of the blood-cells to carry oxygen; though easily burnt itself, it prevents the combustion of other substances; it thus depresses functional activity, while it lessens waste. It has been well compared in its action to sulphur, which, when put together with other substances, might burn itself, but would prevent their combustion by the formation of sulphurous acid.

In a concentrated form, alcohol coagulates albumen; it thus hardens the skin, and has an astringent effect on mucous membranes. If a very large quantity be taken at a draught, the effect may be similar to that of a blow upon the large sympathetic ganglia; and an immediately fatal result may ensue from paralysis of the heart. But, short of this, delirium tremens may be produced by a single debauch, or by habitually taking excessive quantities, which may or may not have caused drunkenness.

The mortality of the intemperate is greatly increased, especially from diseases of the head and digestive organs. The relative probabilities of living are as follows (Neison's *Vital Statistics*).

Of a Temperate Man.		Of an Intemperate Man.
At 20 = 44.2 years	.....	At 20 = 15.6 years
„ 30 = 36.6 „	.....	„ 30 = 13.8 „
„ 40 = 28.8 „	.....	„ 40 = 11.6 „
„ 50 = 21.25 „	.....	„ 50 = 10.8 „
„ 60 = 14.28 „	.....	„ 60 = 8.9 „

Not only early death, but premature old age, is brought on by indulgence.

The brain, its membranes, and its blood-vessels, suffer; neuralgiæ, terrifying hallucinations, and various forms of lunacy are developed.

Alcohol has been truly called the "genius of degeneration;" and its startling effects are seen most frequently in gastritis accompanied with constipation; in enteritis with diarrhœa; in cystic degeneration or atrophy of the peptic glands, and increase of the interglandular connective tissue; in fatty or fibrous degeneration of the liver; in chronic bronchitis and lobar emphysema, or in acute pleurisy or pneumonia; in congestions of the pharynx and larynx, with hoarse whispering voice; in atheroma of arteries, with liability to rupture. The conjunctivæ become red or jaundiced; the skin greasy and coarse, affected with the hypertrophic form of acne rosacea and other eruptions. These and other diseases are the lot of the intemperate; but such shorten not only their own lives, and disturb their own mental equilibrium; they also transmit dire evils to their children. One of the worst of these is the unnatural craving for drink. In the Fourteenth Annual Report of the Fort Hamilton House for Inebriates, it was stated that 44 per cent. were the children of drunkards. Other inherited evils are arrests of development during fœtal life; at later periods, uncertain temper, inaptitude for work, nervous irritability, and epileptic seizures.

So far, we have considered only the effects of great excess. When alcohol is taken, as it frequently is, by people who consider themselves moderate, the first effect is upon the mucous membrane of the mouth; the impression thence conveyed to the salivary glands increases their secretion. At the same time, the effect on the branches of the fifth nerve stimulates the circulation in the brain in the same way as it is increased by the taking of snuff, or by scratching the head

or stroking the beard when puzzled.[1] The fluid then reaches the stomach; and here it is not known what changes alcohol produces, nor at what rate it is absorbed; but it seems to be equally distributed over the body, and to pass out quickly, being eliminated chiefly by the lungs and skin. From the stomach, it exerts a reflex action on the cardiac and vaso-motor centres. The heart beats more quickly; the vessels relax, especially those of the surface.

The mucous membrane of the stomach, which in health is pale and velvety, and covered with a thin transparent viscid secretion, on taking food becomes reddened, by the influx of a larger quantity of blood; gastric juice is freely poured out, and digestion proceeds. When, from want of tone or from fatigue, or other causes, the functions of the stomach are in abeyance, a small quantity of alcohol, well diluted, will often stimulate both its movements and secretions, and restore its digestive powers. But, if there be an excess in the amount taken, then, instead of gastric juice, a ropy mucus is secreted, and digestion is arrested.

Alcohol has the property of precipitating pepsine. Dr. Richardson, in some experiments on artificial digestion, found that one per cent. of alcohol was enough to retard the process. Others have found that a much larger amount had no such effect; but all such experiments out of the body are unsatisfactory; and we know, from the observations on Alexis St. Martin, that, when the quantity of alcohol was too large and too often repeated, the stomach lost its smooth and healthy appearance, and presented large patches of erythematous inflammation, the secretions were vitiated, and the food remained undigested and was often vomited.

The general symptoms produced are: dryness of mouth, furred tongue, thirst, and accelerated pulse; and, gradually, a chronic catarrhal condition is set up.

Again, alcohol may interfere with the necessary reduction in the liver of the products of digestion; and these, passing through unchanged into the general circulation, cause the depression and low spirits from which persons sometimes suffer two or three hours after meals, and which are recognised as symptoms of hepatic indigestion.

The effect on the brain varies greatly. In some, irritability is diminished, excitement is calmed. These take it to enable them to face any severe ordeal: for courage, for presence of mind, for steadiness of hand. Thus, it is told of a late eminent surgeon that he was in the habit of taking a dose of opium before operating. In some, pain is allayed, sensibilities are deadened; they take it to obtain rest from harassing care and feverish anxiety, to soothe their aching nerves and weary spirits. Repose is what they seek; and they find it in the sedative influence of alcohol, in the same way that persons in warm climates, in the East and South, take opium and Indian hemp. In those climates, the other effects of alcohol are less desired; the cheerful sunshine and high temperature keep up a free cutaneous circulation, and are sources of comfort and exhilaration.

In others, the more rapid circulation through the brain and the vessels of the surface produces feelings of warmth and comfort; the bodily functions seem to be carried on more easily; imagination is excited; thought and speech are rendered more free and ready. "Their blood, no longer cold, gives mighty pulses." The sense of strength and vigour thrills them with delight; they feel themselves endowed with higher capacities. This is the stimulating effect of alcohol. But there is danger in both. The calm of the one, the strength of the other, is too often deceptive. It is easy to go too far, and to have a reaction, which more than counterbalances the fancied gain. The musician who steadies his nerves by alcohol, by the same agent blurs his notes; the writer who gains in fluency at night, condemns his own work in the morning.

So with those who take alcohol for its stimulating effect. It was found by Dr. Parkes that, when four ounces of brandy were given three times a day at intervals of four hours to a healthy man for three days, it entirely destroyed the power of work. The effect of the spirit was to bring on palpitation and breathlessness. After the first dose the man said "the brandy seemed to give him a kind of spirit which made him think he could do a great deal of work, but when he came to do it he found he was less capable than he thought." On the third evening, the condition of his circulation obliged him to stop altogether; and, says Dr. Parkes, "the inferences were, that even any amount of alcohol, although it did not produce symptoms of narcosis, would act injuriously by increasing unnecessarily the action of the heart which the labour alone had sufficiently augmented;" and he goes on to say "iron-puddlers, glass-blowers, navvies on piecework, and prize-fighters in training are found to do their work more easily without alcohol."

In Ashantee, when rum was served out on the march, it temporarily removed the sense of fatigue; but this returned after a short interval, which became shorter each time the ration was repeated, and eventually it was found better to give it when the day's work was over.

The sense of increased strength is from the blunting of the nervous system; the power of co-ordination is diminished, the senses of sight, hearing, taste, and touch, are all said to lose their keenness.

Another reflex action of alcohol is that which is produced on the skin by the dilatation of its blood-vessels. In consequence of this, the impression made by the warm blood upon the peripheries of the nerves gives the sensation of warmth, whatever the temperature of the interior may be; the sensations of heat and cold, as the case may be, being for the most part derived from the condition of the skin. Thus, in ague, the patient feels cold when the interior of the body is much above the normal, and thus a false impression has arisen as to the warming effect of a stiff glass of grog. By this action of alcohol on the skin, the glass of grog may produce sleep in a person turning in after exposure to cold, for the dilatation of the vessels of the extremities draws away the blood from the brain, and this is the condition of slumber; and on the other hand a man who may have been indulging without showing any signs of intoxication may become drunk on going out into the cold, by the contraction produced by the sudden impression of the external air and the concentration of the spirit-charged blood in the internal organs, including the brain and spinal cord.

In climates where the cold is extreme, alcohol is said to be dangerous. Under the influence of the cold, the blood being driven inwards and circulating in the vital organs keeps up the temperature in them, the skin and subcutaneous tissues acting as non-conductors and preventing the body from being chilled. Thus whales are protected in Arctic seas by their blubber; and thus is explained the success of a well-nourished man like Captain Webb in swimming across the Channel, and the failure of others who were thin and spare.

Dr. Lauder Brunton tells us that Canadian lumberers have practical knowledge of these effects; and they are well-illustrated by a story which he relates of a party of Americans who had to camp out at a great elevation when crossing the Sierra Nevada. Some of them took no alcohol, lay down cold and uncomfortable, but awoke in health; others drank moderately, went to sleep comfortably, but arose wretched and miserable. The remainder drank freely; the cutaneous vessels became relaxed, the blood circulating through them came in successive waves into contact with the cold external air, and returned chilled to the interior of the body, and this went on until the temperature was reduced to a fatal degree.

But this does not coincide with the Arctic experience of Nordenskiöld in the *Vega*, whose daily allowance to each of his crew was "two cubic inches" of brandy or rum, nor with that of Leigh Smith in the *Æira*, nor with that of Mr. Brudenell Carter when encamped on the swampy banks of the Poti; and a medical friend, who was in the Crimea, tells me that during the first winter, which was a very severe one, and which was passed under canvas, there was nothing to eat excepting salt-junk and ship's biscuit, and these only in very limited quantities; and no cocoa, tea, or coffee, except green coffee-berries, which could be neither roasted nor ground; and he believes that they could not have lived through it but for the excellent rum and tobacco which were served out. The next winter, when the food was better and more abundant, the craving which they had had for the rum disappeared.

In countries where the heat is great, the cutaneous circulation is free, perspiration is profuse and rapid, and evaporation keeps down the temperature of the body, the use of alcohol tends to exhaustion. Soldiers are found to endure more fatigue and to have far better health when no spirit-ration is served out; and some of the most arduous marches have been made, the most protracted sieges sustained, and the greatest hardships endured, when no fermented liquids could be procured.

It is certain that in good health alcohol is unnecessary, and may, under many conditions, be injurious. What are some of the circumstances under which it may be beneficial?

It is said that in disease every medical man thinks it most indispensable in that department in which he has most experience; the physician in fevers, the surgeon after operations, the obstetrician in hæmorrhage. In fever, where the temperature is too high and waste too rapid, alcohol in considerable quantities serves to lower the one and prevent the other. It may also act as an anti-

[1] Dr. Lauder Brunton, "On the Influence of Stimulants and Narcotics on Health" (unpublished proof of article in *The Book of Health*).

septic. Professor Binz injected putrid matter under the skin of two dogs of equal size, and both, in consequence, had a high degree of fever; one to which he gave no alcohol died the next day. When the temperature of the other was at the highest, he gave it ten cubic centimètres of alcohol with water. The temperature immediately fell, and continued to do so for two hours, and then rose again. A second dose of alcohol again reduced it for a time, and then again it rose; a third dose brought it down once more, and then the animal recovered (Brunton). Mr. Brudenell Carter quotes the experience of Dr. Braun, who for some time lost forty-five per cent. of the eyes on which he operated, for cataract, among ill-fed Russian peasants. After failing with tonics, he tried brandy and wine for a few days in each case, and after a year's trial the forty-five were reduced to six, of whom three partially recovered.

Again, in wasting diseases it is undoubtedly useful, and in convalescence from acute disorders.

Assuming, then, the great value of alcohol in illness, there are also many persons, under unfavourable conditions, or who are just bordering on good health, to whom it is of great service.

When the quantity of food is limited, alcohol is a valuable adjunct, as shown by Hammond, who gained in weight when he added it to an insufficient allowance of food, upon which he had previously been losing.

It is of value when food is of inferior quality or badly cooked, or when the appetite is enfeebled by depressing influences, such as bad air or over fatigue.

It is useful to brace up the flagging energies to a final effort, towards the close of a hard day's exertion.

It is useful after exposure to wet or cold, to assist in restoring the circulation.

Instances are frequent enough to occur to most of us, in which the addition of a small quantity of well diluted alcohol to a meal aids the digestion; as seen by the relief of headache, of gastralgia, of flatulence, or of diarrhœa, in which it aids the circulation, by relieving vertigo, or by giving tone to the heart and arteries, and making a pulse regular, which without it was intermittent; in aiding the nervous system, by relieving insomnia in one, by enabling another to keep awake and do his work with comfort.

But so far as my experience goes, the amount required is very small; and this is the point to which I beg especially to draw attention, as being one of very great importance. While convinced that for the young and vigorous it is wholly unnecessary, often injurious; for those who, by reason of age, or some of the other conditions I have just mentioned, may not have such perfect health, a daily allowance of one ounce of alcohol, often less, is quite sufficient. It has been so in all the instances to which I have alluded, and in many of them the proof has extended over several years. This means from a half to two-thirds of a wine glass (1½ to 2 ozs.) of brandy or whisky; or a pint of beer, or half that quantity of claret, in the twenty-four hours. This, if it benefits, does not cause flushing of the face, nor heat of skin, nor disinclination for work.

This is what I would call strict moderation; and if the insurance offices which publish such startling comparisons between abstainers and so-called moderate drinkers, would take care to exclude from the latter class all who exceed this amount, they would, by enforcing a true standard of moderation, do a benefit to society, and at the same time they would find the discrepancies between the two classes far less than as at present they would have us to suppose. But as yet their statistics are of no value for such purposes as they profess. Some figures from the reports of the Manchester Royal Infirmary and Convalescent Homes deserve notice. The number of in-patients being over 6,000 in a year, the average cost of spirits, wine and beer, has been reduced since 1875, from 7s. 2½d. per head to 11½d., and the percentage of deaths has decreased from 11.3 to 7.8.

The experiments of nearly all physiological chemists—Parkes Richardson, Anstie, Edward Smith—tend to prove the same thing, that an ounce and a half of alcohol is about the maximum which, in the absence of fever, can be entirely burnt off in the body; and the experience of those who, like ourselves, approach the question from the side of daily observation, suggests the advisability of keeping well within this limit.

Another subject, to which I must briefly allude, is that of drainage. We cannot shut our eyes to the numerous evils attendant on faulty systems and faulty construction. Not only are typhoid fever, diphtheria, erysipelas, and other acute diseases, intimately connected with the contamination of water, or the escape of gas from sewers, but also many evils of lesser degree. Parkes tells us that, when the air of sewers escapes into houses, and especially into bedrooms, health is greatly impaired. Anæmia results from the imperfect aëration of the blood, and disorders of the digestive organs become prevalent. Children lose appetite, strength, and colour; older persons suffer from malaise and feverishness. Coughs, sore-throats, headaches, vomiting, diarrhœa, and colic are frequent, and those unsatisfactory and anomalous conditions to which it is difficult to assign a name.

Now, there are many unsolved problems in sanitary engineering; many questions as to dry earth or water, as to currents of air in shafts, as to methods of ventilation, as to different kinds of traps; but two points are certain. We are all agreed (1) that it is of the highest importance that all drain- and soil-pipes should be outside the house; and (2) that the inside trap, which is in connection with the soil-pipe, should be absolutely sound, and free from defect. Fortunately, there is a very simple plan by which the slightest leakage may be detected. A small quantity of some strong-smelling volatile substance—such as half an ounce of oil of peppermint or some paraffine—introduced into some part of the pipe or drain outside the house, poured down the ventilating shaft, if there be one, followed by a gallon or two of boiling water, will, by making its presence known inside the house, lead to the detection of any flaw which may exist. Though perfectly simple, this test requires to be applied with care. There must be no other way of entrance for it into the house, except through the pipe—*i.e.*, all doors and windows must be carefully closed, and the person applying the test must not himself enter the house; the detection must be left to somebody else within.

Those who would attach less importance to the injurious influence of sewer-gas, who are inclined to cite instances in which it has been escaping and has been inhaled, and yet the evils spoken of have not resulted, may be reminded that, in our search after causes, we must often expect them to be complex; that it may take more than one factor to bring about an epidemic; and that sewer-gas is a very important one among them. Others may be peculiar states of the atmosphere, dampness of soil and low situations.

Under no circumstances can the presence of sewer-gas be safely disregarded; but whenever there are any permanently unfavourable conditions—conditions which depress health, but which cannot be removed—it behoves medical men, and all others concerned, to be especially on the alert to guard against all those causes which are remediable, such as escape of sewer-gas into houses, the want of frequent flushing and thorough ventilation of mains, scanty water-supply, or the use of water liable to contamination.

That we may not conclude that there is no dangerous escape of sewer-gas into a house because we are not aware of any offensive smell arising from it, may be inferred from an experiment by M. Gustave le Bon, who found that the gases arising from decomposing animal matter might be more noxious when less pungent. He mixed some hashed meat with water, and allowed it to putrefy; he then placed a frog in an enclosed vessel with it. When putrefaction began, the smell was most fœtid, but the frog was uninjured. At this time, the liquid swarmed with bacteria, and, injected under the skin of an animal, proved to be a most virulent poison. After two months, the liquid was neither so fœtid nor so virulent when subcutaneously injected; but it proved rapidly fatal to an animal breathing the gas which emanated from it.

Captain Galton, in a paper read before the Society of Arts (*Times*, April 27th, 1883), says: "Improvements effected in sanitary administration and in the habits of the people have reduced the mortality about 2 per 1,000, taking into account density of population, which, with unchanged hygienic conditions, would have increased the mortality. This represented an annual saving of about 48,000 lives in England and Wales, excluding London.....In thirty years, the mean age at death had been raised from 28.4 to 29.6." He went on to say: "If we could introduce into our towns generally the mortality of the healthy districts, we should diminish our death-rate by nearly one-fifth;" and he pointed out how enormous would be the amount of money directly saved from sickness and funerals, if all known insanitary conditions were removed.

Now, when we find the evils spoken of, which directly affect the physical health of those for whom we make ourselves responsible, and which, from their depressing influences, almost as directly affect their moral condition, and so often their domestic happiness; and when we know, as Dr. Quain so forcibly tells us, that "our end and aim should be, first, to discover the cause or causes on which disease depends, and to counteract them, if practicable; and, secondly, to endeavour by every means to restore to health the functions of

the body, and, with that object, to guide and assist Nature, but never to thwart her operations"—if we believe this—where, I would ask, is our self-respect, if we do not search out the causes, or, suspecting them, do not set ourselves to remove them? How do we stand in relation to our patients, when called in to assist them in their distress and in their dependence on us, if we allow them to continue to suffer in person and in pocket while professing to heal them? While, year by year, our knowledge of medicines is more exact and definite—of their actions, more physiological and scientific—at the same time, our view of Medicine is larger and broader. It is not enough, by the administration of an appropriate remedy, to seek to cure; we must, by foresight and circumspection, seek to prevent. This we shall not thoroughly do until we come to realise, in spite of the slight apparent contradiction, that to study the best interests of the patient and of the public is eventually to secure our own best interests and those of our profession.

When we consider how vast are the interests committed to the medical profession, how intimately the wellbeing of the nation is connected with the faithful discharge of our duty; that the health of the army and navy is entrusted to our care; that we have a part in the selection of all candidates for civil posts; that all hospitals, dispensaries, workhouses, asylums, and prisons are virtually directed by us; and, finally, when we consider the intimate relation in which we stand to our private patients, how often the medical man's advice is sought, not only on questions of health and disease, but in questions of domestic and social difficulty, in questions of education, in legislative questions of national importance; when we feel how often counsel and assistance are called for by all, from the highest to the lowest—then we feel the importance of a great Association such as the British Medical, which endeavours to stimulate in each of us our sense of duty and responsibility, which keeps us together with unity of purpose, and encourages us with mutual help to work for a common object. While thankful to belong to so noble a Profession, and for the advantages of so great an Association, let us each for ourselves remember that it is not by the pursuit of wealth, nor of social distinction, not of personal power or exaltation, but it is by a self-sacrificing spirit and self-sacrificing labour that our Profession seeks to realise its lofty ideal; and that it must be by largeness of heart and breadth and earnestness of purpose that we must each carry out the work confided to us, and thus, humbly and at infinite distance, shall we be following in the steps of Him who "went about doing good."

REMARKS
ON
DEATH FROM METHYLENE AND ON THE USE OF OTHER ANÆSTHETICS.

By F. JUNKER, M.D., M.R.C.S.

Professor Breisky of Prague, in the *Prager Medicinische Wochenschrift*, 1883, No. 22, reports a case of death during the administration of chloride of methylene,[1] which, being the tenth fatal case from this anæsthetic, must considerably shake the confidence of the profession in its perfect safety. The patient, a married woman, aged 27, suffered from a cyst of the right parovarium, for the removal of which ovariotomy was to be performed on May 2nd, 1883. Dr. Breisky points out, in his paper, that particular precautions and care were considered necessary in administering the narcotic, on account of the anæmic and weak condition of the patient. One of the clinical assistants watched the pulse, whilst another, who possessed great experience in the administration of anæsthetics, gave chloride of methylene in my apparatus. After ten minutes, during which four drachms were inhaled without producing complete anæsthesia, the radial pulse suddenly stopped; respiration, however, continued three minutes after the heart had ceased to beat. The patient was pale and slightly livid. The head was immediately lowered, the tongue was drawn forward, Sylvester's artificial respiration induced, with free admission of fresh air from the open window; the lower limbs were rubbed with hot flannel; ammonia was applied to the nose, and subcutaneous injections of solution of musk were resorted to, but they were of no avail. Life had fled. The remainder of the narcotic fluid, which the dispenser of the hospital had obtained direct from London, was handed to Professor Dr. Hofmeister for chemical analysis. I literally transcribe his report.

"The fluid, which I received in the original bottle, with the label —'Bichloride of methylene, C H_2 Cl_2, manufactured by J. Robbins and Co., Manufacturing and Pharmaceutical Chemists, 147, Oxford Street, London'—was found, on examination, to be a mixture of chloroform and alcohol. This result is identical with the examination of a preparation supposed to be obtained from Robinson and Co., 372, Oxford Street, London,[2] and analysed by M. C. Traub (*Pharmaceutische Centralblatt*, 1882, p. 461). The fluid under examination resembled chloroform in colour and odour; its density, found by the pyknometric method at 17.1° Cent. (68.78° Fahr.), was 1.3495, which comes very near to the density of pure chloride of methylene.

"Its boiling-point, moreover, proved that the fluid contained either no chloride of methylene at all, or merely traces of it. The boiling-point of chloride of methylene being 41° Cent. (105.8° Fahr.),[3] the preparation under examination, on the contrary, commenced distilling in the water-bath and Glinsky's boiling-tube, at 47° Cent. (116.6° Fahr.), and continued so between 49° and 53° Cent. (120.2° and 127.4° Fahr.), without leaving a residue. When shaken with water, the components separated. About one-fifth of its volume mixed readily with the water, whilst the volume of the portion insoluble in water underwent no alteration after continued shaking. The clear aqueous solution gave Liebig's iodoform-reaction; treated with chloride of benzoyl and concentrated solution of soda, it manifested, in an unmistakable manner, the smell of benzoic ether (Berthelot's alcohol test), a proof that considerable quantities of alcohol had been taken up from the preparation by the water.

"The residue, which was not dissolved in water, was dehydrated by chloride of calcium, and distilled completely, at a temperature of 59.5° to 60.5° Cent. (139.5° to 140.45° Fahr.), which corresponds to the boiling-point of chloroform (at 737 mm. pressure), which Liebig and Regnauld found at 61° Cent. (141.8° Fahr.) This distilled fluid had the density of chloroform (1.4885 at 17.1°), or 1.5252 at 0° Cent. (Watts), and gave, when treated with anilin and alcoholic solution of potash, the smell of isocyan-phenyl, characteristic of chloroform.

"Therefore there can be no doubt that the so-called chloride of methylene under examination was chloroform diluted with absolute alcohol. The proportions calculated from the density, the diminution of volume when shaken with water, and the quantity of the pure chloroform, were one volume (of alcohol) to four of chloroform. That the boiling-point of this mixture was found lower (51° Cent. = 123.8° Fahr.) than the boiling point of either compound (chloroform boils at 61° Cent. = 141.8° Fahr.; alcohol at 78.° Cent. = 141.8° Fahr.), is no contradiction with the result of the examination. It is a well-known fact, that a mixture of two fluids may possess a boiling point below that of the most volatile of its components. It can be easily proved by experiment, that the boiling point of chloroform is considerably lowered by addition of absolute alcohol. No decomposition of the constituent chloroform of the preparation could be discovered. An explanation of the fatal effect from this cause must therefore be refuted."

Such is the evidence of the analytical chemist. The necropsy proved highly interesting as regards the complaint of the deceased, but gave no information as to the cause of death.

The dura mater was normal; the meninges and the substance of the brain were pale, anæmic and œdematous. There was a small quantity of mucus in the trachea, the mucous membrane of which, as well as of the larynx and the pharynx, were pale. Both lungs were free, their anterior portions pale, the posterior regions contained a moderate quantity of blood, both were œdema-

[1] Chloride of methylene is the scientific term for the preparation usually called bichloride of methylene.

[2] M. C. Traub, in stating that the preparation he analysed was supplied by Robinson, 372, Oxford Street, mistakes the name of the firm; 372 being the old number of the house in which Mr. Robbins's business is carried on, prior to altering the numbers in 1881. Its present number is 147. Traub reports: "Its specific gravity was 1.326 at 15° Cent. (59° Fahr.), which corresponds to that of pure bichloride of methylene, mixed with a small percentage of alcohol to improve its keeping quality. On shaking 50 c.c. of the bichloride with 50 c.c. of water, the volume of the water increases by 7 c.c., which is abnormal. The aqueous layer was indifferent to litmus and nitrate of silver. After having been washed with water several times, and dried over chloride of calcium, it was distilled from a water-bath, and almost the entire liquid distilled over at a temperature of 60.5° Cent. (140.9° Fahr.), without varying. The specific gravity of the distillate was 1.489 at 15° Cent. (59° Fahr.), corresponding to that of bichloride of methylene containing a trace of alcohol. Traub therefore concludes that the supposed bichloride of methylene was merely chloroform reduced by alcohol to the specific gravity of bichloride of methylene.

[3] According to Watts (*Dictionary of Chemistry*), the boiling-point of chloride of methylene is 40° Cent. (104° Fahr.). Mr. Robbins showed me, lately, an apparatus in action, where bichloride of methylene distilled at a temperature of 127° Fahr. (52.4° Cent.)

tous. There was a tablespoonful of clear serum in the pleural cavity, and about 100 centimètres of similar serum in the pericardiac cavity. The heart was flaccid, of proportionate size to the body, the valves and the endocardium were normal. Fluid bright coloured blood mixed with air-bubbles, was contained in the ventricles, a few small soft clots of fibrine in the auricles; the lining membrane of the aorta was delicate and normal. There was no evidence of any pathological alteration of the heart, which was normal in its structures. The air-bubbles in the blood of the ventricles were a *post mortem* production.

Professor Breisky guards himself against the imputation of ascribing the fatal accident to impurities of the anæsthetic fluid. However, he does not consider chloride of methylene to be a safer preparation than chloroform, although he admits prefering it to the latter in laparotomies, as being less liable to provoke vomiting after the operation; an advantage on which also those agree who otherwise are no advocates of methylene.

Sir Spencer Wells, who has used it in nearly all his operations ever since it was introduced by Dr. Richardson in 1867, in my apparatus, and accords to it a decided preference, when given has had, in more than 1,200 serious operations, no fatal accident. He particularly corroborates the statement that less sickness follows its administration than after chloroform. I have given it more than four hundred times to Sir Spencer's patients up to September 1870, and never met with any disturbance of alarming character. When there was uncontrollable sickness after the operation, it was due to incidental pathological processes. Dr. Day, whose personal experience in the administration of methylene extends over more than ten years, and who uses my apparatus, has been equally fortunate. The opinions on the general superiority of this preparation, however, differ. Messrs. Marshall, Gamgee, Gaine, Hird, and Rendle, speak in its favour. Dawson considers its less dangerous than chloroform. Miall, who in one hundred cases produced perfect anæsthesia in the average time of 3 minutes and 20 seconds, never used more than 3½ drachms. There was vomiting in 40 cases, nausea in 6, the pulse remained unaltered in 4 cases, was accelerated in 1 and retarded in 23. In 5 cases the respiration became alarmingly accelerated. Barnes and Taylor consider chloride of methylene a dangerous anæsthetic. One of Mr. Barnes's patients did not recover consciousness until after four hours, which took place under violent vomiting. The pupils did not act until half an hour after the operation. Taylor's patient, a youth, aged 17, turned pale after the operation (extirpation of the eye) deeply sighing, respiration and the pulsation of heart and the carotids suddenly ceased. He rallied, however, after inversion, artificial respiration, and pressing forward of the tongue.

Nussbaum (Munich) objects to methylene. He observed great excitability, muscular rigidity, nausea, and finds fault with the inflammability of the preparation. Hegar and Kaltenbach, who use my apparatus, do not consider it safer than chloroform; they observed alarming asphyctic fits, and object that the patients too quickly and unexpectedly awake; but acknowledge that they had less vomiting and retching, and fewer unpleasant after-symptoms.

Kocher (Bern), who exclusively uses chloride of methylene in my apparatus, in ovariotomies and hysterotomies, ascribes the good effects less to the anæsthetic itself than to the careful preparation of the patient, and the small loss of blood. When there was vomiting it could be easily stopped. He never observed collapse.

C. Kappeler, in his work *Anæsthetica*, which forms the twentieth volume of Billroth and Luecke's *Deutsche Chirurgie* (Stuttgart, 1880), admits that chloride of methylene is less liable to cause sickness than chloroform; but he denies other advantages. He considers it equally dangerous with chloroform, if not more so. Death from methylene is similar to that from chloroform, and the *post mortem* appearances are always negative.

Its specific gavity is 1346. It decomposes like chloroform when exposed to light or air, and requires, like the latter, an addition of absolute alcohol for keeping. It is very inflammable, but less so than amylene and sulphuric ether. Its flame extinguishes in the gases of its own combustion. The breath, after inhalation, is not inflammable. Its low boiling-point causes its rapid evaporation, therefore its vapours will be more quickly diffused in the lungs than those of chloroform, and also more quickly eliminated from the blood; therefore, its effect is more rapid but less lasting: it causes less muscular excitement than chloroform. I frequently missed it altogether. Fourdes and Kopp observed immediate muscular rigidity after injecting methylene into the arteries. It occasionally produces vomiting, but not so frequent and persevering sickness as chloroform.

In Germany, at present, preference is given to chloroform made from chloral after Professor Oscar Liebreich's method (made by Schering and Co., Wedding, Berlin, N.), which is generally considered safer, and very exceptionally causes vomiting. I saw it given, mostly with my apparatus, several hundred times in the principal hospitals of Berlin on my visit there during last winter's term, and observed vomiting, or retching, only on very few occasions, and can corroborate that after-sickness occurred very seldom.

The sleep produced by methylene, like that of chloroform, lasts longer than the inhalation, therefore its administration may be occasionally interrupted during the operation, whereby the danger of the narcosis is considerably diminished. Ether, on the contrary, must be continued. The patient generally awakes sooner, and recovers his full consciousness more readily than after chloroform, which I rather consider an advantage than a drawback (see above), disagreeing, in this respect, with Hegar and Kaltenbach. I subjoin the nine published cases of death from methylene which occurred, to my knowledge, up to 1880.

1. (*Lancet*, October 23rd, 1869.) A patient, aged 39, at Charing Cross Hospital, suffered from a malignant tumour in the left antrum of Highmore, which had already caused several very profuse hæmorrhages. He looked pale and anxious, but had a normal, not too frequent, pulse. He was narcotised in the sitting posture, and inhaled, first four, and later, two more drachms of chloride of methylene. The pupils were, at the time, slightly dilated. During the administration of the second portion of the anæsthetic, his head suddenly dropped, the pulse flagged, and soon ceased altogether. There was neither stertor nor lividity. All attempts to save life failed.

2. (BRITISH MEDICAL JOURNAL, May 7th, 1870.) A healthy looking man, aged 40, had iridectomy of both eyes performed at Guy's Hospital. He inhaled one drachm of chloride of methylene in the recumbent position. He was very excited at the commencement, tried to free his head, struggled with his arms and legs, and turned livid; he became, however, quiet soon afterwards. He evidenced sensation of pain during the second operation, but looked well. About three minutes after bandaging the eyes, the respiration became superficial and gasping, and the radial pulse could no longer be felt. The angles of the mouth were livid. The patient was at once turned on the left side, but he became pale and died after a few gasping inspirations. Electricity and artificial respiration during one hour were without result. At the necropsy, the blood was found fluid and dark. All over the right ventricle were numerous ecchymoses of the size of a pin's head. The left ventricle was empty, and contracted; the right ventricle contained a small quantity of fluid blood. The lungs were congested.

3. (BRITISH MEDICAL JOURNAL, April 29th, 1871.) A male patient of the Charing Cross Hospital had a very small quantity of chloride of methylene given. After full narcosis had taken place, a finger was removed within one minute. After the operation was finished, the patient was discovered with the head rolled sidewards; the eyes were rotated upwards; pulse and respiration had ceased. The *post mortem* examination gave no information about the cause of the death.

4. (BRITISH MEDICAL JOURNAL, September 16th, 1871.) A woman, aged 44, suffering from carcinoma mammæ, had a very small quantity of chloride of methylene given with a flannel bag in the Radcliffe Infirmary, Oxford, and died after two or three convulsive gasps. Artificial respiration, etc., failed.

5. (BRITISH MEDICAL JOURNAL, August 31st, 1872.) A man, aged 52, had chloride of methylene administered in the Bath United Hospital, in order to have his dislocated shoulder set. He became insensible after two or three minutes, and turned livid; the respiration and pulse ceased at the same moment. The tongue was drawn forward, and ammonia and electricity applied during three-fourths of an hour without effect. His heart was found enlarged and flaccid, but there was no other sign of disease. Chloride of methylene had been used in 250 cases in this hospital previously to this fatal accident.

6. (BRITISH MEDICAL JOURNAL, October 12th, 1872.) A male patient, aged 48, who had an abscess to be opened at the Middlesex Hospital, became insensible after the inhalation of two drachms of chloride of methylene. After the narcosis had been stopped already one minute, and the operation was going to be performed, the patient was discovered breathless and livid. During Sylvester's artificial respiration, he gasped once or twice, and expired. There was no other abnormal condition found, but a large flabby heart.

7. (BRITISH MEDICAL JOURNAL, October 19th, 1872.) The patient, aged 48, a brewer's drayman, suffering from an abscess in the ischio-rectal fossa, which burst, leaving a fistula, was admitted into the

Middlesex Hospital for the purpose of an operation. He was first very nervous about taking chloroform, saying that he would die under its administration; but, as he refused to have the operation performed without narcosis, two drachms of chloride of methylene were given in a perforated leather-cone. After a few inhalations, the patient became excited, and his body rigid to the degree of complete opisthotonos; but, as there was no lividity, the narcosis was continued. After two minutes he appeared to be under the full effect of the anæsthetic, and the cone was removed. But, whilst turning him to the side, he suddenly became livid, and both respiration and pulse ceased. He was placed on the back, and artificial respiration, faradisation of the phrenic nerve, and enemata of brandy, were tried without success. His pupils were contracted at the onset of the dangerous symptoms, but soon dilated, and remained so after death. At the necropsy, the body was found livid, the brain healthy, slightly congested. The lining membrane of the trachea and the bronchi was studded with ecchymoses. The right pleura was adherent to the ribs, the left free. The lungs were much congested. The heart was very large and flabby, its surface covered with a quantity of fat. The valves were healthy. Under the microscope, some of the fibres of the heart showed commencing degeneration, but no distinct fat-globules. The heart was empty. The blood was fluid and very dark. There were some patches of atheroma in the aorta. The liver was large, weighing 82 ounces, fatty. The kidneys were very congested.

8. (*Lancet*, December 1874.) A female patient, aged 25, of the Royal London Ophthalmic Hospital, who, on a previous occasion, had already had chloride of methylene given without any alarming consequences, had to undergo an operation on the lacrymal duct. Three drachms of the anæsthetic were administered by means of a perforated leather cone, lined with flannel. Two minutes after the commencement of the narcosis, the respiration became suddenly noisy and stertorous. The apparatus was removed, and the operation commenced. No alarming symptoms were then discovered, except an unusual paleness of the wings of the nose and of the skin around the mouth, whilst the cheeks and lips were red. The respiration was deep, full, somewhat accelerated; the inspirations were accompanied by palatal stertor. The nostrils appeared flaccid. A few seconds later, the radial pulse became feeble, and soon suddenly ceased; respiration, however, continued, but commenced failing shortly afterwards. Drawing forward of the tongue, Sylvester's artificial respiration, inversion of the body, flapping the face and chest with towels, ammonia, and enemata of brandy, produced only a few sighing inspirations, and death took place shortly afterwards.

9. (British Medical Journal, July 24th, 1875.) A healthy-looking sailor, aged 27, had iridectomy to be performed in the Central London Ophthalmic Hospital. He was carefully examined before the operation. His pulse was quiet; the action of the heart normal, regular. He was composed, and free from anxiety. At first half a drachm, and afterwards two drachms, of chloride of methylene were given in a perforated leather cone. He struggled violently at the commencement, but soon sank backwards and breathed quietly. (It appears that he was narcotised in sitting posture.) Four or five minutes afterwards, when about to be brought into the proper position for the operation, his face was found flushed and livid; the respiration slow, stertorous; the pulse was barely felt. Notwithstanding immediate application of electricity, artificial respiration, etc., the respiration remained irregular, the face livid, until death took place. *Necropsy.*—Heart healthy, containing a very minute quantity of blood. Blood fluid, almost black. All other organs normal.

There are a few more fatal cases recorded, in which, however, chloride of methylene was not given alone, but with other narcotics, mostly with ether. In reviewing these fatal cases, I can barely ascribe them to the effects of the chloride of methylene, whatever the real merits or demerits of this anæsthetic may be. The majority of them appear to me simply cases of suffocation by carbonic acid. The narcotic was given in a solid cone or bag, which, although perforated, surely could not admit sufficient fresh air, and the patient was forced to reinspire the air already contaminated by his own breathing. Nor does it appear that the apparatus was lifted during the narcotisation, whereby air would have gained access. In several of these fatal cases, the alarming symptoms, yea, the death, were only discovered after the removal of the apparatus! Besides, many may justly object to the administration of any narcotic in the sitting position. It should be the general rule to place the patient on the back, with the head but slightly raised at first; but it may be afterwards turned and kept low during the whole operation.

The above analyses by Dr. Hoffmeister and by Traub are borne out by Regnauld, who lately stated, at a meeting of the Paris Academy of Medicine, that "the bichloride of methylene, so much used as an anæsthetic in England, is composed simply of a mixture of four parts of chloroform and one part of spirit of wood. By adding this spirit of wood to the chloroform, the costs of manufacture are increased to 47 francs 75 centimes (38s.), instead of 10 francs (8s.)." It ought, however, as he asserts, to be cheaper, the spirit of wood being of little value. When the wood is subjected to destructive distillation, there is formed, besides acetic acid, tar, creasote, and other products, one per cent. of an inflammable volatile liquid, which, when separated and purified, is the methylic alcohol or spirit of wood (CH_3 HO). It represents an anhydrous, mobile, colourless liquid, possessing a hot, pungent taste, and a peculiar aromatic smell, recalling that of acetic acid. It mixes in all proportions with water, alcohol, ether, and chloroform, without losing its transparency. It burns like alcohol, but is less luminous. One ninth part of spirit of wood added to alcohol renders the latter unfit for consumption, but still serviceable for any other purpose, and thus forms the methylated spirit of trade. Methylic alcohol was introduced into practice some years ago by Dr. John Hastings, of London, as a narcotic, sedative, and anti-emetic. It was proposed as a remedy in consumption, in which, however, it exerts no curative power, but appears to palliate the cough and to lessen the febrile excitement. Dr. William Yandell, United States, prescribes it in diarrhœa and dysentery. Dr. Christison recommends it for its anti-emetic properties in chronic vomiting, whether depending upon functional or organic disease. To this quality of the methylic alcohol, I am inclined to believe, the preparation sold as bichloride of methylene owes its property of causing vomiting or sickness less frequently than pure chloroform, whereon the opinions of most surgeons agree.

Messrs. Squire of 413, Oxford Street, prepared for me, according to Regnauld's analysis, a mixture of four parts of Duncan's chloroform, and one part of methylic alcohol. The specific gravity of this preparation is 1.281; that of Duncan's chloroform, 1.281, 1.492; and that of Robbins's bichloride of methylene, 1.320; at 15° Cent. (59° Fahr.), according to Messrs. Squire's testing.

I have had the opportunity of trying the anæsthetic properties of this preparation, which may be called "Regnauld's anæsthetic mixture," in seven cases within the last week, and as far as my present limited experience proves, it answered admirably, and in its effects is very much like chloride of methylene.

Case I. A woman, aged 40, had a large fibrous tumour of the uterus removed by Dr. Bantock at the Samaritan Hospital. Her heart and lungs were healthy. She was very nervous; pulse at the beginning of the narcosis 100. After inhaling two drachms of the mixture, given in my apparatus, she was in deep narcosis in four and a half minutes, without muscular excitement or struggling. The pulse had risen to 120, the pupils were dilated, strabismus, divergens. When I stopped the administration of the anæsthetic mixture twenty-seven minutes after its commencement, she had inhaled six drachms. The pulse was then 108, the pupils normal. She was in a deep, quiet sleep during the whole of the operation, the face slightly flushed, perspiring, the breathing normal. No retching or nausea during or after the operation.

Case II. The patient, aged 72, had an epithelioma of the labium removed by Dr. Bantock in the Samaritan Hospital. Heart and lungs healthy; pulse, 100. Deep, quiet narcosis without muscular excitement followed in four minutes, after inhaling one drachm and one-third of the mixture; pulse rose to 120; the face was slightly flushed and perspiring as in normal sleep. She had six drachms in thirty-four minutes; during which time, however, as in the former case, the administration was discontinued; several times for about five minutes, the patient being under the full influence of the narcotic. No retching or sickness took place.

Case III. A patient, aged 60, in the Samaritan Hospital, was operated on by Mr. Meredith for carcinoma mammæ. She was a very stout woman, and, as I was told, by no means a teetotaller. The thoracic viscera were healthy; pulse 100. She inhaled three drachms in seven minutes, when full narcosis took place. There was slight muscular excitement, which, however, soon subsided. Pulse 98; pupils normal.

Pulse after	15	minutes		60
,,	,,	20	,,	74
,,	,,	30	,,	120 (slight retching of froth).
,,	,,	58	,,	76 (end of narcosis).

During this time she had nine drachms of the mixture. Her behaviour during the anæsthetic was like that of the former patients. There was no sickness, except the slight retching of froth during the operation, nor afterwards.

CASE IV. A private patient, aged 27, had hysterotomy performed by Dr. Bantock. The heart and lungs were normal. She was rather nervous; pulse, 120. Full anæsthesia was produced after inhaling one drachm of the mixture in five minutes, without excitement or retching; pupils contracted, strabismus divergens; pulse, 108. After eighteen minutes, pulse, 78; pupils normal. After twenty-three minutes, pulse, 72. After fifty-six minutes, 92; when the narcosis was stopped, the patient having inhaled four and a half drachms of the mixture. No sickness; no nausea.

CASE V. In a case of exploratory laparotomy by Dr. Bantock, in the Samaritan Hospital, the patient, aged 47, whose heart and lungs were healthy, was in deep narcosis in six minutes, after inhaling one drachm of the mixture, and had altogether three drachms in twenty-two minutes. There was no muscular excitement nor retching. The pulse at the commencement was 120; sunk after fifteen minutes to 94; and after twenty-two minutes, when the narcosis was stopped, to 80.

CASE VI. Dr. Marion Sims removed several small fibrous growths from the uterine cavity of a patient, aged 48, highly anæmic from repeated hæmorrhages, in consequence of which also great nervosity and partial aphasia. Thoracic viscera normal; pulse, 108. She was much afraid of any narcotic, but when on the operating table, quietly inhaled the mixture given in my apparatus very slowly; so that half a drachm brought her in deep quiet sleep in seven minutes. Pulse, 98; after fifteen minutes, 84; after twenty minutes, 87, when the narcosis was stopped, only three drachms having been given. The patient was quietly sleeping during the operation; about half an hour after, a momentary slight retching of froth.

CASE VII. Another patient of Dr. Marion Sims, aged 40, suffering from a very high degree of vaginismus. Pulse, 100. Full narcosis in ten minutes, after inhaling two drachms of the mixture. Had seven drachms in thirty minutes, when the anæsthesia was stopped; pulse, 88. The patient was quietly breathing, and kept perfectly quiet, but the slightest touch of the genitals brought on a start like an electric shock. During the whole time of the operation (thirty minutes), the narcotic mixture was given without interruption, whilst in the other cases it was occasionally discontinued for five minutes and longer. When awaking, the patient said that she did not feel anything of the operation, but complained of local pain. She had no retching during the operation, but whilst removing her into her bed, she brought up about a mouthful of water. All these patients recovered full consciousness almost immediately after the operation, and looked as well as after a natural sleep. There was no struggling or muscular excitement, except very slightly in Case III, and the abnormal reflex movements in Case VI, which were due to the peculiar complaint of the patient.

Dr. Bantock had this mixture given since in two other cases in the Samaritan Hospital, in one of abdominal section, and in another of extirpation of a cyst from the leg, in neither of which sickness or nausea were caused by the narcotic.

STATISTICS OF ANÆSTHETICS IN RELATION TO AFTER-SICKNESS AND DEATH-RATE.

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THE following statistics are based on my experience of anæsthetics at Moorfields Ophthalmic Hospital from November 1st, 1876, till January 17th, 1880. Notes were kept of the cases as to sex, age, the anæsthetic employed, and the hour when food was last taken, in reference to the occurrence of sickness. The condition of the weather as to barometric pressure, temperature, etc., was also noted, the weekly chart of the *Times* being used for this purpose.

Whenever any retching occurred during the operation or within the next two hours, the patient was described as having been sick. Sickness while on the operating-table was comparatively rare; but the proportion of cases in which it occurred afterwards seems large.[1] This latter fact is probably accounted for, partly by the profound anæsthesia necessary for eye-operations, and partly by the large number of young out-patients, who, notwithstanding all directions to the contrary, had eaten shortly before. What the usual percentage of sickness at other hospitals is would be interesting to know.

[1] In the Report on the Action of Anæsthetics by McKendrick, Coats, and Newman (BRITISH MEDICAL JOURNAL, 1880, II, p. 957), a still higher percentage is given—viz., 48 per cent.—in the case of ethidene dichloride, and chloroform.

Anæsthetics were given altogether 4,138 times; there was sickness in 1,902 cases, or in 45 per cent.

Sex.—From the following table, it appears that females have a decidedly greater tendency to this form of sickness than males.

Sex.	Total.	Sick.	Percentage of Sick.
Males	2,130	870	40
Females	1,982	1,027	51
Not stated	26	5	—

Age.—

	Total.	Sick.	Percentage of Sick.
Under 1 year	119	5	4
Above 1 year and under 5 years	446	137	31
,, 5 years and under 10 years	555	349	63
,, 10 ,, ,, 15 ,,	456	331	72
,, 15 ,, ,, 20 ,,	445	268	60
,, 20 ,, ,, 25 ,,	285	161	56
,, 25 ,, ,, 30 ,,	182	96	52
,, 30 ,, ,, 40 ,,	289	119	39
,, 40 ,, ,, 50 ,,	319	101	31
,, 50 ,, ,, 60 ,,	363	119	32
,, 60 ,, ,, 70 ,,	438	138	31
,, 70 ,, ,, 80 ,,	183	50	27
,, 80 ,, ,, 90 ,,	17	5	29
Age not stated	40	23	—

The liability to sickness is thus at a maximum about the commencement of puberty, and decreases gradually towards each end of life. Under one year of age, there is very little sickness. There is a second slight increase in the percentage of sick in extreme old age; but the total number of cases observed at this period of life (above eighty years) was too small to draw any positive conclusion. The youngest patient I anæsthetised was aged fourteen days, and the oldest was eighty-six years. I consider *age* the most important factor in relation to after-sickness.

Anæsthetic.—Chloroform was frequently used for children under three, and for adults over sixty. Between these ages, ether, a mixture of ether and chloroform vapour, or the ACE mixture was employed. Until the introduction of Clover's inhaler, ether was always given in a hollow conical sponge, about four ounces being necessary for each case. The objections to this method were its extravagance, the choking sensation and struggling of the patient, and the disagreeable smell of ether that impregnated the air and the clothes of every one around. In March 1877, Clover's small ether-inhaler was first employed. The original form was found inconvenient, on account of the frequent necessity of removing the whole apparatus during the operation, whenever the bag became too highly charged with carbonic acid gas. To obviate this difficulty, I had a valve made on the brass tube leading to the bag, so that, by pressure on this, the bag could be emptied and fresh atmospheric air supplied without disturbing the face-piece. By placing over this valve a layer of lint, on which about half a drachm of chloroform had been poured, I found that the choking sensation and struggling during the early stages of ether inhalation were in great measure prevented, and the time necessary for anæsthesia considerably shortened. One great advantage of this form of apparatus is the ease with which the breathing can be watched, from its effect on the bag. The amount of ether can be graduated, too, and more or less chloroform or ether given, as symptoms may indicate. About half a drachm of chloroform and an ounce of ether were sufficient for anæsthesia, and the average time was about four minutes. This combination of the vapours corresponds to the heading "Ether and Chloroform" used below.

By "ACE" is meant the usual mixture of absolute alcohol, chloroform, and ether, in the respective proportions of one, two, and three parts.

	Total.	Sick.	Percentage.
Ether (by sponge)	263	128	48
Ether (Clover's inhaler)	1,072	574	53
Ether and Chloroform	2,306	1,089	47
Chloroform	320	61	19
ACE mixture	58	17	29
Not stated	83	33	—

One is at first struck with the small percentage of sickness after chloroform. But it must be borne in mind, as mentioned above, that it was chiefly given at the extremes of life, at periods which are naturally less liable to sickness after anæsthetics. It may be argued that these tables show a small percentage of sickness in the very young and old, because chloroform was used in such cases. As a fact, however, the ether and chloroform mixture was employed in the majority of them, and the result as to sickness was the same.

One of the arguments used in favour of ether, especially in cases of ovariotomy, is less liability to sickness than with chloroform. My impression is that, ages being equal, the tendency to after-sickness is about the same with each, but the nature of the sickness is different in the two cases. Ether-sickness seldom lasts long after

the stomach is emptied, though there are complaints for some time of a "nasty taste in the throat." Chloroform-sickness often continues for several hours, and leads to great exhaustion.

Influence of Food.—From a careful comparison of the cases I draw two conclusions.

1. No breakfast[2] (or too long a fast) is a disadvantage, especially in the very young and the aged.

2. Speaking generally, seven to eight o'clock seems to have been the most favourable time for breakfast for patients of all ages, *i.e.*, the last meal should be given about four hours before operation.

Influence of Weather.—It must have been remarked by every one in the habit of giving anæsthetics, that on certain days nearly every case is sick, while on other days sickness is quite exceptional or even entirely absent. These meteorological notes were kept (mainly at the suggestion of my predecessor in office, Mr. Morton) to see how far the weather had an effect in this way.

During the entire period of three years, there were fifty days on which the tendency to sickness was exceptionally great. The temperature of the theatre was kept fairly uniform, except in very warm summer weather, and neither this nor the barometric pressure seems to have had any influence on the liability to sickness. The only peculiar coincidence, which I simply mention without laying any stress upon it, is in reference to the direction of the wind. Of the forty-two sick days, on one only was the wind easterly, while it was from that exact quarter on eleven of the fifty exceptionally exempt days. The moisture of the air, as measured by the wet and dry bulb thermometers, varied much in both series.

Several of these exceptional days could be accounted for by the ages of the patients that were anæsthetised. Thus, if nearly all were in early adult life, or about the age of puberty, the rate of sickness was high; if, on the contrary, there were many very young children, or aged adults, the rate was low. Still, however, there remained many days on which the peculiar liability to, or immunity from sickness, could not thus or in any other apparent way be explained.

On comparing the corresponding months of the three years, the greatest percentage of sickness for the entire month occurred twice in January; the lowest percentage always in March.

Mortality.—One death occurred, the details of which were published at the time in this JOURNAL (1877, vol. ii, pp. 266 and 318). The patient was a very stout woman, aged 46. Before going into the operating-theatre, she told the nurse that she would die on the table. She inhaled a mixture of ether and chloroform vapour for about one minute, when the pulse became very feeble, and the respirations shallow. The anæsthetic was then at once removed, and stimulants tried (flicking with wet towel, etc.). The pulse and respiration persisted for fully four minutes after the discontinuance of the anæsthetic, but then ceased, notwithstanding artificial respiration and other measures. At the necropsy, the muscular walls of the heart were found to be fattily degenerated, and there was much fatty growth around the organ. The mitral orifice was contracted, and the aortic valves incompetent. Considering all the circumstances of the case, I am inclined to think that the death occurred more from shock than from any poisonous dose of the anæsthetic.

How far the following case is to be considered one of death due to anæsthesia, it is now impossible to say. The patient was a thin, delicate-looking girl, aged 8, with light hair and fair complexion. She took the anæsthetic (ether and chloroform) well, seemed to recover in the usual way, and spoke once to the nurse in reply to a question. She continued to look pale, however, and became sick for the first time more than an hour after the operation. Being an out-patient, she was shortly afterwards taken home by her parents, travelling in a tramway-car. Next morning, the father called, and told me that she never spoke after leaving the hospital, and died in the evening. There was no necropsy, and I was not summoned to attend the inquest.

Ether was introduced as the principal anæsthetic at Moorfields about the beginning of 1874. Calculating that anæsthetics have been given from that date until now at the same rate as during my term of office[3]—a perfectly just calculation—we have a total of about 13,000 administrations. The only fatal result that can fairly be attributed to the anæsthetic is that of the woman mentioned above.

Next to carelessness in administration, nothing is more calculated to increase the death-rate of anæsthesia than wide-spread dread of its danger. An article by Mr. Roger Williams, recently published in this JOURNAL, is, I consider, calculated to do harm in this direction. His position as surgical registrar to an important hospital gives an official weight to his remarks, and lay readers might therefore be unduly influenced by them. His experience—a mortality of one in 350 inhalations—is certainly exceptional, and I cannot believe that "the majority of fatal cases are hushed up." Even this frightful mortality does not, according to Mr. Williams, "represent the whole of the danger; for, in a still larger proportion of cases, alarming symptoms supervened, and fatal results were only narrowly avoided." Now, alarming symptoms will, we all know, unavoidably occur occasionally during anæsthesia; but the greater the proportion of such cases to the actual number of deaths, the smaller the *real* danger of the anæsthetic. In other words, the danger is estimated by an appeal to the death-rate; and the more frequently we can avoid a fatal termination after the occurrence of alarming symptoms, the more we are encouraged. The hypothetically perfect anæsthetic should neither cause alarm nor death; but I fear it will never be found.

Again, the anæsthetic must not be blamed for all cases of death during its administration. Chloroform vapour, without a due admixture of air, will paralyse a strong heart, not to mention a fatty one. (See Case I, described by Mr. Williams.) The shock of a severe operation may kill without any anæsthetic, and none the less when perfect anæsthesia has not been produced. (See Cases IV and VI). In both these cases, too, blood was found at the necropsy even in the smaller bronchi; and, in Case VI, the "lungs were firmly bound to the chest-walls by old adhesions."

A moribund patient may die from the mere shock of removal to the theatre, and the dread of the impending operation; nor is this risk removed till perfect anæsthesia has been produced. If chloroform be given to such an one while the head is raised, and if, under such circumstances, death occur, we should not lay much blame on the anæsthetic. (See Case II.)

The vomiting of acute intestinal obstruction and peritonitis has been justly attributed to peripheral irritation of the vagus; the great and early collapse in such cases may fairly be held to be due to a reflex inhibition of the heart's action, through the influence of the same peripheral irritation on this nerve. The dilatation of the cardiac orifice of the stomach, which occurs as a preliminary to the act of vomiting, is, like the inhibition of the heart's action, here caused in a reflex manner, by impulses descending the vagi. Great dilatation of the orifice, manifested by a sudden large gush of vomited matter, is then a sign of a powerful descending impulse; a sudden stoppage of the heart's action in diastole is also produced by a powerful descending impulse. It cannot, then, be a matter for surprise that death should so often occur, in this manner, in cases of acute intestinal obstruction; and we may surely expect to meet with this association of vomiting and sudden heart-failure, occasionally, during, as well as before and after, the induction of anæsthesia. Three of Mr. Williams's cases (III and V, and an additional one brought forward by him in the JOURNAL of May 5) are of this nature. In all of them, vomiting occurred at or about the last moment of life; in two of them, the heart was found, at the necropsy, in the condition of diastole. In the remaining one, I think death might have been at least as fairly attributed to the presence of foreign material in the air-passages as to the anæsthetic. "The air-passages, even to the smallest bronchi, contained fluid fæcal matter, which was probably forced into them during the process of artificial respiration."

On the whole, I think that the cases (seven in number) brought forward by Mr. Williams are unfortunate, and most unsuitable for the purpose of founding a death-rate upon them. A rate of one in 350 inhalations, due really to the anæsthetic, is, I hold, much too high. A mortality of one (or at most two) in 13,000 cases, as at Moorfields, corresponds more nearly, I think, with general experience. I can truly say that not one of our cases was hushed up.

I suppose I need hardly say that, on the subject of anæsthetics, I do not speak as a specialist, but only with the object of making my past experience of some service. My aim has been a double one—viz.: first, to show how far my statistics explain the liability to after-sickness; secondly, and more especially, to prevent an unwarranted popular dread of anæsthetics—a dread, I am convinced, in itself most dangerous.

[2] The operations at Moorfields are performed from about 10.30 to 1.30. No breakfast was frequently recommended.

[3] I gave no anæsthetics during about two months of this period, on account of the hospital being closed for repairs. This must be considered in making the calculation.

MEDICAL MAGISTRATE.—Edward Lister, L.R.C.P.Ed., M.R.C.S. Eng., L.S.A. (retired), of Swarthdale, Ulverston, has been placed on the Commission of the Peace for the County of Lancaster.

ON THE DIVISION OF ARTERIES BETWEEN TWO LIGATURES.

By W. J. WALSHAM, F.R.C.S.,
Assistant Surgeon to, and Demonstrator of Practical and of Orthopædic Surgery at, St. Bartholomew's Hospital.

In the BRITISH MEDICAL JOURNAL for April 7th I ventured to advocate the above method of ligaturing arteries as in my judgment the safest at present known. I am glad that my paper should have been the means of eliciting an expression of opinion on the subject from so high an authority as Mr. Holmes. (BRITISH MEDICAL JOURNAL, June 9th, 1883.) The operation with him, however, finds little favour. He views it as an antiquated procedure, and even regards those who practise it as showing a want of appreciation of the advance in the surgery of the arterial system. But Mr. Holmes' objections are, as he says, not that he considers it re-actionary, but that he believes it "inflicts unnecessary damage on the artery; that its efficacy as a safeguard against secondary hæmorrhage is very dubious; whilst it seems more likely to delay the healing of the wound and to expose the patient to greater risks of phlebitis and gangrene."

Now, with regard to the first objection, "that it involves a much freer dissection and exposure of the artery, separating it for the distance of half to three-quarters of an inch from its connections and from the accompanying vein," it is no doubt true that a trifle more of the sheath is separated than in the ordinary method; but if the operation be neatly done, nothing like three-quarters of an inch of the artery is exposed. In my paper, I put it at a little less than half an inch; three-eighths of an inch would perhaps have been more precise. And although more of the artery is exposed during the operation than during the ordinary method, there is this advantage, that, when the operation is finished, no portion of the artery above the upper or below the lower ligature is separated from its sheath, and hence has suffered from any disturbance of its arterial supply. (See paper of April 7th.) On the other hand, when an artery is tied in the ordinary way, a small portion of it on each side of the ligature has, as I expressed it, and as Mr. Holmes himself admits, its blood-supply more or less interfered with, and hence is liable to the same pathological changes as other tissues affected in a like way, viz., inflammation, ulceration, and necrosis. No doubt this interference with the vascular supply is, in the majority of instances, merely transitory; but I venture to differ from Mr. Holmes when he says that there is no reason at all for saying that it is ever the cause of secondary hæmorrhage. To my mind, nothing seems clearer than that a slightly extra interference with the blood-supply may be just sufficient to turn the balance and render what is usually but a transitory disturbance a serious element of danger. A case of what appears to me to be a well-marked instance of necrosis of a portion of vessel produced in this way was referred to in the paper of April 7th.[1]

Two ligatures are used, it is true, instead of one, and both, as Mr. Holmes puts it, may bleed, which is tantamount to saying that the blood may come from the upper or the lower end of the artery; but so it may when one ligature is used. The fact, moreover, remains, that whereas, at St. Bartholomew's, bleeding from one or other end has not been so rare an event after the use of one ligature, bleeding from neither end has occurred in any of the cases where two have been applied.[2]

To say that, when both ends of an artery are tied, as in a wound, secondary hæmorrhage, except from the slipping of a ligature, never happens, would, no doubt, be a hazardous assertion, and one that I should hesitate to make. I do not know, however, of any case of secondary hæmorrhage which, under these circumstances, has occurred; meaning, by this, that I have taken some trouble to look up the point, and have failed to find an instance. As to the ligature slipping after the artery has been cut across, I do not see how this could well happen if it be tightly tied, as, by the division of the internal and middle coats, a shallow groove is formed in which the ligature lies.

In what way the operation should be "more likely to expose the patient to greater risks of phlebitis and gangrene," I am at a loss to conceive; and I venture to think that any special risks of the kind are more imaginary than real. The division of the artery clearly does not constitute the special danger of gangrene, as the arrest of circulation is as complete when only one ligature is applied; and the vein, when the operation is neatly performed, is not even seen, much less exposed to injury. In one of the cases thus operated on at St. Bartholomew's Hospital, gangrene of the foot and leg did certainly occur; but there was no evidence whatever that the gangrene depended, in any way, on the method of tying the vessel. Indeed, its characters were rather those of arterial arrest than of obstruction to venous return. Again, the risk of phlebitis, I should have thought, would have been greater after the ordinary method; for, in avoiding the danger of making too large an opening in the sheath, the surgeon is liable, in passing the aneurysm-needle round the artery, to prick or transfix the vein, an accident that I have seen occur in this way on more than one occasion.

So much for what Mr. Holmes calls the drawbacks of the operation, which, however, I think I have shown to be not quite so obvious as his paper might lead us to infer. The chief advantages that I claim for the operation are that, by taking off tension, and consequently placing the artery in a state of rest, and by ensuring that no portion of it has its blood-supply interfered with, the risk of secondary hæmorrhage, if not entirely avoided, is reduced to a minimum, and the parts are placed in the best possible condition for healing. These advantages were discussed in the former paper, and need not be referred to again here. I was interested to find, however, from Sir Joseph Fayrer's letter[3], that similar advantages are claimed for the operation by the Cavaliere Giuseppe Corradi, the clinical professor of surgery at Rome, who has long advocated and practised the operation in Italy. He has found it "more successful in every way than a single ligature, in that it diminishes tension and the probability of any unfavourable results, such as ulceration, hæmorrhage, or suppurative inflammation, whilst it favours the rapid healing of the wound." With regard to the efficacy of taking off tension of the elastic artery[4], I was disappointed that Mr. Holmes did not discuss this point, but merely dismissed it as a theory which, for his own part, he questioned.

Ligature of the large vessels is a subject of so much importance to the surgeon; and the operation I am advocating is, to my mind, so superior, in many respects, to the one commonly performed, that I hope no apology is needed for again calling attention to the subject in my endeavour to meet the objections raised to it by Mr. Holmes. The surgeons of St. George's Hospital do not appear, from Mr. Holmes' article, to have had much, if any, experience of the operation; and I trust he will forgive me for saying that I cannot help regarding his objections as more theoretical than borne out by practical experience. I venture to think that, if our success in the use of the double ligature and division of the artery continues as great as it has hitherto been, we shall still show what Mr. Holmes pleasantly terms an ancestral proclivity for the operation at St. Bartholomew's, and shall be in no hurry, on merely theoretical grounds, to give up the successful method, complicated and antiquated though it be called, of our distinguished predecessor, Mr. Ramsden.

[1] *See* Mr. Bartleet's case, BRITISH MEDICAL JOURNAL, October 14th, 1882.

[2] The operation of double ligature and division of the artery has now been successfully performed at St. Bartholomew's five times by Mr. Thomas Smith, once by Mr. Morrant Baker, twice by Mr. Howard Marsh, and three times by myself. It has also been performed once at the West London Hospital by Mr. Edwards, one of the demonstrators of anatomy at St. Bartholomew's, also with success. I know of no case in which it has failed.

[3] BRITISH MEDICAL JOURNAL, June 16th, 1883.

[4] In reference to Mr. Callender's case, alluded to in my former paper, it is, unfortunately, not stated in the registrar's notes if the ligature had given way.

CORN-SILK, which a few years ago was proposed as a remedy for catarrh of the bladder and similar diseases, and which has been since successfully used, may, according to G. W. Kennedy (*Am. Jour. Pharm.*) be best presented for administration in the form of a fluid extract and syrup. The corn-silk, which should be green and fresh, must be cut into small pieces, mixed in a mortar, and beaten to a pulp with a menstruum composed of one part of glycerin and four of diluted alcohol. The mass is then transferred to a percolator, and finished in the ordinary way; diluted alcohol being used after ten per cent. of the weight of the drug of glycerin has been added. The weight of the extract should be equal to one half that of the fresh silk. The dose for an adult is from half to one drachm. A syrup, of which the dose is from one to two drachms, may be readily prepared by taking twelve parts of fluid extract and diluting with syrup to one hundred parts.

BRAWN AND BRAIN.—In view of what is frequently advanced regarding the mutual antagonism in the development of brawn and brain, it is worthy of note that four out of the five men who won prizes in the Boylston prize-speaking at Harvard College this spring had been prominent in athletics throughout their college course.

CASE OF TESTIS IN PERINÆO, COMPLICATED WITH CONGENITAL INGUINAL HERNIA AND ACUTE ORCHITIS.

By J. ALEX. WILLIAMS, M.B., M.R.C.S.Eng.,
House-Surgeon and formerly House-Physician to the London Hospital.
Late House-Surgeon to the Royal Portsmouth Hospital.

THE rare and interesting form of congenital malposition of the testicle into the perinæum is less common than its simple retention within the abdomen; but, from its exposed position in this situation, the resulting symptoms are much more severe, and operative interference is more frequently required. According to Curling (*Diseases of the Testis*, p. 51), it appears to be occasioned by an abnormal attachment of the middle portion of the gubernaculum testis to the perinæum.

An analysis of 25 cases in which this malposition has been observed shows that, in the majority of cases, the scrotum is symmetrically developed. In only 6 of the above cases (2 recorded by Curling, 3 by Bryant, and 1 by Baudry) was any maldevelopment observed; and the major portion of these were adults, in whom the atrophy was not congenital, but resulted simply from disuse of the scrotal pouch upon the side involved. The displacement is more frequently observed in connection with the right (17 cases) than with the left testicle (8 cases). In only 3 cases, including that now recorded, was it associated with hernia, the other examples of this complication having been observed by Godard and Bryant respectively.

The present case is the only instance, so far as I am aware, in which it was further complicated by hydrocele. A double displacement has been observed by Mr. Hutchinson. It would appear that retained testicles are prone to become the seat of malignant disease; many such cases have been recorded. From analogy we might reasonably infer, that testicles misplaced into the perinæum, from their greater exposure to external injuries, would be especially liable to that disease. There are, however, no recorded cases of malignant disease attacking a testicle so misplaced. In answer to a question on this subject, Mr. Bryant has kindly expressed himself as follows. "I have never seen a testicle in the perinæum become the seat of cancer. Such testes are usually better developed than the undescended, which are usually ill developed as well as misplaced, and, under such circumstances they are probably less prone to disease than the undescended I am likewise unable to give you any reference to such a case."

According to Mr. Curling (*Diseases of the Testis*, p. 434,) a malplaced testicle is incapable of secreting spermatozoa; hence "a male with this defect on both sides, though often potent and efficient for sexual intercourse, is incapable of impregnating the female," and is consequently sterile. The same is true if disorganising disease attacks the normally placed testicle. Spermatozoa have never been found in the semen ejaculated during coitus in such cases.

The only recorded case in which a misplaced testicle has been shewn to secrete spermatozoa was met with by Mr. Ledwich in the dissecting-room. In this case the right testicle was misplaced into the perinæum, and its ducts contained spermatozoa. The misplaced testicle being, in the great majority of cases, freely mobile in the perinæum, injurious pressure can, in most cases, be avoided by supporting the gland, by means of a truss or bandages, in the groin. Should, however, the gland become fixed in such a position that injurious pressure is unavoidable, it had better be excised, or an attempt made to replace it in the scrotum. With this object, numerous operations have been performed, but of these there are only recorded two successes. Mr. Annandale, with antiseptic precautions, successfully replaced the right testicle into the scrotum in a child 3 years of age; and Mr. John Wood has successfully performed a subcutaneous operation, in which the gland, having been freed from its perineal adhesions, was replaced in the scrotum and retained there by means of a hare-lip pin. (*Quain's Dictionary of Medicine*, p. 1607.) In many instances, the operation has proved fatal. In Mr. Adams's (*Lancet*, vol. i, 1871, p. 710) case, erysipelas was contracted, and the patient died of peritonitis. At the necropsy, the funicular process of peritoneum was found unobliterated. Commenting upon this case, he remarks that "there is, in all cases of misplaced testicles, a probability of the funicular portion of peritoneum being patent, if not permanently, at least some time after birth." This being so, it is certainly remarkable that hernia is so rarely a complication.

The following table shows at a glance the points previously referred to.

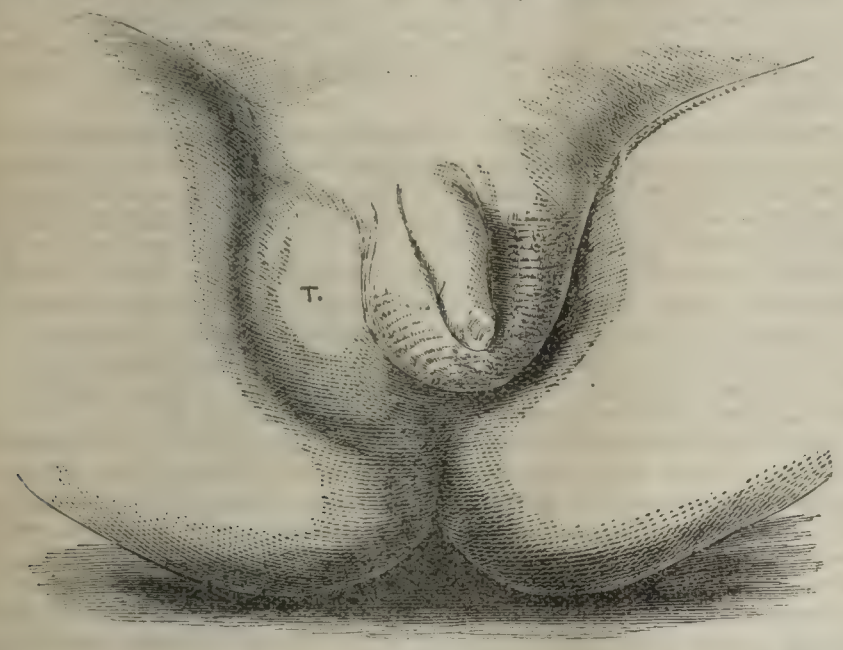
Observer.	References.	Age of Patient.	Testicle Displaced.	Condition of Scrotum.	Complications, etc.
Hunter	Curling's *Diseases of Testis*, p. 49	12 months	Right	Normal	
Godard	*Ibid.*, p. 50	56 years	Left	Absent on left side	Large hernia into tunica vaginalis.
Curling	*Ibid.*, p. 51	4 weeks	Left	Normal	
Ledwich	*Ibid.*, p. 51	35 years	Right	Absent on right side	
Zeis.....	*Ibid.*, p. 52	15 years	Left	Normal	Operation for stone had to be performed on the right side.
Curling	*Ibid.*, p. 53	Child, age not stated	Left	Normal	
Partridge	BRIT. MED. JOURNAL, 1858, p. 549.	24 years.	Left	Normal	Testicle excised after unsuccessful attempt to replace it in scrotum.
Jas. Adams ...	*Lancet*, vol. i, 1871, p. 710	11 weeks	Left	Normal	
Osborn	*Lancet*, vol. ii, 1878, p. 42	5 months	Right	Normal	
Annandale ...	BRIT. MED. JOURNAL, vol. ii, 1879, p. 7	3 years	Right	Normal	First successful operation for replacing testis in scrotum.
Cullingworth.	BRIT. MED. JOURNAL, vol. i, 1880, p. 662	10 weeks	Left	Normal	
Bryant, seven cases	*System of Surgery*, vol. ii, p. 221	Ages not stated	All right	3 absent on side of misplaced testicle	One hernia into the tunica vaginalis.
Baudry	*Lancet*, vol. ii, 1882, p. 454	Newly-born	Right fixed	Absent on right side	
Hill.....	*Ibid.*, p. 557	11 days	Left	Normal	
Pounds	*Ibid.*, p. 690	Newly-born	Right	Normal	
German.....	*Ibid.*, p. 793	1 month	Right	Normal	
Coates	Narrated by my friends	Not stated	Right	Normal	
Lloyd Francis			Right	Normal	
Williams	...	2½ years	Right	Normal	Hernia into funicular process of peritoneum, traumatic hydrocele, and orchitis.

The following case presented several interesting features.

The patient, aged 2 years, was admitted on September 15th, 1882, into the Royal Portsmouth Hospital, under the care of Dr. Lloyd Owen, by whose courtesy I am permitted to publish the case. The mother then gave the following account of his case. A lump had been observed in the right groin from birth. It was about the size of a small hen's egg, mobile, and often slipping into the abdomen. A medical man, whom she consulted, said the child was ruptured. The parents had noticed the absence of the right testicle from its proper scrotal pouch, and the child was often observed to be fretful and peevish without obvious cause. A few hours before admission, the child came in from play crying, when the mother noticed an increase in size of the lump; and, thinking it had met with an injury, brought it to the hospital.

When examined, a large sausage-shaped swelling was observed in the right inguinal region, extending downwards into the perinæum to within half an inch of the anus. A distinct sulcus was visible externally, separating its upper and middle thirds. The upper portion was tense, resonant, and presented the ordinary appearances of hernia. The lower was ovoid, dull, fluctuating, translucent, and evidently contained fluid. The scrotum was well formed and symmetrical; the rugæ well marked. The left testicle was normal in every respect; the right was absent from the scrotum, and could not be felt. Examination of the swelling appearing to cause much pain, chloroform was administered, and the taxis applied to the upper portion, but without success. The lower portion was now punctured, and about an ounce of straw-coloured flaky fluid was withdrawn. This, upon standing, coagulated, and was evidently of inflammatory origin. This portion of the swelling was then very much reduced in size, but did not entirely disappear. The taxis was then reapplied to the upper portion, which was now easily reduced, with distinct gurgling. The testis was then thought to be indistinctly felt in the perinæum. The child was then placed in bed, and had lead lotion applied locally. Next morning, the nurse

reported a reappearance of the swelling, when, upon examination, a lump about the size of a hen's egg was observed in the right perinæum, extending posteriorly to within half an inch of the anus. It was irreducible, but mobile, and very tender upon the slightest pressure. It had the feeling and general outline of an inflamed testicle; and the cord, slightly enlarged, could be felt extending from the swelling up to the groin. The skin over the swelling was slightly reddened. The bowels were naturally opened, and there was no return of the hernia or hydrocele.



[The accompanying woodcut, for which I am indebted to my friend Mr. Basil Walker, House-Surgeon at the London Hospital, very well illustrates the external appearance of the swelling. It was sketched from a wax cast which I made of the perinæum at this time.]

September 17th. Ice was now applied locally, and the swelling subsequently became reduced in size and less painful.

September 30th. The child looked pallid, and appeared to have suffered much pain. The testis now felt hard, smooth, ovoid, measuring two inches in its long diameter; it had become fixed, and the tissues covering it were slightly thickened by the recent inflammation. It was less painful upon manipulation than formerly. The cord felt running up to the groin was not appreciably enlarged. The right inguinal canal was rather patent, and invagination of the skin caused considerable pain. The right scrotum remained empty; the left contained a testicle.

October 1st. The patient was discharged, the mother being told to bring it to the hospital for periodical examination; at the same time, it was suggested that the testicle ought to be excised, if the child continued in pain or had its natural movements impeded.

January 26th, 1883; The right testicle is still in perinæum, of normal shape and size; there is now only a slight perineal prominence to indicate its position. The hernia is constantly slipping up and down. The left testis is normally placed in the scrotum. The child enjoys good health. He plays much without pain or inconvenience.

REMARKS.—The position and character of the swelling upon admission at once excited attention, as did also the absence of the right testicle from its proper scrotal compartment. The ease with which the hernia was reduced after tapping, and the inflammatory character of the fluid withdrawn, at first suggested to my mind that we were dealing with a case in which the hernial sac had become inflamed and dropsical, the tight constriction above rendering the reduction of the fluid impossible. The subsequent appearance of an acute orchitis in the misplaced testicle made it more probable that the fluid withdrawn really came from a traumatically inflamed tunica vaginalis, the orchitis being due to the same cause, or else to accidental puncture of the testicle in tapping. The lump previously noticed by the mother as "often slipping into the abdomen" was without doubt the hernia; for, after tapping, the testicle, as indistinctly felt in the perinæum, was of much too small a size to correspond with that described by the mother. In other words, the hernia was congenital, into an unobliterated funicular process of peritoneum; the hydrocele and orchitis being of traumatic origin, due to recent injury.

The Amersham Guardians and Rural Sanitary Authority, on reappointing the Medical Officer of Health, have reduced his salary from £100 to £50 per annum.

CASE OF DIPHTHERIA: TRACHEOTOMY.*

BY W. H. FOLKER, F.R.C.S.Eng.,

Surgeon to the North Staffordshire Infirmary, Hanley.

THE following case of tracheotomy occurred in a child aged 6 years, and is the more interesting, as it was complicated with bronchocele. The child, a female, had been attended homœopathically for several days for an attack of diphtheria; but, the false membrane beginning to invade the larynx, and rendering breathing very difficult, the case was handed over to my care on January 30th, 1883.

It was at once evident that an immediate operation was necessary to save the little patient's life; for her pulse was sinking; she was blue-looking, and almost suffocated. The arches of the palate, and the pharynx as far as could be seen, were covered with the usual brownish-looking false membrane.

The child, being placed on a table for operation, with the neck and shoulders raised on a pillow, and the head thrown slightly back, was found to have a goitre of considerable size, very congested, and traversed by several large veins. An incision through the skin was made in the mesial line, of about an inch and a half, which exposed a complete meshwork of veins of considerable thickness, and some of which seemed to bleed by merely being touched. Where the larger ones could be traced, an aneurysmal needle was passed, and a ligature placed above and below before the vein was divided; but, notwithstanding the greatest care and caution, the hæmorrhage was most profuse, and from twenty to twenty-five ligatures had to be applied before the trachea was reached. The parts being now carefully sponged dry, the trachea was opened just below the cricoid cartilage; but so deeply was it situated, that the usual sized tube for a child would not reach; the tracheal opening was therefore enlarged, and a full-sized tube inserted. This was fastened round the neck by tapes previously attached, and two sutures applied to the lower part of the wound, closing it so that nothing but the entry of the tube was visible. The operation occupied more than an hour, during which time the child was just kept under the influence of chloroform. The temperature of the room was 70° Fahr., and the atmosphere was kept moistened by steam from a bronchitis-kettle.

The relief afforded by the operation was immediate; the pulse rallied; the natural colour was restored; and in a short time the little patient had a quiet sleep. The entry of the tube was kept covered with a piece of gauze; and several small pieces of sponge mounted on thin wire, were constantly kept handy, to remove any mucus that might be coughed into the tube.

In the evening, I found the child breathing quietly through the tube, although troubled with frequent coughing. She had taken some milk several times during the day.

On the 31st, she had passed a fairly good night. The cough was still troublesome, thick tenacious phlegm at times filling the tube, and requiring instant removal. The throat, being still coated, was mopped out with sulphurous acid. On February 1st, the throat being still coated, the sulphurous acid was again applied. The breathing and cough were about the same. She took milk and Brand's beef-essence fairly well. On February 2nd, the throat was clean; no further application was required. The tongue was furred. The bowels were open. The cough was troublesome; and the phlegm very thick and sticky, and difficult to remove. On the 3rd, all the symptoms were about the same; but she looked better in the face, was cheerful, and took her food better. On February 4th, she did not look quite so well. I removed the inner tube, and closed the outer one with a small cork, and found she could not breathe. Then, thinking the hole on the convexity of the tube might be too small, or have become blocked, I removed it altogether; but it produced such distress, that I was obliged to reintroduce it at once. Whilst it was out, I noticed that the wound did not look very well. It was coated over with a film, but not of the dirty brown colour of diphtheritic deposit. The edges looked reddish, and the stitches seemed giving way. On the 5th, she was not quite so well; looked paler and weaker. The stitches had given way. I ordered the wound to be painted over with carbolised oil three or four times a day. On February 6th, the nurse reported that a little milk had been coughed up through the tube very soon after swallowing it. I tried her with some milk, and found it as the nurse had said; so that the pressure of the tube had evidently caused it to ulcerate through to the œsophagus. She could swallow solid food very well. I removed the tube, which made hardly any difference to the

* Read before the Staffordshire Branch.

breathing; it was, therefore, left out. The wound was gaping, and looking more diphtheritic. The cough was troublesome; the phlegm was tough and copious. I ordered perchloride of iron and oxymel of squills, and half an ounce of port wine after dinner. On the 10th, she was much better; the wound looked cleaner. On February 11th, no milk came through the opening. She spoke audibly to-day for the first time. On the 13th, the cough was better; she looked quite bright, and was delighted at being able to speak aloud again. On the 15th, some phlegm still came through the opening; but, by gently pressing the neck with her own fingers, she could now cough part of it up through the mouth. I applied a strip of adhesive plaster across the top of the wound, to draw it a little together, but leaving a portion at the lower part, to allow any discharge to escape. On the 17th, I changed and tightened the plaster. The wound was closer, but she was still coughing up something through it. On the 19th, she was not so well; looked paler. The cough was more troublesome. Bronchial *râles* were heard. The tongue was furred. The bowels were not open. I ordered an enema of soap and water, and a mixture of bicarbonate of soda, ammonia, ipecacuanha wine, and liquor opii sedativus. The enema made her very faint, so the mother gave her a teaspoonful of brandy and a little water. On the 21st, very little came through the opening. The tongue was furred, and bowels not moved. I ordered the mixture to be repeated, and a rhubarb and grey powder to be taken. On the 23rd, she was about the same. The mixture and powder were repeated. On the 26th, I completely covered the opening with adhesive plaster. The cough was better. On the 28th, the wound was healed. Bronchitis was still present. After this, anæmia set in, for which iron was prescribed, but very little was ever taken. After a while, the appetite failed considerably; and, on March 13th, suffocative bronchorrhœa set in, of which the little patient died early on the 15th.

I was much grieved at losing the case after all; for, after the first few days, I had been very full of hope that it would have gone on to a successful issue, although I regard such an operation as always much more dangerous when performed for the relief of diphtheria than when performed for croup. The relief to the breathing was immediate; the appetite and strength were restored; the voice returned on the thirteenth day; and ultimately the tube was removed. The complication, owing to the perforation of the œsophagus, was overcome, and the wound closed; the bronchocele disappeared; and yet, a fortnight after that, the little patient sank and died.

Another time, I shall certainly use a tube without a hole in the upper part of it; for I think the difficulty of removing the tube in the first instance was due to the membrane projecting through the aperture, and possibly granulating. I do not see any use in having an upper opening in the tube; and in this case it was a positive disadvantage, for, had it not delayed its withdrawal, possibly the œsophageal perforation might have been avoided.

As tracheotomy cannot at present be considered a very successful operation in this country, it is perhaps well that all cases should be carefully and minutely recorded, so that faults may be avoided and improvements arrived at both in the operation and treatment.

THE TREATMENT OF EMPYEMA: FREE INCISION VERSUS ASPIRATION.

By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

THE great improvement in the surgical treatment of wounds has been especially utilised in the management of chest operations. During the last few years, free incision in empyema has been extensively and successfully employed, although many surgeons still regard it as a radical measure, and are disposed to try other modes of procedure before resorting to it. It is now a well recognised rule of practice, that any collection of pus within the pleural cavity must be evacuated outwardly without loss of time. The moment for operating in each case must, of course, depend upon the judgment of the surgeon. The occurrence of dyspnœa, and cardiac distress, are always positive indications for immediate action, for delay may suddenly be followed by fatal syncope, or the abscess may burst into the bronchi, and cause suffocation.

When, however, the necessity for some operation has been decided, and the diagnosis of purulent effusion made certain by exploration, the practitioner is sometimes in doubt as to the best method of proceeding. He has to make a selection between tapping with the trocar and cannula, evacuation by the aspirator, simple puncture, or free incision of the chest-cavity with the knife. In a valuable paper recently published in the BRITISH MEDICAL JOURNAL, Mr. R. W. Parker proposes a novel method of aspiration, which he suggests should be adopted before proceeding to the radical operation. He advocates the trial of aspiration, supplemented by the injection of purified air into the pleural cavity for the purpose of ensuring the complete dislodgement oft he fluid. During the last few years, a somewhat similar method of clearing out the chest by the injection of air and disinfecting fluids has been practised by Continental surgeons. The ordinary aspirator often fails, and the tube becomes blocked up with shreds of fibrine and flaky masses; and so a force beyond the elasticity of the walls of the cavity, and the power of the evacuator, is necessary to expel the fluid through the narrow outlet.

But the question to settle is whether, after all, aspiration is the best and safest method of emptying the chest in empyema. Aspiration is a prolonged operation; and this is a serious matter for consideration when the patient is in a condition of exhaustion and distress. The operation, too, must be repeated several times in ordinary cases, to remove the reaccumulation of pus which is sure to occur. There may be exceptional cases, as Mr. Parker suggests, in which a preliminary procedure is admissible, from the extensive nature of the effusion, or the critical condition of the patient; still, it must be remembered that free incision is the measure which, in the large majority of cases, must at length be adopted.

On the other hand, free incision requires no repetition. It can be safely practised at every period of life, and for every variety of empyema—associated, of course, always with Listerian precautions. The little operation can be rapidly performed with my antiseptic trocar,[1] which is convertible into a probe-pointed knife without withdrawal from the chest; and, when performed in this way, it is certainly not a severe measure. In many cases, the ascent of the diaphragm and the contraction of the walls of the cavity are sufficient to drive out the imprisoned fluid; and then, during the after-treatment, the abscess can be kept open by careful drainage, attention to position, and the judicious application of disinfecting remedies.

There are cases, however, even after the operation of free incision, in which it is difficult to empty and deodorise the pleural abscess; for the presence of a little stagnant pus is quite sufficient to keep up a foul condition of the cavity. Sometimes shreds of fibrine and membranous exudation, infiltrated with purulent deposit, obstruct the discharge, and gravitate to the dependent parts of the sac; and thus the cleansing process is rendered a very troublesome matter, even with frequent disinfecting washings. It is often a good plan, under these conditions, to employ a syringe fitted with a long and flexible tube, that can be introduced to the bottom of the pleural cavity, and thus to remove and wash away the fluid which has accumulated at the lowest part.

In other cases, the abscess-cavity is irregular, and is subdivided into several sacs by the remnants of old adhesions, or by bands of recent lymph; and it appears to me that, especially under these circumstances, the injection of purified air is likely to prove of great practical utility; and, for this method, the pleural incision can be readily made air-tight by an India-rubber pad.[2] Mr. Parker suggests "that the air should be injected into the pleural cavity in sufficient quantity to expel all the fluid.....The moment the outflow ceases—provided always the physical signs indicate that the cavity is not emptied—introduce the needle, and pump in a little air." Now, with ordinary care, this little operation will be free from all risk and danger to the patient, and the purified air can be steadily injected so as to avoid any sudden and severe increase of pressure; otherwise, uniting surfaces and freshly formed adhesions may be torn asunder, and the healing process of contraction may be seriously disturbed.

[1] See BRITISH MEDICAL JOURNAL, March 10th, 1883.

[2] The drainage-tube and pad, described at page 1075 of the BRITISH MEDICAL JOURNAL, June 2nd, 1883, would be a convenient instrument for this purpose.

ECZEMA OF THE FACE.—In their work on the diagnosis and treatment of ocular affections, Messrs. Galezowski and Daguenet recommend, against the eczematous and impetiginous eruptions which often show themselves on the lids and nose of young patients suffering from phlyctenular keratitis, either calomel in powder, or the following ointment: Olei cadini 0.25 gr.; hydrarg. oxid. rubr. 0.10 gr.; camphoræ 0.25 gr.; vaselini 10 gr. However, when there are many scabs, the best treatment consists in removing them with a forceps, and touching the denuded surface with a stick of nitrate of silver. The excess of caustic can be neutralised by the application of a solution of common salt.

SEA-SICKNESS.

By R. VACY ASH, M.B.Aber., L.R.C.P.Lond.

I WAS glad to see a short communication in the JOURNAL of July 7th on sea-sickness, and hope all who have the chance will contribute something to our at present small stock of knowledge on this distressing complaint. To me it is particularly interesting, for it is my lot to be painfully sensitive to the movements of a ship, and to have passed more than a year of my service on the sea. I have an idea that the sympathetic nervous system is the culprit, for the following reasons.

1. Flushing of the face is a common sign of the approach of nausea, and we all know that irritation of that nerve will cause this, as well as an extra secretion in a gland.

2. There is an increase in the quantity of fluid ejected from the stomach after it has lain there for a short time. In my own case I frequently noticed, and I subsequently verified it in many others, that, if I took half a cup of beef-tea, and lay in the horizontal position for a time, so as to avoid vomiting, when I did again vomit, when the exhausted muscles had regained their tone and were ready for another attack, the quantity ejected was greatly in excess of that taken in. For instance, if four ounces had been drunk, about twenty ounces would be ejected, of a sour beef-tea liquid. Now, whence did the surplus come? That it was gastric juice, may, I think, be taken for granted; for, although I had not the means of chemically examining its component parts, it certainly partook outwardly of the character of that juice, inasmuch as it would dissolve meat and had an acid reaction, and it did not contain any special features that would lead to the supposition that it came from other gastric organs.

Granting then that it was gastric juice, it follows that secretion, induced by the presence of the beef-tea, was in action, while the balancing power of absorption was held in abeyance. Now, if we follow this out we shall see that the sympathetic nerve-power was acting regularly; for secretion of gastric juice is governed in the follicles by the latter, while absorption of fluids direct by the veins which are governed by the former is held in abeyance, or, in other words, paralysed. I do not say that it is so, I only throw these facts out for others to corroborate, or not, as the case may be. Whence could the increase in the quantity of fluid have come? It must have been taken in some way from the blood; and what so ready to do so as the gastric follicles, stimulated into action by the presence of the small quantity of beef-tea?

Again, I noticed a rise in temperature of from one to two degrees in almost all cases on which I made observations. This may have been induced by the excited action of the sympathetic, allowing an increased flow of blood through the capillaries. By the term "excited," I mean "confused" action of that system, corresponding in effect to paralysis in the cerebral system.

Now, as to remedies. If my observations be correct, any drug or remedy acting on the sympathetic nervous system would cure this tiresome complaint; ice to the spine may so act, as well as the remedies mentioned by Mr. Kendall, in a more direct way. The teaspoonful of Worcester sauce, which, by the by, I have also found useful, may owe its efficacy to the hot condiments contained therein, and I imagine it to be possible that they act through the sympathetic in the coats of the stomach. I need not follow out the other remedies, or name the thousand and one new ones that are constantly being poured down the throats of the unhappy traveller; but I do know that the majority of the quack remedies for sea-sickness contain a mixture of nearly all the carminatives and condiments under the sun, with the hope that one out of the lot will hit, and they do hit, or rather temporarily relieve; as cayenne pepper and Worcester sauce will do. There is one mode of applying remedies that I should like to see tried by someone who would honestly take the matter in hand; and that is, the introduction of certain remedies by subcutaneous injection, for it necessarily follows that, if my idea be correct and absorption be held in abeyance in the stomach, it is of little use to pour any medicine into that viscus when it is impossible to be taken up by the blood. Why the sympathetic nerve is the culprit, I will not attempt to prove. It may be that the motion of the vessel is foreign to the understanding of any cerebral nerves or organs governed by them, and hence is thrown back, so to speak, on the more animal nerves, lower in the organisation for appreciation, and that this, the sympathetic, unable to cope with such a strange motion or phenomenon, gives up in despair and refuses to act naturally. This may be far-fetched, but, at least, it is open to argument in the absence of a better reason.

VESICO-VAGINAL FISTULÆ.

By PERCY BOULTON, M.D., M.R.C.P.Lond.
Physician to the Samaritan Free Hospital.

IT is unnecessary for me to give a vivid description of the terrible state to which a woman is reduced who suffers from a severe form of this injury. Probably, nothing except cancer renders her so unfit for every duty or pleasure in life. When such a fistula is favourably situated, that is to say, some little distance from the neck of the bladder, and where there is ample tissue to bring the parts easily together, any neat operator, with ordinary manipulative skill, may succeed. In cases the reverse of this, he will require a considerable fund of resources and patience. Such cases often become plastic operations, surrounded by every possible difficulty, requiring the greatest dexterity and mechanical inventiveness, not only as regards the tissues to be dealt with, but also with the instruments to be used for the purpose of repair.

When the operation seems to be successfully completed, we have to deal with a viscus that is never at rest, and that is the receptacle of a fluid peculiarly penetrating and irritating to raw tissues; and, although our operation may be well timed, so irregular and uncertain are some women, that the catamenia may come on unexpectedly at the very time when it is ruination to all the work.

The two following cases have just left my ward, at the Samaritan Hospital, cured, and a short account of each will be instructive and, I think of interest.

CASE I.—M. E., aged 65; married, had suffered for twelve years from prolapsus uteri, for which she had worn supports. The last one, inserted by her medical attendant in the country, was a "Blackbee," after wearing which for about three months she found that she was constantly damp. After noticing this for four months more, she was seen by my colleague, Dr. Day, who found a fistulous opening into the bladder about an inch from the cervix uteri, through which a five-shilling piece could have been passed. The vesical mucous membrane was everted, and very vascular, like a large caruncle. Dr. Day transferred the case to me for operation.

On January 26th, I carefully pared the edges, using for this purpose a small tenaculum and a pair of curved scissors, the patient being on her back, the parts exposed, with the Sims' speculum in the vagina, and a straight metallic sound in the bladder. I brought the edges together with eight fine wire sutures; and the patient, who refused to be anæsthetised, never uttered a sound. The urine was drawn every six hours, and, on the tenth day, I removed all the sutures, and found the opening completely closed and water-tight. I kept her in hospital another fortnight under observation, and she returned home on February 18th, well.

The age of the patient and the very vascular condition of the vesical mucous membrane suggested some degenerative change as a cause of want of vitality in the parts, leading to such extensive injury, from what must have been slight pressure in so lax a vagina. Otherwise, this was a favourable case for operation, as the result proved.

CASE II.—M. B., aged 37, deserted by her husband, came up from Cornwall to see me at the Samaritan Hospital in November 1881. Her last confinement had been seven years before, and she had never been able to retain any urine since. The labour was a very severe one; for five hours, the patient had been in convulsions, and was unconscious at the time of delivery. She was told that the forceps was applied, and that a strong pain suddenly expelled forceps and child.

On examination, I found the whole anterior vaginal wall torn through from the cervix uteri to within half an inch of the urethral orifice. I could pass four fingers upwards into the bladder, which, from long disuse, was small, and the edges of the cicatrix were hard and unhealthy.

I determined to try to bring the whole together at one sitting, as the number of sutures required would enable me to keep up a slight and even tension that would bring the edges sufficiently in apposition. On November 22nd, 1881, I did this; and, on December 2nd, I removed the sutures, and found all united, except the three anterior ones. This is the part which always gives trouble. Dr. Marion Sims has said he "regards cases in which the neck of the bladder is destroyed as all but incurable."

On December 4th, the catamenia returned after fourteen months' cessation, so that I did nothing more till December 14th, on which day I pared the edges of the opening remaining, and brought it together with three sutures. On December 24th, I found that two out of three had healed, but there was still an opening of the size of a

goose-quill. Christmas intervening, nothing was done till January 11th, 1882, when I again brought the parts together after paring the edges. On removing the two sutures I had inserted, this point looked delicate, but there was actually no leakage, and the poor woman was delighted beyond measure at her altered condition.

She had been in hospital three months, and confined to bed nearly the whole time, so that she was getting out of condition, and was, moreover, anxious to get home to her two boys. My disappointment was great on finding, the day before it was arranged for her to leave, that there was still a pervious point from breaking through at the weak place at the neck of the bladder. She thought so little of this herself, that she was satisfied to be as she was; and as I felt that the chances of healing became less the longer she remained in hospital, I let her go home, with the promise that she should return again another time to be completely cured.

In order to avoid being tedious, I will not relate exactly the various repetitions of paring and stitching that took place, but state broadly that the patient returned to London on October 3rd, 1882, in robust health; just as when she went out as regards her bladder, which was a perfectly useful viscus in every way, except that she was always slightly moist from leakage. It took, however, another four months to attain the desired result. After careful paring and stitching on three occasions—after which (1) the catheter was left in the bladder constantly, (2) the urine was drawn at intervals of six hours, (3) the patient passed her urine from the first—all of which failed, I determined to drain the bladder, by making an artificial opening further back; and in this way, the neck of the bladder being perfectly at rest, the fistula healed. I had then no difficulty in closing the opening I had made, and so the cure was completed by February 22nd, 1883, when she returned home.

This, the most tedious case of the many I have treated successfully, is very instructive. Had I brought only the anterior three-fourths together in the first instance, and left the hinder part open for drainage, I might possibly have completed the case in two operations instead of about a dozen.

SUDDEN DEATH AFTER LABOUR.

By E. PAGET THURSTAN, M.D., B.A.

Mrs. S., aged 35, married, seven months pregnant of her first child, had not been in good health for some years, and had become very nervous since a severe fright the previous year from a lunatic. She complained of shortness of breath, her lips were blue, and her face bore an anxious expression; she trembled on the slightest agitation. Her temperature and pulse were normal, and there was nothing wrong in the chest, nor œdema anywhere. The urine contained one fourth of albumen, no casts, a trace of bile; specific gravity 1030. Marked relief was afforded by carbonate of ammonia, acetate of ammonia, tincture of squill, tincture of belladonna, and aqua chloroformi. On April 11th, she complained of severe pruritus over body. A lotion containing ten minims of solution of acetate of lead and eight minims of hydrocyanic acid to the ounce was ordered, but produced no relief. A lotion of a drachm each of liquor plumbi acetatis, glycerine, and strong acetic acid to the ounce, was then ordered; this gave marked relief, and still more arose from a combination of the two lotions.

April 30th. Labour was said to have commenced at midnight; the os was undilated; the cervix was not entirely obliterated; head-presentation. The abdomen was enormously distended, and the legs and thighs greatly swollen; the breathing was easier, but the lips still rather blue. A mixture of carbonate and sulphate of magnesia was ordered.—May 1st. Pains had continued with tolerable regularity, preventing sleep; the bowels acted twice. In the evening, as the pains still continued, a draught containing twenty grains of chloral was prescribed.—May 2nd. She slept better than for a week past; the pains returned in early morning, stronger, and now regular. At 5 P.M., the os was of the size of a shilling, and dilatable. Until 9 P.M., labour proceeded favourably; the os was of the size of a five-shilling piece. From this time, there was little or no progress. The head was still high up in the pelvis. At 1 A.M., May 3rd, I ruptured the membranes, as there was evidently an excessive amount of liquor amnii. At 9 A.M., the head had descended a little lower into the pelvis; it still moved with each pain, but the os dilated no more; the pains were very strong; the pulse good and quiet. At 11 A.M., I endeavoured to put on the forceps. One blade went on easily, but, owing to the enormous œdema of the thighs, the unyielding nature of a primiparous perinæum, the undilated condition of the os, and the fact that the head was still high up in the pelvis, the difficulty in introducing the second blade was so great that I administered chloroform, and Mr. Lammiman kindly applied the long forceps. The introduction of the second blade was a task of considerable difficulty. After nearly an hour's hard work, assisted by strong pains, intensified by ergot, the head was delivered. The perinæum was partially ruptured, and great quantities of liquor amnii escaped at times. After the forceps was removed, the shoulders gave some trouble. At last, the patient was delivered of a very large male child, practically dead. Despite artificial respiration, and bleeding from the navel to an ounce or more, we failed to establish breathing. Alarming hæmorrhage now ensued, which was controlled by firm grasping of the uterus, and free exhibition of ergot. The perinæum was then stitched up.

May 4th. The urine was drawn off by catheter. Temperature 99°, pulse 102. Frequent gushes of fluid (amniotic?) took place from the uterus. She was doing well in every respect. On May 6th, she was still doing well; but at 9.30 I received an urgent message. The patient had been seized suddenly with faintness, dyspnœa, and feeling of impending death. She had rallied somewhat when I arrived. Temperature 100.4°, pulse 99. There were no rigors, sickness, or abdominal tenderness. A soft (hæmic?) murmur was heard over base of the heart. No dulness or crepitation was heard anywhere over the lungs; the lips blue, the face anxious, breathing laboured. I ordered a mixture, containing carbonate of ammonia and spirit of sulphuric ether, to be taken whenever any signs of faintness appeared. I ordered that the patient was not to be raised in bed, nor moved more than absolutely necessary. There was no trouble with the breasts. After this, she appeared to be doing well until May 14th., when I received an urgent call at 7.20 A.M. The temperature was 98°, the pulse 93 (114 the day before), and almost imperceptible. The lips were blue; breathing was laboured. She soon rallied after a dose of carbonate of ammonia and ether. She had had a slight attack of faintness at 11 the previous night. In the afternoon, Mr. Lammiman again kindly saw her with me. She still had nervous tremors, but had quite rallied from the faintness. I ordered thirty grains of chloral at bedtime. After this, she went on well, and, on May 18th, she got up for an hour and a half, and sat in an arm-chair. On May 19th, she was still doing well, there having been no signs of faintness since the 14th. In the evening, I received an urgent summons, and found the patient dead on my arrival. Her husband had been sitting talking to her in the afternoon. She seemed quite well and cheerful. He was obliged to go away for twenty-five minutes, and left her alone at her own request. The next door neighbour, sitting with the door open, was ready in case she heard a call. When the husband returned, the patient was lying exactly as he left her, but quite dead; there were no signs of pain or struggle. No necropsy was obtainable.

Remarks.—The severe itching was followed by papules, but these were in great measure evanescent, and probably the result of scratching. The effect of a strong solution of liquor plumbi, where a dilute form has failed, is well shown. In the labour itself, the pains continued without an hour's intermission, except during sleep artificially procured, from midnight, April 29th, till delivery by forceps at 2 P.M. on May 3rd: over three days and a half. Throughout that time, food was taken freely, the bowels acted comfortably, and there were no signs of exhaustion or failing pains. Actual hard labour-pains continued for twenty-seven hours. Upwards of three days elapsed after the labour before the first attack of syncope. The temperature on this occasion was hardly, if at all, reduced, and the pulse was fair in quality. Seven days now elapsed before the second attack of faintness, which was so far slight that I was not sent for. Early next morning, however, there was a severe attack, and this time the temperature was subnormal, and the pulse very feeble. After this, there was no symptom of anything wrong. When she first got up, great care and watchfulness were exercised, but there was no difficulty or trouble of any kind. On the day of her death, she had not got up at all—indeed, had hardly raised herself. As no one was with her at the time, it is quite unknown whether anything occurred to startle her, or whether the last fatal syncope had no exciting cause.

The Glanford-Brigg Guardians and Rural Sanitary Authority, on re-appointing the Medical Officer of Health, reduced his salary from £150 to £120 per annum. The Local Government Board wrote, refusing their sanction, and the subject was brought forward at the last meeting of the Rural Authority and fully discussed; but the latter would not yield, and affirmed their former resolution by a large majority.

SURGICAL MEMORANDA.

FOREIGN BODY IN LARYNX: TRACHEOTOMY: RECOVERY.

In the evening of April 23rd last, I was asked to see a child, fourteen months old, who had been suddenly seized with spasmodic cough and dyspnœa, after putting a boiled dried green pea into his mouth. I found him with all the symptoms of a foreign body in the air-passage. Examination showed that it had not passed beyond the larynx. Inversion of the body and succussion were tried without effect. As the symptoms were not urgent, and thinking that there was a fair chance of such a body being coughed up, I took no further means to remove it, but left instructions that he should be carefully watched, and any aggravation of his condition reported to me. I then made arrangements for assistance in case an operation should become necessary, and got everything ready. At midnight I again visited him, and found that there had been no change. The next morning, at 5 o'clock, a messenger came to say that he was much worse, and a few minutes after another came, saying that he was dying. I made all haste to the house, and found him breathing with great difficulty, livid, and unconscious, and it was evident that no time should be lost. I therefore did tracheotomy at once, and before Mr. E. Morris, whose aid I had sought, arrived, the operation was completed, and the child out of danger, for the time at least. On April 29th, I removed the tube, but, finding that all the symptoms of obstruction remained, I replaced it. Mr. Morris saw him with me on May 8th. We could even then see no reason for active interference. On May 28th I again removed the tube, and was obliged to replace it immediately. After this he appeared to be worse, lost his appetite, had frequent cough, and expectorated a good deal of muco-purulent matter. I therefore decided on making an attempt to remove the obstruction. On May 28th, with the assistance of Mr. Morris, who administered chloroform, having ascertained that respiration was still impeded, I passed an elastic catheter, threaded with cord, upwards from the opening in the trachea, secured the cord through the mouth, withdrew the catheter, and tied a small pledget of sponge on the cord and drew it upwards, sweeping the larynx. There was no immediate result from this procedure, but, after a few days, there was evidence that air was passing more freely through the natural passage, and on June 2nd I removed the tube and found that the obstruction had ceased. The wound closed rapidly, and he is now as well as he was before his troubles began.

Sedley Wolferstan, M.R.C.S., L.R.C.P., Plymouth.

AN UNUSUAL CASE OF SUICIDE BY CUT-THROAT.

On the morning of February 10th, I was called to see Mrs. C., aged 41, who, I was informed, had cut her throat. Within a few minutes of being summoned, I was with her, and found her lying on her back in a bedroom, with her feet towards the dressing-table. She had a transverse wound of the throat, and, the head being thrown back, a large gap existed, in which a tennis-ball could have been easily inserted; the absence of the larynx, a portion of the trachea, together with the thyroid gland, being especially noticeable; and careful examination further showed that the œsophagus was severed. On introducing the fingers into the aperture, the anterior ligaments of the spine could be felt. At her feet was a pool of blood about 10 inches in diameter, in the margin of which were found the missing larynx with the cricoid cartilage attached; also the missing portion of the trachea (which consisted of five rings), to which was attached the thyroid gland. A razor, partially closed, and covered with blood, was also discovered near her feet. Neither carotids were wounded; but, from her blanched appearance, she had evidently lost a large quantity of blood from the smaller vessels which had been severed; and, judging from her semi-asphyxiated condition when seen, much of it had found its way into the air-passages. She died within twenty minutes of being discovered.

Self-destruction must have been most determined, as it was shown at the inquest (when the jury returned a verdict that the deceased committed suicide while in a state of temporary insanity) that, in order to get one of her children, the only one about her at the time, out of the way, she had sent her into the yard at the rear of the house to fetch a bucket of water. This child stated in evidence that she could not have been absent more than five minutes, and on her return found her mother lying on the floor with her throat cut. The woman had been in a depressed state of mind for some days prior to the sad event.

It would, I believe, be doubted by many whether such a mutilation could be self-inflicted, especially during the short space of time it occupied; and it appears to me be a case in which, in the absence of conclusive evidence to the contrary, murder might be suspected.

Dr. Scott, my colleague at Her Majesty's prison, Chatham, attended the case with me.

R. C. Harrison.

OBSTETRIC MEMORANDA.

INJECTIONS OF HOT WATER IN DELIVERY.

The remarks of Dr. Beckingsale on the value of hot-water enemata in delivery, I can fully endorse. The stimulant effect of hot water on the uterine tissue, though slowly gaining ground, seems to be far from generally appreciated by the profession, far less than, from its efficiency, it deserves. I refer not only to rectal enemata, but also to vaginal and uterine injections. Indeed, I believe the beneficial effect of hot water is more readily obtained by injection *per vaginam* than *per rectum*. That such should be the case in rigidity of the os is evident; and unless fæces be present in the rectum, I give preference to vaginal injection, as being the more efficacious of the two. In *post partum* hæmorrhage from inertia of the uterus, no remedy is more certain and speedy in its action; so much so, indeed, that it is a matter of surprise it should not be more generally adopted. The following case served, perhaps, more than any, to impress upon me its superiority over the means in more general use.

After removing a morbidly adherent placenta under chloroform, the uterus failed to contract, and, while waiting for hot water, the hand was retained in the cavity of the uterus; suprapubic pressure, with friction of the abdomen, flipping with a wet towel, all produced the same effect—local contraction of the uterus, answering to the surface of the abdomen affected, but nothing more. The administration of ergot, owing to the persistence of anæsthesia, was inadmissible. On injecting hot water, however, a general contraction took place, expelling the retained hand almost immediately, and the hæmorrhage forthwith ceased.

As the objections which have been urged against uterine injection may be obviated, and all risk reduced to a minimum by a careful performance of the operation, the following details may be found useful.

First, with regard to the necessary apparatus, a Higginson's syringe (those made in one piece are the best) and uterine tube, furnish all that is required. From the obvious risk of lacerating the uterine tissues (one fatal case in which the tube found its way between a portion of retained placenta and the uterine wall having occurred to my knowledge), the leaden tube may, with advantage, be dispensed with, and a perfectly harmless substitute improvised by adding two or three more eyes to a No. 12 flexible India-rubber catheter. This can readily be adjusted to the nozzle of the syringe, and the whole packed in a small compass. Being firmly convinced that all manipulations within the uterus should be conducted antiseptically, as a prophylactic measure totally apart from its curative influence in cases of intra-uterine decomposition, I invariably add Condy's fluid to the water injected. This may be carried in the form of powdered crystals of permanganate of potash, and added to the water as required, the strength (insufficient to stain the finger-nail) being readily gauged by the tint of the solution. This antiseptic being inodourless, nonpoisonous, readily portable, comparatively inexpensive, and losing its red tint, if slowly injected, only so long as there is decomposing matter in contact with it, is so suitable, that I need mention none other. The water should be of such temperature that the finger can be retained in it without producing pain.

The patient being brought into a good obstetric position, the trunk across the bed, with the buttocks well to the edge and the knees drawn up, the catheter and syringe being first filled with water, the tube can be readily passed in the following way. The point of the catheter should be taken between the tips of the first and second fingers of the left hand, and inserted into the vagina. Before proceeding further, the vagina should be flushed; the fingers then carried up to the os, acting as a guide to the point, the stem of the catheter, running along the cleft of the fingers and palm, is readily pushed onwards into the uterus. The injection, like all other intra-uterine manipulations, should be slowly performed, and the catheter moved from time to time, to bring the fluid injected into contact with all parts of the uterine cavity. Care should be taken, by keeping the end of the syringe beneath the water, to avoid the introduction of air. A siphon arrangement, made from a length of tubing, with spring clamp to regulate the flow from an elevated vessel, has been recommended in place of the syringe; but, though

it answers very well as a permanency in the wards of a lying-in hospital, it will be found far from easy in manipulation in general practice. ROBERT BOXALL, M.D., Cranleigh.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

GLASGOW MATERNITY HOSPITAL.

CASE OF BASILYSIS.

[For the report of this case we are indebted to Mr. N. T. BREWIS, M.B., House Surgeon.]

J. S., aged 23, pregnant for the first time, was admitted into the hospital on March 5th, to have labour induced. On inquiry into her case, as far as could be ascertained, her pregnancy had advanced to the eighth month. The pelvic measurements were found to be as follows: Interspinous, 9½ inches; intercristal, 9¾ inches; external conjugate, 6½ inches; diagonal conjugate, 2½ inches; probable true conjugate, 1½ or 2 inches. The height of the patient was 51 inches, and though the bones of the legs were straight, there was a very marked rachitic bend in both femurs. It was considered with such a contracted pelvis the pregnancy had gone on too far to allow of a living child being delivered, and it was thought the case would afford a good opportunity of trying Professor Simpson's new instrument, the basilyst.

On March 5th, at 3 P.M., a gum elastic catheter was introduced into the uterus, between the uterus and the membranes, without rupturing the latter. Pains set in, and twenty-four hours after its introduction, the os then easily admitting the middle finger, the catheter was removed; the pains continued, and next morning, at 10 o'clock, the os was found nearly fully dilated, and easily dilatable. At 11.30 A.M., the patient was put under chloroform, and the long forceps applied to the head, and kept on to steady it during perforation. (Before perforation, powerful traction was made with the forceps, without any advance of the head, which remained fixed above the brim.) The uterus was fixed, and the head further steadied by the hands of an assistant, applied over the fundus.

The vault of the cranium was now perforated by the basilyst, which was screwed in up to its shoulder and the handles brought together, with the result that the right parietal bone, which was lying to the front, was broken up. The contents of the cranium having been washed out, the instrument was introduced inside the emptied skull down to the base, where it was screwed in, again up to the shoulder of the screw, in front of the sella Turcica; the handles brought together, and the bones taking part in the floor loosened. The base and vault being now dissolved, and the cranium empty, moderate traction was made with the forceps, and the head and body of the child easily extracted. The child was a male, 18 inches in length, and weighing 3 lbs. 10 ozs. without the brain. The patient made a good recovery.

REMARKS BY MR. BREWIS.—My excuse for reporting this case is on account of the successful use of the new instrument. The basilyst has been lately introduced, and a description, along with an illustration of it, appeared in the *Edinburgh Medical Journal*, March, 1883. The instrument aims at breaking up the fœtal head, by perforating and loosening the bones of the vault, and by effecting dissolution of the bones of the base. And in this breaking up of the base the value of the instrument lies, not only on account of the complete manner in which it accomplishes this object; but that, added to this feature, it can be used with perfect safety to the mother, and with great ease to the operator. In the above case Dr. Muir, who operated, expressed himself astonished at the ease with which the instrument did its work.

VICTORIA HOSPITAL FOR CHILDREN.

BIMANUAL DETECTION, AND REMOVAL OF STONE IN CHILDREN.

(Under the care of Mr. CHURCHILL.)

[Reported by Mr. HUGH SMITH, Registrar.]

A CASE which well illustrates the bimanual method of calculating the size and situation of stone in the bladder, has recently been under the care of Mr. Churchill at this hospital.

A boy aged 9 years and 10 months, very thin and spare, and having a conjugate diameter of only 2¼ inches, and the distance between the two tubera ischii 1¾ inches, was put under the influence of a mixture, containing alcohol, one part; chloroform, two parts; ether, three parts.

Suspecting that he would have to deal with a large calculus, Mr. Churchill, before sounding the patient, passed the left index finger into the rectum, and illustrated the method of mapping out the contour of a calculus by digital examination.

The calculus, being poised upon the palmar surface of the index finger in the rectum, was, by a gentle concussion process, brought within the range of the thumb and finger of the right hand in the suprapubic region.

Having satisfied himself as to the relative size and weight of the calculus, Mr. Churchill proceeded to remove the stone by the usual lateral lithotomy operation. Finding some difficulty in extraction with the forceps, and also with the scoop, although both the external wound and that through the neck of the bladder were enlarged sufficiently to accommodate the stone, Mr. Churchill resolved to abandon the use of instruments, and extract the stone by manipulation. The left index finger was introduced into the bladder, and the calculus, which was a conglomerate mulberry one, almost completely spherical (one inch and one-tenth in diameter, weight 280 grains apoth.), was hooked by the finger straight from the fundus to the neck of the bladder.

Mr. Churchill then introduced the right index finger into the rectum, and, by cautiously removing the left finger, which fixed the foreign body, the calculus was tilted up, and pressed through the opening in the bladder, and then through the external incision.

Mr. Churchill showed, by grasping the stone in the forceps, that it would have been necessary to enlarge the wound to nearly twice the size, to extract it, without laceration, in the grip of the forceps. Considering the limited space available for incision, this bimanual method of extraction was undoubtedly the safest and best. Ten days after the operation, the patient was doing remarkably well.

Another peculiarity of the case was the extreme dilatation of the pupils, as though the patient were under the influence of atropine, but due apparently to anæmia.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM: ANNUAL GENERAL MEETING.

THURSDAY, JULY 6TH, 1883.

WM. BOWMAN, F.R.C.S., F.R.S., President, in the Chair.

Financial Statement.—The TREASURER, Mr. J. F. Streatfeild, made his annual statement, which showed that the financial condition of the Society was satisfactory. An alteration in the by-law relating to subscriptions was put from the chair and carried.—The PRESIDENT said that the third session had passed happily for the Society. Three members from the colonies, or dependencies, and five from the United Kingdom, in addition to fourteen from London, had joined the Society. The sense of the great loss experienced by the death of Mr. Critchett, had already found expression, while in Mr. Lyell the Society had lost a member who, it had been hoped, would have contributed valuable matter to its records. The President concluded by referring to the discussion on eye-symptoms in spinal disease, and expressed the opinion that it would act as a stimulus to further inquiry.

A case of Sympathetic Ophthalmia; Operation on the Exciting Organ; Recovery.—Mr. SIMEON SNELL (Sheffield) related the history of a man, aged 36, who, on October 5th, 1882, ran a packing-needle into his left eye. He came first under observation on October 20th; there was then prolapse of the iris, and a wound at the lower and inner sclero-corneal junction, encroaching on the ciliary region. On November 3rd he had plastic iritis, which had been preceded by "mistiness," for two or three days, in the right eye; the pupil was hardly acted upon by atropine. On November 5th his condition was worse, and the next day still more aggravated. On November 6th the prolapse was incised, and as much iris as possible excised; very little was removed, and that only piecemeal, as it was incorporated in the tissues. The incision was prolonged on either side in the sclerotic, just behind the corneal junction (sclerotomy). On the next day there was improvement, the pupil soon dilated, and the iritis subsided; the prolapse in the left had disappeared. On November 19th, a little iritis appeared, and perchloride of

mercury was ordered internally; recovery soon took place. In a few weeks he resumed his work. April 13th, 1883, in either eye, V. $\frac{20}{20}$; and he was able to follow his employment as well as formerly.

Hemiachromatopsia—Mr. SWANZY (Dublin) brought forward the case of a gentleman, aged 77, who, in November last, had a slight attack of cerebral apoplexy, which rendered him unconscious for about twelve hours, and from which he completely recovered in the course of a few days, except for some defect in vision, and a confusion of ideas when he made any unusual mental effort. He had not, even for a short time, any hemiplegia, affection of speech, or other paralysis. Five months later Mr. Swanzy was consulted, the patient's chief complaint being a difficulty in recognising his friends, even when near to them. In each eye, V. $\frac{6}{12}$. In the left eye was a slight peripheral opacity of the lens; but, in all other respects, the eyes were organically sound. The defect in vision could only be accounted for by senile changes in the media and retina; but this comparatively slight defect was insufficient to explain his difficulty in recognising people, and Mr. Swanzy was inclined to regard it as a disturbance of a cerebral function. Examination with the perimeter displayed a slight homonymous defect in the right upper quadrant of each field. The patient complained that his colour-vision had not been so acute since the attack in November, but yet he was able to perform Holmgren's tests with accuracy. When the fields were examined with coloured wools, Mr. Swanzy found that the left side of the field in each eye was totally colour-blind, while, with the right side, colours could be distinguished, although in an area concentrically contracted. This and similar cases clearly showed that the nervous elements, in which the power of perception of colour resided, were situated in the brain, and not in the peripheral visual apparatus, and that the colour-centre in the brain was distinct from that for the form-sense, and for ordinary light-perception.—The PRESIDENT considered that the case was of considerable interest. He inquired whether the line limiting the field was quite vertical and through the fixation-point.—Mr. BRUDENELL CARTER observed that there were cases on record which appeared to confirm the anatomical speculations of Mr. Swanzy. He had lately seen a case where, in the left eye, a colour-scotoma extended from the fixing-point ten degrees.—Mr. MCHARDY mentioned the case of a man who became suddenly colour-blind. About ten days before he came under observation, he one day noticed that meat had a most "disgusting" slaty-blue colour, and he also, from that time, made mistakes in the colour of lights on board ship. He was found to be quite red-blind; he was suffering from albuminuria, and four days later died of cerebral apoplexy, which was found, at the necropsy, to be very extensive.—The PRESIDENT remarked that in Mr. Swanzy's case one half of the field of vision for colour was lost, just as, in certain cerebral lesions, one half of the field of vision was lost; it might, therefore, be concluded, that the loss of half of the field of vision for colour was also due to cerebral lesion.—In reply to a question by Mr. NETTLESHIP, Mr. SWANZY said that he had taken great care to test the centre of the field, because of the fact that in ordinary hemianopia, the dividing line usually passed a few degrees to one side of the point of fixation. In this case the colour-scotoma, however, seemed to pass precisely through the centre.

Foreign Body in the Fundus.—Mr. J. E. ADAMS related the case of a young blacksmith, who was struck in the left eye by a chip from an anvil, which penetrated through the tissues and vitreous, and lodged in the fundus above, and to the outer-side of the macula. For a few hours after the injury, the patient could not distinguish light from darkness, but vision had steadily improved, and was now normal. The body was covered by remains of lymph and pigment, and there were some striæ, denoting the remains of hyalitis. A similar case had been recorded by Mr. Snell.—Mr. SNELL said that in his case the foreign body entered a little beyond the sclero-corneal junction. Vision shortly after the accident was $\frac{20}{30}$, and subsequently reached J1. More recently he had seen a similar case in which the particle passed through the cornea and lens and lay below the disc; at the end of two years the lens became opaque. Knapp had collected twelve cases, and had advised the use of the electro-magnet, but Mr. Snell felt great hesitation on the point.—Mr. W. ADAMS FROST said that he had seen a case in the practice of Mr. Warren Tay, where the lens escaped injury and the media were clear; a glistening body could be seen close to the macula. Vision was fairly good, and there was no inflammation.

Ophthalmoscope for Artists.—Mr. J. E. ADAMS exhibited and described his ophthalmoscope for artists; and Mr. MCHARDY observed that, as artists were liable to a kind of cramp, from the strain and constant change from the ophthalmoscope to the pencil, the instrument was calculated to be very useful.

Anomalous Distribution of Retinal Arteries.—Mr. J. B. STORY (Dublin) communicated notes of a case of anomalous distribution of the retinal arteries, where the superior nasal artery gave a branch which ran downwards in several curves, and ended in the descending division of the artery near the disc, without communicating directly with the central artery.—Mr. MCHARDY said that the appearance in the drawing resembled a case which he had seen: he thought it suggested aneurysmal varix.

Congenital Drooping of the Left Upper Eyelid.—Mr. GUNN showed a girl, age 15, in whom the left upper eyelid drooped, and the left pupil was contracted; associated with this was jerking action of the left levator palpebræ, the lid being retained in the raised position so long as the left external pterygoid acted on the jaw.—Dr. CHOLMELEY pointed out that the eyelid was materially lifted when the chin was turned quickly to the right. The case was subsequently referred to a committee, consisting of Mr. Gunn, Dr. Mackenzie, Dr. Abercrombie, and Mr. Lang.

Disseminated Choroido-Retinitis.—Mr. SYMONS showed, for Mr. Lawson, a drawing from a case of choroido-retinitis, in a man, aged 23 years, who had contracted syphilis thirty months earlier.

Morphœa.—Mr. POWER exhibited a young woman, 23 years of age, with a patch of morphœa on the left upper eyelid.—Dr. MACKENZIE thought that the patch would eventually disappear if left alone.

Cysticercus.—Mr. HULKE exhibited a drawing from a case of cysticercus in the vitreous humour; the child had subsequently passed under the care of Mr. Vernon, in St. Bartholomew's, and the case had been published by him elsewhere.

Multiple Retinal Aneurysm.—Mr. A. H. BENSON (Dublin) showed a drawing of a case in which there were numerous aneurysms on the arteries and veins of the retina. There was no increase of tension.

Facial, Conjunctival, and Retinal Nævus.—Dr. HORROCKS exhibited a case of facial, conjunctival, and retinal nævus. The patient was a girl, nine years of age, who had been subject to fits since her birth, and was hemiplegic on the left side. The right side of the face, including the skin of the eyelids and forehead, was covered with a nævus, giving a port-wine stain appearance; the conjunctiva was also affected. On ophthalmoscopic examination, the retinal veins of the right eye were seen to be very tortuous. Owing to her defective intellect, nothing satisfactory could be elicited as to vision; but, as far as could be made out, she saw equally and well. Dr. Horrocks pointed out that the tissues in which the vascular dilatation occurred were epiblastic structures, suggesting the possibility that the vessels of the pia mater on the right side were similarly affected, thereby having something to do with the left-sided fits.—Dr. S. MACKENZIE observed that Dr. Allen Sturge had exhibited, at the Clinical Society, a case in which there was a nævus of one side of the face, and paralytic symptoms on the opposite side of the body, and argued that, possibly, a nævoid condition existed within the cranium at some part. Dr. Horrocks's case lent some support to that view, though it was proper to remember that the condition of the cerebral vessels had been met with on both sides, without any symptoms.—Mr. NETTLESHIP said that, in Dr. Sturge's case, there was nævus of the sclerotic also, and the affected eye was larger than the other.—Dr. HORROCKS suggested that, in marked tortuosity of the retinal vessels, the condition might be due to a fœtal disturbance similar to that which set up cutaneous nævus.

Vote of Thanks.—Mr. BRUDENELL CARTER proposed a vote of thanks to Mr. William Bowman, the retiring President, whose devotion to the interests of the Society, and fostering care of it in its earliest days, could not be forgotten. He trusted that Mr. Bowman would still be able to attend its meetings; but, as he was now about to leave the chair, the speaker was anxious to express to him, in the name of the Society, its grateful sense of the dignity and impartiality with which he had discharged the duties of his office. The motion having been carried by acclamation, Mr. BOWMAN said that the very kind words addressed to him by Mr. Carter had been unexpected, and their reception by the meeting most gratifying. His mind had been led back to the time when he had first began to turn his attention to the subjects which now interested the Ophthalmological Society The knowledge of the structures and of the functions of the eye was then imperfect and elementary, and the treatment most inadequate. The subject had then hardly ceased to be in the stage in which it was dealt with either on the most general lines, or as a narrow specialty. Now, the condition of things was widely different; no department of medicine had known more splendid progress It had been a great pleasure to him, through many past years, to follow the advance, and perhaps, in some small part, to promote it; particularly

pleasant it had been, as their first President, to share with the members of their Society in the happily conceived idea of bringing together all, or most, of those engaged in ophthalmic practice and the kindred side of the medical art throughout the United Kingdom, its great colonies and dependencies. The result had, he thought, been very successful. For himself, he could claim but a very small share in the work of the Society; the credit rather belonged to those who first initiated it, and they were particularly indebted to the first two Secretaries (Dr. Stephen Mackenzie and Mr. Nettleship), as well as to all those gentlemen, especially on the medical side, who had co-operated with them. It was one of the great advantages of the Society that it had brought into union those who studied eye-disease as physicians, and those engaged in the special practice of ophthalmology. Such union explained the necessity for studying the eye always in the light of its relation to the whole organism, as well as in view of that wider relationship which it bears to all organic life upon the globe. He trusted that the Society would always continue, in the interest of medicine at large, to hold up ophthalmology as that department of the medical art in which exact knowledge was most attainable, and its application to the prevention and alleviation of disease best exemplified.—The Society then adjourned.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 4TH, 1883.

H. GERVIS, M.D., President, in the Chair.

Hæmorrhage into Ovarian Cyst.—Dr. ROBERT BARNES exhibited a specimen of hæmorrhagic effusion into an ovarian cyst, and the corresponding Fallopian tube.

Modes of Separation and Expulsion of Placenta.—Dr. CHAMPNEYS showed two experimental demonstrations, which he had used in lecturing, since 1882, to illustrate, 1, the mode of separation of placenta (*a*) by contraction of placental site, as in ordinary labour, and (*b*) by expansion of placental site, as in placenta prævia; and, 2, to illustrate the mechanical advantage of the edgewise presentation of the placenta.

Ovarian and Uterine Tumours.—Dr. MEADOWS showed a large ovarian tumour, together with the other ovary, the uterus, and a fibroid weighing 6½ lbs., which he had removed from a patient, aged 65.

Sloughing Uterine Fibroid.—The PRESIDENT showed a large submucous fibroid, which had sloughed suddenly and completely, without any obvious cause or premonitory symptoms. There was also double pyosalpinx, and one tube had ruptured, causing fatal peritonitis.

Pseudo-Hermaphroditism.—Dr. CHALMERS exhibited the genito-urinary organs of a female child, whose sex during life had been a matter of doubt. The child had been shown at a former meeting of the Society.

Hydatidiform Mole.—Dr. W. A. DUNCAN exhibited a hydatidiform mole, which he had removed from a patient aged 51. The patient had suffered from hæmorrhage for three months previously, but had had no symptoms of pregnancy.—The specimen was referred to a committee for further examination and report.

Ovarian and Uterine Tumours.—Mr. KNOWSLEY THORNTON showed a soft uterine growth, and an ovarian tumour, removed from a patient, aged 56. The nature of the growth he hoped to report on at a subsequent meeting. He also showed an ovarian cyst highly congested from twisting of the pedicle, which had been removed during acute peritonitis. He thought that in the specimen shown by Dr. Robert Barnes, the hæmorrhage was probably the effect of twisting of the pedicle.—Mr. LAWSON TAIT agreed with Mr. Thornton as to Dr. Barnes's specimen. Such twisting mostly occurred in tumours growing from the right side, and depended on the action of the rectum.

Fibrinous Polypus.—Mr. W. S. A. GRIFFITH showed an uterus containing a fibrinous polypus, four inches long, formed of organised adherent blood-clot. There was no reason to think that recent pregnancy had occurred. The patient died from the bursting of a perinephritic abscess.

Hypertrophied Nympha.—Dr. FANCOURT BARNES showed a hypertrophied nympha which he had removed.

The Obstetrics of the Kyphotic Pelvis.—This paper, by Dr. CHAMPNEYS, was read. An analysis was given of thirty-two labours in twenty women, including three labours in a patient of the author's, the last labour having been carefully observed. An analysis and a table were given stating the presentation, change during labour, measurements of fœtal skull and pelvis, operative measures, moulding of fœtal skull, result to child and mother. The general remarks of other writers on the subject were summarised. The general conclusions at which the author arrived were the following. Vertex presentations, and especially right occipito-iliac positions, are unusually frequent; deep transverse position is common, posterior rotation not uncommon. The comparative frequency of occipito-posterior positions is probably due (as explained by Hoening) to the obstacle to forward rotation in third positions, which are very common. The head sometimes emerges from the ligamentous pelvis transverse or nearly so, and entirely posterior to the tubera ischii. The analogy to the "extramedian" position was pointed out. The well known looseness of the pelvic joints in this pelvis probably assisted this by the nutrition of the sacrum. Spontaneous premature labour is not uncommon. The immediate fœtal mortality in the published cases was 40.6 per cent., the maternal 28.1 per cent.; but the author thought this estimate too high, as slight cases were not recorded. The conclusions as to treatment and prognosis were these. 1. In a first labour, if the head present, wait and act according to circumstances. This implies forceps, craniotomy, or Cæsarean section, which should always be considered in the above order. 2. If the head present, never turn. 3. In the subsequent labours, where the history of the first labour seems to indicate it, premature labour may be induced with good hope. 4. No known measurements give us any sure indication for forceps, turning, Cæsarean section, or the date for induction of premature labour. 5. The mobility of the pelvic joints implies a prognosis always more favourable than measurements would lead us to suppose. 6. Probably in many cases the head entirely neglects the anterior half of the pelvic outlet, and emerges from it transversely, or at most obliquely; antero-posterior emergence being the exception. 7. Each succeeding difficult labour increases the liability of the uterus to rupture, as in other forms of pelvic distortion.—Dr. ROPER remarked that the mechanism described by Dr. Champneys resembled that of labour in the lower animals, in which there was no pubic arch, and the fœtus always passed behind the ischial tuberosities. This diminution of the curve in the pelvic axis somewhat lessened the difficulty of labour. In cases of kyphosis the vertical capacity of the abdomen was diminished, hence the uterus was thrust forward, and pendulous belly was common, and led to difficulty in the entry of the fœtus into the brim. He described a case which he had seen. In these cases, the deformity of the outlet obstructed delivery more than that at the brim.—Dr. HERMAN agreed with the author that published statistics probably contained an undue proportion of difficult cases.—Dr. CHAMPNEYS thought that pendulous belly was produced by anything which shortened the abdominal cavity.

A Note on Uterine Myoma, its Pathology and Treatment.—Mr. LAWSON TAIT thought that the word "myoma" should entirely supersede the incorrect term "uterine fibroid." The growth of ordinary myoma was limited to the period of sexual activity, was influenced by the menstrual function, and probably its ultimate cause would be found in some disturbance of the nervous body which governed that function. The presence of a myoma indefinitely delayed the menopause. Menstruation and ovulation, he thought, were completely independent functions, having perhaps a community of purpose. Removal of the ovaries often did not affect menstruation, but removal of the tubes nearly always did so. But in one case in which he had removed the ovaries, tubes, and part of the fundus uteri, menstruation continued for more than a year. He deprecated the triple subdivision of myomata into submucous, intramural, and subperitoneal. For pathological and surgical purposes, he proposed a new subdivision into the nodular and the concentric. The latter consisted of an uniform hypertrophy of the muscular tissue of the uterus, in the midst of which the canal lay centrally; the tissue of this form was loose, and usually very œdematous. Of the nodular myoma he proposed two sub-varieties, the simple and the multinodular. He believed that each nodule was seated in a central arterial twig, and that its growth was endogenous, the older tissue being on the outside. The dependence of such growth on menstruation was proved by the fact that arrest of menstruation arrested the growth, or even caused the complete disappearance, of such tumours. This had been in several cases brought about by the removal of the Fallopian tubes only. He had treated 54 cases of uterine myoma by removal of the uterine appendages, with 3 deaths, a mortality of 5.5 per cent., a striking contrast to the results of hysterectomy. Of these 51, in 38 the results had been carefully followed, and were everything that was to be desired. In 3, the tumours were, or became, malignant. In 3 others, the tumours continued to grow, although menstruation had been arrested. The author suspected that these were either fibro-cystic, or myoma of the concentric variety, in neither of which forms was the removal of the uterine appendages useful.—The

PRESIDENT was hardly prepared to accept Mr. Tait's classification, but it was not necessarily antagonistic to the one in common use. He agreed with Mr. Tait as to the delay in the menopause in these cases. He would like further evidence as to the sole or even large influence of the tubes in the phenomena of menstruation.—Dr. HERMAN had published a case in which the symptoms of a fibroid polypus first appeared sixteen years after the menopause. The history of patients after operations like those of Mr. Tait, was of great importance, for patients not benefited often did not return to the operator, and he therefore was apt to get a too favourable impression of the results.—Dr. DEWAR asked if Mr. Tait was careful to tie the uterine artery; and whether removal of the Fallopian tubes, leaving the ovaries, was not dangerous. He had seen one case in which the uterine appendages had been removed, and hysterectomy was subsequently required on account of hæmorrhage.—Dr. MEADOWS preferred the present classification of fibroid growths to that suggested by Mr. Tait, as being founded on clinical characters, and of great practical value for diagnosis and treatment. He believed that the ovaries, and not the tubes, were the prime movers in menstruation. In one case he had removed the ovaries and left the tubes, and menstruation ceased. He thought there were many exceptions to the rule that uterine fibromata ceased to grow after the menopause. Notwithstanding the high rate of mortality which attended hysterectomy, he preferred it to the removal of the ovaries.—Mr. LAWSON TAIT said that cases of growth of apparent uterine myomata after the menopause needed most careful examination. Occasionally removal of the ovaries arrested menstruation, but this was the exception. He had never knowingly tied the uterine artery, and it would be very difficult to do so.

MANCHESTER MEDICAL SOCIETY: MICROSCOPICAL SECTION.

JULIUS DRESCHFELD, M.D., President, in the Chair.

Photo-Microscopy.—Dr. H. TOMKINS gave a demonstration on photo-microscopy. After making some general remarks upon the advantages of photographic representations of microscopic objects, Dr. Tomkins referred particularly to the class of sections and preparations to which photography was applicable; he then showed, and practically illustrated the use of, a simple apparatus adopted by him for the purpose of photographing such objects.

Congenital Tumour of the Clavicle.—Dr. F. S. BURY exhibited a preparation, together with sections, of a congenital tumour of the clavicle, which was removed from a young infant. The new growth was about the size of a marble, and was of firm consistency. Sections showed the shaft of the bone compressed in the centre of the tumour, and surrounded by dense fibrous tissue, from which fibrous bundles radiated outwards; the spaces between the bundles were occupied by numerous well-developed cartilage-cells.

Hereditary Syphilis.—Dr. J. S. BURY also showed sections of the heart and pericardium from an infant, aged 12 weeks, the subject of hereditary syphilis. The pericardial cavity contained thin yellow purulent fluid, and there were some fine shreds of lymph on the anterior surface of the heart. With the exception of slight opacities of the capsule of the spleen, the remaining viscera, as well as the bones, were healthy. The sections showed an accumulation of small round cells between the visceral pericardium and heart-wall, whilst in many there was an infiltration of similar cells between the bundles of muscular fibres.

Bony Formation in Choroid.—Dr. A. H. GRIFFITH showed a preparation and sections of an eye, in which the choroid was converted almost entirely into a bony mass. The sections showed lamination and lacunar spaces. There was complete separation of the retina, and the optic nerve was greatly atrophied. The patient was under the care of Dr. Glascott.

Retinal Hæmorrhages in Pernicious Anæmia.—Dr. A. H. GRIFFITH showed, also, sections of the retina, from a case of pernicious anæmia. The blood-effusion was situated mainly in the internal retinal layers; the papilla and adjoining parts of nerve-fibre layer were slightly swollen; in other respects the structures were normal.

Card Specimens.—The following were exhibited:—

By Dr. H. ASHBY: (1) Soft Palate and Tonsils from a case of Scarlet Fever, in a Child aged 9 years. (2) Heart and Pericardium of a Boy, aged 12, who for five years had suffered from Chorea. (3) Organs from two cases of Tuberculosis in Children.

By Dr. J. S. BURY: Two cases of Epithelioma—one of the Colon and one of the Cheek.

By Mr. A. H. YOUNG: Alveolar Melanotic Sarcoma of Skin.

REVIEWS AND NOTICES.

A PRACTICAL TREATISE ON HERNIA. By JOSEPH H. WARREN, M.D. Second and revised Edition. Boston: Jas. R. Osgood and Co. London: Low, Marston, Searle, and Rivington. 1882.

THE author of this work has very wisely, in the second edition, not only altered the title, but has also greatly improved upon the former one. In the first edition, there was much which savoured somewhat strongly of special pleading; and the introduction, containing a long account of Heaton's operation, which forms the basis of Dr. Warren's method, has been entirely omitted. There were also many indications of a hasty and unfinished style, which rendered it less acceptable to English readers. In the present treatise, however, a number of new illustrations have been introduced; considerable additions have been made to the text, six entirely new chapters having been added; the bibliography and index have been rendered more complete; and the work is presented to us in a form which reflects great credit on the publishers. It constitutes now a volume of 420 pages, of which about one-fourth is devoted to an account of the etiology, varieties, and anatomy of hernia; the remainder being taken up with operations for reducible and strangulated hernia, artificial anus and wounds of intestines, trusses, and general observations, with reports of cases. In the first portion of the subject, Dr. WARREN has availed himself of the accurate descriptions of Scarpa, Astley Cooper, John Wood, and other surgeons; and the account given is both full and clear. The anatomical descriptions are rendered explicit and intelligible by well-executed plates, which have been reproduced from Bourgery's and Blandin's works, but do not add much to our previous knowledge of the subject. Among other causes enumerated as tending to produce congenital herniæ, phimosis is alluded to as a frequent one; and most surgeons must have met with such cases. The simple and natural expedient of circumcision is, therefore, advised in all instances where phimosis is present. We venture to think this might be acted upon far more frequently with much advantage.

A history of the various operations which have been devised and performed from time immemorial for the cure of hernia, leads naturally to the question: Why is the indefinite term "radical" still applied to it? We do not speak of a "radical" cure of hæmorrhoid, or varicocele; and there seems no good reason, as Dr. Warren points out, why such term should be retained.

A novel feature occurs in the work in the insertion of descriptions of some of the most recent methods of cure in the different authors' own words, without note or comment. Where these are new, this is perhaps an advantage, for it is no uncommon thing to find descriptions of operations in some standard works which are so condensed or abridged as to be of no practical value. Dr. Warren has wisely avoided this error, and has impartially devoted considerable space to enable other operators to explain their methods in their own words, thus constituting a tolerably complete summary of most of the operations now performed for the cure of hernia, and comprising a mass of information which could be previously obtained only by tedious research through periodicals and scattered surgical reports.

The author's operation is fully described as a modification of that long practised by Heaton, of Boston, as a secret, by the injection of oak-bark in the neighbourhood of the hernial sac. The operation is one which does not seem to have found many advocates in this country, nor do any recorded cases appear, except one performed by Dr. Warren at Guy's Hospital, on a patient of Mr. Bryant's. The result in that case is not stated. Dr. Warren tells us that no fatal cases have occurred in his practice, and "that fully 80-85 per cent. of all I have operated on, have been successfully cured" (p. 183). Dr. Heaton, we are further told, "professed hardly ever to have had a failure." Now, if such results as these could be ensured in the hands of other practitioners, there would be no further need to insist on the desirability of operating in all suitable cases of reducible hernia in preference to any other means of cure; but, unfortunately, those who have had most experience of operative procedures for the cure of rupture, are only too well aware that any such successes must be altogether exceptional, and most surgeons would rejoice if they could with certainty anticipate a permanent cure in half of those operated upon. Such a percentage as this would, in our opinion, fully justify the operation; and it is not too much to hope that, among the various methods now in use, this amount of success may fairly be calculated upon.

Dr. Warren points out the difficulty of curing large congenital

herniæ by his method; but these are often the cases most requiring operative interference, inasmuch as they are utterly uncontrollable by any kind of truss. This part of the subject is one still needing elucidation, and further experience will probably indicate that different operations will answer best in varied cases. In some small recent herniæ a truss may suffice, especially when the patient is not compelled to labour; in others, such as those occurring with undescended testes, and in femoral herniæ, ligature and excision of the sac; while in large congenital ones, and those occurring in early manhood, Wood's or Spanton's operation may be found most efficient. Each case must be considered on its merits; and it would have materially increased the value of the author's remarks on this part of the subject, if he had entered a little more fully into the comparative utility of various operations in different classes of cases. Although Dr. Warren mentions that he has never operated on a patient under four years of age, we believe that many little sufferers from congenital rupture might, with advantage, be cured forthwith. Statistics on this point are, however, yet wanting.

In the chapter on Strangulated Hernia, the author recommends a modification of the ordinary operation of kelotomy, by applying to the edges of the rings Lugol's solution of iodine, the fluid extract of white oak-bark, or some such material (p. 238). Most surgeons would hesitate before adopting such a proceeding, especially when the sac of the hernia had been opened; and while we have the more certain, and certainly the more safe, alternative of bringing together the pillars of the rings by suture, probably few surgeons will desire to practise any other method. Indeed, it is now established, in this country at least, that this ought always to be done as a matter of course in all cases in which it is practicable, without adding unduly to the risks incurred by the kelotomy. Abundant testimony to its value has been adduced, even by those surgeons who hesitate to perform any operation simply to cure a reducible hernia.

The remaining chapters of the work relate to collateral subjects, such as artificial anus, wounds of intestines, etc., and trusses, the greater portion of the last of which would, we think, have been better omitted. An excellent bibliography and full index add to the value and completeness of the volume, which may be recommended as one which comprises the fullest account of the most recent views with regard to the cure of hernia; and is especially interesting as affording a clear and comprehensive view of what American surgeons especially have accomplished in this direction.

THE MEDICAL AND SURGICAL HISTORY OF THE WAR OF THE REBELLION. Part 3: Surgical History. 4to, pp. 986, with Index. Prepared under the direction of J. K. BARNES, Surgeon-General, by G. A. OTIS and D. L. HUNTINGDON, Surgeons, United States Army. Washington: Government Printing Office. 1883.

THIS is the third and concluding volume of the surgical history of the great war in the United States, which lasted from April of the year 1861 to May of the year 1865. In the interval which has elapsed between the termination of the war and the publication of the present volume, two of the medical officers principally concerned in the preparation of the history, whose names are mentioned in the title given above, have been removed by death, viz., Surgeon-General Barnes and Surgeon Otis. The former, as chief of the medical department of the army of the United States, superintended the gathering together of the whole of the professional records of the War of the Rebellion; not only those embodied in the surgical and medical histories of the prolonged conflict, but also the vast museums of pathological specimens, and the other collections illustrative of military service in the field, which have been formed at Washington since the war began. To Surgeon Otis was allotted the preparation and arrangement of the surgical part of the professional history of the war, and admirably fitted he proved himself to be for accomplishing the great task with which he was entrusted. The first and second volumes of the surgical history entirely emanated from his pen, and they were published under his direct supervision; and with regard to this last volume, it has been stated that a great part of the material composing it, was left by him ready for publication at the time of his premature and much lamented decease. The honourable duty of completing the unfinished portions of the history was placed in the hands of Surgeon D. L. Huntingdon, of the United States Army; and an inspection of the volume before us, shows that it has been accomplished with appreciative zeal and ability. The three volumes together form a work unique in character; none of the surgical histories of wars which have taken place in other countries can be compared with it in respect to the comprehensiveness of its scope, the vastness of the materials which have been dealt with, the amount of information collected, the minute attention given to details, or the costliness of its production. The surgical history of the Crimean war is an admirable one of its kind, but the number of cases comprising the materials of the report is a mere fragment by the side of the number commented on in the United States history. The number of cases of wounds included in the returns furnished during the war in the United States, and that were examined, classified, and entered on the registers at the Surgeon-General's office in Washington, amounted, according to the statement in the History, to 253,142; the total number of wounds and injuries inflicted during the Crimean war was 12,094. The surgical history of the Crimean war, and the reports on the cases brought to notice in it, are completed in 143 folio pages; the surgical history of the United States war, and the map of statistical tables, reports, and observations embodied in it, occupy nearly 3,000 quarto pages. The volume just issued contains 986 pages of letterpress, without counting those devoted to the copious index which is attached to it, or the numerous pages of illustrations which accompany the text.

It is obvious from the vastness of the new volume, which the numbers just mentioned sufficiently indicates, that little more can be done in the present notice of it than to enumerate the contents of its principal chapters. In the first and second volumes of the work, the histories of the cases of wounds and injuries of the head, neck, trunk, and upper extremities were brought forward and analysed, and their surgical bearings and treatment discussed at great length. There still remained for review the large and important class of wounds and injuries of the lower extremities. The number of cases of this class classified and registered in the Surgeon-General's office amounted to 89,528. These form the subject of the opening chapter and principal portion of the present volume. It is the tenth chapter of the whole work, and over 600 pages are devoted to the investigation of the subjects treated upon in the seven sections into which the chapter is divided. Chapter XI contains remarks on 171,565 Miscellaneous Injuries which occurred during the war; Chapter XII discusses various matters connected with the Complication of Wounds; Chapter XIII, treats on Anæsthetics; Chapter XIV, furnishes an account of the Medical Staff and Materia Chirurgica; Chapter XV, with which the work concludes, is devoted to the subject of Transportation of the Wounded. The volume is throughout richly illustrated with woodcuts, lithographs, and chromo-lithographs, executed in the same clear and expressive style as those which have added so much to the reputation, as well as to the value for teaching purposes, of the preceding volumes of the work.

We have again to express our thanks to the Government of the United States, through whose enlightened liberality this magnificent and costly work has been freely distributed in all directions where military surgical science and its advancement are held in estimation.

NOTES ON BOOKS.

Epitome of Skin-Diseases, with Formulæ, for Students and Practitioners. By the late TILBURY FOX, M.D., F.R.C.P., and T. COLCOTT FOX, M.B. Third edition, by T. COLCOTT FOX, B.A. Cantab., M.B. London: Henry Renshaw, 1883.—The third edition of this convenient handbook calls for some notice, owing to the revision and considerable expansion which it has undergone at the hands of its surviving author. The arrangement of skin-diseases in alphabetical orders, which is the method of classification adopted in this work, undoubtedly brings into prominence the unfortunate confusion arising from the use, by some dermatologists, of several names for the same morbid process, and by one term in different senses; so much care, however, is exercised in making clear definitions, and in pointing out the cases where confusion is most likely to occur, that the arrangement becomes a positive advantage to the student. The manner in which the subject of syphilitic lesions of the skin is treated may generally be taken as a good test of a work on skin-diseases, and, judging by this test, Dr. Colcott Fox's revision must be pronounced successful; the subject is treated with the fulness it deserves, and in the article on hereditary syphilis the results of recent investigations appear in their proper places. The article on true leprosy strikes us as one of the best in the book, and is indeed the most complete summary of the present state of our knowledge of this disease with which we are acquainted. Altogether the book is one which we can strongly recommend, not only to

students preparing for the higher examinations, but also to practitioners who require a compendious summary of the present state of dermatology.

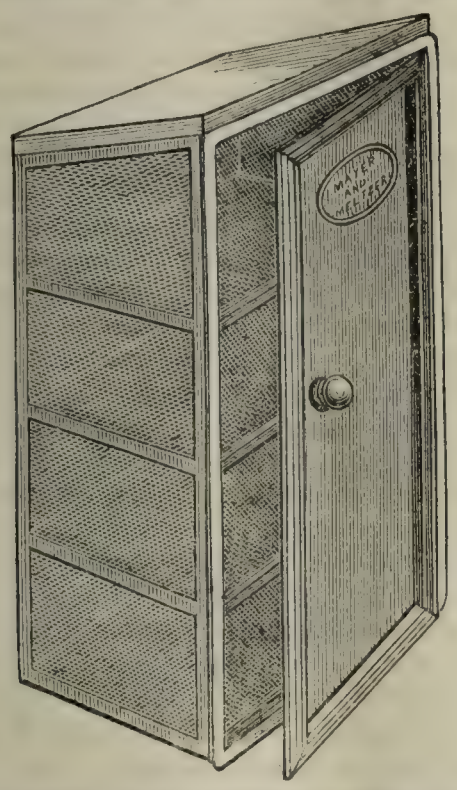
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PURE HORDEUM.

THERE can be no doubt that many of the so-called extracts of malt now in the market are almost inert, having little or no power of converting starch into maltose or dextrine. Pure Hordeum is prepared with special care by an improved method. We have given it an extensive trial, both clinically and in the laboratory, and are satisfied that it possesses the properties claimed for it. It is made by Loeflund and Co., of Fenchurch Street.

EXCRETA OR BED-PAN CASE.

THIS invention, which gained the silver medal of the National Health Society at the recent exhibition at Knightsbridge, is designed as a receptacle for the bed-pans, spittoons, etc., which have to be reserved for the inspection of the physicians or surgeons. The cage is fixed in an outer wall—most properly, of the corridor leading from the ward to the water-closet—and projects into the open air; it is made of perforated zinc on three sides, and is closed towards



the ward or corridor by an air-tight door. The excreta can thus be kept for as long as may be necessary, freely exposed to the action of the atmosphere, and entirely cut off from the air of the wards, while they remain at the same time available at a moment's notice for inspection. The cage, which has the form shown in the accompanying drawing, is the invention of Mr. Newton H. Nixon, Secretary to University College Hospital, and is sold by Messrs. Mayer and Meltzer, 71, Great Portland Street.

MANBRE'S IMPROVED PROCESS OF BREWING.

IN view of the large consumption of ales and beers in this country it is a matter of the highest importance that some guarantee should be afforded of their purity as well as excellence. It must not be forgotton that while many of the foreign ingredients introduced into the manufacture of beer, as we recently pointed out, are not only harmless, but in some cases beneficial, yet in many instances the aid is sought of a variety of mineral substances which are undoubtedly hurtful, either for the purpose of giving an appearance of greater body to the beverage, or, what is looked upon as the *sine quâ non* of a good ale, the necessary head. It is, therefore, satisfactory to note the introduction of any means by which greater security is afforded and danger to health avoided. The alcoholic properties of beer largely depend upon the fermentable basis and the methods of manipulation employed, and it is in this respect that Manbre's process claims attention. The advantage afforded by this system is a perfect manipulation of the fermented grain, and it is claimed for it that it is the only system by which a perfect conversion of the whole of the starch contained in raw grain into fermentable saccharine is effected, and that while by most of the old methods brewers are only able to use from 20 to 25 per cent., and in extreme cases 33 per cent. of raw grain, by the Manbre process from 75 to 80 per cent. can be readily used. The important feature here is that the worts are subjected to a much greater heat by boiling in closed vessels, and a beer of excellent quality is produced in which the diseased ferments are entirely destroyed.

The beer brewed by this process, which we have had submitted to analysis, is found to have a specific gravity of 1006.2 and to contain: alcohol 7.4 per cent. by weight; extraction 4.25; acetic acid .05.

The extractive matters were found by Dr. Moritz to be as follows:

Glucose	1.00
Dextrine	1.30
Mineral water	0.497
Albumenoids	0.80
Fixed acidity	0.30
Hop-extract and colouring matter	1.053
	4.950

The sample examined, which was found to be of an agreeable flavour, bright and sparkling, and said to be unaffected by extremes of cold or heat, contained no discernible germs of false ferment or of bacterial or infusorial animalcules capable of causing disease.

Dr. Moritz, in reporting the result of his inquiry, says "in condition, flavour, brightness and palate-fulness, it leaves nothing to be desired."

In view of the recent agitation on the subject of the adulteration of beer, these facts are of value and carry their own recommendation. M. Alexander Manbre, 6, Vigo Street, Regent Street, informs us that his process is applicable to the brewing of all beers, whether ale, stout, or porter, as well as to light beers of the lager character, while it ensures a stability which the lager beers as a rule do not possess.

ST. ANDREW'S GRADUATES' ASSOCIATION.—The fifteenth anniversary session of the Association was held at the house of the Medical Society of London, on June 30th. The Treasurer's report showed a flourishing state of the funds. The report of the Council congratulated the members on the avowed intention of the Government to withdraw the clause in the Universities (Scotland) Bill by which power was given to commissioners to dissolve the University of St. Andrew's; and also on their purpose to retain a representative of St. Andrew's on the Medical Board for Scotland. Stress was laid on the need of close union, so that every effort might be made to retain and to extend the Medical Faculty of the University; and promise was given of an early meeting to consider the best means of aiding the University and the chairs of the Medical Faculty by a money contribution from the graduates and their friends. The anniversary dinner was held in a very suitable and pleasant room of the Holborn Restaurant, where an excellent meal was served. Dr. Richardson, F.R.S., was in the chair. Among the visitors were Lord Balfour of Burleigh, Sir Joseph Fayrer, K.C.S.I., Dr. Hassall, and Dr. Hayward; and among the numerous graduates present were Drs. Seaton of Sunbury, Cholmeley, Cleveland, Cooper Rose, Royston, J. Sedgwick of Borobridge, Watkins, Murray Lindsay of Mickleover, Semple, Paul, Hicks of Hendon, Stamper of Pembroke Dock, Curgenven of Derby, Longhurst, and Leonard Sedgwick. The following officers were elected for the ensuing year:—*President of Council:* Dr. Richardson, F.R.S. *Treasurer:* Dr. Paul. *Secretary:* Dr. Leonard Sedgwick. *Council:* Drs. Archibald, Alderson, Byers, Cholmeley, Christie, Cleveland, Corner, Crosby, Dale, A. G. Davey, J. G. Davey, Davies, Gillespie, Gordon, C.B., Griffiths, Henty, Hicks, Hill, Hood, Kesteven, Murray Lindsay, Lipscomb, Longhurst, Mr. Menzies, Professor Pettigrew, F.R.S., Drs. Pocock, Royston, Seaton, J. Sedgwick, Semple, Smith, Stamper, Tibbitts, Wilkinson, Willett, Rhys Williams, and Wyman.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 21st, 1883.

THE GOVERNMENT MEDICAL BILL.

THE Prime Minister has, on two occasions, specially named the Medical Bill as one which he hoped to see passed during the present session; first, in reply to a question addressed to him on the subject; and, secondly, on Monday, July 9th, in making a statement respecting "the business of the House," when his words were: "We hope to proceed with the Medical Bill." The past year has been altogether an exceptional one in the history of medical reform, as the Government have, for the first time, been acting in conjunction with the Association and the profession in the promotion of medical legislation. This conjunction has placed the unwilling corporations in a hopeless position; and all opposition to the measure has, on their part, been resolved into the discussion of side-issues on the merest questions of detail, in which professional and public interests are in no way involved. No previous Bill has enlisted such general support; no serious opposition has been offered to it, and it is the inevitable result of the evidence taken before the Select Committee of the House of Commons which sat during two sessions of the last Government, by which all the different medical Bills of every shade were critically examined. No subject has ever given the legislature so much difficulty; and thus it is that a system of examination and licensing for the profession, which is a scandal to the country, has, on account of the numerous interests involved in its solution, hitherto successfully resisted the efforts of several Governments and of the united voice of the profession to reform it. The present Government, fully appreciating the difficulty, and, indeed, the impossibility of reconciling the conflicting interests of the different universities and corporations, appointed the Royal Commission, on whose report the Medical Bill now before Parliament is based.

The report of the Commission was hailed as a triumph by the Association at the annual meeting at Worcester, for it endorsed with approval all the principles which the Association had, for fifty years, steadfastly advocated.

The Bill which is now before the House of Commons is strengthened by all the weight attaching to the report of the Royal Commission, by the support of the Association, by the support of the profession, as manifested by the medical journals, by the support of the Fourth Estate, as shown, without exception, in the various articles which have been written respecting it, and by the approval it has received from the periodicals of the legal profession. The Bill has passed through the House of Lords, under the charge of the Lord President of the Privy Council, unmutilated as regards the essential features, and now awaits the second reading in the House of Commons, where it is threatened with no serious opposition; for the Bill is in no way a party measure, and is known to have secured the support of the leaders of the Opposition. The session, it is true, is fast expiring, the press of business is great; but, as the Government are manifestly in earnest in their determination to settle this long-agitated question, there is every probability that the Medical Bill will become law during the present session. Much will, no doubt, still have to be done to improve the Bill in matters of detail; but these matters can only be reached when the Bill gets into Committee—a stage which we trust and believe will be attained without a division.

The Bill, as a whole, is, in its broad features, immeasurably the best that has hitherto been offered to the profession. It is a measure so thorough as regards the manner in which it proposes to deal with the constitution of the General Medical Council, that it would have been quite impossible to have attempted it but for the weight attaching to the report of the Royal Commission. The voice of the profession will now be heard in its councils through direct representatives, while the universities and corporations will have general representation only, and no longer dominate the Council by their own special delegates. The Crown nominees on the Council have always been favourably regarded by the profession, and will continue to give confidence to the public; the increase in the proportion of their numbers in the new Medical Council must, therefore, prove acceptable to the profession and the public; in short, the constitution proposed will create a Council worthy of all confidence.

Secondly, the Bill provides for a portal, one only in each division of the kingdom, which, under the sanction of the Medical Council as the supreme controlling authority, together with the Privy Council, shall alone admit men to the *Register*. Third, the penal clauses against the assumption of professional titles by unregistered persons have been made more stringent. On all these grounds, the profession has petitioned in favour of the Medical Bill, and thereby supported the action of the Association; and it is earnestly hoped that the profession will still continue to exert its influence over members of the legislature to forward its progress.

In supporting the Bill, the Association has reserved the right of suggesting amendments in matters of detail; but it is important that no risk of wrecking the measure should be incurred by undue multiplication of amendments. Amendments should be reduced to the smallest possible number, in order not to embarrass a friendly Government, who are doing all in their power to improve the education of the profession, and thereby elevate its members in the social scale.

It has been stated that the Bill, when passed, will increase the facilities for practice by druggists and unregistered persons. The solicitor of the Association has been consulted on this point, and he is decidedly of opinion that such is not the case.

The Government have heard all parties interested in the impending legislation, and are evidently even now giving consideration to the representations made to them from all quarters, with a view, doubtless, to the improvement of the Bill; but it must be borne in mind that alterations cannot be made until the Bill gets into Committee, after passing the second reading.

On Monday, the 16th instant, a deputation from the Medical Alliance Association, introduced by Mr. Hopwood, M.P., had an interview with Mr. Mundella, the Vice-President of the Privy Council. Dr. Joseph Rogers and Mr. R. B. Carter urged, as reported in the *Times*, that practitioners throughout the country should have direct representation on all the various Divisional Boards; that unregistered persons should not be admitted to practice; that the restrictions and penalties for disobedience should be perpetuated, if not made more stringent; that there should be some common title for medical practitioners; and that power should be given to any person to prosecute offenders against the law. Mr. Mundella, in reply, pointed out that this Bill was not introduced for the purpose of inflicting pains and penalties, but to raise the status of the profession, and to improve medical education throughout the country. He denied that the Bill would operate to the detriment of the public by admitting incompetent practitioners; and, as a proof of that, called the attention of the deputation to the numerous petitions signed

by influential men in favour of the Bill. He promised, however, that if they would submit their views to him in a written form, the greatest consideration would be given to their objections. The deputation then retired. A second deputation, from the Brussels Medical Graduates' Association, also waited upon Mr. Mundella, to bring before the notice of the Government their opinion that the effect of the Bill, as regarded qualifications, would be prejudicially to alter their *status quo*. Mr. Mundella believed that the Bill would not so operate; and, at any rate, the object of the Government was not in any way to injure them. He promised to consider their representations, with the view of amending the clauses to which they had referred, should it be found necessary.

We cordially approve of the method thus taken of submitting the views of all sections of the profession to the Government. The Association has always distinctly reserved the right of suggesting amendments, and has done so on several points. The Government have given up the proposed annual tax, and have strengthened the penal clause against the illegal assumption of professional titles, while distinctly declining to interfere with the liberty of free-born citizens to consult knowingly any quack or bone-setter who does not practise under false pretences. The Government believe the legislature would not for an instant entertain, much less countenance, such a proposition. As regards the titles actually used at the time of the passing of the Act, and the privileges of practitioners then registered, the Government have endeavoured, by saving clauses, to secure the continuance of them. We conclude what will probably be our last article before the fate of the Bill is sealed, by urging all well-wishes to medical reform to promote its success, and not to run the risk of wrecking it by seeking the unattainable.

THE PRESENT POSITION OF THERAPEUTICS.

A REVIEW of therapeutics as a branch of medical science is, we believe, not calculated to gratify the student of medicine, whose ambition is to elevate his subject of study to a level more in harmony with the exact sciences. Physiology, pathology, and every branch of physics bearing on the interpretation of life as well in sickness as in health, have made wonderful advances within the last fifty years. Surgery also, in the boldness, variety, and safety of operations, exhibits surprising progress. Can the same be said of therapeutics? This is a question that Dr. Rossbach, the new professor of special pathology and therapeutics in the school of Jena, recently undertook to examine in an inaugural discourse. He has, indeed, made it a primary object to establish the advance of internal as compared with that of external therapeutics, as exhibited in the processes and art of surgery; and altogether his mode of dealing with his subject is worthy of notice, and many of his arguments will bear recapitulation.

In demonstrating the progress of internal therapeutics, he gives credit to the Vienna school for the boldness of its assault on the doctrines and practice of therapeutical art as handed down from preceding generations, and for seeking to found a new therapy based on pathological anatomy and physical diagnosis; for, to build up a rational system of therapeutics, correct notions of the nature and natural history of disease, of its causes and consequences, are essential. Empiricism has been hitherto the unintelligent, unphilosophical guide followed. Thus, vaccination has been practised for many years as a preventive of small-pox, based upon observation and experience; but rational therapy demands the interpretation of the way in which it operates, and the nature of the operating agent. And, in regard to this matter, not only in the case of vaccination, but also in that of various other diseases, we are encouraged to hope for a solution from the very recent researches respecting the part played by the minutest organisms in the production and propagation of disease; but, besides what acquaintance with the nature of disease may do in our efforts to establish a system of rational therapeutics, we likewise may look to the labours of the pharmacologist for help in investigating the physiological action of medicines and in determining the principles of dietetics.

Researches respecting the action of remedies have specially contributed to place modern treatment on a more scientific basis. Something is known of most drugs: what is their physiological action generally, and what their more special action on particular organs; and we fairly may look for ever increasing knowledge in this direction from experiments with remedial agents, rightly interpreted by physiological and pathological science. In fine, we may hope to be able ultimately to comprehend how such agents operate, and to analyse their action in respect of separate organs and tissues.

2. Further, in practical therapeutics during past times, much inaccuracy has been introduced by reason of the uncertainty of action, and the varying qualities of the medicinal compounds in use. Usually, both vegetable and mineral substances have been employed in the crude state, and, consequently, modified variously in their operation by accidental circumstances of mixture, or of mode of preparation. In the case of minerals especially, in their crude state, inert and even poisonous materials may exist, as has happened with bismuth, which physicians of past years credited with properties in all probability referable to minute quantities of arsenic it happened to contain. So, likewise, in the case of plants; their medicinal virtues are seriously affected by various accidental conditions affecting the proportion of their active principles. Now, in reference to these circumstances, modern pharmacology has done much towards placing in our hands those active principles in a state of great purity and of uniformity of strength; and, by so doing, has materially contributed to render treatment more certain.

3. Again, there are some metallic preparations of unquestionable value—as, for instance, the chlorides of mercury—which, unfortunately, possess not only the valuable properties desired, but, in addition, exercise an undesirable action. In the case of mercury, the latter is a consequence of its affinity with albuminous matter, so that it arouses inflammatory, and at times even corrosive action, on the mucous membrane of the stomach. In past times, this prejudicial action was lessened, as far as it could be, by combining opium with the mercury. Here, modern pharmacy has found a more excellent way: either by forming a double salt of mercury, or by fully saturating the mineral with albumen; doing this without prejudice to the beneficial action of the drug.

4. We can also point to an advance in therapeutics due to the large addition of active drugs, of potency and constancy far surpassing, where their activity resembles, the medicines of our old *Pharmacopœias;* and, in many instances, exercising effects heretofore unknown in the therapeutical art. Of this fact, it is quite needless to cite illustrations.

5. Yet, even from the series of therapeutical agents long in repute, modern research has been able to elaborate products and results of unanticipated and additional importance, and, at the same time, to approximately show by what methods and under what conditions those results are to be obtained. Illustrations may be quoted in the treatment of fever by cold water, by quinine and salicylic acid; in the treatment of nerve-irritability by bromine and chloroform, of paralyses by electricity, of lung-affections by compressed and by rarefied air, etc. The widening and deepening of therapeutical knowledge is also exemplified by those various novel processes which are affected by specialists; such as hydropathy, gymnastics, massage, etc.

7. Food and dietetics have been more scientifically studied of late years, so as to materially contribute to our ability to deal with disease.

8. What may be called negative advances in therapeutics are neither few nor unimportant. Many lessons in what not to do have been acquired, and the valuelessness, nay, even the positive

mischief of many healing processes and agents of a past period, has been demonstrated. Foremost among such uprooted practices is bloodletting, so recklessly and indiscriminately employed in bygone days. Another is the administration of antimony, chargeable in the past with the production of many gastric lesions. And in the same category of discarded proceedings is the abuse of drugs, and, on the other hand, the recognition that many maladies require only proper general management and rest.

9. In the above sketch of the advancement made in therapeutics, accomplished facts only have been put forward. But the future is rich in promise of still greater advances in our powers of healing, and in an even increasing ratio. This we are encouraged to assert by noting the resources possessed by the chemist for developing new and powerful remedies. In the direction of antiseptics and antiseptic and anæsthetic vapours, we are justified in anticipating many novelties, and even in hoping to find antidotes to the poisons of scarlet fever, diphtheria, smallpox, tuberculosis, and pneumonia, which, probably, as also may other diseases, owe their production to morbific germs. Moreover, our expectations for the future of therapeutics are likewise highly encouraged by what the chemist has already accomplished in the production of vegetable principles and bases, and of the series of important compounds derived from the alcoholic group.

10. Another noteworthy advance in therapeutics is seen in the method of introducing medicinal agents into the system by hypodermic injection. Practically, in former periods, all medicines were given by the mouth, at the cost of much disgust of the organs of taste and smell, and of much nausea, eructations, and stomach-trouble. And apart from such annoyance, many serious defects attended this method; the action of drugs was seriously interfered with by the contents of the stomach, by the digestive process, by imperfect absorption, and by other conditions; and in that there was derangement of the whole system to attain the wished-for result, even when that result was to be limited to one part or organ. These drawbacks disappear materially by the hypodermic method. And, particularly in connection with topical treatment, there is a remarkable advance, especially in dealing with internal cavities.

We have allowed Dr. Rossbach freely to express his own opinions regarding the advance of therapeutical knowledge within the last fifty years. We may fairly say he has taken a flattering review of what has been accomplished in his generation, and that he is sanguine in his hopes for the future. The physiological action of remedies, determined as it has been largely by experiments on the lower animals, has not acquired the scientific accuracy Dr. Rossbach pretends. The substitution of vegetable alkaloids for the active principles in plants, as separated by the chemist, cannot be spoken of as generally advisable. Cinchona, in all its complexity of composition, holds its own as a medicine, and no physician would lay aside opium, though having its multitudinous salts in his possession. And not a few physicians are impressed with the belief that bloodletting has been undeservedly neglected of later times.

Nevertheless, it is of advantage to take an occasional survey of what has been effected; even though we are unable to congratulate ourselves upon the entire results, or to recognise all the changes enumerated as advances to be actual improvements.

OUTBREAK OF DIPHTHERIA DUE TO INFECTED MILK.

THE circumstances attending the recent remarkable outbreak of diphtheria at Hendon have been the subject of exact investigation by Mr. W. H. Power, of the Medical Department of the Local Government Board, whose name is intimately associated with investigations into the behaviour of this disease. Mr. Power's report is a very minute and valuable one, and contains many points of etiological interest. It appears, from the account given, that the outbreak commenced on January 15th, when fourteen cases of diphtheria occurred simultaneously, most of them being in the private practice of Dr. Cameron, the health-officer of the district; one, in deed, happening at his own residence. The sudden outbreak of the disorder pointed to one common cause, and this was found in a contaminated milk-supply. Attention was first directed to the sanitary circumstances of the houses invaded, but with no satisfactory explanation of the attacks. These houses, which were, without exception, of the better class, many of them standing in their own grounds, did not, for the most part, drain into the public sewers, while the chief of them were houses that might be regarded as protected, either naturally or specially, against public sewer or private drain influence. Suspicion fell upon the milk-supply, and this suspicion was confirmed by the fact that all those known to have been recently attacked obtained their milk-supply from a particular source. A sample of milk from this dairy, and another of pond-water there used for farm and dairy purposes, were obtained for examination. With the former, no fault was found analytically, but the latter was fouled by sewage-matter, and contained in abundance animalcules that were visible to the naked eye.

Excluding attacks occurring in addition to the first case in each house, there were twenty-eight sufferers; and of this number twenty-one obtained their milk from the particular dairy in question. The Hendon ward contains 905 houses, and 86, or one-tenth of the whole, obtained their milk from the same source. In the period from the end of November to the end of January, houses having this milk-service, and becoming invaded, amounted to seven-tenths of the total number invaded; while in the more limited period, from the 1st to the 10th January—regarded as that of chief operation of a milk-cause of diphtheria—such houses comprised nine-tenths of the houses attacked. There was also a remarkable incidence of diphtheria and throat-illness on large consumers of this milk. In invaded houses, children, who habitually drink more milk than their elders, suffered disproportionately to other persons. This fact is, however, by itself of little weight as indicating the conveyance of infection by milk, since in outbreaks of diphtheria, from whatever cause, children are prone to suffer to a far greater extent than other persons. Nevertheless, it should be mentioned that, in this outbreak, multiple cases of diphtheria, and especially severe and fatal diphtheria, tended to occur in families where this particular milk was habitually consumed by the children *unboiled* and in large quantities. And, as regards adults, it was noted, in certain instances, that those who suffered from diphtheria were, beyond other persons in their families, large consumers of uncooked milk. Of children generally, it was noted that those attacked by severe diphtheria were, almost without exception, consumers of uncooked milk; and, on the other hand, it was observed of certain families who habitually cooked this milk before consuming it, that their children wholly escaped illness.

On inquiring into the general management of the dairy, Mr. Power found that the operation of the milk-business, though confined, so far as Hendon was concerned, to Hendon village, had not been limited to the Hendon district, but had extended to Finchley At this place, the customers of the particular dairy had been by no means exempt from throat-illness. Altogether, nearly a dozen of these persons, in four families, had suffered from decided sore-throat; and, though only one of the cases was defined as diphtheria, several had been regarded as diphtheritic, and all had been of sufficient gravity to come under medical treatment. Further, it appeared that these cases at Finchley were separated into two groups, one group occurring at the end of November or beginning of December, coincidently with the earliest attacks in Hendon that were associated with the particular milk; while the second group occurred in January, coincidently with the notable outbreak in Hendon.

Mr. Power discusses with much minuteness how the milk became infected. The sewers from that portion of the village wherein were

situated the houses of the November cases discharge into a ditch, which eventually passes within twenty-two paces of, and at a higher level than, a certain pond, from which the farmer in this case drew water for dairy purposes. Apparently, in time of flood, water from this ditch was apt to overflow the land intervening between the ditch and the pond, and may have gained access to the pond itself. It was thought by Dr. Cameron that possibly sewage, bearing with it infection-material from some antecedent case of diphtheria, had got access to the pond in time of flood, and, becoming transferred along with the pond-water, had, in the process of washing or rinsing milk-utensils, infected these vessels, or some of them, after a fashion that enabled it to increase and multiply subsequently in the milk that they in due course were made to contain.

Another possible explanation of the infectiveness of the milk—viz., by causes operating through the cow herself, and enabling her to furnish milk capable of inducing diphtheria or throat-illness in persons using it—is also discussed at some length. There was abundant evidence that, shortly before the outbreak at Hendon, the milk distributed from this particular dairy was ropy or stringy. Especially was this the case on the 1st and 2nd of January, four or five days before the simultaneous occurrence of multiple cases of diphtheria among customers of the dairy. Mr. Power finds it difficult to resist suspicion that ropiness of the milk and its ability to cause diphtheria may have been in some way related to each other; but no definite reason to show what caused the milk to become ropy was forthcoming. The dairyman thought that it was caused by the cows being fed with an undue proportion of dry clover-hay; but, although a careful test was made by the man himself, he could not discover any cow giving ropy milk. Another consideration, that this peculiar characteristic may have been caused by the admixture of stale with fresh milk, is discussed. These surmises are based upon the assumption that no actual disease of the cow, such as is admittedly capable of conferring ropiness of milk, existed at the particular farm at the time in question. The farmer was explicit in stating that none of his cows were suffering from affections of the udder; and his opinion was fortified, on January 7th, by a veterinary surgeon, who pronounced all the cows free from disease. Upon this evidence about the cows Mr. Power has no comment to offer, beyond remarking that these assurances might be entirely comforting but for a growing misgiving to the effect that ailments of animals, so trivial as to be disregarded or even unnoticed by people about them, may have larger concern with occurrence of specific disease in the human subject than has heretofore been thought likely.

It is to be hoped that the larger powers of inspection of dairies about to be conferred upon local authorities by the Lord President's Bill of this session may help towards the elucidation and prevention of these puzzling epidemics connected with milk.

HONORARY QUEEN'S CADETSHIPS.

WE published last week a letter from the Secretary of State for War, addressed to the Chairman of the Parliamentary Bills Committee, on the subject of the existing exclusion of the sons of army medical officers from the privilege of receiving their share of honorary Queen's cadetships. Lord Hartington's letter was not promising of concession; but, as the Secretary for War does not seem disposed voluntarily to yield gracefully what equity and kindly feeling appear to dictate in such a case, it will be the duty of the Parliamentary Bills Committee, supported, we hope, by the Association and the profession, to press for discussion and consideration of their claims in the House of Commons in Supply. With this view, it will be well to state the facts.

The number of medical officers on full pay is 890; that of medical officers on half-pay and retired is 348; in all, 1,238. Army medical officers, no matter how long or distinguished their services, are, as non-combatants, denied the privilege of obtaining honorary Queen's cadetships for their sons.

Ten of these nominations are allotted to combatants of the army, and an invidious distinction is thus drawn between the two classes of officer. There is provision for the admission of a limited number, not exceeding ten in any one year, of the sons of combatant officers of the army, and five of the sons of officers of the Indian army, who shall have attained the substantive rank of major or lieutenant-colonel, and shall have performed long or distinguished service, provided that their sons are, on account of such service, recommended by the Commander-in-Chief, with the approval of the Secretary of State, and that the special grounds for the recommendation be set forth in each case.

Though these nominations confer no direct pecuniary advantage, inasmuch as the recipients have to pay the full charge at the Royal Military College, still, as they have only to score a limited number of marks to qualify for entrance, less outlay for military tutors is necessary, and, therefore, a material saving to the parent results. Queen's cadets, honorary Queen's cadets, Indian cadets, and pages of honour, before admission to the Royal Military College, are required to pass a qualifying entrance examination only; *i.e.*, after having passed the preliminary examination, or having obtained exemption from it, they must attend a further examination, and must obtain thereat an aggregate of marks as may indicate, in the judgment of the Civil Service Commissioners, a competent amount of general proficiency.

To remedy this hardship, it would merely be necessary to grant to non-combatants a fair proportion of these nominations, leaving to combatants their present allowance of ten. Moreover, the public would not lose by this boon, the recipients having, as already stated, to pay the full charge at Sandhurst.

The subject was brought forward in the House of Commons, last November, by Dr. Lyons, M.P., and Mr. Childers's reply was not encouraging. We commented on the facts as follows.

"In reply to a question put in the House of Commons by Mr. Lyons, Mr. Childers, the Minister of War, is reported to have said that, 'as to honorary Queen's cadetships, the arrangements were under consideration; but that he could give no assurance that he could extend the system, which was a delicate one to alter.' We think, however, that, so long as it is the custom to set apart a certain number of honorary Queen's cadetships for the meritorious officers of the British and Indian armies of a certain rank, there would, instead of delicacy, be only pure fair play in awarding a proportionate number of cadetships, over and above those already allowed to the sons of combatants, for the sons of highly deserving medical officers. As regards the British services in question, the existing hardship of altogether excluding the sons of medical officers, on the ground that they are non-combatant, might be easily remedied, by setting apart a fair proportion for the sons of the military doctors, leaving the allowance to the combatants as at present."

According to the Army Circular of August 1880, issued with the General Order 113 of 1880, the honorary Queen's cadets are the sons of officers of the army, Indian army, Royal Navy, or Royal Marines, who were killed in action, or who died from wounds received in action within six months of such wounds having been received, or from illness brought on by fatigue, privation, or exposure incident to active operations in the field before an enemy, within six months after their having been first certified to be ill.

We now commend the facts to the attention of members of the profession, and ask their influence with members of Parliament to obtain for the medical department a share of the privilege accorded to their combatant comrades.

THE French Chamber of Deputies last week voted the Bill increasing the pension granted to M. Pasteur from 12,000 to 25,000 francs a year. In the course of the discussion, M. Paul Bert eloquently testified to the great services of Pasteur, and mentioned that he had been offered one million francs for the result of his investigations concerning the diseases of sheep.

THE Khedive's Star has been conferred upon Mr. Edgar Crookshank, in further recognition of his services in Egypt.

LORD CARLINGFORD'S Bill for making better provision for the care of the lunatic poor in Ireland has been withdrawn.

MR. DE WATTEVILLE has just been appointed physician to a new Electro-therapeutic Department at St. Mary's Hospital, the first of the kind created in this country.

THE Treasurer of the British Medical Benevolent Fund acknowledges, with sincere thanks, a donation of £50 to the Annuity Department of the Fund, by Sir William Jenner, Bart., K.C.B.

A PAPER on "The Compulsory Notification of Infectious Disease" will be read by Professor W. H. Corfield, M.A., M.D.Oxon., at the Sanitary Institute of Great Britain, 9, Conduit Street, W., on Tuesday, July 24th. The chair will be taken at 7.45 o'clock precisely.

SIR JOSEPH FAYRER, M.D., F.R.S., Medical Officer of the Secretary of State for India in Council, will preside at a Conference on Monday afternoon at three, on the Powers and Duties of Individuals and Communities in the Prevention of Cholera and Diarrhœa Disease. The conference will be opened by an address by Mr. Ernest Hart, Chairman of the National Health Society, and will be held by permission at the Parkes Museum, Margaret Street.

SIR WILLIAM SIEMENS and the Council of the Society of Arts have issued cards for a *conversazione* on Wednesday evening, July 25th, at the International Fisheries Exhibition, South Kensington, when their Royal Highnesses the Prince and Princess of Wales are expected to be present.

A STUDENT of the College of New York has been fatally poisoned by morphia, which was sold to him at an apothecary's shop in capsules, in place of quinine. The proprietor of the drug-store, and the assistant who furnished the morphia, have been committed for trial.

A CORRESPONDENCE has passed between the Home Secretary and the Duke of Westminster on the subject of the defective administration of the Smoke Nuisance Act in the metropolis. Sir William Harcourt is to be asked in the House of Commons on Monday next whether he is prepared to take any action in the matter.

BIRMINGHAM EYE HOSPITAL.

IT is announced that the new and handsome buildings of the Birmingham Eye Hospital will be opened for patients early next year. The new hospital, which will cost £20,000, will contain seventy beds, and a large and separate out-patient department. Every bed will be supplied with electric and speaking-tube communications.

AMERICAN MEDICAL ASSOCIATION.

THE thirty-fourth annual meeting of this Association was held at Cleveland, Ohio, on June 5th, 6th, 7th, and 8th. Among the business transacted was the adoption of a resolution providing for the appointment of a committee of five to press upon Congress the desirability of securing better medical attendance on ocean-steamers. It was decided to hold the next meeting in Washington, on the first Tuesday in May, 1884, and following days.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

ON Tuesday, Mr. Jordan Lloyd, M.B., F.R.C.S., was elected honorary surgeon to the Queen's Hospital, Birmingham, in the vacancy arising from the lamented death of Mr. J. F. West. Mr. Lloyd was a distinguished student of the Birmingham school, and he has been a junior member of the staff of the Queen's Hospital for the last four years, where his well-earned promotion now causes a vacancy in the honorary office of casualty-surgeon.

MR. JONATHAN HUTCHINSON, F.R.S.

WE understand that Mr. Jonathan Hutchinson is about to retire from the position of Senior Surgeon to the London Hospital, the term of office for which members of the staff are elected having, in his case, expired. The Hospital Committee have unanimously appointed the retiring surgeon Emeritus Professor of Surgery in the London Hospital Medical School, and we are informed that in this capacity Mr. Hutchinson will deliver, each session, a course of lectures on Surgery. At a crowded meeting of past and present students, hastily assembled, on July 13th, it was resolved to raise some fitting "Hutchinson Testimonial." A Committee to carry out this scheme was appointed; Dr. Andrew Clark acts as Treasurer; and Dr. J. A. Williams and Mr. Charles H. Wade are the Honorary Secretaries.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

ON Wednesday, July 11th, the quarterly court of directors of this Society was held in the room of the Royal Medical and Chirurgical Society, Sir George Burrows, Bart., President, in the chair. Four new members were elected, the deaths of four were reported, and two other gentlemen had ceased to be members. A sum of £1,207 was distributed among fifty-seven widows and eight orphans; the death of one widow receiving a grant of £50 *per annum* was reported. There were no fresh applications for grants. The expenses of the quarter amounted to £71 13s., including an honorarium of 25 guineas to Mr. Blackett in recognition of his great additional services rendered to the society, of which he was re-elected secretary.

SATURNINE EPILEPSY

DR. THOMAS recently held an inquest in Clerkenwell as to the death of Mrs. Duggan, a young woman engaged in a white lead-factory in Southwark. The deceased had complained of pains in her head and stomach, and could not eat anything. She then had a fit, gradually grew worse, and died five days subsequently. A verdict of death from epileptic convulsions, acclerated by debility, as the result of white lead-poisoning, was returned. The jury desired the coroner to communicate with the Home Secretary, and suggested that, pending legislation on the subject, a code of instructions should be drawn up for the guidance of workers in lead-factories, and that the inspection of such factories by the Government Inspector should be more frequent.

THE TRIAL OF HUNGARIAN JEWS.

THE revolting trial of Hungarian Jews, now proceeding at Nyiregyhaza, for the alleged murder by throat-cutting of the girl Esther Solomossy, the reports of which have so largely occupied the public press of late, still drags on its weary length. It is difficult to follow the medical details; but it may be well doubted whether the body of the girl, whose murder is alleged by the prosecution, has been recovered. Professor Scheuthauer is of opinion that the body recovered from the river is that of a girl, fourteen to seventeen years of age, and not that of a woman eighteen to twenty years old; and he bases his opinion upon an examination of the bones. Dr. Horvath is of opinion that the body presents appearances consistent with that of a woman of twenty years of age, and that there are no signs of drowning upon the corpse; whereas Professor Scheuthauer thinks that it is that of a drowned person. Dr. Horvath bases his opinion upon the ossification of the skull and the measurements of the chest. Dr. Kiss alleges that there are no signs of drowning; whereas Professor Scheuthauer asserts that the rosy condition of the muscles points to a not recent death, and shows that the body had

been for some time in the water. The profession will await with interest a full report of the case at the conclusion of this extraordinary trial.

MEDICAL WOMEN FOR INDIA.

MRS. SCHARLIEB, M.B. and B.S. (London), had the honour of being received by the Queen at Windsor, on July 12th, before taking her departure for Madras, where she intends to practise as a physician. Mrs. Scharlieb lived at Madras for some years before coming to England to enter the London School of Medicine for Women. On the completion of her school career, she took the scholarship and gold medal in midwifery at the examinations of the University of London, as well as honours in medicine, forensic medicine, and surgery. During her interview with the Queen, Her Majesty made many inquiries about the condition of the native female populations of India, and was much interested in what Mrs. Scharlieb was able, from personal experience, to tell her, as to the need of medical women in that country. At the conclusion of the visit, the Queen presented Mrs. Scharlieb with her likeness, and desired her to tell the women of India of all classes that she was much interested in hearing about them, and that they had her fullest sympathy.

THE CASE OF THE REV. MR. TIMMINS.

AT the Maidstone assizes on July 17th, in the case of the Rev. Mr. Timmins, who is charged with having caused the death of a young woman, one of his parishioners, by having given her, while suffering from consumption, a dose of essential oil of bitter almonds, containing a large quantity of prussic acid, Mr. Justice Day, in his charge to the grand jury in reference to this case, said that the facts were very simple, and there would be no doubt that the death of the deceased was occasioned by the administration of poison to her by the reverend gentleman. There did not appear to be any doubt that the accused was actuated by benevolent motives, and if the grand jury should think that at the time the poison was administered the clergyman believed that he was administering an innocuous drug, he ought not to be held responsible for so serious a crime as that of manslaughter. The learned judge in the course of his remarks expressed his strong disapproval of a clergyman or any other person taking upon himself to give medical advice in cases of serious illness; and, having called the attention of the grand jury to the facts, he said that he was afraid that if it should appear that the bottle containing the mixture was labelled "poison," and it should be made to appear that, being aware of the fact, the accused gentleman had incautiously caused the death of the deceased by administering this deadly drug to her, it would amount to criminal negligence of such a character as to render it their duty to return a true bill against the defendant. The grand jury returned a true bill against the Rev. Mr. Timmins for manslaughter. The trial took place on July 18th, and, after five minutes' consideration subsequently to the summing-up of the judge, the jury acquitted the accused.

THE WEST RIDING MEDICAL CHARITABLE SOCIETY.

THIS Society, which was established fifty-five years ago, has, we think, peculiar claims to the aid of the profession generally, and we desire to solicit attention to its work and aims from those members who have not, perhaps, had its scope and objects placed before them. The special aims of this Society, are: To aid the widows and children of members, duly qualified, dying in exigent circumstances; to aid any sister of a member, being a single woman or widow, who has lived with her brother as his housekeeper for a period of not less than five years preceding his death; to aid such members as are wholly or partially incapacitated by age or permanent bodily infirmities, or who are disabled by severe illness from practising for a period of six months; and, finally, to aid in the education of the children of members thus incapacitated or temporarily disabled The subscription to this laudably provident Society is but a guinea *per annum*, a sum so small that it can scarcely be missed by anyone, whilst the rich members of our profession, who are not likely to need its aid, may, by contributing to its funds, feel that they are helping to minister to the needs of some of their less fortunate brethren, or their families, left in straitened circumstances from no fault of the bread-winner who has been taken from them by the hand of death.

MINING FATALITIES.

ACCORDING to the reports of the Inspectors of Mines for the United Kingdom for the year 1882, just published, 959 fatal accidents, causing 1,218 deaths, occurred during the year. These figures show an increase of 30 fatal accidents, and of 165 lives lost, as compared with the previous year, while the mines at work were fewer by 33. It appears that the average of the preceding nine years was one fatal accident for every 596 persons employed in mines, and one death among every 454. During 1882, the corresponding numbers were one fatal accident among 583, and one death among 459 persons. Of the deaths last year, all but 85 were caused below ground; by far the greater number were due to falls of earth, while 250 resulted from explosions of fire-damp. It is well known that labour in coal-pits is far more perilous than in metalliferous mines; the proportion of deaths in the latter last year was one in 603 miners, while in coal-pits the accident death-rate was one in 447. Although certain districts of England show a decided and encouraging reduction in their average accident death-rate amongst miners, the figures we have quoted are, on the whole, somewhat discouraging. In spite of special protective legislation and skilled and frequent inspection, the general mortality from accidents in mines is still very high, and leaves abundant room for further efforts towards its reduction.

THE GOVERNMENT AND THE CHOLERA IN EGYPT.

SURGEON-GENERAL HUNTER leaves England on July 20th, on a mission from the Foreign Office, as the British medical officer appointed by the Government for the purpose of investigating and reporting on the origin of the present outbreak of cholera in Egypt, and as to the best means of staying it. He should reach Alexandria on Thursday next in due course. Surgeon-General Hunter has been selected for this post, as having had a large experience of choleraic and other epidemic diseases in India. He was for many years president and professor of medicine in the Medical College at Bombay, and senior physician to the Jamsetjee Jejeebhoy Hospital. He served for twenty-five years in India, and has gone through many epidemics of cholera, especially the epidemic which broke out during the Burmese war, when he was himself a sufferer. Later on, he was selected for the post of deputy surgeon-general of Bombay. It will be the duty of Surgeon-General Hunter to report, for the information of the authorities at home, his opinion as to the sources and symptoms of the disease now epidemic in Egypt, and to suggest methods for preventing its extension and recurrence. The instructions issued require Surgeon-General Hunter to place his services at the disposal of the Egyptian Government, should they desire to employ him as an adviser in connection with the present outbreak.

INTERNATIONAL ARBITRATION IN QUARANTINE.

THE cholera regulations issued by the Local Government Board are in accordance with the recommendations of the International Sanitary Conference held at Vienna in 1874. It was decided that the system of quarantine ought to give place to the system of medical inspection. Unfortunately, many of the European nations have declined to carry out what their representatives at the Conference both voted for and agreed to. Medical inspection, in the words of Sir Charles Dilke, "aims at obtaining the seclusion of actually infected persons, and the disinfection of ships and of articles that may have

received infection from the sick." Ships that are infected will be rigorously isolated, but those on board who are free from the disease will be allowed to land without delay. The *Liverpool Daily Post* mentions that in that port, if cholera have been extensive throughout a ship, the crew and passengers will be called upon to camp out in tents for a few days, until there is evidently no fear of infection. Those who sicken will be kept in hospital until they are certified free. In the event of a death from cholera, the ship will be compelled to carry the body out to sea, and to commit it to the deep. Ship and clothing will be thoroughly disinfected. In contrast with this method of dealing with cholera, the propriety of which everyone sees, and against which no one, therefore, grumbles, our contemporary very justly complains of the absurd system which prevails in the Mediterranean ports of forcing ships with a clean bill of health, and without a case of disease on board, to ride quarantine for perhaps three weeks, merely because they hail from a "suspected port." The loss to British commerce from unnecessary delay, and from disturbance of trade and passenger-traffic, during the present epidemic must already have been considerable, and the magnitude of the figures would surprise some ardent advocates of quarantine. But it is not only the commercial world that protests against quarantine. In no country has sanitary science developed so highly as in England, and English sanitarians regard quarantine as unnecessary. In no country are the opportunities for the study of cholera so extensive as in India, and our Indian medical officers admit that quarantine is a failure. When a steamer like the *Tanjore*, although it has a medical officer on board and not a case of sickness, is compelled to ride an indefinite quarantine off Venice to appease the alarms of a mob, there can be no doubt that its owners have a moral claim for compensation. Had the Conference of Vienna succeeded in its aim to establish a permanent International Sanitary Commission, that body might have acted as arbitrators. At present, however, there is practically no redress for wrongful imposition of quarantine, and we join in the hope that, at any future conference, a chief subject of discussion will be the necessity for the establishment of an equitable court of arbitration.

FRUIT IN SUMMER.

LIGHTNESS is the first essential alike in the food and drink taken in warm weather. There is then less work to be done, less waste of tissue, less need of the pre-eminently muscle-forming and heat-producing substances meat and bread; and fruit, as being both palatable and easily obtainable, is much in use. Its advantages are that it provides a seasonable change of diet, light and wholesome if well chosen, and a palatable tonic and stimulant of digestion with aperient properties. There are few who cannot enjoy it in one form or another. For diabetics, only the least desirable kinds, as certain nuts and almonds, are available, all others, as containing sugar, being forbidden. Sufferers from acid dyspepsia must select carefully, and limit their consumption to the least irritating—a few strawberries or a few grapes. Diarrhœa and dysentery preclude the use of all fruit. On the other hand, for constipated persons, it is sometimes the only reliable remedy which they can use continuously with comfort; it is also of benefit in renal diseases, by its action on the bowel. Atonic persons generally take it well, and feel the better for its digestive property. Those in normal health may eat almost any ripe fruit. The bland varieties are the most wholesome and nutritious—strawberries, apples, pears, grapes, and gooseberries. The last named, however, with currants and raspberries, are less wholesome than the others. Stone-fruits are apt to disagree with the stomach; but the more watery, as peaches and large plums, are better than the smaller and drier, as apricots and damsons. The pulp of oranges renders them heavy. Among other foreign fruits, bananas are wholesome. Dried fruits, and the skin of fruits in general, are indigestible. Nuts, the edible part of which is really the seed, contain much albumen and some fat in a condensed form, and are particularly difficult of digestion. Fruit may be taken with a meal or on an empty stomach. In the former case, it promotes digestion by its gently irritating effect on the mucous membrane of the stomach and intestine. If an aperient effect be desired, it had better be taken in the morning before breakfast or between meals. A succulent and pleasantly acid variety is best for both of these purposes, while it is also a food. The quantity of fruit which should be taken depends on the kind. If it belong to the bland nutritious class, a healthy person may now and then partake of it as freely as of any other wholesome food; but he will gain most benefit if he take only a little, and take it regularly. The same may be said of the invalid with whom fruit agrees. Cooking removes much of the acidity from crude fruit, and renders it lighter as well as more palatable. So treated, it is productive of good and no harm; but it is a fundamental principle that whatever fruit is eaten uncooked must be fully ripe and not over-ripe. This may sound trite, and indeed the principle is commonly admitted; but not, it would seem, by all, for we still find people, and not a few, who will themselves deliberately take, and worse, will give to their children, green gooseberries, green apples, etc., the very hardness of which, apart from their acid pungency, suggests their unfitness for digestion. Such people use as food an acid irritant poison, whose necessary action is to cause excessive intestinal secretion with more or less of inflammation. Hence arises diarrhœa. On the other hand, fruit which is over-ripe, in which fermentation has begun, is a frequent cause of this disorder, and equally to be avoided, and perhaps also more difficult to avoid because the insidious beginning of decay is not easily recognised. It should never be forgotten by any who incline to follow the season in their feeding, that the want of such precautions as the above may produce that dysenteric form of diarrhœa, "British cholera," which is occasionally as rapidly fatal as the more dreaded Asiatic type of that disease.

THE GREAT NORTHERN HOSPITAL.

FOR some years past the Committee of the Great Northern Hospital have informed their governors and subscribers of the desirability of building a new hospital, the present temporary buildings being unsuitable and inadequate in point of accommodation to the requirements of the district. They have shown that the delay in carrying out this scheme has arisen from an unwillingness to build on leasehold property, especially as they had every reason for expecting that they would be able, in a short time, to acquire the freehold on which the present hospital-buildings stand; and so soon as this was accomplished, they purposed erecting a new hospital, in every way commensurate with the needs of the neighbourhood. In these circumstances, they had plans prepared for the new hospital, but, to their disappointment, they find that the owners of the freehold are still not legally in a position to sell the property. Meantime, a project has for some time been on foot, supported by gentlemen of position in the neighbourhood, to erect a new hospital for North London, and a meeting, very numerously attended, was held, on April 28th last, in the Highbury Athenæum, to further the proposal. In these circumstances the Committee considered what steps it would be best, in the interests of the public and the Great Northern Hospital, to take. They were unanimously of opinion that the establishment of two hospitals in the north of London, probably within a mile of each other, would be an unnecessary, if not unjustifiable, tax on the public, and would make it very difficult to carry on either hospital effectively. They therefore opened communication with the Committee of the proposed new hospital, with a view to a possible amalgamation. A correspondence ensued, and a conference took place, resulting in an amalgamation of committees being arranged on the following bases: 1. The name of the new hospital shall be "The Great Northern Central Hospital." 2. It shall be a general and free hospital, with pay-wards, or a pay-wing. 3. The present medical staff of the Great Northern Hospital shall be

the nucleus of the staff of the new hospital, with such additions as may be necessary; and the qualification of the staff shall not be less than those laid down in the by-laws and regulations relating to the medical staff, at present in force in the Great Northern Hospital. This arrangement, therefore, in the first place, secures the individuality of the Great Northern Hospital, and preserves its status; and further secures its enlargement, and adds to the Committee of Management a body of local gentlemen who are pledged to carry out a specific engagement. In acting as they have done, the Committee have been actuated solely by a desire to ensure the welfare of the hospital, and the interest of its subscribers; and they feel assured that their action will meet with the approval of the governors and subscribers, whose support they trust will be continued.

DEATH OF DR. A. P. STEWART.

WITH profound regret, which will be shared in by the Association generally, we have to announce the death of Dr. A. P. Stewart, which took place at his residence, 75, Grosvenor Street, on Tuesday evening. Dr. Stewart had for some time been suffering from dilatation of the heart and intermittent pulse. Last Sunday he was seen by Dr. Wilson Fox and Dr. Heywood Smith, who administered nitrite of amyl during a syncopal attack. He eventually succumbed to the enfeebled heart's action, and the atheromatous condition of the aortic valves. His funeral will take place at the Highgate Cemetery at 5 P.M. on Monday next. The procession will leave Grosvenor Street at four o'clock. We hope to be able to give, in the JOURNAL of next week, a sketch of the life and labours of our much regretted colleague. In the meantime, we can only briefly recall the memory of his long and unwearied devotion to the work of the Association, the deep interest which he took in all matters bearing on the professional and public welfare, his sterling integrity of character, and the influence which his well-considered and judicious counsels always possessed in the deliberations of the Councils of the Association and of its meetings. The death of such a man is indeed a professional calamity.

THE COMMISSIONERSHIP IN LUNACY.

THE appointment of Dr. R. Southey to the Commissionership in Lunacy, rendered vacant by the retirement of Dr. Nairn, will, we are informed, probably not be accepted without adverse criticism by the special branch of the profession interested in the treatment of the insane. Five prizes only are open to this specialty—viz., two as Visitors in Chancery, and three as Commissioners in Lunacy; and the withdrawal of one of them cannot but exercise a prejudicial influence on the development of that latent energy which should be evolved in striving to deserve these prizes. The Lunacy Commission has already three barristers, and to add another non-specialist to the already weak proportion of specialist influence will not tend to increase the weight of the Board in asylum-management. If ophthalmic hospitals existed in every county and large town, and required Government supervision, would the appointment, as inspector, of a surgeon who was not an oculist be considered satisfactory? Such an appointment can only be justified on the ground that there are no men in the speciality who are qualified for the post, which is not the case; or from the fact that the post is not worthy of the acceptance of the most able asylum-superintendents, which may be the fact, but is not calculated to enhance the power of the Lunacy Board.

BICHLORIDE OF METHYLENE.

A DISCUSSION took place lately in the Paris Académie de Médecine concerning bichloride of methylene, which, it is well known, is considered by Sir Spencer Wells to be preferable to chloroform. M. Regnault said he had examined several samples, and found that certain products sold in France under that name were nothing but chloroform; others, coming from England, were a mixture of chloroform and methylic alcohol. It is therefore necessary to be cautious when trying the therapeutic effects of these products. M. Le Fort, leaving the chemical question to others, said that he had obtained better results with that fluid than with chloroform. M. Regnault asserted positively that the so-called bichloride of methylene, procured from Sir Spencer Wells' provider, contained no trace of bichloride of methylene, though it was sold under that name; it was a mixture of one part of methylic alcohol, with four parts of chloroform. French products, bearing the same name, differed by being composed simply of chloroform. M. Regnault added that, from a commercial point of view, it was interesting to note that one kilogramme of the mixture costs in London 38s., while chloroform may be had in Paris for 8s. These remarks will be of interest, in connection with Dr. Junker's article in the present number of the JOURNAL.

A SWIFT NEMESIS.

ANSWERING a question in the House of Commons, Lord Hartington revealed the remarkable fact that, since Mr. Stansfeld's resolution was carried, the percentage of disease among our troops in the formerly protected districts has risen from 11.89 to 17.40 per 1,000. The *Daily Telegraph* observes: "It is not often that the mischievous consequences of unregulated zeal on the part of would-be reformers are so quickly and so disastrously demonstrated. Only a few weeks have elapsed since a vote of the House condemned the compulsory rule which injured no one, and diminished the number of patients sent to the military hospitals. The Government, although they knew that without their services the Acts which worked so well would be practically of no effect, withdrew the Metropolitan Police from our garrisons. Now the results of that step, foreseen at the time, and proclaimed into impervious ears, are made manifest in the answer of Lord Hartington; and we are entitled to say that, in order to gratify their feelings, the promoters and supporters of Mr. Stansfeld's crotchet deliberately sanctioned a resolution certain in in its operation to make inroads on the health of our soldiers, and to diminish the effective strength of the army. The great and rapid increase in the hospital-musters has been directly caused by the mover and supporters of an unwise resolution. All the arguments were dead against them, and they cannot plead that no voices warned them of the inevitable and evil fruits of their success. The towns and garrison-cantonments appealed in vain to their reason, and implored them not to withdraw a proved and efficacious safeguard. They would not listen; and it now stands confessed that their over-eagerness to promote virtue by resolution of Parliament has directly and scientifically spread contagion, and reduced still further the available strength of our scanty British army."

THE HYGIENE OF SCHOOLS.

THE eighth lecture of the series at present in course of delivery at the Parkes Museum of Hygiene, was given by Dr. C. H. Ralfe, on Thursday evening, July 12th, the subject being "Hygiene in Schools. The Very Rev. the Dean of Llandaff (Master of the Temple) took the chair. The lecturer pointed out that great improvements had taken place of recent years in the general management of schools, but, hand in hand, with these improvements other conditions had arisen which had a tendency to lower the average standard of health. Among these the competitive system must be reckoned as the chief since it introduced an element of strain, anxiety, and excitement at a period when growth and development were most active. But these and other conditions had to be accepted, and the evils resulting from them combated by an increased care and attention to hygienic details. The lecturer then proceeded to relate the best means for the protection of the school from the ill effects of defective drainage and a dangerous water-supply. The construction of the school buildings, and the arrangement of studies and dormitories, were fully considered, together with the question of ventila-

tion and lighting. The channels by which epidemic disorders were introduced into a school, and the best means of dealing with an outbreak when it occurred, were next discussed. A considerable portion of the lecture was devoted to a consideration of the vexed question of schoolboy food. The lecturer insisted it should be plain and simple in character, sufficient in quantity, excellent in quality, and adapted to the special requirements of growth and development, according to the age of the boys, whilst the most minute attention should be paid to its cooking, and that it should be served hot, and in a palatable and relishing form. He denounced the "tuck" shops, where boys are too often allowed to purchase provisions of a very doubtful nature, and consume them at times when they destroy the natural appetite. The influence of school work and play on the boy's health and development was then discussed. Sound, honest hard work, the lecturer was convinced, never did a healthy boy any harm, but it was the system of forcing minds at high pressure which was accountable for many lamentable breakdowns. For a similar reason athletic sports which required previous training, and often a severe strain, were not advisable till the frame was set, the ordinary pastimes of cricket and football being most suitable for the growing lad. In conclusion, the lecturer insisted on the necessity of adequate medical supervision in order to carry out effectually the details requisite for the maintenance of perfect sanitary and hygienic conditions, and alluded to the excellent results that had followed on the appointment of medical officers at Rugby and Marlborough to attend to the details; by constantly mixing with the boys, they obtained an intimate acquaintance with their physical conditions, whilst the great advantage of medical supervision lay in the power of being beforehand with epidemics. In schools where it was thoroughly adopted, the necessity for breaking up a school on account of scarlet fever, etc., was found to be of extremely rare occurrence. In the discussion which followed, Dr. Alder Smith, the Resident Medical Officer to Christ's Hospital, stated that at that school it was the rule to have double papers filled up by the parents before a boy entered the school, stating whether he had had scarlet fever, measles, or other zymotic diseases. With regard to the prevention of the spread of infectious diseases, he thought that immediate and complete isolation and disinfection was necessary, and that scarlet fever could almost always be prevented from spreading in Christ's Hospital, even among 760 boys, by efficient isolation; during the thirteen years for which he had been medical officer, there had only been one outbreak of scarlet fever; fifty-five cases then occurred. Thirty more cases had occurred during the thirteen years, chiefly singly, but in a few instances of two or three together; he had not had a single case of dropsy, or a death; all cases had been at once isolated, and treated in the infirmary.

SPIRITS AS MEDICINE.

A CORRESPONDENT sends us an extract from the *Western Mail*, by which it appears that the magistrates at Tredegar had recently to decide a rather novel case. The landlord of an inn was charged before them with having supplied brandy to a customer during prohibited hours, and successfully urged in his defence that the brandy was only supplied as medicine. The magistrates dismissed the case, and thus probably did justice; but they certainly disregarded the words of the Licensing Act, 1874, which prescribes the penalty for selling intoxicating liquors during prohibited hours, and specifies certain cases in which the seller may be excused, but does not include among them the sale of spirits for medicinal purposes. Brandy is sometimes a valuable remedy, and is sold by most druggists, and, as far as we know, it has never been suggested that they are infringing the licensing laws when they supply it medicinally; but no one can doubt that when a medical man, on a hot Sunday afternoon, walks into a druggist's shop with a friend, and prescribes two brandies and sodas, which are supplied by the druggist, all parties to the transaction are infringing the law. If such a case were proved, magistrates ought to convict, and to impose a substantial penalty. So, also, if it appeared a publican supplied spirits under the pretence that they were wanted medicinally, but really as an excuse for supplying them during prohibited hours, magistrates would be pretty sure to convict. A publican knows that he runs a risk whenever he departs from the strict words of the Licensing Acts, and magistrates are not, as a rule, too ready to believe excuses that are made before them to avoid the consequences of illegal sales. In the Tredegar case, we have no doubt the court believed the defence; but we do not think their example will be followed if such a defence is set up in any but the clearest cases. Where brandy is wanted as a medicine, it would be a great misfortune if it could not be got, even out of hours.

ST. BARTHOLOMEW'S HOSPITAL.

As might be expected, the vacancy for an assistant-physician to St. Bartholomew's Hospital, caused by the resignation of Dr. Southey, will be hotly contested. We understand that the candidates up to the present are Drs. Norman Moore, West, Vincent Harris, Ormerod, and Kidd, all of whom have held the appointment of casualty-physician to the hospital. Dr. Norman Moore, Warden of the Hospital College, and Lecturer on Comparative Anatomy, and Demonstrator of Morbid Anatomy to the Medical School, is already well-known for his contributions to the *Transactions* of the Pathological Society, and for a series of interesting papers in the *St. Bartholomew's Hospital Reports*, of considerable literary as well as scientific merit. Dr. Samuel West is Medical Registrar and Tutor to St. Bartholomew's Hospital, and Assistant-Physician to the Royal Free Hospital, and to the City of London Hospital for Diseases of the Chest, Victoria Park. He has made some valuable contributions to the *Proceedings* of the Royal Society, and to other learned bodies, on urea and nitrogenous waste. Dr. West is also the author of a useful manual for students, entitled *How to Examine the Chest*. Dr. Vincent Dormer Harris is Demonstrator of Physiology to St. Bartholomew's Hospital, and Assistant-Physician to the City of London Hospital for Diseases of the Chest; he is, with Mr. D'Arcy Power, the joint author of the *Manual for the Physiological Laboratory*, and has contributed some interesting papers to the Pathological Society's *Transactions*. Dr. Harris's authority in pathological matters is increased by the fact that he possesses a sound practical knowledge of histology, which has proved particularly useful in joint work with other pathologists. Dr. J. A. Ormerod is also an Assistant-Physician to the Victoria Park Hospital, and holds a similar appointment at the National Hospital for the Paralysed and Epileptic; he is likewise Assistant-Demonstrator of Physiology to St. Bartholomew's Hospital, and the author of several interesting papers and pathological contributions, published in the hospital *Reports* and the Pathological Society's *Transactions*. Dr. Percy Kidd is Assistant-Physician to the Consumptive Hospital, Brompton, and has written some monographs of high scientific value, especially a paper on the pathology of hæmophilia, published in the *Transactions of the Royal Medical and Chirurgical Society*. All these candidates were formerly students of St. Bartholomew's Hospital. Not very long ago, the authorities of that institution felt that it was desirable that physicians from other schools should be selected; it is, therefore, satisfactory to find that, at the present date, the great metropolitan charity has an ample choice of five physicians, all of whom are home-bred, and all at the same time deserving of consideration as earnest workers in clinical and pathological medicine.

THE PREVENTION OF CHOLERA.

AT a meeting of the City Commissioners of Sewers on the 17th instant, Dr. Sedgwick Saunders, the medical officer of health in the City of London, referred to the natural uneasiness of people as

to the spread of cholera into this country, and said that, to prevent disease of that kind, pure air and water, good ventilation, and personal cleanliness were essential. He recommended, with a view to such prevention, that the sewers should be flushed more often and the foul gases intercepted; that the catchpits in the street-gullies should be emptied and deoderised once daily; that the roadways should be kept clean and well watered, that the courts and alleys should be daily flushed, and the entrances and side-walls whitewashed; that household refuse should be removed daily; that the public dustbins and orderly boxes should be emptied twice a day; that crowded stables should be disinfected and inspected; that special examinations should be made into the water-supply in houses; that common lodging-houses should be better registered; that smoke-nuisances should be abated; that unsound food should be seized; and that instructions should be issued to the public warning them of the danger of neglecting the earlier premonitions of cholera. These recommendations were adopted. Dr. Collingridge, the medical officer for the Port of London, has issued the following notice: "Nothing is more clearly proved than the very great influence of pure air, pure water, good food, and cleanliness, in preventing the spread of all infectious and contagious diseases. The following rules should be strictly observed by all masters of vessels and persons in authority. 1. Remove all accumulations and deposits of refuse and foul matter, using disinfectants when necessary. 2. See that the water taken in is good, and that it is stored in clean receptacles (iron tanks being best). 3. Keep all closets and heads thoroughly clean and sweet. 4. Send all cases of diarrhœa at once to the nearest doctor or hospital. 5. Give information of any sickness or nuisance to Dr. Collingridge, Port Medical Officer, King William Street, Greenwich." Sir Charles Dilke is at present conferring with the different medical authorities on the best steps to be taken for keeping the cholera epidemic out of Great Britain. Sir Charles is able to state that not a single case of the disease has occurred within the last month in Europe. Sir Charles and Sir William Harcourt, Secretary of State for Home Affairs, are engaged in drawing up rules and orders for the health of the metropolis. A deputation from Plymouth, including the Mayor (Mr. J. Shelly), and Mr. Bellamy (Chairman of the Port Sanitary authority), introduced by Mr. P. Stewart Macliver, M.P., had an interview on the 17th instant at the Local Government Board with Dr. Buchanan, Chief Medical Officer of the Board, and Mr. Owen (Secretary). The point under discussion was whether a vessel coming from places where cholera is more or less prevalent should not be detained at the port of arrival in the event of having had any cases of the disease on board, and even after the removal of such cases to hospital. It was urged that the infection might be conveyed ashore by other passengers in whom the germs of the disease were in an incipient or imperceptible stage.—In reply, it was stated that many eminent medical authorities held that cholera was not communicable by contact with patients. The authorities were, on the whole, disinclined to detain vessels if sufficient precautions were taken to prevent possible infection, and if all passengers and others were examined by the local medical officer of health at the port were they landed.

SCOTLAND.

MEASLES are again so prevalent in Sandwick parish, Orkney, that the public school, which had only recently been re-opened, has been closed a second time.

A FATAL case of poisoning by hydrochloric acid is reported from Wishaw, where the wife of a platelayer drank some of the liquid in mistake for whisky, and, after lingering for a fortnight, succumbed to the effects of the irritant, death occurring somewhat suddenly.

WE observe, from the annual report of the Argyll and Bute Lunacy Board, that the new buildings in connection with the Lochgilphead Asylum are to be ready for occupancy next month, and will provide accommodation for 120 additional patients.

THE proposal to erect a cottage-hospital and dispensary at Hawick has been again revived, and active steps are being taken to raise the necessary funds, so as to permit of building operations being immediately commenced.

POISONING BY ALCOHOL.

FROM time to time, we have to record sudden deaths from what has been regarded at the time as an overdose of alcohol; but we fear that, in many of these cases, not only the quantity, but the quality, of the intoxicating fluid is at fault. In a recent number of the JOURNAL, we gave the analyses of some samples of shebeen whisky that had been seized at Greenock, and very noxious compounds they were. Recently, we observe it has been reported to the Paisley Town Council, that many of the intoxicated persons brought in by the police had bottles of methylated spirit, or "finish," in their pockets. The matter has very properly been brought under the notice of the authorities, with the view of adopting measures to prevent abuse of the liberty given to sell methylated spirit free of duty. Indulgence in this form of spirit must materially add to the dangers of intoxication.

GLASGOW UNIVERSITY.

THE summer session of the Medical Faculty in this University came to a close on the 13th instant, when the prizes and certificates were awarded to the successful students. The practical classes in all the different branches have been very well attended, and the numbers have been quite up to previous years. Dr. McCall Anderson terminated his clinique on diseases of the skin, at the Skin Dispensary, on the 11th instant. This course has been gradually, but steadily, increasing in the numbers attending it, this session there being forty-seven enrolled. The first prize for proficiency was awarded to Mr. Archibald N. Montgomery. The final examinations for the medical degrees to be awarded at the graduation ceremony, to be held towards the close of the month, are still in progress; but it is expected that this week will see them completed, and that the lists will be published the following week.

THE PURIFICATION OF THE RIVER CLYDE.

THE recent appalling disaster on the Clyde has once again drawn public attention to the state of the river, for there is a very general feeling that no small proportion of the fatal cases of drowning arose from the occupants of the unfortunate ship being immersed suddenly in a fluid possessing noxious and poisonous properties. From time to time the Glasgow authorities make intimation of some steps being taken to grapple with the evil; but we fear that as yet very little progress has been made in the matter, and that the residents in the city and the workmen on the river-banks are for some time to come doomed to suffer the bad effects that must of necessity follow from the present state of things. It is to be hoped that Government will soon move in the question, and prevent the Rivers Pollution Bill from being a dead letter Act as far as Glasgow is concerned.

REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General for the week ending July 7th show that the death-rate in the eight principal towns during the week was 23.3 per thousand of estimated population. This rate is 2.8 above that for the corresponding week of last year, but 0.9 below that for the previous week of the present year. Perth had the lowest mortality, viz., 11.9 per thousand; and Glasgow the highest, viz., 28.1 per thousand. The mortality from the seven most

familiar zymotic diseases was at the rate of 3.3 per thousand, or 0.7 below the rate for the previous week. Measles and whooping-cough continue to be the most fatal miasmatic diseases. There were 104 deaths from acute diseases of the chest, or 17 more than in the previous week. The mean temperature was 60.1°, being 2.2° above that of the preceding week, and 1.1° above that of the corresponding week of last year.

ABERDEEN ROYAL INFIRMARY.

In addition to the means notified in our last issue to secure a larger income for this institution, the managers have issued an appeal to the working classes in Aberdeen, as the chief beneficiaries of the charity, to subscribe more liberally to the funds of the institution. Last year Edinburgh working men subscribed £3,183, while Aberdeen working men gave £506.

THE MEDICAL ACT AMENDMENT BILL.

There was held in Edinburgh on the 12th instant, in the Hall of the Royal College of Physicians, a joint meeting of the extramural medical school teachers of Edinburgh and Glasgow, for the purpose of holding some discussion on the proposed provisions of the above Act. The opinion generally expressed was to the effect that the extramural medical schools had been overlooked by the late Royal Commission, and consequently by the Government, in the present Act; and that thus, in the Board to be created for examining and licensing, a preponderating influence was given to the University representatives, as compared with those from the different corporations. Resolutions were adopted giving expression to these views, and urging the necessary changes for remedying this position of matters; and it was agreed to embody these in a minute and forward it to the Government.

ABERDEEN UNIVERSITY COURT.

At a meeting of this Court held on July 11th, Dr. Bain presiding, a petition was presented from Professor Francis Ogston, in which he formally tendered resignation of the Chair of Medical Jurisprudence. Dr. Ogston is in his eightieth year, and he has taught medical jurisprudence as a lecturer, and as a professor in addition, for a period of forty-four years. The Lord Rector, Dr. Bain, paid a high tribute to Dr. Ogston's merits as a professor, and to his acknowledged position as one of the most experienced and best known medical jurists in the country. The other members of the Court also expressed similar sentiments, and universal regret was expressed that age had compelled Dr. Ogston to seek retirement and relief from his professional duties. We trust he may have a long evening of leisure before him, and we are sure that this is the universal feeling amongst the numerous pupils who have attended the University of Aberdeen during the last four decades. The Court will meet again, probably towards the end of August or the beginning of September, to elect a successor to Dr. Ogston. The University of Aberdeen requires for its Chair of Medical Jurisprudence a man who has had a thorough scientific training, such as will enable him to apply the latest methods of investigation to the advancement of science, and who will thus maintain the high traditions of the Chair, and extend the fame of the university. At the same meeting, Dr. A. Campbell of Dundee was elected examiner in medicine until October next, *vice* Dr. Greig Smith of Bristol, resigned.

SUPPOSED CASE OF POISONING BY SALICYLATE OF SODA: ACTION FOR DAMAGES.

This case has already been noticed in the columns of this Journal. The circumstances are these. The pursuer's husband was suffering from acute internal pain, which his wife, after reading of a cure in a public print for a specific complaint, believed could be relieved by treatment with salicylate of soda. She took the cutting from the paper to the shopman, and was supplied with a drug which was not, she alleges, salicylate of soda known to medical men and druggists, and from the effects of partaking of which her husband died; and she states that the man's death was caused by the carelessness of one of his servants. The defender alleges that death was due to his being in a weak state of health. He contends that the drug was pure, and that in the month previous to that in which the quantity in question was dispensed, two portions from the same bottles were sold, and partaken of by other persons, and found to be innocuous. A proof has been ordered in the case. In this action the widow sues for £750 as damages for the loss of her husband, whose death, she alleges, resulted through the gross carelessness and recklessness of the defender or his servants.

THE HEALTH OF GLASGOW.

For some time we have had to record in Glasgow very high rates of mortality; but the report of the medical officer of health for the fortnight ending July 7th shows a decided improvement, the numbe of deaths registered being 552, which represents a death-rate of 2 per 1,000 living. There were 196 deaths from pulmonary diseases, being a death-rate of 10 per 1,000 living, and constituting 32 per cent. of the total mortality. In the course of his report, Dr. Russell says: "The death-rate for the past fortnight is the lowest which has been reported since November last, and the improvement comes fro the abatement of the enormous contribution which has been steadily made to our mortality for several months by infectious diseases of children, and chiefly epidemic measles. The number of deaths registered last week from measles was only twelve, which is the smallest number in any week since the beginning of March. We may hope, therefore, that the epidemic is past." No cases of small-pox were registered during the fortnight. There were 47 cases of fever, viz., 27 of enteric, 18 of typhus, and 2 undefined. The deaths from fever numbered 9, of which 5 were from typhus and 4 from enteric. There have not been so many deaths from typhus registered in any fortnight since November 1880, and not in July for at least ten years. Overcrowding seems, as usual, to be the exciting cause of the typhus fever; for, in the central district of the city, which at present furnishes the majority of the cases, we observe that seven cases were removed from a house of two apartments inhabited by eleven persons. There are just now in the town hospitals 111 cases of scarlet fever, 63 of measles, 38 of enteric fever, 28 of typhus, 24 of whooping-cough, 2 of erysipelas, 1 of diphtheria, and 1 of small-pox—in all, 268 cases, as compared with 274 that day fortnight, and 138 at the corresponding period of last year.

IRELAND.

Mr. Henry L. Ferguson, who for the past three years has been attached to the National Eye and Ear Infirmary, Dublin, will shortly leave for Dunedin, New Zealand, where he intends practising as an ophthalmic and aural surgeon. Mr. Ferguson had a distinguished University career; he was Senior Moderator, and obtained honours in Natural Science, and holds the Fellowship of the Royal College of Surgeons in Ireland.

MEMORIAL HOME FOR INCURABLES AT LISBURN.

A home for incurables is being built to the order of Mr. James Bruce, J.P., in memory of the late Dr. Thompson, Lisburn. Twelve months is the period specified for the completion of the contract. The building will be a graceful memorial to a man who was highly esteemed as a successful surgeon, and it will supply a want which is very much felt.

PRECAUTIONS AGAINST CHOLERA.

At a meeting of the guardians of the South Dublin Union held last week, a letter was received from the Public Health Committee of

the Corporation, calling the attention of the Board to section 149 of the Public Health Act, under which, in the event of an outbreak of any dangerous infectious disease, the duty of dealing with the same would probably be transferred from the committee to the guardians, and asking that the latter should take the subject into consideration. The communication was referred to the Visiting Committee. The Belfast guardians have requested Dr. Reid, medical officer to the workhouse, to report as to the necessary accommodation which was at the command of the guardians, who are the sanitary authorities, in case the Egyptian cholera epidemic should by any means be brought to Belfast.

DEATH OF DR. EDMUNDSON OF ENNISCORTHY.

THIS gentleman, highly esteemed and respected by all classes, died last week, after an illness of only a few days. The deceased held the post of resident medical superintendent of the lunatic asylum in Enniscorthy, and the following extract from the *Watchman* will show the esteem with which he was regarded.

"Many will miss the warm shake-hands, the genial homely manner, the cheery smile, the ready sympathy, with which he always greeted those who were privileged with his friendship. Able and strong-minded as he was, he was at the same time singularly simple and child-like in temperament. *Integer vitæ scelerisque purus*, best describes the guilelessness of his character; and those snowy wreaths, woven by loving hands, which nearly covered the new made grave, were a fitting emblem of one 'who wore the white lily of a blameless life.' Duty first, self last, was the law of that life, a law to which he gave the most unswerving allegiance; and if we were to search for an epitaph, the words 'Faithful unto Death' might be written in bright letters on his tomb."

NEW HOSPITAL AT BELFAST.

BEDEQUE HOUSE, and the large terrace of houses adjoining it on the Cramlin Road, have been purchased by the Sisters of Mercy for the purpose of conversion into a hospital, under their own charge. At present it is only intended to open Bedeque House for the reception of patients, and the required alterations and repairs are almost completed, so that, in a short time, it will be in full working order. It will contain surgical and medical wards, and will have an extern department attached to it. The sewerage has been thoroughly overhauled and reconstructed on the most recent and approved principles. The situation of the hospital is high and airy, and there is abundant space for extension. The rear of it abuts on the grounds of St. Malachy's College, about eight acres in extent. It is in contemplation to found a medical school in connection with this latter institution, and to enlarge the hospital, so as to qualify the clinical department. There has been recently established in St. Malachy's College a faculty of arts, and at present about fifty matriculated students of the Royal University are attending the lectures.

ROYAL UNIVERSITY OF IRELAND.

A MEETING of the Senate was held last week, for the purpose of conferring degrees and diplomas on the successful candidates who have recently passed the necessary examinations. The term of office of Lord O'Hagan, as Vice-Chancellor of the University, having expired, under Section 7 of the Charter, his lordship was unanimously re-elected by the Senate. The Vice-Chancellor having conferred the various degrees, said he was happy to hear that the recipients were generally very efficient in their progress towards the noble art to which they were dedicating their lives. He trusted they would reflect honour on the University to which they belonged, and he hoped and trusted that the University would reflect that honour on them. With respect to the candidates who had failed to satisfy the examiners at the several examinations, the Senate ordered that those candidates should be admitted to the examinations to be held in September, to whom the examiners had recommended that this privilege should be granted. After the year 1883, all candidates for the diploma in obstetrics shall be required to undergo a special written examination in midwifery, gynæcology, and diseases of children.

SURGEON GEORGE H. PORTER, OF DUBLIN.

THIS distinguished surgeon has been offered the honour of knighthood, but it is not yet definitely known whether the distinction has been accepted. There is an agreement of opinion among his medical brethren in Dublin that the proposed honour is most inadequate, when his surgical reputation, extensive practice, and his position as honorary-surgeon in ordinary to Her Majesty in Ireland, is taken into consideration. That anything less than a baronetcy will not satisfy Mr. Porter's friends, it would be well the Government should be informed without delay; and the memorial which will be presented to Earl Spencer will show Her Majesty's advisers the feeling of the profession in regard to the matter. The following is the memorial referred to.

"To His Excellency Earl Spencer, K.G., Lord Lieutenant of Ireland.

"YOUR EXCELLENCY,—We, the undersigned members of the medical profession in Ireland, desire respectfully to approach and confer with your Excellency on the subject of State recognition of our profession. We are induced to do this in consequence of the honour of knighthood having recently been offered by Her Majesty to one of the most eminent members of the surgical branch of the profession in Ireland. We feel assured that your Excellency and the Prime Minister, in advising Her Majesty to confer this mark of distinction, were actuated by the sincerest desire, not only to honour the recipient, but also the profession to which he belongs. Under these circumstances, we venture, with all respect, to remind your Excellency that, until recently, both branches of our profession, the medical and surgical, have received a higher form of recognition than that now proposed, and that the Medical School of Dublin, of which we are so justly proud, occupies as high a position as it ever did among the great centres of medical science in Europe. We fail, therefore, to see why Her Majesty's Government do not apparently consider our profession as worthy of State recognition in the present as it has been considered in the past; and we would also point out that the absence of that higher recognition places us in a position of inferiority as regards the profession in England, where, most deservedly, so many, both in medicine and surgery, have been awarded hereditary distinctions. We feel confident that nothing could be further from your Excellency's wishes than to see the status of a profession in whose welfare you have ever evinced so much interest, placed in a lower position in Ireland than elsewhere. We venture to hope, therefore, that your Excellency and Her Majesty's other advisers will reconsider the subject of State honours to our profession, and grant an hereditary titular distinction to both branches of it, and thus place the profession, in this respect, on terms of equality with other parts of the United Kingdom.—Your Excellency's most obedient servants."

BALLINASLOE LUNATIC ASYLUM.

AT a recent meeting of the governors, the following resolution was unanimously adopted: "We, the governors of the Ballinasloe District Lunatic Asylum, regret to find that Government have introduced a Bill for the transfer to the Local Government Board of the supervision and control of the Irish Lunacy Department, removing it from a management tested through a period of nearly half a century with the most successful results—fiscal economy, curative and moral—a system of a management that, while it insured the privacy so essential and the confidence of the public, gave entire satisfaction. We entirely disapprove of connecting lunacy with pauperism. We believe, as guardians of the poor, that it would be most unfair to the pauper, most injurious to the lunatic, and to the efficient management of both departments, entailing a greatly increased expenditure. We find no fault with the Local Government Board, which has given satisfaction in its own department, overworked and overburdened as it is; but, believing that the proposed change is unnecessary and uncalled for, and will be most detrimental to both paupers and lunatics, we trust the Government, on fuller information, will not press the measure."

CHOLERA IN EGYPT.

TELEGRAMS TO THE BRITISH MEDICAL JOURNAL.

[*From our Special Medical Correspondent.*]

Alexandria, July 19th.

DR. MACKIE, C.B., Consular Physician at Alexandria, has forwarded by telegraph the following valuable details to the JOURNAL.

As some difference of opinion is manifested in various quarters as to the character of the cholera cases, I send, according to your request, the following description of symptoms.

At Mansourah, the early symptoms of cholera are generally simple diarrhœa, some vomiting, with coldness and blueness of the hands, and cramps, variable in character; the abdominal walls are relaxed, and there is suppression of urine. In some severe cases, the temperature was found to be as low as 96.5° Fahr. during collapse, rising to 102° an hour after death. The shortest illness proves generally fatal in from nine to twelve hours. The Medical Commission despatched to Damietta report that the symptoms there manifest themselves in coldness and blueness of the extremities, the skin being cold and wrinkled, the facies choleraica well marked. Aphonia is also present, with pulselessness, vomiting, and diarrhœa, with white, watery dejections, sometimes accompanied with mucus. Cramps occur, and the eyes soon become sunken, the pupils dilated, and a blue circle appears round the orbits. The tongue feels cold. There is suppression of urine, and frequent spasmodic contraction of the fingers, sometimes retraction of the belly, and sometimes meteorism. The temperature is lowered. Symptoms often commence suddenly, with headache and faintings; and premonitory diarrhœa is only occasionally noted. The necropsy showed the large intestine to be empty and contracted, feeling like a cord; the small intestines were congested, and filled with whitish liquid, slightly coloured by extravasated blood, but no change was found in the glands. The follicles of the stomach were distended with a watery fluid. The bladder was empty, the liver and spleen slightly congested; the kidneys normal, the lungs congested, and the cavities of the heart filled with dark blood. The gall-bladder was distended, the brain congested. The ventricles of the brain contained a quantity of serum, and there was an arborescent appearance of the meninges. Dr. Chaffey telegraphs to Dr. Mackie, from Damietta, to-day, stating that the malady presents the regular symptoms of epidemic cholera, the same as he has often seen at Mecca, in the Hedjaz. Dr. Haddad telegraphs to Dr. Mackie the same tableaux of symptoms from Mansourah.

The alleged importation into Damietta of the cholera, by a fireman from the English steamer, *Timor*, has been thoroughly investigated and disproved. The cases of death without diarrhœa or vomiting, reported here, have also been disproved. The cause of such deaths has not been cholera, but various other causes, such as syncope, panic, apoplexy, etc. Several such cases occurred here in 1865, and were called by a misnomer "dry cholera." Upwards of four hundred putrid carcases of animals have been removed from the river.

It cannot be for a moment disputed that the above report of symptoms leaves no doubt whatever that the epidemic is one of true Asiatic cholera.

Cairo, July 18th.

Dr. GRANT BEY telegraphs: The deaths by cholera, since my telegram of last week, amount to 1,455. Most of the towns in Lower Egypt have been attacked. Ghezeh, Boulak, and Cairo itself, are infected, but the disease is in a milder form than in the towns first infected. The deaths from cholera at Boulak were fifty in number, and in Cairo eleven. Cairo has been divided into twelve districts. A sanitary commissioner is at work, as at Alexandria, and preparing for all eventualities. The decision of the sanitary board is to remove cordons, and to accept the offer of the British Government to send doctors from Alexandria. An oculist has been sent to Mansoura, to verify the opinion of the mixed medical commission. Baker Pacha threatens to resign. The weather is fine, and the Nile rising.

Another correspondent telegraphs, at a later date, that the interference of the Alexandria Commission with cordons and false news had upset Baker Pacha's plans, but the urgency of the present crisis prevents Baker Pacha from resigning.

REPORT OF CONSUL AT ALEXANDRIA TO THE FOREIGN OFFICE.

WE are informed that the following report has been received at the Foreign Office to-day from Dr. Grant Bey. Much of its contents has been already anticipated by telegram.

Alexandria, July 7th, 1883.

My Lord,—I regret that, up to the present, I have been unable to obtain precise information with regard to the outbreak of cholera at Damietta, as no attempt at inquiry has yet been made to endeavour to arrive at a knowledge of its origin or cause. The existence of "suspected cholera" at Damietta was first made known in Alexandria on Saturday, June 23rd, with eleven cases for that day; and I believe the first intelligence was conveyed by telegram from private individuals at Damietta. At 10 A.M., Sunday, the 24th, I called on Dr. Salem Pasha, Chief of the Egyptian Sanitary Administration, and found that he had only then heard of it officially; and that it was decided to send a Medical Commission next morning to Damietta, to inquire into the truth of the reports, and the nature of the malady which had appeared at Damietta.

During the day of Sunday, I learned by private telegram from Cairo that a Medical Commission was to leave Cairo at 1 P.M., by special train, for Damietta. I at once communicated this information to Dr. Hassan Pasha Mahmoud, President of the Maritime, Quarantine, and Sanitary Board; and it was at once decided to send a Commission from that Board to join the Cairo Commission at Damietta.

Dr. Chaffey Bey (Egyptian), who has had great experience of cholera at Jedda and Mecca, and Dr. Ardouin Bey, Sanitary Inspector of the Quarantine Sanitary Board, left Alexandria at 6 P.M., and next day (Monday) met, in consultation, their *confrères* of the Cairo Commission. After visiting several cases, the Commission pronounced the disease undoubted epidemic cholera; but the inquiry did not go beyond this. The members left Damietta in the forenoon, and proceeded to Cairo to draw up their report; but, unfortunately, without having made any attempt to obtain any clue to the origin of the outbreak. As soon as the members of the Commission left, a *cordon sanitaire* was established, and railway communication interrupted at Ras-el-Khalig, thirteen miles from Damietta.

In the *procès verbal* drawn up by the members of the Commission, they state that "it was found impossible, notwithstanding their inquiries, to determine the origin of the outbreak, or specify whether it was of local origin, or had been imported." The short time the commission remained at Damietta, from Sunday night to Monday morning, was hardly sufficient to justify them in saying that they had even endeavoured to find out the origin. All the members of the Maritime and Quarantine Board expressed loudly their disappointment that the Commission had not shown a little more enthusiasm and interest, and endeavoured, when on the ground, to find out something beyond the simple fact that the disease was cholera

The Italian delegate to theQuarantine Board and I proposed that another commission should be dispatched at once to study the disease, to try to find out its history and trace its origin. This met with great opposition, and had to be abandoned, chiefly from the impossibility of finding medical men whose opinion was of value to undertake the mission, on account of the long quarantine to be undergone on returning from Damietta, those who were engaged in active work here not being able to afford the time. It was decided, after a few days, that Dr. Chaffey Bey, who has no active employment to necessitate his return here at present, should proceed to Damietta, and remain there to assist, with his counsel and experience, the executive authorities, and endeavour to obtain information on the origin of the outbreak, and I hope that interesting and useful information will be collected by this willing, intelligent, and energetic *employé* of the Maritime and Quarantine Board.

The suddenness of the outbreak seems to have paralysed the

Egyptian authorities. Their first act was to establish a *cordon sanitaire* to prevent all egress, leaving the unfortunate population of Damietta to die without help, or succour, or chance of escape. For days after the disease broke out, telegrams were received daily, complaining of the total want of doctors, medicines, and disinfectants, etc. In a town of which the population is stated at 35,000, there seems to have been no organised medical or hospital service, no help of any sort for rich or poor—they were shut in a cordon and left at the mercy of the disease, to die in numbers and propagate cholera. It never occurred to the authorities to endeavour, by an energetic measure, to save the people and stamp out the disease by driving the inhabitants from the infected part of the town, and camping them out in some healthy place, supplied with good food and water; this they are now doing to some extent.

On June 30th, Dr. Chaffey Bey writes. "Aujourd'hui à 3 heures P.M., un train est arrivé portant avec lui trois médecins et un pharmacien," etc. This is the first intimation we have of help being sent, a week after the outbreak of the disease, when the mortality had reached upwards of one hundred daily.

Until a proper inquiry is made into the origin of the outbreak whether local or imported, any opinion on this point at present must be more or less speculative.

It is a matter of experience that outbreaks of zymotic diseases generally are favoured by conditions which certainly have existed in Egypt for some time. Whether these conditions or causes contained the necessary germ or material for the production of cholera, research may or may not with certainty establish.

For some time past cattle-disease (bovine typhus) has been raging epidemically in the delta of the Nile. It has been matter of current report, and I may say general belief for some time, that many diseased cattle were slaughtered by the fellaheen, and sold in the bazaars of the villages for food. To save the expense and trouble of burying those that died, it was, and is, a common practice to remove the skins, and pitch the carcases into the Nile or the nearest canal. The Damietta branch of the Nile, especially in its lower part, from Samanoud and Mansourah, seems to have been particularly favoured in this respect, for the local European press had been receiving for some time information from correspondents at those places, that carcases of animals were constantly floating down the Nile, exhaling a most offensive odour. Dr. Chaffey Bey, in his letter of June 30th, to which I have referred says: "Je me permets aussi de faire observer que le nombre des charognes de bœufs et de buffles sans peaux ne cessent d'augmenter chaque jour passant le Nile, au milieu de cette ville, le courant les porte sur les rives ou elles stationnent, entre les roseaux et repandant des exhalations qui avec les chaleurs actuels on pourra bien juger de quel danger peuvent être à la santé publique."

The inhabitants, in addition to breathing this poisoned atmosphere, take their water-supply directly from the Nile, which, in addition, is about at its lowest at this season. It is also subject of report and belief here that the natives have been known to drag the carcases from the river and use them as food. I make this statement with reserve, for although I have heard it repeatedly stated, I am loath to believe it. The heat at the outbreak of the disease, and for some time previously, had been excessive and oppressive, with damp atmosphere.

The uncleanliness of the town of Damietta, like every Egyptian town, is reported to be abominable, and the inhabitants particularly uncleanly in their persons, their food, and their habits.

At the time of the outbreak of the disease, a large fair, at which it is estimated that 10,000 people were collected, was being held at Damietta. The medical commission, before establishing the *cordon sanitaire*, ordered the people collected at the fair to be dispersed. Such are some of the local causes which would be supposed to favour the development of zymotic disease.

Those who hold that the disease can only have originated by importation, pretend that it has been imported from Bombay, and a report has gained a little credence that two Bombay merchants just arrived in Egypt were at Damietta Fair, and that they brought the germs of the disease either by their person or merchandise. I have not been able to trace these two Bombay merchants, or find out if they showed any symptoms of cholera.

Those that hold that the disease has been imported, give as a reason for this opinion, that cholera has never originated spontaneously in Egypt, and that a short time before the outbreak in Egypt cholera had assumed a more severe form in Bombay. The precise manner or means by which it has been imported, has not been stated, except the report, believed by some, of the two Bombay merchants, and others of a similar character; such as, for instance, a fireman ran away from an Indian steamer at Port Said, and made straight for Damietta. Those who believe in importation by these means, forget or are ignorant of the fact, that at the time that the two merchants of Bombay must have arrived in Egypt, there was a long quarantine at Egyptian ports in the Red Sea against India, which these gentlemen must have undergone before setting foot in Egypt. There remains for them their own argument, that cholera-germs may have been conveyed by their merchandise, that they may have been lying dormant in the merchandise for an indefinite period, and escaped destruction by the quarantine disinfection.

This, were it likely to be possible, would prove more than anything else the uselessness of quarantine. They forget also, or do not mention, that when our Indian contingent arrived in Egypt last summer cholera was prevailing in Bombay, and no case happened among the troops or camp-followers, nor was imported by the mass of clothes, merchandise, and material of all sorts, which such an equipment must have brought with it. It is further brought forward as argument, that as the precise nature of cholera-germ, or infection, is not known, that some peculiar conditions may be necessary for its development, and that this year, though not last, the necessary conditions existed, and the imported germ gave rise to cholera. Here we come to a combination of an imported and local origin; but, without proofs, which we at present do not possess, I cannot believe that, with a rigorous quarantine, even if a quarantine were necessary against India, it can have been imported to Damietta.

The reasons seem very strong in favour of a local origin. When I compare what information we have of this outbreak, with my recollections of the severe epidemics of Asiatic cholera which visited Egypt in 1865, I am inclined to believe that it has had its origin in local causes, and will not spread to any alarming extent. The ten thousand people who were dispersed from Damietta Fair do not seem to have had cholera amongst them, or to have carried cholera with them throughout the length and breadth of Egypt, as they certainly would have done in 1865. At the time of their dispersion the deaths from cholera were already about forty daily, and the type of the disease virulent, recoveries rare, and death occurring in very many cases after from four to ten hours' illness. The disease has now been prevailing for sixteen days, according to our information, and, with the exception of a few cases in Port Said and Tantah, and two of suspected cholera in Alexandria, has been limited to the small district from Damietta to Samanoud.

In the epidemic of 1865 the whole country was invaded in less time, and the mortality excessive. The towns of Damietta, Sherbeen, Menzaleh, Mansourah, and Samanoud, are within short distances of each other, and all exposed to the same influences. Some, at least, if not all, of the cases at Port Said and Tantah, are reported to have been refugees from Damietta; but exact information is yet wanting, and cannot be got from the sanitary authorities, to whom I have officially applied. Two separate small outbreaks have taken place at Port Said, counting a few victims each, and each time disappeared. This is hardly the course usual to Asiatic cholera.

Another reason for believing that some local cause was at work, is that, at the outbreak of the disease, the daily mortality from general diseases also increased very much. The ordinary mortality of Damietta from general diseases, which is four daily according to sanitary returns, mounted up to fourteen and fifteen daily, as the deaths from cholera reached their daily maximum, and had been increasing for days before cholera was announced as suspected; and now the daily mortality from cholera and general diseases have both considerably diminished, the latter being reduced to about ordinary rate. What the general diseases were which increased the death-rate, I have been unable to find out, the Central Sanitary Board, as usual, having no information, and the *cordon sanitaire* and the quarantine prevent one from going to the spot to learn for oneself. My recollection of the epidemic of Asiatic cholera in 1865 is, that there was a diminution in the death-returns from general diseases, and there were few deaths from any disease but cholera. That, however admits of explanation, and may be taken for what it is worth.

The sanitary arrangements of the country are as bad as they were in 1865; it is but little changed in that respect. In some of the larger towns, Alexandria, Cairo, etc., magnificent blocks of building have been erected, streets paved, etc.; but, unfortunately, all has been done with the most perfect disregard of the first principles of sanitary science; and Alexandria at present, with its vile system of sewers, house-drains, and house sanitary arrangements, seems constructed expressly to propagate and engender zymotic diseases. Many of the sewers have not been cleaned since they were constructed, and they are so constructed that it is next to impossible to clean

them. None of the closets, drains, or sewers are either trapped or ventilated, and the town is full of stinking cesspools. The Europeans and Levantines, especially Syrian house-proprietors, surpass the natives even, in the construction of unhealthy houses. An energetic effort to cleanse the town is being made by a combined Consular, Medical, and Mercantile Extraordinary Sanitary Commission, composed of forty-four members, Europeans and natives, under the presidency of the Governor of Alexandria, the originating of which is chiefly due to representations to His Excellency Cherif Pasha, by Mr. Anslyn, Consul-General for the Netherlands, and Mr. Consul Cookson.

This will do some good work in cleansing bazaars, public places, and the exterior of the town; but the house-closets untrapped, communicating with filthy sewers unventilated, leaking soil-pipes, or rather holes down the centres of walls serving for soil-pipes and allowing extensive leakage, open latrines for servants in the very centre of the kitchens, will still remain to convey infection from family to family, from house to house; and if cholera visits us, it is bound to spread, in spite of all that the Extraordinary Sanitary Commission can do.

Such is a fair description of the houses of which rich Egyptians and Levantines are proprietors, and for half a floor of which we are obliged at present to pay a yearly rent of from £150 to £200.

I have not found a man in Egypt who understands thoroughly the sanitary construction of houses, and the most ignorant I have met are the President and Officials of the Board of Health and Hygiene. Many of the diseases and illnesses contracted in Egypt and attributed to climate are solely attributable to bad house-drainage.

The Egyptian Government is, as usual, receiving its share of praise and blame for measures taken or neglected, to stop this epidemic. Many Europeans, medical men and others, who blame them for not stopping the epidemic, praise loudly the institution of the *cordon sanitaire*. Give them a *cordon sanitaire* or quarantine and they are given a feeling of safety. I believe that the *cordon sanitaire* was the worst means that could have been adopted, I mean as they imposed it. The *cordon* gave a feeling of safety to outsiders, and the inhabitants within were left to die neglected to propagate cholera, while the authorities had a day or two to reflect and make their preparations for the next step. Had they evacuated at once the infected part of the town and placed a *cordon* to prevent the return of the inhabitants to it, as well as their communication with other villages, I think it might have been stamped out. But the Egyptian has no initiative, he has no appreciation or experience of good sanitary arrangements, which he has never seen or never learnt. The sympathy of class for class is too little developed, if it exists at all, their value of life too low, to stimulate them to energetic action. Fatalism also has its effect, and they act when driven to it by the howl and cry of Europeans. The Egyptian in this respect is the Egyptian of a hundred years ago, and deserves help more than blame, but it must be a help with authority.

I have the honour to be, &c.,

J. MACKIE.

SUPPLEMENTARY DESPATCH OF JULY 7TH.

Alexandria, July 9th, 1883.

My Lord,—Since writing my report of the 7th instant, another fatal case of cholera has occurred in this town. The victim was a strong-bodied adult male, of Austrian nationality. As soon as I heard of the case, I went to satisfy myself personally, and found it an undoubted case of cholera, though not of the severest type. Reaction never took place, the algid stage continuing till he died, nineteen hours after he was taken ill. I put some questions to him, but he answered with difficulty; he stated, however, that he had not been in the infected districts, nor, as far as he was aware, had he been in contact with any one who had been there. The attempt to attribute this outbreak of cholera to importation from Bombay has now assumed here a more formal shape than current reports. The Egyptian Government sanitary doctor at Port Said, Dr. Flood (a Norwegian), has published, in the *Moniteur Egyptien*, an official letter written by him to the Board of Health, stating that, on the 18th of June, a native of Upper Egypt, named Mohamed Halifa, employed as fireman on board the British steamer *Timor*, bound from Bombay to Naples, etc., was landed at Port Said, and at once proceeded to Damietta; he does not state, nor pretend to know, whether this man, then or afterwards, presented symptoms of cholera, nor whether he ever arrived at Damietta, or was proved to be there, nor does he state any good reason why he did not infect the inhabitants of Port Said, except perhaps that he left immediately, without stating the time. He goes on to start a hypothesis that perhaps cholera had declared itself on board the *Timor* after leaving Bombay, that it was in the period of incubation in this man at Port Said, and declared itself at Damietta; but without being able to deduce any proof in support of this. As this letter is published in an official organ, the theory is accepted by many here; and I think it would be useful to find out, from the log-book of the steamer, first, whether the man was landed, and if in good health; secondly, date of leaving Bombay, and state of health of crew on passage as far as Port Said and after. The sanitary doctor (a native) at Damietta has also reported in the same official organ that there were four Bombay merchants at Damietta Fair, and he in his turn points to them as the carriers of the infection. I am not aware that any attempt has been made by the sanitary administration, or other, to trace those men, which ought not to be difficult. This is much to be regretted, as these reports have their advocates here and in Europe, and it would be in the interest of all that the origin of the outbreak should be traced, if it can be traced, to its local or imported origin. Dr. Flood, sanitary physician at Port Said, mentions in a letter published to-day in the *Phare d'Alexandrie*, that it is his belief that all the cases of cholera at Port Said, up to June 30th (8 in number), were in people who had returned from Damietta Fair. Since June 30th only three more cases have been reported from Port Said (viz., on July 4th), and no attacks since then.

Complaints are daily reaching us by private telegrams and through the press, of the utter incapacity of the Egyptian sanitary and medical service to cope with the disease and circumstances. The complaints from Mansourah, to-day, are very serious; want of doctors, medicines, nursing-attendants, and food, which is reported scarce and at famine prices.—I have the honour to be, etc., etc.

J. MACKIE.

The Right Hon. Earl Granville, K.G., etc., etc.

PARLIAMENTARY BILLS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION.

THE FOLLOWING DRAFT LETTER HAS BEEN ADDRESSED TO THE SECRETARY OF STATE FOR INDIA, CONCERNING CERTAIN GRIEVANCES OF THE INDIAN MEDICAL DEPARTMENT OF THE ARMY.

To the RIGHT HON. THE EARL OF KIMBERLEY, *Secretary of State for India.*

SIR,—The Parliamentary Bills Committee of the British Medical Association have had their attention urgently called to certain grievances under which surgeons of five years' standing in the Medical Department of the Indian Army in the three presidencies believe themselves to labour.

Other branches of the public service in India, the covenanted civil and military services more particularly, are represented indirectly but strongly, in influential quarters, and can, more readily than the medical department, gain access to the highest authorities and obtain a hearing for such complaints as they may have to prefer. It is natural that under such circumstances, they should turn to the great Association of their profession, to which a large number of them belong, to obtain consideration for their claims. It may not be out of place briefly to invite the attention of your lordship to one or two points to which we attach importance, before briefly stating the grievances for which redress is sought.

It is well known that the medical service of India has always attracted a high class of medical men to its ranks, who have rendered the State great service, and have done much to reconcile our native fellow-subjects to a foreign rule. Such men as Roxburgh (the most eminent botanist that ever went to the East), Scott, M'Clennan, Charles Morehead, Ranald Martin, Chevers, the brothers Goodeve, Malcolmson, Raleigh, Forsyth, Cornish, Grant, O'Shaughnessy, Mouat, Maclean (now of Netley), Fayrer, and a great many others as worthy of mention, did a great work in India. It is not too much to say of them, that, in what may without impropriety be termed the pre-sanitary age, they formulated nearly all the sanitary reforms that have done so much to preserve the health of the European army that holds India for the Imperial Crown, although many of them did not live to see their fruitful ideas carried out. The direct educational work done in India by the medical services of the three presidencies has been very great. They have furnished able professors to the various medical colleges, English and vernacular, throughout British India; and their pupils coming to England, have held their own not only before the licensing bodies

throughout the kingdom, but have honourably distinguished themselves in open competitions for appointments in Her Majesty's Indian Service.

Nor must we forget to mention that, although unavoidable changes in the administration of India have shorn its medical service of many of its old attractions, it has, up to the present time, commanded the best men in the schools and universities of the kingdom who seek a career in the service of the State, as may be seen from the official records of the Government examinations in London and at Netley. It is consistent with our knowledge that the leading medical officers of the Indian service are worthy successors of those who have gone before them, for at no time in the history of British India was there more mental activity, or better medical, surgical, and sanitary work done than at the present time. The evidence of this is to be found in the painstaking reports on every question relating to health, and in the contributions to tropical medicine in the professional journals of India.

We put forward the above statement of facts for your lordship's consideration, in the confident belief that you share with our Association the desire to maintain the medical service of India at its present high level; adding, however, our opinion that, if the present feeling of deep discontent, which is daily growing and taking root in the minds of the junior ranks of the Indian medical service, becomes known, as is already to a considerable extent the case, in our schools of medicine, the class of young men who have hitherto sought a career in India will look elsewhere for employment.

We have reason to believe that the grievances of the junior branch of the medical service are to some extent known at the India Office; they are well known to the local Governments in India, although a remedy has not yet been found.

It is quite certain, for reasons with which we are not well acquainted, that young medical officers go out to India under a grave misapprehension. They one and all believe that the pay of Rs. 286 10 a month on which they enter on arrival, was only to be their remuneration until they pass a certain minimum standard in the vernacular sufficient for their professional purposes, and assert that they had been given to understand that on passing this examination they would receive a minimum pay of Rs. 400 per month. This they find is far from being the case, and large numbers of them remain on this small allowance for nearly five years. This grievance is aggravated by an unfortunate name which has been attached to it, viz., "unemployed pay;" those who draw it, far from being "unemployed," are often doing very hard work, and are marched about the country, mostly at their own expense, on the service of the State, and cases are before us of young medical officers on this "unemployed pay" having been for long periods on active service in Afghanistan, where they have had arduous duties to discharge, in the performance of which they have suffered severely in health and purse.

We believe this grievance would be obviated by a rate of pay, in the early years of service, more in accordance with the present diminished purchasing value of the current coin of India and the responsible nature of the duties performed, and the abolition of the term "unemployed pay," which in itself has caused extreme irritation.

What has accentuated this pay grievance is the fact that young officers of the Army Medical Department who go to India and are exposed to its climatic influences for comparatively brief periods of service, draw, under precisely similar circumstances, more pay than their companions of the Indian service, who for the most part were their superiors in the home examinations.

We are given to understand, also, that the present system of remunerating young medical officers in "acting appointments" is a cause of discontent. An appointment becomes vacant, and a medical officer on unemployed pay is ordered, it may be to a great distance, to take it up, and because this carries with it a small increase of pay, it may be, and often is, to the extent only of Rs. 100 a month, he has to pay his own travelling expenses.

Again, the junior medical officers of the Indian service complain that they are sent to the station hospitals "to learn the treatment of tropical diseases in Europeans," and are placed under the orders of officers of the Army Medical Department, whose professional knowledge and experience is in no single point superior to their own. This is very severely felt.

We press the above grievances on your lordship's attention because we believe they are not difficult of remedy, and because it is all the more necessary, in our judgment, to relieve them, on account of the greatly diminished number of administrative appointments in the medical service of India, which has largely affected the prospects of Indian medical officers attaining to positions conferring a reasonable increase of rank and emolument.—I have the honour to be, sir, your faithful servant,

ERNEST HART,
Chairman of the Parliamentary Bills Committee
of the British Medical Association.

REPORT OF THE MEDICAL REFORM COMMITTEE.

THE Medical Reform Committee have to report to the Association that they have been steadily engaged since the last annual meeting in advocating and promoting medical legislation.

At the jubilee meeting at Worcester, the mandate of the Association was laid on the Reform Committee to memorialise the Government to undertake legislation on the basis of the Report of the Royal Commission, and to request the Branches to support their action.

The Royal Commission had recommended:

1. The formation of divisional boards for the conduct of compulsory minimum examinations in medicine, surgery, and midwifery, sanctioned by the Medical and the Privy Councils, as the necessary qualification for admission to the *Medical Register;*

2. The improvement of the constitution of the Medical Council by the diminution of direct influence of the licensing corporations thereon, and by the introduction of direct representatives of the profession in the proportion of one-half the number allotted to the universities and corporations;

3. The strengthening the powers of the Medical Council thus amended in composition;

4. The making more effective the penal clauses against the false assumption of medical titles; and

5. The conduct of prosecutions for offending against the Act by the Public Prosecutor in each division of the kingdom.

On October 17th, 1882, the Medical Reform Committee met at the office of the Association in London, to consider the report of the Committee to the Association at Worcester, and the debate which followed it, in order to arrange for carrying out the proposal to move all the Branches to ask the Government to legislate on the lines recommended in the report of the Royal Commission. In reference to the five points specified, as recommended by the Royal Commissioners, it was moved by Dr. DE BARTOLOMÉ, and seconded by Mr. ERNEST HART, and resolved unanimously as an addendum to the memorial of the chairman that:

"The Committee attach especial importance to three conclusions of the Royal Commission, which the Association have always advocated as cardinal points of medical reform. These are:

1. The introduction of the principle of direct representation into the constitution of the General Medical Council.

2. The establishment of a minimum uniform qualifying examination for practice by conjoint examining boards, established one in each division of the three kingdoms.

3. The strengthening of the penal clause of the Medical Act, so as to afford adequate protection to the public against the false assumption of medical titles by unqualified and unexamined persons.

The Committee confidently expect that any Bill introduced by the Government will provide for the legislative enactment of these provisions, as recommended by the Royal Commission."

On November 20th, the Right Honourable the Lord President of the Privy Council having consented to receive a deputation from the Association, it was arranged to make it as representative as possible of the Association and profession, without unduly crowding the Government office either with members of the legislature or of the profession. His Grace the Duke of Westminster, K.G., who, for years past, has rendered most valuable assistance to the Committee, introduced the deputation, which consisted of Dr. Strange, the President of the Association; Dr. A. T. H. Waters, of Liverpool, the President-elect; Mr. Wheelhouse, the President of the Council; and Dr. Wade, the Treasurer. Dr. Chadwick and Dr. De Bartolomé, Ex-Presidents of the Association; Dr. A. P. Stewart, for many years Secretary of the Metropolitan Counties Branch; and Mr. C. Macnamara, who gave evidence on the subject of medical education before the Royal Commission; Mr. Ernest Hart, the Editor of the BRITISH MEDICAL JOURNAL; Dr. Glover, of the *Lancet;* and Dr. Norton, of the *Medical Press and Circular* also accompanied the deputation. A meeting of the Medical Reform Committee took place before the interview, at which the statement to be made to the Lord President by Dr. Edward Waters, as chairman of the Com-

mittee, was agreed to. This statement, together with the full report of the interview with Lord Carlingford and Mr. Mundella, was published in the BRITISH MEDICAL JOURNAL for December 2nd, 1882. In regard to it, it may be truly said that no interview with any preceding Government had ever proved equally successful.

The Lord President unequivocally expressed his appreciation of the importance of the deputation, and his willingness to attempt legislation. His lordship promised to bring the subject before the Cabinet on the earliest opportunity, and early in March presented the Government Medical Bill to the House of Lords. On April 10th the Medical Reform Committee again met at the office of the Association in London, and resolved:

"That the Medical Acts Amendment Bill, as brought into the House of Lords by the Privy Seal, be supported by the Reform Committee, reserving the right of amendments in committee."

The Medical Acts Amendment Bill was then considered paragraph by paragraph, and the clauses were proposed to be amended, of which the following are copies, together with the proposed amendments (printed in italics).

(9.) Any person of full age shall be qualified to be elected a member of a medical board.

(9.) *Any registered medical practitioner shall be qualified to be elected a member of a medical board.*

(12.) The same person may be a member of more than one medical board.

(12.) *The same person shall not be a member of more than one medical board.*

(10.) The medical board of each part of the United Kingdom shall make (and when made they may from time to time by a further scheme revoke, alter, or add to) a scheme or schemes providing for the following matters.

(10.) *The medical board of each part of the United Kingdom shall have the rules and schemes for examination framed by the Medical Council alone, so as to secure uniformity of curricula, and of standard of examination and fees.*

(16.) The Medical Council shall from time to time appoint a committee or committees of their own body, and may delegate any of their powers, except that of making orders regulating a medical board to any such committee. Any committee so formed shall, in the exercise of the powers delegated, conform to any regulations that may be imposed on them by the Council, and save, as is otherwise provided by this Act, any committee formed in pursuance of this section may consist of such number of members, and have such a quorum as is directed by the Medical Council.

(16.) *The Medical Council, as stated under Clause* 10, *shall frame schemes, etc.*

(19.) Every canditate, before being allowed to offer himself for final examination in any part of the United Kingdom, shall comply with the following requirements; that is to say—

(19.) *The examination to be conducted by the Chartered Educational Bodies as defined by the existing Schedule of the General Medical Council, with power to alter and improve; that is to say—*

(21.) It shall be the duty of each medical board to ascertain, by inspection or otherwise, the sufficiency of the education provided by any schools, for the time being declared by any scheme of such board to be recognised medical schools, and from time to time by visitation or otherwise to inquire as to the examinations held by any recognised examining authority, and from time to time to take, by revocation or alteration of schemes in manner provided by this Act, such steps as may be necessary for depriving any medical school of the privilege of being regarded as a recognised medical school, or any authority of the privilege of being a recognised examining authority, in cases where the medical board is satisfied of the insufficiency of the education in such school, or of the inadequacy of the examinations conducted by any such examining authority.

(21.) *It shall be the duty of each medical board to ascertain by inspection, or otherwise, the sufficiency of the education provided by any schools, for the time being declared by any scheme of such board to be recognised medical schools, within its own division of the United Kingdom, and take such steps as may be necessary for depriving any such medical school of the privilege of being regarded as a recognised medical school, in cases where the medical board is satified of the insufficiency of the education in such school, or of the inadequacy of the examinations conducted by any such examining authority.*

That this Bill shall not be retrospective as regards use of titles by *legally qualified medical practitioners.*

(26.) On and after the appointed day it shall be lawful for any registered medical practitioner, who has passed a final examination as in this Act mentioned, if he thinks fit so to do, to use after his name the title of Licentiate of the Medical Council in Medicine, Surgery, and Midwifery, or any letters indicative of such title.

(26.) *Each licentiate, before registration, must be attached to a medical authority in that division of the kingdom in which he was examined, and to register such title.*

Objected to as above.

The chairman was also requested to submit to the Government the advisability of strengthening Clause 19, Subclause 1, relating to the preliminary examination of medical students, and the conduct of such examinations by the chartered educational bodies defined in the existing schedules of the Medical Council, with power to alter and improve.

(38.) For the purpose of defraying the expenses of carrying this Act into execution, the three medical boards and the Medical Council, shall respectively form funds to be called "The Medical Board (England) Fund," "The Medical Board (Scotland) Fund," "The Medical Board (Ireland) Fund," and "The Medical Council Fund." All sums received by each of the said bodies shall be carried to the account of the fund belonging to such body.

(38.) *This clause requires to be modified consistently with medical authority as to expenses, etc., and apportioning the funds; clause referring to annual registration fee to be expunged.*

Fees for licence in each division to be uniform.

(43.) Where a scheme is required to be approved by the Medical Council and confirmed by the Privy Council, the following proceedings shall be taken:

(43.) *Examination schemes should be prepared by Medical Council, and approved by Privy Council, and not prepared by medical boards,*

The medical boards not to have the management of the election of the representatives of the profession, but the returning officer of the General Medical Council.

Moved by Mr. MACNAMARA, seconded by Dr. DE BARTOLOMÉ, and resolved: "That under Subsection 4, Clause 9, the incorporation of the medical boards is considered unnecessary and undesirable."

Resolved: "That the solicitor be requested to give his opinion whether there is anything in the Bill to increase the facility of chemists in carrying on prescribing practice, and second, whether there is anything to affect the privileges of practitioners of dispensing under the Apothecaries Act."

Thirty letters referring to various matters connected with the Bill were submitted to the Committee.

All the above suggestions were submitted to the Government. Some were accepted: 1st, the proposed annual tax was expunged; 2nd, Clause 69 provides that the Bill shall not be retrospective as regards the use of titles now enjoyed by legally qualified registered medical practitioners; existing titles are thus saved; 3rd, Clause 27, Subclause 2, after "not," page 14, line 31, the words are added, "who practises or professes to practise, or publishes his name as practising, medicine or surgery for gain, or receives any payment for practising medicine or surgery, takes or uses a medical title which is by this Act not permitted to be entered on the register, he shall, on summary conviction, be liable to a penalty not exceeding twenty pounds."

These words materially strengthen this penal clause, and the Government are convinced that any attempt to go further would incur inevitable rejection in Parliament.

As regards the enforcement of affiliation to a corporation or university before registration, the Lord Privy Seal holds by the report of the Commission, and will not compel it, but modifications were introduced to improve the Bill, in the direction of securing a uniform curriculum and examination. The schemes will be still framed by the divisional boards, but under the distinct supervision and control of the Medical Council. The allocation of the funds has also been altered to meet objections. They are divided into "Medical Board Funds," and "The Medical Council Fund." The disposal of the Medical Board Funds will rest with each divisional board. As regards the effect of the Bill in facilitating practice by chemists, the solicitor of the Association has distinctly answered "No."

The Bill having passed the House of Lords, was ordered to be printed by the House of Commons, May 2nd, 1883. A special meeting of the Council of the Association was convened at Birmingham, on May 17th, and the opportunity was seized to give notice of a motion in favour of the Medical Bill, in the circular calling the meeting. It was moved by Dr. EDWARD WATERS, seconded by Dr.

DE BARTOLOMÉ, and resolved: "That the President, the President of the Council, and the General Secretary of the British Medical Association, together with members of the Council, sign the petition to the House of Commons in favour of the Medical Act Amendment Bill, presented by the Lord Privy Seal, as providing for the direct representation of the profession in the Medical Council, and for the compulsory formation of one conjoint board of examination in each division of the United Kingdom of Great Britain and Ireland, for the examination of all candidates for the medical profession."

The resolution was carried unanimously, and the petition was then and there signed by every person present, including the President of the Association, the President of the Council, the Treasurer, together with fifty members of the Council representing the Association and the Branches: men residing in all parts of the kingdom.

The Medical Reform Committee held another meeting during the month of July, and, notwithstanding the great pressure of business and the very late period of the session, trust that the Government will succeed in carrying the Medical Bill, and so reward the Association for its fidelity to the cause of medical reform.

MILITIA SURGEONS.

A MEETING of militia surgeons, past and present, will be held at the College, Shaw Street, Liverpool, on Wednesday, August 1st, at five o'clock in the afternoon. It is hoped that as many militia surgeons as possible will attend, to consider what further steps should be taken to obtain redress of their grievances.

The President of the Militia Surgeons' Society will take the chair.

MEETING TO DISCUSS THE PROPOSED MEDICAL PROVIDENT SOCIETY.

IT will be seen, by reference to the published programme of the forthcoming General Meeting of the Association at Liverpool, that it is proposed to hold a meeting on Thursday, August 2nd, at twelve o'clock noon, in the Great Hall of the College, Shaw Street, Liverpool, for the purpose of receiving a statement as to the existing position and progress of the proposed Society, and the future proceedings which may be thought advisable in connection therewith. The attendance of all those who have signed the form of adhesion to the proposed Society, and of any other members of the profession interested in the subject is particularly requested. We shall be glad to receive, without delay, the names of gentlemen proposing to bring forward resolutions in connection therewith, together with the wording of any such resolutions.

THE following is an additional list of the names of gentlemen who have signified their desire to become members of the Medical Provident Society, in response to the circular issued on June 9th.

C. E. Addison, Esq.; P. A. Austin, M.D.; D. C. Burlingham, Esq.; C. W. Buck, Esq.; H. T. Butlin, Esq.; F. J. Bailey, Esq.; W. Connor, Esq.; R. Crossitt, Esq.; S. Craddock, Esq.; E. Dawson, Esq.; J. P. Edwards, Esq.; A. Grant, M.D.; F. de H. Hall, M.D.; D. H. Haddon, Esq.; Arthur Jackson, Esq.; W. D. Moore, Esq.; J. M. Pletts, M.D.; D. Richards, Esq.; P. B. Smith, M.D.; E. T. Tylecote, M.D.; H. Thompson, Esq.; A. C. Turner, Esq.; A. S. Turner, Esq.; H. G. Terry, Esq.; C. P. S. Wayman, Esq.

PRELIMINARY EXPENSES FUND.

THE following additional sums have been received:—

Mr. J. Henry Ashworth, Hull, 10s. 6d.; Mr. Henry Foulds, Showlands, Glasgow, 10s. 6d.; and Mr. T. W. Haslehust, Claverley, Bridgnorth, 10s. 6d.

THE LEGION OF HONOUR.—Madame Frary Gross, who, as director of the Hôtel de Ville Ambulance, showed great devotion during the siege of Paris, has been admitted to the Legion of Honour. She has had to wait twelve years for this recognition of her services, previous Governments having been chary of decorating a lady, just as they were of decorating actors; but this prejudice is giving way. What is a little odd is that Madame Frary Gross, in defiance of gender, is appointed a "chevalier;" but Rosa Bonheur shares this anomaly.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Committee of Council will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

November 9th, 1882.

COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Board Room of the College, Shaw Street, Liverpool, on Tuesday, the 31st day of July next, at twelve o'clock noon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, July 18th, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee,
161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

EDINBURGH BRANCH.—The annual general meeting of the Branch will be held at 5, St. Andrew's Square, Edinburgh, on Tuesday, the 24th instant, at 4.30 P.M. —CHAS. E. UNDERHILL, Honorary Secretary.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The annual meeting of the Branch will be held at the "Green Dragon," Hereford, on Tuesday, July 24th, at 3.40 P.M. Business: The President, Dr. Roden, will give an Address. To ballot for Members of the Association and Branch. To appoint Officers and Council for ensuing year. The annual dinner (5s. exclusive of wine) will be at 5.15 P.M. Members who have papers or cases to read will oblige by sending title at an early date to the Honorary Secretary.—GEO. W. CROWE, Honorary Secretary, Shaw Street, Worcester.—July 10th, 1883.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual general meeting of this Branch will be held at 198, Union Street, Aberdeen, on Saturday, July 28th, at 1.30 P.M. An address will be given by the President, Dr. Angus Fraser. Hospital visit at 11.30 A.M. The annual dinner will be held at the Palace Hotel, Union Bridge, Aberdeen, at 3 P.M. Dinner tickets, including attendance, but exclusive of wine during dinner, five shillings each. Those intending to be present at the dinner are respectfully requested to send notice to Dr. Urquhart. —R. J. GARDEN, J. URQUHART, Honorary Secretaries.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

THE Fifty-first Annual Meeting of the British Medical Association will be held at Liverpool, on Tuesday, Wednesday, Thursday, and Friday, July 31st, August 1st, 2nd, and 3rd, 1883.

President: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

President-elect: A. T. H. WATERS, M.D., F.R.C.P., Senior Physician to the Royal Infirmary, and Professor of Medicine in University College, Liverpool.

An Address in Surgery will be delivered by REGINALD HARRISON, F.R.C.S., Surgeon to the Royal Infirmary, Liverpool.

An Address in Pathology will be delivered by C. CREIGHTON, M.D., formerly Demonstrator of Anatomy, University of Cambridge.

The business of the Annual Meeting will be conducted in ten sections.

SECTION A. MEDICINE.—*President:* John Cameron, M.D. *Vice-Presidents:* Thomas R. Glynn, M.D.; Frederick T. Roberts, M.D.; Dyce Duckworth, M.D. *Secretaries:* Richard Caton, M.D., 18A, Abercromby Square, Liverpool; Byrom Bramwell, M.D., 23, Drumsheugh Gardens, Edinburgh.

SECTION B. SURGERY.—*President:* Edward R. Bickersteth, F.R.C.S. *Vice-Presidents:* W. Hargreaves Manifold, M.R.C.S.; W. Mitchell Banks, F.R.C.S. *Secretaries:* Rushton Parker, M.B., F.R.C.S., 61, Rodney Street, Liverpool; Edmund Owen, M.B., F.R.C.S., 49, Seymour Street, Portman Square, W.

SECTION C. OBSTETRIC MEDICINE.—*President:* W. M. Graily Hewitt, M.D. *Vice-Presidents:* John Wallace, M.D.; David Lloyd Roberts, M.D. *Secretaries:* John E. Burton, L.R.C.P., 64, Rodney Street, Liverpool; W. C. Grigg, M.D., 6, Curzon Street, Mayfair, W.

SECTION D. PUBLIC MEDICINE.—*President:* T. P. Teale, M.B., F.R.C.S. *Vice-Presidents:* William Carter, M.D.; W. Honner Fitz-Patrick, M.D. *Secretaries:* F. Pollard, M.D., 52, Rodney Street, Liverpool; George Goldie, M.D., 123, Hyde Park Road, Leeds.

SECTION E. ANATOMY AND PHYSIOLOGY.—*President:* Professor E. A. Schäfer, F.R.S. *Vice-Presidents:* William Stirling, M.D.; Richard Norris, M.D. *Secretaries:* James Barr, M.D., 1, St. Domingo Grove, Everton, Liverpool; A. W. Mayo Robson, F.R.C.S., Hillary Place, Leeds.

SECTION F. PATHOLOGY.—*President:* T. H. Green, M.D. *Vice-Presidents:* E. H. Dickinson, M.D.; Joseph Coats, M.D. *Secretaries:* Frank Thos. Paul, F.R.C.S., 44, Rodney Street, Liverpool; James F. Goodhart, M.D., 27, Weymouth Street, W.

SECTION G. PSYCHOLOGY.—*President:* T. L. Rogers, M.D. *Vice-Presidents:* G. H. Savage, M.D.; D. Yellowlees, M.D. *Secretaries:* G. E. Shuttleworth, M.D., Royal Albert Asylum, Lancaster; W. Julius Mickle, M.D., Grove Hall Asylum, Bow, E.

SECTION H. OPHTHALMOLOGY.—*President:* T. Shadford Walker, M.R.C.S. *Vice-Presidents:* E. Nettleship, F.R.C.S.; C. E. Fitzgerald, M.D. *Secretaries:* E. A. Browne, M.R.C.S., 86, Bedford Street, Liverpool; C. E. Glascott, M.D., 23, St. John Street, Manchester.

SECTION I. DISEASES OF CHILDREN.—*President:* Samuel Jones Gee, M.D. *Vice-Presidents:* M. G. B. Oxley, M.D.; T. R. Jessop, F.R.C.S. *Secretaries:* H. G. Rawdon, M.D., 42, Rodney Street, Liverpool; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION J. OTOLOGY.—*President:* G. P. Field, M.R.C.S. *Vice-Presidents:* Edward Woakes, M.D.; C. Warden, M.D. *Secretaries:* Thos. Barr, M.D., 10, Albany Place, Sauchiehall Street, Glasgow; R. Williams, L.R.C.P., 82, Rodney Street, Liverpool.

Honorary Local Secretary: Alexander Davidson, M.D., 2, Gambier Terrace, Liverpool.

Honorary Treasurer: W. Mitchell Banks, F.R.C.S., 28, Rodney Street, Liverpool.

TUESDAY, JULY 31ST, 1883.

10.30 A.M.—Church Service at Pro-Cathedral. Sermon by Bishop of Liverpool.
12.0.—Meeting of Committee of Council.
12.30 P.M.—Meeting of the Council, 1882-3.
3 P.M.—First General Meeting: Report of Council and other business. Adjourn at 5 P.M.
8.15 P.M.—Adjourned General Meeting: President's Address, and any business adjourned from meeting at 3 o'clock.

WEDNESDAY, AUGUST 1ST, 1883.

9.30 A.M.—Meeting of Council, 1883-84.
11 A.M.—Second General Meeting. Address in Surgery.
1 30 to 5 P.M.—Sectional Meetings.
8.30 P.M.—*Soirée* in the suite of rooms forming the Arts Gallery, the Picton Reading Room, and the Free Library, by the President and Local Committee. To this, ladies will be invited.

THURSDAY, AUGUST 2ND, 1883.

9 A.M.—Meeting of Committee of Council.
10 A.M.—Third General Meeting. Sectional Meetings. Adjourn at 1 P.M.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Philharmonic Hall.

FRIDAY, AUGUST 3RD, 1883.

10 A.M.—Fourth General Meeting. Address in Pathology. Sectional Meetings.
2 P.M.—Concluding General Meeting.
8.30 P.M.—*Soirée* by the Mayor of Liverpool, at the Town Hall. To this, ladies will be invited.

SATURDAY, AUGUST 4TH, 1883.

Excursions.

The following papers, etc., have been promised in the various Sections.

SECTION A.—MEDICINE.

1. A Discussion on Aphasia will be opened by Professor Gairdner of Glasgow. Dr. Hughlings Jackson, Dr. Broadbent, Dr. Ferrier, Dr. Antoine Cros (Paris) Dr. Thudichum, Dr. W. W. Ireland, Dr. Drummond, Dr. Ross, Dr. G. A. Woods, Dr. A. Cameron, Dr. Wahltuch, and Mr. De Berdt Hovell, are expected to take part.

2. A Discussion on the Causes and Consequences of Abnormal Tension in the Arteries will be opened by Dr. Broadbent. Dr Milner Fothergill, Dr. B. Foster, Dr. W. F. Wade, Dr. Mahomed, Dr Glynn, Dr. Eddison, and Dr. Carter, are expected to take part in it.

3. A Discussion on the Nature of Purpura will be opened by Dr. Stephen Mackenzie. Dr. Finny (Dublin), Dr. B. Foster, Dr. McCall Anderson, Dr. Stainthorpe, Dr. W. Russell, Mr. Cauty, Dr. Crocker, Mr. Malcolm Morris, and Dr. Colcott Fox, will take part.

The following papers are also promised.

ATKINS, R., M.D. Hysterical Hemianæsthesia.
BENNETT, A. Hughes, M.D. 1. Spastic Paralysis. 2. Hysterical Malingering. 3. A new Form of Electrode.
BRAMWELL, Byrom, M.D. Note on the Mechanism of Cheyne-Stokes Respiration.
BRUNTON, T. Lauder, M.D., F.R.S. Headache.
CARTER, William, M.D.
CATON, Richard, M.D. On Brain Tumours.
CAUTY, H. E., Esq. On Roseola.
CROCKER, H. R., M.D. An Administration of Turpentine in Diseases of the Skin.
CROS, A., M.D. (Paris). 1. Sur la Pleximetrie. 2. La Théorie Physiologique de l'Hallucination.
DAVIDSON, Alexander, M.D.
DOLAN, T. M. On the Use of Sulphide of Calcium in the Treatment of Scabies.
DRUMMOND, David, M.D. 1. Perforating Tumour of the Dura Mater. 2. An Unusual Case of Locomotor Ataxy.
DRYSDALE, C. R., M.D. Recent Innovations in the Doctrine of Phthisis Pulmonalis.
EDDISON, J. E., M.D. 1. On the Cause of Cardiac Murmurs in Anæmia. 2. A Series of Forty Consecutive Cases of Empyema treated by the Physicians of the Leeds Infirmary (Drs. Allbutt, Eddison, and Churton).
FINNY, J. Magee, M.D. A Peculiar and hitherto Undescribed Condition of the Hairs of the Human Axilla.
FLINT, Austin, M.D. (New York). Early Tapping in Cases of Ascites.
GABBETT, H. S., M.D. The Diagnostic Value of the Discovery of Koch's Bacilli in Sputum.
GLYNN, T. R., M.D. 1. Case of Complete Paraplegia with Rigidity Terminating in Recovery. 2. Case of Tumour of the Medulla Oblongata.
GREVES, E. H., M.B. Notes on Cases illustrating Nerve-diseases.
HASSALL, A. H., M.D. 1. Further Observations and Experiments on Inhalation in Affections of the Lungs. 2. On the Principles of the Construction of Inhalation Chambers for Diseases of the Throat and Lungs.
LEECH, D. J., M.D. Duration of Action of Medicines.
LITTLE, J. F., Esq. Rheumatic Arthritis or Neurotic Arthritis.
MACKENZIE, J. A., M.D. Rupture of the Heart.
MOORE, W. W., M.D. Source of Heat in Fever.
MORRIS, Malcolm, Esq. The Use of Antimony in certain Skin-Diseases.
MYRTLE, A. S., M.D. Sweating to Death.
OLIVER, George, M.D. Bedside Urinary Testing.
OXLEY, M. G. B., M.D. The position of Syphilis as regards Classification and Treatment in this Country.
RIDGE, J. J., M.D. The Use of Non-alcoholic Tinctures as Remedies.
ROBERTSON, R., M.D. Modern Uses of Blood-letting.
ROSS, James, M.D. 1. Rupture of the Brachial Plexus. 2. On Early Posterior Sclerosis.
RUSSELL, W., M.D. Three Fatal Cases of Purpura Hæmorrhagica.
SANSOM, A. E., M.D. Note on Percussion as a means of Diagnosis.
SMITH, Solomon C., M.D. Antiseptic Inhalations.
STRANGE, William, M.D. Sporadic Septicæmia, chiefly Puerperal, especially as to its relations with the Infectious Zymotic Diseases.
THOMAS, W. R., M.D. On the Varieties of Phthisis, and the Curability of some in certain Stages.
THOMSON, G., M.D. Rupture of the Brachial Plexus.
THUDICHUM, J. L. W., M.D. On Hay-fever or Hay-asthma, and its Frequent Connection with Structural Disease of the Nasal Cavity.
WAHLTUCH, A., M.D. On Electro-therapeutics.
WATERS, Edward, M.D. Five Cases of Intestinal Obstruction.
WISE, Alfred, M.D. Climatological Studies at High Altitudes.
WOODS, G. A., Esq. Cerebellar Tumour.

On Wednesday morning, at 9.30, Dr. Byrom Bramwell will give a preliminary description of his sections illustrating the Disease of the Spinal Cord, which will be on view during the day.

SECTION B.—SURGERY.

1. Mr. Clement Lucas will open a Discussion on Surgical Diseases of the Kidney, and the Operations for their Relief, in which Dr. G. Elder and Mr. Bennett May will take part.

2. A Discussion on the Treatment of Intestinal Obstruction by or

without Operative Interference will take place, in which Mr. John H. Morgan, Sir William Mac Cormac, Mr. Bellamy, Dr. Norman Kerr, and others, will take part.

The following papers have been promised.

ATKINSON, E., Esq. Drainage of Joints.
BAKER, Morrant, Esq. Removal of the Tongue by Median Division.
BANKS, W. Mitchell, Esq. A Case in which the Innominate Artery was tied.
BARTLEET, T. H., Esq. Roux's Amputation at the Ankle; its Superiority to Syme's.
BERNARD, Armand, Esq. Observations on Primary Venereal Sores.
BERRY, William, Esq. Strangulated Hernia and its Complications.
BROWNE, H. Langley, Esq. Treatment of Enlarged Prostate by Continuous Elastic Pressure.
BROWNE, J. W., M.D. Cases of Hernia.
COUTES, W. Martin, Esq. 1. The Treatment of Nævi. 2. A Case of Torticollis. 3. A Case of Removal of the Whole Tongue with the Middle Third of the Lower Jaw.
COUSINS, J. Ward, M.D. 1. Photograph of a Dorsal Tumour which was removed to relieve Pulmonary and Cardiac Distress. 2. Explanatory Remarks on a New Needle for Closing Surgical Wounds.
CROFT, John, Esq. The Application of Plaster-of-Paris Splints for the Treatment of Fractures, with Demonstration.
CROSS, F. Richardson, Esq. The Treatment of Arthritis by Incision.
DRYSDALE, C. R., M.D. Recent Experiments on the Treatment of Syphilis.
FAGAN, John, L.K.Q.C.P. The Nature, Diagnosis, and Treatment of Hæmarthrosis of the Knee-Joint.
HARDIE, James, Esq. Amputation by Oblique Circular Incision.
HEATH, Christopher, Esq The Use of Plaster-of-Paris Bandages in the Treatment of Recent Fractures.
JESSOP, T. R., Esq. Some Results derived from Experience in Colotomy.
JONES, Thomas, Esq. Cases of Resection of the Ankle-Joint for Disease and Injury.
KEETLEY, C. B., Esq. An Analysis of Eight Cases of Osteotomy of the Hip.
LE PAGE, J. F., Esq. The Evacuation of Deep Abscesses: with Exhibition of Deep Abscess Evacuator.
LOWNDES, F. W., Esq. Venereal and Sexual Hypochondriasis.
MARCH, H. C., M.D. A Case of Resection of the Ankle-joint by an Artificial Pott's Fracture.
MORGAN, J. H., Esq. The Operative Proceedings in Cases of Intestinal Obstruction.
MORRIS, Malcolm, Esq. The Comparative Advantages of Scarification and Scraping in the Treatment of Lupus Vulgaris.
NORTON, A. T., Esq. A Case of Excision of the Superior Maxilla for Melanotic Sarcoma of the Antrum.
OWEN, Edmund, Esq. The Treatment of Large Nævi.
PEMBERTON, Oliver, Esq. Gastro-enterotomy.
RABAGLIATI, A., M.D. Cases of Osteotomy.
ROTH, Bernard, Esq. The Treatment of Non-spasmodic Torticollis.
SMITH, E. Noble, Esq. The Treatment of Lateral Curvature of the Spine.
SOUTHAM, F. A., Esq. A Case of Femoral Aneurysm, treated by Injection of Fibrin Ferment, and subsequently by Ligature of the External Iliac Artery.
STOKES, William, Esq. Excision of the Shoulder-joint.
STOWERS, J. H., M.D. 1. The Nature and Treatment of Paget's Disease of the Nipple (with Microscopic Specimens). 2. The Treatment of Vascular Hypertrophy of the Nose.
THOMAS, William, M.B. 1. On the Accurate Measurement and Comparison of the Lower Limbs. 2. The Application of India-rubber Bands in the Treatment of Talipes.
THOMPSON, James, M.D. Artificial Limbs.
WALTER, Wm., M.D. A Case of Nephrectomy for Cystic Tumour of a Floating Kidney.
WARDEN, Charles, M.D. On Osteotomy in Genua Vara and Valga.
WARREN, J. W., M.D. 1. Cure of Hernia by Subcutaneous Injection. 2. The Use of the Aspirating Needle in Strangulated Hernia and Obstruction of the Bowels.
WHITEHEAD, Walter, Esq. 1. A Further Series of Twenty-five Cases of Excision of the Tongue with Scissors. 2. The Surgical Treatment of Hæmorrhoids.

Patients for exhibition will attend from 1.30 to 2.30 P.M. on Wednesday and Thursday, August 1st and 2nd, in a room adjacent to that of the Section. Gentlemen who wish to show patients are requested to communicate with Mr. F. H. Mott, 65, Grove Street, Liverpool.

SECTION C.—OBSTETRIC MEDICINE.

Special discussions are expected to take place in this Section on the following subjects.

1. Total or Partial Extirpation of the Uterus for Malignant Disease. Introduced by papers by Professor Schroeder (Berlin) and Dr. Wallace.

2. On Operative Treatment of Uterine Fibromata. Introduced by papers by Dr. Keith, Mr. Knowsley Thornton, and Mr. Lawson Tait. Dr. Wallace has promised to take part.

3. On Metria (so-called Puerperal Fever). Introduced by papers by Dr. Atthill and Dr. Thorburn. Drs. Grigg, T. More Madden, Alderson, and Fancourt Barnes, and Messrs. Donovan, Burton, and F. J. Bailey, have promised to take part.

4. Porro's Operation. Introduced by a paper by Dr. Clement Godson.

The following papers are promised.

ALDERSON, F. H., M.D. A Case of Extra-uterine Pregnancy.
ALEXANDER, William, M.D. On Shortening the Round Ligaments for the Cure of some Forms of Uterine Displacement.
BARNES, Fancourt, M.D.
BURTON, J. E., Esq. A Plea for the more Persevering Treatment of Uterine Cancer in Cases in which Operation by Removal is Impracticable.
CROOM, J. Halliday, M.D, 1. Basilysis. 2. On some Relations of the Bladder and Uterus during Labour.
DOLAN, T. M., Esq. Defective Lactation in Modern Times, its Causes, and how far it may be influenced by Drugs.
DUKE, Alexander, M.D. On the Use of Additional Traction in Difficult Cases as an Alternative to Craniotomy.
EDIS, Arthur W., M.D. The Treatment of Chronic Metritis associated with Retroflexion.
LEDIARD, A. H., M.D. Alexander's Operation on the Round Ligaments; with Cases and Remarks.
LE PAGE, John F., Esq. On Axis-Traction in Delivery with Obstetric Forceps. Mr. Le Page will also exhibit Le Page's Axis-Traction Forceps.
MCDONALD, A. Drummond, M.B. Position in Labour.
MADDEN, T. More, M.D. Further Observations on certain Mental and Nervous Disorders peculiar to Women.
MEADOWS, A., M.D. On the Diagnosis of the various forms of Uterine Fibromata.
MURPHY, James, M.D. Short Notes of Fifteen Cases of Placenta Prævia, with Remarks on its Treatment.
PADLEY, G., Esq. 1. Acute Abscess of the Ovary: Ultimate Recovery by Absorption. 2. Traumatic Rupture of an Ovarian Cyst into the Peritoneal Cavity: Recovery.
ROBERTS, D. Lloyd, M.D. Inversion of the Uterus.
SMITH, Heywood, M.D. On a Case of Porro's Operation.
SPANTON, W. D., Esq. A Case of Extra-uterine Fœtation.
TAIT, Lawson, Esq. Are Diseases of the Ovary (specially Cystoma) on the Increase?
WALTER, Wm., M.D. A Case of Hysterectomy for Uterine Fibromata.
WILLIAMS, A. Wynn, M.D. 1. On Displacements of the Uterus and their Treatment. 2. On Cancer of the Neck of the Uterus and its Treatment.

SECTION D.—PUBLIC MEDICINE.

Four topics have been selected for discussion in this Section.

1. Directions in which Public Health Law might be advantageously Amended or Extended. Mr. Charles Wills will read a paper on the general subject. Mr. Ernest Hart will read one on the Advisability of an Extension of the Law for the Regulation and Registration of Plumbing in Houses. Dr. William Carter will open a discussion on these papers.

2. Quarantine. Dr. Imlach will read a paper on Quarantine; and Drs. C. R. Drysdale, J. R. Stocker, and others, will take part in the discussion.

3. Disposal of Town-Refuse. Dr. Goldie and Dr. E. Whittle will read papers on this subject.

4. Etiology of Diphtheria and Autumnal Diarrhœa. Drs. Alfred Carpenter, H. J. Alford, and E. F. Willoughby will read papers on Diphtheria; and Mr. M. D. Makuna one on Autumnal Diarrhœa.

Captain Douglas Galton, C.B., F.R.S., has promised to read a paper on Hospital Construction.

The following papers are promised.

DOLAN, Thomas M., Esq. A Scheme for the more Comprehensive Study and Prevention of so-called Zymotic Diseases.
DRUMMOND, Edward, M.D. On the Climate of Rome.
DRYSDALE, C. R., M.D. The Mortality of the Rich and the Poor.
FOX, R. Dacre, Esq. An Enquiry into the Rate of Mortality among Railway Servants.
GOLDIE, George, Esq. Some of the Defects of the Public Health Act, 1875, and the Difficulties experienced in the Working of the Act.
GRIFFITH, G. de Gorrequer, Esq. Unity of Poison in Diseases.
HILL, J. Higham, M.D. Suggestions for the better Police Treatment of Persons found Insensible in the Streets, and supposed to be under the Influence of Alcohol.
JAMES, J. Brindley, Esq. On Cremation.
KERR, Norman, M.D. The Present Position of the Habitual Drunkards Movement.
LOWNDES, F. W., Esq. How to Make our own Houses Sanitary, with Personal Experiences.
MAKUNA, M. D., Esq. Small-pox and Vaccination Statistics; Diseases and Injuries to Health Attributed to Vaccination.
MARTIN, Johnson, Esq. On the Injury done to the Health of the Young by the Present System of Education.
MILLICAN, K. W., Esq. Evolution in Disease.
POLLARD, Frederick, M.D. Jail-Fever; an Historical Sketch.
SHEARER, George, M.D. On the Opium-habit.
STOCKER, J. R., M.B. The Sanitary Condition of the Mercantile Marine.

SECTION E.—ANATOMY AND PHYSIOLOGY.

The following papers have been promised.

ANDERSON, Edward C., M.D. Koumiss: its Modes of Preparation, Varieties, Physiological Uses, etc.
ANDERSON, R. J., M.D. Human Ribs.
ARCHER, R. S., M.B. Note on Congenital Aortic Bands.
BARR, James, M.D. The Causes and Mechanism of the Cardiac Impulse.
HADDEN, W. B., M.D. Westphal's Phenomenon, or the so-called Paradoxical Contraction of Muscles.
KNOTT, J. F., Esq. The Anatomy and Physiology of the Spinal Accessory Nerve.
THUDICHUM, J. L. W., M.D. On the Chemical Constitution of the Brain.
WOODS, G. A., Esq. The Anatomy and Physiology of the Sixth Nerve.

Mr. Lennox Browne will exhibit on the magic-lantern screen, by

means of oxyhydrogen light, a series of photographs of the Larynx and Soft Palate in the production of various Musical Tones.

Afterwards, Mr. Emil Behnke, from whom the pictures have been taken, will exhibit his Larynx to the members present, so as to demonstrate practically the physiological facts illustrated by the photographs.

Mr. C. B. Lockwood will show an anatomical specimen illustrating the use of the Fossa at the Lower End of the Fibula.

Dr. E. H. Jacob will show (1) Photographs of Chick Embryos; (2) a Portable Polygraph.

Dr. Francis Warner will give a Demonstration of an Apparatus for obtaining Graphic Records of the Movements of Fingers, Hands, Head, etc., and enumerating them and their combinations.

Dr. John Harker will show a sketch of Abnormal Hands and Feet in the case of an Infant.

Mr. Sibley Hicks will exhibit a series of Embryos to illustrate the Development of the Chick.

Mr. G. Padley will exhibit (1) a Dissection of an Abnormal Distribution of the Arteries in the Fœtus; (2) Abnormal Distribution of the Arteries of the Arm.

Dr. R. Norris will exhibit his Museum of Photographs of the Blood.

Dr. C. W. Cathcart will exhibit a new form of Ether-freezing Microtome.

Section F.—Pathology.

The following discussions will take place.

1. On Micro-organisms in Disease. To be opened by Dr. Dreschfeld. Dr. Shingleton Smith will take part in the discussion.

2. On the Micro-organism of Typhus. To be opened by Drs. Mott and Blore. Drs. Davidson and Barron will take part.

3. On the Pathology of Dropsy. To be opened by Dr. Lauder Brunton. Drs. Saundby and Churton will take part.

4. On Chronic Inflammations of Bone. To be opened by Mr. Charters J. Symonds.

5. On Primary Growths of the Urinary Tract. To be opened by Mr. Frank T. Paul. Mr. Roger Williams will take part in the discussion.

Cirrhosis and allied conditions of the Liver will be brought forward, should time allow.

The following papers have been promised.

Bradshaw, T. R., M.D. Notes on the Pathology of Three Cases of Disease of the Suprarenal Capsules.
Hadden, W. B., M.D. On Lardaceous Disease of the Suprarenal Capsule.
Knott, J. F., Esq. The Bite of the Mangron Fly.
Le Page, John F., Esq. On Neuropathic Plica.
Mansell-Moullin, C., M.B. On some Forms of Osteitis in Hereditary Syphilis.
Roeckel, W. J., M.B. The Pathology of Internal Hæmorrhoids.
Silcock, A. Q., M.D. Some points connected with the Repair of Fractures.
Windle, B. C. A., M.B., and Barling, H. G., M.B. The Pathology and Relations of Lupus.

It is desired to illustrate in as complete a manner as possible, by means of preparations and microscopical specimens, the Primary Growths of the Urinary Tract, especially of the Kidney, Bladder, and Prostate. The object of this investigation is to collect all the information that is to be obtained in this country, with the view of deciding what are the primary growths that have been met with in this region. The specimens lent will be arranged in the museum, and a report of the investigation will be brought forward in the Pathological Section by Mr. Paul. The Subcommittee will be very glad to receive (1) recent specimens; (2) mounted specimens of rare growths; (3) microscopical sections (these are specially requested). The specimens and sections will be returned to their owners after the meeting.

The *Pathological Museum* will be separate from the general museum, and placed in one of a suite of rooms devoted to pathology. About 150 preparations are expected from the museums of University College, Guy's, the London, Manchester, Liverpool, and other hospitals, and from private members. A large number of original sketches have been promised, as well as photographs and microphotographs. There will be accommodation for 60 or 70 microscopes, which will probably be used chiefly for micro-organisms on the first day, for illustrating the preparations in the museum, etc., the second day, and for new growths of the urinary tract on the third day. In connection with the museum there will be an exhibition of patients, in charge of Dr. Mott.

Section G.—Psychology.

In this Section, the following special subjects have been selected for discussion.

1. The Employment of the Insane. Introduced by Dr. Yellowlees. Dr. David Bower, Dr. William W. Ireland, Dr. John A. Wallis, and others, are expected to take part in this discussion.

2. Bone-Degeneration in the Insane. Introduced by Dr. Wiglesworth. Dr. William W. Ireland and others are expected to take part.

3. Cerebral Localisation in relation to Psychological Medicine. Introduced by Mr. W. Bevan Lewis. Dr. James Ross, Dr. David Ferrier, Dr. W. W. Ireland, Dr. Fletcher Beach, Dr. Alexander Robertson, and others, are expected to take part.

4. General Paralysis. Introduced (if time permit) by Dr. W. J. Mickle. Several members are expected to take part.

The following papers are also promised.

Baker, John Henry, Esq., and Mickle, W. J., M.D. Some Acts during Temporary Epileptic Mental Disorder.
Hickson, Albert Thomas, M.D. Locomotor Ataxy and General Paralysis.
Huggard, William Richard, M.D. Definitions of Insanity.
Jelly, Frederick A., M.B. A Glance at Lunacy in Spain.
Mercier, Charles A., M.B. An Epidemic of Delirium.
Mickle, William Julius, M.D. Visceral and other Syphilitic Lesions in Insane Patients, without Cerebral Syphilitic Lesions.
Sankey, William H. O., M.D. What Phenomena are included in the name of General Paralysis or General Paresis?
Savage, George H., M.D. Some Cases of General Paralysis with Lateral Sclerosis of the Cord.
Shuttleworth, George E., M.D. Is Legal Responsibility acquired by *Educated* Imbeciles?
Wiglesworth, Joseph, M.D. The Pathology of Mania.

Several members will also exhibit Microscopical Sections of the Brain and Spinal Cord.

Section H.—Ophthalmology.

Three subjects have been selected for discussion in this Section.

1. On Tests for Colour-sense and for Acuteness of Vision, with special reference to Schools and Sailors. Opened by Dr. W. A. Brailey, followed by Dr. Snellen (Utrecht). Messrs. Nettleship, Fitzgerald, and Higgens have promised to take part.

2. On the Use of the Magnet in Ophthalmic Surgery. Opened by Mr. Simeon Snell, followed by Dr. W. A. McKeown.

3. On the various methods of Treatment for Sloughing Ulcer of the Cornea, with especial reference to Incision and Scraping. Opened by Mr. T. Pridgin Teale, followed by Dr. Little.

The following papers have been promised.

Abbott, George, Esq. Obstruction of the Nasal Duct, and its Treatment by Styles.
Andrew, Edwyn, M.D. Treatment of Lacrymal Obstruction.
Critchett, G. Anderson, Esq. Ulcers of the Cornea, their Varieties and Treatment.
Forbes, Litton, Esq. 1. On the Relations existing between certain states of the Sexual Organs and Visual Disturbance. 2. The Doctrine of Enucleation.
Griffiths, Alex. H., M.D.
Grossmann, Hart, M.D.
Higgens, Charles, Esq. On the Treatment of Painful Corneal Ulcers by Warmth and Eserine.
Jones, A. Emrys, M.D. 1. A Case of Orbital Abscess Communicating with the Brain. 2. A Case of Embolism (?) of the Central Artery of the Retina connected with Facial Erysipelas.
Lee, Charles George, Esq. Notes on the Ophthalmic Conditions of Deaf-Mutes.
McKeown, W. A., M.D. The Treatment of Accidental Dislocation of the Lens.
Macnamara, Charles, Esq. On the Pathology and Treatment of Zonular Cataract.
Mules, P. H., M.D. An Electric Movement for Carter's Astigmatic Clock.
Shears, Charles, Esq. Tobacco Amblyopia.
Taylor, Charles Bell, M.D. 1. On the Operative Treatment of Sympathetic Ophthalmia, with Cases. 2. On Transplantation of Skin with Temporary Pedicle without Scar. 3. Notes on the Operation for Cataract, with and without Iridectomy.
Watson, W. Spencer, Esq. Shot-silk Appearance of the Retina.
Williams, Richard, M.D. Intense Neuro-retinitis, Due apparently to Simple Anæmia.
Wolfe, John R., M.D. 1. On the Transference of Conjunctiva from the Rabbit to the Human Subject for the Cure of Symblepharon. 2. On the Treatment of Suppuration of the Tear-passages.

Section I.—Diseases of Children.

Three special subjects have been selected for discussion.

1. Dr. T. Barlow will open a discussion on Rheumatism and its Allies in Children. The following gentlemen have promised to take part in the discussion: Dr. O. Sturges, Dr. Rickards, Dr. Finlayson, Dr. Sansom, Dr. Mahomed, Dr. J. S. Bury, Dr. Donkin, Mr. W. Pye, and Dr. Byers.

2. Dr. Ballard: On the Etiology and Pathology of Summer Diarrhœa. The following gentlemen have promised to take part: Dr. Borchardt, Dr. Seaton, Mr. W. Hugh Hughes, Dr. Bruce Low, Dr. Strange, Dr. A. Ransome, Dr. Maccall, and Mr. Walter Pye.

3. Mr. Morrant Baker: On Acute Epiphysal Necrosis and its

Consequences. The following gentlemen are likely to take part: Mr. J. H. Morgan, Mr. R. W. Parker, Mr. G. A. Wright, Mr. G. Cowell, Mr. E. Owen, and Mr. A. Cæsar.

The following papers are promised.

ASHBY, H., M.D. On Scarlatinal Rheumatism.
BURY, J. S., M.D. A Case of Osteo-malacia in a Child.
DAY, W. H., M.D. A Case of Croupous Pneumonia in a Child, treated successfully by the Cold Bath.
GEE, Samuel J., M.D. Some Kinds of Albuminous and Purulent Urine in Children.
MORGAN, J. H., Esq. A Case of Epiphysal Necrosis of the Humerus, followed by Considerable Shortening of the Arm.
MORISON, B. G., M.B. Infantile Diarrhœa and its Treatment.
OXLEY, M. G. B., M.D. Fatal Case of Chorea in a Child aged 10 Years.
PUGHE, R. N., Esq. Operations for the Radical Cure of Hernia in Childhood.
RAWDON, H. G., M.D. On the Operation for Hare-lip.
STEAVENSON, W. E., M.D. On Electricity in the Treatment of Infantile Paralysis.
STURGES, O., M.D. On the Alliance of Rheumatism and Chorea.
THOMAS, W. R., M.D. On Intermittent Fever among Children in Low-lying Districts: its Frequency, and the importance of recognising it, owing to its Curability.
TOMKINS, H., M.D. On the Clinical Features of Typhus Fever in Children.
WRIGHT, G. A., Esq. On the Value of Localising the Primary Lesion in Joint-disease, as an Indication for Treatment.

SECTION J.—OTOLOGY.

Discussions will take place on the following subjects.

1. A discussion on the more serious aspects of Chronic Purulent Inflammation of the Middle Ear will be introduced by Dr. W. Laidlaw Purves.

2. A discussion on the various forms of Artificial Tympanic Membrane, and their Comparative Value, will be introduced by Dr. F. M. Pierce.

The following gentlemen have expressed their intention of taking part in the discussions: Dr. Edward Woakes, Dr. Thomas Barr, Dr. Urban Pritchard, Dr. William A. McKeown, Dr. J. W. Browne, Dr. Richard Ellis, Dr. H. J. Hardwicke.

The following papers have been promised.

BARR, Thomas, M.D. Practical Observations on the Use of the Cotton-Pellet (Yearsley's Artificial Tympanic Membrane) as an Aid to Hearing.
CASSELLS, James P., M.D. An Analysis of Ten Years' Aural Surgery.
FORBES, Litton, Esq. The Indications for, and Therapeutic Value of, Myringectomy.
MCBRIDE, P., M.D. The Prognosis of Chronic Non-Suppurative Inflammation of the Middle Ear.
TORRANCE, Robert, Esq. Deafness in Cerebro-spinal Meningitis.
WARDEN, Charles, M.D. Mastoid Inflammation.
WILLIAMS, Richard, Esq. A Fatal Case of Chronic Purulent Inflammation of the Middle Ear, from Extension to the Intracranial Cavity.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay with the secretaries of the respective Sections.

No communication shall occupy more than fifteen minutes, and no person shall be permitted to speak more than once, or for more than ten minutes, during the discussion thereon. A short abstract of each paper must be sent to the secretaries of the Section in which it is to be read, not later than July 25th.

SPECIAL NOTICE TO MEMBERS.

On arriving in Liverpool, Members are requested to proceed at once to the place of meeting—the Liverpool College, Shaw Street—in order to enter their names and receive their tickets of admission to the meeting, and the tickets for the dinner and the various entertainments and excursions. The reception-room will be in the entrance hall, the clerks being seated at tables placed on each side of the main entrance to the building. A placard in front of each clerk will indicate his special duty.

Those Members who have not already made arrangements to stay at hotels, or who have not engaged lodgings, will then ask the clerks for Dr. Creswell Rich, the Reception Secretary, who has charge of the accommodation arrangements. Dr. Rich, or one of his clerks in charge of the list of lodgings, etc., will be in attendance to give all information about apartments, etc.

RECEPTION-ROOM.

It is particularly requested that each Member, on his arrival, will at once proceed to the Reception-Room, which is in the College, Shaw Street; 1, enter his name and address, and obtain his tickets and programme; 2, inquire for letters; 3, consult the list of lodgings and hotels. A form for Members who intend to be present, and also a list of lodgings and hotels in Liverpool, is enclosed in this week's JOURNAL. *The Reception-Room will be open on Monday from 12 to 5, and on succeeding days from 9 A.M. to 4.30 P.M.*

DINNER.

The annual dinner will be held as a banquet in the Philharmonic Hall on Thursday, August 2nd, at 6.30 P.M. The number of tickets is limited to 500, and none will be sold after Wednesday, August 1st. Tickets for the banquet may be obtained in the Reception Room at the time of the meeting, or previously on application, accompanied by a remittance of 21s. (or, exclusive of wine, 14s.), by cheque, or postal order (not by Post Office Order), to E. H. Dickinson, M.D., Secretary to the Dinner Committee, 162, Bedford Street, Liverpool.

N.B.—A limited number of seats (260) in the boxes of the Hall for ladies and friends of members of the Association (holding tickets for the banquet) will be issued, at 2s. 6d. each seat, on application, accompanied by remittance, to the Secretary of the Dinner Committee (as above).

ANNUAL MUSEUM.

The museum will be in the same building as the reception-room, the general meetings, and the sectional meetings. In fact, all the business of the annual meeting will be carried on in one building, viz., the College, Shaw Street, Liverpool. The room which is specially devoted to museum purposes is a gallery, 300 feet in length, in the upper story, lighted from the roof. On the same floor are several additional rooms, so that the accommodation for exhibiting drugs and instruments is ample. On the second floor, adjoining the room where the Pathological Section meets, are two class-rooms, one of which will be used for the exhibition of pathological drawings and specimens, the latter for microscopes. A large hall on the ground-floor has been set apart for sanitary appliances, among which it is expected there will be a good exhibition of ambulances.

The museum will comprise: 1. Latest inventions in medical and surgical instruments, and appliances of all kinds, including No. 4. 2. New chemicals and apparatus; new drugs and their preparations: and new articles of diet for invalids. 3. Drawings, diagrams, or models, or apparatus connected with sanitary appliances. 4. Microscopes, thermometers, and other instruments of investigation. 5. Pathological specimens, etc.

Communications should be sent to Dr. Davidson, the General Secretary, 2, Gambier Terrace, Liverpool, or to the following: drugs, Dr. T. Bushby, 32, Clarence Street; surgical instruments, Dr. Alexander, 102, Bedford Street; Rushton Parker, Esq., 61, Rodney Street; sanitary appliances, Dr. Imlach, 16, Canning Street; pathological specimens and drawings, F. T. Paul, Esq., 44, Rodney Street. General Museum Secretary, Dr. Whitford, 37, Shaw Street.

Notice to Exhibitors.—Applications to be made as soon as possible, mentioning the space required. Each object to be accompanied by a written description or reference, and it is important that these descriptions should be sent as early as possible, viz., not later than July 20th. All parcels to be delivered on or after July 23rd, and not later than July 28th, and to be removed within three days after August 3rd; they must be addressed: The Curator of Annual Museum, British Medical Association, the College, Shaw Street, Liverpool. All expenses of carriage and all risk to be borne by the exhibitors. A card bearing the name and address of the exhibitor to be inclosed in each package, ready to be fixed to the outside.

EXCURSIONS.

The following excursions will take place on Saturday, August 4th. 1. Excursion to Conway and Llandudno. By steamer (if the weather be suitable; if not, by train), leaving Liverpool soon after 9 A.M., arriving at Conway about noon. The visitors will be entertained at lunch (in the old Banqueting Hall of Castle) by the members of the North Wales Branch. They will then proceed to Llandudno by train; will leave there between 6 and 7 P.M., arriving in Liverpool between 9 and 10 P.M. Number limited to 150.—2. Excursion to Chester and Eaton Hall. Leaving Lime Street station at 9.30 A.M., arriving at Chester about 10.30; proceeding at once to the river Dee, up which the visitors will be taken by steamer and barges to Iron Bridge, where light refreshments will be provided. By kind permission of the Duke of Westminster, the hall, gardens,

and park, will be open to the visitors. The return to Chester will be arranged so as for dinner to be served at the Grosvenor Hotel at 4 P.M. The members will thus have the evening free for an inspection of the old city, or for their return home by any convenient train. There will be no limit as to numbers.—3. Excursion to Southport and Blackpool. By train from Tithebarn Street Station soon after 9 A.M., for Southport, where the members will be entertained at breakfast by the local medical profession; thence, at 1 P.M., by steamer to Blackpool, where dinner will be given by the directors of the South Shore Hydropathic Institution. The return from Blackpool will be arranged to take place by train early in the evening. The number will be limited.—4. Excursion to Lancaster. By train from Liverpool at 10.5 A.M., arriving at Lancaster 11.40 A.M. A limited number of visitors (30) will be entertained at lunch by the members of the medical profession of the city, who will also kindly provide carriages, and show their guests through the Castle, the Royal Albert Asylum, the County Lunatic Asylum, and other places of interest. The well known watering-place, Morecambe (ten minutes' railway journey), is within easy reach. There the visitors can dine, and thence return by train, so as to arrive in Liverpool soon after 8 P.M.—5. Mr. Bickersteth's River Excursion. By steamer, leaving the landing-stage about 10 A.M., proceeding seawards for some distance, so as to give visitors a view of the coast; on its return, visiting some of the new docks, and then steaming up the river for some miles to Eastham, or Runcorn. This will be a half-day excursion, terminating about 2 P.M. Further particulars may be obtained from Mr. Richard Williams (82, Rodney Street) for the Conway Excursion; Mr. Warburton (114, Princes Road, Liverpool) for the Chester Excursion; Mr. George Walker (43, Rodney Street) for the Southport and Blackpool Excursion; and Dr. Hopper (63, Rodney Street) for the River Excursions.

NOTICES OF MOTION AT THE ANNUAL MEETING, LIVERPOOL.

JULY 31ST; AUGUST 1ST, 2ND, 3RD.

NOTICE is hereby given, that at the Annual Meeting to be held at Liverpool, on the 31st day of July next, and three following days, it will be moved on behalf of the Committee of Council that the present by-laws be rescinded, and that the following be the future by-laws of the Association.

DRAFT OF THE PROPOSED NEW BY-LAWS OF THE BRITISH MEDICAL ASSOCIATION.

ELECTION OF MEMBERS.

ANY qualified medical practitioner not disqualified by any by-law of the Association who shall be recommended as eligible by any three members may (subject as hereinafter mentioned) be elected a member by the Council, or by any recognised Branch Council, provided that the power of such Branch Council shall only extend to the election of male persons.

No person shall be elected a member unless he has the votes of not less than three-fourths of the members present at the meeting of the Council or Branch Council at which he is proposed for election, and has agreed in writing to become a member, and to pay his subscription for the current year.

Any member may be expelled from the Association by a resolution of the Council if carried by three-fourths of the members present, subject to confirmation by the next annual meeting, and he shall thereupon cease to be a member and shall not be eligible for re-election. One month's notice of the intention to propose such resolution shall be given to any member affected thereby.

SUBSCRIPTION.

The subscription to the Association shall be one guinea *per annum*, which shall entitle each member to the privileges of membership, and to receive the JOURNAL of the Association for the current year. The subscription shall date, and be considered due in advance, on the 1st of January in each year, except in the case of a member admitted on or after the 1st July, when the subscription for such part of a year shall be half a guinea in advance.

Any member whose subscription shall not have been paid on or before the 31st December of the current year shall be suspended from all privileges of membership; and, at the end of the succeeding year, if the arrears be still unpaid, he shall cease to be a member, and shall be ineligible for readmission until he shall have paid all arrears due at the period of his suspension. Any member wishing to withdraw from the Association shall give written notice of his intention to the General Secretary on or before the 1st December of the current year.

HONORARY MEMBERS.

Any person of professional or scientific eminence, and recommended by the Council, may be elected an honorary member at the annual meeting of the Association.

ANNUAL MEETING.

The date of the annual meeting shall be fixed by the Council; the place of meeting being determined prospectively in each year by the vote of the Association.

OFFICERS.

The President of the Association shall be elected annually, at the annual meeting, and shall enter upon the duties of his office at the next annual meeting, and until then shall bear the title of President-elect. Each retiring President shall be eligible for election as a Vice-President for life, provided that he continue to be a member of the Association.

The President of the Council shall be elected by the Council. He shall hold office for three years; and at the first meeting of the Council after the determination of such office, a new President of Council shall be elected for the then ensuing three years; and every member who has served the office of President of the Council shall be eligible for election as a Vice-President of the Association, provided that he continue to be a member of the Association.

The Treasurer shall be elected at the annual meeting. He shall hold office for three years, and shall be *ex officio* a member of the Council, and every member who has served the office of Treasurer shall be eligible for election as a Vice-President of the Association for life, provided that he continue to be a member of the Association.

The Treasurer of the Association shall receive the subscriptions and other moneys payable to the Association, and discharge all accounts which have been ordered by the Council to be paid.

The Editor of the JOURNAL shall be elected by the Council, and be remunerated in such manner as the Council shall think fit.

The Secretary of the Association shall be elected by the Council. He shall reside in London, and devote his whole time to the business and affairs of the Association and the office of the JOURNAL.

The duties of the Secretary shall include being present at the meetings of the Association and Council, the recording their respective minutes, the conducting of the correspondence of the Association; the superintending the collection of subscriptions; the enforcement of the regulations as regards those in arrear, and acting in general obedience to the directions of the Council.

The Secretary shall be remunerated in such manner as the Council think fit. The Editor and Secretary shall hold their respective offices during the pleasure of the Council, subject to receiving or giving (as the case may be) three months' notice to determine their respective appointments.

The offices of Secretary and Editor of the JOURNAL shall not be held by the same person.

COUNCIL.

The Council shall consist of the President, the President-elect, the President of Council, the Vice-Presidents of the Association, and the Treasurer (who shall all be *ex officio* members of the Council); and of members representing the Branches, who shall be elected as follows:

(*a*) Every Branch shall be entitled to elect one representative member, and every Branch consisting of more than 200 members shall be entitled to elect an additional representative member for every complete 200 members of which it shall consist.

(*b*) The election of such member or members shall be annual, and he or they shall hold office from immediately before the annual meeting of the Association next after his or their election until immediately before its next following annual meeting.

(*c*) The return of the election of the representative member or members of each Branch shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch not less than one month prior to the annual meeting of the Association

(*d*) No person shall be eligible as a representative member unless, at the time of his election, he shall be resident within the area of the Branch nominating him as their member.

(*e*) In default of and until election by any Branch of a representative member or of representative members, or so far as such election shall not be complete, all the powers conferred on the Council shall belong to and be exercised by the *ex officio* members thereof alone or by the *ex officio* members and such representative members of the Council as may have been duly elected by any Branch or Branches, and of whose election return shall have been duly made as before mentioned.

(*f*) By-law (*e*) shall not take effect until the annual meeting in 1884; and, in the meantime, the Committee of Council in office at the time of passing these By-laws shall be the Council, and shall have all the powers conferred on the Council by the articles of Association or the By-laws.

Notice shall be given forthwith to the Secretary of the Association by a Branch, of a representative having ceased to belong thereto; but until such notice shall have been received by the Council, no resolution or vote shall be deemed invalid by reason of a disqualified member taking part in its proceedings.

The Council shall annually prepare a report of the general state and proceedings of the Association for the past year, to be presented by them at each annual meeting of the Association.

The Council shall, at each annual meeting, propose the place of meeting for the next annual meeting, and nominate the President-elect.

A record of the attendance of each member of the Council at its meetings shall be kept and published annually in the JOURNAL.

The Council shall meet not less than four times a year, and shall be presided over by the President of the Council, or in his absence by a chairman to be appointed by the meeting. Its meetings shall be held at such time and place as the Council shall appoint. Seven members shall be a quorum.

The President of Council may, if he think right, and upon receiving a requisition, signed by not less than ten members of the Council, and specifying the business for which a special meeting is required, shall, call together a special meeting thereof, but at such meeting no business shall be transacted other than that for which such special meeting was called.

The Council shall manage the general affairs and business of the Association, except as otherwise provided by the articles or by-laws. They shall also regulate the order of business, and shall nominate the readers of addresses at each annual meeting. They shall decide what shall constitute a section, and who shall preside over the same; and shall also arrange the division into sections of the matters to be discussed and considered at such meeting.

The Council shall direct the publications of the Association, and shall take cognisance of any matter which may require immediate decision.

The Council shall at each meeting next after the annual meeting of the Association, appoint a public accountant to audit the accounts of the Association, and if directed by them, to prepare a balance-sheet, financial statement, and report, up to December 31st in each year. A financial statement shall be published in the JOURNAL within the first four months of each year.

In the event of the incapacity of any officer of the Association during his term of office, the Council may appoint any member to act for him. In the event of the death or resignation of the holder of any office, the holder of which is required to be elected by the Association at annual meeting, the Council may appoint a successor till the next annual meeting.

JOURNAL AND FINANCE COMMITTEE.

The Journal and Finance Committee in office at the time of passing these

By-laws, shall remain in office until the new Committee is formed, as next hereinafter provided, and shall then retire.

At the meeting of the Council held next after the annual meeting in 1884, a subcommittee of fifteen members of the Council shall be elected, who, together with the President, the President-elect, the President of the Council and the Treasurer (who shall be *ex officio* members), shall constitute the Journal and Finance Committee. Three members shall form a quorum. The three elected members who shall have been longest in office shall retire annually; and if, owing to any two or more having been in office for the same period, there shall be any doubt as to which shall retire, the matter shall be decided by ballot amongst such two or more. Members retiring shall be ineligible for re-election for the ensuing twelve months. Members of the Council shall be annually elected by the Council to fill places for the time being vacant by retirement, death, or otherwise.

The Journal and Finance Committee shall meet not less than four times a year, twice at least at the office of the Association, and shall enter a report of its proceedings in a book which shall be read to the Council for adoption.

The Journal and Finance Committee shall examine into the general working of the office and JOURNAL, and certify the quarterly accounts, prior to their being presented to the Council.

TRUSTEES.

The property of the Association shall, when necessary, be vested in three trustees chosen by the Council. The Trustees shall be eligible for any other office of the Association.

COMMUNICATIONS.

All communications to the Association shall be the property of the Association, unless the Council allow the right of property therein to be specially reserved to the contributors.

BRANCHES.

Any number of members, not being less than twenty, may form themselves into a Branch of the Association, subject to such Branch being recognised by the Council.

Each Branch shall be free to govern itself as its members shall think fit; but no Branch law shall be valid which, in the opinion of the Council, may contravene any fundamental law of the Association.

Each Branch shall pay its own expenses, and no Branch shall be deemed for any purpose the agent of the Association, or have power to incur any obligation in its behalf.

ALTERATION OF BY-LAWS.

No by-law shall be made, altered, or repealed, except at an annual meeting, nor unless a written notice, specifying the nature and object of the proposed amendment, shall have been given to the Council at least one month previously. Such notice shall be forthwith published in the JOURNAL.

NOTICE OF PROPOSAL OF SPECIAL RESOLUTIONS.

Notice is hereby given that, at an extraordinary general meeting of the British Medical Association, to be held at the College, Shaw Street, Liverpool, on Thursday, the 2nd day of August next, at 10 o'clock in the forenoon, resolutions will be proposed to the following effect.

Should the resolutions be passed by the required majority, they will be submitted for confirmation as special resolutions to a second extraordinary meeting, which will be subsequently convened.

"That Articles 2, 9, 13, 15, 16, and 26, be altered by striking out the words 'Committee of' in the places where those words occur."

"That Article 7 be struck out, and the following Article be substituted therefor."

"7. Any member whose subscriptions shall not have been paid on or before the 31st of December of the current year shall, without prejudice to his liability to the Association, be suspended from all privileges of membership; and at the end of the succeeding year, if the arrears be still unpaid, he shall cease to be a member, and shall be ineligible for re-admission until he shall have paid all arrears due at the period of his suspension. No member shall (except in case of his death or expulsion, or his ceasing to be a member under the previous provisions of this Article) cease to be a member without having given previous notice in writing of his intention in that behalf on or before the 1st day of December in the current year to the Secretary hereinafter mentioned, and paid all arrears of subscriptions (if any) due from him."

"That Article 11 be struck out, and the following Article substituted therefor."

"11. Subsequent general meetings shall be held once in every year, commencing with the year 1875, at such time as shall be fixed by the Council, and at such place as may be prescribed by the Association in general meeting, and if no time is so fixed a general meeting shall be held on the 20th day of August in every year, commencing as aforesaid, and shall, if no place is so prescribed, be held at such place as may be determined by the Council."

"That Article 17 be altered by striking out the words 'and the Committee of Council.'"

"That the words 'and Committee of Council' in the heading before Article 25 be struck out."

"That Article 25 be struck out, and the following Article substituted therefor."

"25. The business of the Association shall be managed by the Council; and the constitution, duties, powers, and mode of procedure of the Council shall be determined on from time to time by the Association in general meeting."

"That Article 28 be struck out, and the following Article substituted therefor."

"28. There shall be the following officers of the Association, viz., a President of the Association, a President-elect, Vice-Presidents, a President of the Council, a Treasurer, an Editor of the JOURNAL, and a Secretary. The officers (other than the Editor of the JOURNAL and the Secretary) shall respectively be designated or elected, and hold office for such period, and have and enjoy such duties, powers, and privileges, as shall be determined from time to time by the Association in general meeting. The Editor of the JOURNAL and Secretary shall respectively be designated or elected, and hold office for such period, and have and enjoy such duties, powers, and privileges, and receive such emoluments, as shall be determined from time to time by the Council."

"That Article 30 be amended by adding the following words after the word abode, 'or by publication of such notice in the JOURNAL, and forwarding a copy of the JOURNAL containing such notice to such member prepaid and addressed as above mentioned."

"That Article 31 be altered by adding the words 'or a copy of the JOURNAL' in the second and fifth lines of that Article after the word 'letter.'"

By order of the Committee of Council.

Notice is hereby given that it will be proposed, in accordance with resolution passed at special meeting of Council held at Birmingham, viz.: "That the return first-class railway-fares of every member to meetings of the executive body be paid by the Association."

The President of the Association gives notice that he wil move the following addition to the by-laws:

"That the President, and the President-elect, be *ex-officio* members of all committees and subcommittees of the Association."

Dr. Fothergill hereby gives notice that, at the annual meeting to be held at Liverpool, he will move that By-law 12 be altered by the addition of the words following, viz.:

"That the Editor shall be elected for a period not exceeding five years; but shall be eligible for re-election for a like period."

Dr. Ward Cousins hereby gives notice that he will move the following alterations in the by-laws, at the annual meeting to be held at Liverpool on July 31st next, viz.:

40. Any number of members, not less than 100 residing within, or not less than 25 residing without, the limits of the United Kingdom of Great Britain and Ireland, may form themselves into a Branch of the Association, subject to such Branch being recognised by the Committee of Council.

41. The existing Branches of the Association, as now recognised by the Committee of Council, shall constitute the Branch organisation of the Association. An outline of such organisation shall be annually published in the form of a chart, showing the areas and distribution of the Branches, together with any other particulars that may be determined upon from time to time by the Committee of Council.

42. Any modification or division of an area of a recognised Branch shall be subject to such modification or division being recognised by the Committee of Council.

43. In the event of any two or more recognised Branches being desirous of uniting to form one Branch, a requisition specifying the particulars and objects of such union must be forwarded by each of the Branches to the Committee of Council. In the event of such union being recognised by the Committee of Council, the recognition shall date from the first day of January then next ensuing.

44. Any number of members, not less than 100, residing in a district of a recognised Branch, being desirous of forming within the area of such district a new and separate Branch of the Association, may hold a special meeting of the members residing in such district, and then forward through the honorary secretary of the Branch the requisition adopted by such meeting, specifying the particulars and object of the proposed separation to the Committee of Council. In the event of such separation being recognised, the recognition shall date from the 1st day of January then next ensuing.

45. Same as By-law 41.

46. Same as By-law 42.

47. The honorary secretary of each Branch shall forward to the General Secretary, on or before the 31st day of March, on or before the 30th of June, and on or before the 31st day of October in each year a statement of the moneys received by him on behalf of the Association; and on the 31st day of October in each year he shall close the Branch account for the current year, and shall give notice that all unpaid subscriptions must be forwarded direct to the General Secretary of the Association. A notice of the annual closing of the Branch accounts shall be inserted in the JOURNAL during the month of October.

Mr. John Brown, of Bacup, gives notice that he will move amendments and additions to the proposed By-laws, of which the following are copies.

ELECTION OF MEMBERS.

Paragraph 3, third line, to read "and he shall not be re-admitted as a member for the period of three years; and then only after forwarding a petition to the Council signed by five members, testifying to his social and professional status, and by three-fourths of the votes of the members present."

COUNCIL.

Paragraph (*d*), "Any person shall be eligible as such representative, if he be a member of the Association, though he be not resident within the area of the Branch nominating him as their member."

COMMUNICATIONS.

Addition to the By-laws, viz.: "That any member sending communications or letters for publication in the JOURNAL, if the editorial staff shall suppress or shall wilfully misrepresent the same, that member shall have the right to appeal to the Committee of the Council or to the Council of the Branch in which he may reside."

Dr. J. Haddon, of Hawick, hereby gives notice that he will move at the annual meeting at Liverpool:

"That a volume of Transactions be published annually by this Association, and that the Executive Committee be requested to make the arrangements necessary to give effect to this resolution."

Dr. Boyd Mushet hereby gives notice that he will move:

"1. The British Medical Association universally and absolutely condemns the acceptance and tenure of all *gratuitous* medical appointments—whether to general, special, home, or cottage hospital, dispensary, infirmary, convalescent home, or other institution. It resolves that a permanent committee be appointed to accomplish their speedy and utter abolition.'

"2. That the same committee report on the inadequacy of the salaries of medical officers in the service of the Local Government Board, and devise prompt and energetic measures for equitable payment."

"3. That the committee also determine a scheme to ascertain and register a list of defaulting patients throughout the country."

Dr. Eyton-Jones, Wrexham, hereby gives notice that he will move at the annual meeting at Liverpool an amendment to the proposal to pay the travelling expenses of Branch representatives on the Committee of Council, of which the following is a copy:

"That it would be unfair and unjust, to pay the travelling expenses of one section of Members of Committee of Council, without at the same time paying the like expenses for all Members of the New Council and for all attendances at Committee Meetings of the Parent Association, and as such attendances would amount in the aggregate to a very large annual expenditure, it is impolitic and unwise to adopt such a resolution."

FRANCIS FOWKE,
General Secretary British Medical Association.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at Exeter Hall, London, July 11th, 1883; Present, Mr. C. G. WHEELHOUSE, President of the Council, in the chair; Dr. W. Strange, President; Dr. W. F. Wade, Treasurer; Mr. A. Baker; Dr. M. M. De Bartolomé; Dr. L. Borchardt; Dr. J. M. Bryan; Dr. A. Carpenter; Dr. C. Chadwick; Dr. J. Ward Cousins; Dr. G. W. Crowe; Dr. A. Davidson; Dr. G. F. Duffey; Dr. B. Foster; Dr. E. Long Fox; Dr. W. C. Grigg; Dr. A. J. Harrison; Professor G. M. Humphry, F.R.S.; Mr. W. D. Husband; Mr. T. Vincent Jackson; Dr. H. T. Lanchester; Dr. W. Vawdrey Lush; Mr. C. Macnamara; Mr. F. E. Manby; Mr. F. Mason; Mr. R. H. B. Nicholson; Dr. E. Rickards; Dr. R. C. Shettle; Dr. Alfred Sheen; Mr. Septimus W. Sibley; Dr. E. H. Sieveking; Dr. E. M. Skerritt; Dr. A. P. Stewart; Dr. A. Strange; Mr. T. Sympson; Dr. E. Waters; Mr. J. Wood;

The President of the Council having reported that no objection to the minutes of the previous meeting had been received, as printed and issued to each member of the Committee of Council, they were accordingly signed as correct.

Read letters of apology for non-attendance from Dr. A. T. H. Waters, President-elect, Mr. Bartleet, Dr. Rees Philipps, and Dr Parsons.

The President of the Council reported that he had received proposals of invitation for the Association to hold the annual meeting of 1885 at Brighton and Cardiff.

Read letter from Mr. T. H. Bartleet withdrawing the notice of motion given by him at the last meeting.

Resolved: That the application from Dr. William Frazer to sanction notice of the annual meeting of the Irish Graduates' Association to hold their annual meeting during the visit of the British Medical Association to Liverpool to appear in the Daily Journal of the meeting, be granted.

Resolved: That the application from Dr. MacCormack to sanction notice of a meeting of the militia surgeons in the Daily Journal of the annual meeting at Liverpool be granted.

Resolved: That the application of Dr. Joseph Rogers and Mr. Wickham Barnes to sanction notice of meeting of Poor-law medical officers to appear in the Daily Journal be granted.

The names of 123 candidates for election as members whose names appeared on the circular convening the meeting having been considered, four gentlemen were found to have been already elected members by the Council of the Dublin Branch.

The election of one candidate was referred to the next meeting of the Committee of Council.

Three candidates were referred to the Council of the Lancashire and Cheshire Branch, and two to the Council of the Metropolitan Counties Branch. One, whose application was irregular, was not elected.

Resolved: That the remaining 113 candidates whose names appear on the circular convening the meeting be, and they are hereby, elected members of the Association.

Read letter from the Solicitor respecting the proposed alterations of the By-laws at Liverpool.

Resolved: That the Solicitor be instructed to make arrangements for the new by-laws and articles, if passed at Liverpool, to come into operation on August 1st, 1884.

Resolved: That the minutes of the Journal and Finance Committee, together with the minutes of the Printing and Office Subcommittee, both of to-day's date, be approved, and the recommendations carried into effect.

The minutes of the Journal and Finance Committee contain auditors' quarterly report; particulars of quarterly accounts passed, amounting to £3,850; the recommendation that an Assistant Secretary be appointed, at a salary of £200 *per annum*.

Resolved: That the minutes of the Scientific Grants Committee of the 10th ultimo be approved, and that the recommendations be carried into effect.

The minutes of the Scientific Grants Committee contain particulars of accounts of grants, and applications for new ones.

Resolved: That Dr. Duckworth be appointed a third vice-president in Medicine.

The report of the attendances of the twenty elected members of Council was then considered, as follows—six meetings, Dr. B. Foster, Dr. H. T. Lanchester, Mr. C. Macnamara, Mr. F. Mason, Mr. Septimus W. Sibley; five meetings, Dr. Borchardt, Dr. E. Long Fox, Dr. A. J. Harrison, Mr. F. E. Manby, Dr. A. P. Stewart, Mr. T. Sympson; four meetings, Mr. T. H. Bartleet, Mr. R. H. B. Nicholson, Dr. E. H. Sieveking; three meetings, Dr. J. T. Arlidge, Surgeon-Major Boileau, Mr. Rushton Parker, and Mr. John Wood; none, Dr. Leslie Jones. The names of Dr. Arlidge, Surgeon-Major Boileau, Mr. Rushton Parker, Mr. John Wood, and Dr. Leslie Jones, were struck off as the five who had attended the fewest number of meetings, and the name of Dr. Sieveking, as not being on the Council.

Resolved: That the remaining fourteen gentlemen be nominated members of the Committee of Council.

Twelve gentlemen were proposed for the six vacancies. A ballot was taken; Dr. Rickards and Mr. Vincent Jackson were appointed scrutineers, and the gentlemen whose names are as follows, having the largest number of votes, were declared to be nominated: Dr. Mahomed, Dr. T. Clifford Allbutt, Surgeon-Major Gribbon, Dr. Withers Moore, Dr. Evan Jones, and Dr. McVail.

The annual report was then considered, and, after some amendment, was adopted, and ordered to be printed and sent to the members of the Council.

The report of the Collective Investigation Committee was laid on the table.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, July 16th.

Overwork in Schools.—Lord STANLEY of ALDERLEY called the attention of the House to the increase of insanity; and asked the Lord President if the Education Office had inquired into the effects of overwork in elementary schools, alleged to have occurred by various letters in the daily press; and asked him if he would reconsider the letter of the Education Office of January 19th, 1882, sanctioning compulsion by Board schools in the matter of home-lessons.—Lord CARLINGFORD said the question of the increase of insanity in this country did not come within the purview of the Department over which he presided, and he must refer his noble friend to the Home Office for information concerning it. He was sorry that his noble friend had mixed up that question with the inquiry which he had addressed to the House, because it tended to give an air of gross exaggeration to the question of overwork in some of the elementary schools. The Education Department had inquired very carefully into the question of overwork, and had watched the various statements that had been published. They had consulted the most experienced of their inspectors on the subject, who were also gentlemen who felt the greatest sympathy with the children, and who would be the least likely to sanction any regulations which might tend to injury by overwork. No doubt there was such a thing as overwork occasionally amongst children, and still more amongst pupil-teachers ardent to distinguish themselves and to attain the object of their ambition; but, upon the whole, the inspectors were of opinion that there was very little truth in the wild and highly-coloured statements which had appeared in some of the newspapers. With regard to the statement of his noble friend, that the overwork to which he had called attention arose from the increased requirements of the Code, he entirely dissented from that view, because the requirements of the Code, so far from having been increased of late years, had been relaxed and made easier; and, under the Code just coming into operation, the requirements were distinctly easier than they had been in former Codes. The truth was that this overwork, when it did take place, arose not from the Education Code—which had anything but an iron rule applicable to all alike—but from mistakes through over-zeal by school-managers, made very often with the best intentions. The main causes of overwork arose from want of regularity in regard to attendance and instruction: also from excessive application to a variety of subjects, not compulsory, which were beyond the strength of the school-staff to teach properly. The Department would continue to watch all complaints as to overwork that might be made; but their chief duty would be to impress upon school-managers the necessity of avoiding causes of over-pressure.—The Earl of SHAFTESBURY said he did not think that the

increase of insanity was out of proportion to the growth of the population. The apparent increase shown by some figures was no doubt due to the inclusion of chronic cases previously left out of the reckoning. His belief was that such movements as Temperance Societies, Bands of Hope, and notably the Blue Ribbon movement, had contributed to the diminution of insanity. So far as schoolmasters and mistresses were concerned, he was inclined to think that insanity had increased amongst them from overstraining the nervous system, and that, beyond the cases actually recorded, there were a great number whose intellectual powers had been weakened. —The subject then dropped.

The Factories and Workshops Acts Amendment Bill.—In moving the second reading of this Bill, Earl GRANVILLE was understood to say that its objects were to apply the provisions of existing Acts to occupations in which men and women employed were liable to lead-poisoning, and to regulate the construction and sanitary condition of bakehouses.

HOUSE OF COMMONS.—Monday, July 16th.

Contagious Diseases.—Lord HARTINGTON, in reply to Captain Price, said the admission to hospitals of soldiers affected by contagious diseases, had risen from 11.89 per thousand in the four weeks prior to the abolition of compulsory examination, to 17.40 during the last four weeks.

The Indian Mails and the Cholera.—Mr. MACFARLANE asked the Postmaster-General if, during the prevalence of cholera in Egypt, and the consequent difficulty of bringing the Indian mails through Italy, it was intended to carry the mails through the Suez Canal in the vessels which brought them from India, instead of sending them by rail to Alexandria and from thence by another vessel.—Mr. FAWCETT replied that the mails which arrived at Suez on Monday were ordered to proceed direct through the Suez Canal, and consequently were not landed at all in Egypt. No decision had as yet been definitely arrived at as to the course that would be adopted, but the subject was being carefully considered.

Local Government.—Sir A. GORDON gave notice that on the motion for the second reading of the Local Government Bill for Scotland, he proposed to submit a resolution in favour of the reconstitution of the Local Government Board for England as a Local Government Board for Great Britain, with a separate branch for each country, and its representation by a Cabinet minister.

Contagious Diseases Acts.—Captain PRICE asked the First Lord of the Treasury whether, after the statement made by the Secretary of State for War, as to the alarming increase in the number of cases of contagious disease in Her Majesty's forces since the abolition of compulsory examination, he still adhered to his intention of endeavouring to pass this session a Bill for the repeal of the Contagious Diseases Acts.—Mr. GLADSTONE said the hon. gentleman had not borne in mind a statement he had made the other day. The Government must take some further time to consider, with respect to three Bills of importance, whether they would ask the House to proceed with them or not, and he could not give any further intimation of the intentions of the Government with respect to these three Bills until they got through Committee on the Corrupt Practices Bill, and made great progress in Committee on the Tenants' Compensation Bill. As soon as they were in that position they should be prepared to answer.—Mr. PULESTON asked whether, in view of the alarming character of the information which had been given to the House, the Prime Minister intended to proceed with such a Bill. —Mr. GLADSTONE said it did not lead him to vary the answer he had already given.

Tuesday, July 17th.

Cholera in Egypt.—Lord E. CECIL asked the Under-Secretary for Foreign Affairs whether it was true, as stated in the newspapers, that there had been an outbreak of cholera in the suburbs of Cairo, and what steps had been taken to prevent its further spread.—Lord E. FITZMAURICE: The best answer I can give to the question asked by the noble lord is to read the telegram on the subject received to-day from Sir Edward Malet :—"Cairo, July 16. Five cases of cholera at Ghizeh, three miles from Cairo ; three or four suspicious cases at Cairo ; troops at Cairo very healthy ; every precaution taken ; ready to move into camp when necessary." I may add that Sir Edward Malet states in another telegram that seven European doctors have been sent to the infected places. He states further that six Egyptian doctors, possessing European diplomas, have also been sent to these localities.

Contagious Diseases Acts.—Captain PRICE asked the First Lord of the Treasury whether he still adhered to his intention of endeavouring to pass this session a Bill for the Repeal of the Contagious Diseases Acts.—Mr. GLADSTONE: I think the honourable gentleman has not borne in mind the statement which I made on a previous day that the Government must take some further time to consider, with respect to the three Bills of importance, whether they would ask the House to proceed with them or not, and that I could not give any further intimation of the intentions of the Government with respect to these three Bills until we had got through the committee on the Corrupt Practices Bill, and made great progress with the Tenants' Compensation Bill. As soon as we are in that condition, we shall be prepared to answer this question.

CORRESPONDENCE.

THE ANNUAL MEETING.

SIR,—Apropos of the meeting of the British Medical Association in Liverpool, commencing on July 31st, I may inform you that the Lancashire and Cheshire Entomological Society holds its usual monthly meeting on the previous evening (Monday, July 30th), in the Free Library, at 7.30 P.M. A paper will be read by Mr. Alfred O. Walker, of Chester, entitled "Remarks on the causes affecting the distribution of Lepidoptera in Great Britain." As honorary secretary of the society, I take this opportunity of inviting to the meeting any of my medical brethren from London or the provinces, who may take an interest in entomology, when possibly, if a sufficient number could be brought together, an entomological excursion might be arranged to the entomologically-famous Wallasey sandhills.—I am, sir, yours faithfully,

Liverpool, July 18th, 1883. JOHN W. ELLIS, L.R.C.P.E., etc.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE LONDON TEMPERANCE HOSPITAL.

THIS hospital has now been in existence ten years, and during that period it has made considerable progress in the good opinion of the public and of the profession. Indeed, the times have been in its favour, for on all sides we observe a desire to check intemperance, and to ascertain the true place and value of alcohol. At the Temperance Hospital the medical officers have power to order alcoholic drinks and medicines, if they think it necessary. But in no instance during the past year have they prescribed alcohol, even as a drug. The in-patients admitted were 411 ; and the out-patients numbered 2,205. The rate of mortality was under 4 per cent. Among the cases treated were some of a most serious character, and the recoveries were rapid and satisfactory. The committee have been so much encouraged by the success of their work during the decade, that they are anxious to carry out the original plan of the hospital, and to add a wing which would afford accommodation for 100 additional in-patients. The usual medical report has not been prepared for the past year, as it is the intention of the medical committee to draw up a collection of the more interesting and characteristic cases treated at the hospital from its commencement, and to submit them to the judgment of the profession.

OBITUARY.

SURGEON-MAJOR J. McCREERY.

PARTICULARS have been received from India of the death of Surgeon-Major J. McCreery, Army Medical Department, at Allahabad, on May 16th. The *Journal* of the N. W. Provinces and Oudh Branch of the British Medical Association, printed at Allahabad, mentions that, on the morning of the day on which he died, Mr. McCreery was in apparently good health ; about noon he was attacked with fever, and his temperature gradually rose until it exceeded 105° Fahr. About 7.30 P.M. he was sitting in a chair, talking to his brother, when he gave a sigh and suddenly expired. The immediate cause of death was syncope, induced by the pyrexia acting on an attenuated and flabby heart. There was no valvular disease nor rupture. He had not long recovered from a dangerous attack of choleraic diarrhœa. The *Journal* adds that General Sir T. H. Macpherson, commanding the station, had ordered that mourning should be worn for a month in respect to Mr. McCreery's memory. He was buried in the military cemetery on the evening of May 17th, with full military honours, many officers being present. The 2nd North Lancashire

Regiment furnished a firing party, and the regimental band attended. Mr. McCreery has left a widow and six daughters to mourn his loss.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology, at a meeting of the Board of Examiners on the 12th instant, and, when eligible, will be admitted to the pass examination, viz.:

Messrs. H. D. T. Pettigrew, Alan Rigden, T. C. Mallet, and F. D. Woodhouse, students of St. George's Hospital; W. C. Jarvis, and E. O. Gilkes, of the London Hospital; A. B. Hinde, and G. S. Ware, of the Middlesex Hospital; H. G. Palmer, and F. G. Parsons, of St. Thomas's Hospital; E. H. Lipscomb, and Edward Lester, of Guy's Hospital; W. R. Y. Ives, and Ernest Farr, of the Charing Cross Hospital; J. W. Jaques, of St. Bartholomew's Hospital; Algernon Fenner, of King's College; and J. H. Blamey, of University College.

Eight candidates were referred for three months, and three for six months.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 16th instant, viz.:

Messrs. T. A. Fraser, M.B.Edin., Edinburgh, William Hunter, M.B.Edin., Birkenhead, Archibald Mackenzie, M.B.Ed., Natal, F. J. Mackinnon, M.B.Ed., Edinburgh, G. P. Nicolet, M.B.Ed., Edinburgh, Joseph Priestley, M.B.Ed., Manchester, and A. O. Ward, M.B.Ed., Eastbourne, students of the Edinburgh School; William Nattress, M.B.Toronto, Toronto, W. H. Macdonald, M.B.Toronto, Toronto, and G. S. Beck, M.B.Toronto, Peterborough, Canada, of the Toronto School; J. D. T. Reckitt, L.R.C.P.Ed., Army Medical Department, and J. McG. Woodbury, M.D.New York, New York, of the University of New York; J. E. E. Jones, L.R.C.P.Lond., New Swindon, of the Middlesex Hospital; N. B. Gandevia, L.R.C.P.Lond., Bombay, of the Grant Medical College; M. J. Kahn, L.R.C.P.Lond., Chesterton Road, W., of the Madras School; G. H. Rodman, M.B.Durham, Selhurst Road, S.E., of the Newcastle School; F. D. Bird, M.B.Melbourne, of the Melbourne School; C. E. Cameron, M.B.McGill, Montreal, of the McGill School; George Vincent, M.B.Aberd., Bedfont, Middlesex, of the Aberdeen School; G. W. Ford, L.R.C.P.Ed., Upper Kennington Lane, of St. Thomas's Hospital; H. F. Rudge, L.R.C.P.Ed., Bristol, of the Bristol School; E. Y. Shuter, L.S.A., Putney, of Guy's Hospital; T. F. Gardner, L.S.A., Watford, of University College; and E. W. Willett, L.S.A., Brighton, of St. Bartholomew's Hospital.

One gentleman was approved in Surgery, and, when qualified in Medicine, will be admitted a member of the College; and four candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies—two for six months, and two for three months. At this meeting of the Court, Mr. Edward Lund of Manchester, the recently elected member of the Court of Examiners, took his seat.

The following gentlemen passed on the 17th instant, viz.:

Messrs. A. M. Paterson, M.B.Ed., Manchester, and J. H. Jones, L.S.A., Manchester, of the Manchester School; Archibald Donald.M.B.Ed., Edinburgh, Gerrit Nieuwoudt, M.B.Ed., Cape of Good Hope, H. S. Lloyd, M.B.Ed., Adelaide, James Craig, M.B.Ed., Castle Douglas, N.B., George Mackay, M.B.Ed., Inverness, T. S. Wilson, M.B.Ed., Birmingham, and T. S. Lawry, M.B.Ed., Auckland, of the Edinburgh School; J. L. Ellis, L.K.Q.C.P.I., Dinas Mawddwy, Merionethshire, of the Dublin School; W. A. Shillito, L.S.A., Sheffield, of the Sheffield School; E. E. Sutcliffe, L.R.C.P.Ed., Scarborough, of the Leeds School; E. W. Welchman, L.R.C.P.Ed., Lichfield, of the Birmingham School; C. E. Beebe, L.S.A., Cambridge Street, S.W., and J. H. Cox, L.S.A., Doddington Grove, S.E., of Guy's Hospital; W. W. Baxter, L.R.C.P.Ed., Pontardawe, G. F. Phillpot, L.R.C.P.Ed., Norton, near Stourbridge, H. H. Parsloe, L.R.C.P.Ed., Chippenham, of University College; and J. P. Holyoake, L.R.C.P.Ed., Kinver.

Eleven candidates were referred—six for six months, and five for three months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 12th, 1883.

Beebe, Charles Edward, Cambridge Street.
Colman, Henry, Cumberland House, Kew.
Donovan, Denis William, Keppel Street, Russell Square.
Felix, Edward, Bedford Square.
Green, Edwin Collier, Telford Avenue, Streatham.
Jones, Maurice Parry, Trinity Square, S.E.
MacLeroy, Arthur Lloyd, The Hyde, Hendon, N.W.
Robertson, James Sprent, Netherwood Road, Kensington.
Rook, Albert Edward, London Road, Forest Hill.
Shuter, Charles Yaldwyn, Lower Richmond Road, Putney.

The following gentleman also on the same day passed their Primary Professional Examination.

Gimblett, William Henry, Middlesex Hospital.
Praeger, Emil Arnold, Bristol General Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

BRIGHTON, HOVE AND SUSSEX THROAT AND EAR DISPENSARY, 23, Queen's Road, Brighton.—Honorary Assistant-Surgeon. Applications by July 29th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Application by July 30th.

CITY OF COVENTRY.—Analyst. For each analysis, one guinea. Applications by July 30th.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications by August 6th.

CORK DISTRICT LUNATIC ASYLUM.—Second Assistant to Resident Medical Superintendent. Salary, £100, with £50 in lieu of rations, per annum. Applications by August 6th.

DOWNPATRICK LUNATIC ASYLUM.—Assistant Resident Medical Officer. Salary, £100 per annum. Applications to the Resident Medical Superintendent by August 1st.

DERBY AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Two Assistant-Surgeons. Salaries, £160 per annum (out-door). Applications to the Secretary, Mr. J. Bullivant, 58, Abbey Street, Derby, by July 21th.

ENNISCORTHY DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Candidates must be qualified in medicine and surgery, and not be above 40 years of age. Applications to Under Secretary, Dublin Castle, by July 28th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E. Dental Surgeon. Applications by the 24th instant.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by August 4th.

LEEDS SCHOOL OF MEDICINE.—Resident Curator. Salary, £80 per annum. Applications to Dr. Churton, Park Square, Leeds, by August 6th.

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch.—Assistant Medical Officer. Salary, £150 per annum. Applications by July 25th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to Robert Calder, Secretary, 4, Commercial Court, 17, Water Street, Liverpool, by August 15th.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Dyke Road, Brighton. Two Acting Physicians. Applications to the Medical Committee by August 3rd.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Junior Resident Medical Officer. Applications by July 25th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Refraction Assistant. Applications by July 23rd.

SALOP INFIRMARY, Shrewsbury.—House-Surgeon. Salary, £100 per annum. Applications by the 27th instant

WIRRAL CHILDREN'S HOSPITAL, Birkenhead.—Vacancy in the Honorary Acting Medical Staff. Applications to Mr. T. G. Carver, 15, Lord Street, Liverpool, by August 1st.

MEDICAL APPOINTMENTS.

ACKLAND, J. McKno, L.D.S.Eng., appointed Dental Surgeon to the Exeter Hospital, *vice* Augustus King, L.D.S., resigned.

BALBIRNIE, J. P., L.R.C.P., appointed Resident Medical Officer to the Oddfellows' and Mechanics' Clubs of Staveley, Westmorland, *vice* W. A. Tennent, L.R.C.P.

CAREY, A., M.R.C.S.E., appointed Medical Officer and Public Vaccinator to the Fourth District of the Church Stretton Union, *vice* J. R. McLintock, M.D., deceased.

CLARKE, Ernest, M.B., appointed Assistant-Surgeon to the Central London Ophthalmic Hospital.

DAVIDSON, J. H., M.B., appointed House-Surgeon to the Alnwick Infirmary, *vice* W. H. J. Brown, M.B.

FLYNN, E. F., L.K.Q.C.P.I., appointed Senior House-Surgeon to the Sunderland Infirmary, *vice* J. Whitehouse, L.R.C.P., resigned.

GARDNER, F. T., M.R.C.S., appointed Resident Medical Officer and Secretary to the Bournemouth Cottage Hospital and Dispensary, *vice* G. Mahomed, M.R.C.S., resigned.

HUMPHREYS, C. S., M.R.C.S., appointed House-Surgeon to the Westminster Hospital, *vice* G. E. Butler, M.R.C.S.

JONES, OWEN CLAYTON, M.B.Oxon, appointed House-Physician to the London Hospital.

KING, J., M.B., appointed Medical Officer of Health to the Leigh Local Board, *vice* J. Hall, L.F.P.S., resigned.

LARDER, Herbert, M.R.C.S., L.S.A., appointed Senior House-Physician and Chloroformist to the Westminster Hospital.

MAUDE, A., M.R.C.S., appointed Resident Clinical Assistant to the East London Hospital for Children, *vice* P. Marsh, M.R.C.S.

OWEN, Isambard, M.D., appointed Assistant-Physician to the St. George's Hospital, *vice* H. Watney, M.D., resigned.

WILLIAMS, Charles, L.R.C.P., L.R.C.S., L.S.A., and L.M., reappointed Medical Officer for the First District of the Bodmin Union.

WILLIAMS, J., M.D., re-elected Examiner in Midwifery to the Royal College of Surgeons of England.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BRUNTON.—At 50, Welbeck Street, on the 14th instant, the wife of Dr. Lauder Brunton, F.R.S., of a daughter.

LEE.—July 7th, at The Elms, Heckmondwike, the wife of Francis Boynton Lee, F.R.C.P., of a daughter.

ROWE.—On 13th instant, at Hillary Place, Leeds, the wife of Herbert Rowe, M.R.C.S.E., of a son.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY......King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club, University College, Gower Street, 8 P.M. Annual General Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL BOOK-KEEPING.

SIR,—As my letter, which you did me the honour to insert in your impression of the 14th instant, hardly explains my proposed system, without the publication of the form of book which I took the liberty of transmitting to you, I ask permission to briefly give some idea of its working. To begin on the extreme left hand side: the names of patients, numbered from 1 to 40, would appear, and on the 41st line "ready money received." That would be the first column from top to bottom. The character of the patient (pecuniary) would be noted against each name in a second column (say 2s. 6d. or 10s.); and, in a third column, the address. There would then be seven columns, one for each day in the week, and in these would be inserted, against each name, any symbol or information desired: a cross for a visit, C for a consultation, D D for a death, B for a bankruptcy, cash received, etc.; and, on the right, there would be three cash columns—one for visits, and one of cash for previous quarter. One week's transactions would thus appear on the page (when the items are cross-cast), and these would be carried forward to the next week; the three cash columns being added up weekly, and the totals carried forward. The second and subsequent pages must be cut narrower, so as not to overlap the names in turning over. There would thus be 13 pages for each 40 patients for three months, and the thirteenth page would show a complete record of the quarter's work—day-book, cash-book, ledger—*tria juncta in uno*.

Yours obediently, J. A. DOW.

City, July 16th, 1883.

THE CONTAGIOUS DISEASES ACTS.

SIR,—In the JOURNAL of the 7th instant, I observe you quote from the *Western Morning News* in reference to the discussion on the Contagious Diseases Acts at the recent annual meeting of the South-Western Branch of the British Medical Association, held at Devonport. As some of the remarks relate to the proposals I made to the Home Secretary last May, I think it right to send you a copy of my letter to the right honourable gentleman, which was read by the President at the aforesaid meeting, and was received with marks of approval. My proposals are only intended as the minimum of legislation which should be adopted. I also think they should be supplementary to any other legislation on this question.—Yours obediently, HENRY GREENWAY.

Plymouth, July 9th, 1883.

(*Copy.*)

"Plymouth, May 25th, 1883.

"To the Right Honourable the Home Secretary—Sir,—Believing the prevention or lessening of venereal disease is a fit subject for legislation, I would beg to submit a plan for your consideration, which could not well be taken exception to by those persons opposed to the existing Contagious Diseases Acts.

"In the Local Government Board we have already the legal machinery for preventing the spread of certain infectious diseases. I would, therefore, propose that the word 'syphilis,' or 'syphilitic sore,' be added to the list. By so doing, every male or female in the United Kingdom having sexual connection whilst suffering from that disease would be liable to a penalty. I would also propose that any one proved to have transmitted the disease be liable to a still greater penalty. Under the latter clause, there would be sometimes a difficulty in tracing the source of infection; yet the general tendency of such legislation would be to make people cautious, and get medically treated for the disease on the first symptoms showing themselves. I also believe that another effect would be to cause prostitutes to apply very frequently to a medical practitioner for examination, as his certificate of freedom from disease on a given date would be of great value to a woman in the event of a prosecution. In order to prevent, as much as possible, vexatious prosecutions, I would propose that the case be heard *in camerâ*.—I have the honour to be, sir, your obedient servant, HENRY GREENWAY, Medical Officer of Health."

THE language employed by Mr. R. B. Sell in objecting to the appointment of an M.D. of Trinity College as assistant medical officer of the parish, cannot be too strongly condemned.

CHOLERA IN ENGLAND.

SIR,—About the beginning of last week I was engaged in discussing with a friend the chances of a cholera epidemic in England during the present year, and after reviewing what I considered to be the cause of previous epidemics, came to conclusions similar to those you have put forward in the JOURNAL of July 7th. I have always held that most of the epidemics in India arise from an infected water-supply, and that if the natives with an incipient attack of cholera upon them could be prevented bathing in the tanks, and from depositing their fæces in the sand around the villages to such an extent that it loses all purifying properties, cholera in India would be reduced to very small proportions, as would also others of the septic fevers. During the cholera epidemic of 1848, I know that in the Wandsworth Road, where the disease raged with great fury, the cause was clearly shown to be pollution of the water-cisterns by sewer gas; and in the East London outbreak in 1866, the drinking-water was distinctly proved to be at fault. Now, considering the attention that has of late years been paid to sanitary arrangements, I cannot see how any future epidemics can assume the dimensions of those that have gone before.—I am, sir, your obedient servant, F. P. ATKINSON.

Surbiton, July 10th, 1883.

A FEMALE INEBRIATE.

SIR,—I shall feel much obliged if you will insert the following case, in order that some member may kindly advise me as to what can be done. On visiting a patient to-day, I found him suffering from the effects of hard drinking, and on making inquiries, elicited that he had given way to it in despair, consequent on the behaviour of his wife, who, he said, was hardly ever sober, and was given to pawning furniture for drink, etc. I write to ask if there is any home for female dipsomaniacs where charges would be within the means of a labouring man. The man has four young children, whose education is embarrassed by this condition of affairs.—I am, sir, yours truly, MEMBER.

*** The only cheap Homes for Female Inebriates are: Spelthorne Sanatorium, Feltham, Middlesex, from 15s. per week; and St. James's Home, Ebenezer Terrace, Kennington Park, 15s. per week.

An Uncomfortable Position.

Sir,—The British Medical Journal of June 16th contained a letter from Mr. Duggan of Castle Eden, complaining of the conduct of a neighbouring practitioner in using hand-bills among his patients. My name appears on those bills. As it is no light matter to have one's name associated with such practice, it is important that I announce publicly that my name was made use of without obtaining my permission, or even acquainting me with it. This can only be understood by stating the whole facts; and I crave your indulgence for the necessary space.

Dr. Marr and Dr. Duggan are neighbours, and reside and practise at Castle Eden, two or three miles from here, and are, it is hardly necessary to explain not on the best terms with each other. Dr. Duggan, finding Castle Eden too small a sphere for his energy, attempted to extend his practice in my direction; and, obtaining an introduction by means of the union appointment, issued handbills, addressed the workmen's trades-union meetings, and personally canvassed from door to door, soliciting the people to become his club-patients, even when they were under my treatment. I forbear, from a sense of professional propriety, to mention all the means adopted. Next, Dr. Marr views this seeming success with a jealous eye, and also makes an onslaught in the same district; and, following the example of his neighbour, issues hand-bills. Knowing that I am always willing to act for a neighbour in his absence (for hitherto I have been courteous to both), he thinks there can be no harm in mentioning this in his bill; but, from some strange form of ethical blindness, does not see the necessity of intimating to me his intention to issue hand-bills, and afford me an opportunity to object. Now, be it remembered that this is still a rivalry between Dr. Duggan and Dr. Marr; but the scene of battle is transferred from their own district to mine, to my detriment; for, although fighting with each other, they are at the same time both fighting against me.

This full explanation will, I trust, be ample proof that I have no connection with the affair; and I have no doubt you will concur with me that the careless use of a name is a serious matter indeed. I make no comment on my two neighbours; it is not for that purpose that I write.—I am, yours, etc.,

Wingate, co. Durham, July 12th, 1883. James Arthur, L.R.C.S., etc.

Mr. J. D. Hamilton.—The particulars will be discussed at Liverpool, and answered from time to time in the Journal.

Medical Etiquette.

Sir,—I should feel much obliged if you would kindly give your opinion on the following points.

1. E. and F. both practise in the same town. During an illness of some months' duration, E. sends for F. to attend him, and sends his patients to F. also. F. attends cases of midwifery, visits and supplies medicine, etc. No arrangement is made about fees.

2. An old patient of E.'s, who has not been attended by him for some months before his (E.'s) illness, requests F. to attend on his own behalf.

3. Another patient (who *has* been seen by F. for E.), after E.'s recovery, has another illness. He requests F. to attend him. F. objects, having acted for E. when ill, but the patient declines to return to E.; and says, if F. will not attend him, he will call in another doctor. (*a*) Is he entitled to any of the fees paid by patients? (*b*) Should F. do so? (*c*) What is F.'s proper course?—

—Yours truly, A Member.

*** In reply to query 1, we would quote the rule laid down in the *Code of Medical Ethics*, page 35: "When, during sickness, affliction, or absence from home, a practitioner entrusts the care of his practice to a professional friend, the latter should not make any charge to the former, or to the patients, for his services, but should in all things be the *locum tenens* of the absentee. If, however, the attendance be protracted, and the labour proportionate, a fitting acknowledgment should, if circumstances admit, be made." In the case of F., we consider that the prolonged professional work, cost of medicines, etc., justly entitle to a liberal remuneration.

2. Strictly speaking, F. would, in our opinion, be justified in taking charge of the case; but, ere doing so, professional courtesy and true brotherly feeling should induce him to call upon and explain to E. the attendant circumstances.

3. In declining to attend the patient, F. acted judiciously and in strict accordance with medico-ethical rules. At the same time, under the special circumstances mentioned, no blame will attach to F. in accepting the responsibility of the attendance, if, as advised in the preceding reply, he fully explains the facts to E.

Beds.

Sir,—Your correspondent, "Perplexed," seems to give the preference to the "spiral spring," or French bed. Allow me to say that I consider these mattresses, as made now, the most uncomfortable of all beds. Years ago, when first introduced, they were flat and accommodated themselves easily to the body. Now they are convex in the middle, and, as a rule, so hard that the body is not accommodated, but turns from side to side, vainly seeking for repose, until, at last, the sleeper wakes and finds himself on his back, in which position alone can the body find repose on these hard and cone-spring mattresses.

The old "sack" was, in my opinion, the most accommodating of all, but this has gone out of fashion, and the nearest approach to it, and, perhaps, in some respects, superior, is the "woven wire," which need not, as "Perplexed" seems to think, "present a perfectly level surface," as it can be slackened or tightened at will. From its pliable nature, it must accommodate itself kindly to the body; and while the "spiral springs" are constantly getting uneven, and are, as a rule, so in hotels, it is next to impossible for the woven-wire mattress even to get out of order.—I am, sir, your obediently,

"Woven Wire."

Asthma.

Sir,—Can you, or any of the members of the Association, enlighten me upon the subject of "Ling's movement cure" for asthma? I wish to know what is the nature of the movements, and whether the treatment has proved of any real and permanent value to any one; and particularly whether it is of such a character as to be beneficial, or even admissible, in a case of asthma associated with valvular disease of the heart. Any information on the subject would be esteemed a great favour by—Yours truly,

Fern Bank, Rotherham. Jno. B. Lyth, M.R.C.S, etc.

COMMUNICATIONS, LETTERS, etc., have been received from:

Sir Charles W. Dilke, London; Mr. Reginald Harrison, Liverpool; Dr. Wilkes, London; The Secretary of the Society of Arts; Dr. John Curnow, King's College; Dr. B. G. Morison, London; The Secretary of the Society for Relief of Widows and Orphans of Medical Men; Mr. Henry Faulds, Glasgow; Dr. Collingridge, Greenwich; Dr. Robert Boxall, Cranleigh; Dr. W. R. Huggard, London; Mr. Biddle, Kingston-on-Thames; Dr. Arthur E. Pownell, Chorlton; Mr. E. White Wallis, London; Dr. Robert J. Ranston, London; Dr. C. J. White, Snodland, Rochester; Dr. R. Caton, Liverpool; M. de Watteville, London; Mr. F. Pollard, Liverpool; Mr. D'Arcy Power, London; Mr. F. H. Vertue, Southwold; Mr. W. J. Love, Penge; Mr. Shirley F. Murphy, London; Dr. Imlach, Liverpool; Mr. E. L. Freer, Birmingham; Mr. J. Arthur, Wingate; Mr. William H. Battle, London; Mr. W. T. Evans, Greenwich; Dr. Macdonald, Liverpool; Dr. A. Emrys-Jones, Manchester; Mr. T. F. Raven, Broadstairs; Dr. Eade, Norwich; Mr. W. H. Bennett, Londonderry; Mr. F. W. Lowndes, Liverpool; Dr. Hirschberg, Berlin; Mr. Edgar Cruikshank, Peebles; Mr. W. Howells, Scarborough; Dr. A. Haig, Grove Park, Kent; Mr. K. W. Watson, Budleigh Salterton; Mr. P. Best, Louth; Mr. A. Paterson, Glasgow; Mr. Arthur Kempe, Exeter; Mr. George St. George, Lisburn; Mr. A. Barron, Liverpool; Mr. R. Williams, Liverpool; Dr. Sawyer, Birmingham; Our Aberdeen Correspondent; Mr. Chauncy Puzey, Liverpool; Dr. W. Kitto Giddings, Calverley; Mr. A. H. Young, Manchester; Edward Sunderland, Bolton; Our Birmingham Correspondent; Dr. H. A. Böcker, Christiania; Mr. J. C. C. Bodley, London; Dr. Farquharson, M.P., London; Mr. A. MacLean, Leatherhead; Mr. W. Daly Moore, Fallowfield, near Manchester; Mr. Hugh Norris, South Petherton; Mr. T. L. Walford, Reading; Dr. Styrap, Shrewsbury; Dr. F. J. Sandford, Market Drayton; Mr. G. de G. Griffith, London; Dr. Carter, Liverpool; Mr. L. Humphry, Cambridge; Mr. John Spear, London; Dr. Mortimer Granville, London; Mr. F. A. Hallsworth, Atherstone; Mr. H. Nelson Hardy, London; Dr. Fairlie Clarke, Southborough; Mr. W. G. Pedder, London; Dr. E. W. Hope, Liverpool; Dr. C. Brooke Wolseley, Northwich; Our Edinburgh Correspondent; Dr. Broadbent, London; Mr. H. E. Allen, London; Mr. W. H. Tivort, Camberley; Dr. E. Creswell Baber, Brighton; Dr. J. Hamilton Scott, Camberley; Rus; Mr. J. W. Lax, Burslem; Dr. Tripe, London; Dr. A. Creswell Rich, Liverpool; Dr. J. W. Ellis, Liverpool; Dr. Owen, Liverpool; Dr. J. L. Andrew, Moseley, Manchester; Mr. E. White Wallis, London; Dr. Grant Bey, Cairo; Dr. Mackie, Alexandria; Dr. Thin, London; Dr. Steele, London; Mr. Richard Bryden, Collumpton; Mr. Alex Wheeler, Darlington; Mr. W. Dunnett Spanton, Hanley; Mr. J. Vesey Fitzgerald, London; Mr. Oded Lowsley, Reading; Mr. W. D. Jefferson, Ripon; Mr. W. Bain, Henton Chapel, Stockport; Mr. J. A. Daw, London; Mr. H. J. Philpot, London; Dr. T. Carey Barlow, London; Mr. F. Fuller, West Brighton; Mr. S. Benton, London; Mr. A. Sydney Turner, Gloucester; Dr. Herman, London; Mr. Dr. L. Beckingsale, Chiswick; Archimedes, etc.

BOOKS, ETC., RECEIVED.

The Bastilles of England; or, the Lunacy Laws at Work. By Louisa Lowe. Vol. I. London: Crookenden and Co. 1883.

Hints to Househunters and Householders. By Ernest Turner. London: B. T. Batsford. 1883.

The Mineral Waters of Aix les Bains and Marlioz; Practical Considerations on their Action and Application. By Leon Blanc, M.D., Paris. London: J. and A. Churchill. 1883.

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AN ADDRESS
ON
GOOD REMEDIES—OUT OF FASHION.

Delivered at the Annual Meeting of the Metropolitan Counties Branch.

By CHARLES J. HARE, M.D.Cantab., F.R.C.P.,
President of the Metropolitan Counties Branch of the British Medical Association; late Professor of Clinical Medicine in University College, London, and Physician to University College Hospital, etc.

My first duty, which is a duty and a pleasure alike, is to thank you most sincerely for the high honour and distinction you have conferred upon me in electing me President of this most important Branch of the British Medical Association. But while I feel the honour deeply, and know that it is one which might well be coveted by the most distinguished members of our profession—as, in fact, it has already been held by many such—I am quite sensible that the position brings with it deep responsibilities, and that it behoves me to take good heed, not only that the welfare of the Branch suffer no deterioration during my term of office, but that, on the contrary, the ensuing year should be marked by at least the onward progress which has been the characteristic feature of this part of the Association under the guidance of my predecessors.

The sketch which has this afternoon been given you of the work of the past year proves how many and how varied are the subjects which come before, and which are influenced by, this Branch; and though it has been the happiness of our friend here—my predecessor—to conduct not a few of these to a happy termination, some of them are of such a nature that no single year of office can possibly inaugurate and complete them. Great honour be to him for the devotion, as regards the time and labour, which he has given to the duties which a year ago he undertook; to the judiciousness with which he has presided over numerous most important meetings of the Branch; and to the great success with which he has conducted its affairs.

It is no small honour—it must be a source of high gratification—to him, during his tenure of office, to have furthered the progress of medical reform, to have established two new Districts in connection with our Branch, and, above all, to have presided at the inaugural meeting establishing the system of the collective investigation of disease—a magnificent success, the influence of which will go on still extending, and which will never be forgotten by those who heard or have since read the masterly and telling addresses on that occasion—I ought rather to call them orations—of Paget, of Gull, and of our most esteemed Vice-President, Professor Humphry.

But a position of this kind induces—nay, compels—me to pause and consider. This is, possibly enough, the last presidential chair I shall be called upon to fill, and my mind very naturally reverts to the time when, then a very young man, and, indeed, too young for the honour, the kindness (and I suppose the wish to encourage me) of the members of the Harveian Society made me their president. This was so long ago as the year 1847, and the space of time thus bridged over amounts to fully more than five-and-thirty years. At that time, Sir Henry Holland, and Chambers, and Bright, and Williams, and Latham, and Addison, and Graves, and Stokes, were in the full career of medical practice; the classical lectures of Watson were the text-book—and a glorious one it was—on medicine; and at that time the clinical lectures of Todd, which were destined to produce so great a modification in treatment, were a thing of the future. Brodie, and Fergusson, and Liston, were amongst those who divided between them the surgical honours of the metropolis.

It is excusable, perhaps, if one loves to recall the names and the memories of those to whom one was indebted for one's knowledge in the earlier periods of professional life; and some of these names, and those of Quain, and Sharpey, and Graham and others, involuntarily rise up on an occasion of this kind. But as there were brave workers then, so there have been ever since, and every branch of our profession has made during the interval enormous strides forwards, enormous advances, of which the gains have been especially in regard to definite and well-based knowledge—to positiveness; not that vague theories have not cropped up to live for awhile and then to die, as such theories always do, sooner or later; but still the solid matter-of-fact additions to our knowledge have never been excelled, and have scarcely been equalled, in any similar period of bygone times.

All this is fully and frankly admitted, and I bow to and reverence the skill, and talent, and industry, and patient labour which have produced results so brilliant. But, unfortunately, there is no unmixed good; and the very exhaustive way in which some diseases have been studied, and the widespread manifestations which they have been shown to have, lurking under and explaining symptoms and conditions with which they were before never suspected to be connected—all these circumstances have led men to attribute thoughtlessly to such causes almost every ache and pain and symptom with which they meet. You will, of course, associate with the most learned investigations into gout and syphilis the names of two of your former presidents; and their admirable works on these subjects have not only made the whole history and all the conditions of these diseases the common property of all medical men, but have so impressed men's minds—and I think their imaginations also—that they see these diseases everywhere, and loosely attribute to one or the other almost every pain—certainly every pain not otherwise easily explained—with which they meet. If a diseased condition be relieved or cured by iodide of potassium or by mercury, such persons can never be persuaded, whatever the proof to the contrary, that syphilis is not at the bottom of the affection; and if you have pain or ache now-a-days, or an eruption, or bronchitis, or anything else whatever the matter with you, it is, with such people, beyond doubt "gouty," the gout being, according to circumstances, latent or irregular, or metastatic, or Protean, or something else, but at any rate the patient is "gouty." Gentlemen, at present "gouty" is a fashionable word, the use of which at least sounds well and saves trouble, even if its careless use not unfrequently throws erroneous light upon a set of symptoms, and upon many a case of disease.

But sometimes with us not only do things come into, but they also go out of fashion; and, remembering as I do the days of yore, I think that, deluged as we now are with so-called new remedies, such as hydrastin, iridin, sanguinarin, baptistin, glonoin, gelsemin, euonymin, mucuna, muscarin, the quack chlorodyne (of which I never in my life prescribed a single dose), eucalyptin, thymol, ingluvin, asclepedin, and a host of others, the advertisements of which fill the pages of our journals, I think that some valuable plans of treatment have been allowed to fall into disuse, and that there are such things as "good remedies out of fashion." May I tell you my views on some of these?

Some whom I address will, without doubt, say to themselves, especially as regards certain points of practice which I urge, "Why, under such circumstances, that is exactly what I should do myself, and what has always been my practice." To each of those, I would say: "My brother, I am delighted and thankful to have my views confirmed by your experience; help me to spread more widely the principles and the practice which I believe to be fraught with good, and may we long be workers together in the same harvest-field." But I know too well that I am addressing some, especially the younger members of the profession, who will look upon these things as some strange and new doctrine, or as prejudices clinging to me from my earlier days, or as antiquated customs of which the progress of modern science has shown the futility or the wrongness. To such I would say, "My brother, take my words only as suggestions; weigh them impartially, and think these matters over from a different standpoint from that from which you have been accustomed to view them. If, then, you do not see as I do, you will, I know, look kindly on my convictions, and believe that, like yourself, I desire the welfare of those placed under our care. But if you should concur in my views, you will find yourself armed, I believe, with weapons which, if they have thus far lain by idle, will be found, when drawn from the scabbard, to be made of true and trusty steel."

Let me premise, however, with reference to fluctuations in plans of treatment and of diet, that the period to which I have alluded has seen the rise and the subsidence of the wild mania for giving alcohol in some form or other, in almost every kind and in almost every case of disease, and is now witnessing the rising into favour of the more rational plan of giving nourishment extensively in the mild and bland, and usually easily digested, form in which Nature provides it—milk.

I well remember the time, twenty to twenty-five years ago, when alcohol-giving was so rampant, that it was difficult to see a patient who had been a few hours in the hospital before the time of one's visit, who had not already been put, almost as a matter

of course, by the physicians or clinical assistant, on three or four ounces of brandy, or on double that amount of wine; and because I would not give way to that alcohol-craze, and ventured to show that many serious diseases might be cured with the administration of little or no alcohol, I was considered (I well remember) the most unorthodox of teachers, if not something worse than that. I have always held, and still hold as firmly as anyone does, that alcoholic stimulants are in some cases most valuable remedies, and I would not practise my profession if I might not use them when and where I deem them needful. But I always preached against the foolish, and I would almost say wicked, use of alcohol which was common some years ago; and, over and over again, I have said, in my clinical lectures at that time, that the students I addressed would live to see the day, even if I did not, when the pendulum of opinion would swing in the opposite direction, and when alcohol would be decried almost as much as it was then being overpraised. It is not always, gentlemen, that a prophet lives to see so completely the fulfilment of his own sayings when they foretell a revolution so complete. May a calm judgment guide herein our noble profession, and, while we give up the routine and indiscriminate use of the remedy, may we better know how and when to employ it for the benefit of those whose lives are in our hands!

It is within the knowledge of all of us, then, that a most marked change has, comparatively recently, taken place as regards this most important question of alcohol-giving, and in the belief as to its necessity: our every-day experience, the tone of medical debates, the common current of conversation, all bear evidence in the same direction; but it is almost impossible to treat evidence of this kind, or even the results of private practice, statistically, or to reduce them to a clear tabular form; but it occurred to me that the hospitals might give more definite information. I applied, therefore, to the secretaries of the large metropolitan clinical hospitals, and have received, from all excepting two, replies containing most interesting, important, and valuable facts, to select and extract which from their books must, I am sure, have cost these gentlemen no small amount of time and trouble. I thank them most sincerely for their courtesy, and have pleasure in thus publically expressing my obligations to them.

I trust that the tables which I have thus been enabled to construct will interest you. They place, I think, in a more trenchant and striking light than anything else with which I am acquainted, the rise and fall of excessive alcohol-giving; and it is worthy of remark, as shewing the influence and (may I say?) the contagiousness of custom, how very uniform in point of time this rise and fall has been in almost all the hospitals. You must not consider, however, even these tables as giving more than an approximative idea as to the amount of alcoholic drinks consumed by the hospital-patients, because it is impossible to eliminate from the totals the amount taken by the servants, nurses, and others; however, in some cases the wine and spirits are separately named, and it is reasonable to suppose that the working staff would be allowed but very little of these, and that therefore the amount stated represents very closely that used by the patients alone.

You will see, therefore, how rapid was the increase in the use of alcohol between the years 1852 and 1862, and, indeed, in many cases up to the year 1872; and you cannot fail to trace therein the great influence of the teaching and writings of Dr. Todd, and especially of his views on the "Treatment of Acute Diseases." You see also that even where there was some diminution in the use of alcohol (I refer for the reason above given chiefly to the "wine and spirits" column of Table I) between the years 1862 and 1872, the difference was not, generally speaking, large; but when the wrongness and the evils of this excessive use of stimulants began to force themselves upon men's minds, and, thanks to this and to the careful, prudent, and honest energy of Parkes, a change of practice occurred, the consumption of alcohol diminished so much as to show in 1882 a most remarkable reduction in the cost of wine and spirits in all the hospitals (except St. George's) from which I have received returns. Thus (without making corrections for the somewhat increasing number of beds), the cost of wine and spirits consumed every tenth year, from 1852 to 1882, at Guy's, was £496, £1,231, £1,446, and £953; at Middlesex, £215, £550, £413, and £353; at Westminster, £208, £432, £367, and £137.

On the other hand, the use of milk has most rapidly increased in every hospital, without exception, and has replaced—I believe, greatly to the advantage of the patients—the alcohol in the treatment of disease. The quantity consumed in 1852 at St. Bartholomew's cost £684, and in 1882, £2,012; at Guy's, £236 and £1,488 respectively; at the London Hospital, £426 and £2,427; and so on.

It is not long ago that, in a very urgent case of bronchitis, I advised the administration of an EMETIC; when the gentleman whom I had been called to meet in consultation said, "Why, I never gave an emetic to an adult in my life." In former times, it was not unusual, on the contrary, to commence the treatment of many diseases with the administration of a dose to procure vomiting; and although the remedy might then be given sometimes indiscriminately and according to routine, only those who have seen the effects of emetics, properly and judiciously given, can conceive the beneficial effects they sometimes produce. In the early stage of an attack of croup, it was by no means unusual to give an emetic of tartarised antimony or of ipecacuanha; and it is in accordance with the recorded experience of some of the best authorities and most practical men, and quite consonant with my own experience too, that symptoms which presented the most certain augury of a severe attack were by these means cut short, the hoarse voice resumed its natural character, and the feverish symptoms were in a few hours relieved. I know quite well that a great fear is entertained by some as to the depressing effects of emetics; but the fear is theoretical, and not practical, and those who have had most experience in the administration of them best know how groundless the fear is. In diphtheria, too, I have seen the false membranes which are out of the reach of local remedies, and which the patients cough and cough in vain, and utterly exhaust themselves to get quit of, readily brought up by the action of vomiting, to the immense relief of the sufferer.

In suffocative bronchitis, the effect of emetics is sometimes magical, and by their administration in such cases not only is immense relief given, but I verily believe—I am certain—that lives are saved. You are called to a patient who has been ill a few days, with increasing dyspnœa; she is sitting up in bed (I draw from nature), for to lie down is impossible; she is restless, and tossing about; the lips, and indeed the whole face, blue; the eyes watery and staring; the pulse quick and small; the cough constant; the expectoration semi-transparent and tenacious; over every square inch of the chest, front and back, from apex to base, you find abundance of rhonchi; moist, sonorous and sibilant ones in the upper part of the lungs, and muco-crepitant or mucous *râles* towards the bases. Ammonia and stimulants, right and good in their way perhaps, in such a case are too slow in their action; the patient is, in fact, more or less slowly, more or less rapidly suffocating. An emetic of twenty-two grains of ipecacuanha in an ounce of water is given; in ten or fifteen minutes, the patient vomits and brings up a huge quantity of that tenacious mucus, and the whole aspect of the case is altered; the distressed countenance is relieved; the breathing is at once quieter; and the patient is able for the first time for the past twenty-four hours to lie moderately low in bed, and to get some sweet refreshing sleep. The patient is, in fact, rescued from the extremest peril, and in this case, and in many similar ones too, I believe, from otherwise most certain death. Of course, in such cases the emetic is not given for its effect on the stomach, but for its collateral effect in mechanically clearing out the enormous amount of secretion which accumulates in the bronchial tubes, and which the patient is otherwise quite incapable of getting quit of; and thus the half-choking, almost asphyxiated, condition is changed for one of comparative comfort, and time is gained for the action of other appropriate remedies. No doubt the secretion may, and often will, accumulate again; and I have not hesitated again in bad cases to repeat the same good remedy; but it is a fact, and a very positive one too, that, quite contrary to what those who have had no experience in the plan suppose, the system rallies instead of being more depressed under the action of the remedy; and, in the language of one who had had thirty years' experience in the beneficial effects of ipecacuanha in emetic doses, it is, so administered, "a powerful restorative in some cases of exhaustion and sinking." (Higginbottom, *Lancet*, 1845, June.)

My object is not to write an essay on these remedies, nor even to name all the cases in which they may be useful; such as where certain poisons have been taken, or where it is certain that a mass of hard and non-digested food gives rise to intense cramp and horrible pain in the stomach. In such cases, I have no doubt any one would use so obvious a remedy, notwithstanding the statement of my friend above alluded to, that he had never in his life given an emetic to an adult. But I would wish to mention the great use of which they are in the commencement of the treatment of many (perhaps most) cases of delirium tremens: for they often themselves quieten the patient, and even produce, after their immediate effect, sleep; while I firmly believe they materially curtail the duration of the disease, and render the effect of the other remedies more speedy and potent. It is consonant with experience and reason, that the absorption of remedies from a well cleaned-out stomach should be more rapid and

TABLE I.—*Metropolitan Clinical Hospitals: Cost of Alcoholic Drinks and Milk Consumed.*

Year.	Bartholomew's. Beds.	Beer.	Wine and Spirits.	Total.	Milk.	Guy's. Beds.	Beer.	Wine and Spirits.	Total.	Milk.	London. In-patients.	Beer.	Wine and Spirits.	Total.	Milk.	Middlesex. Beds.	Beer.	Wine and Spirits.	Total.	Milk.	St. George's. Beds.	Beer.	Wine and Spirits.	Total.	Milk.	St. Mary's. Beds.	Beer.	Wine and Spirits.	Total.	Milk.	St. Thomas's. Beds.	Beer.	Wine and Spirits.	Total.	Milk.	Univ. College. Beds.	Beer.	Wine and Spirits.	Total.	Milk.	Westminster. Beds.	Beer.	Wine and Spirits.	Total.	Milk.
		£	£	£	£ s. d.		£	£	£	£			£	£	£		£	£	£	£		£	£	£	£		£	£	£	£		£	£	£	£		£	£	£	£		£	£	£	£
1832	500	278	234	513	...	400	1039	...	...	228	2511	...	...	...	406	...	76	235	311	269	200	372	337	709	301	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	87	99	48	147	126
1842	550	262	335	598	759 11 0	410	811	...	...	138	3300	...	...	...	411	...	210	172	382	327	317	381	200	581	337	...	...	...	...	...	...	...	...	...	(1835) 130	148	64	213	151	136	148	94	242	90
1852	600	432	496	929	684 16 7	430	841	...	...	236	1246	...	...	...	426	...	251	215	466	335	325	576	210	786	269	50	165	130	295	162	...	...	380	...	531	140	163	103	266	103	140	160	208	368	110
1862	650	706	1231	1938	966 19 10	494	827	889	1716	459	4164	...	...	...	496	310	341	550	891	319	350	617	557	1174	424	150	471	335	806	364	...	...	567	...	590	140	243	305	548	325	160	207	432	639	169
1872	670	752	1446	2198	1214 5 4	556	871	752	1623	841	5392	...	...	...	1370	310	512	413	925	510	353	594	481	1076	686	165	364	609	973	298	...	...	845	...	982	160	245	390	636	388	147	176	367	543	300
1882	670	385	953	1339	2012 5 8	453	320	447	767	1188	7171	...	...	...	2427	310	322	353	675	1064	351	473	608	1081	1073	200	228	329	557	716	...	...	756	...	1566	203	187	277	464	706	165	70	137	207	736
																										This Hospital was founded in 1851.									This Hospital was not opened until November 1st, 1834.									

Remarks.

Charing Cross Hospital.—No return. *King's College Hospital.*—As Dr. Todd, whose writings had so much influence in augmenting the employment of alcohol in disease, was physician to this hospital, it would have been very interesting to obtain the statistics of alcohol in use in it. The Secretary, however, writes, "I much regret I have not the information you desire."

For the sake of greater clearness, the cost in pounds alone is given, though the reports sent to me usually gave the shillings and pence also; these being considered in making the totals, will account for two or three apparent discrepancies.

TABLE II.—*Leeches used in the Metropolitan Clinical Hospitals.*

Year.	Bartholomew's. Beds, No. of	Leeches. Number	Leeches. Cost.	Guy's. Beds, No. of	Leeches. Number	Leeches. Cost	London. In-patients, No. of	Leeches. Number	Leeches. Cost	Middlesex. Beds, No. of	Leeches. Number	Leeches. Cost	St. George's. Beds, No. of	Leeches. Number	Leeches. Cost	St. Mary's. Beds, No. of	Leeches. Number	Leeches. Cost.	St. Thomas's. Beds, No. of	Leeches. Number	Leeches. Cost	Univ. College. Beds, No. of	Leeches. Number	Leeches. Cost	Westminster. Beds, No. of	Leeches. Number	Leeches. Cost	Remarks.
			£ s. d.			£ s. d.			£ s. d.			£ s. d.			£ s. d.			£ s. d.			£ s. d.			£ s. d.			£ s. d.	
1832	500	97,300	237 17 0	400	...	...	2511	...	175 12 0	...	...	...	200	21,800	112 10 0	...	...	...	...	...	...	...	...	...	87	...	38 12 0	*Charing Cross Hospital.*—No return.
1842	550	18,100	184 13 6	410	...	...	3300	(1839)	495 12 0	...	...	...	317	19,600	141 10 0	...	...	...	...	21,000	111 10 0	140	...	27 12 0	136	(1838)	95 2 3	*King's College Hospital.*—The Secretary writes: "I am quite unable to give you any statistics about the quantity of leeches used here; but it is the case that within about the last year, three times as many have been used as in the previous year."
1852	600	27,300	139 19 6	430	...	27 16 9	4246	...	34 14 0	...	...	37 14 6	325	4,050	38 11 8	50	...	26 10 0	...	12,000	62 10 0	140	8,000	26 9 0	140	...	25 10 0	
1862	650	6,200	17 2 0	494	...	5 18 0	4164	...	26 3 0	310	...	6 4 6	350	1,360	5 4 0	150	...	17 16 10	...	2,550	10 4 0	140	2,000	9 18 0	160	...	10 6 0	
1872	670	1,000	3 16 0	556	...	1 12 0	5392	...	5 10 6	310	...	2 4 6	353	500	2 14 0	165	...	6 11 8	...	450	1 16 0	160	300	1 8 0	147	...	2 11 0	
1882	670	1,700	5 19 0	453	...	2 9 0	7171	...	7 12 0	310	...	2 17 0	351	754	2 13 6	200	...	2 9 6	...	800	3 4 0	203	400	1 17 0	165	...	0 13 3	
																This Hospital was not opened until after 1842.						This Hospital was not opened until 1834.						

efficient than when the stomach is full of half-digested food, and the coats covered with a morbid tenacious mucus; and, as a matter of fact, I know that, when opiates given largely have failed to produce the longed-for sleep, a moderate dose has had the desired effect after the free action of an emetic.

There is one form of stomach-affection or derangement, accompanied with much nausea and frequent vomiting, which is relieved, or rather cured, by the action of an emetic, with a rapidity and a certainty which attends no other remedy, or remedies, or plan of treatment whatsoever. A lady, aged 34, moderately stout, not specially unhealthy-looking, but with her complexion far from clear, had been ailing with various symptoms of indigestion for a couple of months; and for that time had been under the care of two medical men. She had considerable pains, of dull, heavy character, both at the epigastrium and between the shoulders, and these had rarely left her during her illness; but the discomfort was notably augmented after food of any kind. The eructations preceding the sickness were often very abundant. She had scarcely any appetite whatever. She had much and constantly recurring nausea, and, for nearly a month, had *not passed one single day without vomiting*. The

sickness often came on suddenly, sometimes after food, but very frequently when no food had been taken. She always brought up more or less of a ropy mucus, and very frequently, especially towards the end of the retching, the ejecta were very acid; often the quantity brought up was very small, though the retching might be long-continued. There had been no hæmatemesis, and the vomited matter had not presented any sarcinous characters. I wish particularly to observe, that both the nausea and her headache, which was one of her very distressing symptoms, were always relieved for a time by the vomiting. This "sick headache," though affecting the whole head, was almost always most acute in one or the other temple, where it occupied the space of a half-crown or crown-piece, and was accompanied by a distressing throbbing of the same part. The various remedies she had taken had entirely failed to influence her condition for good, and, so far as her chief symptoms at least were concerned, had been entirely ineffectual. Not to trouble you with a further detail of symptoms, I may add that, on further examination, I satisfied myself that there was no ulceration of the stomach, nor any other organic disease. The renal functions were practically right; there was no extraneous cause to account for the persistent sickness and the other accompanying symptoms. In fact, this fell into the category of cases of which I have seen scores, and which are, doubtless, perfectly familiar to every one here present. Well, under these circumstances, I ventured with confidence to promise her that she should be sick only once more—namely, that evening; and that, on that occasion, the sickness would be of my producing. Accordingly, I prescribed for her an emetic of twenty-two grains of ipecacuanha; and directed that she should take nothing whatever after the draught until she had been at least once thoroughly sick. She was then to drink a tumblerful or two of warm water, which would also before long be brought up, and would thus wash out pretty completely the stomach. An hour after that, food, in the form of boiled milk, might be taken. All this was done. A large amount of the ropy mucus and intensely acid secretion, to which I have already referred, was vomited; and, though she remained under my observation for about three weeks, she had not one single return of the vomiting. The pain between the shoulders, and that in the head, were removed; and she was practically cured by that single dose.

Now, in these cases, the sickness, I believe, depends upon the stomach secreting a morbid matter, which, on the one hand, causes fermentation of whatever food is put into it; and, on the other, by its irritation of the sympathetic system, causes the reflex headache—paradoxically speaking, the patients may be said not to have a headache, but a "stomach-ache in the head." Nature, then, tries to get rid of the irritating secretion, and so causes the patient to vomit. The action is, however, only partially effective; but, for the time, the patient gets notable relief from all the symptoms, only, however, that they may recur again when more of the ferment is secreted by the stomach, and when fresh food is taken. Now, the emetic does thoroughly and efficiently what Nature for, perhaps, a month past, has been trying to effect; its action is mainly, in the curative point of view, mechanical; the stomach is not only emptied of the morbid secretions it contains, but the gastric follicles are thoroughly squeezed out, and, no more ferment remaining, no more sickness occurs. I have cured a vast number of cases (for, as I have said, they are very common) in this way; the plan is reasonable, and, in right cases, it is very sure. It is not an instance of *similia similibus curantur*, as might at first glance appear to be the case, but exactly the reverse; if we acted on that principle, we should give remedies to increase the morbid ferment; but in this we give a remedy which removes the cause, and forthwith the effect ceases. The yeast is thoroughly cleared out of the vat, and new wort being put into it, no longer has the fermentative process set up.

If there be one single remedy which Nature or art has given us more thoroughly, more widely, more universally useful than others, it is OPIUM; and I could well fill the time allotted to me by recalling to your memory cases in which it was formerly much more used than now, and modes of its administration which are no longer in fashion, yet which were, withal, good. Dover's powder, comparatively rarely prescribed at present, was at one time almost a popular remedy; and a diaphoretic and sedative dose of it (especially, in some cases, combined with James's powder), taken at bedtime, has, times without end, cut short, in their early stages, attacks of catarrh, which, with all their disagreeables, are nowadays allowed to run their course.

There is in the world a great deal of what I am accustomed to call "needless, useless coughing." Where secretion takes place into the bronchial tubes, it must sooner or later be brought up; and for this purpose some "necessary" coughing must take place, or the patient will choke. But, both in organic diseases and in slight inflammatory or irritative affections of the air-passages, there is often an immense amount of useless coughing—useless, that is, as regards bringing up any laryngeal or bronchial secretion, and far worse than useless, because it wears out the patient, prevents sleep, and, moreover, increases the condition which gives rise to it, inasmuch as it lets the affected parts have no rest or peace. Now, the effects of opium are both local and general; and if in mucilage of acacia, or tragacanth, or in glycerine, or with a thick solution of confectio rosæ caninæ, or honey, you give frequently from the one-fortieth to the one-twentieth of a grain of morphia, you not only give a marvellous amount of peace and comfort to your patient, but, where it is remediable, you tend also to cure the disease.[1] The coughing in pertussis may be similarly relieved.

Where there is lividity of the face, blueness of the lips, etc., from bronchitis, extreme care must be had in the use of opium; or it had, perhaps, in most such cases, better not be administered; but there is a form of bronchitis, characterised by special symptoms, into which I cannot now enter, but in which, though the patient has no difficulty in bringing it up, the secretion is very abundant, and produces constant coughing—in these cases, opium, owing to its power of diminishing secretion and allaying the cough, has a very positive and decidedly curative power. And, only to mention one more instance where the use of opium is neglected, I would allude to those terrible cases of cardiac dyspnœa, where rest and sleep for more than a few minutes together are impossible, and where the sufferings of the patient, in consequence, are far more intense than I can attempt to describe. I have seen patients allowed to go on day after day—and, worse still, night after night—in this wretched condition, and without alleviation, when a little opium would, without any danger, have relieved the intense distress, and have given the longed-for rest.

With respect to PURGATIVES, there has not been that extreme variation in practice which has obtained with regard to some other remedies; but I think, notwithstanding, that the fashion of late years has been to neglect them far too much, although in one form or another they are, perhaps, the most universally applicable, and certainly amongst the most potent and most useful remedies we possess. The abandonment of their employment is excused, one hears again and again, owing to the fear of their producing "debility."

Gentlemen, I believe that few words in the English language have produced so much harm as this word debility. "Debility" seems to be the *bête noire* of the present medical world. Men speak of it as it were an entity, instead of its being, as in fact it is, an effect, a result; and it was often to counteract this state that, a few years ago, stimulants were so wildly given. It is disease which produces debility, and if these purgatives remove the morbid state, they often prove the most strength-giving as well as the most health-giving of remedies. "Talk about champagne," said Byron, in one of his letters, "there is nothing which cheers your spirits up like a dose of Epsom salts." And, in a sense, he was right. I would say, "Oh, that men did but know the virtues which reside in three drachms of Epsom salts!" Seriously, however, sulphate of magnesia is one of the best forms of saline aperients, and the old-fashioned stock-medicine of the surgery and of hospitals, the Mistura alba, has more cures due to it than will ever be achieved by a dozen of the new-fashioned remedies which have lately inundated the advertising pages of our journals. I say that Epsom salts have gone out of vogue, but a tacit compliment is notwithstanding constantly being paid to them, for people still find out the efficacy of the solutions which contain them, and they take our old friend in a more expensive form under the names of Friedrichshall, Hunyadi János, and Æsculap mineral waters.

I am quite aware of the experiments by which it has been proven, or said to have been proven, that mercurials are not cholagogues. Well, I cannot discuss that matter here; but this I know, that a good dose of calomel or blue pill given in the olden fashion, and followed by some sulphate of magnesia or other good saline purgative in the morning, will bring away copious motions of yellow-green or black matter, such as you do not get otherwise, and one feels, after that, light, and buoyant, and bright, and with a head clear for work, a state such as one has not felt in, perhaps, for weeks before, and the Melancholy has been removed.

[1] A favourite formula of mine, varied according to circumstances, is liq. morph. acetatis ℥iij; acidi nitrici dil. ℥iss; oxymellis scillæ ℥vj; mucil. acaciæ ʒiiss; glycerini ℥ij; syr. rhœados ʒij; aq. cinnam. (vel rosæ) ad ʒvj. M. To take one or two teaspoonfuls, five, six, or seven times in the twenty-four hours.

Another good old-fashioned purgative, but out of fashion now, is cream of tartar, one of the best of hydragogues, especially when combined with two or three grains of resin of jalap, and it is a remedy, too (when given in small doses and well diluted), under the name of the imperial drink, scarcely surpassed by any as a diuretic.

I regret not being able to refer to sundry other remedies of this class, of which I have memoranda before me; but as derangements of the digestive organs, in their various forms, constitute a large proportion of the ailments about which we are consulted in our daily practice, and are the source and root of a multitude of conditions and affections not at first sight associated with them, the field for the proper use of purgatives is extremely wide; and I think it was not wise of the compilers of the present *Pharmacopœia* not to insert in it Abernethy's celebrated Mistura Gentianæ Composita, which existed in the editions before 1864, a warm aperient mixture, which contained one-third part of senna, most useful, whether given alone or as the vehicle for other remedies, and which I trust will again appear when the new edition of the *Pharmacopœia*, now about to be commenced, is published.

Such fluctuations and such changes take place in opinion and in practice, in beliefs and in actions, that it almost seems as if the result of the experience of ages, instead of being engraven on the rocks, were written on the sands, and that the wave of fashion, sweeping over these, at once obliterates the inscriptions which ought to have been indelible. And so at one time the laws of our country are made absolutely cruel in their harshness, while at another the sympathy of justice seems rather to protect the transgressors than to defend and justify the injured; and in things connected with religion the oscillations vary by turns from one extreme to the other. And changes scarcely less trenchant, scarcely less astounding, mark from time to time the course of our own profession. Perhaps fashion, perhaps custom, may have had to do somewhat with the practice of former times as well as of the present; but I cannot believe, I do not believe, that the united testimony of the sages of our profession, for more than 2,000 years, bore witness to one continuous error, to a delusion and a lie. If there be one thing more clearly than another told by the consensus of their experience, it is that, in many cases, bleeding in one form or another has, more than any other means whatever, the effect of assuaging pain, of modifying the course of diseases and saving life. And all this I steadfastly believe.

The period of time which I have chosen for my retrospect—the last thirty-five years—pretty nearly bridges over the period when the ABSTRACTION OF BLOOD was in vogue and doubtless carried to an excess, to the present when the opposite extreme has been reached, and bleeding in all its forms, has (alas! for the welfare of patients) been almost banished from our practice. Much has been said, by way of explaining or extenuating the change, about the type of disease, or the human constitution having undergone an alteration; or about our better physiological knowledge of recent times having taught us to look with wiser and better views upon the effects of abstraction of blood. I cannot enter here into the discussion of these questions; suffice it to say that clear, certain demonstration of the former is still wanting, and that, in my opinion, the definite teaching of both physiology and pathology demonstrate most unmistakably the reasonableness, in certain cases, of withdrawing blood from parts turgid from inflammation or distended from congestion. I much fear that the result is rather due to an unreasoning reaction from the over-bleeding of former times, and to the weak tendency of the human mind to run in grooves, and to the weaker tendency still of people to do as others do, and to follow what has become the fashion, without halting to ask themselves seriously whether a thing be right or reasonable, just or true.

It is impossible to enter statistically into the proof of the decrease of blood-letting from the arm; but every medical man who has practised for the last thirty or forty years, can tell that formerly it was a practice constantly used, and every one knows that now it is one of the rarest of remedies. Formerly, there was no hospital without its cupper, and he came every day to carry out the orders left by the physician or surgeon during his daily visits, and I doubt if now there be a cupper attached to any one of the London hospitals; while the name is now no more found in the *Post Office Directory*, than is that of the Dodo or the Ichthyosaurus.

With respect to blood-abstraction by leeches, it is much more possible to get at definite knowledge; and, by the courtesy of the secretaries of the great London hospitals, at all of which I have made inquiries, I have got some very curious and interesting information, which I have tabulated. (See Table II.) Taking round numbers in the several tenth years, from 1842 to 1882, the amount expended in leeches at St. George's was, £141, £38, £5, £2 14s., and £2 13s. 6d.; at University College, £27, £26, £10, £1 8s., and £1 17s.; at Westminster, £35, £25, £10, £2 11s., and 13s. 6d.; while at the London Hospital, in 1839, the leeches cost no less than £495, with a sudden drop in 1842 to £180, and in the successive tenth years, £34, £26, £5 10s., and £7 12s. The price of leeches of course varied, but roughly speaking they may be considered to have cost the hospitals about 1½d. each, so that the number used may be approximately calculated. As regards the hospitals I have, however, been kindly informed in some cases as to the actual number of leeches used. At St. George's they reached 19,600 in 1842, 4,050 in 1852, and 1,360, 500, and last year 754; while at University College Hospital they were 8,000 in 1852, then 2,000, 300 and 400 in 1882. And the returns with which I have been favoured by leech importers and by the leading chemists of London, all tell the same tale; for instance, a most distinguished firm tells me that the numbers sold by them every tenth year, from 1814 to 1864, were 1,023, 2,830, 2,982, 2,998, 1,430, and 214 in 1864; since then they have not thought it worth while to keep an account of their leech-sale, and they believe that last year they only sold about fifty. And all this, remember, notwithstanding that the population of London has enormously augmented, that the beds in the hospitals have been very largely increased in number, and that the general business of the chemist has greatly extended.

I beg you will not for one moment think that I advocate a recurrence to the former almost indiscriminate use of bleeding, or of any of the remedies which I am bringing under your notice. I think, indeed, that it is mainly their former extravagant and injudicious employment which brought them into disrepute. But the abuse of a thing is no argument against its use. It is but a truism to state that in order to employ any remedy rightly, a clear and accurate diagnosis as to the true nature and pathology of the case in which it is to be employed must first be made. This is the only sure foundation of any treatment whatever, and nothing can compensate for the want of knowledge, of diagnostic power, and judiciousness in the selection of remedies, without being influenced by the caprice, the custom, and the fashion of the period; and if we bring these qualities to bear on our cases, we shall, if I mistake not, look with more favour than of late upon blood-letting in some of its forms, and find it to be one of our most potent means of combating some of the most serious conditions which we meet with in practice—a remedy of vast good when rightly used, and one to neglect which entirely is, I hold, to deprive your patients in certain cases of the only chance of recovery.

There is no doubt whatever that, in former times, blood-letting being used too indiscriminately, harm was sometimes done. But the harmful effect of even repeated bleedings was much less than, judging the matter theoretically, could have been expected, or than, with the prejudices of the present day against the system, will be readily believed. In fact, numberless experiments, so to speak, were constantly being tried in order to show (or, at any rate, which *did* show) at least the immunity with which repeated bloodlettings could be borne. Persons were in the habit, especially in some parts of the country, of being bled year after year to considerable amounts; and not only were no injurious effects observable, but the people (and, in such matters, their feelings count at least for something) declared that they felt better, were stronger, and worked better after the blood-lettings than before them. I think, therefore, we ought to pause before rushing to the conclusion that the disuse of bleeding in its various forms has been the result of philosophically observed and well ascertained proofs of its injuriousness. I fear we must attribute the change of practice to causes far less creditable—to that oscillation from one extreme to the other in things medical, as well as in other things, to which I have a moment ago referred. Individual examples almost always produce a more definite and trenchant impression than do general statements; and I beg, therefore, to give you an illustration of what I am saying, which will, I am certain, interest you. As we are all friends here, let me introduce to you, gentlemen,—at least, to those of you who have not already the pleasure of his personal acquaintance—my good friend Mr. R. H., who has done me the honour of coming to hear what I have to say to-day. I am permitted to tell you that he has turned his threescore years and ten, and you see what a fine, handsome, and hale specimen of humanity he is. He is a good example, if not of the judiciousness of former practice, at any rate of the endurance of human beings under extensive and repeated bleedings, and (I need not say) of the survival of the fittest. After violent exertion in the early morning, one day in the summer of 1829, he had a fit, and fell suddenly off his chair while at breakfast, exhibiting slight

spasmodic action of the muscles during the day; for this he was that day bled three times (that is, the bandages were removed), and twenty-four leeches were applied; on the next day (Sunday) he was bled twice; on the Monday twice; on Tuesday once, with the addition of twelve leeches; and on the Thursday once. Soon after his recovery, he was sent to his home in the country, where, on September 18th, he was bled to thirty ounces; on the 19th, he had another bleeding and twelve leeches; and the bloodletting was repeated on the 20th and 21st. Thus he was bled nine times, and had thirty-six leeches applied within six days; then, a short time afterwards, he had four bleedings on four consecutive days, and twelve leeches. A month subsequently (in the October) he was sent down to the house of a surgeon in Essex, and there, in three successive days, was bled altogether four times and had twelve leeches. In March of the following year, 1830, he went to Edinburgh, and in the month of August he was again attacked under somewhat similar circumstances, with very similar symptoms, and moreover with absolutely similar treatment; for on the 30th he was bled twice, and once daily on each of the six following days; and, adds our friend, "during that year I was bled occasionally, but do not think I have been bled once since the commencement of 1831." Twenty-five bleedings (without counting the "occasional" ones subsequently, or reckoning the four dozen leeches) in the short period I have named, testify to a wonderful promptness and "activity" of practice; and, whatever we may think of the treatment itself, the fact that our friend has since remained strong, vigorous, and active, has enjoyed sports, and has gone through a long life of the fatigues of general practice—these things, I say, enforce what I stated a few moments ago, that bloodletting does not necessarily, even when used to extreme amounts, produce the "weakness," the "debility," or the "prostration" attributed to it without evidence by the timid do-nothing views of the present day. I neither counsel, nor defend, nor approve of such wholesale blood-letting as that to which I have referred; but I earnestly beg you to take to heart the lesson which it helps to teach, and to see that the loss of blood does not of necessity produce injury, but may, as I am certain it does, in right cases do immense good.

The names given to diseases convey, unfortunately, but a very small amount of information relative to their precise character, their gravity, and the treatment best suited to them; and in pneumonia, for example, we have a disease which, according to its variety, the constitution of the patient, the stage at which we see it and its complications, may require most different, and apparently opposite, modes of treatment. But in the strong plethoric individual, where the attack comes on suddenly, where the breathing is intensely oppressed, the circulation greatly embarrassed, the pulse hard and full, I believe that a bleeding in the early stage is of high value. In some cases, it appears to diminish the duration of the attack, and without a shadow of doubt it gives immense relief to the patient, whose breathing is thereby rendered comparatively free, the pulse becomes greater and softer, and the pyrexia is diminished.

In very acute pleurisy, too, when occurring in similar subjects, the abstraction of blood is often speedily followed by immense relief to the dyspnœa, and to the agonising pain; and I have seen such relief occur, accompanied with the most grateful expressions from the patient, while yet the blood was flowing from the vein.

In these cases the abstraction of blood is founded, I believe, on true physiological principles, and it is often highly useful. But there is another class of cases in which the right heart is engorged with blood, and in which the only hope of rescuing the patient from death is by bleeding. A man of middle age (I again draw from nature) has considerable chronic bronchitis, with some congestion of the lungs, and, like many other unwise persons, he goes to a southern watering place instead of remaining in his room and in an uniform temperature. Becoming worse, he determines to return home, and travels on a cold spring day; his dyspnœa is so much worse on the journey, that his friend and the fellow-passengers doubt whether he will arrive home alive; and when his carriage meets him, it is with the greatest difficulty he is conveyed to his house, and got into his drawing-room. You are at once sent for, the message being that the patient is dying, and when you arrive you find that that is the fact. He is sitting in a chair (to lie down is impossible for him), his face is blue and swollen, his lips purple, the eyes suffused and staring, his heavy gasping breathing you have only too distinctly heard and recognised as you ascended the stairs, and when you see him you find his chest heaving, and each short gasping inspiration followed by a long wheezing and moaning expiration; his lungs are full of moist sonorous, and mucous and submucous rhonchi, and scarcely a trace of vesicular respiration is to be heard, and he is pulseless. He looks to you beseechingly, and gasps out, in scarcely articulate words, that he is dying. This is but too true. Now, the treatment for such a condition at the present day is "to pour in stimulants" (though the patient can scarcely swallow). Brandy and water are given, and ammonia, and perhaps ether; then, if the patient live long enough to have them made, mustard poultices are applied to the chest, and to the calves, and to the feet, and the patient is fanned, and the patient dies. Something has been done, but that which true pathology—and, indeed, common sense, unshackled by prejudice, custom, and fashion—would dictate, has been left undone. Appearances have been saved but not the patient's life.

The fact is, that here the danger lay in the right side of the heart being gorged with blood, so that it was impossible for its stretched and distended walls to contract and to propel forwards the thick and blackened blood. Oh, as you value your patient's life, as you value the blessed consciousness of being a minister who has done everything possible for his welfare, let me beg of you not to be contented with the futile treatment of to-day; relieve that poor oppressed distended heart, and all may be well! Open one of those veins which are, with every systole of the heart, tending to carry more and more blood to this already distended right ventricle, and all may yet be well with your patient. Sometimes this blood-letting, in extreme cases, is no easy matter; it may be necessary, before you can effectually open the vein, to place the patient's arm in warm water, so as sufficiently to distend the vein; and even when the ligature has been efficiently applied, and the vein well opened, you may have to press and squeeze and rub upwards the arm before a drop of the thick and tarry blood will flow. But, when it *does* flow at length freely, oh, what a marvellous change may you see take place!—the breathing becomes quieter, deeper, and less noisy, the haggard face resumes the appearance of tranquillity, the blueness of the skin is replaced by a more natural tint, the pulse becomes more and more distinct, and, in a word, the choked up heart is set free. This is no fancy picture. Every word is simple truth, and I appeal for confirmation to the memory of every senior member present who recollects the experience of his earlier days, and who can also probably tell you that the after-progress of such cases was sometimes almost miraculously rapid, so that in a few days even the patients might become convalescent. The younger members of our Association lack not the courage to do right when they know what right is; and I trust that I shall live to see many of them put on record graphic results of a kind which I have been able only briefly to sketch out.

I must pass over other diseases and conditions in which some form of bleeding is useful, just naming the general plethoric condition of the system about which we are sometimes consulted, and which has only threatened, but not as yet produced, any definite disease. I must pass these over, I say, to refer to a group of diseases in which this remedy is often of the highest good, if the symptoms be rightly interpreted, but in which, if they be wrongly read, bleeding will, to a certainty, aggravate the conditions, and yet in which the diagnosis is sometimes exceedingly difficult; I allude to the large class of affections of the head.

There is not a shadow of doubt that "coma, convulsions, and paralysis may all occur independently (as Dr. Todd says[1]) of hyperæmia or of inflammation;" and if brain-irritation be mistaken for an inflammatory condition of that organ, and blood be abstracted in consequence, no doubt a grave error will have been committed, and a grave injury done to the patient. And the same is the case if a congestive condition be ignored when it really exists; a grave injustice is done to the patient, and chronic suffering is allowed to continue which in all conscience ought to have been removed. Quite recently, a patient of mine, in giving a history of his case, said that, for two consecutive years, he was subject to most distressing headaches, which were frequently so overwhelming, notwithstanding the supposed best treatment, as to render him quite incapable of attending to his business. At the end of that time, he was cupped at the nape of the neck freely; "and," said he, "from that day, and it is now eighteen years ago, I have never known what a headache is."

Nature, indeed, seems to me in this, as in some other things, occasionally to point out what is the best mode of relief; and I think she speaks in unmistakable language when, by a copious epistaxis, she efficiently relieves the congested turgid face, the beating temples, the dull heavy headache, the sleepiness, the confusion of thought, and other symptoms, which, in a plethoric individual, betoken, if they are not relieved, serious danger, or perhaps an apoplectic attack. Let us not neglect her lesson!

[1] *Clinical Lectures*, second edition, 1861, p. 322.

But there are some cases which are on the very border-land of doubt, and concerning which those who are fully alive to the value of leeches may hesitate and differ. A girl aged fourteen—healthy, bright, but of somewhat nervous temperament—overworked herself with lessons at school, and with lessons at home, which she had no need to do. After being somewhat ailing for a few days, during which she made little or no complaint, but continued her school duties, she came home one afternoon, about the middle of November last, with extremely severe, oppressive, dull, heavy pain, occupying the whole head, but especially severe over the brows, and along a line corresponding with the base of the brain. The temperature was but slightly raised, but the pulse was notably quickened. She was somewhat excited; grasped her head with her hands, and declared that it would burst. Yet there was no great throbbing of the temporal arteries; the eyes were not at all suffused; and the face was but little flushed. I looked upon the case as one of considerable cerebral congestion, rather passive than active, and certainly not acute, from over mental work, and the anxiety dependent upon a school-girl's desire to excel. She was put to bed; evaporating lotion was applied to the head, and salines and aperients were given. No improvement occurred, and the pain continued without the slightest intermission; and, therefore, a few days later (on November 17th), I ordered four or five leeches to one of the temples, but, unfortunately, only two of them took. A slight, but only slight, relief to the headache was given, but at any rate it was the first the girl had experienced. Seven days after, I applied four leeches to the other temple; these bled very freely, and from that time the patient lost the vertex headache, and she was able to leave her bed; but the pain along the base of the brain continued without a day's intermission. During the ensuing thirteen weeks, she was kept away from school and from all head-work, and she was seen by three most distinguished Fellows of the College of Physicians, to each of whom the particulars of the case, and what had been done, were detailed; not one of them thought a further application of leeches desirable; they might have been all very well, they said, when I prescribed them, but each one said he should not like to advise their further use. Bromide of potassium, and, subsequently, bromide of ammonium and several other remedies, were ordered, and notably the frequent steeping of the arms and feet in hot mustard and water, besides other forms of counterirritation. These plans were faithfully carried out for the thirteen long weeks which I have mentioned, and for all that long time was the headache absolutely persistent; whenever the girl was awake, there was her heavy headache. At the end of this time, I determined to act on and to carry out completely my own views. On February 17th, therefore, five leeches were again applied to one of the temples, and, somewhile after, the same number was repeated. The first of these applications gave the first relief the patient had to the coronet of pain which had so long been her persistent companion; but, though greatly relieved, it was not cured. The second of these applications (the fourth of the series) entirely removed it; and the girl, once more bright and cheerful, returned to school, and has not since been an hour absent from her duties.

It is precisely the passive condition of the congestion in this case —the absence, that is, of acute symptoms—and the further fact, that the girl was of anything rather than of a plethoric temperament, which gave force, and point, and interest to the plan of treatment which proved successful. Had the symptoms indicated any more acute action going on within the encephalon, my excellent *confrères* would doubtless have concurred in the abstraction of blood, but nothing of that kind existed; and yet here, four times only, during the long period of continuous headache, did the girl get any notable relief; and, in each of the four times, it was after the application of leeches—the last of these occasions effecting a complete cure. I verily believe that, had I boldly carried out my own views earlier, much pain would have been prevented, and the duration of the disease would have been, some weeks before, cut short.

It is impossible for me, in this place, to attempt to discriminate in detail the various head-affections in which the abstraction of blood may be useful, nor may I even stop to enumerate them; all I can do is to draw a few broad outlines. I have just sketched a case of one form; but did you ever see the flushed face, the wild and glistening eye, the knitted brow of simple acute meningitis? Did you ever hear the piercing delirious cry ringing through the house, caused by the unutterable pain and agony of that disease? And have you seen, as a score of leeches have gradually drawn away the blood, a calm tranquillity gradually stealing over the face, and the drooping eyelids gently closing over the recently staring and throbbing eyeballs? Have you heard the wild cry, as the blood is being drawn from the burning brain, subsiding first into a gentle moan, and then into a series of still gentler sighs, ere the leeches have dropped off the temples? If so, you have heard music far sweeter than musician ever dreamt of, and, standing at the bedside you must have said, as I have done, "Thank God for His great blessing in having given us leeches!"

Allow me just to remind you of another of my friends greatly neglected of late—somewhat of a relation to the one to which I last referred. In this case there is no question as to removing blood from the body; but we have in it—in DRY-CUPPING—one of the most rapid and powerful means of removing somewhat deep-seated congestions and hyperæmia, and of alleviating or curing certain pains and conditions which are far less efficiently treated by liniments, and by other forms of counter-irritation. In cases of head-congestion, with dull heavy pain and vertigo, where other remedies have failed, and where yet you do not think the abstraction of blood either desirable or requisite, dry-cupping to the nape of the neck will not unfrequently give great and immediate, but permanent relief. The stitch of slight pleurisy is now relieved by it, and pleurodynia and certain rival pains, and especially sciatica. But its effect in some cases of lumbago is really striking. With that looseness of language which is, I think, far too common amongst us, one constantly hears lumbago spoken of as a "rheumatic" affection. Rheumatism may doubtless affect the lumbar muscles; but that ordinary attacks of lumbago, or the similar pains which affect the interscapular and other muscles, have anything to do with rheumatism, properly so called, I beg to deny. It does not occur at all frequently, or specially in those who suffer from true rheumatism; it often occurs in those who never had an attack of general rheumatism, or even a pain in a single joint; it is not associated with any derangement of the urinary secretion; its onslaught generally, and its cessation often, are utterly unlike those of rheumatism, for the latter usually comes on and ceases slowly, while the onset of lumbago is frequently instantaneous, as from an awkward position or strain, etc., and its termination almost as rapid; and, finally, dry-cupping will sometimes cure lumbago as by magic, while it would have a sorry chance, I fear, against rheumatism. A man, for instance, previously feeling perfectly well, is seized, while pulling on his boot, with a pain, which grips him across the loins like the clutch of a tiger's paw; to stand up or to move one iota from his chair, becomes an instant impossibility; the pain, liniments and frictions and hot baths notwithstanding, may thenceforwards last, though modified, for days or more. Hot-ironing the part is an excellent remedy; but dry-cupping over the affected muscles sometimes achieves a miracle—the patient can forthwith get up, march, and attend to his work.

Gentlemen, I have finished. I have left unsaid many things I wished to say, and have said far more imperfectly than I intended many of the things to which I have alluded. I do not like to have to make apologies for shortcomings of this kind, because I hold that, whatever one undertakes, one ought to find time and opportunity to accomplish; but I may be perhaps permitted to say that most important matters, altogether unexpected, and altogether beyond my control, have of late perforce occupied my time, especially during the past week or two, and I have not had even spare minutes to revise this address as I should have wished; and I regret this the more, because the imperfections in my mode of bringing these subjects before you may have marred the impressions which I desired to produce. When the tide of opinion runs strongly in any given direction, it requires some moral courage to appear in public and boldly to oppose it, especially when that opinion is supported by men of profound thought and great power of mind. But deep conviction engenders boldness; I have survived the period when I was considered unorthodox in practising without giving, and in speaking and lecturing against the administration of, stimulants, in almost every form of disease, and in almost every case one met with. My convictions are not less strong as regards the advantages to be derived from the right and judicious use of the remedies to which I have been referring, than they were with respect to the evil produced by the indiscriminate use of alcohol; and, entertaining vividly these convictions, I should be unworthy of the position with which you have honoured me, if I had hesitated to express and to enforce them. It is for you, gentlemen, to consider the suggestions I have made; to cull out what may appear reasonable; to put them to the test of experience; to alter and modify your conclusions accordingly, and so to guide your practice; and if, as I trust, at least some slight modification of treatment may ensue from the words I have spoken

here, tending to relieve pain, to shorten the course of disease, or perhaps to prolong life, I feel that, even when I have passed away, I may still be, in a sense, a fellow-worker with you in the cause of humanity; and once more I thank you most sincerely for having been given, by your kindness, the opportunity of expressing my views from the high and dignified position of your presidential chair.

AN ADDRESS

ON

THE CLIMATIC TREATMENT OF CONSUMPTION.

Delivered at the Annual Meeting of the South Eastern Branch.

BY FREDERIC BAGSHAWE, M.D., M.A.Cantab., F.R.C.P.,
Physician to the Hastings Infirmary; President of the Branch.

GENTLEMEN,—It is no light matter to assume this chair, and enter on the duties of a post which has been so ably filled by my predecessor in office, to whom I must tender my best thanks for the kind way in which he has introduced me to your notice.

On the last occasion when this Branch of the British Medical Association assembled in Hastings, now fifteen years ago, its president was Mr. Ticehurst, a man whose sterling worth was fully appreciated by his fellow townsmen, by his brethren in the Association, and by the whole body of the medical profession in this part of the country. Full of honours, he has passed to his rest; and, now that the post of president has again to be filled in Hastings, the loss will again be freshly felt. To-day we deplore a recent loss among the foremost ranks of the profession. It is but few weeks since Jardine Murray filled the post of chairman of the South-Eastern District at Brighton. Devoting his great energies to the alleviation of others' suffering, he was forgetful of himself, and fell a ready prey to the onslaught of acute disease.

The subject on which I propose to make a few observations is the climatic treatment of consumption.

The received views with regard to the climatic treatment of the most steadily fatal of all diseases, tubercular consumption, have been undergoing a series of changes. The day is not long past when, emerging from the treatment by confinement in warm rooms, and the application of various remedies intended to subdue the inflammatory conditions of the disease, it became the custom to send phthisical cases to such warm and relaxing climates as Pau and Madeira. That system had its day, to be succeeded by another, equally doubtful in its universal application. The warm and dry climate of the Mediterranean coast, Egypt, and the Riviera, came to be considered, both by the profession and the public, as the natural antidote to tubercular disease.

The climates of the Riviera are so well known, that it would seem unnecessary to enter minutely into their conditions. In frequenting them the object is to attain, in this southern latitude, some 800 miles to the south of our own, a climate which shall reduce the rigour of the winter season, and place the sufferers under conditions nearly approaching those of our own summer. The average winter and spring temperature of the Riviera exceeds by about eight or ten degrees that of our own country. In common with Alpine climates, their chief features are their dryness and sunniness, and the exhilarating property of the air. In contrast with them are their warmth and the greater density of air. Authorities agree in opinion that the chief advantage to be derived depends upon the fact that, under their influence, it is possible for the sick during the winter months to spend more time in the open air than can be secured in the health-resorts of this country. It is not alone to its southern latitude, and to the direct influence of sunlight, that the Riviera owes its warmth. Placed with a full southern exposure, it is washed by the Mediterranean, whose waters are estimated to have a mean excess of nine degrees over that of our own southern shores. The rush of cold air coming down south from France and Switzerland renders such places as Montpelier liable to extreme alterations of temperature. Along the Riviera protection is obtained from the severity of these winds, which, passing over the lofty chain of the Maritime Alps, strike the sea at a distance of many miles. It is true they are often reflected in currents of various intensity, even along the sheltered coast-line, giving rise to a great variety of local winds. Even in the finest winter weather these dry and cool northern airs prevail invariably at night, while southerly breezes occupy the daytime; but it is to the former that the bracing character which these climates present is to be attributed. It will appear then, that, while the Riviera enjoys great advantages from a warm southern exposure, and from the influence of a warm inland sea, it partakes largely of the character of the continental climate of Europe; and herein it stands in contrast with insular climates, whether southern ones such as that of Madeira, or northern ones like our own.

It is especially for the sufferer from lung-diseases that the stations on the Riviera have won their great repute, and their claims hold good chiefly on account of the lessened liability to the recurrence of catarrhal conditions.

Morbid products in the lungs, whether dependent on tubercular infiltration, or the result of inflammatory deposits, and of limited extent, are dangerous and progressive almost in proportion to the frequency and severity with which irritation is set up in the surrounding tissues; and, conversely, amendment and absorption are likely to ensue in proportion as the surrounding lung can be preserved in a state of health. Again, while the avoidance of catarrhal states is so important a factor, a no less important one is the improvement of the general nutrition, such as is promoted by pure air and improved digestive functions. In those cases which are thus liable to irritation of the mucous tracts, whether of the air-passages or of the stomach, under the application of the stimulus of cold, and in those where the circulation is feeble, and localised congestions are readily set up, the climate of the Riviera is suitable.

Cases come under observation in which the return of the autumn cold and damp brings fresh irritation to diseased portions of lung which have been lying quiet during the warmer months; and, in these, removal to the Riviera year after year has been the means of alleviating this condition, and, year by year, arresting any further damage. The gentle stimulation of dry air and sunshine is grateful, where the extra stimulation of cold and rarefied air would be intolerable. An individual advanced in age, or lowered by disease or overwork, or by general constitutional causes of debility, living at so low an ebb as to be depressed by the cold of a northern climate, revives under the influence of moderate heat and stimulus.

But just as, with the vegetable creation, the forcing process renders the plant more susceptible to cold, so the patient who winters in a warmer climate, on his return home, becomes more sensitive to change. Winters abroad must be followed by summers spent on the mountains, or, still better, in northern home-climates, if we would avoid permanent enfeebling effects from a sojourn in the south.

Here it may be observed that the south-eastern coast of England not only provides a convenient and suitable halting-place to those who are returning home after a winter spent in the South of France, and who dare not venture to the colder parts of England until summer weather has set in, but also that the climate proves itself to be well adapted for a summer residence. In contrast to the Riviera, it is found to be sufficiently bracing for many of the more delicate sufferers from lung-disease.

Again, constitutional nervous irritability is alone a reason against sending patients to these climates. Where irritative fever is present as the result of disease, in whatever stage, whether of deposit, of active softening, or of cavity, no remedial influence is to be expected. Such cases have seemed to me, during four winters' residence in the south, to deteriorate more rapidly than is usually experienced in England. When, however, arrest has set in, and the fever subsided, extension of deposit or softening has ceased, or the system has shown signs of toleration of a cavity, the case is different. Change may then be beneficial.

It has been set forth as one of the inducements of the South of France that residents there avoid east wind, and thereby escape the dangers of intercurrent pneumonia, and so forth. In my experience, the *mistral* or the *bise* is equally to be dreaded. Its force is often greater than that of any ordinary north-east gale in this country. Intensely dry and irritating in itself, it is rendered more so by the dust-loaded atmosphere which it creates, and which penetrates everywhere. From a steamer in the Bay of Nice, I have seen the town enveloped in a cloud of fine dust nearly three times the height of the houses. No wonder such an atmosphere gives rise, as I have seen it do, to hæmoptysis, as well as to other acute symptoms. I believe hæmoptysis to be of more frequent occurrence in the South of France than it is in this country.

It is especially at such times of *mistral* that irritative dyspepsia is prone to arise. It is often accompanied by nervous irritability

and sleeplessness—a common complaint, indeed, at all times among a certain class of subjects, and one demanding immediate removal from immediate proximity to the sea. As a rule, patients do not gain weight during a winter spent on the Mediterranean.

As a matter of fact, the towns of the Riviera labour under many of the disadvantages of continental climates. The transitions from heat to cold are rapid, and often unexpected. At the hour of sunset, the rapid fall of temperature is accompanied by the diffusion of excessive damp from the soil, and precipitation of watery vapour, a condition sufficiently dangerous to health.

Considerable parts of Nice, of Cannes, and also of Mentone, are built on land formed by the deposit of earth from mountain-streams at their *débouchement*, and are little above the sea-level. At a depth of a few feet, this low-lying land is percolated by water. In the absence of a system of water-supply or of drainage, it is the custom to depend for water on wells sunk into this water-bearing bed, and also to employ cesspools constructed in the same beds, emptied out with varied amount of care and regularity. The water-supply of Cannes, however, is placed above reproach by the distribution of the Siagne river-water through pipes to the different parts of the town. It may, however, be observed that it would be a decided improvement were the main conduits to the town inclosed, instead of being open, and thus liable to possible sources of contamination.

The various municipalities have thus far found it a more difficult matter to introduce any system of drainage. It is not wonderful that, with a damp and porous subsoil and elevated temperature, a larger amount of zymotic or accidental disease should prevail in those towns than in our home health-resorts; and that, with the prevalence of bad smells and unsanitary conditions, we should sometimes hear rumours of typhoid fever, sore-throat, and the like. In the autumn of 1864, when cholera had prevailed in the Riviera, I was able, by personal inspection of the bills of mortality, to verify the above statement. Again, we are led to reflect that, in a climate where warmth and surface-moisture favour the development of microzymes, on which it is probable that the presence of zymotic disease depends, the existence of a tubercle-bacillus would also find encouragement, whether we are to attribute phthisis to this organism as cause and effect, or whether we come to regard the germs as simply an epiphenomenon of the complaint. Hence a first consideration must always be not only a pure air, but one as antagonistic as possible to septic influences.

To sum up briefly at this point of the subject, my conclusions are these. 1. For certain persons who have become liable to bronchial inflammation, or are the subject of phthisis to a limited extent, and who at the same time exhibit a phlegmatic or unexcitable nervous system, the warm stimulus of the Riviera is indicated. Such cases, however, must not exhibit pyrexia. 2. In advanced phthisis, little good is to be expected beyond the enjoyment of sunnier days. 3. The drawbacks to residence abroad, both for patients and friends, are numerous, and must be reckoned with.

It has been within recent times, and notably within the last seven or eight years, that the cold and dry climates of mountain-stations have laid claim to a remarkable influence on phthisis. Testimony to the fact of the large measure of success attained by this climatic treatment has now been established by the evidence of many competent observers. The influence of fashion may have helped to make this change popular, but it will not account for its extended and steadily increasing favour, both with the profession and with the public. The leading features claimed for the Alpine sanataria bear comparison with those of others previously in vogue. It is shown that, in the dry and tranquil air of mountain-valleys, patients may enjoy an outdoor life under a cloudless sky to an extent which is not to be equalled, save in Upper Egypt; while the cold and dryness are important factors in these regions of rarified air. Omitting any detailed consideration of their climatic conditions, it will be well to touch upon the physiological effects of an altitude of about 6,000 feet on the human subject—premising only that these effects vary much with the age and constitution of the individual. A marked effect of altitude is to increase the respirations. On first arrival, this increase is often noted to be from 2 to 5 in the minute, and may be associated with a sense of weight or oppression at the sternum; after a time, the respirations usually return to their normal standard, the lungs and thorax becoming expanded. This enlargement of the thorax has been carefully studied by Weber, Williams, and others. Dr. Williams found, in his series of cases, that the increase amounted to from one to three inches. Dr. Ruedi confirms this observation in 90 per cent. of a large number of cases. With increase in respiration and perspiration is associated a quickened circulation. In new comers, the pulsations may be raised from two to ten in the minute; but it is customary to find this increase subside after a few weeks, and resume a normal standard, the force of the heart's action steadily augmenting, together with improved vascular tone. Where the vital powers are vigorous, and the integrity of the circulation intact, the influence of cold combined with rarification acts as a stimulus to the system, and a feeling of lightness and buoyancy is experienced. But should the circulation show signs of failure, either through a depressed vitality, or in consequence of some inherent defect or disease, a sense of oppression is experienced, accompanied by chill and general *malaise*. Under such a condition, the tendency to congestions and inflammations is directly promoted, whether it be of the lungs or of the bronchial tubes, or of the heart itself.

It cannot be too distinctly remembered that all forms of disease of the heart and great vessels (indeed, all forms of structural disease except the pulmonary) are injuriously affected by great altitudes. The reason for this will be sufficiently manifest when it is remembered that the atmospheric pressure on the human body at the altitude of Davos (as estimated by Lombard) is reduced by about 6,600 lbs., pressure at sea-level being about 34,100 lbs.

Seeing that the function of digestion is carried on more actively, and that appetite is improved, are we to look for increase in weight? The great loss of watery vapour constantly going on, especially when increased by active exercise, appears to counteract the tendency to become stout. Nevertheless, we learn from Dr. Ruedi's statistics, that many do gain in weight. It is an interesting fact, as showing the effect of climatic change upon the general health, that, in the case of those coming from the sea-level to high altitudes, an improved condition in the whole animal functions takes place; while those living habitually at such elevations are subject to depressed vitality, the result of over-stimulation, re-acting on their nerve-centres, and are equally relieved by change to a lower level. It appears, then, that at high altitudes all the functions of the body are stimulated to increased action. It is true that, for many diseases, physiological rest is the great requisite for their alleviation. The full-blooded man, with weak and incompetent heart, will have the balance of his circulation dangerously disturbed; for such, therefore, and for other diseases, notably those of the central nervous system, other climates must be sought. Phthisis is, on the other hand, a disease of low nutrition, associated with thin and impoverished blood. Will the whole class of sufferers from this complaint derive benefit from such altered conditions of climate? or are we to make any and what selection among the cases we would commend to their use? A reserve store of physical force is to be looked for mostly among those who have accidentally become the subject of phthisis, exposed, it may be, to various depressing influences; but not alone among those who have acquired phthisis, but equally among those tainted by heredity, are to be found many who will respond to the whip of active stimulation. Their reserves are capable of being brought into play to aid nature's effort at repair. The great majority of such invalids are young; and, happily for youth, which is the most frequent period of the invasion of phthisis, it is the time of most rebound. An examination of the cases of Allbutt and Williams shows that the great majority of cures or improvements were under thirty years of age, while the reverse obtained in those who were under forty. Following a local authority, we may then say that the first indication for mountain treatment is to be found in that delicacy which often precedes phthisis, or is announced by hæmorrhage in the hitherto undamaged lung. It is maintained that at high altitudes, whether in Switzerland or in the Rocky Mountains, the liability to hæmorrhage is reduced; and not only statistics, but the general consensus of opinion, agrees with this conclusion. In Allbutt's cases, many had been subject to hæmoptysis, while in few had there been any recurrence during residence at Davos. I am informed that, out of ninety-two cases treated this winter, there were only four of hæmoptysis, two being severe and two slight. Similar testimony comes to us as to the rarity with which hæmorrhage occurs in Colorado. It is fair to conclude that, as a prophylactic against disease, and in early phthisis with hæmoptysis, and in suitable constitutions, such stations are recommended with confidence. Care should, however, be taken that they are not approached too rapidly, and that, on arrival, caution should be employed in taking exercise. Again, we may recommend the climate of altitudes in catarrhal forms of phthisis affecting a limited portion of lung, without much constitutional disturbance. Should, however, the signs of irritative fever be present, especially if accompanied by stomach-complications and sleeplessness, the experiment becomes a dangerous one. Visiting Davos in the winter of 1879, Dr. Williams found a disproportion between the amount of

pyrexia and the extent of lung involved. Dr. Symes Thompson, however, in the course of a visit there last winter, came to an opposite conclusion, and says that it would be "hard to find elsewhere so many cases of pronounced and often extensive and advanced lung-disease, with so little pyrexia or constitutional disturbance." It seems to be certain that, when febrile action does occur, it is of a more active kind than at low levels. Dr. Ruedi assures me, however, that moderate amounts of fever prove to be amenable to treatment, and that it is only in more marked cases, where reduction of temperature does not take place within six weeks, that disease progresses steadily. A well-marked case of improvement was seen by Thompson: rapid pulse, high temperature, hectic, cough and night-sweats, were associated with cavity and softening on one side, and recent softening on the other. Dr. Ruedi gave a favourable prognosis, and three months later reported that the temperature was normal, the pulse quiet (90 instead of 120), night-sweats had ceased, and moist sounds had been replaced by dry ones. Such results are said to be commonly met with.

Again, cases of induration and infiltration of lung, due to active inflammation assuming a chronic form, are especially suited, even where the disease has run on to excavation, provided the amount of lung-tissue involved is moderate, and the breathing has not thereby been rendered difficult. If chronic catarrh of the bronchi have resulted in dilatation and emphysema, the case is not likely to find benefit. This form of complaint, moreover, occurs in advanced years, or in those of waning vitality, when the system no longer adapts itself freely to new circumstances, or responds to their influences. Such conditions of the bronchi are frequently dependent on cardiac disease, or debility, and are, on this ground, unsuited to altitudes. For inflammation of the larynx, of whatever form, altitudes seem to offer no inducement. Where tubercular deposit has taken place in the larynx, the case is directly unsuitable.

After old pleurisies which have occurred around healthy lungs, tying them down and preventing their expansion, pulmonary disease is especially liable to follow. By the judicious employment of gradually increasing altitudes, it seems reasonable that increased chest-capacity may be gained, and fresh lung-action brought into play; and such has proved to be the case.

Active disorders of the nervous system require especial care in relation to altitude. The more severe and acute the nervous symptoms, the more are they likely to be aggravated by elevation; and this has been observed to be true of chorea and epilepsy, while in hysteria the air has often proved irritating, inducing increased sleeplessness, chills, flushes, and congestive headache. In like manner, the sufferings of neuralgic patients are intensified by continued cold. In pure spasmodic asthma, the results here are as uncertain as elsewhere. Many have been found to derive benefit from a high residence, both in winter and in summer; but, should emphysema and bronchitis be present, improvement cannot be counted on.

On the other hand, in nervous exhaustion (whether or not associated with anæmia), such as is found in the class with overworked brains, arising out of intense application, very decided improvement may be expected. Lessened tension in the cerebral circulation comes to the aid of new scenes, an out-of-door life, and freedom from harassing cares.

To sum up, I would insist on the general statement that, in the arresting of chronic phthisis, the climate of altitudes has established its utility; that the favourable results are best shown in the early and hæmorrhagic cases, whether acquired or hereditary; that stimulating effects call into play increased activity of the respiration and of the heart's action, while tissue-change is promoted to an extent highly salutary to the consumptive who shows evidence of resisting power in the system; that in youth and middle age (the period of greatest prevalence), the advantages are greater than in more advanced life; that negative or injurious results are likely to arise, particularly in those of nervous and irritable temperament, in proportion as the extent of the deposit has taken place, where the case has advanced to softening, and where febrile disturbance exists; and, further, in third-stage cases, involving one-third or one-half of the lung, with constitutional disturbance, or with hæmorrhage from a cavity; that, finally, such negative results are especially prone to occur when combined with increased force and frequency of the heart's action.

In order to secure permanent good results in chronic phthisis, it is desirable—almost essential—that the patient should reside altogether on the mountains for some years. Again and again have serious relapses been observed to occur on patients returning to reside in their lowland homes. This fact requires to be remembered in recommending such sanatoria. Elderly people often cannot stay in them, for reasons already alluded to; and thus families are often broken up to an extent which causes no small amount of inconvenience.

Having now discussed the varieties of foreign stations in the climatic treatment of chest-diseases, a brief consideration of the claims of our own health-resorts may not be out of place. In the present popular tendency to rush abroad, these claims have been of late too much overlooked; and a careful balance of the advantages or disadvantages of a foreign sojourn, even leaving out the often important question of expense, may incline us to a more favourable estimate of our English watering-places, whether of the distinctly bracing or of the milder class. With its extensive coast-line, and great geological variety, and its consequent wide range of climate—from the sea-impregnated mountain-breezes of the Western Highlands to the drier air of the south-east coast, with the dry, bracing, semi-Alpine air of such inland elevations as Malvern—Great Britain possesses a considerable variety of climate. While we believe that there are many types of case for which removal may be recommended to the more positive climate of altitudes on the one hand, or to the warmer and more genial influences of a Mediterranean winter on the other, each in its turn involving a more complete contrast than is to be found in winter health-resorts of this country, yet experience teaches us that there are many for whom our own winter-stations afford, on the whole, the greatest advantages. The contrast between the winter climates of these, and that of towns but little removed inland, is very definite, influenced as the former are by southern exposure, by freedom from winter fog, by the moderating influence of a sea warmer than the land, and lastly by shelter provided, in different degrees, from north and east winds. This contrast is great when comparison is made with midland and northern towns, and provides as complete change as will, in many cases, be needed. During the first four months of the present year, observations have been made in this town with the sunshine-recorder as to the amount of bright sunshine, and the figures stand thus contrasted with similar observations taken in other towns: Hastings has had a total of 345 hours, Southampton 333 hours, Plymouth 308 hours, while Leicester has had 234 hours, and London 210 hours, *i.e.*, London has experienced barely three-fifths as much sunshine as Hastings, and Leicester less than three-fourths. Moreover, a point of great moment, the chances of meeting with good hygienic conditions in our own health-resorts are greatly superior to those on the Continent. The importance of providing a good water-supply and thorough drainage is recognised and acted upon. And each year adds to the studied care with which such sanitary details as the trapping and ventilation of house-drains are attended to. Equally important is the fact that nowhere in Europe is the supply of food more ample, more nutritious, and more diversified; and, thus, nowhere has the patient a better chance of increasing in weight (and thus of doing well) than during a winter spent in England.

SANITARY INSTITUTE OF GREAT BRITAIN.—The anniversary dinner of the Sanitary Institute of Great Britain was given last week at the St. James's Restaurant, Piccadilly. Dr. Alfred Carpenter presided. In proposing the health of the Queen, the Chairmain remarked that, if sanitary science had been better understood twenty-five years ago, possibly Her Majesty would not have had to mourn for the early loss of the Prince Consort. The other loyal and patriotic toasts having been honoured, Mr. Chadwick proposed "Success to the Sanitary Institute," in a speech in which he traced to the diffusion of sounder hygienic principles the decreased rate of mortality, instancing this in particular by reference to the army. Dr. Carpenter, in responding, pointed out that the advocates of sanitary science were deficient in political power, so that questions which pressed for immediate solution were apt to be shelved indefinitely. The Church and the Law and other classes were represented in the Upper House of Parliament; and he hoped the time was not far distant when the heads of scientific bodies in this country would also find a place there, in order that the country might have the benefit of their advice upon matters of the greatest importance. Other toasts followed.

THE LATE MR. JAMES MACKIE.—A stained glass window has been placed in the old church at Heighington, representing St. Luke, and miracles and works of mercy, and bearing the following inscription:—"To the glory of God and in affectionate remembrance of James Mackie, L.R.C.S.Ed., and L.S.A., for many years in medical practice in this district; the sage adviser, the true and valued friend. This window is erected by his brother medical men and other friends."

ABSTRACT OF A LECTURE
ON
CATARRH OF THE NASO-PHARYNX, OR AMERICAN CATARRH.

Delivered at the London Hospital Medical College.

BY MORELL MACKENZIE, M.D.,
Lecturer on Diseases of the Throat.

[AFTER defining the disease, and giving a short account of its very meagre literature, the lecturer remarked that postnasal catarrh was much more common in this country than was generally supposed, but that it was much milder than in America, where it was so universal, that it might be looked upon as the national complaint. In referring to the cause of this affection, the lecturer gave the results of his recent observations in America in the following terms.]

Though I would not for a moment place my experience of American catarrh on a level with that of any of the eminent specialists who have given attention to the subject in the United States, I may remark that, in a recent tour through that country, I had a very favourable opportunity of studying the complaint; for I not only saw examples of the disease over a very wide tract of country, but also observed the atmospheric conditions under which these cases occurred—enjoying, moreover, the great advantage, in many localities, of discussing the subject and hearing the views of able physicians who had been studying the affection on the spot for many years. I was greatly astonished at the very wide diffusion of the affection. I met with it all over the Eastern States; it was very common in Chicago and St. Louis, which may now be called the central cities of America; I found it prevalent in Nebraska, and, to a slighter extent, in Utah; and, again, I encountered it on the Pacific coast, finding it very common in San Francisco. I had not the opportunity of seeing any patients in Nevada, as I merely travelled through that State without stopping; but in London I have treated many American travellers for postnasal catarrh, who had acquired the disease on the alkaline plains of the Silver State. I also saw a good many patients suffering from catarrh of the naso-pharynx in Colorado. In Southern California and Arizona, I scarcely met with any cases; and in Canada the affection, though much more common than in Europe, did not seem to be so universal as in the States. American catarrh, it would seem, principally prevails between latitude 44° and latitude 38°.

My travels in America were made in the latter end of August, and in September and October—that is, during the most favourable season of the year; and I have little doubt that, had I been there in the winter, I should have seen a great deal more of this wide-spread ailment. In many of the regions referred to, there are local conditions which tend to irritate the mucous membrane. Thus, all along the entire eastern sea-board the atmosphere during the winter months is cold and moist, whilst in the summer it is excessively hot. In San Francisco, fogs prevail in the summer months in the early part of the day, whilst in the afternoon a cutting wind blows continuously. In Colorado, on the other hand, the climate is so extraordinarily dry, that only those who have been there can thoroughly appreciate it. The inhabited portion of the country consists of extensive plains situated at an elevation of 5,000 or 6,000 feet above the level of the sea. The dryness of the climate may be gathered from the fact that not a drop of rain falls during nine months of the year; the result being that no trees can flourish, the scrub oak being almost the sole representative[1] of our forest-trees, and this being only found in the narrow valleys, or cañons, as they are called. Indeed, so extremely dry is the soil, that not unfrequently all the prairie-grass perishes. The atmospheric conditions, though admirably suited for some forms of consumption, are nevertheless extremely irritating to the mucous membrane of many persons. The white alkaline dust, which covers hundreds of miles in Nevada, is also met with here and there in Colorado. In the winter and spring, the winds are often rather strong, and it will easily be imagined that at such times the abundant dust of this extraordinarily dry country is very irritating.

[1] The cotton-tree, though indigenous in certain parts of South America, appears to be an exotic in Colorado, and I only saw it as an ornamental tree in the streets and gardens of some of the cities.

The soil of the American continent differs so widely in different parts, that it is impossible to suppose that it is concerned in the etiology of the affection. Again, it will be readily understood that the meteorological conditions over this vast area are so various, that they cannot be regarded as a cause acting with anything like uniformity. The general character of the atmosphere of the American continent, as compared with that of Great Britain, and also with most parts of Europe, is that it is drier, that the changes of temperature are more sudden, and the extremes of temperature much greater. There is nothing, however, in these conditions to account for the localisation of the complaint in the naso-pharynx; and it would seem that postnasal catarrh is not due to what may be strictly called climatic influence, but to something which is accidentally introduced into the atmosphere of widely differing localities; in other words, that there must be irritant particles floating in the air over very wide areas. This is actually the case, for *dust* is to be found everywhere in America.

The universal prevalence of catarrh is, indeed, fully explained by the abundance of dust, both in the country and in the cities. Owing to the immense size of the country, and its sparse rural population, the country roads have not, as a rule, been properly made, and, except in some of the older States, are merely the original prairie tracks. In the cities, notwithstanding the magnificence of the public buildings, the splendour of many of the private houses, and the beauty of the parks, the pavement is generally worse than it is in the most neglected cities of Europe; such, indeed, as are only to be found in Spain or Turkey. It must be recollected also that, whilst in the decayed towns of the Old World there is very little movement, in the American cities there is a ceaseless activity and an abundance of traffic. Hence, the dust is set in motion in the one case, but not in the other. The character of the dust, of course, varies greatly, according to locality. In some parts, it is a fine sand, in others an alkaline powder; whilst in the cities it is made up of every conceivable abomination, among which, however, decomposing animal and vegetable matters are not the least irritating elements. An idea may, perhaps, be formed of the state of the atmosphere, from a consideration of the fact that in many cities the functions of the scavenger are quite unknown.

That a dusty atmosphere is the real cause of postnasal catarrh is rendered probable by a consideration of the anatomical relations of the naso-pharynx. For, owing to its being a *cul-de-sac* out of the direct line of the respiratory tract, particles of foreign matter which become accidentally lodged in its upper part are got rid of with difficulty—most likely by an increased secretion, which, as in the case of the conjunctiva, washes away any gritty substance which may temporarily alight on the membrane. As regards the larynx, irritating dust is expelled by coughing, which may be either reflex or voluntary; and again, in the case of the nasal passages, the minute particles of matter which constitute dust are expelled, if they happen to be obnoxious, either by sneezing or blowing the nose. But reflex acts, such as coughing and sneezing, have no effect on the upper part of the naso-pharynx, and it is only by a voluntary act, known as "hawking," that this cavity can be partially cleared. It is probable also that, owing to the sensibility of the naso-pharyngeal mucous membrane being less acute than that of either the nose or the larynx, minute foreign bodies accidentally lodged in the vault of the pharynx do not cause an amount of discomfort at all corresponding to that in the adjacent parts; hence particles of matter are more likely to remain *in situ* for a long time in the postnasal region than in either of the other parts, and are, of course, very apt to set up disease. In this country, the complaint is most common in persons whose pharynx is large in the antero-posterior direction, a form of throat which facilitates the entrance, without favouring the expulsion, of foreign particles.

Whilst, however, it is highly probable that dust is the most frequent cause of postnasal catarrh, no doubt it is not the only one. Many circumstances favour its development. Some physicians have attributed it to the custom of overheating houses by hot air and steam, as is commonly done in America. In the winter, the temperature is never allowed to fall below 70°, and is generally much higher. The sudden passage from this temperature to that of the street is often not unlikely to set up catarrh; but as the same mode of heating is used in Russia without, as far as I am aware, giving rise to any postnasal affection, its influence cannot be very great. The importance of heredity in the etiology of catarrh has been recently strongly insisted on by Bresgen (*Der Chronische Nasen und Rachen-Katarrh*, Wien und Leipzig, 1883, p. 47); and, although no extensive series of exact observations have yet been made on this point, there is every probability that a disposition to catarrh may

be inherited. I have seen so many instances, however, in which foreigners making a short stay in America have become affected with postnasal catarrh, that I think there is little doubt that atmospheric conditions—and those, let me add, of an accidental and controllable character—are much more powerful than heredity.

MODERN THERAPEUTICAL TENDENCIES; PURGATIVES AND TONICS; THE APPRENTICESHIP SYSTEM.

By J. HENRY BENNET, M.D.,
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THE history of medicine and of therapeutics shows that the treatment of disease and the choice of therapeutical agents are guided and modified by the prevailing doctrines of the day. Any physician who has studied, practised, thought and observed for half a century, or even less, must have passed through these waves of opinion, and have personally witnessed great changes, both in doctrines and in therapeutics.

Such has been my case. I commenced the study of medicine in 1834, nearly fifty years ago, at the age of 18, when the antiphlogistic doctrines ruled, and when therapeutics principally consisted in purgatives, bleeding, and spare diet. Disease was then thought to be generally sthenic in its type and character, and was considered to require a lowering treatment. Since then, in recent days, doctrine has changed, and with it treatment. Now disease is considered to be generally asthenic, connected with organic debility, with anæmia, and the treatment generally recommended is a sthenic or tonifying one. This change in views is partly founded on an asserted change in the type of disease in general, formerly sthenic, now asthenic. Some of the seniors have made the assertion, perhaps, to cover their own changed therapeutics, whilst the juniors accept the truth of this view on their authority. We are told, the juniors say, on good authority, that disease, formerly sthenic, is now asthenic, and we accept the statement as one that satisfactorily explains the change that has taken place in therapeutics.

I would state, *in limine*, that my own personal experience does not corroborate the doctrine of the change of type. In my eyes, disease in general is exactly what it was when I commenced to study it, nearly fifty years ago, in 1834. I perceive no difference in the diseases I see and treat, and in the results of treatment, except what is easily explained by the laws of general pathology, and by the progress of medical knowledge. Thus, the type of disease is different in town and in country, in the mechanic and in the agriculturist, in phthisis treated by confinement and starvation, or treated by an out-of-door life and a generous dietary. But such was the case, or would have been the case, in days gone by.

I was educated abroad, in a Parisian college, from 7 to nearly 18, and duly crammed with Latin and Greek, to my intense self-congratulation throughout life. I find no fault, even now, with the direction given to my youthful energies. No better educational course than classical studies could, or can, in my opinion, be adopted to strengthen and polish the intellectual faculties of a youth with literary tendencies. Without the latter it is, of course, all but time lost, to pursue such a course of study for ten years. I had three maternal uncles in the medical profession, general practitioners, all three educated at Guy's Hospital. Having decided on pursuing medicine as a career, after a couple of months' amateur attendance at Guy's Hospital, under the guidance of the late Mr. Doubleday, of Blackfriars Road, a family friend, I was apprenticed to one of my uncles, Mr. Osmond Tabberer, of Repton, Derbyshire, in 1834.

My uncle took me without a premium, discharged his assistant, and said, "You are older than apprentices usually are, you look older than you really are, and considering the circumstances under which you come to me, I expect you to make yourself as useful as possible, and as soon as possible. On my side, I will do all I can to bring you up to the mark." Mr. Tabberer was a clever, well informed, country surgeon, brought up in the practice from early youth by an elder brother, to whom he had succeeded. He had only been two winters in London previously to passing at the College of Surgeons and at the Apothecaries' Hall, and told me that during those two winters he had principally attended to anatomy and surgery. His knowledge of his profession, which was considerable, although more practical than theoretical, had been acquired all but entirely in the arena in which he had lived and practised. Repton is a large agricultural village, with a well-known free grammar-school. He was the leading practitioner; he had under his care the village, the school, many circumjacent parishes (it was before the days of Unions), many farmers, many agricultural squires, many clergymen, and some noblemen. He was keen-eyed, discreet, judicious, and had the local medical traditions, no doubt, of hundreds of years to guide him. This is one of the great advantages of the apprenticeship system which we, no doubt, are losing through its gradual disappearance. The practical knowledge of one practitioner was handed down to posterity, through his pupils or apprentices, in a plain, forcible manner, which no hospital teaching can replace. Mr. Tabberer was as good as his word. He spared no pains to teach me pharmacy and the rudiments of the profession, supplying me with books and carefully guiding me in my studies.

On my side, I did not either spare myself, being anxious to come up as soon as possible to the standard laid down for me. It was, at first, a great fall to pass from Sophocles, Euripides, and Xenophon, from Virgil, Horace, and Tacitus, to the work of a country surgery. I had to learn how to bleed on a cabbage-stalk, to draw teeth on a sheep's head (as a preliminary to daily surgery practice in those lines); to make thousands of pills, boluses, and powders, gallons of infusions and tinctures. I had to wash bottles every Saturday afternoon, and keep the surgery neat, when it had been swept in the morning. I rather shudder now to think that, before a month had elapsed, I was doing all the dispensing of a large practice, which took me several hours a day; besides the bleeding and tooth-drawing, etc. Then my medical education began. The assistant was gone; and I looked wise, I was told. So I was often put on horseback, and sent long distances, to see how the land lay, and report progress; for, what with our parishes miles away, and clubs for men, women, and children, there were constant reasonable and unreasonable summonses, at all times and seasons. My visits, however, were not entirely useless, even at first, owing to the rules laid down for my guidance. "In all diseases and complaints," said Mr. Tabberer, "there are three things to do *at first*, in doing which you cannot go wrong: 1, to clear the *primæ viæ;* 2, to stop the supplies; 3, to secure rest. These indications are fulfilled by giving a purgative; by enjoining complete abstinence, with toast-and-water as a beverage; and by sending the patient to bed." The purgative I took with me in the shape of a pill and draught for a man; the same for a woman; the same for a child. Thus armed, I went on my way rejoicing, initiated the campaign on these principles, and brought back a careful report to my uncle, who himself paid the second visit at his convenience. I soon also learnt to keep the books. Even now, after fifty years' experience, I know no better practice as the preliminary to scientific treatment in all but every malady.

In the meanwhile, I studied the cases in my books with ardour and enthusiasm. I used to get up at five o'clock summer and winter, to read. In the midland counties, the kitchen fires are always banked up at night, and at five o'clock there is generally a good comfortable fire burning. In winter, I rose at that hour, as in summer, and settled myself down with my books before the fire, working on until the servants came down at seven and prepared some other room.

Every case of disease that I saw, medical or surgical, made such a vivid impression on me, that it has remained in my mind ever since as the type of that disease, with its social surroundings—the farmhouse, the cottage, the parsonage, the school infirmary—in which it was seen and studied. These impressions have proved much more tenacious than those subsequently received in hospital wards. This must be one of the advantages of the apprenticeship probation. Disease is seen, as it were, in a frame, with surroundings which intensify the impression produced on the youthful mind. Thus also is acquired a practical knowledge of the sick-room, the habit of addressing and communicating with all classes of society, and self-possession under difficulties. Thanks to the judicious training of my uncle, to my own book-ardour, and to constant contact with the sick, I made rapid progress both in theory and practice, and by the end of two years thought myself nearly as clever as he was; I had my own horse, my own patients, and had become a really efficient assistant.

The lessons I learnt from Mr. Tabberer during that time were of inestimable value, and have remained a guide and a beacon throughout life. They have left in my mind also a feeling of deep esteem and respect for the well-informed country general practitioner of this or of any country. Full of practical knowledge in medicine, surgery, and obstetrics, generally left to themselves in emergencies, the better informed are quite equal to the position, both ready and able to minister to the sufferings of humanity in all their forms, and that without assistance from the medical, surgical, or obstetrical heads of the profession. Such was Mr. Tabberer, and I have since met

many like him. Many of those to whom we look up as the legitimate heads of the profession would be very much embarrassed were they called upon thus to undertake, unsupported, the sole charge of one of these large general practices—of a large body of men, women, and children.

The main feature of what I may term the Repton traditional therapeutics was a reliance on purgatives, not only administered at the onset of disease "to clear the *primæ viæ*," but also for the purpose of derivation during treatment. The results of the combination of purgatives, judiciously chosen and blended, in the treatment of disease, were most satisfactory. Indeed, I have never since then seen a more, scarcely as successful, practice, either at home or abroad, either in our own or in Continental hospitals.

At the age of twenty, family ties took me over to Paris, and there I found many of my French college companions studying medicine under conditions so favourable that I determined to do likewise; so I got my uncle to release me from the apprenticeship tie, and began again in that city. There I remained seven years, competing for and obtaining everything that could be obtained by competition (*concours*).

The apprenticeship probation had thoroughly prepared me for hospital studies, and I verily believe that I profited more from the opportunities then afforded than I should have done without it, or than my French companions did. Throughout the seven years, however, that I attended and lived in the Paris hospitals, I saw daily exemplified in the patients the want of the knowledge of purgatives that my general practitioner relative in England possessed to his finger ends. Neither physicians nor surgeons knew how to give and to blend cathartics, salines, and mercurials as he did; and I daily saw symptoms which I could have at once relieved had I been the head instead of the subordinate. No doubt this knowledge existed formerly in France as with us; but, under the influence of Broussaisism, which considered purgatives as dangerous, as producing gastro-intestinal inflammation, they had dropped out of practice. All that was ever given was a saline effervescent called "*limonade purgative*," very rarely even castor-oil. When I could I remedied the deficiency, not without reproof for treating patients *à l'Anglaise*, with *des médecines de cheval* (horse-medicines).

Not only did my apprenticeship knowledge thus enable me to see deficiencies in the then system of my French seniors, but it also materially helped me in most of the *concours* or public competitions in which I took part. Thus, in one instance, I came out "*facile princeps*" in an important *concours* in which there were two hundred candidates, in a great measure owing to Reptonian reminiscences. The written ordeal, for which three hours were given, was "The Structure of the Skin and Eczema." Now we had had at Repton several cases of chronic eczema which had much bothered my uncle, and which he had handed over to me. So I was well up in the subject, and wrote a regular treatise. The oral ordeal, for which ten minutes was given, was "The Structure of the Liver and Colica Hepatica." It so happened that Mr. Tabberer had in his practice three old sisters above sixty, living together. The doctor's nephew found favour in their eyes; and (poor deluded ladies) they told him that he might send me whenever he liked. One of them had a severe attack of gallstones, for which I attended her all but alone. This case flashed on my mind, and I graphically, impetuously, *ore rotundo*, unfolded the history of colica hepatica and gallstones. Most of my competitors floundered in the (to them) unknown ground, and I was thus doubly victorious.

Since these days, and until now, the judicious but fearless use of purgatives has been an important element in my practice and in my professional success. I constantly succeed in accomplishing what my predecessors have failed to accomplish, by their means.

It appears to me that the neglect of their rational use which I observed in France forty years ago, has gradually extended to England. This change has coincided with the change of doctrine to which I alluded in commencing, which makes nearly all disease asthenic, and to require tonifying treatment, instead of treatment erroneously considered debilitating. I went as a health exile to Mentone in 1859, and ever since have resided and practised there in the winter, and I am now the senior of the twenty-four medical practitioners. This position gives me an admirable opportunity of judging what is the tone of practice at home. Every winter I see the prescriptions of most of our leading practitioners, and now seldom find purgatives prescribed, either cathartics, or salines, or mercurials, in the shape of blue pill or calomel. The therapeutical agencies principally relied on are: iron, quinine, arsenic and nux vomica, with sedatives and antispasmodics. These tonics are often ordered in cases where the stomach and liver are altogether out of order. Indeed I remember reading in this very JOURNAL some time ago that the state of the tongue is not a reliable guide in conditions of anæmia, and that tonics and a copious animal-food dietary might be persevered in, even enforced, however furred and brown the tongue might be? Such an axiom is arrant treason in my eyes, and would have made my early instructor, Mr. Tabberer, shudder, had he read it. Many of my juniors, on the other hand, shudder at the name of blue pill and calomel, do not even know how to use them, and never prescribe them; not even in congestion of the liver, or in bilious diarrhœa, under any circumstances. I often follow in their footsteps, after lengthened therapeutic failures, and, guided by Reptonian reminiscences, cure the patients in two or three days by the judicious use of these "awful" medicines, coupled with a little so-called starvation.

I may add, incidentally, that I find active purgation very useful in all hæmorrhages, especially in lung-hæmorrhage, often succeeding when all the usual styptics, etc., fail. A case I had a few years ago aptly illustrates the powerful influence of purgatives in hæmorrhage in general. I was called to a young Russian lady, who was bleeding to death after the extraction of a tooth. She presented the peculiar hæmorrhagic constitution so well known, and had already nearly lost her life several times from this cause. The dentist and two or three doctors had been trying every available means, medical and surgical, for forty-eight hours, without success. The mouth and lips were black with the perchloride of iron. They were at their wits' end, and I, myself, the consultant, was puzzled. I bethought me, however, of the influence of purgatives, and gave her an ounce of castor-oil, repeating the dose in a couple of hours. Free purging took place, and the hæmorrhage stopped at once, not to return.

In conclusion, I would say that, although I think it will be a loss to future generations of medical practitioners for the practical lessons gained during the old-fashioned apprenticeship to be discarded, I quite admit that it is wrong to entrust important pharmaceutical and medical duties to inexperienced youths such as I was. It would be well, however, to devise some plan by which students, at some period or other, or young graduates, should be encouraged, if not obliged, to pass a year or two as assistants to a general practitioner in full practice. Perhaps this cannot be done; but, if so, it is a pity, for our doctors will be less practically efficient than of old, and a vast mine of traditional knowledge will be lost.

An evidence of the want of pharmaceutical knowledge in the rising generation of practitioners is to be found in the advertising columns of this or of any other medical journal. Evidently, the young doctors of the present day do not know how to prescribe, for want of the practical knowledge they acquired formerly as apprentices. The chemists of the present day, equal to the occasion, are providing them with formulæ ready cut and dry, which must be rapidly gaining ground, if we are to judge by these advertisements.

In France, where pharmacy and the art of prescribing are even less studied and known than with us, prescribing is being rapidly reduced to ordering some chemist's formula—So-and-so's iron, So-and-so's chloral, So-and-so's antihæmorrhagic solution, So-and-so's quinine, ergotine, digitaline, aconitine, arsenic, etc., in capsules, perles, or syrup. Surely, a well-informed medical practitioner ought to know how to combine and prescribe medicinal agents better than his chemist. The latter gains the day with half-educated doctors, by assuming that *he only* supplies the pure thing, the real unadulterated drug! This system, however, I am told by dispensing chemists, cuts both ways. It diminishes their legitimate profits, although they receive a very large percentage. In France, they get an allowance of fifty per cent. In building up the fortunes of a few large advertising houses, they diminish their own profits. Moreover, the purchaser reads the outrageous advertisements that accompany these "magistral preparations," as the French call them, and commence amateur doctoring on their own account, to the detriment of the sufferers and of the profession.

In conclusion, as regards the practical value of the apprenticeship system, I would refer to a very valuable and exhaustive essay which appeared in this JOURNAL a year or two ago by Dr. Clifford Allbutt of Leeds. It is the recollection of this essay that has led me to give to this paper the form which it has assumed.

WOUNDS AND DISEASE.—Last week occurred the anniversary of the withdrawal of the Allied Forces from the Crimea in 1856. The campaign lasted two years; and the English lost in the war about 22,000 men, of which number 4,000 were killed or died of their wounds, 15,000 of disease, and 3,000 disabled. The French lost 63,500, and the Russians nearly half a million.

THE PROPOSED MEDICAL PROVIDENT SOCIETY.[1]

By JOHN BROWN, L.R.C.P.Lond., etc., Bacup.

For several months, the British Medical Journal has opened its columns for the discussion and the promotion of the above scheme. Many valuable suggestions have been made, but nothing has yet occurred to warrant us in saying that it will succeed. At present, the number willing to join are far too few to guarantee success. A gentleman of considerable experience on this question, writing to me, says: "I fear, as regards your project—it has been attempted twice before, but the projects failed numerically—you will not get enough members to make the scheme work beyond a very few years. I do not believe in any one profession being strong enough to carry the dead weight of its casual sick, especially one so exposed as our own is, and, what is worse still, my experience in our own county (Surrey), and the Council of the British Benevolent Fund and the Epsom College Council Boards, tends to the conviction that from some cause or other, or many combined causes, we are an unthrifty class. My experience is that those who do most to support these institutions, are those who are least likely to need their benefits; and those who are liable to require their assistance, either cannot, or will not, save." Up to the present, numerically, this scheme is comparatively a failure. In our Branch, we have over 1,000 who are members of the British Medical Association, besides about 500 medical men who are not members. Of these, only 15, or 1 per cent., have expressed their willingness to join this society. Fearing the medical provident scheme will fall through, I would suggest that an association be formed which shall embrace the provident and benevolent principles. It might be named the Medical Mutual Aid Association; its aims would be far more noble and charitable than the provident society, and ought to command the hearty and practical sympathy of every medical man. In the British Medical Journal of May 19th, 1883, Dr. Martin, of Sheffield, mentions four recent appeals which were made in the medical journals; he also states another case in Sheffield, a surgeon threatened with absolute want, for whom the local medical men were doing what they could to relieve the case. He advocates very strongly the pressing necessity of forming a benevolent fund, co-extensive with the Association, or even extending beyond the members of our Association; and he believes that it would be possible to raise £30,000 per year, and that the sad stories which meet our eyes would soon disappear.

The Medical Mutual Aid Association would have two classes of members, Class A, *Prudential* members; Class B, *Benevolent* members.

Class A.—The *Prudential Members* would have the control, management, and benefit of the sick fund; the object of which would be to provide against sickness and accidents.

Terms.—From 21 to 40 years of age, to insure £2 per week for a a period of not more than fourteen weeks in one year, a premium of £2 *per annum*. To insure £3 per week, for the same period, a premium of £3 *per annum*. From 40 to 50 years of age, the same premium for the like weekly income, which shall not exceed ten weeks in one year. From 50 to 60 years, the same premium and benefits, which shall not exceed seven weeks in one year.

The above scale would probably be safe, and possibly more liberal terms might be offered after a few years' experience. By arranging the sick benefit for a number of weeks, you may guarantee success to this movement. By having a low premium, more would be induced to join. Many of the scales of premium are prohibitive to persons of limited income, and who have to pay heavy premiums on life-insurances. Dr. Thorburn calculates that, at fifty years of age, to insure £3 3s. per week, the premium would be £12 5s. 11d. *per annum*.

The limitation of the sick-pay to a definite number of weeks is to prevent the collapse of this scheme from cases of chronic illnesses, which would soon exhaust the funds of a young society; this is one of the chief sources of failure which can be avoided on the principle stated above. Any chronic case of illness could be recommended to the committee of the benevolent fund, and would be relieved by them.

The tendency to sickness increases very rapidly after the age of forty-five; therefore the number of weeks of sick-pay must be reduced correspondingly. All medical men who are on the *Register*, and engaged in active practice, should be eligible for membership. It is very probable that many members, after twenty years of successful practice, would be able to give up their beneficiary rights, and thus give stability to the fund. Such members might be made life-governors, and thus merit the honour and esteem of their less wealthy brethren.

Class B. *Benevolent Members.*—The object of the benevolent fund would be to assist needy qualified medical men (whether due to misfortune, sudden or chronic illness, old age, or other legitimate cause), their widows and orphans, and the education of sons and daughters, or other relatives of members.

In England, there are ten medical benevolent societies, three in London and seven in the provinces. I have been favoured with reports and letters from the secretaries of six of the provincial societies. These reports give valuable suggestions how to successfully organise such a society. Many of these societies are burdened with wealth, and are not doing the amount of good which might be expected. One society has thirty-eight members, with a capital of over £10,000. The amount it disburses is less than the interest from the invested capital, besides the yearly subscriptions of the members. Four of the benevolent societies are suffering from plethora of gold, and ought to be bled freely. In order to do this, it would be necessary to alter the by-laws. The London benevolent societies are doing vastly more good than all the provincial societies. They give relief to the extent of over £8,000 per year, and, from lack of funds, are unable to relieve many really needy cases. Last year, the six provincial societies disbursed in charity £1,820. They have a total capital of £43,139 and membership of 587. Financially, all these societies are successful; we may augur, therefore, that the benevolent fund will be a success.

The *Benevolent* members may be medical men or non-professional; the latter would be patrons and benefactors. The purposes of this fund are so praiseworthy, that many would be glad to have the privilege of giving practical help to a profession which gives so generously its services to the public. Other professions are not slow to give the laity or non-professional an opportunity of subscribing. For example, on May 20th, 1883, the annual festival of the Artists' General Benevolent Institution was held in London, under the presidency of Sir Stafford Northcote. At the close of the dinner, the handsome sum of £2,507 was collected. Supposing our Branch formed such a society, an annual dinner in Manchester or Liverpool would meet with hearty and generous support from the laity.

The fee for *benevolent* members shall be £1 1s. *per annum; prudential* members 10s. 6d. *per annum; honorary* members £2 2s. and upwards.

If the members of this Branch take up the matter heartily, we can form a benevolent society which will become the most influential in the provinces. The Birmingham Society has 247 members, capital £10,000. In our Branch, if canvassed personally, we ought to have at least 500 members. This could be easily done if the two counties were divided into about 50 districts, each district to have an honorary secretary, who should appoint as many medical men as stewards as he considered necessary, to personally solicit medical men to join, and the gentry to become patrons and benefactors. In this way the work could quickly and efficiently be done, and the results would more than repay the trouble. If a provisional committee were formed, and a circular, stating clearly the charitable object of the society, sent to each medical man, there would be many who would volunteer to act as stewards.

Some doubt the necessity of the provident fund, but all who have read the British Medical Journal can only have one opinion as to the urgent need of a benevolent fund. With your indulgence, I will read an appeal which appeared in the Journal on December 23rd, from Dr. Ormsby on behalf of Dr. Griffith's three orphans. Now, gentlemen, let us who pride ourselves on the nobility and self-sacrificing devotion of our profession, see how large and generous is our beneficence. Two weeks after this appeal, on January 6th, 1883, there appeared Dr. Ormsby's reply, acknowledging £18 6s.

This is not exceptional. The response to most needy appeals, as a rule, does not amount to the cost of a first-class private dinner party. It is time that such a reflection should be removed. A society as proposed need not interfere with those established; they cover a small area of the British Medical Association. This would be co-extensive with the Association itself. Besides being a noble charity, it would be a bond to draw us into closer friendship, and would dispel much of the petty jealousy and coldness which exist among us.

[1] Read at the Lancashire and Cheshire Branch Meeting of the British Medical Association.

I beg to move the following resolution, which I trust will be seconded and carried unanimously, and that it will again prove that "what Lancashire thinks to-day, England, or the British Medical Association, will think to-morrow."

"That this meeting heartily approves of the formation of a medical society which shall combine the provident and benevolent principles, the latter being of paramount importance, as the recent appeals in the JOURNAL have too painfully proved, and that we desire the Committee of the Council of the British Medical Association to take the necessary steps to bring this question as early as possible before each Branch of the Association."

[This was seconded by Dr. Walter, and carried unanimously.]

OBSTETRIC MEMORANDA.

SPONTANEOUS VERSION.

A PRIMIPARA, aged 30, presented herself at the Queen Charlotte's Hospital, believing that labour had begun. She was only eight months pregnant, and the pains were found to be spurious; when a vaginal examination was made, the os was found to be unopened. The presenting part, though high up, was undoubtedly the breech. On examining the abdomen, the fœtal heart was heard on the left side, but about two inches above and to the left of the umbilicus. The patient was discharged.

A month later, she again presented herself; this time labour had begun. Remembering the case, the position of the fœtal heart was again discovered by auscultation; it could not be detected at the old spot, but was heard on the right side of the abdomen, below the umbilicus, and mid-way between that point and the anterior superior spine of the right ilium. This pointed to a second or third vertex presentation. On examining by the vagina, the head was felt, with its occiput anterior, indicating almost certainly the second cranial position.

Labour progressed naturally at first, but, in the second stage, delay necessitated the use of the forceps. As the head was born, the face turned down towards the mother's left thigh, thus completing the diagnosis of a second cranial presentation. The cord was rather long, measuring twenty-four inches. It was twisted over the child's back and around one leg.

I have examined the heart in numerous other cases before the beginning of actual labour, but at present this is the only case in which I have noticed a marked change in its position, for which no cause could be discovered.

LEONARD W. BICKLE, M.R.C.S., L.R.C.P.Lond.,
Resident Medical Officer, Queen Charlotte's Hospital.

INJECTION OF HOT WATER IN DELIVERY.

I CAN fully corroborate the remarks of Drs. Beckingsale and Boxall as to the utility of hot-water injections *per vaginam* in producing relaxation of a rigid and undilatable os, although, in such cases, chloral ought to be given, unless its administration is contra-indicated. There is not the slightest danger or discomfort attending the use of these injections. In tedious labours from defective expulsive power, warm-water enemata usually accelerate and strengthen uterine contractions, thereby hastening delivery; but I do not agree with Dr. Beckingsale that "it follows that the hot enema must act as a direct and powerful stimulant to the uterine muscle." I think it acts reflexly. As regards the injection of hot water in *post partum* hæmorrhage, I believe it to be most unreliable, and I hope that, at no distant date, it will be entirely discarded. Dr. Boxall, in describing the treatment of a case of flooding after removal of an adherent placenta, where he had recourse to these injections, says: "The administration of ergot, owing to the persistence of anæsthesia, was inadmissible." What about the hypodermic injection of ergotin?

W. BAIN, L.R.C.P. and L.R.C.S., Heaton Chapel, near Machester.

EVER since the first mention, some years ago, in the BRITISH MEDICAL JOURNAL, of the American method of stopping hæmorrhage by injection of hot water, I have adopted it with unvarying success, so that now I rely on no other method for *post partum* hæmorrhage.

A Higginson's syringe is all that is necessary to carry in the midwifery bag; and a small bottle of glycerinum acidi carbolici, or permanganate of potash, gives one the power of irrigating antiseptically at the same time.

If labour have been prolonged, I always wash out the uterus this way after the expulsion of the placenta, and in this manner feel sure that in many cases *post partum* hæmorrhage is prevented.

I am surprised that more medical men do not use this method; they would if they once had tried it, for hot water is always to be had at a confinement, whether the patient be rich or poor. A long gum-elastic tube, with plain nozzle, is fitted to the Higginson's syringe, and the apparatus is complete for any purpose.

H. D. PULLAN, Nayland, Colchester.

THERAPEUTIC MEMORANDA.

HYDROCYANIC ACID AS AN ANTIDOTE TO STRYCHNINE POISONING.

SOME years since, it became necessary to destroy an old dog. A large dose of strychnine was administered in bread, but the poison did not act very rapidly, and, as the animal's struggles and pains were distressing to watch, some hydrocyanic acid was poured in his mouth, to complete the poisoning and hasten the end. To our surprise, the animal at once improved, and eventually recovered. I had forgotten this until the other day, when one of our cats was found dead in the garden, and the other dying, with all the symptoms of strychnine-poisoning; viz., constant tetanic spasms, and dilatation of the pupils, and insensibility to light. The cat was held firmly, and three or four drops of hydrocyanic acid dropped carefully on the tongue. An improvement was shortly visible; the pupils of the eyes became normal, the convulsions became less and less severe, and in a few hours the cat was all right again. I would add that the cat was nursing a kitten, which apparently suffered no inconvenience from the poison. C. H. WATTS PARKINSON, M.R.C.S.,
Wimborne.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

MARYLEBONE INFIRMARY.

A CASE OF TRAUMATIC ANEURYSM: AMPUTATION AT THE SHOULDER-JOINT: DEATH.

[Reported by Mr. JOHN R. LUNN, Medical Superintendent.]

T. J., a labourer, aged 52, was readmitted on December 6th, 1882, with an old united fracture of the left clavicle, and ankylosis of the shoulder-joint, elbow, wrist, and phalanges; the left arm was practically useless. He was told that he must not expect much movement. His urine contained a trace of albumen.

He fractured his left clavicle in August 1882, and had his arm put up in splints at a hospital, but did not attend until his arm was cured, so that the limb remained painful and useless from adhesions in, and contraction of, the shoulder, elbow, wrist, and fingers.

He was first admitted in the Marylebone Infirmary on November 20th, 1882. Mr. Lunn and his colleague employed passive motion under chloroform, and a great many adhesions were broken down in all the joints, but the patient discharged himself when partially improved.

On readmission, passive motion was repeated once a week under chloroform, and the battery was applied daily, with friction of the shoulder. He seemed gradually to improve, and was able to help in the ward.

On March 9th, 1883, he was again put under chloroform, and his elbow seemed to move well when under the influence of the anæsthetic. Whilst the shoulder-joint was being moved, suddenly a large non-pulsating swelling appeared in the left pectoral region, extending into the axilla as far back as the posterior border, and upwards slightly over the shoulder. The radial and ulnar arteries of the same side were to be felt, but no brachial vessel, as the swelling seemed to obscure the pulsation of the artery. Pressure on the subclavian artery did not seem to alter the swelling. On account of the persistence of the radial pulse, it was thought that some small artery was ruptured, and that some fibres of the pectoralis major and minor were torn. The forearm and hand were wrapped in cotton-wool, and evaporating lotion applied to the swelling in the

pectoral region, as well as to the arm and axilla; a narcotic was administered.

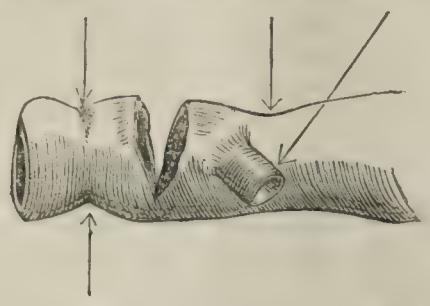
On March 9th, his temperature was 99° Fahr. He had passed a good night, and the swelling had not changed. Some bruises on the skin began to show.

On March 12th, three days after the accident, his temperature was 100° Fahr., and the discoloration from extravasation of blood extended as far as the front, back, and side of the trunk. He went on well until March 13th, four days after the accident, when the swelling suddenly increased, and obscured all prominent points of his shoulder, and caused extreme pain from the tension of the skin; neither the radial nor the ulnar artery could be felt, and some œdema of the hand and forearm had already developed. The patient looked anæmic, and was apparently in an exhausted condition, so that prompt interference was necessary. He was put under the influence of chloroform, at 10.30 P.M., on March 13th. The subclavian artery was controlled as well as it could be, and Mr. Lunn made an incision, about five inches long, from the middle of the clavicle, and one inch below it; the incision was carried through the pectorales muscles down to the axilla. After carefully turning out the coagulated blood, sharp hæmorrhage began to take place, evidently from the axillary artery, near the lower boundary of the axilla. This hæmorrhage could not be controlled by pressure on the subclavian, but was slightly checked by putting sponges against the bleeding surface. After trying some time to find the bleeding orifice, the patient having become exhausted from loss of blood, and as the artery could not be controlled, it was thought best to amputate at the shoulder-joint; the bleeding was then easily controlled, and the patient put to bed; he appeared to be out of immediate danger, but sank, about six hours afterwards, from the shock of the operation.

REMARKS BY MR. LUNN.—The question arises, How far is it justifiable to perform a passive motion on patients over fifty, and with tortuous arteries, and a trace of albumen in the urine? The diagnosis of the above case, after the formation of the aneurysm, was obscure, and one did not recognise that the main artery was ruptured, as the swelling was not pulsating, and the radial and ulnar arteries were to be felt at the wrist. The reason why the subclavian artery could not be controlled at the time of the operation was because the clavicle was displaced from the pressure of the blood, and the tissues were softened, and out of place and swollen, in consequence of the extravasation.

His arm was amputated because one could not find the bleeding ends, and the patient seemed to be dying on the table from the loss of blood, it being in this case extremely difficult to compress the artery at the seat of injury, and expose it at the same time. The only way in which I think we might have controlled the subclavian artery was by the method urged by Guthrie (Erichsen's *Surgery*, vol. i, p. 294); that is, by making an incision through the skin and subcutaneous tissues, and compressing the subclavian artery before amputating; but this would have been difficult or impossible, on account of the position of the tissues. Might the profuse hæmorrhage from the open artery, during the operation, have been due to the establishment of the anastomotic circulation, thus accounting for the inability to control it by compressing the subclavian?

The injured portion of the axillary artery was removed for examination, and was found to be torn through transversely, close to the origin of the subscapular branch. The sheath, however, was only partially torn through, and kept the divided ends near together, the aperture having probably been temporarily closed by an adherent clot, which subsequently became loosened. We cannot regret not having left the arm alone, but one was tempted to try passive motion, as the patient was not able to earn his own living as a labourer; the chances of rupturing his artery were carefully considered by myself and colleague, before attempting passive motion, and the danger was thoroughly explained to the patient.



ST. BARTHOLOMEW'S HOSPITAL.

THREE CASES OF REMOVAL OF THE FEMALE BREAST, WITH EXCEPTIONALLY RAPID RECOVERY.

(Under the care of Mr. SAVORY.)

[From Notes by D'ARCY POWER, M.B., House-Surgeon,]

THE following cases require but little comment. Two of them prove that even advanced pregnancy is no bar to the performance of serious operations on the breast.

CASE I.—R. W., aged 37, mother of nine children, four months pregnant, was admitted to Lucas Ward on March 12th, 1883, with a tumour rather larger than an egg in the upper part of the left breast. The swelling was first noticed three months before, when it was of the size of a small walnut. On examination, it was found to occupy the upper segment of the breast near its periphery; it was movable and bossed. Fluctuation could be distinctly felt in parts. It did not extend to the nipple, but was connected with it by indurated cords. There was no serous discharge from the nipple. There were no enlarged axillary glands.

March 13th. One of the fluctuating points in the tumour was punctured with a grooved needle; about two ounces of clear fluid escaped. The puncture soon healed up.

March 24th. An incision was made into the tumour; clear fluid escaped. The incision, however, did not close; but there was a constant oozing of serous fluid from the wound.

The patient left the hospital, at her own wish, on April 13th. She was readmitted on May 15th, stating that she had suffered much pain in the left breast, that it was constantly wet, and that something had grown from the wound. The left breast was considerably larger than when it was last seen, the skin was tense and reddened, and the glandular substance was harder than natural. A large fungating mass grew from the site of the incision, and there was a constant oozing discharge of clear fluid. The patient was, however, otherwise in good health. After consulting the surgical staff of the hospital, Mr. Savory decided to remove the breast. Dr. Matthews Duncan was also consulted as to the advisability of inducing premature labour previously to performing this operation; but he thought that such a procedure would unnecessarily delay the removal of the breast.

On May 19th, an ice-bag was applied to the breast for five hours, in order to diminish, as far as possible, the quantity of blood in the gland, by contracting the vessels. The outer two-thirds of the breast, with the nipple, was then removed by Mr. Savory. The bleeding was comparatively slight. The patient passed a good night.

May 22nd. The patient was kept upon her right side, to secure, as far as possible, a dependent opening for the discharges The wound looked healthy; it was dressed with oiled lint. Morning temperature 98° Fahr. She slept well; the bowels were open.

May 28th. There was a slight discharge of healthy pus from the wound; the greater part of the surface had healed.

June 8th. The patient left the hospital with a firmly healed cicatrix.

Subsequent examination showed that the breast removed from this patient contained a cyst about the size of an orange, with loculi, but no small cysts on its wall. The cyst-wall was fairly well defined. The parenchyma was composed of round cells, of a sarcomatous type, The tumour was, therefore, a sero-cystic sarcoma.

CASE II.—E. W., aged 33, mother of seven children, seven months pregnant, was admitted to Lucas Ward, with a swelling in her left breast of one year's duration. The breast was small, and, situated below and slightly to the outer side of the nipple, was a firm scirrhus adherent to the skin, and slightly to the deeper structures; there was no retraction of the nipple; in the axilla were several enlarged glands.

June 23rd. Encouraged by the success of the previous case, Mr. Savory removed the breast freely; a good deal of blood was lost during the operation, and an unusually large number of vessels had to be ligatured. The glands were not removed. The tumour was a scirrhus of the ordinary type. Some uterine contractions followed the operation, but they soon passed off.

June 27th. The wound looked well; there was no discharge. The sutures were removed. The breast had been dressed since the operation with oiled lint, and the patient had been kept upon her right side.

July 4th. The wound had almost wholly healed by first intention; there was no discharge from it.

July 6th. The wound was quite healed. The patient left the hospital.

CASE III.—M. W., 53, married, no children, was admitted to Lucas Ward, June 13th, with a tumour in her breast, which she noticed three months previously. On admission, a large firm swelling was found to occupy the outer side of the right breast. The nipple was retracted; the tumour was not adherent to the skin or deeper structures. There was one enlarged gland in the axilla.

June 16th. The breast was removed by Mr. Savory. The tumour was of the ordinary scirrhous type, widely infiltrating the surrounding tissues.

June 18th. The sutures were removed from the wound, which looked healthy.

June 27th. The wound was nearly healed. The patient sat up.

REMARKS.—In these cases it seems that the excellent results are chiefly due to the position in which the patient was kept after the operation, viz., upon the side opposite to the wounded one. A free exit is thereby afforded for the discharges from the wound, through the opening left at the end of the flaps; and this opening is dependent, and is at the lowest part of the wound. The position is also convenient, as it allows of the wound being dressed with the least possible amount of disturbance to the patient. In each case the wound was syringed daily with a strong solution of Condy's fluid in water. The effect of the previous application of cold to the breast in the first case was very marked, as the hæmorrhage during the operation was comparatively trifling; whereas, in the second case, where no such precaution for diminishing the quantity of blood had been taken, although the breast was small, the amount of blood lost was considerable.

REPORTS OF SOCIETIES.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, JUNE 1ST, 1883.

JAMES HOUGH, F.R.C.S., Vice-President, in the Chair.

Case of Hysteria in a Boy.—Dr. INGLE read the notes of the following case. A boy, aged 10, well developed, but rather strumous looking, the eldest of five robust children, was first seen on May 1st, 1881. He had been complaining of headache and sickness, and was restless and irritable. He kept in bed with the room darkened and his eyes shaded from the light by his arm; his lids were closed, but trembled suspiciously. The thighs were flexed over the belly, and the legs on the thighs. He took no notice of what was said to him, and would scarcely answer a question. He had taken nothing but water for some days, and now refused that. His temperature was over 100°; the tongue coated; bowels obstinate; and the urine loaded with phosphates. The bowels acted freely after an aperient was given; there was no trace of worms; but his condition was not improved, and he showed extreme sensibility to sound as well as light. He remained in the same state for a fortnight, when he was seen in consultation with Dr. Latham. He continued to become worse, refused to sit up, and at night disturbed the household with screaming and incoherent talking. His bowels were said to act only once a week. Till now he had been nursed by his mother; her attendance ceased on July 6th, and he somewhat improved, but he became worse when she returned, and was removed to the hospital. On returning home in October, he resumed his old condition, and his mother then asserted that he now had no relief from his bowels, passed no urine, and positively refused nourishment of any kind. The father, however, concealed himself under the bed whilst the boy was asleep. It appeared that the boy got out of bed and went into an adjoining room, where, after loosening a plank in the floor, he removed it, and made use of the hole as an urinal. The ceiling below was found to be discoloured, and there was evidence that this trick had been continued for some time. It was also discovered that the boy managed to conceal biscuits in his pillowcase to satisfy his hunger. Soon afterwards the boy recovered.—Remarks were made on the case by Dr. Ingle, Dr. Latham, and Dr. Bradbury.

Treatment of Genu Valgum.—Mr. WHERRY read a paper on this subject, and showed his frame, in which the patient stood upright with his back against a door or wall; when the knees were slightly bent, a disc of cushioned cork could be placed between, so that, the upright position being resumed, the knees were forced apart and so kept. The disc was useless without the frame, which kept the heels and toes together. The sitting cross-legged, tailor-fashion, was also useful. A growing boy could do his lessons in this position, sitting on a large cushion on the floor, like a Turk, for hours daily without discomfort.

Tetanus Terminating in Recovery.—Dr. RANSOM related this case. J. B., aged 16, strong and well grown, on March 24th, 1883, ran the prong of a garden-fork through his left great toe. His mother applied common salt first, and afterwards bread-poultice. On April 5th, the toe being healed, symptoms of tetanus began in the neck and jaws. On April 8th, there was tetanus, the pectoral and abdominal muscles were characteristically rigid, and clonic spasms occurred about every ten or fifteen minutes. There was no difficulty on deglutition; temperature 99°; skin sweating. He was ordered to be kept quiet in a darkened room, to take freely of light nourishment, and five grains of chloral hydrate, with ten grains of bromide of potassium, every four hours. He got worse for a week, but took food freely. He then began to improve, and on May 11th was quite well. When the patient was convalescent, but the pectoral and abdominal muscles still rigid, the plantar reflex was tried, the leg-muscles being flaccid, and was found normal. No other superficial reflex could be obtained. The patellar tendon-reflex, tried under the same conditions, was greatly exaggerated, and ankle-clonus was easily obtained. *Tache cérébrale* was readily produced. After the patient was well, the patellar reflex was normal, and neither ankle-clonus nor *tache cérébrale* could be obtained. Dr. Ransom had not been able to find any previous record of the condition of the reflexes in tetanus.

GLASGOW AND WEST OF SCOTLAND BRANCH.

ANNUAL MEETING, JUNE 29TH.

Discussion on Acute Pneumonia.—Dr. A. NAPIER introduced a discussion on acute pneumonia, one of the subjects under the consideration of the Collective Investigation Committee. He said that the memorandum accompanying the cards relating to acute pneumonia, showed something of the nature and scope of the inquiry. It turned on the etiology of pneumonia. The commonly accepted view that "inflammation of the lungs" was due to cold or exposure, that in fact it resembled catarrh in its origin, was now doubted by many, who were disposed to regard it as one of the specific, perhaps infectious, diseases; and they based their view mainly in the circumstance that, apart from the occurrence of acute pneumonia in well-marked epidemics, the fever and other symptoms in many cases did not run at all parallel with the physical signs. Thus, high fever with evidence of inflammatory lung-affection of but limited extent, especially if this were seated in the apex, was not uncommon; and further, the fever often subsided, occasionally by a sharp crisis, long before any change was noticeable in the physical signs. Was acute pneumonia a zymotic disease, with the lung-affection as the analogue, say, of the ulcerated bowel in enteric fever? Dr. Napier then directed attention especially to the circumstance that, in acute pneumonia, the physical signs (dull percussion, tubular breathing, bronchophony) were often delayed for a variable period, sometimes days, after the fever and other symptoms had amply declared the nature of the illness. For instance, in one case which he reported, the chest was carefully examined back and front daily, yet it was not till the evening of the fifth day that consolidation could be detected at the left base; all this time the high fever (temperature, 104° Fahr.), a pulse of 120, the short painful cough, with rusty sputum, left no doubt as to the nature of the case. The diagnosis, in fact, depended at first entirely on the symptoms, and not on the physical signs. In another case, which proved fatal on the eleventh day, no physical signs were detected till the sixth day. This patient was examined carefully and repeatedly by Dr. Napier, and twice by Dr. Finlayson, and it was only at Dr. Finlayson's second examination, on the evening of the sixth day, that consolidation was discovered in the upper part of the right lung. Until these signs were made out, the suspicion that the lung was at fault was based on the constant short cough, scanty but not rusty sputum, pain in right side, high temperature (106° Fahr. on fourth day), and the low muttering delirium. At first the question of enteric fever was naturally enough raised, and from the temperature-chart alone it was not possible to exclude it till the discovery of physical signs cleared up our doubts. It would be interesting to know the cause of the delay in the appearance of the physical signs. Was it that the pulmonary inflammation occurred, not as the primary and fever-causing element in the case, but as only one of the phenomena in the march of a specific zymotic disease? Or was the delay due simply to the inflammation being limited at first to the interior of the lung, and becoming accessible to our ordinary means of examination only at a comparatively late stage in the malady?

Dr. RENFREW had for a long time considered pneumonia a specific disease, and not a simple inflammation. It was somewha

irregular in its course, like erysipelas, generally running its course in from six to ten days. The symptoms were different from those of a simple inflammation. Cold had something to do with its coming on, especially exposure to cold east wind. Exposure to cold brought on sore throat and hoarseness, which ended with diphtheritic exudation. Pneumonia began with a chill or rigor, more or less severe. The temperature rose quickly and high, no disease showing regularly such a high temperature throughout its course. Cases of typhoid or rheumatic fever might frequently be seen with higher temperature; in pneumonia, it was more regularly high. The temperature was often out of proportion to the pulse. It might be 103° when the pulse was at 80 or 90. The exudation was often thrown down rapidly and to a large extent, and nearly as rapidly absorbed. In every case, there was less or more delirium. From the beginning, the intellect of the patient was seen to be confused, having dreams of a very disturbing and alarming kind, ending often in a very high and most uncontrollable delifium. Where the patient had been in the habit of taking spirits daily, it assumed the character of delirium tremens. The delirium was considered at one time to be caused by the imperfectly aërated blood circulating through the brain; but this did not account for it, as was seen in cases of capillary or vesicular bronchitis, the blood-circulation was more impure without delirium. The cases where the local conditions did not correspond with the general symptoms might be accounted for by their being lobular. Dr. West, in his book on *Diseases of Children*, had divided pneumonia into lobular and lobar. A child might pass through a severe attack of illness with all the general symptoms of a pneumonia, and, as only one lobule might be affected, dulness, tubular breathing, and broncophony might never be discovered. Dr. Renfrew believed that a small bit of a lobe or a lobule only being inflamed, might produce the general symptoms of pneumonia in their severest form. He had seen in the newspapers reports of deaths from congestion of the lungs, and had heard of people being ill of the same. The registrar had no column for such a disease. He supposed pneumonia was meant. If such were the case, the term was an incomplete and improper one. Congestion was only a part of the inflammatory process, for, besides the congestion, there was perverted nutrition.

Dr. FREW had been taking some interest in this subject in connection with the investigation going on, and had forwarded, through Dr. Napier, a few cards relating to the subject of acute pneumonia. He had attended, in the past six months of the present year, forty-eight cases of pneumonia. Of these, seventeen were of the nature of catarrhal pneumonia; the remaining thirty-one were cases of acute lobular pneumonia. The larger number of these occurred in connection with an epidemic of measles, which was very prevalent in the district, and were consequently among children. In most, the symptoms were quite easily interpreted, and no difficulty presented itself; but, in a few of the cases, he experienced the same difficulty in arriving at a diagnosis that Dr. Napier had referred to in the case he mentioned. In the case of the little girl especially, who had a pneumonia of the right apex, it was the fifth day before he could say distinctly that such was the nature of her illness. She had high fever, the temperature ranging from 103.5° to 104.5°, but she had little or no cough or expectoration, and never would admit that she was suffering any pain, except for a very few minutes on one occasion during the illness. He examined the chest carefully day by day, but not until the fifth day was he able to detect dulness and bronchial respiration. Between the sixth and seventh days, the temperature rapidly declined, and, in a few days more, she was quite convalescent. Other cases were those of a man between sixty and seventy, with an apex pneumonia, and a boy, aged 10, with a pneumonia of the left base, in which the signs for the first three days of the illness were very indistinct, and quite insufficient to base a diagnosis upon. With reference to the etiology, while he did not doubt that there might be predisposing causes, such as a previous attack of measles, he was pretty firmly convinced that cold was generally the exciting cause, and especially a cold east wind. During the epidemic of measles to which he had referred, as surely as there were a few days of easterly winds, just as surely did he see a fresh crop of pneumonia.

Dr. D. C. MCVAIL quoted his experience while resident in the eastern portion of the north of England, stating that there he found acute pneumonia to be a very common disease. This he associated with the greater prevalence of east winds in the eastern part of the kingdom, as compared with the west. He was inclined to ascribe the causation of pneumonia to cold rather than to the operation of any specific poison.

Movable Kidney.—Dr. D. NEWMAN described the various forms in which movable kidney presented itself, and referred to several cases, in one of which he had performed the operation of nephroraphy. This was the first occasion on which this operation had been performed in Scotland. The stitches were passed, not merely through the capsule of the kidney, but through its cortical substance as well. In another case, there was albuminuria, and the question arose whether or not this was due to disease of the movable kidney alone. The only method of determining this was to procure separate samples of urine from each kidney. This was done (the patient was a woman) by introducing a small electric light into the bladder along with a speculum; the orifices of the ureters were thus easily seen, and two catheters being introduced, one into each ureter, the urine was allowed to flow into separate vessels, and was afterwards examined chemically and microscopically. As it was found that both kidneys were diseased, an operation was not considered advisable. Dr. Newman exhibited the electric light and battery he had used in illuminating the interior of the bladder, and showed also the speculum he had devised for these cases. The catheters employed were slender gum-elastic catheters, with the eye at the tip.

REVIEWS AND NOTICES.

THE INTERNATIONAL ENCYCLOPÆDIA OF SURGERY. A Systematic Treatise on the Theory and Practice of Surgery by Authors of various Nations. Edited by JOHN ASHHURST, junior, M.D., Professor of Clinical Surgery in the University of Pennsylvania. Illustrated by chromo-lithographs and woodouts. Vol. III. London: Macmillan. 1883.

THE third volume of ASHHURST'S *Encyclopædia* includes treatises on Injuries and Diseases of the Muscles, Tendons, and Fasciæ; on Injuries and Surgical Diseases of the Lymphatics; on Injuries of Blood-vessels; on Surgical Diseases of the Vascular System; on Aneurysm; on Injuries and Disease of the Nerves; and on Injuries of the Joints. In the preface, the editor makes a graceful allusion to the death of Professor W. H. Van Buren, author of the valuable essay on the Clinical Aspects of Inflammation, in the first volume of the *Encyclopædia*. This third instalment of Dr. Ashhurst's great work of reference is, we are glad to find, far more truly "international" than its predecessors. In the first volume, thirteen out of a total of seventeen articles were written by American medical authorities. In the second, sixteen out of eighteen were of transatlantic parentage, and not one was written by a Frenchman or a German. In the third volume, which contains seven essays, two are by British surgeons, and one by a French author.

In many respects, this volume excels the second, as much as the second was superior to the first. The subjects, it will be seen, are almost entirely related to pure surgery of the most practical type.

Dr. P. S. Conner contributes "Injuries and Diseases of the Muscles, Tendons, and Fasciæ." It is a well-written treatise, yet, probably through fear of invading other departments—a fertile source of defect in all works of this kind—the descriptions of ganglion, paronychia, and Dupuytren's finger-contraction, with the operative procedures requisite for their relief, are rather limited.

Mr. Bellamy's article on "Injuries and Surgical Diseases of the Lymphatics" is another good paper, where the author has been, to a certain extent, handicapped in the same manner as Dr. Conner; for much information concerning dissection-wounds and septic infection is to be found repeated in other parts of the *Encyclopædia*.

The remaining treatises are of a type more satisfactory to a surgical writer; they are, practically, separate books in themselves, each consisting of a systematic review of some subject profoundly important to the surgeon.

Dr. John A. Lidell, late surgeon to Bellevue Hospital, and formerly in high command as an army surgeon during the American civil war, has contributed a work—we cannot style it a treatise—on "Injuries of Blood-vessels." It is a most valuable composition, rich with the spoils of time, and laden with some of the almost inexhaustible stores which lie in the official works on the medical history of the civil war. It has all the best features of the synthetic type of medical literature in which American writers so excel, and is replete with illustrations, not only of the surgical anatomy of arteries (taken mostly from Sédillot), but also of compresses, tourniquets, and novel contrivances. Dr. S. Fleet Speir's artery-constrictor, already familiar to our readers, is described and figured under the heading "Constriction or Crushing of Arteries for the Arrest of

Hæmorrhage," so that the student will have to store in his memory yet one more method of checking the escape of blood from a vessel. In referring to instruments valuable to the surgeon when it is desirable to complete an operation before applying the ligatures, Dr. Lidell has omitted all mention of the compression-forceps so invaluable to the ovariotomist, and so useful in all abdominal operations.

Dr. Wyeth, Professor of Surgery in the New York Polyclinic, contributes a treatise on "Surgical Diseases of the Vascular System." It consists of a purely pathological portion on phlebitis and arteritis, where the pathology of inflammation in the arteries is elucidated by some good drawings, some of which are from preparations prepared by Dr. W. L. Wardell in Cohnheim's laboratory, and of a very interesting section devoted to vascular tumours, cirsoid aneurysm, varices, and moles.

Over one hundred and fifty pages are occupied by Mr. Barwell's valuable monograph on Aneurysm, which, by the way, is spelt aneurism throughout the *Encyclopædia*. Hippocrates employs the verb *ἀνευρύνω*, to widen, and Galen spells aneurysm *ἀνεύρυσμα*, and in most modern works written in English it is the rule to represent the Greek upsilon by *y* and not *i*. The opinions of the author are already known to the British public. Mr. Barwell discusses the nature of the disease, its different forms of treatment, and its peculiarities when attacking particular arteries, all at great length. His contribution contains very few illustrations, but it must be remembered that much of what pertains to the surgery of aneurysm, such as the various forms of ligature and the incisions for the exposure of arteries, is to be found already in Dr. Lidell's article.

Whilst dwelling on the subject of illustrations, we feel compelled to remark that it would have been better if Dr. E. Andrews, of Chicago, author of the section on "Injuries of the Joints," had dispensed altogether with some of the woodcuts that disfigure his interesting contribution. Fig. 555, at page 658, is perhaps the worst woodcut to be found in any contemporary medical work; fig. 557, nearly as bad, looks like a caricature of a spectacled artist manipulating a lay figure. Medical publishers and editors should remember that nothing is harder to make satisfactory for purposes of illustration than representations of the surface of the human body; and in a sketch of a case of dislocation, it is not advisable that the sound side should look nearly or quite as deformed as the parts around the injured articulation. We have no fault to find with the letter-press of Dr. Andrews's paper; it is a very complete production, in which some space is devoted to "bone-setting" and other subjects of interest, besides dislocations and wounds of joints. It must always be remembered that many difficulties attend any attempt to supply an article on dislocations with good original illustrations.

M. Nicaise has contributed a very valuable article on "Injuries and Diseases of Nerves," translated by Dr. J. H. C. Symes of Philadelphia; it includes a vast store of important clinical and pathological information, which it would be quite impossible for us to review at present. We can speak favourably of a good chromolithograph of a hand, showing trophic changes following injuries to a nerve of the forearm. The only other coloured illustration in this volume represents a large nævus invading the lower part of the face in a child; it is included in Dr. Wyeth's paper, and is of fair artistic value.

This third and most truly "international" volume of Dr. Ashhurst's *Encyclopædia* is almost a library in itself; and, putting aside the blemish of a few effete and badly executed woodcuts, we can speak of it in terms of high commendation as a book of reference, though deficient in power and homogeneity.

MEDICAL GUIDE TO THE MINERAL WATERS OF FRANCE AND ITS WINTERING STATIONS. By A. VINTRAS, M.D. 8vo. pp. 330. London: J. and A. Churchill. 1883.

THIS valuable book supplies a good medical account of all the most important French mineral waters, and certainly of all that the English are likely to visit, although they have been finding out of late years that France has important waters besides those of Vichy.

Dr. VINTRAS does not enter into physiological or pathological details respecting the theory of the action and the application of mineral waters, but presents, in a clear style, a sketch of the most salient points respecting the different baths, and enumerates the complaints in which they are found useful. This being the case, there is little in his book that invites criticism. His occasional remarks on the condition of baths are judicious, as when he observes that the arrangements at Mont Dore stand in need of being modernised, and that things will at first appear rough to the visitors of St. Nectaire. He probably sets too much value on the arsenic of Bomboult, and certainly on the lithia of Royat, thinking more highly of them than Durand-Fardel, whom he has mainly followed as a guide. In his account of Evian, he does not point out that the effects of its feebly mineralised waters must be due mainly to the large quantities in which they are drunk.

The accounts of winter stations are not very full, and there is no mention of the new station of St. Raphael.

Some useful tables are appended, which give the cost of railway journeys from Paris to the various baths.

The book is able, judicious, scientific, and readable, and supplies all the information that English practitioners will usually need to have respecting the mineral waters of our French neighbours.

HOME NURSING AND SICK-ROOM APPLIANCES. A Lecture delivered for the National Health Society. By EVA C. E. LÜCKES, Matron of the London Hospital. London: Kegan Paul, Trench, and Co.

THE National Health Society may be congratulated on having secured the services of Miss LÜCKES in assisting their cause, as the offspring of their request has been one of the most thoughtful, practical, and withal most tasteful, addresses on the subject of home-nursing it has been our fortune to read. Without any pretention to novelty, and treading ground made almost too familiar to the multitude, she has infused into this brochure a freshness, and vigour of purpose, seldom met with in the numerous treatises which deal with sick-room management. Without the admission that it has been written by the matron of a great London hospital, the matter and manner of the address assuredly convince the reader that it could only emanate from one whose large experience of hospital practice, and of women's ways and women's work, fitted her in no ordinary degree to be the guide and counsellor of others on the important subjects of which she treats.

Miss Lückes prefaces her remarks with some amusing illustrations of the mistakes made by well-meaning, but ignorant people, on some simple matters connected with the sick-room; and, while upholding the principle of systematic training for professional nurses, she has no dread of the little knowledge gained by a short insight into hospital work, which, so far from proving dangerous to the recipient, only carries with it a conviction of her ignorance, coupled with a desire to profit by more extensive experience. Home-nursing, however, is not hospital-nursing; it is "not the vision of an alarming crisis, but it is the long tedious illness, the wearisome period of weakness and convalescence, the months, or, it may be, the years, of chronic ill-health," which we have to consider; and the occasion evokes all the intellectual capabilities of the woman—a contrast from the utilitarian instincts of the professional nurse. The very art of home-nursing, Miss Lückes truly says, "lies in the quick observation and finished execution of common-place things;" and she considers that, now and again, an excellent home-nurse may be improvised from any intelligent woman, willing to work, and who is not above bestowing both time and trouble on what other people are apt to view with indifference, as insignificant trifles—an opinion in which most of us who have to do with chronic ailments are likely to concur. The more important appliances of the sick-room are passed in review, for the most part in short and laconic sentences, which render their utility all the more obvious; while the remarks on bed-making, washing the patient, and the administration of medicine, are given at greater length. Explicit directions follow with respect to the application of cold and heat, and the best methods of employing these agents; reference being especially made to the manipulation of fomentations and poultices.

It does not fall to the lot of every one to be equally expert in the manufacture of such a common domestic appliance as a poultice; and the instructions given in guide-books, to assist the learner, are almost as diversified as the corresponding receipts for the preparation of that equally familiar adjunct of the sick-room, beef-tea. Miss Lückes describes her own process, which leaves nothing better to be desired, the minutest details being succinctly and satisfactorily demonstrated. In fact, it would be difficult to find, in the short compass of a single lecture, so much valuable information, expressed in such becoming language, on matters of which every one is supposed to know something, but which comparatively few have the tact, ability, and experience to expound in a manner so simple and convincing.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 28th, 1883.

THE RECENT DEBATE ON THE ARMY MEDICAL SERVICE IN THE HOUSE OF LORDS.

VISCOUNT BURY, in calling attention, on the 20th instant, in the House of Lords, to the report of the Committee on Army Hospital Management and Nursing, and in moving that discipline in army hospitals ought to be administered by combatant officers, not only repeated the opinions expressed by some of the combatant officers themselves in the evidence which they gave before this Committee, but went far beyond them, if we may accept the reports of his lordship's speech as correct; for while the military officers examined by the Committee, limited their views regarding the necessity for administration of discipline in hospitals by combatants to some of the larger forms of army-hospitals, Lord Bury would have the system extended to military hospitals of every size and description. Lord Morley, in replying, took for granted that the noble viscount could not mean to include, in addition to certain general hospitals, the numerous station-hospitals scattered over the country, of which, he mentioned, there were one hundred and eighty-two in England and Ireland alone; but Lord Bury at once said that he did intend to include them. Lord Morley might well answer that it would be difficult to carry into effect such a suggestion.

Lord Bury could scarcely have known how limited the establishments are which some of these station-hospitals comprise, although it is not easy to understand how he could have been unaware of the matter, when it is remembered that, only a few years ago, his lordship was holding the appointment of Under-Secretary of State for War. There is a table in the appendix to the Report of Lord Morley's Committee, which furnishes a list of these station-hospitals, and an account of their establishments. From this table it appears that, out of the one hundred and eighty-two station-hospitals distributed in the various military districts and enumerated in the list, there are not more than ten attendants of the army hospital corps in as many as one hundred and fifty-three of the number; while, in many of them, there are only four, three, or two hospital servants, and, in some, only one. We see at once how few must be the number of patients usually treated in these small hospitals. It would certainly be difficult, in some of them, not so much, as Lord Morley stated, to carry into effect Lord Bury's advice as regards the appointment of combatant officers for the administration of discipline, as to find a sufficient body of persons on whom their disciplinary power could be exercised. If the Government would consent to provide appointments of the kind for the combatant officers to whom it might be convenient to accept such posts, it would, no doubt, be satisfactory to them and to their friends; but manifestly two things would have first to be taken into account—the cost, and the probable result as regards an efficient working of the hospitals. It would be an intricate problem to calculate the cost, present and perspective, of such an increment in the combatant officers for hospital administration as Viscount Bury has suggested (surely a better name than that of "combatant officers" might be found for such an occupation) but obviously the cost would occasion a very large addition to the army estimates.

The probable effects of a change of the kind, as regards the efficiency and smooth working of the hospitals, were very fully considered by Lord Morley's Committee, and the Committee came to the only conclusion that could be consistently arrived at. As Lord Morley said in the House of Lords: "The Committee unanimously came to the conclusion that it was undesirable there should be a double control in any instance. They felt the great importance of unity of control, and that it should be vested in the medical, and not in the military, officer." It is understood that military hospitals, like all other military institutions, are under the supervision and control of the general officer commanding the district in which the hospital is placed, and, equally with the other establishments, subject to frequent visits of inspection by this officer or his representatives. If the medical head of the hospital is to be held responsible for the good order of the hospital which is placed in his professional charge, he must evidently be vested with sufficient authority to enable him to meet his responsibility. If a military commandant is to be held responsible, how can he be selected to fulfil a charge for which no previous training has prepared him? He must rely on the medical officers placed under him for information and advice in all matters regarding the inmates of the hospital and on all medical occurrences; and it is difficult to fathom any real advantage such an indirect responsibility, and such a complication in the hospital machinery, can lead to. It is easy to say, let the medical officer confine himself to the medical administration, and the combatant to the maintenance of discipline; but, blended as the two are, the medical administration and the discipline in the working of the hospital, how are two such responsible heads to define the limits of their respective duties? It is easy to see that, even with the strongest disposition to work together in harmony, an undesirable friction between the military and the medical authority would be the inevitable result.

The Duke of Cambridge naturally supported Lord Bury's views as to the superiority that would be found in the condition of the military hospitals if they were administered by combatant officers instead of medical officers, and illustrated his remarks by reference to the London Hospital, of which he is the President. The Duke observed that that establishment might be compared with a military hospital; and that, as they had a civilian to supervise and to look after the requirements of the London Hospital, so they ought to have a military man to look after the wants of a military hospital, quite independent of the medical officers who are in charge of the sick. But, with all deference to His Royal Highness, the circumstances of the London Hospital, and of all other great civil hospitals, are so essentially different from what are known to be the circumstances prevailing in military hospitals, that the two kinds of institutions do not admit of being weighed in the same balance. The medical staff of a London hospital is composed of physicians and surgeons who give their services to the hospital gratuitously, who are largely engaged in private practice, and who can only spare the time which they devote to the treatment of the hospital patients at great personal sacrifice. On the other hand, the army medical officers are paid for devoting the whole of their time and attention to the service of the military hospitals; and it is too much to expect that they are to be relieved of their responsibilities, or are to be supplemented by the official assistance which is absolutely necessary in the civil establishments, where the medical staff can only bestow a limited portion of their time. The country has a right to look for a different amount of service from the army medical officers from that which can be expected from the physicians and surgeons who thus, without any direct recompense or remuneration, give their talents and time to the benefit of patients in the civil hos-

pitals. Viscount Bury, and all the peers who took part in the debate, praised the army medical officers for the zeal and devotion to duty which they had shown in Egypt; the complaints they made as regards the hospital service were directed against the military system and regulations by which the medical officers were fettered in their action. They had not the necessary power to insist on their wants in transport and hospital supplies being supplied at the time the deficiencies pressed upon them. It would seem, then, that, instead of recommending the medical officers to be further fettered by placing a military commandant over them in every hospital, large or small, the practical course would be to break down the existing restrictions on their legitimate functions, and to confer on them whatever authority might be necessary for enabling them to maintain a more efficient working of their hospitals. It is apparently only the higher degree of authority with which a military commandant is invested, that is supposed to give him the means of administering the hospital with more efficiency. Invest the medical officer at the head of the hospital with a like authority, and it is difficult to show why he should not exert an equally beneficial influence, and with the additional advantage of single instead of double control, of greater simplicity of arrangement, better appreciation of the real needs of such an establishment, and, finally, with direct and undivided responsibility to the officers in command, and to the State for the proper efficiency of the whole hospital establishment.

We cannot, of course, ignore the very powerful influence that may be exerted to accomplish the ends which the combatant officers have in view. They are a very powerful body from their own numbers, as well as from the numbers of their relatives and friends in both houses of the legislature, and they have at their back the whole support of the Court. But of this we are sure, that, if they succeed not only in maintaining the military commandants in the hospitals where they are now found, but also in introducing them in a portion of the station-hospitals, as proposed by Lord Bury, the result will be fatal to the practical good working of the hospital service of the army, while questions will be stirred up which will become a constant source of public inconvenience and trouble. For the sake of general peace, as well as of the general good, we hope better counsels will prevail, and that, in the hands of the same officers by whom the hospital service must be conducted, will be placed the necessary means and authority for meeting the responsibilities which that service entails. It may be at the present moment serviceable to recall the very remarkable testimony that has been published on this subject, as a result of the vast experience gained during the great war of the Rebellion in the United States, which lasted from the year 1861 to the year 1865. In a War Department circular, issued from the Surgeon-General's office at Washington, after the war was concluded, the following paragraph appeared in the course of some official remarks on hospital organisation and construction. "Never before, in the history of the world, was so vast a system of hospitals brought into existence in so short a time. Never before were such establishments, in time of war, so little crowded or so liberally supplied. They differed, too, from the hospitals of other nations, in being under the command of medical officers. Instead of placing at the head of establishments, intended for the treatment of disease and wounds, officers of the line, who, whatever their other accomplishments, could not be expected to understand the requirements of medical science, and who, with the best intentions in the world, might seriously embarrass the action of the surgeon, as was sadly the case in the Crimean war, and has been since in the English hospitals, our Government, with a wiser discretion, made the surgeon the commandant of the hospital; and thus, while holding him responsible for the results of its management, put it into his power to do much to make those results favourable. The medical staff can point with pride to the consequences of this liberal course. Never before, in the history of the world, has the mortality in military hospitals been so small, and never have such establishments so completely escaped from diseases generated within their walls."

The second point on which Lord Bury expatiated was the contrast between the old regimental system of hospital administration and the present mode, which is known as the unification, or station hospital system. This is a subject which seems to have been very fully discussed by Lord Morley's Committee. A series of arguments in favour of attaching medical officers for fixed periods to every battalion and corps of the army is given in detail in the report of the Committee, and these arguments are followed by a similar series of objections to the proposal. The Committee, in conclusion, while acknowledging that inconveniences had been experienced, and justly complained of, by the change, declare their belief that the fault had been rather in the way in which the station hospital system had been worked, than in the system itself, and that the inconveniences it had given rise to could be remedied without reverting to the regimental system. There were, however, two dissentients from this view among the members of the Committee, Major-General Hawley and Sir R. Loyd Lindsay; and they appended to the report a special memorandum embodying their reasons for recommending "a return to the regimental system so far as it attaches a medical officer to each unit of the service." Viscount Bury expressed his concurrence with the views of these two dissentients, and advocated their recommendation as a means of improving the army hospital service. The Duke of Cambridge also, while stating his opinion that station hospitals were very useful, inasmuch as there is more system in them, and less extravagance in carrying them on, than in hospitals of the old system, expressed his desire that the station hospital system should be combined with a modified regimental hospital system; that is, he wanted the medical officers to be attached absolutely for two or three years to regiments, to perform all the medical duties connected with those regiments, but at the same time to spend a portion of their time in the station hospitals. Lord Morley stated the grounds on which he based his opposition to the proposal of attaching medical officers to regiments; but, probably, of all the arguments he advanced, the strongest was the extra expense that the proceeding would involve. It is mentioned in the Committee's report, that the financial bearing of this question was considered by a departmental committee in the year 1879, and that it was calculated, if the continuity of the smaller hospitals were insisted on, that the proposed attachment of medical officers to battalions and batteries would involve an increase of forty-one medical officers, and an additional cost of £22,550 a year.

We have frequently referred in our columns to the difficulties presented by this question, as well as to the different views held on the subject by the medical officers of the army themselves. There can be no doubt that the longer the station hospital system has been worked, the more extensive have become the opinions in its favour, and the more satisfaction it seems to have given. Altogether, as a large majority of the Committee, after long consideration of the subject, have expressed the conviction that such inconveniences as have been caused by the station hospital system are capable of being remedied without changing the system itself, it seems advisable to wait and see how the remedies advised by the Committee may act, and not to rush into an action contrary to the recommendation of the very Committee which was specially appointed to consider the subject, as Lord Bury and some others would have the Government do. If the efficiency of the existing system of army hospitals were to be tested by the results of their work in the field, as shown during the late campaign, the conclusion would be remarkably in their favour; for the results are admitted on all sides to be most satisfactory—more satisfactory, indeed, as the figures quoted by Lord Morley showed, than has, perhaps, ever before been experienced in active warfare in Europe, much less in a climate such as that of Egypt.

SERVANTS OF THE SICK POOR.

UNDER the above title, Miss Florence Craven has contributed to a recent number of the *Nineteenth Century* an interesting article on district nursing, which she briefly defines as the system of "caring for the sick in a room where it would be impossible for anyone to sleep who is not a member of the family." This kind of attendance on the poor depends upon the frequent refusal of the head of a poor family to enter a hospital, on account of her great objection to leaving her children to the care of others. Hence sick mothers are constantly found, continuing household work when unfit to be out of bed, or directing such work from their beds when their illness requires perfect mental repose; and in all such cases the hygienic surroundings of the patient are unsatisfactory. The dislike of parting with children who ought to be admitted into hospitals, must also be taken into consideration, for admission cannot be made compulsory; hospitals may be overcrowded, and it is unfair that, under such circumstances, the children should suffer. A large number of chronic and incurable affections are unsuitable for admission into hospitals; and, unless sufferers from such disorders be nursed at home, they must be sent to the workhouse infirmary, at the expense of the parish. To undertake nursing among the poor, in their own houses, Miss Craven shows that nurses chosen from comparatively high grades of society are needed. Much tact is required, much judgment in distinguishing dressing from minor surgery; and the enforcement of sanitary reforms, in domestic details, particularly demands both discretion and knowledge.

It was during the first trial of a system of nursing of this kind, established in Liverpool under the auspices of Mr. Rathbone, M.P., that it was found impossible to teach to the poor the rudiments of sanitary housekeeping through the medium of nurses drawn from the same class as their patients. The same conclusion was arrived at as the result of the labours of a committee formed nine years ago by the Order of St. John of Jerusalem. Half-trained nurses of an inferior social grade were found to leave sick-rooms intact as regarded their dirtiness and dustiness, on the plea that there was nothing at hand to clean with, and nothing to dust with, and arguments with patients on this subject only wounded their feelings. As usual in all other forms of nursing, these nurses tried both to perform minor surgery and to keep cases from the surgeon's care till surgical relief was too late; and invariably did these attendants act on the principle that they could do nothing for a patient unless they gave something, or provided relief in the form of groceries, coal, or nourishing diet.

To remedy this unsatisfactory state of district nursing, as revealed by the committee of the Order of St. John of Jerusalem, the Association for Training and Providing Superintendents and Nurses for the Sick Poor was established, and a home and training school for district nurses was instituted. Each district nurse was required to pass a month's trial in district work, a years' training in hospital nursing, and six months' training in district nursing, combined with attendance at a special course of theoretical instruction given at the Central Home by qualified medical men. The nurses are sought among the educated classes. It is an account of the successful efforts of the district nursing association that forms the main part of Miss Craven's article. Medical and sanitary officers of health have expressed their high satisfaction of the working of the system. It is satisfactory to find that the nurses have had no difficulty in obtaining nourishment from parochial authorities. But it is in successfully teaching the poor how to make their homes clean and healthy, that most good has been effected by educated district nurses. One of these ladies entered a room where three children had been stricken with scarlet fever; one was already dead, the second lay dying in the bed of the third, who was very ill. The mother had never seen death before, and had stuffed up or covered every crevice in door or window that could possibly admit fresh air, and the room was crowded with furniture. The apartment was at once made tidy, the curtains and carpet were removed and disinfected, and instruction was given to the mother, showing her how to use disinfectants and to air the room without exposing the children to draught. In this case, the life of one child only was saved, but an invaluable lesson in hygiene, not likely to be forgotten, had been taught. The tidying of sick-rooms has borne particularly good results. Patients who previously had lost the feeling of what it is to be clean, expressed hopes that, on recovery, they would maintain the new order of things.

The number of cases nursed by the Association has amounted to 6,299 between 1876 and 1881. It must be admitted that there has been a slight falling off during the last two years, as, in 1879, 1,341 cases were nursed; in 1880, 1,334; and in 1881, 1,284; but the loss only amounts to a little over half a hundred cases yearly, and this may very reasonably be accounted for by improved habits among the poor. When once a few households in a low neighbourhood can be persuaded to adopt habits of cleanliness and order, their example will quickly be followed; and this process of reform is already in progress, chiefly through the agency of the District Nursing Association.

The medical authorities of Holborn have noted already the diminished proportion of fever cases in that part of London through the exertions of the district nurses; and such a fact will explain the recent yearly diminution of cases, and explain it in a most satisfactory manner, particularly creditable to the agency which, through its own past labour, has rendered its future work less onerous.

GAMBLING IN LIFE-ASSURANCE.

MORE than a hundred years ago, an Act of Parliament was passed for the purpose of regulating the practice of life-assurance. The Act (14 George III, chapter 48) commences thus: "Whereas it has been found by experience that the making insurances on lives or other events wherein the assured shall have no interest hath introduced a mischievous kind of gaming; for remedy whereof be it enacted that from and after the passing of this Act *no insurance shall be made* by any person or persons, bodies politic or corporate, on the life or lives of any person or persons, or on any other event or events whatsoever *wherein the person or persons for whose use, benefit, or on whose account, such policy or policies shall be made shall have no interest*, or by way of gaming or wagering; and that every assurance made contrary to the true intent and meaning hereof shall be null and void to all intents and purposes whatsoever." This statute had the effect which it was intended to have, and put a stop to the practice of making insurances on persons in whose lives the insurer had no interest, which really were only bets on the duration of those lives. Prior to it, insurances, or rather wagers, on the lives of public men were not uncommon, but they were put an end to by the passing of the above Act. The evil which it was intended to prevent has, however, reappeared lately in a new form. Insurances for large sums on events in which the insurer has no interest have practically ceased, because it is no longer profitable to make them. But insurances for small sums in friendly societies are not uncommon, and the insurer has often no insurable interest, properly so called, in the life which he insures. A case tried lately in the County Court at Wigan shows the extent to which this practice may be carried. A man named Berry brought an action against the Royal London Friendly Society, to recover the sum of £24 for which another man named Atkinson had been insured. It appeared, in the course of the case, that Berry had himself proposed Atkinson's life, and had paid the premiums on the policy, and that he had properly no insurable interest in Atkinson. It also appeared that at least eight policies, amounting in all to £222, had been effected with different friendly societies on the life of Atkinson, who was a journeyman butcher, within the two years

preceding his death, and that Berry had taken out or purchased nearly all of them: one, for £18, he purchased for 7s. 6d. The Royal London Friendly Society had paid the amount of one policy to Atkinson's widow, but resisted payment of Berry's claim, and successfully, as it not only was shown that Berry had no legal right to enforce the policy, but also that material misstatements as to Atkinson's age and other matters had been made by him at the time when the policy was effected. If there were any reason to think that this was an isolated case, there would be no need to call attention to it here; but it is well known that insurances for comparatively small sums are constantly effected by persons who have no legal right to effect them, and are generally paid by the company sooner than incur the odium and loss of business consequent on contesting them. The companies are by no means free from blame in the matter. They naturally want to extend their business, and to secure as many new policies as possible. For this purpose, they employ agents and canvassers, whose business it is to go about among the working classes, and induce them to become insurers, and who are paid by commission on the amount of new business they bring in. These canvassers are probably ignorant of law. Certainly they do not take any care to prevent their customers taking out policies on the lives of persons for whom they have no right to do so. The general form of the policy is, that the sum is insured for the "payment of the funeral expenses" of the person named. The managers of the friendly society or insurance company must often have a pretty strong suspicion that the person insuring has no duty to bury the insured, and that the money is not really applied to the purpose for which the policy is nominally effected; but it suits them to accept the premiums and to pay the amount insured, sometimes with deductions, when the death occurs. It is not necessary here to point out that this system of gambling in the lives of other persons is not altogether conducive to the person insured being carefully tended by the insurer. Our readers may remember the strong suspicion there was some years ago that infants were often insured for the sake of getting the insurance money, and to the fact that it certainly seemed that infants who were insured died much more easily than infants who were not. In consequence of this, the law was altered in 1875, and the amount payable on the death of infants under five years old was limited to a small sum; and insured infants have, we believe, since that date been as healthy as others. There is less opportunity and less probability of foul play where the person insured is an adult, but such insurances are contrary to law unless the person insuring is a near relation or a creditor of the person insured. "Everyone is bound to know the law," but people generally are ignorant of it or forget it. We think it may be well to remind our readers of the Act of George III, which is not obsolete, but which certainly seems in danger of being neglected or forgotten, though it is a most important and salutary Act, and as beneficial in its operation to-day as it was when it first became law.

THE *Egyptian Gazette* of July 6th contains an excellent printed code of precautions in respect to cholera, which show that the local English sanitary authorities there perfectly understand the prophylaxis and treatment of the malady.

DR. A. W. BLYTH, medical officer of health, and Mr. S. Westcott, sanitary officer of Marylebone, have just prepared a report regarding the condition of the Regent's canal. The water is pronounced five or six times more impure chemically than the Thames.

AT a meeting of the trustees of the Astley Cooper Prize Fund, held at Guy's Hospital, on July 20th, the triennial prize of £300 was awarded to Dr. William Alexander, of Liverpool. The subject of the essay was "The Pathology and Pathological relations of the Disease known as Osteo-arthritis, or Chronic Rheumatic Arthritis."

SIR CHARLES DILKE, President of the Local Government Board, has arranged to make a personal inspection of all workhouses, Poor-law infirmaries, hospitals, and schools, in and around the metropolis, during the month of November next. Sir Charles Dilke will be accompanied by Mr. R. Hedley, Dr. Bridges, and Major Jordan, the Board's inspectors for the home district.

THE Station-Hospital at Canterbury was inspected by the Duke of Cambridge on Saturday last. His Royal Highness, accompanied by his staff, was met by Brigade-Surgeon Landale, M.D., A.M.D., and the medical staff of the hospital, and was conducted through each ward. His Royal Highness addressed words of sympathy to many of the sick; and, on leaving, expressed himself as highly pleased with all that he had seen.

WE understand that the twelve medical men who have been selected for service in Egypt in the cholera districts by the Foreign Office, with the advice and assistance of Sir Joseph Fayrer, will, on arrival, report themselves to Surgeon-General Hunter, M.D., and place themselves under his orders. They will be paid at the rate of £100 per month, with travelling expenses. In addition to the gentlemen whose names have been published, we understand that Drs. Acland and Gulliver (St. Thomas's Hospital) have also been selected.

THE Local Government Board have issued admirable printed papers on the subject of precautions against cholera, addressed to medical officers and local sanitary authorities, of which copies have been published in nearly all the daily papers. They insist upon the importance of attention to purity of soil, air, and water in houses, and discuss the details by which they may be secured. Copies may be had on application to the Local Government Board, Whitehall.

WE understand that, in addition to Drs. Norman Moore, S. West, Vincent Harris, Ormerod, and Kidd, another late casualty physician to St. Bartholomew's Hospital, Dr. Howard Tooth, assistant-physician to the Metropolitan Free Hospital, and the present casualty-physicians, Drs. Steavenson, King, and Herringham, are also candidates for the vacancy that will shortly be made in the ranks of the assistant-physicians to St. Bartholomew's Hospital. Dr. Samuel West is Physician to the City of London Hospital for Diseases of the Chest, and not Assistant-Physician, as was stated in the last number of the JOURNAL.

AN epidemic of diphtheria of a serious character has made its appearance at Calne; it has assumed grave proportions, and caused many deaths amongst both adults and children. Upon the recommendation of the medical officer of health, most of the public schools have been closed, and managers of Sunday-schools have also been requested to close their schools. Within the past two or three days, more cases have been discovered; and the local authorities are doing all in their power to stamp out the disease, by erecting ventilation-shafts to carry the noxious smells from the drains up into the air, and by other sanitary arrangements.

THE new Dental Hospital was opened at Manchester on Saturday last. Dr. Burton, in his address, pointed to the progress that had been made in the dental profession, and urged that special hospitals for dental practice were a necessity in large towns like Manchester. The experience of London and other cities showed that much good could be done for the relief of the poor in such hospitals. Mr. John Tomes, F.R.S., and Sir Edwin Saunders, were elected patrons.

A PAPER, on the Compulsory Notification of Infectious Diseases, was read by Professor Corfield, on Tuesday evening, at the usual meeting of the Sanitary Institute of Great Britain. Professor Corfield's paper embodied a number of facts, gathered from various towns where local powers are in force to compel the disclosure to the authorities of the existence of infectious diseases among the inhabitants. The general result was that, in seventeen out of eighteen towns, the medical officers had found the powers useful in stopping the progress of epidemics; in the eighteenth there had been no epidemic; and the sanitary authorities considered that, in this way, careless people had been brought to see that the concealment of these diseases was prejudicial to all. The view was expressed that towns like London should have the advantage of such valuable powers. Dr. A. Carpenter, who presided, stated that the whole medical profession was in favour of the compulsory notification of diseases, the only question being upon whom the burden should rest of making the notification to the public officer.

THE WIMBLEDON MEETING.

WE are glad to learn that the health of the camp, which was under the charge of Surgeon-Major Elkington, was very satisfactory throughout the recent meeting, and there were not any cases of sickness worthy of remark.

THE LATE SIR GEORGE JESSEL.

THE memorial of the late Sir George Jessel, in course of subscription among the members of the London University, is, we believe, likely to take the form of the presentation of a replica of a portrait of the late Master of the Rolls, painted by Mr. Collier. Any further surplus will probably be devoted to the establishment of a Jessel prize in the University.

MEMORIAL HOSPITAL FOR GREENWICH.

THE Committee of the Royal Kent Dispensary have decided to erect a hospital at Greenwich, in memory of the late Canon Miller. The arrangements for commencing the building are complete; and, on August 1st, the centenary of the opening of the dispensary, the foundation-stone of the hospital will be laid by the Earl of Dartmouth, who will subsequently preside at the centennial dinner.

THE INSPECTION OF FOOD.

MR. VAUGHAN, the Police Magistrate, gave a very timely note of warning on Tuesday, when he fined a poulterer forty shillings and costs for selling putrid rabbits. Mr. Vaughan said that he would have imposed a heavier penalty, had this not been the first offence of the defendant; and dwelt emphatically upon the importance of salesmen exercising the greatest care as to the freshness of the provisions vended by them at the present time, it being a well-known fact that there was nothing more calculated to produce abdominal diseases, and some forms of cholera, than unsound food.

KING'S COLLEGE HOSPITAL.

IN consequence of differences between the Council of St. John's House and the sisters connected with King's College Hospital, the sisters have resigned. The suddenness with which it has become necessary to carry out the change in the nursing has caused temporary inconvenience to the committee of King's College Hospital; but, as nearly the whole of the well-trained nurses remain, and the ladies who have retired from St. John's House are gradually being replaced by others, the work of the hospital has been carried on without interruption. The whole circumstances illustrate the danger of handing over the nursing of a hospital to a foreign power, and the difficulties resulting from the exaggerated pretensions of some nursing sisterhoods.

OPENING OF THE HOSPITAL FOR WOMEN, LIVERPOOL.

THE Hospital for Women, 107 and 109, Shaw Street, Liverpool, being situate within five minutes' walk from the College, the committee have pleasantly arranged for the opening ceremony to take place during the approaching annual meeting. At one o'clock on Tuesday, July 31st, they will meet to receive the Countess of Sefton, the lady visitors, Sir T. Spencer Wells, Bart., Dr. Graily Hewitt, and other invited guests. At two o'clock the Countess will formally declare the opening of the hospital, as by that time it is expected that all contributors to the hospital, their friends, and such members of the medical profession as take an interest in the proceedings, will have assembled in one of the large wards. A short address will then be given by Sir. T. Spencer Wells, after which the premises will be open for inspection. The ventilation and drainage of the buildings have been very carefully attended to, and a sketch of the methods employed will be included in the sanitary exhibit at the College. The two houses which constitute the hospital contain thirty-four wards, and can accommodate 100 beds. At present only thirty beds are to be occupied, but others will be added as soon as the funds of the institution warrant the addition.

ADMINISTRATION OF HOSPITALS.

THE first meeting of the representative Committee of Hospital Managers, appointed at the recent conference organised by the Social Science Association, will be held at their offices, 1, Adam Street, Adelphi, on Monday next, the 30th instant, at 4.30 P.M. The following is the constitution of the Committee (with power to add to their number): the Earl of Cork and Orrery, K.P. (St. George's Hospital); Viscount Powerscourt, K.P. (Ireland); Sir Thomas Fowell Buxton, Bart., Chairman of the Conference (London Hospital); H. W. D. Acland, Esq., M.D., D.C.L., F.R.S. (Oxford University); J. S. Bristowe, Esq., M.D., F.R.S. (St. Thomas's Hospital); Henry C. Burdett, Esq. (Seamen's Hospital and Home Hospitals Association); the Rev. Canon Erskine Clarke, M.A. (Bolingbroke House Pay Hospital); R. Farquharson, Esq., M.D., M.P. (Scotland); S. Leigh Gregson, Esq. (Southern Hospital, Liverpool); J. J. Gurney, Esq (Newcastle Infirmary); Timothy Holmes, Esq., F.R.C.S. (Provident Dispensaries); G. B. Lloyd, Esq., J.P. (General Hospital, Birmingham); Francis S. Powell, Esq. (Chairman of the Conference); Joseph White, Esq., F.R.C.S. (General Hospital, Nottingham).

WEST RIDING (YORKS) MEDICAL CHARITABLE SOCIETY.

THIS old-established Society held its annual meeting at Wakefield, on Thursday, July 19th, under the presidency of Dr. W. Wood of that town. Sixty, or from that to seventy, members of the Society assembled to receive and consider the annual report presented by the officers; and of these, between fifty and sixty afterwards dined together at the Bull Hotel. Honoured by the presence of the Vicar and of the Mayor of Wakefield, they passed a very pleasant evening together. The report of the Society showed that, during the past year, grants had been made to the amount of £930; and at the business meeting, prior to the dinner, a sum of £970 was voted to twenty-seven applicants for the ensuing year. In these days, when the subject of medical benevolent and medical provident societies is coming prominently before the profession, it is refreshing to find a Society which, after an existence of fifty-five years, is still flourishing, and able to distribute so handsome a sum as £970 amongst the families of those of its members as have either died before they were able to make sufficient provision for those who were dependent upon them, or have themselves been disabled, and thus prevented from continuing the professional work of their lives; and it is no less so when the Society is looked at as a bond of brotherhood by which the members of the profession in the district are drawn and held together in friendly union. Such a Society is well worthy of the support of those privileged to enter it, has our

heartiest wishes for its continued and increased prosperity, and is highly deserving of imitation by the profession in other districts than the West Riding of Yorkshire.

CHOLERA IN CALCUTTA.

DURING the first quarter of the present year, the mortality from cholera in Calcutta was unusually high, the quarterly total being 120 above the decennial mean. This excess was mainly due to the magnitude of the January total, February and March exhibiting figures nearly level with the decennial average. The disease, in fact, though it abated in January, maintained a high position. The February figures were more normal, and a minimum of prevalence was reached in the second week of April. Since then, the rise habitual to the season has occurred, but the figures are not beyond the average of recent years. The disease may be said to have resumed its usual dimensions after a conspicuous increase of bulk in December and January, for which, at present, it is difficult to assign a satisfactory reason. In all cases in which the disease presented any tendency to grouping, special investigation was made, and, in every instance in which several cases had occurred in a house or village, or within circumscribed limits, glaring unsanitary defects were discovered. A foul tank, obstructed drainage, fœtid ditches and cesspools, ill-kept cow-sheds, offensive latrines, and so forth. Numerous cases might, Dr. McLeod says, in reporting on the subject, be cited in support of this statement, but the conclusion forced upon him by all that he has seen of cholera since he became health-officer of Calcutta, is that the disease flourishes in places and among communities where cleanliness is neglected, and filth of all kinds allowed to lodge and fester in various ways and under various circumstances. Dr. McLeod's report comes at an opportune time, and the moral which it conveys may well be taken to heart by sanitary authorities here. In his memorandum on the precautions to be taken against the spread of cholera, Dr. Buchanan, the medical officer of the Local Government Board, strongly insists upon the importance of a thorough and searching examination being made of the sources of water-supply, and of the immediate removal of every sort of house-refuse and other filth which has accumulated in neglected places.

BUILDING ON DISUSED BURIAL-GROUNDS.

BUILDING operations have been carried on in several burial-grounds in London, but in all instances the human remains have been decently removed and re-interred before the buildings have been erected. Application has lately been made to the Metropolitan Board of Works for permission to construct a new street and build a number of houses across the disused burial-ground in Bethnal Green, known as Peel Grove. A copy of this application was forwarded by the Metropolitan Board of Works to the Bethnal Green Vestry for their consideration and report, and in the course of the discussion it was stated that it was proposed to make the street and build the houses without removing the coffins and their contents; and that, consequently, there was a risk of the foundations of the houses giving way, and the road sinking, as many of the bodies could not be entirely decomposed. This statement must have been made in error, as, under the By-laws of the Metropolitan Board, which were made under the Buildings Act Amendment, no house shall be erected on made ground, until "any animal matter or refuse which may have been deposited on the site, shall have been properly removed, by excavation or otherwise, from such site;" and also, that the foundations for the walls shall be formed of a body of good concrete nine inches thick. However that may be, the Bethnal Green Vestry passed the following resolution, which was ordered to be sent to the Metropolitan Board: "That, in the opinion of this Vestry, it is extremely objectionable that any houses should be erected on the disused burial-ground in Peel Grove, unless the bodies therein have been previously properly removed." It was stated during the debate that there had been not less than 20,000 human bodies deposited in this small burial-ground, and that the buildings to be erected were for the accommodation of 400 families of the working classes, so that this resolution is by no means uncalled for. We suppose that the words "properly removed," are intended to mean with the use of disinfectants, if the medical officer of health should deem them to be necessary during the removal; but it is somewhat repulsive to contemplate such a wholesale desecration of the dead; and it would be much better for the land to be purchased as an open space for recreation, than to cover with buildings, and under the restrictions mentioned, a ground which contains so many human remains.

THE FRENCH ACADEMY ON CHOLERA AND QUARANTINE.

M. JAUVEL is becoming converted by the logic of facts. On June 4th, as has already been pointed out in these columns, he admitted that our Indian troops had not brought cholera into Egypt. Indeed, that the outbreak is a local one seems no longer a question, and the absurd tale of the four Bombay merchants at Damietta, shows the absence of a single argument to the contrary. But M. Jauvel has gone a step further; for on Monday he virtually admitted, at the Académie des Sciences, the sufficiency of the system of medical inspection that is enforced in Great Britain by the Local Government Board. He regards England as exceptionally guaranteed against any direct introduction of the disease from Egypt. He has come, at length, to see the little value of severe quarantine regulations, without those sanitary measures which have been found so useful in this country. He feels the greatest anxiety for Italy, on account of the traditional laxity of the officials; but he feels none for England. Yet Spain and Russia have attempted to impose quarantine on British vessels, upon the plea that the English Government does not impose it upon vessels from Egypt. And as for French journalists who have been so quick to find fault with the action of English sanitarians, they have now the mortification of finding that such action has the approval of the highest hygienic authority in France, and the warmest advocate of quarantine.

THE NECESSITY FOR HOLIDAYS.

THAT a holiday is a necessity, and not merely a luxury, is a fact which it especially behoves members of our hard-working profession to remember in the regulation of their own lives, as well as in their dealings with their patients. For the brain-worker, periodical remission of accustomed toil has always been a necessary condition of continued vigour; for him, the heightened tension of modern life has especially accentuated the need for occasional periods devoted to the recreation and the re-accumulation of energy. The cogent physiological principles and practical purposes of systematic holidays are generally admitted. All workers, if they are to last, must have holidays. For some persons, and for some occupations, frequent short holidays are best; with other natures, and in other circumstances, only comparatively long periods of release from routine are of service. Few real workers, if any, can safely continue to deny themselves at least a yearly holiday. Mere rest, that is mere cessation from work, while it is better than unbroken toil, does not recreate the fairly vigorous so thoroughly as does a complete change of activity from accustomed channels. For the strong worker, either with brain or muscle, diversion of activity recreates better than rest alone. The whole body feeds as it works, and grows as it feeds. Rest may check expenditure of force, but it is chiefly by expending energy that the stores of energy can be replenished. We mostly need holidays because our ordinary daily life tends to sink into a narrow groove of routine exertion, working and wearing some part of our organism disproportionately, so that its powers of work and its faculty of recuperation are alike worn down. In a well arranged holiday, we do not cease from activity,

we only change its channels; with such change, we give a new and saving stimulus to assimilation, and the transmutation of its products into force. As a rule, the hardest workers live longest, but only those live long who sufficiently break their wonted toil by the recreating variety of well timed and well spent holidays.

THE GENERAL MEDICAL COUNCIL.

A MEETING of the Executive Committee of the General Medical Council was held on July 4th, at which various communications were received; among others, a communication from the Medical Faculty of University College, Liverpool, stating that, after carefully considering the provisions of the conjoint examination scheme proposed by the Royal College of Physicians of London, and the Royal College of Surgeons of England, they had come to the conclusion that the scheme was, in certain respects, faulty and defective. Taken as a whole, they believe it to be a retrograde step in medical education, and they expressed the hope that the General Medical Council would withhold their sanction from the scheme. The opinion was also read from Mr. Muir Mackenzie, that the offence of giving a false certificate of the cause of death, under Section 40 of the Births and Deaths Registration Act, 1874, is clearly a misdemeanour. A resolution was passed directing the Registrar to write to the several bodies conducting preliminary examinations in Great Britain and Ireland, to ask of them what measures, if any, are taken to insure the impossibility of personation at their examinations. A communication was read from Mr. Wiglesworth, Chairman of the Liverpool Defence Association, to the Medical Council, concerning a case in which it was stated that a registered practitioner was associating his name in practice with a notorious quack. In answer to the letter, the Registrar was directed to forward to Mr. Wiglesworth two copies of the Report by the Committee on Unqualified Assistants, together with the resolutions of the General Council thereon; and it was further resolved that this communication be submitted to the General Council at its next meeting. This is a very fair sample of the thorough inefficiency of the present constitution of the Council, and of the tedious and ineffective manner in which it deals with onerous resolutions on important matters requiring prompt action.

THE PARCELS POST.

THE Treasury Warrant establishing the new parcels post will come into operation on August 1st. It cannot be doubted that the parcels post will effect an important revolution in many branches of our national trade and commerce. It will bring to those living in the country, cheaply and quickly, many of the conveniences and luxuries hitherto only to be enjoyed in towns. To members of our profession, especially to those practising in rural districts, the facilities furnished by the new postal arrangements will prove a great boon. Liquid medicines, under certain suitable restrictions as to safe package, solid drugs, instruments and appliances, and many other articles in a practitioner's *armamentaria*, can be promptly sent for a few pence to any part of the country. Many of our brethren doubtless, will avail themselves of the parcels post for the distribution of medicines to their patients. The details of the new service, as to the weight, bulk, and character of parcels, and the tariff for carriage, are well considered and liberal. No parcel will be conveyed that exceeds 7 lbs. in weight, nor that is above 3 feet 6 inches in length, nor that is more than 6 feet in length and girth taken together. For parcels under 1 lb. in weight, the postage will be 3d.; anything less than 3 lbs. will be taken for 6d.; if not exceeding 5 lbs., for 9d.; and from 5 lbs. to 7 lbs., for 1s. In all cases, the postage must be prepaid by means of postage-stamps. Like letters, the parcels, during transit, will be regarded by the law as the property of the Postmaster-General; and, in case of any infraction of regulations, he will have the power to deal with them at his discretion. In case of a great influx of parcels at any post-office, they will not be allowed to delay the despatch of letters, which will always have a priorty of claim on the officials. Nothing that is likely to be injurious to any other parcel, or to any officer in the Post-Office, can be carried; nor any parcel which, from being improperly packed, is likely to injure other goods in transit. As no parcel containing a live animal can be sent by the new post, leeches will fall within the prohibited articles.

OXFORD AND MEDICINE.

A COPY of the *Oxford University Herald* has been forwarded to us. In this we observe that the old farce is kept up of classing medicine under the head of "Mathematics and Physical Science." The first notice states who the Regius Professor of Medicine is, and announces that that gentleman will receive members of the University on Mondays at noon, to give them information or instruction concerning the department. Below this, we are happy to find notices that the Lichfield lectures on Clinical Medicine and Surgery, which, so long as they were in Dr. Acland's hands, were not given at all, will be now given respectively in Medicine by Dr. Gray, and in Surgery by Dr. Winkfield, at the Radcliffe Infirmary, but no time is fixed for them. Then follow various notices as to Astronomy, Natural Philosophy, Geology, and the like. The notice of the Linacre Professor of Human and Comparative Anatomy shows a distinct improvement, inasmuch as it intimates that arrangements will be made for students wishing to study human anatomy; although what these arrangements are is by no means clear, nor is any course announced of human descriptive anatomy, such as is absolutely essential for the early stage of the study of medicine. After this comes Zoology; then the announcement that the Waynflete Professor of Physiology, Professor Burdon Sanderson, will lecture on the "Mechanical Functions of the Animal Body." Altogether, it is very hopeless reading, as it is pretty plain that the same mischievous spirit which has so long frustrated every attempt to provide Oxford with adequate courses of instruction for the first two years of medical study, is still at work muddling the arrangements for the course of which it has been unable to prevent the institution, and so mixing up the methods, times, and course of teaching, that Oxford is, at the present moment, as inaccessible and useless to students of medicine as ever it was. How long this melancholy perversion of great endowments and great opportunities will be permitted, it is hard to say; possibly some sense of shame and some tokens of repentance may be read in the varnish of pseudo-medical teaching, which is thrown over this section of physics and mathematics; but it is hard not to feel and to express something more than indignation at the lamentable position in which the University of Oxford is still placed in respect to its neglected duties of medicine and its perverted powers of teaching.

THE BOLTON INFIRMARY.

THE new infirmary at Bolton, which has been erected at a cost of about £35,500, was opened on Saturday last. The new building, which was commenced three years ago, is a handsome structure on the pavilion principle, and consists of four distinct blocks of buildings, viz., the central or administrative section, the right and left wings, and the children's hospital. The children's hospital, which has been erected at the back of the left pavilion, so as to overlook the public park, is a one-story building, and it has been so arranged that it can be completely isolated from the main building if it be so desired. In the men's wards, there are 42 beds; in the occasional wards, 17; and in the children's hospital, 16; making a total accommodation of 75 beds. The furniture for the various wards was provided by the working men of the borough. According to the last published statement, the total sum received in aid of the new infirmary (including £2,500 promised early in the year by Mr. Thomason, M.P.) was £32,083, the total expenditure to that date £31,215,

and the amount owing for work done £3,262. A large sum of money is still required in order to provide an adequate endowment. It was estimated that each of the 75 beds that had been provided would cost about £50 a year, or a total of £4,000 a year.

SCOTLAND.

ARRANGEMENTS are in progress for the opening of Dundee College in October next, and it seems probable that the ceremony will be performed by Lord Rosebery, who will give an inaugural address.

THE TEMPERANCE QUESTION IN SCOTLAND.

THE latest move on the part of the advocates of temperance reform, is an attempt to induce the Government to pass a measure of local option for Scotland. This is to take the form of local boards elected by the ratepayers, and entrusted with the same legal powers of refusing to grant or renew licences for the sale of intoxicating drinks, as are possessed by the licensing courts under the present law.

A SCIENCE LECTURESHIP FOR PAISLEY.

AMONG a number of very munificent bequests that have been left to Paisley by the late Mr. Brough, we observe that he has directed that £300 is to be spent annually in establishing and maintaining a science lectureship in that town, with all the necessary adjuncts and accessories. The subjects to be taught are left to the trustees to fix, but the testator himself recommends that one of them should be physiology.

FEVER EPIDEMIC IN KILBARCHAN.

FOR some time fever has been very prevalent in this village, and of late the cases have been more numerous, and of a more serious type. The position of the village and its surroundings are such that there ought to be freedom from any diseases of this nature, and as investigation shows that the fever has been most marked in the narrowest streets, and where the buildings are most compact, over-crowding and neglect of ordinary sanitary precautions may be the causes that are keeping up the epidemic. This is a matter that the local sanitary authority should enquire into.

SUPERINTENDENTSHIP OF THE ABERDEEN INFIRMARY.

THIS office, which is vacant through the sudden and unexpected death of Dr. Robertson, is about to be filled up. The Committee of Management agreed to throw open the appointment to non-professional men at a salary of £250. It seems, however, that, two years ago, a resolution was adopted, limiting the office to medical men. It has been resolved to refer the matter to a special meeting of the managers for reconsideration.

REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General for the week ending July 14th show that the death-rate in the eight principal towns during the week was 19 per thousand of estimated population. This rate is 1.8 below that for the corresponding week of last year, and 3.8 below that for the previous week of the present year. Aberdeen had the lowest mortality, viz., 11.4 per thousand; and Glasgow the highest, viz., 23.6 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.6 per thousand, or 0.3 above the rate for the previous week. Measles, whooping-cough, and diarrhœa were the most fatal miasmatic diseases. There were 81 deaths from acute diseases of the chest, or 23 less than in the previous week. The mean temperature was 58.9°, being 1.2° below that of the week immediately preceding, and the same as that of the corresponding week of last year.

IMPORTANT DECISION AS TO FOOT-AND-MOUTH DISEASE.

WE observe that, in an appeal case recently brought before the Sheriff Court in Glasgow, it has been decided very properly by the judge that portions of an animal suffering from foot-and-mouth disease are not fit for human food, and that the authorities are quite justified in destroying the whole carcase and all the viscera. There seems to have existed a most objectionable custom of excising from any of the affected organs the ulcerated portions, and then selling the remainder as suitable for food. When we consider the nature of the disease, and the fact that has been pointed out, that the milk of an animal suffering from it possesses deleterious and even poisonous properties, we are glad to see that the law has emphatically pronounced against the continuance of a practice fraught with great danger to the community, and which ought never to have been permitted on any consideration.

HEALTH OF THE PRINCIPAL SCOTTISH TOWNS.

THERE were registered in the eight principal Scottish towns during the month of June the deaths of 2,547 persons, of whom 1,260 were males, and 1,287 were females; this number is 129 above the average for the same month during the preceding ten years, due allowance being made for proportional increase of population. The mortality of each town was, per 1,000 of its population, in Leith, 19; in Edinburgh, 20; in Aberdeen, 21; in Perth, 24; in Dundee, 27; in Paisley and Greenock, 28; and in Glasgow, 30. Of children under five years of age the deaths of 1,065 were recorded, or 41.8 per cent. of the entire mortality, the individual percentage of deaths under five years of age being, in Perth, 26; in Aberdeen, 28; in Paisley, 30; in Edinburgh, 34; in Dundee, 39; in Glasgow, 47; in Greenock, 49; and in Leith, 50. Zymotic diseases caused 18.5 per cent. of all the deaths; in Glasgow, Greenock and Leith, however, this rate was exceeded; measles was most fatal, having alone caused 6.8 of the entire mortality, and in Glasgow this disease caused 10.2, in Greenock, 12.2, and in Leith 8.7 per cent. of all the deaths. Of 27 deaths caused by fever, 9 were registered as due to typhus, 14 to enteric, 1 to relapsing, and 3 to simple continued fever; of the 9 deaths from typhus, 6 were in Glasgow, and one each in Edinburgh, Dundee, and Aberdeen. Whooping-cough caused 122 deaths; diarrhœa, 42; scarlet fever, 41; diphtheria, 19; croup, 17; metria, 6; dysentery, 5; and choleraic disease two deaths. In Leith no less than 10.9 per cent. of all the deaths, in Dundee 6.3, and in Glasgow 5.1 per cent., were due to whooping-cough. Apoplexy caused 69 deaths, paralysis, 58; cardiac diseases, 163; hydrocephalus, 67; and premature birth-debility, 60 deaths. Phthisis pulmonalis alone caused 331 deaths, or 13.0 per cent. of the entire mortality, while inflammatory affections of the respiratory organs, other than those already referred to, caused no less than 468 deaths, or 18.4 per cent. of the whole. Of 78 deaths due to violent causes, six were of suicidal origin. One male and four females died when over 90 years of age, the oldest of whom, aged 95, it is almost needless to say, was a widow. As to the meteorological conditions which characterised the month of June, there were the coldness and dryness, with an undue allowance of east wind. The details were as follow. The mean barometric pressure was greater by 0.031 inch, and its monthly range less by 0.075 inch; the mean temperature was less by 1.6°, and its mean daily range less by 0.1°; the mean humidity less by 4°; the rain, in number of days, less by 2, in depth of inches, less by 0.64 inch, and the wind-pressure less by 0.19 pounds than the average for the same months during the preceding twenty-six years. The lowest mean temperature, 53.4°, was recorded at Aberdeen, and the highest, 55.8°, at Dundee. The least rainfall, 1.14 inches, was at Aberdeen, and the greatest, 3.71 inches, was at Greenock. The greatest wind-pressure, 1.90 pounds per square foot, was at Edinburgh, and the least, 0.58 pound, was at Aberdeen.

IRELAND.

DR. BANKS, the eminent Dublin physician, has refused the honour of knighthood.

DR. FRANCIS GREENE has been elected medical officer of Mallow Workhouse. He was opposed by Dr. O'Connor.

THE outbreak of scarlet fever in Aghalee district of the Lurgan Union is subsiding rapidly, and there are at present only a very few cases of the disease in the district, and those of a mild type.

THE BELFAST HOSPITAL FOR SICK CHILDREN.

THIS hospital, which was closed for seven weeks for painting, has now been re-opened for the reception of patients. It has been painted and decorated throughout, and the most approved and latest sanitary improvements in this art have been adopted in the execution of the work.

HOSPITAL FOR DISEASES OF THE SKIN, BELFAST.

THE eighteenth annual meeting of the subscribers and friends of this hospital was held in the board-room on July 19th. The report showed that 909 patients were treated in the extern, and 33 in the intern department, during the year. The annual income from all sources was £312 13s. 11d., and the expenditure £314 10s. 6d. The income from subscriptions was stated to be steadily decreasing.

SOCIETY FOR PROVIDING NURSES FOR THE SICK POOR, BELFAST.

THE report of this Society for the past year is an encouraging one, and it is gratifying to find that a widespread interest is being developed among all classes of the community for the objects for which this charitable organisation has been established. One of the most serious difficulties to contend with, has been found to be the bad ventilation of the small rooms in which the patients visited by the nurses live; and considerable improvement would take place, in a sanitary point of view, if proper dwellings for the poorer classes were more numerous in Belfast. During the year, seven hundred and five patients, suffering from cancer, wounds, and various chronic affections which the hospital could not admit, were visited by the nurses, and various comforts, such as beef-tea, milk, and other nourishment, provided. There are, at present, six dispensary districts supplied with nurses; but two districts, Ligoniel and Cromac, are still unprovided, but it is expected that, in a very short time, two additional nurses will be attached to these districts.

HEALTH OF DUBLIN: QUARTERLY REPORT.

DURING the June quarter, there were registered, in the Dublin Registration District, 2,677 births, being equal to an annual ratio of 1 in 32.7, or 30.6 in every 1,000. The deaths numbered 2,674, affording an annual ratio of 1 in 32.7, or 30.6; but omitting some deaths (73) not chargeable to the district, the rate was 29.8. There were 276 deaths recorded from zymotic diseases, being 88 under the number for the preceding quarter. The most fatal zymotic disease was whooping-cough, which caused 95 deaths, which, however, was 58 under the number registered in the previous quarter. Fever caused 93 deaths; diarrhœa and dysentery 28; and measles only 9. No death from small-pox has been recorded since May 1881. Diseases of the respiratory organs caused 563 deaths, or 21 per cent. of the deaths from all causes; they comprise 339 from bronchitis, and 142 from pneumonia. Two hundred children died from convulsions; 40 deaths were caused by apoplexy, 121 by other diseases of the brain and nervous system, and 178 by diseases of the circulatory system. The mean of the mean weekly temperature for the quarter was 49.5°; and the rainfall for the thirteen weeks measured 5.70 inches.

A MORGUE FOR QUEENSTOWN.

FOR a considerable time past, the urgent necessity that exists for the construction of a morgue for this seaport town has been pointed out in these columns, and the matter has again and again been brought under the notice of the town commissioners and the guardians of the Cork Union. The town commissioners have hitherto refused to erect a structure of the kind required, stating that it was the duty of the Cork guardians; while the latter body have acted in a similar manner, and declined to do what they considered to be the bounden duty of the Queenstown town commissioners. Matters have remained in this unsatisfactory state for a long time past, but at last the Local Government Board have come forward, and shown unmistakably that they cannot permit such a condition of affairs to exist any longer. At a recent meeting of the town commissioners of Queenstown, a communication was received from the Local Government Board, in which they stated that they were clearly of opinion that the duty of providing a morgue was one which must be performed by the Queenstown sanitary authority, under Sec. 157 of the Public Health Act, 1878. In objecting to provide the morgue, the commissioners appeared to rely upon the order of August 9th, 1873, which made the Cork Guardians the port nuisance authority; but that order only prescribed the authority appointed to deal with the ships lying in the Cork Harbour, or with patients on board them; whereas the morgue is required for the reception of dead bodies of persons who may not have been on board such vessels, and who may not have died from any infectious disease. The Local Government Board finally state that, if the commissioners do not at once take the necessary steps for providing a suitable mortuary, they will make an order to do so, which can be enforced by means of a writ of *mandamus* issued by the Queen's Bench. The commissioners will erect the morgue, and have desired the town surveyor to make an estimate of the cost.

PARLIAMENTARY BILLS COMMITTEE.

DEPUTATION CONCERNING THE STATUS AND REMUNERATION OF SHIP-SURGEONS.

THE President of the Board of Trade communicated, on Tuesday last, his willingness to receive a deputation on the subject of the memorial on ship-surgeons forwarded to him by the Parliamentary Bills Committee, in pursuance of resolutions passed at its last meeting. Sir Lyon Playfair, K.C.B., M.P.; Dr. Farquharson, M.P.; Sir Eardley Wilmot, Bart., M.P.; Mr. A. Moore, M.P.; and Captain Bedford Pim, M.P., accompanied the deputation, which waited on Mr. Chamberlain on Thursday. It included Mr. Ernest Hart (Chairman), Dr. A. Carpenter (Croydon), Dr. Quain, Dr. Langdon Down, Surgeon-General Ewart (Brighton), Mr. Spanton (Hanley), Dr. Orange (Broadmoor), Dr. Hart Vinen, and Mr. Burdett. Sir Lyon Playfair, Mr. Moore, Mr. Hart, Dr. Carpenter, and Dr. Irwin made statements to Mr. Chamberlain on the subject of the memorial. Mr. Chamberlain promised that, in the forthcoming Shipping Amendment Bill, he would consider what he could do to meet the wishes of the deputation, and to raise the standard of qualification, and enhance the position in every way of the ship-surgeons; but could hold out no hope of the formation of a Government service of ship-surgeons for the mercantile marine, which was one of the suggestions put forward.

MEDICAL MAGISTRATE.—On the recommendation of Lord Gosford, Dr. J. G. Adamson has been appointed to the Commission of the Peace for County Armagh.

CHOLERA IN EGYPT.

TELEGRAMS TO THE BRITISH MEDICAL JOURNAL.

[FROM OUR SPECIAL MEDICAL CORRESPONDENTS.]

DR. MACKIE, C.B., Consular Physician at Alexandria, has forwarded the two following telegrams to the BRITISH MEDICAL JOURNAL.

Alexandria, July 25th.

Disinfection, after the regulations of the native authorities, is carried on in the following manner. An Arab enters a house in an infected district with a small portable fire, into which he puts some sulphur, he then walks quickly through all the rooms in the house, carrying the burning sulphur, and scattering a little chloride of lime on the floor. The state of the Alexandria Hospital is abominable; the wards reek with effluvia, and the patients lie on bedding covered with filth from the former occupants. Their diet is a soup made of rice boiled in water, which article of consumption is administered to them once in the morning and once in the evening. All severe cases of illness that have the misfortune to be admitted into the hospital, appear to contract cholera or, at least, typhoid fever, within its walls. One case of recovery from cholera was reported on Wednesday, July 25th, at Kaffr Dawar. At Cairo, the progress of the disease is slow compared to the rate of extension of similar previous epidemics. It is believed that the intensity of the outbreak is diminishing; the greatest comparative mortality was at Chibin-el-Koum, July 24th, where 117 died amidst a population of 16,000. Dr. Flood has again attempted to prove that the cholera was imported by the fireman of the *Timor*, but without success. All accounts from the different districts in Egypt, agree that the outbreak was preceded by a large increase of sickness and mortality from other diseases, without any sporadic cases of true cholera having been observed; it seems that some general cause had simultaneously affected the whole population in the neighbourhood of Damietta and Mansourah. The special cholera-hospitals now established at Alexandria, outside the town, are very clean; the volunteer sanitary commission has done good work. At Cairo, sanitary matters are nearly at a standstill; the executive administration cannot enforce their orders. On Saturday last, the bad feeling between the mob and the executive administration nearly stirred up a rebellion, so that matters looked very serious. The Egyptian lower classes consider all precautions to be impious; "God is great," they cry, and all is predestined; hence they obstruct the very little sanitary work that has been carried into effect.

Two cases of infected refugees from the interior arrived at Alexandria on Tuesday. The mortality at Cairo (population 380,000) was 360 in the twenty-four hours ending on Wednesday morning, against 463 on the previous day. A seven days' quarantine is enforced at Alexandria upon all persons coming from the interior. A large number of non-residents were forbidden, on Tuesday, to enter the town, which, being still partly in ruins, has no accommodation for them. As the London papers have already announced, a few cases of the epidemic have occurred amongst the British and the native troops. On Monday, the authorities unsuccessfully attempted to effect a forcible evacuation of the inhabitants of the infected parts of Mansourah.

Alexandria, July 26th, 11 A.M.

There is no further increase. The daily mortality during the last epidemic at Cairo was 485, according to the official reports, but there is reason to believe it was still higher. It was confined mostly to the unhealthy regions of the town.

Cairo, July 25th, 7.30 P.M.

DR. GRANT BEY telegraphs to the BRITISH MEDICAL JOURNAL: "Cholera spreading in Upper Egypt. Bulletins only approximate. Four thousand have died since my telegram of July 18th, including 680 in Cairo, 225 in Old Cairo, and 1,189 at Boulak, where the scenes are most heart-rending. The death-wail is heard in every house, and families are leaving their burning hamlets. All classes, from the Khedive downwards, are lending a helping hand. The malady attacks natives principally. Doctors, professors, and rich and noble families, all experience its ravages. There is no fever with the disease. The mortality at Boulak is decreasing; at Cairo, it is increasing. Disinfectants are being burnt in the streets throughout the city. The Egyptian and British armies are infected. The weather continues fine. The doctors are overworked; and some are *hors de combat*, whilst some are absent."

OUR special correspondent at Cairo, writing on the 10th instant, says that the disease has now attacked the European population; and that a good many Greeks have died at Mansourah, and an Austrian subject at Alexandria.

The following is a table of mortality from cholera alone, the numbers given being rather under than over the actual number, as deaths take place from the disease without a doctor seeing the patient, and certificates are granted without such consideration, but the error is always sure to be on the least panic-making side.

Damietta,	from	22nd	June,	to	8 A.M.	July 9th,	1,303
Mansourah,	,,	25th		,,	,,	,,	317
Port Said,	,,	25th		,,	,,	,,	11
Tantah,	,,	27th		,,	,,	,,	1
Samanoud,	,,	30th		,,	,,	,,	67
Alexandria,	,,	2nd	July,	,,	,,	,,	3
Shirbeen,	,,	2nd		,,	,,	,,	25
Menzaleh,	,,	6th		,,	,,	,,	31
							1,758

The soldiers and gendarmerie on duty are not keeping Ramadan, but all the other Mohammedans are observing the fast as usual. The Sanitary Board proposed that the fast should be put off. The people are constantly breaking through the *cordons*, but whenever they are found they are immediately isolated and put in quarantine. In Alexandria the panic is very great, but at Cairo everyone is coming forward to volunteer his services if required.

The soldiers forming the *cordons* have permission to fire on any who may attempt to break through them. The river is patrolled by a steamer, under the orders of an English inspector, who has the charge of keeping the Nile and the canals clear of dead cattle. The dead bodies are taken out and buried.

Two "flies" or tug-boats are stationed at the *cordons*, to prevent their being broken through riverways. General sanitary commissioners have been formed in Cairo and Alexandria, and these towns have been divided into districts. House-to-house visitation is made, and disinfectants are freely distributed to the poor.

The weather is exceedingly fine, and a constant north-westerly breeze is blowing. The ordinary mortality of Cairo is less than it was last year at this time.

The bulletin, July 9th, 8 A.M., to July 10th, 8 A.M., is as follows: "Deaths from cholera: Damietta, 49; Mansourah, 101; Samanoud, 8 (July 9th, 8 A.M., to 6 P.M.); Sherbeen, 1; Menzaleh, no news; Port Said, 0; Alexandria, 0."

There have been no cases at Port Said for six days. Menzaleh is situated much out of the way, there being neither railway nor telegraph to it. News, however, has been received that there had been a general and spontaneous depopulation of the place before the sanitary *cordon* was formed. A great proportion of the Damietta people are living under canvas in the fields, and the death-rate is diminishing fast. There have been complaints about lack of doctors and medicines, and also food; but as the complaints come to the knowledge of the authorities, they are immediately attended to. The Minister of the Interior and the President of the Sanitary Board have worked energetically and amicably together. Here there is an unmistakable proof that, in carrying out hygienic measures, the people must be, at least, partially educated; and the Minister of Public Instruction must educate the Egyptians before hygienic rules and regulations are launched amongst such an ignorant race as he has to deal with in that country.

THROUGH the courtesy of the Director-General of the Medical Department of the Navy, we have received a copy of a meteorological table for June, with comments, drawn up by Dr. Gilbert Kirker, surgeon of H.M.S. *Iris*, at Port Said, and forwarded by him for the information of the department. The observations were made daily at 9.30 A.M., and at 11 P.M.; and comprise the barometric pressure, the temperature in the shade, as gauged by the dry and

wet bulb thermometers; the dew-point; the relative humidity; the directions of the wind; and the amount and characters of cloud. They were taken at Port Said during the greater part of the month, and at Alexandria from June 19th to 23rd. The table shows that, as regards wind and humidity, there were two well marked periods in the month. In the first period, from June 1st to 23rd (with which must be included the last three days of May) the winds were variable. There were occasional calms at night, and the humidity was excessive (several times reaching the point of saturation, 100, and never falling below 85). In the second period, commencing on June 24th and continuing up to the date of Dr. Kirker's communication on July 6th, the summer sea-breeze was established. The wind blew, during the day, from about north-west, and varied generally towards south-west in the night and early morning. There were no calms, and the humidity was moderate (in June, from 71 to 88). The mean relative humidity of the first period, both at 9.30 A.M. and 11 P.M., was 94; in the second, it was 78 and 81 respectively. Dr. Kirker thinks that, independently of the notorious unsanitary conditions prevailing at Damietta and elsewhere, meteorological conditions have probably been an important factor in the development of the cholera in Egypt. The epidemic was announced to have appeared at Damietta about June 22nd, at the end of a period of twenty-five days, during which the air was often stagnant, and always moist, frequently to saturation.

REPORT OF THE CONSULAR PHYSICIAN AT ALEXANDRIA TO THE FOREIGN OFFICE.

WE understand that the following report has been received at the Foreign Office from Dr. Mackie. In a similar report, published in the last number of the JOURNAL, page 134, the heading should have been "Consular Physician," and not "Consul;" and the name of Dr. Grant Bey was erroneously substituted for that of Dr. Mackie in the short paragraph preceding the report.

Alexandria, July 15th, 1883.

Since my report of the 9th instant, there has been a notable decrease in the mortality from cholera in the two villages which have suffered most severely—Damietta and Mansourah. The virulence of the disease, however, seems to continue unmitigated, if I can rely on reports which reach me from intelligent correspondents. The Board of Health at Cairo can give no information, and I am obliged to glean my information from other sources. Reports have been sent to me from both Damietta and Mansourah of cases of death in from two to three hours, in which there had been neither vomiting or diarrhœa. This seems to have occurred so often, that many inhabitants of those villages do not believe it is cholera, but some new disease. I remember, in my own experience and practice here in the cholera of 1865, many such cases. Though the number of victims in the villages first attacked has diminished, and no very severe outbreak has shown itself in any of the other villages, yet, from slight outbreaks occurring here and there, the disease shows a great tendency to spread. Up to the present, the route it has taken is along the Damietta branch of the Nile southwards, in the direction of traffic and prevailing wind. The only deviation from this line of progress as yet being Port Said, Menzaleh, Chibin-el-Koum, and Alexandria, and at none of these places, except, perhaps, Menzaleh, have there been more than a few cases. If this steady, though slow, progress continues, it is likely to find its way along the Nile to Cairo. The cases which have occurred at such places as Chibin-el-Koum and Port Said may be accounted for by persons escaping from the infected villages, but I have no authentic information. With regard to the first case which occurred in Alexandria, the circumstances are as follows. A man left Mansourah on June 22nd (cholera being officially declared there on the 25th), and the same day joined his family in Alexandria. His family, consisting of wife and daughter, and another woman, lived in a wooden shanty, one of a number of wooden erections huddled together in a waste open space in a healthy well-aired part of the town; but the shanties have no sanitary arrangements whatever, and are densely crowded by washer-women and ironing-women, poor work-people and their families. Running parallel with these, and separated from them by a narrow lane, is a row of badly kept offensive stables or mews. Part of this open space on which there was no building was covered by fæcal matter, being used by the families living in the tenements. The woman who lived in the family was taken ill on July 1st, and died next day, the death being certified "very probably cholera." The inhabitants of these huts were at once turned out, and sent to Gabari on July 4th, to perform quarantine, amongst them being the daughter of this man. On July 10th, she was taken ill at Gabari, with vomiting and diarrhœa, stated by the sanitary authorities to be cholerine; but, in two days, was well. The man himself left for Syria a day or two after his arrival from Mansourah, and, as far as is known, is alive and well, and had no symptoms of diarrhœa nor cholera.

The second case was an Abyssinian (a servant), who lived at some distance from the house where the first case happened. He was taken to the native hospital, where he died. I enclose the statement of the doctors, which contains all the information they can give. The third and last case was the Austrian referred to in my last report, who died last Sunday. He had been drinking in the evening, ate a hearty supper, chiefly sardines, went to bed, and was taken ill about midnight, and died next day at 7 P.M., having had all the symptoms of cholera.

The statement with regard to Mohamed Khalifa, reported by the sanitary physician of Port Said to have probably been the means of introducing the cholera from Bombay, a statement which was countenanced by the Cairo Board of Health, has been disproved. An inquiry was instituted, at which the following facts were elicited. Mohamed Khalifa shipped on board an English steamer as fireman, went to Bombay with the vessel, remained there three weeks, and returned in the vessel to Port Said, all being in perfect health, nor had he heard cholera mentioned while at Bombay. The voyage from Bombay to Port Said lasted twenty days. He left the vessel at Port Said and went to his house, where he remained four days. After this, he was three days in prison for having engaged in a quarrel. He then left for Damietta, where he arrived by boat on Sunday, June 24th, after a passage of twenty hours, and was there in perfect health on July 1st. It is thus shown that he arrived in Damietta in perfect health two days after cholera was declared, having left a healthy ship. A great many of the soldiers forming the *cordons sanitaires* have taken the disease, notwithstanding the care taken, and stringent orders issued by the English officers. A letter from Colonel Sartorius of the 12th instant states: "One man Damietta *cordon* taken ill to-day. One officer, eleven non-commissioned officers Mansourah *cordon*, taken ill to-day. Talka *cordon*, one soldier, one officer and nine men Samanoud *cordon* taken ill to-day, and two men dead. Chibin-el-Koum *cordon*, four taken ill and two dead three days ago." A paragraph, presumably authentic, in the *Egyptian Gazette* of the 14th instant, states "that it was found necessary to change the position of the *cordon* at Samanoud. In doing so, it was necessary to cross a native grave-yard, where victims to the prevailing disease had only recently been interred. During the one night that the sentinels remained in the cemetery, they caught the malady."

The disease has now been raging in Egypt for twenty-four days in as fatal a form as the cholera of 1865, judging from the published bulletins; and, with the exception of the few cases at Port Said, most, if not all, of which the sanitary physician declares occurred in refugees from Damietta. The route across Egypt, from Asia to Europe, has been free. The origin of the outbreak at Damietta remains as obscure as ever. The Sanitary Board of Cairo has now announced, almost officially, its belief that the disease has been imported from Bombay. Others also express the same belief, holding the opinion that cholera invariably spreads from India, while those who are not bound by opinion, and ask investigation and proof, are inclined to find in the unsanitary state of the country where the disease first broke out, sufficient to account for an outbreak without importation. If the substance or germ necessary for the production of cholera can be produced or evolved from decaying animal matter, a local origin can easily be found at Damietta. What constitutes cholera, even in India, the means by which it is propagated, are now generally understood; but there must be a first beginning. What is it? If it has had its first beginning in unsanitary India, why not in unsanitary Damietta, with a river flowing through it supplying it with water filled with rotting carcasses of animals which have died of cattle-plague, four hundred of which, according to authentic information, have been fished out and buried since the disease appeared. The soil around is also the best that could be for the propagation of cholera, being loosely alluvial and fæcal, and the water often nearly stagnant from the tidelessness of the sea. Under such circumstances, cholera could dwell and thrive. The question still is, how could it originate? The study of this epidemic will be epidemiologically, commercially, and politically of most intense interest, and the investigators will have to be independent men, free from all political influence, if truth is to be arrived at. I am not aware that a case of cholera has occurred in

Egypt since the winter of 1866. I have seen cases of choleraic diarrhœa, but none fatal. In the summer of 1881, I saw one case in a woman in this town which I thought would prove fatal, but she recovered.

The Egyptian medical and sanitary administration has been showing great activity lately, and sent doctors, medicines and disinfectants to the infected villages; but sending one or two young medical men with disinfectants to disinfect an Egyptian village to stop cholera is like pouring a bucketful of water in the sea to flood a stranded ship. However well the work may look when published in the *Moniteur Egyptien*, it is nearly practically useless. To disinfect an Egyptian town means destroying and reconstructing it—it is impossible to cleanse and disinfect it. And, moreover, I will undertake to say that nine-tenths of the men sent to do the work do not themselves appreciate the meaning and use, and method of disinfection. Sanitary habits and practice which will stop the progress of a zymotic disease are yet foreign to the country and to the nature of the people. Dr. Chaffey Bey reports from Damietta that the measures ordered are not carried out. Benevolent societies have been formed, chiefly by Europeans, to send aid to the stricken villages, and have sent at their expense several European doctors who expressed their readiness to go. Many European doctors, experienced in cholera and epidemics, would gladly go to help authorities by their advice, but the difficulty of returning to their work here in case of need, without undergoing a lengthened quarantine prevents them.

It would seem as if the *cordons sanitaire* have retarded the progress of the disease, and they may retard it till the country is supplied with good water by the rising of the Nile; but there are many reasons why the *cordons sanitaire* cannot stop its progress; where a case, for instance, happens in a village at some distance from an infected place, the people, or some of them, immediately take flight for fear of being shut in, and have escaped long before a *cordon* can be formed. Several cases have come before me, where people have arrived ill of fright, from villages where, perhaps, during the night, some one had died suddenly, and they had fled in terror from supposed cholera and to escape the *cordon sanitaire*. To make it more effective, it would be necessary to surround not only the villages infected, but the whole district.

July 17th. Since writing the above, the appearance of cholera in Cairo, on Sunday, 15th, has been officially announced, and I regret to add that another case has happened in Alexandria. An English woman, aged about sixty or sixty-five, of rather intemperate habits, living in a low-lying, unhealthy, densely populated quarter of the town, was taken ill yesterday at 11 A.M., and died at 11 A.M. to-day. In this case, which I visited and treated, the symptoms of cholera were not very severe, though she presented a markedly choleraic appearance; the urine was not suppressed, and was not albuminous. She kept a lodging-house, and I was informed that several refugees from the villages had lately lodged in her house previously to leaving for Europe or Syria; whether they came from villages where the disease actually existed or not, no one could tell me. The tendency of the disease to spread, notwithstanding *cordons sanitaires*, is very marked, and I am afraid there is now little hope of saving the country. It has now left the banks of the river and spread more in the direction of the chief line of railway. The *cordons sanitaires* are on a severe trial, and the result will prove whether they have been of any real use. If they have proved to have been a failure, it is to be hoped that they have had their last trial, here or elsewhere, as they are the cause of great panic and much hardship, which one would not desire to see inflicted if no good result is to be obtained.

Judging the rate of progress of this outbreak by that of 1865, when nothing was done, and the development and spread were so rapid that nothing could be done, it would seem as if the *cordons* have retarded the progress; but that they will stem the tide completely, I have no hope. The fatal nature of the malady is still its marked feature; in that it resembles real Asiatic cholera.

J. MACKIE, Surgeon to Her Majesty's Consulate.

A MAN named Edward Charles Roberts, aged 41, drank, last week, a quantity of carbolic acid in mistake for porter. He was conveyed to St. Bartholomew's Hospital, where he shortly afterwards died.

IT having been found inconvenient to convene Medical Invaliding Boards at stations in the Bombay Presidency where there are only two medical officers present, the local Government have modified the regulations on the subject to the extent that Boards at out-stations may be composed of two medical officers, where there are no more available.

PREVENTION OF CHOLERA.

"THE Powers and Duties of Individuals and Communities for the Prevention of Cholera and Diarrhœa" formed the subject of an address given by Mr. ERNEST HART, Chairman of the National Health Society, at a meeting held on Monday at the Parkes Museum, Margaret Street. Sir JOSEPH FAYRER, K.C.S.I., presided.

The CHAIRMAN, in opening the proceedings, said it was an undoubted fact that an epidemic of cholera was prevailing at the present moment in the Delta of the Nile, and therefore it behoved us to consider the question in reference to any possible extension of the disease to this country. Happily, so far as he knew at least, there was no indication of any extension of the disease to this country at present; but previous experience had taught us that such extensions had taken place. To be forewarned and prepared was to be forearmed; and it was therefore well that we should consider what might be done under the circumstances, should there be any extension of the disease to this country, and that we should make such preparations that, in the event of the wave rolling this way, it should not break with the violence it had done on former occasions. They were aware that, within the last fifty years, there had been several epidemics of cholera in this country, some of them severe and protracted. The Government and the sanitary authorities had alike been alive to the importance of this matter. It had been carefully studied, and much valuable information of a practical character had been obtained. It was true that there was some difference of opinion still as to the nature of the causation of the disease; but they had learned so much as to the laws that regulate its propagation and its diffusion—so much of that which ought to be done to render it as harmless as might be, by which it might be mitigated, and by which they might regulate its localisation, and so on, that they should be prepared to treat it, in the event of its coming, as of comparatively little importance. He thought it was very satisfactory indeed to see the calm and dignified way in which our nation was now treating the matter. It was a pleasant contrast to the excited, the wild, the passionate view that was taken by other nations and by other Powers with reference to quarantine and coercive measures. None of them, he thought it had been satisfactorily shown, did any good; if they did anything, they only intensified the mischief, and they rather tended to increase than diminish the disease. Although differences of opinion still existed as to the causation, the proximate, the real cause of cholera, no differences existed as to what ought to be done with it and for it—what sanitary, what preventive measures ought to be had recourse to. Let him quote the words of a recent great sanitary authority, one who was a pioneer of the sanitary movement which had now progressed so far—Dr. Southwood Smith. "We see that epidemics are not made, by a Divine law, the necessary condition of man's existence upon earth. The boon of life is not marred with this penalty. The just laws of nature, which are God's ordinances, in their regular course and appointed operation, do form and give off around us products which are injurious to us; but He has given us senses to perceive them, and reason to devise the means of avoiding them; and epidemics arise and spread because we will not regard the one, nor use the other."

Mr. ERNEST HART, taking first the history of cholera, said that, by the increased knowledge afforded by past epidemics of cholera in this country, they had been enabled to make each succeeding epidemic less severe; and they would probably make this one positively harmless, if it should reach our shores. It was interesting, he said, to remember that cholera first invaded Europe subsequently to the introduction of steam-boats—that, in all probability, had a scientific as well as an historical meaning. The history of cholera in this country dated from the wide-spread epidemic of 1831-2; in India, from 1808; in Persia, Arabia, and Astrakhan, in 1823; in 1830, extending itself over the whole of Russia, following the lines of human intercourse and traffic, whether by road or river. Every effort was made to keep it back from the German frontier by quarantine, by *cordon*, and every kind of restrictive measure, but without effect; and, in 1831, it broke out in every country of Europe. Having traced the progress of various epidemics which had occurred throughout Europe and Asia, Mr. Hart referred to the outbreak in London in September 1848, from whence it rapidly spread to Edinburgh, Dublin, and the United States. It was then that the causation of cholera first became the subject of organised scientific inquiry; and the connection between cholera and unsanitary conditions was admirably investigated by Dr. Southwood Smith and Mr. Edwin Chadwick, as Royal Commissioners. Impure water was the readiest propagator of the cholera; and, although the absolute purity of this element

was not to be relied on as a specific against the disease, it was most necessary to secure it, and the companies who enjoyed the monopoly should be impressed with the responsibility of their obligations. It lay upon them in respect of such monopolies. It was an anomaly in our legislation that there were no penalties, so far as he knew, upon any companies for distributing impure water to our homes; and there was good reason for desiring that the Government should carry out their undertaking, and themselves assume the direction of the water-supply of this metropolis. Though the chemical test might be able to detect dangerous qualities in a water-supply, yet the only way in which water could be tested, as capable of producing disease, was by the physiological test, that was by the production of disease—a test to which they had a right to object. Without entering into any doubtful points as to the nature of choleraic poison, or the more doubtful methods by which it was conveyed, he should have the assent of every one when he said that they could depend neither upon quarantine nor upon *cordons*. Both had proved to be alike cruel, selfish, morally wicked, and medically useless. Quarantine was an ancient and barbarous expedient, which had been condemned by every authority who had examined into it. It was condemned by Europe, in its calmer moments, in its last Conference at Vienna. England knew that what was needed as a precaution against cholera was common-sense and cleanliness. These were qualities for which our lively neighbours across the Channel were not remarkable. The only advocates for quarantine in the world, at the present moment, were certain official persons among the French. No one would deny that, so long as quarantine was limited to any particular port of Asia or of Africa, it would be a precautionary measure, justifiable if it were efficient; but it would still be unnecessary, because rigid inspection superseded quarantine. Still more useless than quarantine was the system of *cordons*, which had always been ineffectual. It had been retried in Egypt. Our Government had looked on; though not believing in it, yet unwilling to interfere. This system of *cordons* had completely broken down in Egypt as elsewhere. Foreign medical papers, as well as foreign political papers, had been somewhat excited about the attitude of the British Government with respect to cholera; and had assumed, entirely without foundation, that the objection which was entertained to quarantine by the British Government was one depending upon commercial and not scientific considerations. It was a sufficient answer to say that, in our Indian Dependencies, we had long ago abandoned quarantine and sanitary *cordons*, and we had learnt to rely upon inspection, cleanliness, isolation, and disinfection. The spread of cholera resembled closely the manner in which typhoid or enteric fever was promulgated, and the extent to which it had been possible to guard against these diseases was a measure of the success that might be attained in guarding against cholera. Let great care be taken that no impure or infected air enters their dwellings; but, in order to illustrate the extent to which this precaution was not carried out, he quoted the result of some investigations by Mr. Field, which proved that, out of 1,000 houses examined, only 3 per cent were sound and free from taint. In 6 per cent., there was an absolute stoppage in the drainage; 31 per cent. had leaky soil-pipes; and in 31 per cent. there was connection between the drinking-water and the drain-pipes. As there was an annual decline in the deaths from enteric fever, it was satisfactory to know that greater precautions were being taken. It was most necessary that the water for drinking should be kept apart from that for sanitary purposes. Basements of houses should be carefully searched for old cesspools, and dustbins should be emptied daily. Intemperance in either eating or drinking should be carefully avoided; and tainted food, sour milk, and unfiltered water were exceedingly dangerous. In conclusion, Mr. Hart observed that cholera was no longer a mystery, and had lost much of its terror. It was not infectious by simple contact; it was known how to check its progress; and if public authorities and private individuals united in taking proper precautions, there was nothing to fear. As a precaution against cholera, it was the duty of each head of a household to see that the drainage of his house was complete and safe; that the water-supply was uncontaminated by the sewage; and that, especially in old houses, there was no cesspool beneath the basement. The dustbins were a source of danger, and should be cleaned out every day. Dirty linen, which had been used in suspected cases, should be dealt with separately, and disinfected. The simplest kind of disinfection for this purpose was a weak solution of chloride of lime, or a solution of carbolic acid; and all such linen should be steeped in a solution of it before it is allowed to pass from the house. It was a remarkable fact that, cleanly as the English were, they made no preparation for the cleanliness of their servants. No house should be considered complete that was not provided with baths for the servants as well as for the family. On the question of individual precaution, there should be careful dieting, an avoidance of unripe fruit, sour bread, unsound meat, and anything laxative; and, most essential of all, cases of slight and painless diarrhœa should be treated as not of the least, but of the utmost importance. Chills should be avoided, and woollen clothing worn—the light woollen clothing which could be obtained for summer wear being as cool as anything worn. A restrictive of diarrhœa, upon which there was a general consensus of opinion as to its particular usefulness, was that known as sulphuric acid drink—ten drops of dilute sulphuric acid in an ounce of water, and sweetened with syrup of orange-peel or otherwise made agreeable. But premonitory diarrhœa, under present circumstances, ought to be regarded as immediately calling for medical advice. Disinfectants should not be resorted to until the cause of the bad smells had been ascertained and removed. Disinfectants should not be used as deodorisers, but only where it was proposed to deal with infective matter proceeding from a person having diarrhœa or cholera; or in the case of drains, where it was impossible at once to remedy the evil. The disinfectants generally used were quicklime recently burnt, used in the form of dry powder, stirred up well with ten times its bulk of water; chloride of lime in the proportion of one pound to a gallon of water; carbolic acid dissolved in about eighty times its volume of water; sulphate of iron dissolved in ten times its weight of water. Enteric fever and diphtheria year by year claimed victims, and if cholera came to teach us that by cleanliness only, that only by adopting the methods which science and nature had taught, could we overcome these diseases, then cholera would not have come in vain. But we ought not to require that lesson; we ought to sweep our houses and keep them clean, so that we need not fear the advent of cholera.

The CHAIRMAN, while not agreeing that cholera was altogether so devoid of mystery as Mr. Hart seemed to think, fully endorsed everything he had said as to the necessity of precautions, cleanliness, and sanitary dwellings; and he would ask all present to remember and carry out the excellent advice Mr. Hart had given them.

Inspector-General Mouat, Dr. Crichton' Browne, Dr. Thudichum, and others, took part in the discussion which followed.

Dr. CRICHTON BROWNE expressed gratification at the calm dignity shown by the nation in face of the threatened danger, and pointed to that mental attitude as the best safeguard against panic. It was believed capable of demonstration that a state of panic was favourable to the spread of cholera in any community which it might unhappily invade.

Dr. TYSON pointed out that, while it was the tenant's duty to point out any defect in the sanitary arrangement of dwellings, it was the landlord's duty to remedy them. The attention of the medical officer was not called to these matters so often as it should be. The medical officer had no right to enter a house unless invited to do so.

Surgeon-General GORDON suggested that an organisation should be formed, consisting of the Indian medical officers and others resident in London, who had had experience in cholera epidemics, under the direction of Sir Joseph Fayrer and Mr. Ernest Hart.

A vote of thanks to Mr. Ernest Hart for his highly interesting address, and to the Chairman for presiding, closed the proceedings.

CONFERENCE ON CHOLERA.

AN important conference was held at the Charing Cross Hotel on Thursday, July 19th, between Dr. Buchanan, who represented the Government, and the metropolitan medical officers of health, a large majority of whom were present, the subject under consideration being the possible appearance of cholera in London. After the President of the Society of Medical Officers of Health, Dr. Dudfield, had explained the intention of the meeting, Dr. Buchanan stated that, a few days before, he had been present at a meeting of Ministers, officers of the Government, and distinguished members of the medical profession, at which the possible appearance of cholera, and the best way of dealing with the disease, was discussed; and he had been asked to take the London medical officers of health into council, and confer with them as to the means to be adopted. After giving an historical account of the behaviour of cholera in former years, he referred to the present outbreak in Egypt, stating briefly what had recently taken place in that country. He then explained the action of the order made by the Local Government Board in 1873, which, with slight modifications, had been again

issued. Every ship was kept in quarantine until it could be visited by competent medical examiners. Cases of cholera on board were to be isolated, and the ship and all infected articles to be disinfected, but the healthy were to be allowed to go on their way. Under the present order, the port authorities were obliged to make provision for persons suffering from cholera, and healthy people were to leave their names and the address of their destination in the hands of the port authorities. This was the chief alteration in the old order, and this order was the only one which would be made, unless there was a definite spread of cholera through the country. If that happened, it would be necessary to put in force the provisions of the Diseases Prevention Act. These provisions referred especially to the treatment of the sick, leaving other Acts to deal with bad sanitary conditions.

Under the Diseases Prevention Act, arrangements would have to be made for a house-to-house inspection, and for the supply of advice, of medicines and disinfectants, and for the speedy burial of the dead. In London, it would be necessary to consider the question of who should be the hospital authority for cholera—whether the Metropolitan Asylums Board or the Vestries and District Boards. It must be recollected that persons suffering from cholera could not be conveyed long distances; and the number of hospitals, therefore, would have to be multiplied. Dr. Buchanan said this was one of the subjects upon which he would invite comment. We must, however, mainly depend on our common sanitary defences—upon clean water, clean sewers, and clean houses. Cholera would have no terrors for England; but the present occasion should be made use of to induce sanitary authorities to do everything that wants doing. We should have no blocked sewers; no drains sending effluvia into houses; no water-pollution. It had been said that cholera had saved more lives than it had destroyed; and he believed this to be true, and that good would come if the public were more careful of common every-day sanitary wants.

A long discussion followed, in which Dr. Rygate, Dr. Tripe, Mr. F. M. Corner, Dr. C. E. Saunders, Dr. Dixon, Mr. Lovett, Dr. Bate, Dr. Vinen, Dr. Philpot, Dr. Collier, Dr. Browning, and others took part; and the following resolutions were passed; 1. on the motion of the President, "That, in view of the possible introduction of cholera into England, it is desirable that increased attention should be devoted by sanitary authorities and their officers to the ordinary means for improving the sanitary conditions of the several districts, as suggested by the Medical Officer of the Local Government Board in his memorandum recently issued to the sanitary authorities;" 2. on the motion of Mr. Shirley Murphy, "That this meeting requests Dr. Buchanan to convey to the Government the Society's thanks for the opportunity of conferring with himself, and requests him to submit to the Local Government Board that an important sanitary defect of the metropolis, especially deserving of notice at the present time, would appear to be its water-supply. The amendment of the water-services in detail would receive the attention of the medical officers of health; but the experience of 1866 had shown the need for watchfulness over the reservoirs and mains of the water-companies."

HONOURS FROM THE CROWN.

THE profession will have received with unmixed gratification the announcement that it is intended to confer the honour of baronetcy on Mr. Prescott Hewett and Dr. Andrew Clark. Mr. Prescott Hewett has for a long time filled positions of honour and distinction in his hospital, in the medical societies, and in the Royal Household. Mr. Hewett has long been recognised as a surgeon of the highest scientific eminence, and a man peculiarly scrupulous in regard to professional dignity. The honour is one which comes rather late in life, but will not the less be accepted as a just mark of distinction conferred upon one of the men who stands highest in the esteem of his professional brethren.

In the honour conferred upon Dr. Andrew Clark, the profession will recognise not only a distinction justly due to the accomplished and brilliant physician, the indefatigable clinical worker, who through a busy career has never faltered in his allegiance to his profession and in his duty as a hospital physician and a teacher. The qualities by which Dr. Andrew Clark has won his way to the highest eminence are qualities of peculiar value in the medical profession—untiring energy, rare powers of thought, and of oratorical expression; indefatigable devotion to the duties of a teacher and of a physician, and the fulfilment of official work in his college, have always left him time to sympathise with and aid the collateral public movements by which the medical profession keeps touch of the lay public and forwards social progress. Essentially liberal, in the philosophic sense of the word, united by the closest sympathies with all that is progressive, and much that is democratic in the profession, he might, in many respects, be compared to the eminent statesman who is the official adviser to the Crown in such matters, to whom he has rendered personal service, and who, in a higher degree perhaps than other statesmen, is known to recognise and critically to appreciate the value of the services rendered by the profession of medicine to the State. A sort of unwritten rule, in respect to the distribution of honours of this kind, has long associated them with personal service to the Crown, either in the Queen's household or in the civil and military services of the Empire. It is of good omen that this high distinction has been conferred upon a physician who holds no such official position, and whose merits are such as to have singled him out among the many eminent physicians of the day as one whom everyone will recognise to have fully deserved the honour conferred upon him.

It is unsatisfactory to have to record a note of displeasure coming from the profession in Dublin, in regard to the honours proffered by the Crown this week to medical men in that capital. After the honour of knighthood had been offered to, and accepted by, Mr. Porter, a like honour was offered to Dr. Banks. In the former case, it was accepted, but not without a subsequent remonstrance from the profession that a surgeon of the Queen in Ireland should not have been dignified by an hereditary title; and Dr. Banks, to whom the like honour was offered, has not, in view of this expression of the opinion of his colleagues in Dublin, felt it consistent with his professional duty to accept the gracious mark of favour offered to him. The subject is one of considerable delicacy, and it is certainly felt in England that the distribution of honours from the Crown has been judiciously guided by its political and medical advisers. How happens it that there should be a different feeling in Ireland, or that the authorities in Dublin have failed to ascertain the feeling of the profession there, and adequately to consult it? That a very strong feeling exists in Dublin, has been made evident by the very unusual steps which have been taken. No one can doubt the high position of Mr. Porter and Dr. Banks, or think them other than suitable persons for the highest honours of which the political advisers of the Crown might judge it well to counsel the bestowal. Such questions are discussed under very great disadvantage when they relate to individuals; and we should only in this matter venture to say that the English profession would have viewed with satisfaction the bestowal upon the leaders of the profession in the sister countries of the high distinctions of which they are personally worthy, and which our professional brethren there would evidently have accepted as a compliment not only to the individuals, but to the distinguished bodies which, in Dublin as in Edinburgh, direct with dignity, learning, and public spirit, the affairs of medicine and surgery. For ourselves, we cannot pretend to think that the position of the medical profession has been adequately recognised by the advisers of the Crown, until some of its most eminent members are summoned to the Upper House as life-peers.

MEMORANDUM CONCERNING THE PROPOSED MEDICAL PROVIDENT SOCIETY.

THE following report has been obtained on this subject, and will be laid before the meeting next week at Liverpool, which has been summoned to consider this subject.

To ERNEST HART, Esq.

DEAR SIR,—In accordance with your request, I beg to address to you the following report on the documents and correspondence which you have placed in my hands.

There is, without question, among the members of the British Medical Association, a very general wish to establish a medical provident society. There is still, however, much room for doubting whether the number actually willing to co-operate actively in starting such a society is sufficient to warrant the experiment being made. Moreover, it is evident that the greatest diversity of opinion exists as to the nature of the business which the provident society should undertake. First, as to the actual evidence of the probable amount of support that would be accorded to the proposed provident society. The circular asking for information on this point was printed and issued in the BRITISH MEDICAL JOURNAL of June 9th, and thus

found its way into the hands of the members of the Association; but no more than 880 of these circulars were returned. In all but twenty-five of these cases, however, distinct approval of the proposal was expressed, while in 731 cases the probability of membership was promised. If this fairly represent the number of possible members, the prospect of starting the proposed society with reasonable hope of permanent success would be very small. It was to be expected that very few of those unfavourable to the proposal would take the trouble to return the circular; but, at the same time, it is more than probable that the favourable replies very far from represent the total number of those members of the profession who would support the society if it were hopefully started. The number of members necessary to warrant the experiment of such a society depends to a great extent upon the nature of the business undertaken, and also upon the amount of capital or guarantee-fund subscribed for the purpose of starting the society.

Secondly, as to the nature of the business which the provident society should undertake. The following are some of the branches of insurance work, the desirability of which has been urged by various correspondents in the BRITISH MEDICAL JOURNAL.

1. Temporary allowance in case of incapacitating sickness.
2. Superannuation or annuity in case of disablement by sickness.
3. Pension for widows.

1. *Allowance in Case of Sickness.*—It would appear from the correspondence in the columns of the BRITISH MEDICAL JOURNAL, that the want of sick-pay allowance is most generally felt in the profession. This being the case, and no satisfactory data being available for the calculation of the necessary premium-rates for carrying out this scheme, the circular above referred to asked medical practitioners to furnish the following information—the date of their birth, and the number of days during which they were incapacitated by illness in recent years. After rejection of a certain number of replies, in which the information was defective, it was found that 651 [1] of the replies were available for analysis. These embraced a sickness-observation extending over 5,747 years, or an average of nearly nine years per case. The total number of days of sickness reported for these 5,747 years of observation was 9,322, giving an average of 1.61 days' sickness *per annum*. Calculated on the basis of these facts, the actual annual premium necessary to provide an allowance of a guinea a week, or 3s. a day during sickness (not exceeding the average observed) would be 6s. 3d., without making any provision for expenses, or for the more than probability that the sickness among members in benefit would assuredly exceed the above average. It must also be borne in mind that, as the sickness-statistics were necessarily furnished by living practitioners, no account is taken of fatal sickness, a certain proportion of which would necessarily occur among contributing members. The average annual number of deaths among 5,000 males at the mean age of 30 years would be 50. The amount of loading of the premiums necessary to cover expenses, and the certain excess of the actual over the estimated sickness-rate, would depend, in great measure, upon the number of subscribers with which the society was started, and upon the expenses of management, which might, however, be kept very low. It would be impossible to recommend starting with less than 1,000 contributing members, or without some kind of capital or reserve fund to cover early risks. It would then probably be wise to charge at the rate of at least 10s. *per annum* for each guinea a week allowed during incapacitating sickness. In order, however, to protect the society's funds, especially during its youth, the following precautions suggest themselves as desirable. (1.) The amount of sick-allowance to be subscribed for should be limited, say to 3 guineas per week. (2.) The term of full benefit should also be limited (at any rate at first) say to ten weeks in a year, with reduction of allowance for another ten weeks. (3.) It would be necessary to require certificates of sound health signed by a registered medical practitioner, who must be neither a partner nor a relative, from each candidate for membership, and there should be some limit of age in admission, say 55 years. (4.) No member should be eligible to receive any benefit from the sick-fund, unless his application be accompanied by a certificate from a registered medical practitioner, stating that the applicant was unable to attend to his professional duties, and also the nature of his illness; no application for benefit should be entertained for less than three days' incapacity for work. Such certificate should be renewed at the expiration of each week of sickness to entitle the member to each successive week's allowance. (5.) Some provision should also be made for visiting and reporting upon each case of a member in receipt of sick-pay for, say, four consecutive weeks.

A set of rules and regulations for the management of the society should be drawn up, and adopted by a committee of management, which should, in the first place, be honorary; and this committee should appoint a paid secretary to carry out the rules under their superintendence. It must be evident, however, that until the society be firmly established, and its members very considerably exceed 1,000, the outlay for salaries and other expenses must be on a very limited scale.

It should be borne in mind that the suggested rates of payment for contributing members, although exceeding that shown to be necessary by calculations based upon the experience of the 651 cases of living practitioners, and the 5,747 years of observation, are considerably below the amounts recommended by Mr. Finlaison, the Actuary of the National Debt, and adopted by the Medical Provident Society in 1865, in connection with the British Medical Association. The cause of the failure of that Society should be fully ascertained before a new medical provident society be started. It is beyond question that the claims for sick-benefit from members will exceed the expectancy rate based upon the experience of non-members; there can, however, be no satisfactory method of measuring this excess other than by actual experience. It may be well to point out one result of the calculations based upon the experience of the 651 cases, which appears to point to the insufficiency of the facts under observation. This is, that the figures show no increase of sickness with the increase of age of the practitioners under observation. Indeed, the mean rate of sickness was rather lower (1.41 days *per annum*) among those aged upwards of 40 years, than among those aged between 20 and 40, which was 1.65 days *per annum*. This may, however, be due to the fact that, whereas the years of observation between 20 and 40 were 4,880, they did not exceed 917 above 40 years, and were too few to afford a trustworthy basis of calculation.

2. *Superannuation or Annuity in Case of Permanent Disablement by Sickness.*—There can be no question that this demand meets a real want of all young married men dependent upon their personal exertions, whether in the medical profession or in other professions or occupations. The proposition is, however, scarcely within the region of practical insurance for a new society on a small scale. In the first place, there can be no means of satisfactorily estimating the true rate of liability to permanently disabling sickness, without which no satisfactory table could be constructed. Even if the true risk of such sickness could be calculated, it would be almost impossible to safeguard a young society from the chance of a serious excess of claims for such annuities above the estimated number. A very large body of contributing members, or a large funded capital, would be necessary to warrant the risk of incurring the liability to pay annuities of £50 *per annum* and upwards. Superannuation, or deferred annuities, payable on the attainment of a certain age, is a form of ordinary insurance undertaken by almost any Insurance Office, but could scarcely be undertaken by the proposed medical provident society.

The same objections apply to the inclusion of a widows' pension fund among the branches of insurance to be undertaken by the proposed society. There are plenty of good societies, some of which are really "mutual societies," that undertake this form of insurance; but it is one that should not be undertaken by a young society with a small capital.

I am far from asserting, however, that there would be no prospect of success for a purely mutual and strictly economical medical insurance society, that might with advantage undertake all forms of insurance, including those above referred to. Such society could, however, only be successful if started with the smallest necessary capital, and the expenses of management were rigidly kept down so as to enable the lowest safe premiums to be adopted.

Any way, however, it would be most advisable, if not necessary, to keep the provident sick-fund perfectly distinct from the funds employed for carrying on forms of ordinary insurance, as the sick-fund scheme would have to partake of a somewhat experimental character, and its rules should be sufficiently elastic to allow of modifications if actual experience were found to differ too widely from calculated estimates.

[1] These 651 represent the available returns out of 765; the remaining 115 were received too late for insertion in the tabular analysis.

Analysis of Sickness-Returns from 651 Medical Practitioners.

Age.	Number of Cases.	Years of Observation.	Days of Sickness.	Average Annual Days of Sickness.
20	90	692	1,051	1.52
25	223	1,880	3,340	1.78
30	141	1,327	2,205	1.66
35	102	981	1,432	1.46
40	36	342	477	1.39
45	31	295	497	1.68
50	14	140	182	1.30
55	14	140	138	0.99
Total...	651	5,797	9,322	1.61

I am, sir, your faithful servant, NOEL A. HUMPHREYS.

ROYAL COLLEGE OF SURGEONS.

THE following report from the Board and the Court of Examiners of the number of candidates who presented themselves for the Primary and Pass Examinations for the diploma of member of the College, during the Collegiate Year 1882-83, showing the number who have passed and have been rejected from each medical school during that period, was laid before the Council at its recent meeting.

PRIMARY EXAMINATIONS.—1882-83.

Medical School.	Total.	Number passed.	Number rejected.	Rejections per cent.
St. Bartholomew's	196	123	73	37.34
Guy's	97	79	18	18.55
University College	82	57	25	30.48
London	71	56	15	21.12
St. Thomas's	64	44	20	31.25
King's College	54	39	15	27.7
St. George's	50	31	19	38
Charing Cross	43	26	17	39.53
Middlesex	36	20	16	44.44
St. Mary's	28	19	9	32.14
Westminster	19	16	3	15.78
Manchester	78	53	25	32.05
Leeds	34	26	8	23.52
Cambridge	33	27	6	18.18
Bristol	24	16	8	33.33
Birmingham	21	18	3	14.28
Liverpool	19	16	3	15.78
Newcastle-on-Tyne	17	12	5	29.41
Sheffield	6	2	4	66.66
Dublin	9	8	1	11.11
Belfast	1	1	...	0
Galway	1	1	...	0
Edinburgh	57	43	14	24.56
Glasgow	20	14	6	30
Aberdeen	5	3	2	40
Toronto	6	6	...	0
Mc Gill College, Montreal	2	2	...	0
Ontario	1	1	...	0
New York	2	2	...	0
Cincinnati	1	1	...	0
Harvard	1	1	...	0
Calcutta	2	1	1	50
Madras	1	1	...	0
Bombay	2	2	...	0
Hanover	1	...	1	100
Miscellaneous	35	28	7	20
Totals	1,119	795	324	28.95

Under the head "Miscellaneous" are counted all students who have pursued their studies at more than one medical school.

The following statement shows the schools of medicine to which such students belong. Passed 28: Calcutta and Glasgow, 1; Belfast and Guy's, 1; Edinburgh and University College, 3; Calcutta and Edinburgh, 1; Cambridge and Charing Cross, 1; Toronto and Middlesex, 1; Cambridge and St. Bartholomew's, 1; Liverpool and St. Thomas's, 1; St. George's and St. Thomas's, 1; Cambridge and London, 2; Liverpool and Guy's, 2; Cambridge and University College, 1; Edinburgh and St. Bartholomew's, 1; University College and King's College, 1; Newcastle and London, 1; Glasgow and Westminster, 1; Cambridge and Guy's, 1; McGill College (Montreal) and Manchester, 1; Cambridge and St. Thomas's, 3; Madras and University College, 1; New York and Guy's, 1; Manchester and Guy's, 1. Referred 7: Cambridge and University College, 1; Cambridge and St. Thomas's, 1; New York and Middlesex, 1; St. Thomas's and Charing Cross, 1; Manchester and Edinburgh, 1; Madras and University College, 1; Westminster and Charing Cross, 1.

PASS EXAMINATIONS.—1882-83.

Medical School.	Total.	Number Passed.	Number Rejected.	Rejections per cent.
St. Bartholomew's	107	67	40	37.38
Guy's	106	71	35	33
University College	86	54	32	37.2
London	46	27	19	41.34
St. Thomas's	44	33	11	25
King's College	52	23	27	51.93
St. George's	17	11	6	35.29
St. Mary's	27	16	11	40.74
Charing Cross	14	10	4	28.57
Middlesex	24	17	7	29.16
Westminster	15	10	5	33.33
Leeds	14	8	6	42.85
Manchester	34	25	9	26.47
Liverpool	9	3	6	66.66
Birmingham	15	11	4	26.66
Newcastle-on-Tyne	12	6	6	50
Sheffield	5	3	2	40
Bristol	6	3	3	50
Dublin	6	5	1	16.66
Galway	1	1	...	0
Belfast	1	...	1	100
Edinburgh	28	20	8	28.57
Glasgow	6	2	4	66.66
Aberdeen	1	...	1	100
Bombay	1	1	...	0
Calcutta	2	2	...	0
Toronto	2	1	1	50
Mc Gill College, Montreal	1	...	1	100
Kingston	1	...	1	100
New York	2	...	2	100
Cincinnati	1	1	...	0
Miscellaneous	83	55	28	33.73
Total	769	488	281	36.54

The following statement shows the schools at which the candidates classed as "Miscellaneous" studied. Passed 55: Birmingham and Edinburgh, 1; Cambridge and Leeds, 1; Cambridge and St. Bartholomew's, 2; Cambridge and St. Thomas's, 3; Cambridge and King's College, 2; Cambridge and St. George's, 4; Newcastle and St. George's, 1; Birmingham and Charing Cross, 1; Liverpool and University College, 5; Calcutta and London, 1; Aberdeen and London, 1; McGill College (Montreal) and London, 1; Melbourne and Guy's, 1; Cambridge and London, 1; Manchester and Edinburgh, 1; St. Bartholomew's and Edinburgh, 1; Sheffield and St. Thomas's, 2; Charing Cross and Newcastle, 1; Manchester and Guy's, 1; University College, Westminster, and Edinburgh, 1; Cambridge, Manchester, and St. Bartholomew's, 1; Newcastle and Guy's, 1; Cambridge and Guy's, 3; Toronto and University College, 1; Liverpool and Guy's, 1; Madras and University College, 2; Newcastle and University College, 1; Kingston and Birmingham, 1; Bristol and University College, 1; Dublin and St. Thomas's, 1; Newcastle and St. Bartholomew's, 1; Bristol and Middlesex, 1; Calcutta and St. Thomas's, 1; Edinburgh and Guy's, 1; Middlesex, Edinburgh, and St. George's, 1; Cambridge and St. Mary's, 1; Newcastle and King's College, 1; McGill College (Montreal) and St. Mary's, 1; Toronto and St. Bartholomew's, 1; Manchester and St. Thomas's, 1. Rejected 28: Madras and University College, 1; Dublin and St. Thomas's, 2; Hobart Town, University College, and London, 1; Cambridge and St. George's, 1; Liverpool and Guy's, 2; Cambridge and St. Mary's, 2; Madras and University College, 2; Glasgow and Guy's, 2; Cambridge and London, 1; Calcutta and Edinburgh, 1; Toronto and St. Bartholomew's, 1; Calcutta and Middlesex, 1; Leeds and Sheffield, 1; New York and St. Mary's, 1; Calcutta and St. Thomas's, 1; Cambridge and St. Bartholomew's, 1; Edinburgh and Charing Cross, 1; Dublin and London, 1; St. Mary's and University College, 1; Dublin, Edinburgh, University College, and London, 1; University College and Leeds, 1; Toronto and Middlesex, 1; Harvard and Vienna, 1.

WITH the view of preventing the importation of cholera into the United States, telegraphic instructions have been received at the American Consulate-General, London, to appoint a medical inspector to examine all vessels clearing for the United States from London and Liverpool. Dr. J. Higham Hill has accordingly been appointed health-inspector at London.

MILITIA SURGEONS.—We are requested to remind Militia surgeons of the meeting to be held at Liverpool, on Wednesday, August 1st, at the College, Shaw Street, at 5 o'clock P.M., and to express the hope that there will be a good attendance.

THE sum of £254 10s. 6d., the net proceeds of the recent garden party of the British Calico Printers, has been handed over, in equal shares, to the Pendlebury Children's Hospital and the Clinical Hospital.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Committee of Council will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

November 9th, 1882.

COMMITTEE OF COUNCIL.

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held in the Board Room of the College, Shaw Street, Liverpool, on Tuesday, the 31st day of July next, at twelve o'clock noon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, July 18th, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee,
161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual general meeting of this Branch will be held at 198, Union Street, Aberdeen, on Saturday, July 28th, at 1.30 P.M. An address will be given by the President, Dr. Angus Fraser. Hospital visit at 11.30 A.M. The annual dinner will be held at the Palace Hotel, Union Bridge, Aberdeen, at 3 P.M. Dinner tickets, including attendance, but exclusive of wine during dinner, five shillings each. Those intending to be present at the dinner are respectfully requested to send notice to Dr. Urquhart. —R. J. GARDEN, J. URQUHART, Honorary Secretaries.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

THE Fifty-first Annual Meeting of the British Medical Association will be held at Liverpool, on Tuesday, Wednesday, Thursday, and Friday, July 31st, August 1st, 2nd, and 3rd, 1883.

President: WILLIAM STRANGE, M.D., Senior Physician to the General Infirmary, Worcester.

President-elect: A. T. H. WATERS, M.D., F.R.C.P., Senior Physician to the Royal Infirmary, and Professor of Medicine in University College, Liverpool.

An Address in Surgery will be delivered by REGINALD HARRISON, F.R.C.S., Surgeon to the Royal Infirmary, Liverpool.

An Address in Pathology will be delivered by C. CREIGHTON, M.D., formerly Demonstrator of Anatomy, University of Cambridge.

The business of the Annual Meeting will be conducted in ten sections.

SECTION A. MEDICINE.—*President:* John Cameron, M.D. *Vice-Presidents:* Thomas R. Glynn, M.D.; Frederick T. Roberts, M.D.; Dyce Duckworth, M.D. *Secretaries:* Richard Caton, M.D., 18A, Abercromby Square, Liverpool; Byrom Bramwell, M.D., 23, Drumsheugh Gardens, Edinburgh.

SECTION B. SURGERY.—*President:* Edward R. Bickersteth, F.R.C.S. *Vice-Presidents:* W. Hargreaves Manifold, M.R.C.S.; W. Mitchell Banks, F.R.C.S. *Secretaries:* Rushton Parker, M.B., F.R.C.S., 61, Rodney Street, Liverpool; Edmund Owen, M.B., F.R.C.S., 49, Seymour Street, Portman Square, W.

SECTION C. OBSTETRIC MEDICINE.—*President:* W. M. Graily Hewitt, M.D. *Vice-Presidents:* John Wallace, M.D.; David Lloyd Roberts, M.D. *Secretaries:* John E. Burton, L.R.C.P., 64, Rodney Street, Liverpool; W. C. Grigg, M.D., 6, Curzon Street, Mayfair, W.

SECTION D. PUBLIC MEDICINE.—*President:* T. P. Teale, M.B., F.R.C.S. *Vice-Presidents:* William Carter, M.D.; W. Honner Fitz-Patrick, M.D. *Secretaries:* F. Pollard, M.D., 52, Rodney Street, Liverpool; George Goldie, M.D., 123, Hyde Park Road, Leeds.

SECTION E. ANATOMY AND PHYSIOLOGY.—*President:* Professor E. A. Schäfer, F.R.S. *Vice-Presidents:* William Stirling, M.D.; Richard Norris, M.D. *Secretaries:* James Barr, M.D., 1, St. Domingo Grove, Everton, Liverpool; A. W. Mayo Robson, F.R.C.S., Hillary Place, Leeds.

SECTION F. PATHOLOGY.—*President:* T. H. Green, M.D. *Vice-Presidents:* E. H. Dickinson, M.D.; Joseph Coats, M.D. *Secretaries:* Frank Thos. Paul, F.R.C.S., 44, Rodney Street, Liverpool; James F. Goodhart, M.D., 27, Weymouth Street, W.

SECTION G. PSYCHOLOGY.—*President:* T. L. Rogers, M.D. *Vice-Presidents:* G. H. Savage, M.D.; D. Yellowlees, M.D. *Secretaries:* G. E. Shuttleworth, M.D., Royal Albert Asylum, Lancaster; W. Julius Mickle, M.D., Grove Hall Asylum, Bow, E.

SECTION H. OPHTHALMOLOGY.—*President:* T. Shadford Walker, M.R.C.S. *Vice-Presidents:* E. Nettleship, F.R.C.S.; C. E. Fitzgerald, M.D. *Secretaries:* E. A. Browne, M.R.C.S., 86, Bedford Street, Liverpool; C. E. Glascott, M.D., 23, St. John Street, Manchester.

SECTION I. DISEASES OF CHILDREN.—*President:* Samuel Jones Gee, M.D. *Vice-Presidents:* M. G. B. Oxley, M.D.; T. R. Jessop, F.R.C.S. *Secretaries:* H. G. Rawdon, M.D., 42, Rodney Street, Liverpool; H. Ashby, M.D., 13, St. John Street, Manchester.

SECTION J. OTOLOGY.—*President:* G. P. Field, M.R.C.S. *Vice-Presidents:* Edward Woakes, M.D.; C. Warden, M.D. *Secretaries:* Thos. Barr, M.D., 10, Albany Place, Sauchiehall Street, Glasgow; R. Williams, L.R.C.P., 82, Rodney Street, Liverpool.

Honorary Local Secretary: Alexander Davidson, M.D., 2, Gambier Terrace, Liverpool.

Honorary Treasurer: W. Mitchell Banks, F.R.C.S., 28, Rodney Street, Liverpool.

TUESDAY, JULY 31ST, 1883.

10.30 A.M.—Church Service at Pro-Cathedral. Sermon by Bishop of Liverpool.
12.0.—Meeting of Committee of Council.
12.30 P.M.—Meeting of the Council, 1882-3.
3 P.M.—First General Meeting: Report of Council. Special business: Proposed Alteration of By-laws; and any other business. Adjourn at 5 P.M.
8.15 P.M.—Adjourned General Meeting: President's Address, and any business adjourned from meeting at 3 o'clock.

WEDNESDAY, AUGUST 1ST, 1883.

9.30 A.M.—Meeting of Council, 1883-84.
11 A.M.—Second General Meeting. Address in Surgery.
1.30 to 5 P.M.—Sectional Meetings.
8.30 P.M.—*Soirée* in the suite of rooms forming the Arts Gallery, the Picton Reading Room, and the Free Library, by the President and Local Committee. To this, ladies will be invited.

THURSDAY, AUGUST 2ND, 1883.

9 A.M.—Meeting of Committee of Council.
10 A.M.—Third General Meeting. Special business: to consider proposed Alteration in the Articles of Association. Sectional Meetings. Adjourn at 1 P.M.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Philharmonic Hall.

FRIDAY, AUGUST 3RD, 1883.

10 A.M.—Fourth General Meeting. Address in Pathology. Sectional Meetings.
2 P.M.—Concluding General Meeting.
8.30 P.M.—*Soirée* by the Mayor of Liverpool, at the Town Hall. To this, ladies will be invited.

SATURDAY, AUGUST 4TH, 1883.

Excursions.

The following papers, etc., have been promised in the various Sections.

Section A.—Medicine.

1. A Discussion on Aphasia will be opened by Professor Gairdner of Glasgow. Dr. Hughlings Jackson, Dr. Broadbent, Dr. Ferrier, Dr. Antoine Cros (Paris) Dr. Thudichum, Dr. W. W. Ireland, Dr. Drummond, Dr. Ross, Dr. G. A. Woods, Dr. A. Cameron, Dr. Wahltuch, Dr. Althaus, Mr. De Berdt Hovell, and Mr. J. Oakley, are expected to take part.

2. A Discussion on the Causes and Consequences of Abnormal Tension in the Arteries will be opened by Dr. Broadbent. Dr Milner Fothergill, Dr. B. Foster, Dr. W. F. Wade, Dr. Mahomed, Dr Glynn, Dr. Eddison, and Dr. Carter, are expected to take part in it.

3. A Discussion on the Nature of Purpura will be opened by Dr. Stephen Mackenzie. Dr. Finny (Dublin), Dr. B. Foster, Dr. McCall Anderson, Dr. Stainthorpe, Dr. W. Russell, Mr. Cauty, Dr. Crocker, Mr. Malcolm Morris, and Dr. Colcott Fox, will take part.

The following papers are also promised.

Althaus, Julius, M.D. On Some Post-epileptic Phenomena.
Atkins, R., M.D. Hysterical Hemianæsthesia.
Bennett, A. Hughes, M.D. 1. Spastic Paralysis. 2. Hysterical Malingering. . A new Form of Electrode.
Bramwell, Byrom, M.D. Note on the Mechanism of Cheyne-Stokes Respiration.
Brunton, T. Lauder, M.D., F.R.S. Headache.
Burke, Deputy Inspector-General. On a new Treatment of Cholera.
Carter, William, M.D.
Caton, Richard, M.D. On Brain Tumours.
Cauty, H. E., Esq. On Roseola.
Crocker, H. R., M.D. On Administration of Turpentine in Diseases of the Skin.
Cros, A., M.D. (Paris). 1. Sur la Pleximetrie. 2. La Théorie Physiologique de l'Hallucination.
Davidson, Alexander, M.D.
Dolan, T. M., Esq. On the Use of Sulphide of Calcium in the Treatment of Scabies.
Drummond, David, M.D. 1. Perforating Tumour of the Dura Mater. 2. An Unusual Case of Locomotor Ataxy.
Drysdale, C. R., M.D. Recent Innovations in the Doctrine of Phthisis Pulmonalis.
Eddison, J. E., M.D. 1. On the Cause of Cardiac Murmurs in Anæmia. 2. A Series of Forty Consecutive Cases of Empyema treated by the Physicians of the Leeds Infirmary (Drs. Allbutt, Eddison, and Churton).
Finny, J. Magee, M.D. A Peculiar and hitherto Undescribed Condition of the Hairs of the Human Axilla.
Flint, Austin, M.D. (New York). Early Tapping in Cases of Ascites.
Gabbett, H. S., M.D. The Diagnostic Value of the Discovery of Koch's Bacilli in Sputum.
Glynn, T. R., M.D. 1. Case of Complete Paraplegia with Rigidity Terminating in Recovery. 2. Case of Tumour of the Medulla Oblongata.
Grant, Ogilvie, M.D. Notes on Two Cases of Rupture of the Heart.
Greves, E. H., M.B. Notes on Cases illustrating Nerve-diseases.
Harrison, D., Esq. Case of Traumatic Pyopneumonia.
Hassall, A. H., M.D. 1. Further Observations and Experiments on Inhalation in Affections of the Lungs. 2. On the Principles of the Construction of Inhalation Chambers for Diseases of the Throat and Lungs.
Leech, D. J., M.D. Duration of Action of Medicines.
Little, J. F., Esq. Rheumatic Arthritis or Neurotic Arthritis.
Mackenzie, J. A., M.D. Rupture of the Heart.
Moore, W. W., M.D. Source of Heat in Fever.
Morris, Malcolm, Esq. The Use of Antimony in certain Skin-Diseases.
Myrtle, A. S., M.D. Sweating to Death.
Oakley, John, Esq. Immediate Treatment of Purpura.
Oliver, George, M.D. Bedside Urinary Testing.
Oxley, M. G. B., M.D. The position of Syphilis as regards Classification and Treatment in this Country.
Ransome, A., M.D. On the Influence of Iodoform on the Body-weight in Phthisis.
Ridge, J. J., M.D. The Use of Non-alcoholic Tinctures as Remedies.
Robertson, R., M.D. Modern Uses of Blood-letting.
Ross, James, M.D. 1. Rupture of the Brachial Plexus. 2. On Early Posterior Sclerosis.
Russell, W., M.D. Three Fatal Cases of Purpura Hæmorrhagica.
Sansom, A. E., M.D. Note on Percussion as a means of Diagnosis.
Smith, Solomon C., M.D. Antiseptic Inhalations.
Strange, William, M.D. Sporadic Septicæmia, chiefly Puerperal, especially as to its relations with the Infectious Zymotic Diseases.
Thomas, W. R., M.D. On the Varieties of Phthisis, and the Curability of some in certain Stages.
Thomson, G., M.D. Rupture of the Brachial Plexus.
Thudichum, J. L. W., M.D. On Hay-fever or Hay-asthma, and its Frequent Connection with Structural Disease of the Nasal Cavity.
Wahltuch, A., M.D. On Electro-therapeutics.
Wise, Alfred, M.D. Climatological Studies at High Altitudes.
Woods, G. A., Esq. Cerebellar Tumour.

On Wednesday morning, at 9.30, Dr. Byrom Bramwell will give, by means of large coloured diagrams, a preliminary description of his microscopical sections illustrating the Disease of the Spinal Cord. This will take place in the lecture-room of the Medicine Section. The microscopical preparations will be on view in a room adjoining during Wednesday and Thursday.

Section B.—Surgery.

1. Mr. Clement Lucas will open a Discussion on Surgical Diseases of the Kidney, and the Operations for their Relief, in which Dr. G. Elder and Mr. Bennett May will take part.

2. A Discussion on the Treatment of Intestinal Obstruction by or without Operative Interference will be opened by Mr. Rushton Parker. Mr. John H. Morgan, Sir William Mac Cormac, Mr. Bellamy, Dr. Norman Kerr, Dr. Edward Waters, Sir Spencer Wells, and others, will take part.

The following papers have been promised.

Atkins, T. Gelston, M.D. Tracheotomy for a Coat-button in Right Bronchus: Recovery.
Atkinson, E., Esq. Drainage of Joints.
Baker, W. Morrant, Esq. Removal of the Tongue by Median Division.
Banks, W. Mitchell, Esq. A Case in which the Innominate Artery was tied.
Bartleet, T. H., Esq. Roux's Amputation at the Ankle; its Superiority to Syme's.
Bernard, Armand, Esq. Observations on Primary Venereal Sores.
Berry, William, Esq. Strangulated Hernia and its Complications.
Bishop, E. Stanmore, Esq. Remarks on a new Clamp for Enterectomy.
Browne, H. Langley, Esq. Treatment of Enlarged Prostate by Continuous Elastic Pressure.
Browne, J. W., M.D. Cases of Hernia.
Coates, W. Martin, Esq. 1. The Treatment of Nævi. 2. A Case of Torticollis. 3. A Case of Removal of the Whole Tongue with the Middle Third of the Lower Jaw.
Cousins, J. Ward, M.D. 1. Photograph of a Dorsal Tumour which was removed to relieve Pulmonary and Cardiac Distress. 2. Explanatory Remarks on a New Needle for Closing Surgical Wounds.
Croft, John, Esq. The Application of Plaster-of-Paris Splints for the Treatment of Fractures, with Demonstration.
Cross, F. Richardson, Esq. The Treatment of Arthritis by Incision.
Drysdale, C. R., M.D. Recent Experiments on the Treatment of Syphilis.
Fagan, John, Esq. The Nature, Diagnosis, and Treatment of Hæmarthrosis of the Knee-Joint.
Folker, W. H., Esq. The Subcutaneous Ligature of Varicose Veins.
Hardie, James, Esq. Amputation by Oblique Circular Incision.
Heath, Christopher, Esq. The Use of Plaster-of-Paris Bandages in the Treatment of Recent Fractures.
Jessop, T. R., Esq. Some Results derived from Experience in Colotomy.
Jones, Thomas, Esq. Cases of Resection of the Ankle-Joint for Disease and Injury.
Keetley, C. B., Esq. An Analysis of Eight Cases of Osteotomy of the Hip.
Le Page, J. F., Esq. The Evacuation of Deep Abscesses: with Exhibition of Deep Abscess Evacuator.
Lowndes, F. W., Esq. Venereal and Sexual Hypochondriasis.
March, H. C., M.D. A Case of Resection of the Ankle-joint by an Artificial Pott's Fracture.
Morgan, J. H., Esq. The Operative Proceedings in Cases of Intestinal Obstruction.
Morris, Malcolm, Esq. The Comparative Advantages of Scarification and Scraping in the Treatment of Lupus Vulgaris.
Norton, A. T., Esq. A Case of Excision of the Superior Maxilla for Melanotic Sarcoma of the Antrum.
Owen, Edmund, Esq. The Treatment of Large Nævi.
Pemberton, Oliver, Esq. Gastro-enterotomy.
Rabagliati, A., M.D. Cases of Osteotomy.
Roth, Bernard, Esq. The Treatment of Non-spasmodic Torticollis.
Smith, E. Noble, Esq. The Treatment of Lateral Curvature of the Spine.
Southam, F. A., Esq. A Case of Femoral Aneurysm, treated by Injection of Fibrin Ferment, and subsequently by Ligature of the External Iliac Artery.
Stokes, William, Esq. Excision of the Shoulder-joint.
Stowers, J. H., M.D. 1. The Nature and Treatment of Paget's Disease of the Nipple (with Microscopic Specimens). 2. The Treatment of Vascular Hypertrophy of the Nose.
Thomas, William, M.B. 1. On the Accurate Measurement and Comparison of the Lower Limbs. 2. The Application of India-rubber Bands in the Treatment of Talipes.
Thompson, James, M.D. Artificial Limbs.
Walker, G. E., Esq. On the Treatment of Lupus.
Walter, Wm., M.D. A Case of Nephrectomy for Cystic Tumour of a Floating Kidney.
Warden, Charles, M.D. On Osteotomy in Genua Vara and Valga.
Warren, J. H., M.D. 1. Cure of Hernia by Subcutaneous Injection. 2. The Use of the Aspirating Needle in Strangulated Hernia and Obstruction of the Bowels.
Waters, Edward, M.D. Five Cases of Intestinal Obstruction.
Whitehead, Walter, Esq. 1. A Further Series of Twenty-five Cases of Excision of the Tongue with Scissors. 2. The Surgical Treatment of Hæmorrhoids.

Patients will attend from 12 to 2 on Thursday, August 2nd, in a room adjacent to that of the Section. Gentlemen who wish to show patients are requested to communicate with Mr. F. H. Mott, 65, Grove Street, Liverpool.

Section C.—Obstetric Medicine.

Special discussions are expected to take place in this Section on the following subjects.

1. Total or Partial Extirpation of the Uterus for Malignant Disease. Introduced by papers by Professor Schroeder (Berlin) and Dr. Wallace.

2. On Operative Treatment of Uterine Fibromata. Introduced by papers by Mr. Knowsley Thornton and Mr. Lawson Tait. Dr. Wallace has promised to take part.

3. On Metria (so-called Puerperal Fever). Introduced by papers by Dr. Atthill and Dr. Thorburn. Drs. Grigg, T. More Madden, Alderson, and Fancourt Barnes, and Messrs. Donovan, Burton, F. J. Bailey, and J. Oakley, have promised to take part.

4. Porro's Operation. Introduced by a paper by Dr. Clement Godson.

The following papers are promised.

ALDERSON, F. H., M.D. A Case of Extra-uterine Pregnancy.
ALEXANDER, William, M.D. On Shortening the Round Ligaments for the Cure of some Forms of Uterine Displacement.
BARNES, Fancourt, M.D.
BURTON, J. E., Esq. A Plea for the more Persevering Treatment of Uterine Cancer in Cases in which Operation by Removal is Impracticable.
CROOM, J. Halliday, M.D. 1. Basilysis. 2. On some Relations of the Bladder and Uterus during Labour.
DOLAN, T. M., Esq. Defective Lactation in Modern Times, its Causes, and how far it may be influenced by Drugs.
DUKE, Alexander, M.D. On the Use of Additional Traction in Difficult Cases as an Alternative to Craniotomy.
EASTES, George, M.B. Note on the Collective Investigation Committee's forthcoming Card on Puerperal Pyrexia.
EDIS, Arthur W., M.D. The Treatment of Chronic Metritis associated with Retroflexion.
LEDIARD, A. H., M.D. Alexander's Operation on the Round Ligaments; with Cases and Remarks.
LE PAGE, John F., Esq. On Axis-Traction in Delivery with Obstetric Forceps. Mr. Le Page will also exhibit Le Page's Axis-Traction Forceps.
MCDONALD, A. Drummond, M.B. Position in Labour.
MADDEN, T. More, M.D. Further Observations on certain Mental and Nervous Disorders peculiar to Women.
MEADOWS, A., M.D. On the Diagnosis of the various forms of Uterine Fibromata.
MURPHY, James, M.D. Short Notes of Fifteen Cases of Placenta Prævia, with Remarks on its Treatment.
PADLEY, G., Esq. 1. Acute Abscess of the Ovary: Ultimate Recovery by Absorption. 2. Traumatic Rupture of an Ovarian Cyst into the Peritoneal Cavity: Recovery.
ROBERTS, D. Lloyd, M.D. Inversion of the Uterus.
SMITH, Heywood, M.D. On a Case of Porro's Operation.
SPANTON, W. D., Esq. A Case of Extra-uterine Fœtation.
TAIT, Lawson, Esq. Are Diseases of the Ovary (specially Cystoma) on the Increase?
WALTER, Wm., M.D. A Case of Hysterectomy for Uterine Fibromata.
WILLIAMS, A. Wynn, M.D. 1. On Displacements of the Uterus and their Treatment. 2. On Cancer of the Neck of the Uterus and its Treatment.

SECTION D.—PUBLIC MEDICINE.

Four topics have been selected for discussion in this Section.

1. Directions in which Public Health Law might be advantageously Amended or Extended. Mr. Charles Wills will read a paper on the general subject. Mr. Ernest Hart will read one on the Advisability of an Extension of the Law for the Regulation and Registration of Plumbing in Houses. Dr. William Carter will open a discussion on these papers.

2. Quarantine. Dr. Imlach will read a paper on Quarantine; and Drs. C. R. Drysdale, J. R. Stocker, and others, will take part in the discussion.

3. Disposal of Town-Refuse. Dr. Goldie and Dr. E. Whittle will read papers on this subject.

4. Etiology of Diphtheria and Autumnal Diarrhœa. Drs. Alfred Carpenter, H. J. Alford, and E. F. Willoughby will read papers on Diphtheria; and Mr. M. D. Makuna one on Autumnal Diarrhœa.

Captain Douglas Galton, C.B., F.R.S., has promised to read a paper on Hospital Construction.

The following papers are promised.

DOLAN, Thomas M., Esq. A Scheme for the more Comprehensive Study and Prevention of so-called Zymotic Diseases.
DRUMMOND, Edward, M.D. On the Climate of Rome.
DRYSDALE, C. R., M.D. The Mortality of the Rich and the Poor.
FOX, R. Dacre, Esq. An Enquiry into the Rate of Mortality among Railway Servants.
GOLDIE, George, Esq. Some of the Defects of the Public Health Act, 1875, and the Difficulties experienced in the Working of the Act.
GRIFFITH, G. de Gorrequer, Esq. Unity of Poison in Diseases.
HILL, J. Higham, M.D. Suggestions for the better Police Treatment of Persons found Insensible in the Streets, and supposed to be under the Influence of Alcohol.
JAMES, J. Brindley, Esq. On Cremation.
KERR, Norman, M.D. The Present Position of the Habitual Drunkards Movement.
LOWNDES, F. W., Esq. How to Make our own Houses Sanitary, with Personal Experiences.
MAKUNA, M. D., Esq. Small-pox and Vaccination Statistics; Diseases and Injuries to Health Attributed to Vaccination.
MARTIN, Johnson, Esq. On the Injury done to the Health of the Young by the Present System of Education.
MILLICAN, K. W., Esq. Evolution in Disease.
POLLARD, Frederick, M.D. Jail-Fever; an Historical Sketch.
SHEARER, George, M.D. On the Opium-habit.
STOCKER, J. R., M.B. The Sanitary Condition of the Mercantile Marine.

SECTION E.—ANATOMY AND PHYSIOLOGY.

The following papers have been promised.

ANDERSON, Edward C., M.D. Koumiss: its Modes of Preparation, Varieties, Physiological Uses, etc.
ANDERSON, R. J., M.D. Human Ribs.
ARCHER, R. S., M.B. Note on Congenital Aortic Bands.
BARR, James, M.D. The Causes and Mechanism of the Cardiac Impulse.
HADDEN, W. B., M.D. Westphal's Phenomenon, or the so-called Paradoxical Contraction of Muscles.
KNOTT, J. F., Esq. The Anatomy and Physiology of the Spinal Accessory Nerve.
THUDICHUM, J. L. W., M.D. On the Chemical Constitution of the Brain.
WOODS, G. A., Esq. The Anatomy and Physiology of the Sixth Nerve.

Mr. Lennox Browne will exhibit on the magic-lantern screen, by means of oxyhydrogen light, a series of photographs of the Larynx and Soft Palate in the production of various Musical Tones.

Afterwards, Mr. Emil Behnke, from whom the pictures have been taken, will exhibit his Larynx to the members present, so as to demonstrate practically the physiological facts illustrated by the photographs.

Mr. C. B. Lockwood will show an anatomical specimen illustrating the use of the Fossa at the Lower End of the Fibula.

Dr. E. H. Jacob will show (1) Photographs of Chick Embryos; (2) a Portable Polygraph.

Dr. Francis Warner will give a Demonstration of an Apparatus for obtaining Graphic Records of the Movements of Fingers, Hands, Head, etc., and enumerating them and their combinations.

Dr. John Harker will show a sketch of Abnormal Hands and Feet in the case of an Infant.

Mr. Sibley Hicks will exhibit a series of Embryos to illustrate the Development of the Chick.

Mr. G. Padley will exhibit (1) a Dissection of an Abnormal Distribution of the Arteries in the Fœtus; (2) Abnormal Distribution of the Arteries of the Arm.

Dr. R. Norris will exhibit his Museum of Photographs of the Blood.

Dr. C. W. Cathcart will exhibit a new form of Ether-freezing Microtome.

Dr. W. Darling will exhibit a specimen of United Fracture of the Atlas and Odontoid Process of the Atlas.

SECTION F.—PATHOLOGY.

The following discussions will take place.

1. On Micro-organisms in Disease. To be opened by Dr. Dreschfeld. Dr. Shingleton Smith and Dr. P. M. Braidwood will take part in the discussion.

2. On Micro-organisms in Typhus. To be opened by Drs. Mott and Blore. Drs. Davidson and Barron will take part.

3. On the Pathology of Dropsy. To be opened by Dr. Lauder Brunton. Drs. Saundby and Churton will take part.

4. On Chronic Inflammations of Bone. To be opened by Mr. Charters J. Symonds.

5. On Primary Growths of the Urinary Tract. To be opened by Mr. Frank T. Paul. Mr. Roger Williams will take part in the discussion.

Cirrhosis and allied conditions of the Liver will be brought forward, should time allow.

The following papers have been promised.

BRADSHAW, T. R., M.D. Notes on the Pathology of Three Cases of Disease of the Suprarenal Capsules.
HADDEN, W. B., M.D. On Lardaceous Disease of the Suprarenal Capsule.
KNOTT, J. F., Esq. The Bite of the Mangron Fly.
LE PAGE, John F., Esq. On Neuropathic Plica.
MANSELL-MOULLIN, C., M.B. On some Forms of Osteitis in Hereditary Syphilis.
ROECKEL, W. J., M.B. The Pathology of Internal Hæmorrhoids.
SILCOCK, A. Q., M.D. Some points connected with the Repair of Fractures.
WINDLE, B. C. A., M.B., and BARLING, H. G., M.B. The Pathology and Relations of Lupus.

It is desired to illustrate in as complete a manner as possible, by means of preparations and microscopical specimens, the Primary Growths of the Urinary Tract, especially of the Kidney, Bladder, and Prostate. The object of this investigation is to collect all the information that is to be obtained in this country, with the view of deciding what are the primary growths that have been met with in this region. The specimens lent will be arranged in the museum, and a report of the investigation will be brought forward in the Pathological Section by Mr. Paul. The Subcommittee will be very glad to receive (1) recent specimens; (2) mounted specimens of rare growths; (3) microscopical sections (these are specially requested). The specimens and sections will be returned to their owners after the meeting.

The *Pathological Museum* will be separate from the general museum, and placed in one of a suite of rooms devoted to pathology. About 150 preparations are expected from the museums of University College, Guy's, the London, Manchester, Liverpool, and other hospitals, and from private members. A large number of original sketches have been promised, as well as photographs and micro-photographs. There will be accommodation for 60 or 70 micro-

scopes, which will probably be used chiefly for micro-organisms on the first day, for illustrating the preparations in the museum, etc., the second day, and for new growths of the urinary tract on the third day. In connection with the museum there will be an exhibition of patients, in charge of Dr. Mott.

Section G.—Psychology.

In this Section, the following special subjects have been selected for discussion.

1. The Employment of the Insane. Introduced by Dr. Yellowlees. Dr. David Bower, Dr. William W. Ireland, Dr. John A. Wallis, and others, are expected to take part in this discussion.

2. Bone-Degeneration in the Insane. Introduced by Dr. Wiglesworth. Dr. William W. Ireland and others are expected to take part.

3. Cerebral Localisation in relation to Psychological Medicine. Introduced by Mr. W. Bevan Lewis. Dr. James Ross, Dr. David Ferrier, Dr. W. W. Ireland, Dr. Fletcher Beach, Dr. Alexander Robertson, and others, are expected to take part.

4. General Paralysis. Introduced (if time permit) by Dr. W. J. Mickle. Several members are expected to take part.

The following papers are also promised.

Baker, John Henry, Esq., and Mickle, W. J., M.D. Some Acts during Temporary Epileptic Mental Disorder.
Hickson, Albert Thomas, M.D. Locomotor Ataxy and General Paralysis.
Huggard, William Richard, M.D. Definitions of Insanity.
Jelly, Frederick A., M.B. A Glance at Lunacy in Spain.
Mercier, Charles A., M.B. An Epidemic of Delirium.
Mickle, William Julius, M.D. Visceral and other Syphilitic Lesions in Insane Patients, without Cerebral Syphilitic Lesions.
Sankey, William H. O., M.D. What Phenomena are included in the name of General Paralysis or General Paresis?
Savage, George H., M.D. Some Cases of General Paralysis with Lateral Sclerosis of the Cord.
Shuttleworth, George E., M.D. Is Legal Responsibility acquired by *Educated* Imbeciles?
Wiglesworth, Joseph, M.D. The Pathology of Mania.

Several members will also exhibit Microscopical Sections of the Brain and Spinal Cord.

Section H.—Ophthalmology.

Three subjects have been selected for discussion in this Section.

1. On Tests for Colour-sense and for Acuteness of Vision, with special reference to Schools and Sailors. Opened by Dr. W. A. Brailey, followed by Dr. Snellen (Utrecht). Messrs. Nettleship, Fitzgerald, and Higgens have promised to take part.

2. On the Use of the Magnet in Ophthalmic Surgery. Opened by Mr. Simeon Snell, followed by Dr. W. A. McKeown.

3. On the various methods of Treatment for Sloughing Ulcer of the Cornea, with especial reference to Incision and Scraping. Opened by Mr. T. Pridgin Teale, followed by Dr. Little.

The following papers have been promised.

Abbott, George, Esq. Obstruction of the Nasal Duct, and its Treatment by Styles.
Andrew, Edwyn, M.D. Treatment of Lacrymal Obstruction.
Critchett, G. Anderson, Esq. Ulcers of the Cornea, their Varieties and Treatment.
Forbes, Litton, Esq. 1. On the Relations existing between certain states of the Sexual Organs and Visual Disturbance. 2. The Doctrine of Enucleation.
Griffiths, Alex. H., M.D.
Grossmann, Karl, M.D.
Higgens, Charles, Esq. On the Treatment of Painful Corneal Ulcers by Warmth and Eserine.
Jones, A. Emrys, M.D. 1. A Case of Orbital Abscess Communicating with the Brain. 2. A Case of Embolism (?) of the Central Artery of the Retina connected with Facial Erysipelas.
Lee, Charles George, Esq. Notes on the Ophthalmic Conditions of Deaf-Mutes.
McKeown, W. A., M.D. The Treatment of Accidental Dislocation of the Lens.
Macnamara, Charles, Esq. On the Pathology and Treatment of Zonular Cataract.
Mules, P. H., M.D. An Electric Movement for Carter's Astigmatic Clock.
Shears, Charles, Esq. Tobacco Amblyopia.
Taylor, Charles Bell, M.D. 1. On the Operative Treatment of Sympathetic Ophthalmia, with Cases. 2. On Transplantation of Skin with Temporary Pedicle without Scar. 3. Notes on the Operation for Cataract, with and without Iridectomy.
Watson, W. Spencer, Esq. Shot-silk Appearance of the Retina.
Williams, Richard, M.D. Intense Neuro-retinitis, Due apparently to Simple Anæmia.
Wolfe, John R., M.D. 1. On the Transference of Conjunctiva from the Rabbit to the Human Subject for the Cure of Symblepharon. 2. On the Treatment of Suppuration of the Tear-passages.

Section I.—Diseases of Children.

Three special subjects have been selected for discussion.

1. Dr. T. Barlow will open a discussion on Rheumatism and its Allies in Children. The following gentlemen have promised to take part in the discussion: Dr. O. Sturges, Dr. Rickards, Dr. Finlayson, Dr. Sansom, Dr. Mahomed, Dr. J. S. Bury, Dr. Donkin, Mr. W. Pye, and Dr. Byers.

2. Dr. Ballard: On the Etiology and Pathology of Summer Diarrhœa. The following gentlemen have promised to take part: Dr. Borchardt, Dr. Seaton, Mr. W. Hugh Hughes, Dr. Bruce Low, Dr. Strange, Dr. A. Ransome, Dr. Maccall, and Mr. Walter Pye.

3. Mr. Morrant Baker: On Acute Epiphysal Necrosis and its Consequences. The following gentlemen are likely to take part: Mr. J. H. Morgan, Mr. R. W. Parker, Mr. G. A. Wright, Mr. G. Cowell, Mr. E. Owen, and Mr. A. Cæsar.

The following papers are promised.

Ashby, H., M.D. On Scarlatinal Rheumatism.
Bury, J. S., M.D. A Case of Osteo-malacia in a Child.
Day, W. H., M.D. A Case of Croupous Pneumonia in a Child, treated successfully by the Cold Bath.
Gee, Samuel J., M.D. Some Kinds of Albuminous and Purulent Urine in Children.
Harrison, James W., Esq. Cephalic Breathing in Infantile Disorders.
Morgan, J. H., Esq. A Case of Epiphysal Necrosis of the Humerus, followed by Considerable Shortening of the Arm.
Morison, B. G., M.B. Infantile Diarrhœa and its Treatment.
Oxley, M. G. B., M.D. Fatal Case of Chorea in a Child aged 10 Years.
Pughe, R. N., Esq. Operations for the Radical Cure of Hernia in Childhood.
Rawdon, H. G., M.D. On the Operation for Hare-lip.
Steavenson, W. E., M.D. On Electricity in the Treatment of Infantile Paralysis.
Sturges, O., M.D. On the Alliance of Rheumatism and Chorea.
Thomas, W. R., M.D. On Intermittent Fever among Children in Low-lying Districts: its Frequency, and the importance of recognising it, owing to its Curability.
Tomkins, H., M.D. On the Clinical Features of Typhus Fever in Children.
Wright, G. A., Esq. On the Value of Localising the Primary Lesion in Joint-disease, as an Indication for Treatment.

Section J.—Otology.

Discussions will take place on the following subjects.

1. A discussion on the more serious aspects of Chronic Purulent Inflammation of the Middle Ear will be introduced by Dr. W. Laidlaw Purves.

2. A discussion on the various forms of Artificial Tympanic Membrane, and their Comparative Value, will be introduced by Dr. F. M. Pierce.

The following gentlemen have expressed their intention of taking part in the discussions: Dr. Edward Woakes, Dr. Thomas Barr, Dr. Urban Pritchard, Dr. William A. McKeown, Dr. J. W. Browne, Dr. Richard Ellis, Dr. H. J. Hardwicke.

The following papers have been promised.

Barr, Thomas, M.D. Practical Observations on the Use of the Cotton-Pellet (Yearsley's Artificial Tympanic Membrane) as an Aid to Hearing.
Cassells, James P., M.D. An Analysis of Ten Years' Aural Surgery.
Field, G. P. Esq. A Case of Ivory Exostosis in the External Auditory Meatus, successfully removed by means of the Dental Engine.
Forbes, Litton, Esq. The Indications for, and Therapeutic Value of, Myringectomy.
McBride, P., M.D. The Prognosis of Chronic Non-Suppurative Inflammation of the Middle Ear.
Torrance, Robert, Esq. Deafness in Cerebro-spinal Meningitis.
Warden, Charles, M.D. Mastoid Inflammation.
Williams, Richard, Esq. A Fatal Case of Chronic Purulent Inflammation of the Middle Ear, from Extension to the Intracranial Cavity.

Dr. E. Cresswell Baber will show an Inflating Collar for Siegle's Pneumatic Speculum.

Dr. Richard Ellis will exhibit Gray's Lamp for heating and illuminating purposes in connection with Aural Surgery.

Dr. J. Ward Cousins will show a new Ear Protector against Sound and Noise.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay with the secretaries of the respective Sections.

No communication shall occupy more than fifteen minutes, and no person shall be permitted to speak more than once, or for more than ten minutes, during the discussion thereon.

SPECIAL NOTICE TO MEMBERS.

On arriving in Liverpool, Members are requested to proceed at once to the place of meeting—the Liverpool College, Shaw Street—in order to enter their names and receive their tickets of admission to the meeting, and the tickets for the dinner and the various en-

tertainments and excursions. The reception-room will be in the entrance hall, the clerks being seated at tables placed on each side of the main entrance to the building. A placard in front of each clerk will indicate his special duty.

Those Members who have not already made arrangements to stay at hotels, or who have not engaged lodgings, will then ask the clerks for Dr. Creswell Rich, the Reception Secretary, who has charge of the accommodation arrangements. Dr. Rich, or one of his clerks in charge of the list of lodgings, etc., will be in attendance to give all information about apartments, etc.

RECEPTION-ROOM.

It is particularly requested that each Member, on his arrival, will at once proceed to the Reception-Room, which is at the College, Shaw Street; 1, *enter his name and address, and obtain his tickets and programme;* 2, *inquire for letters;* 3, *consult the list of lodgings and hotels. A form for Members who intend to be present, and also a list of lodgings and hotels in Liverpool, was enclosed in last week's* JOURNAL. *The Reception-Room will be open on Monday from* 12 *to* 5, *and on succeeding days from* 9 A.M. *to* 4.30 P.M.

POST OFFICE ARRANGEMENTS.

There will be a temporary post office in the College, Shaw Street, situated in the hall of the building, directly facing the main entrance.

At this office stamps may be obtained, and letters can be registered.

In addition to the postal arrangements, there will be a special wire provided, so that members may despatch and receive telegrams at the counter of the temporary office.

Money order, postal order, and savings bank business will not be transacted at the office in the College, but at the District Office in Pembroke Place, only five minutes' walk from the place of meeting.

Members are requested to ask at the office for their letters and telegrams, which will be arranged in a series of lettered pigeon-holes. Each morning, the reception-secretary, Dr. Rich, will receive a paper containing the names of those to whom the undelivered letters and telegrams of the previous day are addressed. Lists of these will be made, and exhibited prominently, in different parts of the building.

A paper giving a complete account of all the inward and outward mails of the week will be placed in the hands of every member.

A pillar letter-box will be located in the hall of the college, close to the office. Collections will be made from this box at frequent intervals throughout the day.

The post office and telegraph office will be open from 8 A.M. to 8 P.M.

ANNUAL MUSEUM.

The museum will be in the same building as the reception-room, the general meetings, and the sectional meetings. In fact, all the business of the annual meeting will be carried on in one building, viz., the College, Shaw Street, Liverpool. The room which is specially devoted to museum purposes is a gallery, 300 feet in length, in the upper story, lighted from the roof. On the same floor are several additional rooms, so that the accommodation for exhibiting drugs and instruments is ample. On the second floor, adjoining the room where the Pathological Section meets, are two class-rooms, one of which will be used for the exhibition of pathological drawings and specimens, the latter for microscopes. A large hall on the ground-floor has been set apart for sanitary appliances, among which it is expected there will be a good exhibition of ambulances.

The museum will comprise: 1. Latest inventions in medical and surgical instruments, and appliances of all kinds, including No. 4. 2. New chemicals and apparatus; new drugs and their preparations; and new articles of diet for invalids. 3. Drawings, diagrams, or models, or apparatus connected with sanitary appliances. 4. Microscopes, thermometers, and other instruments of investigation. 5. Pathological specimens, etc.

Communications should be sent to Dr. Davidson, the General Secretary, 2, Gambier Terrace, Liverpool, or to the following. drugs, Dr. T. Bushby, 32, Clarence Street; surgical instruments, Dr. Alexander, 102, Bedford Street; Rushton Parker, Esq., 61, Rodney Street; sanitary appliances, Dr. Imlach, 16, Canning Street; pathological specimens and drawings, F. T. Paul, Esq., 44, Rodney Street. General Museum Secretary, Dr. Whitford, 37, Shaw Street.

Notice to Exhibitors.—Applications to be made as soon as possible, mentioning the space required. Each object to be accompanied by a written description or reference, and it is important that these descriptions should be sent as early as possible, viz., not later than July 20th. All parcels to be delivered on or after July 23rd, and not later than July 28th, and to be removed within three days after August 3rd; they must be addressed: The Curator of Annual Museum, British Medical Association, the College, Shaw Street, Liverpool. All expenses of carriage and all risk to be borne by the exhibitors. A card bearing the name and address of the exhibitor to be inclosed in each package, ready to be fixed to the outside.

EXHIBITION OF CASES.

An exhibition of cases will take place from 12 to 2 P.M. on Wednesday, Thursday, and Friday. The first day will be devoted to Medical Cases. Among those who have kindly offered to contribute are Drs. Dreschfeld, Ross, Glynn, Davidson, and Carter. The second day will be devoted to Surgical Cases. Messrs. R. Harrison, Parker, Alexander, Spanton, Puzey, and D. Harrison have signified their intention of exhibiting. Mr. Mitchell Banks will demonstrate a series of cases at 1 o'clock. On the third day, cases of Diseases of Children, and Diseases of the Eye and Ear, etc., will be shown by Drs. Ashley and P. Davidson; also by Messrs. Shadford Walker and E. Browne. Any member wishing to exhibit interesting cases are requested to communicate at once with Mr. Mott.

SPECIAL DEMONSTRATIONS.

A variety of microscopic demonstrations will be given during the various days of the meeting. In the microscope rooms adjoining the Pathological Section, on Wednesday, micro-organisms; on Thursday, various preparations; on Friday, new growths of the urinary tract.

In the rooms adjoining the Medicine Section, Dr. Byrom Bramwell's sections of the spinal cord will be shown; and Dr. Hicks's series of embryos to illustrate the development of the chick. Dr. Bramwell will give an introductory description of his specimens on Wednesday, at 9.15 A.M.

In a room adjoining the Physiological Section, Dr. Norris's museum of photographs of the blood will be open during the whole time of the meeting.

Mr. Lennox Browne will exhibit, by oxyhydrogen light, a series of photographs of the larynx, in a room specially arranged for this, probably on Wednesday.

Exhibition of patients will take place daily between 12 and 2, in a special room on the second floor.

On Friday afternoon, a practical demonstration of Fleuss's new life-saving apparatus will be arranged in the yard behind the building, where also a number of ambulances will be exhibited.

DINNER.

The annual dinner will be held as a banquet in the Philharmonic Hall on Thursday, August 2nd, at 6.30 P.M. The number of tickets is limited to 500, and none will be sold after Wednesday, August 1st. Tickets for the banquet may be obtained in the Reception Room at the time of the meeting, or previously on application, accompanied by a remittance of 21s. (or, exclusive of wine, 14s.), by cheque, or postal order (not by Post Office Order), to E. H. Dickinson, M.D., Secretary to the Dinner Committee, 162, Bedford Street, Liverpool.

N.B.—A limited number of seats (260) in the boxes of the Hall for ladies and friends of members of the Association (holding tickets for the banquet) will be issued, at 2s. 6d. each seat, on application, accompanied by remittance, to the Secretary of the Dinner Committee (as above).

EXCURSIONS.

The following excursions will take place on Saturday, August 4th. 1. Excursion to Conway and Llandudno. By steamer (if the weather be suitable; if not, by train), leaving Liverpool soon after 9 A.M., arriving at Conway about noon. The visitors will be entertained at lunch (in the old Banqueting Hall of Castle) by the members of the North Wales Branch. They will then proceed to Llandudno by train; will leave there between 6 and 7 P.M., arriving in Liverpool between 9 and 10 P.M. Number limited to 150.—2. Excursion to Chester and Eaton Hall. Leaving Lime Street station at 9.30 A.M., arriving at Chester about 10.30; proceeding at once to the river Dee, up which the visitors will be taken by steamer and barges to Iron Bridge, where light refreshments will be provided. By kind permission of the Duke of Westminster, the hall, gardens, and park, will be open to the visitors. The return to Chester will be arranged so as for dinner to be served at the Grosvenor Hotel

at 4 P.M. The members will thus have the evening free for an inspection of the old city, or for their return home by any convenient train. There will be no limit as to numbers.—3. Excursion to Southport and Blackpool. By train from Tithebarn Street Station soon after 9 A.M., for Southport, where the members will be entertained at breakfast by the local medical profession; thence, at 1 P.M., by steamer to Blackpool, where dinner will be given by the directors of the South Shore Hydropathic Institution. The return from Blackpool will be arranged to take place by train early in the evening. The number will be limited.—4. Excursion to Lancaster. By train from Liverpool at 10.5 A.M., arriving at Lancaster 11.40 A.M. A limited number of visitors (30) will be entertained at lunch by the members of the medical profession of the city, who will also kindly provide carriages, and show their guests through the Castle, the Royal Albert Asylum, the County Lunatic Asylum, and other places of interest. The well known watering-place, Morecambe (ten minutes' railway journey), is within easy reach. There the visitors can dine, and thence return by train, so as to arrive in Liverpool soon after 8 P.M.—5. Mr. Bickersteth's River Excursion. By steamer, leaving the landing-stage about 10 A.M., proceeding seawards for some distance, so as to give visitors a view of the coast; on its return, visiting some of the new docks, and then steaming up the river for some miles to Eastham, or Runcorn. This will be a half-day excursion, terminating about 2 P.M. Further particulars may be obtained from Mr. Richard Williams (82, Rodney Street) for the Conway Excursion; Mr. Warburton (114, Princes Road, Liverpool) for the Chester Excursion; Mr. George Walker (43, Rodney Street) for the Southport and Blackpool Fxcursion; and Dr. Hopper (63, Rodney Street) for the River Excursions.

Local Entertainments.

Besides the numerous places of interest in Liverpool and its neighbourhood, which will be open to visitors on presenting their members' tickets, the following arrangements have been made, for which special tickets will be issued (in most cases the numbers being limited).

Tuesday, July 31st.—Visit to s.s. *City of Rome* (the largest merchant steamer afloat, except the *Great Eastern*).

Wednesday, August 1st.—Laird's ship-building works, at 4 P.M.; White Star steamer *Republic*.

Thursday, August 2nd.—Laird's ship-building works, 4 P.M.; Guion s.s. *Alaska;* Mersey tunnel works, 3.30 P.M.

Friday, August 3rd.—Visit to the North Docks by the Dock Board steamer, 2.30 P.M.; visit to Cunard s.s. *Servia*, 2.30 P.M.

FRANCIS FOWKE, *General Secretary.*

July 4th, 1883.

[*The following reports of Committees will be presented at the Annual Meeting at Liverpool on July 31st, and August 1st, 2nd, and 3rd, and are published in accordance with the regulation for the conduct of Annual Meetings, which requires that all reports of Committees of the Association shall be printed in the Journal before the Annual Meeting.*]

REPORT OF THE PARLIAMENTARY BILLS COMMITTEE.

THE Committee have to report that during the past year their attention has been directed towards Parliamentary proceedings in relation to the notification of infectious disease; in respect to proposals of local authorities for dealing with sanitary questions by private Bill legislation; to the Scotch Sanitary Police Bill; the improvement and the position of militia-surgeons; to the present conditions of medical service on Atlantic steamships; to the registration of midwives; the draft Bill of the Pharmaceutical Society; to the position of junior surgeons of the Indian Medical Service; and to the proceedings in Parliament in reference to Compulsory Vaccination.

Notification of Infectious Disease.—With regard to private Bill legislation, not the least important outcome of the Committee's past labours has been the passing of the following new standing order, which is now incorporated with the new standing orders of the House of Commons, and which concedes to some extent the proposition laid before the Committee in successive reports of the chairman, to the effect that due publicity should be given to the proposals of corporations in their local Bills.

"No. 173A. In the case of any Bill promoted by, or conferring powers on, a Municipal Corporation or Local Board, Improvement Commissioners, Town Commissioners, or other local authority or public body having powers of local government or rating, the committee on the Bill shall consider the clauses of the Bill with reference to the following matters. (*a*) Whether the Bill gives powers relating to police or sanitary regulations in conflict with, deviation from, or excess of, the provisions or powers of the general laws. (*b*) Whether the Bill gives powers which may be obtained by means of by-laws, made subject to the restrictions of general Acts already existing. (*c*) Whether the Bill assigns a period for repayment of any loan under the Bill exceeding the term of sixty years, which term the committee shall not in any case allow to be exceeded, or any period disproportionate to the duration of the works to be executed, or other objects of the loan. (*d*) Whether the Bill gives borrowing powers for purposes for which such powers already exist, or may be obtained under general Acts without subjecting the exercise of the powers under the Bill to approval, from time to time, by the proper Government department. And the committee shall report specially to the House in what manner any clauses relating to the several matters aforesaid have been dealt with by the committee, and whether any report from any Government department relative to the Bill has been referred to the committee, and, if so, in what manner the recommendations in that report have been dealt with by the committee; and any other circumstances of which, in the opinion of the committee, it is desirable that the House should be informed; and the report of the committee shall be printed, and shall be circulated with the votes."

The Parliamentary Bills Committee may fairly be credited with having first directed public attention to the extraordinary anomalies in our local and general statute law relating to public health, which were growing up under the cover of local Bills. The anomalies will, to a great extent, be checked by the provision now made under the above new standing order. The report adopted by the Committee, and presented to the Government in 1881, called attention in detail to the very various, and often very arbitrary and excessive, powers taken under local Acts in excess of the provisions of the common law; and urged the necessity of a more open and vigorous parliamentary control of such measures (BRITISH MEDICAL JOURNAL, vol. i, 1881, p. 744). Nevertheless, the Committee feel that insufficient provision is here made for ascertaining the opinion of the profession in the various towns affected by such local Bills, with reference to any sanitary provisions contained in those Bills, and especially in respect to the compulsory notification of infectious disease. The Chairman of the Committee had an opportunity of representing to the President of the Local Government Board this disability; and Sir Charles Dilke has undertaken, on behalf of that Board, that, in the case of any local Bills brought forward by towns which shall include clauses for the notification of infectious diseases, he will receive a deputation from the local practitioners, and will take care that due consideration is given to their views on the subject. At the last annual meeting of the Association, held at Worcester, the following resolution was carried.

"That this meeting earnestly desires compulsory notification of infectious diseases; but it wishes to express its opinion that the compulsion to notify should be placed on the householder, as his duty as a citizen, and not upon the doctor."

This resolution had a direct relation to a Bill introduced by Mr. George Hastings, M.P., for the purpose of introducing compulsory notification of infectious diseases as a general measure throughout the country. Mr. Hastings reintroduced that Bill in the course of the present session; and the Chairman communicated with him, suggesting that it should be so modified as to bring it into accord with the resolution passed by the Association at Worcester. To this suggestion Mr. Hastings replied that "his Bill, as modified, differed from the one of last year, as it was framed on the precise precedent of the clauses adopted by the Select Committee of last session, after two and a half months' inquiry and deliberation; and which clauses were approved by the House, and inserted in seven Bills. They provided for a dual notification by the householder and the medical attendant. This, he said, did away with any supposition of breach of confidence on the part of the medical attendant, as, if he did not notify, another person would. Further than this he was not prepared to go."

At a meeting of the Parliamentary Bills Committee, held on March 17th, it was resolved to address a memorial to the President of the Local Government Board, urging upon him that local authorities should not have the power of imposing the duty of compulsory notification on medical practitioners; and further, that he be requested to receive a deputation for the purpose of presenting him with a memorial supporting this prayer. It was also resolved, that petitions be drawn in the sense of the memorial, and they be forwarded to

the Secretaries of the several Branches, with a request that they should use their influence to get them presented by the Members of Parliament representing their several districts. This memorial was duly forwarded to the President of the Local Government Board, and petitions were prepared opposing Mr. Hastings's Bill, which form was printed in the BRITISH MEDICAL JOURNAL, with a request for the general support of the members of the Association thereto, and copies of the memorial were engrossed and forwarded to all the Branches for signature. These petitions were duly signed, and presented at the House of Commons. Dr. Alfred Carpenter had an interview with Sir Charles Dilke on the subject, and expressed the desire of the Committee to wait upon him by deputation. He found that Sir Charles Dilke was very unwilling to receive a deputation; and stated that his view of the matter was, that it was a subject which each district should decide for itself; and that it would not be likely that Mr. Hastings's Bill could come under the serious consideration of Parliament this session; and he, therefore, distinctly declined at that time to receive a deputation. A request to Sir Charles Dilke, to receive such a deputation, was again urged upon him by the Chairman and he consented to meet a small deputation on Friday, July 20th. The deputation consisted of Dr. Alfred Carpenter (Croydon), Dr. Carter (Liverpool), Mr. Nelson Hardy, and Mr. Ernest Hart (Chairman of the Committee). The deputation gave explanations of the views of the Committee and the Association as to the objection to the imposition of the duty of compulsory notification of infectious diseases on the medical attendant, and stated their views as to the doubtful advantage and obvious disadvantage arising from such a mode of notification; and discussed the imperfections of the statistics hitherto presented in relation to this subject. The deputation further urged the advisability of a general inquiry on the whole subject before any further legislation, whether local or general, should take place. Sir Charles Dilke finally stated that, as at present advised, he would be prepared to make certain concessions to the views which had been put before him; *i.e.*, should any local Bills be brought forward during the ensuing session, applying for powers of compulsory notification of infectious disease, he would be prepared to arrange that such Bills should be referred to a Public Committee of the House, before which Committee local medical men, or the Parliamentary Bills Committee itself, would be able to state their views, and have them fully considered. The President further stated that he had informed Mr. Hastings that the Government were not prepared to support his Bill; and that, should it come forward for second reading in the next session of Parliament, he would be willing to have it referred to a Select Committee of the House of Commons, and to take evidence on the subject of the notification of infectious diseases generally, and the best method of making it.

Scotch Sanitary Police Bill.—As first introduced, this Bill contained clauses with relation to the notification of infectious disease, which left such notification open in respect to the medical attendant. At a later date, however, the Bill was remodelled; and clauses were introduced requiring concurrent notification of such disease, both by the householder, or person in charge of the patient, and by the medical practitioner attending on or called in to visit such patient, providing a fee of 2s. 6d. for such certificate or declaration, and enacting a penalty not exceeding 40s. for any wilful offence against this enactment.

At a meeting of the Parliamentary Bills Committee on June 18th, this clause then so altered was brought under the notice of the Committee, and a resolution was passed calling the attention of the Scotch Branches to these clauses, and requesting them to communicate their views on the subject to this Committee, or to the Lord Advocate, and also a resolution that the Lord Advocate be requested to receive a deputation from the Parliamentary Bills Committee to represent the views of the British Medical Association as to the best method of securing compulsory notification of disease. Communications have accordingly been addressed to the Scotch Branches with reference to these clauses, but, up to the present time, no replies have yet been received.

Militia-Surgeons.—The claims were again considered of the militia-surgeons, who were compelled, by a rule established in 1881, to retire at the age of 65 without pension or remuneration of any kind. Legal opinion had been obtained from Mr. Davy, Q.C. and Mr. Benjamin, Q.C., two eminent barristers, who were of opinion that if the militia-surgeons had no claim as a petition of right, they had clear claim on the ground of equity. This question had been fully investigated by the Chairman of the Committee, who had carried on a prolonged correspondence on the subject with the authorities at the War Office. These authorities have, however, declined to make any concession, It was, therefore, resolved that Sir Eardley Wilmot, M.P., be requested, in the name of this Committee, to support the claims of the militia-surgeons, and that he be furnished with information in the hands of the Committee. The documents in question were placed before Sir Eardley Wilmot, who brought forward a resolution in favour of the claims of the militia-surgeons in the House of Commons in Committee of Supply. Although opposed by the whole weight of official authority, this resolution, which was ably supported by Dr. Farquharson, M.P., obtained a very large amount of support; and the Government only carried a negative motion by ten votes, and after Sir A. Hayter had stated that the War Office would consider all individual applications, and endeavour to remedy individual grievances. It is hoped, therefore, that some good has been effected.

Ship-Surgeons.—For some time during the last year, the present unsatisfactory conditions of the service of ship-surgeons had been investigated in the columns of the JOURNAL, and, at a meeting of the Committee in March, a carefully drawn memorial was placed before the Committee, showing that the medical and sanitary administration of ocean-steamers, especially of those engaged in the North Atlantic emigrant trade, is often seriously defective, and that, to remedy this state of things, it was desirable that the conditions of the appointment of ship-surgeons should be modified, in view of the serious and difficult nature of the service required; that the medical officer should have separate authority in sanitary matters not involving the safety or general discipline of the ship; that his tenure of office should be under the control of the Board of Trade; and that the conditions of the service should include promotion, and provision for superannuation or retirement through ill-health, with other important representations and statements. A pamphlet, embodying the correspondence in the JOURNAL, and other statements germane to the question, was prepared, and has been submitted to the President of the Board of Trade. At a meeting of this committee, Dr. Irwin stated that he had ascertained that, out of 140 medical officers engaged in the service, 65 would have been ineligible for poor-law appointments, and that a large number were very young men; 36 possessed but one qualification, and 8 had no qualification to practise in Great Britain.

Honorary Queen's Cadetships.—At the present moment, the sons of medical officers of the army are debarred from competing for the ordinary Queen's cadetships, of which a certain number are annually awarded for competition to the sons of combatant officers. This exclusion was brought under the notice of the Committee, and a communication was addressed to the Secretary of State for War, asking that the medical department of the army may share this privilege. An official answer has been received of an unfavourable character. It is now proposed to bring the subject under the notice of Parliament.

The Regulation of Midwives.—The Bill drafted on behalf of the Committee was last year submitted to the Privy Council, has now been accepted by the Government, and adopted as a Government measure; but a subsequent communication was received from Mr. Lennox Peel, stating that the President of the Council had been so fully occupied with the preparation of the Medical Bill, that he had been unable to give the amount of attention to the matter which the importance of the subject requires. A later communication has been received, expressing regret that the Government see no hope of carrying the Bill forward this session.

Vaccination and Small-pox.—Mr. Peter Taylor having introduced into the House of Commons a resolution hostile to the practice of compulsory vaccination, and as great activity had been shown by his extra-parliamentary supporters, and a considerable amount of literature misrepresenting the facts in respect to the prophylactic value of vaccination had been circulated, it was thought advisable to prepare a memorandum on the influence of vaccination in the prevention and diminution of the mortality from small-pox. Such a memorandum was accordingly prepared by the Chairman, and a copy of it was forwarded on the morning preceding the debate to every member of the House of Commons. The memorandum has been printed in the JOURNAL. Sir Lyon Playfair, M.P., and Dr. Cameron, M.P., made able and convincing replies to Mr. Taylor's address, and the result was that Mr. Taylor's resolution was negatived by 286 to 16. From a number of communications which have been received from members of the House of Commons, there is reason to believe that the circulation of this memorandum contributed, in some degree, to the useful result. In response to various requests, this memorandum has been reprinted, in a cheap form, for use by medical officers and local boards.

Indian Medical Service.—Of late, a very considerable amount of

dissatisfaction has been growing up among the junior members of the Indian Medical Service as to the manner in which they have been treated by the Government in India. Their complaint is that they have been greatly deceived in the prospect held out to them as to remuneration during the early years of service and promotion, and that the present mode of administering the department inflicts serious injury and disappointment on those who joined on the faith of previous promises. Since the last meeting of the Committee, the Chairman has gone carefully into the whole question, and has taken the advice of well-informed persons on the subject of the various complaints made to him; and, after analysing the letters and documents forwarded to him in considerable numbers by the complainants, has prepared and forwarded to Lord Kimberley, the Secretary of State for India, a document dealing with this question, which has been approved by competent authorities. It has been printed in the JOURNAL. ERNEST HART, Chairman.

REPORT OF THE SCIENTIFIC GRANTS COMMITTEE.

THE Scientific Grants Committee report that since the last annual meeting, they have voted the sum of £305 as follows.

Statement of Scientific Grants, 1881-2.

Dr. Thin: Continued Investigations on Vegetable and Animal Parasites of the Human Skin	£ 30
Dr. Warner: Research on Muscular Movements by means of the Graphic Method	50
Prof. Schäfer: Inquiry respecting the Protein Substances in the Blood	20
Dr. Imlach: Researches on the Transmissibility of Bovine Tuberculosis through Milk to Young Animals	100
Mr. Dowdeswell: Researches into Septicæmia in Animals	10
Dr. Abraham: Research on the Morbid Fluids of Congestion	20
Dr. Burdon Sanderson: Elimination of Nitrogen during Physical Labour	75
Total	£305

Some interesting reports of researches towards which grants have been made by the Association have been, in the course of the last year, published in the JOURNAL.

Mr. G. F. Dowdeswell reports that during the past year he has continued his experiments upon the intimate nature of the contagion in some septic diseases. A portion of them have been published in a recent number of the *Proceedings* of the Royal Society, vol. xxxiv (1883), p. 449. He is unable at present to continue this investigation, and a statement of the results obtained up to this time shall be published as soon as it can be prepared.

Prof. Schäfer, of University College, to whom a grant of £20 was made, for the purpose of assisting a research into the constitution and properties of the proteids of the blood, reports that the work for which the above grant was awarded was not yet sufficiently complete to allow of the publication of a report embodying the results obtained. The investigation had been systematically carried on during a considerable part of the last twelve months, and had been directed to two principal objects, viz., the blood-proteids of the vertebrata and of the invertebrata, respectively. In invertebrates the blood of the echinoderms and that of the crustacea had been chiefly investigated; in the vertebrata the blood of various mammals. The investigation was, however, one which necessitated a large expenditure of time, and, up to the present, the only portion in which it had been found possible to arrive at a result definite enough for publication was that which relates to the coagulating principle in the blood of echinoderms. A very brief account of some of the results obtained regarding this had appeared in the *Proceedings* of the Royal Society, but the detailed account had been intentionally deferred until it should be possible to institute a more extended comparison between the constitution and properties of this substance and blood-proteids in general. Prof. Schäfer hoped that before the end of the winter another instalment of the work might be ready for publication, a considerable amount of time and money having been expended in the accumulation of material which is ready to be worked up as opportunity offers.

Mr. P. S. Abraham reports that, in the absence of Mr. Story, who is engaged with him in the investigation of certain forms of ophthalmia, he was unable to furnish a complete account of the progress already made in the observations. A great many specimens of secretion have been collected, but their examination is not yet completed.

Dr. Thin gives the following results of the investigations which he is continuing on the methods for showing the presence of bacteria in epidermic structures.

Trichophyton Tonsurans.—Experiments which have been made show that the fungus is very sensitive to decomposition in the fluids in which it grows. When precautions are taken so as to introduce as few bacteria as possible, as, for example, by introducing only one hair into a considerable quantity of pure vitreous humour, the fungus grows actively; but when several hairs are introduced, and with them necessarily a larger number of bacteria, growth ceases quickly. This fact has an immediate bearing on the treatment of ringworm, as Dr. Thin hopes to show on some early opportunity.

Bacterium Decalvans.—A large number of experiments were made with the view of discovering some method of staining bacteria in hairs, but without success. Ringworm-hairs, which were known to contain many bacteria, were used for the purpose, as well as hairs from the margin of patches of alopecia areata. It was found, however, that, by additional chemical means to those previously used and described, hairs could be so disintegrated that bacteria could be seen in the hair-shaft. This was done in the case of hairs from the margins of alopecia areata patches, and bacteria were observed in such cases. Dr. Thin had camera-drawings made in several instances, and intends presenting a report on the subject hereafter.

Bacillus Lepræ.—An extensive series of examinations of the skin in leprosy, and of the bacillus lepræ, were made and reported on in a paper read before the Royal Medical and Chirurgical Society last month. An abstract of the paper was published in the BRITISH MEDICAL JOURNAL for June 16th. The paper itself, with two plates, is in the hands of the Society.

Dr. Thin has yet to finish an examination of the bacillus as it affects the larynx in leprosy, and will report on the subject when the examination is completed.

Several minor subjects, such as, for example, the methods of using the aniline dyes in the investigation of bacteria, were necessarily considered, and formed subjects of much observation; and Dr. Thin hopes to be able to add something to our practical knowledge on these matters.

Skin excised from patients who had died of scarlatina has been carefully examined by the same methods as were successfully used in demonstrating the bacillus of leprosy, but up to the present time with negative results, so far as the existence of organisms is concerned.

Dr. Thin hopes, in the autumn, to be able to furnish a complete account of the work done up to the present time, and of further investigations which he intends to pursue, in order to complete those already made.

Dr. Warner, in pursuance of a grant, has prepared an apparatus for the carrying out of a method of obtaining graphic records of the movements of the fingers and upper extremity, etc. This has formed the subject of a paper contributed by Dr. Warner to the *Journal of Physiology*, in which he describes the apparatus as consisting of (1) a set of motor tubes to be attached to the hand; (2) a frame supporting recording air-tambours; (3) a new form of electrical contact-making-tambours; (4) a new and simple form of counting machine, worked by an electrical current interrupted by movements of the contact-making-tambour, thus automatically registering the finger-movements. It is also possible, by special arrangements, to enumerate upon a counter the number of times that two or more coincident movements occur. Tracings have been obtained showing records of spontaneous movements of infants, and the effect of light and sound upon such movements; indications of the time of an infant's sucking movements, ankle-clonus, movements of sternum, movements of chorea, athetosis, senile tremor, movements of limbs due to pulsation.

It is hoped that, by pursuing these methods, various problems may be accurately investigated, *e.g.*, the degree of co-ordination in the movements of the fingers of an infant as the faculty of mentation developes; the effects of light and sound in producing or arresting movements. It seems to him highly probable that, when two movements happen to occur together by chance, or when they occur together as the result of some external agency, a bond of union is formed between their motor centres, making them tend to coact again.

Towards the expenses of this research, a grant was made by the British Medical Association, upon the recommendation of the Scientific Grants Committee.

Dr. Imlach, who in his researches on the transmissibility of bovine tuberculosis through milk to young animals, was associated with Drs. Waters, Carter, and Davidson, reports that, on January 10th, 1883, stables were secured suitable for the purpose, after certain alterations were made. Although Dr. Imlach took the advice of practical men (Mr. Reynolds, M.R.C.V.S., and chief of the muni-

cipal veterinary department; and of Inspector Luya, chief inspector in the district both of shippens and abattoirs), he had at first some difficulty in purchasing a tuberculous cow that was satisfactory for experimental purposes. On January 22nd, 1883, Dr. Imlach bought one in calf, in the hope that it would give a good supply of milk, but it died in calving. On March 28th, another was bought for £8, which was very successful. On March 29th, two young monkeys were purchased, and one fed with the milk, keeping one other as a control-experiment. The monkey has since been fed on the milk of tuberculous cows, and remains apparently healthy. The control-monkey, unfortunately, died one cold night, without signs of tubercle. The lungs, etc. (with the note of date of death), are in Dr. Mott's possession. Dr. Mott, who is well known as an accomplished microscopist, has kindly undertaken to make all necessary microscopic observations, and has already made several. On April 15th, a healthy male calf, one week old, was purchased. It was born of healthy young parents, which Dr. Imlach inspected, and for whose health a veterinary certificate was promised. This calf has since been fed on tuberculous cow's milk. At the end of May it showed abnormal temperature, pulse and respiration, which were regarded by Inspector Luya as symptoms of tubercle. In a fortnight it recovered from these symptoms. Dr. Imlach proposes to kill it at the time of the annual meeting. A control-calf was not bought, owing to want of space, and expense. Guinea-pigs have been kept as control-animals throughout. On May 11th the cow died, and its organs were secured. They were highly "graped," and numerous bacilli were found by Dr. Mott. On June 8th a third cow "graped," and a very satisfactory milker (three to four quarts *per diem*), was purchased, Since it was bought, its condition has much improved. On June 27th two sucking-pigs, born of a healthy young sow, were purchased, and are now being fed upon the milk of the cow. In the beginning of June a young monkey was procured, and is also being fed on the milk. It is proposed to purchase two young kids and feed them with the milk—the calf to be no longer fed with it. Owing to the small quantity of milk given by "graped" cows, it has been found unprofitable to feed more animals without destroying the value of the observations.

Numerous observations of the chemical quality of the milk have been made, which are not as yet complete. Dr. Campbell Brown, the city analyst, has occasionally checked these analyses of Dr. Imlach, by independent analyses.

Dr. Imlach has also endeavoured to study the pathological anatomy of the disease. Photography of the viscera has so far failed, but further attempts will be made. The Committee has agreed with Dr. Imlach, that, if precise diagnostic marks of the disease could be ascertained, they would be of value. Notes, therefore, of pulse, temperature, and respiration have been made, but they are as yet few in number. The milk has been examined microscopically by Dr. Mott, but he has as yet failed to detect bacilli in it. He has also failed to detect bacilli in a mammary gland from a tuberculous cow; but here, certainly, further observations are necessary before any conclusions can be arrived at.

While thanking the Committee for the confidence it had shown him by making so large a grant, Dr. Imlach says he would be glad to carry on the observations as economically as is consistent with the circumstances, if the Committee think them of value, and will endeavour to do so. He says that perhaps he may be allowed to suggest that permission be given to him to carry out what may be termed the first series of observations—*i.e.*, those above-mentioned—and another calf for which he is in treaty. If any results be attained, then it will be for the Committee to decide to what length further observations may be carried.

Mr. North is still pursuing his researches on the elimination of nitrogen during labour, and promises an early report.

At a meeting of the Scientific Grants Committee, held at the office of the Association, on Tuesday, July 18th, 1883, it was resolved:

"That Professer Schäfer be requested to forward copies of his paper which was published in the *Proceedings* of the Royal Society, and that Dr. Imlach be requested to return the balance of grant unused, and that it be recommended that a further grant of £50 be made to him."

Mr. Dowdeswell was requested to forward a copy of his paper which appeared in the *Proceedings* of the Royal Society, together with statement of results, without delay, in order that the latter may be included in the Annual Report of the Committee.

Proposal for Establishment of Scholarships for Research.—Up to the present time, the work of the Committee has chiefly consisted in considering applications for grants in aid of researches carried out by medical men and by physiologists for the promotion of medicine and the collateral sciences. These researches are, many of them, of high interest and scientific value; and the grants made, as will be seen by reference to the annexed list, have been for subjects which extend over a wide range of inquiry. The usefulness of this form of aid to medical men and others, who often can only pursue such researches in the intervals of time not devoted to other pressing occupations, or to physiologists and others, upon whose time large calls are made by absorbing duties and pursuits connected with their various posts, is undoubted and clear. Often, however, they have a larger amount of time at their disposal; and hence it seems desirable to consider the propriety of extending the value and importance of the aid given by the Association to the conduct of scientific research in medicine, by adding to the existing system of grants for such researches a machinery by which the services can be secured, in this direction, of those who are able, and well-fitted by education, capacity, and personal sentiment, to carry out continuous research in given directions, and to devote to it undivided attention and their whole time. There are many great questions awaiting solution, which cannot be attacked without the devotion of continuous effort and uninterrupted investigation. Scientific pursuits of the kind involve great labour, and, to the student employed, bring no return beyond the satisfaction of having added to the knowledge of mankind, and, perhaps, to the resources of those who are engaged in the preservation of health and the prevention and cure of disease.

The Committee recommend to the Association, with a view to more effectual and larger encouragement of scientific medical research, to consider the desirability of creating scholarships of research, of an annual value of £150 each. These studentships or fellowships might be held at any university or medical school of Great Britain, where proper appliances for research already exist, and might be awarded to persons who shall have satisfied the Scientific Grants Committee, or such other committee as may be appointed for the purpose, of their ability to carry out scientific research with skill, and who will undertake to devote their whole time, during the period they hold such scholarship or fellowship, to some particular research, which shall either be suggested or approved by the Committee, and who shall report annually to the Committee, the details and results of their work. Such scholarships or fellowships might be renewable to the same individual from year to year in the discretion of the Committee, but should not, perhaps, be held by the same individual for more than three years, except by a special vote of the Association at its annual meeting. The Committee believe that, by the means indicated, an impulse would be given to the prosecution of medical research in this country, which would alike redound to the credit of the Association and the benefit of humanity.

Since the last meeting of the Committee, a further communication has been received in respect to placing at the disposal of the Committee, for the purpose of research, a private laboratory, fully equipped, for the purpose of physiological inquiry, in which a large amount of work has hitherto been done under Government auspices. The Committee have not yet had time to consider or to make any recommendation in respect to the proposal; but, should any recommendation on the subject be adopted by the Association, the maintenance of such laboratory would involve an expenditure of not less than £400 a year for that purpose.

W. F. WADE, F.R.C.P., Chairman.

REPORT OF THE COLLECTIVE INVESTIGATION COMMITTEE.

SINCE the last report, adopted at Worcester, Mr. Husband and Dr. Allbutt have retired from the Committee, and Mr. Macnamara and Dr. Bowles have been added to it.

The subjects under investigation are:—

1. *The Communicability of Phthisis by Contagion.*—To the inquiry on this point, 1,076 replies have been received, and the report on the data so furnished is nearly ready.

2. *Acute Pneumonia;* its epidemic prevalence, communicability, association with other diseases, etc. To this, over 400 replies have been received.

3. *Chorea;* its relation to other diseases; its exciting causes and treatment. The replies have been nearly 200.

4. *Rheumatism;* more especially with reference to its antecedents, complications, climatic relations, and treatment. To this, over 300 replies have been received.

5. *Diphtheria;* its association with other diseases, communica-

bility, family predisposition, and treatment. The replies have been about 150.

6. *Etiology of Diphtheria;* more particularly the associated sanitary and atmospheric conditions—points which come more particularly under the cognisance of medical officers of health. Over 100 replies have been received.

7. *Syphilis, Acquired and Hereditary.*—The observations on these subjects are to extend over two years, and scarcely any returns have, therefore, been received.

An inquiry on the treatment of *Acute Gout*, and one on *Puerperal Pyrexia*, are about to be instituted.

The inquiry-cards have, in each instance, been drawn up with great care, after much deliberation, so as to elicit the information required with the least possible trouble to those who supply it; and, though the ostensible object of them, and of the memoranda accompanying them, is to collect information, it is generally admitted that they, in addition, serve the scarcely less important purpose of distributing information to those who read them, and, still more, to those who reply to the inquiries.

For these valuable memoranda the Association is indebted as follows: for that on rheumatism, to Drs. Goodhart and Thomas Barlow; for that on chorea, to Dr. Stephen Mackenzie; for that on acute pneumonia, to Drs. Sturges and Coupland; for that on diphtheria, to Mr. Murphy; for that on syphilis, to Mr. Macnamara and Dr. Thomas Barlow. The best thanks of the Association are due to these gentlemen. The returns received have all been carefully tabulated; and the Committee are glad to be able to add that the members of the subcommittees are engaged in analysing them, and that they hope soon to be able to furnish reports, so that an opportunity will be offered of judging to some extent of the results which have been, and are likely to be, attained by the method of collective investigation. It is not expected that these reports will be final, forasmuch as replies continue to come in, and, which is most satisfactory, they do so in increasing numbers.

The Committee feel it will be necessary and right to make certain payments for these reports, say eight guineas a sheet (consisting of sixteen pages 8vo); and they therefore request permission to make payments for them at this rate.

The printing, paper, postage, and other expenses of carrying on a great work of this kind are necessarily considerable. During the year ending December 31st, 1882, they amounted to £474 8s. 9d., including the salary of the secretary. The work done, however, has been more than proportionate, a large part of it being gratuitous. The Committee trust that this appropriation of a certain portion of the funds of the Association in stimulating work and careful observation of disease among its members will meet with general approval. They have good hope that the results obtained will prove worthy of the efforts made, and that this will be more and more evinced as longer experience gives riper judgment in conducting the investigations, and more perfect method in making the returns.

The Committee are glad to add that most Branches are willing to pay the expenses for postage, etc., incurred by their local committees. As, however, there are some Branches in which this appeared to be a matter of difficulty, the following resolution was passed April 11th, 1883, by the Committee of Council.

Resolved: That the expenses incurred by the Branches in connection with the work of collective investigation are chiefly for postage; and it is thought that, in most instances, the Branches will be willing to pay them. In the case, however, of any Branch which is not willing to do so, the Committee is of opinion that the treasurer should be authorised to pay such expenses, provided they appear to the Collective Investigation Committee, and to the Finance Committee, to be not unreasonable.

From the South-Eastern Branch, the Committee have to acknowledge a contribution of £10 10s. towards the expenses.

With the sanction of the Committee of Council, it has been determined to publish, in July next, under the title of the "Collective Investigation Record," a volume of 100 to 150 8vo pages, containing memoranda, reports, and other matter. This will have the effect of relieving the JOURNAL, and will present the various papers relating to collective investigation in a separate form convenient for reference. Such a "Record," especially if it can be published at more or less regular periods, will contribute greatly to the stability and efficiency of the investigation. The orders already received for the number show that the project is favourably entertained, and give reason to hope that, even at the low price (1s. 6d.) at which it is offered, it will at least repay its expenses.

The Committee are fully aware that it is no easy task which has been assigned to them. If consciousness of difficulty gives probability of overcoming it, they are certainly not without this element of success; and they are encouraged to pursue their work with unabated energy by the hearty manner in which large and increasing numbers, especially of those engaged in active practice, are co-operating with them, and thereby showing their interest and confidence in the movement.

It is mainly to the unremitting labours of Dr. Mahomed that success has thus far been due. He has fulfilled the object with which he undertook the duties of secretary, namely, "to assist the Committee in initiating the work." This has now so greatly increased, as to require much more time than he feels himself able to devote to it; he therefore proposes to resign his office in October next. In the meantime, the Committee have given him permission to employ Dr. Herringham as assistant-secretary, on the understanding that no additional expense shall be thereby incurred.

G. M. HUMPHRY,
Chairman of the Collective Investigation Committee.

REPORT OF HABITUAL DRUNKARDS COMMITTEE.

THE Committee, during the past year, issued a second circular to boards of guardians in England, as to the desirability of guardians being entrusted with the optional power of either paying for the detention and cure of habitual drunkards in separate homes, or of compulsorily detaining them in the workhouse for a given time, in order to endeavour to cure them of the disease which constantly brought them into "the house" after a debauch, only to recommence afresh their dissipation and intemperance. The Committee have received favourable replies from 27 unions, 8 unions being unfavourable, and 14 expressing no opinion, or 49 replies in all. This shows a considerable advance in favour of the Committee's views compared with the response to a similar circular in 1881, when only half the number of favourable replies was received. The Committee recommend that every influence be brought to bear on the Local Government Board to induce them to grant the powers in question to boards of guardians.

The Committee are glad to be able to report that the Dalrymple Home for Inebriates Association has acquired a suitable house and grounds at Rickmansworth; that the Home has been licensed to receive sixteen male patients, is under the care of an experienced medical superintendent, and is announced to be open for the admission of patients by October next. This Home will meet the want alluded to by the Inspector of Retreats under the Habitual Drunkards Act of 1879, in his annual report, viz., the want of a licensed inebriate retreat, which could supply within its limits such outdoor recreation and employment as would obviate the present necessity for allowing inmates to spend a part of their time amid temptation outside the institution. The Dalrymple Home Committee appeal for £5,000 to purchase the freehold and furnish the Home, and for a liberal annual subscription-list; and your Committee heartily commend the effort to the members of the British Medical Association as deserving of generous support and co-operation.

Your Committee rejoice also to note that a special discussion, to be opened by one of their number, is to take place at the forthcoming meeting of the Social Science Association at Huddersfield, the subject being the propriety of amending the Habitual Drunkards Act; and, if so, in what direction? The Act is so completely permissive in its application to the habitual drunkard, and offers so many barriers to even his voluntary admission into a retreat, that your Committee trust the influence of your Association will be powerfully wielded to secure a strengthening of the compulsory provisions of the Act, and a relaxation of the stringency of the rules of admission.

Your Committee recommend their reappointment.

ALFRED CARPENTER, Chairman.
E. HART VINEN, NORMAN KERR, } Honorary Secretaries.

METROPOLITAN COUNTIES BRANCH: ANNUAL MEETING.

THE annual meeting of the Metropolitan Counties Branch was held at the Ship Hotel, Greenwich, on Wednesday, July 11th, at 4 P.M. The chair was taken by the President for 1882-3, THOMAS BRIDGWATER, M.B.

Report of Council.—Dr. HENRY, one of the honorary secretaries, read the following report.

The Council of the Metropolitan Counties Branch, in presenting the thirty-first annual report, have to report that, since the meeting in July, 1882, twenty-four members have left the Branch from resignation or removal; eight have died; and thirty new members have been elected, leaving the number at

present 904, or two less than last year. The members who have died during the year are—Dr. A. J. Bannister; Mr. J. T. Clover, well known for his practical skill in the administration of anæsthetics; Dr. Edwards Crisp, who long ago held a prominent position as an advanced medical reformer; Mr. George Critchett, the eminent ophthalmic surgeon; Dr. William Farr, the distinguished founder of health-statistics in this country; Mr. H. D. Male; Mr. Nathaniel Montefiore, who has founded a valuable annual prize in the Army Medical School at Netley; and Mr. F. J. Toulmin.

Your Council has the pleasure of reporting that two new districts of the Branch have lately been organised; one for West Middlesex, and the other for Hertfordshire and adjacent portions of Middlesex, in addition to three already existing. Dr. E. H. Vinen has been appointed secretary to the former district, and Mr. Ridgway Lloyd, of St. Alban's, to the latter. The other districts have continued their useful work. Mr. Nelson Hardy having, early in the session, resigned the office of secretary to the South London District, his place was filled for a time by Mr. W. Johnson Smith, of the Seamen's Hospital at Greenwich; and the vacancy has been recently filled by the appointment of Dr. R. E. Carrington. Thanks are due to all the gentlemen who have kindly undertaken and efficiently performed the duties of honorary secretary in the respective districts.

Three general meetings of the Branch have been held during the year, at which subjects of very high importance have been discussed.

On December 20th, 1882, a special meeting was held to consider a series of questions proposed to each Branch by the President of Council of the Association, respecting the representation of Branches in the Committee of Council. A series of recommendations, drawn up after careful consideration by the Council of the Branch, were submitted to the meeting. Your Council has much satisfaction in announcing that the Committee of Council, in considering the replies sent in from the various Branches, adopted the proposals of this Branch. At the same time, they decided on recommending that the present General Council, consisting of members elected by the Branches, in the proportion of one for each twenty members, together with the *ex-officio* members, and also the Committee of Council as elected annually by the General Council, should be abolished; and that, for them, there should be substituted a Council consisting of *ex officio* members, and of representatives elected directly by the Branches, in the proportion recommended by the Metropolitan Counties Branch. The proposals of the Committee of Council have been, in the main, approved by a meeting of the General Council, held a few weeks ago in Birmingham; and a new code of by-laws, embodying the proposed alteration, will be submitted to the general meeting of the Association to be held in Liverpool. Until the new by-laws are formally adopted, it will be necessary for the Branch to elect representatives to the General Council, according to the system already in force. Your Council would suggest that it be a recommendation to the executive of the Association, that the new by-laws, if adopted, should come into force on January 1st, 1884, in order to give the Branches time for making the necessary arrangements.

On January 17th, a meeting of the Branch was held at the Royal School of Mines, in Jermyn Street, to consider what part the Branch should take in promoting the work of the Collective Investigation of Disease, already undertaken by the parent Association and many of the other Branches. The meeting was largely attended by members of the Branch; the President and other officers of the Association, and members of the Committee of Council, were also present. Highly instructive addresses were delivered by Sir William Gull, Sir James Paget, and Professor Humphry; and the Council feel that the sincere thanks of the Branch are due to these gentlemen for the active and efficient support which they rendered on the occasion. A Collective Investigation Committee of the Branch was, at the same time, appointed. Subsequently, it having appeared to your Council that it would be advisable to take steps for guiding the Committee in its proceedings, and rendering its action more efficient, its formation was reconsidered at a meeting of the Branch held on April 17th. The resolution appointing the committee was rescinded, and, it having been decided that a Collective Investigation Committee should be formed, the following series of regulations was adopted. (The regulations were published in the JOURNAL for May 5th, p. 888.) In pursuance of these regulations, your Council, at a meeting held on April 27th, appointed a Collective Investigation Committee, consisting of the gentlemen nominated at the meeting in January, together with the President, President-elect, Treasurer, and the Branch and District Honorary Secretaries. At the same time, your Council appointed Mr. George Eastes Secretary to the Committee; and he has entered on the active performance of his duties. Your Council recommend that, as the work which Mr. Eastes has undertaken is likely to involve a considerable expenditure of time and labour, authority should be given to the Treasurer to pay to him such honorarium as the funds of the Branch may permit.

Before leaving this subject, your Council would call attention to the "*Collective Investigation Record*," which the Association has recently undertaken to publish. This publication, which will contain the most important contributions on the subject, and the results of the inquiries made by the Collective Investigation Committee, will, there can be little doubt, contain much information of value in the science and practice of medicine. It is to be published at a moderate price, at the office of the Association; and your Council would strongly recommend it to the members of the Branch.

At the meeting of the Branch on April 17th, the subject of the Compulsory Notification of Infectious Disease was considered, with special reference to the Bill introduced to the House of Commons by Mr. George Hastings, in which it was proposed to render the notification of infectious disease compulsory on the medical attendant of the patient. The meeting was addressed by Dr. William Carter of Liverpool, who was present by invitation, and who gave a very instructive statement of the grounds of objection to the proposed measure. After a discussion, the following resolution was adopted.

"That this meeting, while highly approving the principle of notification of infectious diseases, is strongly opposed to such duty being imposed on the medical attendant, and authorises the President to append his name to the petition against Mr. Hastings's Bill, drawn up by the Parliamentary Bills Committee."

The petition was accordingly signed by the President, and presented to the House of Commons by Lord George Hamilton, one of the members for Middlesex.

Your Council afterwards decided to hold a conference with the members of the Collective Investigation Committee and the Medical Officers of Health residing within the area of the Branch, to consider the means to be adopted to prevent the spread of infectious disease. The conference was held at the office of the Association, on June 15th. A discussion took place, principally bearing on the question whether the notification of infectious disease should be compulsory on the medical attendant. It was suggested that the conference should approve of the principle of the notification of infectious diseases by the householder or person in legal charge of the sick, under statutory obligations; and that such notification should be accompanied by a medical certificate. Much useful information was communicated on both sides; but it was found not yet possible to come to an agreement as to the most advisable plan of dealing with the matter. At the second reading of Mr. Hastings's Bill, the House was counted out; and your Council are glad to believe that there is not the least probability that it will become law during the present session of Parliament, and they trust that in future no attempt will be made to revive it in its present form, or to impose on the medical profession the compulsory performance, under penalties, of any duty which may be incompatible with the relations existing between them and their patients.

Medical Reform has received careful attention from your Council. At a meeting of Council, held on February 2nd, the President was authorised to address Lord Carlingford in favour of a Bill founded on the Report of the Royal Commission on Medical Reform. This communication was duly acknowledged by Lord Carlingford, who promised that it should receive consideration. At a meeting on April 27th, the President was authorised to sign a petition in favour of the Medical Act Amendment Bill, which had been introduced into the House of Lords by Lord Carlingford. On May 7th, the Council appointed a subcommittee, containing several members of the Branch not on the Council, to watch the progress of the Bill through Parliament, and to communicate with the Reform Committee of the parent Association, with the corporate examining bodies, and with the other Branches of the Association. This committee held two meetings, and agreed on endeavouring to obtain certain amendments of the Bill, which were submitted to Mr. Mundella by a deputation, consisting of the President of the Branch, the President-elect, and the two Honorary Secretaries.

Your Council also directed a letter, with a copy of a petition in favour of the Bill, to be sent to members of the medical profession resident within the area of the Branch. Nearly 4,000 letters were accordingly sent out; and several petitions from the locality have been presented to the House of Commons by the members for the Metropolitan Boroughs, and for Middlesex and Hertfordshire.

Early in the session, your Council appointed a subcommittee to consider the expenses involved in the office of President of the Branch. For several years, it has been the custom of the Presidents to hold an evening entertainment at the South Kensington Museum; the cost of which, amounting to at least £150 (and tending to increase), has been entirely defrayed by the President. The committee held several meetings, and, having carefully considered the subject, presented a report to the Council on April 27th. In the report, the subcommittee stated that the increasingly heavy tax on the President would, in their opinion, act prejudicially by preventing some of the members from accepting office; indeed, there was reason to believe that this had already been the case. They recommended that, should it be thought advisable to hold an annual entertainment, it should be paid for from the funds of the Branch, supplemented, if necessary, by an extra subscription. The Council adopted the report of the committee; and at the same time specially requested the President and President-elect to refrain from giving an entertainment at South Kensington at their own expense. The Council also desired the subcommittee to consider whether it would be advisable that the Branch should hold an entertainment at its own expense; and, if so, what would be the best way of raising the necessary funds. No further steps have as yet been taken; but your Council recommends the subject for future consideration.

The result of the voting for the election of officers and members of Council is as follows. *President:* Charles J. Hare, M.D. *President-elect:* Charles Macnamara, Esq. *Vice-Presidents:* Sir Edwin Saunders; John M. Burton, Esq.; Thomas Bridgwater, M.B.; J. Braxton Hicks, M.D., F.R.S. *Treasurer:* Walter Dickson, M.D. *Secretaries:* Alexander Henry, M.D.; William Chapman Grigg, M.D. *Eighteen Ordinary Members of Council:* J. Wickham Barnes, Esq.; Henry T. Butlin, Esq.; W. F. Cleveland, M.D.; George Cowell, Esq.; John Croft, Esq.; Frederick H. Daly, M.D.; Arthur Edis, M.D.: Clement Godson, M.D.; Alexander Grant, M.D.; John T. Griffith, M.D.; S. O. Habershon, M.D.; Stephen Mackenzie, M.D.; F. A. Mahomed, M.D.; W. J. Mickle, M.D.; A. B. R. Myers, Esq.; W. M. Ord, M.D.; T. Gilbart Smith, M.D.; J. Burney Yeo, M.D. *Representatives in the General Council of the Association:* Thomas Bridgwater, M.B.; W. H. Broadbent, M.D.; George D. Brown, Esq.; T. Lauder Brunton, M.D., F.R.S.; Thomas Buzzard, M.D.; R. E. Carrington, M.D.; Sidney Coupland, M.D.; Charles Davidson, Esq.; Walter Dickson, M.D.; Charles Drage, M.D.; J. Matthews Duncan, M.D.; Arthur W. Edis, M.D.; Stamford Felce, M.R.C.P.Ed.; George P. Field, Esq.; Clement Godson, M.D.; James F. Goodhart, M.D.; S. O. Habershon, M.D.; H. Nelson Hardy, Esq.; Charles J. Hare, M.D.; Ernest Hart, Esq.; Alexander Henry, M.D.; Graily Hewitt, M.D.; William Hope, M.D.; Sir William Mac Cormac; Charles Macnamara, Esq.; F. A. Mahomed, M.D.; Alfred Meadows, M.D.; W. J. Mickle, M.D.; Edward Nettleship, Esq.; George W. Potter, M.D.; F. T. Roberts, M.D.; Joseph Rogers, M.D.; Sir Edwin Saunders; George H. Savage, M.D.; Richard Shillitoe, Esq.; Septimus W. Sibley, Esq.; Sir W. R. E. Smart, M.D., K.C.B.; William Squire, M.D.; A. P. Stewart, M.D.; J. Knowsley Thornton, M.B.; Frederick Treves, Esq.; E. H. Vinen, M.D.; Frederick Wallace, Esq.; Edward Woakes, M.D.; John Wood, Esq., F.R.S.

In conclusion, your Council congratulates the Branch on the good work which it has done during the year, which has been more than usually eventful. In framing a plan for the improved representation in the Council of the Association; in taking measures to aid in the useful work of Collective Investigation of Disease; in supporting, while not unmindful of improvements in, the Medical Act Amendment Bill; in resisting the Bill for the Notification of Infectious Diseases; and in the mutual communications at the District meetings; the Council feels that the Branch has acted for the advantage of the Association and the good of the medical profession.

Dr. J. T. GRIFFITH proposed, Dr. E. H. VINEN seconded, and it was resolved:

"That the Report of Council now read be received, adopted, and entered on the minutes."

Treasurer's Report.—Dr. WALTER DICKSON, Treasurer, presented the balance-sheet for the year. The receipts, including a balance of £39 11s. 7d. from last year, amounted to £150 19s. 1d.; and the disbursements to £120 6s. 1d.; leaving a balance of £30 13s.

Sir EDWIN SAUNDERS moved, Mr. F. WALLACE seconded, and it was resolved:

"That the Treasurer's Report now read be received, adopted, and entered on the minutes."

Dr. BRIDGWATER then briefly addressed the members present, thanking them for the support he had received during his year of office, and resigned the chair to his successor, CHARLES J. HARE, M.D.

Vote of Thanks to the Retiring President.—Dr. CLEVELAND proposed, Dr. PRIDHAM seconded, and it was unanimously resolved:

"That the cordial thanks of the Branch be given to Dr. Thomas Bridgwater for the able and courteous manner in which he has performed the duties of President during the past year; and for his constant attention to the interests of the Branch and of the profession."

President's Address.—The PRESIDENT, Dr. HARE, delivered an address on "Good Remedies out of Fashion." It is published at p. 151.

Mr. WILLIAM ADAMS proposed, Dr. W. G. WALFORD seconded, and it was unanimously resolved:

"That the best thanks of the Branch be given to Dr. Hare for his able and instructive address."

Dinner.—The members afterwards dined together, Dr. HARE in the chair. Dr. Strange, President of the Association, Professor Humphry, Dr. Chadwick, Dr. Bagshawe (President of the South-Eastern Branch), Dr. J. M. Bryan, Mr. Frederick Mason, and several other members of the Committee of Council and Presidents of Branches, were present as guests.

NORTHERN COUNTIES OF SCOTLAND BRANCH: ANNUAL MEETING.

THE twentieth annual meeting of this Branch was held in the Caledonian Hotel, Inverness, on July 11th, under the presidency of Dr. RANALD MCCALLUM of Ullapool.

Officers and Council.—The following office-bearers were chosen for next year. *President:* Ranald McCallum, L.F.P.S. (Ullapool). *President-elect:* Duncan McIntyre, M.D. (Fort William). *Vice-Presidents:* G. Forbes, M.D. (Fochabers); W. Bruce, M.D. (Dingwall). *Honorary Secretary and Treasurer:* J. W. N. Mackay, M.D. (Elgin). *Members of Council:* C. Adam, M.D.; A. Butler, M.B.; R. Craig, M.B.; Ogilvie Grant, M.B.; J. J. Ross, M.D.; G. Whyte, M.D. *Representatives in the General Council:* Ogilvie Grant, M.B,; R. McCallum, L.F.P.S.; and the Honorary Secretary.

President's Address.—The President delivered an interesting address on Cases in his own Practice.

New Members.—The following were elected: Dr. A. Cameron, Glenlivet; Dr. McLachlan, Beauly; Dr. W. K. Gibson, Inverness; Dr. T. A. Sellar, Ballindalloch; Dr. C. McKenzie, Tain; Dr. J. Walker, Kingussie.

Collective Investigation.—The next matter brought before the society was the work done in reference to the Collective Investigation Committee. In explaining this, Dr. Aitken, the President of the Sub-branch of the Western District, in comparing the returns made by this Branch of the society, showed that the proportion, taking the number of practitioners as a standard, was higher than in many of the larger and more populous centres. The Secretary, Dr. Grant, had also issued cards to medical men, non-members of the Association, but no replies had been obtained from them: a matter of regret, for such replies would be of great importance as showing the variation of diseases in districts almost uninfluenced by the modern elements of life. The importance of the inquiry was evidenced by Germany preparing to take it up; and the little that was known about disease was illustrated by taking pneumonia as an illustration, regarding the etiology of which so little definite had been ascertained. Every one also entering into the investigation would be doing good service, and aid either in confirming facts that were true, or excluding facts that were doubtful, and thus aid in putting the science of medicine on a more satisfactory basis.

Strangulated Congenital Inguinal Hernia.—Dr. MCNEE read a paper on strangulated congenital inguinal hernia of the left side in a young man of twenty-three, in which it was found impossible to return the bowel into the abdomen after the sac was freely opened, and no other cause of constriction could be found. The appearances were so deceptive, that it was thought, before death, that adhesions existed between the bowel and surrounding parts; but *post mortem* examination (the man having died about thirty hours after the operation) showed no adhesions, but that the cause of strangulation was a loop of bowel folded upon, or rather twisted upon, itself. The question of abdominal section was discussed at the time of the operation, but circumstances led to its being abandoned. The result of the *post mortem* examination showed that it was very doubtful whether it could have been of any benefit should it have been resorted to.

Rupture of the Heart.—Dr. OGILVIE GRANT read a paper on two cases of rupture of the heart. The rupture in both cases was situated in the left ventricle, and took place at a time when there was no marked physical effort or mental excitement.

Hysterical Apnœa.—Dr. D. S. McDONALD read a paper on a case of hysterical apnœa.

Dinner.—Afterwards, the members present dined together. It was agreed that the next meeting should be held at Elgin in July 1884.

GLASGOW AND WEST OF SCOTLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held in the Faculty Hall, Glasgow, on Friday, June 29th. In the absence of Dr. GEORGE BUCHANAN, President, the senior Vice-President, Dr. B. GOFF, took the chair; this he afterwards vacated in favour of Dr. MARSHALL, the President-elect.

Report of Council.—The report of Council, which was then read, showed that the membership of the Branch remained nearly the same from year to year, being now just over 130. The accounts, from the date of the late Dr. Lyon's resignation till the date of the annual meeting, were audited by Drs. Frew and Marshall. On July 18th of last year, a Collective Investigation Committee was appointed in connection with the Branch, to work along with that in London; of this Committee, Dr. Napier is Convener.

Financial Statement.—From the financial statement submitted by Dr. CHRISTIE, it appeared that the balance left to the credit of the Branch amounted to £58 14s. 4½d.

Officers and Council.—The following officers and Council were elected:—*President-elect:* James B. Russell, M.D. *Secretaries:* J. Christie, M.D.; A. Napier, M.D. (in place of Joseph Coats, M.D., resigned). *Council:* R. Renfrew, M.D.; A. Wallace, M.D.; W. A. Wilson, M.D. *Representatives in the General Council of the Association:* Thomas Barr, M.D.; Joseph Coats, M.D.; James Finlayson, M.D.; W. Frew, M.B.; T. Brown Henderson, M.D.; D. C. McVail, M.B.; and A. Wallace, M.D.

Medico-Ethical Committee.—Dr. GOFF reported, on behalf of this Committee, that no case had come before it. The Committee was reappointed.

President's Address.—The PRESIDENT delivered a most interesting address on "The Influence of Language on Medical Thought and Practice." On the motion of Dr. NAPIER, a vote of thanks was awarded to the President for his address.

Collective Investigation Committee.—Dr. NAPIER gave in the report of this Committee. Thirty-seven investigation-cards had been returned, and forwarded to London; namely, on acute pneumonia, seventeen; chorea, three; acute rheumatism, thirteen; diphtheria, four.

Discussion on Acute Pneumonia.—A discussion on acute pneumonia was introduced by Dr. A. NAPIER, and shared in by Dr. Renfrew, Dr. Frew, and Dr. McVail.

Movable Kidney.—Dr. D. NEWMAN read a communication on this subject.

Invitation of the Association to Glasgow.—Dr. CHRISTIE gave notice of the following motion for the annual meeting of the Branch to be held in June 1884; viz.: "That the Glasgow and West of Scotland Branch of the British Medical Association invite the British Medical Association to hold their annual meeting—fifty-third, fifty-fourth, or fifty-fifth, as may meet the arrangements of the Association—at Glasgow."

Dinner.—The Branch dined at the Bath Hotel, at 6 P.M. The President, Dr. Marshall, was in the chair.

SHROPSHIRE AND MID WALES BRANCH: ANNUAL MEETING.

THE annual general meeting of the Shropshire and Mid Wales Branch of the British Medical Association, took place at the Salop Infirmary, on Tuesday, July 3rd, 1883: EDWYN ANDREW, M.D., president, in the chair. Forty-five members were present. The president of the Birmingham and Midland Counties Branch, Dr. Balthazar Foster, and Mr. Spanton, of Hanley, were also present.

Officers and Council.—The following were elected. *Vice-President:* William Bowen Davies, Esq., Llandrindod Wells. *Representatives of the Branch on the General Council of the Association:* J. R. Humphreys, Esq., Shrewsbury; S. T. Gwynn, M.D., Whitchurch; W. Eddowes, Esq., Shrewsbury; A. Strange, M.D., the Asylum, Bicton. *Honorary Secretaries:* Edward Cureton, Esq., and Arthur Strange, M.D. *Members of the Branch Council:* W. Eddowes, Esq., Shrewsbury; S. Tayleur Gwynn, M.D., Whitchurch; J. D. Harries, Esq., Shrewsbury; J. R. Humphreys, Esq., Shrewsbury; J. Rider, Esq., Wellington; H. J. Rope, Shrewsbury; W. H. O. Sankey, M.D., Borcatton Park; E. S. Scott, Esq., Shrewsbury; A. Strange, M.D., Bicton, Shrewsbury; E. Tredinnick, Esq., Craven Arms.

New Members.—The following gentlemen were elected as members of this Branch: J. E. Brooks, Esq., Ludlow; F. J. Hart, Esq., Much Wenlock; T. J. Hughes, Esq., Church Stretton; A. Jackson, Esq., Shrewsbury; M. Long, M.D., Ludlow; S. Mackey, Esq., Baschurch, Salop; A. G. Mackenzie, Esq., Much Wenlock; W. Rhodes, Esq., Bridgnorth; T. L. Brown, Esq., Shifnal; J. W. Riley, Esq., Pontesbury, Salop; G. G. Whitwell, Esq., Shrewsbury; T. L. Webb, Esq., Ironbridge; W. A. Sankey, Esq., and W. H. O. Sankey, M.D., Borcatton Park.

Report of Council.—The following report was read. The Council have the satisfaction of reporting to the annual meeting the continued growth and prosperity of the Branch. They regret to have to report that nine gentlemen have resigned the Branch, nearly all of them on account of having left the neighbourhood, and that two have been removed by death. On the other hand, the Council have the pleasure to report that four gentlemen have joined the Branch since the last annual meeting, and that there are fourteen gentlemen seeking election to-day. In all, there are at present eighty-six members. The Branch Council l ave met three times during the year. There has been one quarterly meeting of the Branch, held at Whitchurch, on March 29th, the members, to the number of twenty-one, being most hospitably entertained by Dr. Gwynn, prior to the meeting. The finances of the Branch are in a satisfactory condition, showing a balance of £29 2s. 5d.

President's Address.—Dr. ANDREW, the president, delivered an interesting address, in which he referred to the apathy shown by country practitioners in important questions bearing on their own interest; and their neglect to avail themselves of the excellent machinery provided by the Branch to improve their social position. He pointed out that it was the duty of all members to promote the prosperity of the society by recording their experiences for the benefit of others, and, above all, upholding professional union, so as to render the British Medical Association a real power in the State.

Papers, etc.—The following communications were made.

1. Dr. Alfred Eddowes read a paper on the Relation of Measles, Scarlatina, and Rötheln to each other; narrating an extensive epidemic of the latter disease which had lately occurred in his practice. A discussion followed; and subsequently Dr. Thursfield, referring to several fatal cases which had been registered as rötheln, subsequently appeared in the official returns as measles, proposed, "That the members of the Shropshire and Mid Wales Branch of the British Medical Association respectfully beg to recommend to the Registrar-General the desirability of including in the future mortality-returns a heading for fatal cases of the disease generally known as German measles; and they would beg to suggest to him the term 'rubella' as a suitable designation for the disease in question." This proposition was seconded by Mr. Edward Cureton, and on being put to the meeting, was carried.

2. Mr. W. B. Rigby read the notes of a fatal case of Puerperal Peritonitis.

3. Mr. C. A. Corke read a paper on the use of Papain as an adjunct in the Treatment of Diphtheria.

4. The President related a case in which he had performed Gastrostomy.

5. The President opened a discussion as to the Value of Nutritive Enemata. Dr. Foster spoke as to the value of them in cases of obstinate vomiting, gastric ulcer, and stricture of the œsophagus, remarking that, sixteen years ago, he published the first paper in the English language on nutritive enemata.

6. Dr. Andrew showed a peculiar case of Skin-disease, which, in the opinion of the members present, was allied in its characters to Rupia.

7. Mr. Eddowes showed a case of Excision of the Knee-joint, in which the ligamentum patellæ was preserved intact.

Dinner.—The members afterwards dined together at the Raven Hotel, when the usual loyal and other toasts were proposed and duly honoured.

WEST SOMERSET BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the White Hart Hotel, Martock, on Thursday, July 12th, at 3.15 P.M. Seventeen members attended.

After a few words from the retiring President, Mr. OLIVEY, the President for the year, J. D. ADAMS, M.D., took the chair, and in a happy speech proposed a vote of thanks to Mr. Olivey for his ser-

vices in presiding over the Branch during the year now ended, which was carried by acclamation.

Letters from several members, regretting their unavoidable absence, were submitted.

Report of Council.—The report of Council, as follows, was read.

In placing before the Branch a retrospect of its proceedings during the past year, your Council feel that it should be their first duty to mention the very great satisfaction and pleasure which was expressed by those who had the advantage of being present at the last annual meeting, which was held at North Curry, In every way, the meeting was a success. Socially, it left nothing to be desired; while, professionally, an admirable address, touching especially upon endemic diseases of the district, was delivered by the President, Mr. Olivey; and communications were made of an interesting and instructive character; also a choice selection of instruments, drugs, etc., from Ferris and Co. of Bristol, was exhibited.

The communications on that occasion were: a paper by Dr. Cordwent, on an Outbreak of Typhoid Fever; Two Cases of Bright's Disease, of which morbid preparations were shown, by Mr. Hensman; and a curious case of the pretended passing by a woman of calculi, which proved to be flint-pebbles, by Mr. Nash.

The autumnal and spring meetings were held at Taunton as usual, and were attended by the average number of members. At the former, the question of the Treatment of Acute Rheumatism, and, at the latter, the Doses of Certain Drugs, were discussed. The following communications were also made at those meetings:

A paper by Dr. Cordwent, on the Pathological Phenomena of Acute Rheumatism, and the relation of these to certain drugs. A paper by Mr. Wm. Liddon, on Congenital Malformation of the Œsophagus, a *post mortem* specimen of which was shown. A paper by Mr. Prideaux, on a Case of Large Polypoid Tumour of the Rectum, complicating delivery. A Case of Syphilitic Endocarditis, and the patient shown, by Mr. Hensman. An exhibition of Bacillus Tuberculosis, by Mr. Prideaux; and an exhibition of Plaster-of-Paris Splints, with a demonstration of their mode of manufacture, by Mr. Rigden.

At the spring meeting, Mr. Sincock of Bridgwater read a paper advocating the formation of a Medical Benefit Society in conjunction with the British Medical Association, and a resolution was unanimously passed by the meeting approving of his suggestion.

A special general meeting of the Branch was held in December last, to consider a letter from Mr. Wheelhouse, President of the Committee of Council of the Association, on the question of the representation of the Branches on the Committee of Council—a subject upon which a good deal of dissatisfaction had been expressed in some of the larger Branches.

The meeting considered that no change in the existing laws was required, and a reply to Mr. Wheelhouse's letter to that effect was agreed upon; but, as Dr. Kelly intimated that he was unable, from the state of his health, to attend the meetings of the Committee of Council (which are generally held in London), the meeting thought it would be desirable to appoint a second honorary secretary, whose sole duty it should be to act as representative of the Branch at the Committee of Council. It was resolved to take this matter into consideration at the spring meeting, which was done accordingly; when Mr. Prankerd of Langport, who, it was ascertained, was often in London, and could attend, was appointed a second honorary secretary, to act as representative of the Branch on the Committee of Council.

Petitions in favour of the Medical Act Amendment Bill, which has lately passed the House of Lords, were sent up from this Branch in April last, as well as one which was forwarded direct from your Council.

By the treasurer's accounts, it will be seen that he has a balance in hand to the credit of the Branch of £6 8s. 5d.

The number of members on the list at this time is 56, as against 57 last year. There has been one death, that of our late associate Dr. Wybrants, who held the office of coroner in the eastern division of the county, and was much esteemed in that district.

Your Council venture to suggest that the collective investigation of disease has hardly received the attention from members of this Branch which it deserves; very few cards have been filled up and sent in to the honorary secretary; and your Council would urge upon the members the desirability of aiding to the utmost this most valuable inquiry, which is pregnant with great results if diligently and carefully worked.

Treasurer's Accounts, audited by Mr. Rigden, were laid before the meeting.

It was proposed by Dr. MEREDITH, seconded by Mr. GEORGE NORRIS, and resolved:

"That the report of Council and the treasurer's accounts be received and adopted, and that the best thanks of this meeting be given to the Council for their report, and to the treasurer for his statement of accounts."

Next Annual Meeting and President-elect.—It was proposed by Dr. ADAMS, seconded by Mr. RIGDEN, and carried *nem. con.*,

"That the next annual meeting be held at Wiveliscombe, and that George Norris, Esq., be President-elect."

Mr. NORRIS returned thanks, and in expressing his sense of the honour done to him, he also showed that he was fully sensible of the high objects to be aimed at by the Branch and the Association.

Intermediate Meetings.—It was proposed by Dr. PRIDEAUX, seconded by Mr. TODD, and resolved:

"That the Council be requested to arrange for holding the autumnal and spring meetings as usual."

Council.—The Council was settled to consist of the following: *President:* Dr. Adams. *Past-President:* Mr. Olivey. *President-elect:* Mr. George Norris. Two honorary secretaries (to be now appointed); and six elected members, viz., Dr. H. J. Alford, Mr. Randolph, Mr. Sincock, Dr. Prideaux, Surgeon-Major Hensman, and Mr. Todd (the three latter being elected in the place of Mr. Alford, Mr. Prankerd, and Dr. Winterbotham, who went out in rotation).

Secretaries and Treasurer.—It was proposed by Dr. ADAMS, seconded by Mr. ALFORD, and carried unanimously.

"That Dr. Kelly be honorary secretary and treasurer, and that Mr. Prankerd be the second honorary secretary, to act on the Committee of Council and on the Parliamentary Bills Committee of the Association, as representative of this Branch, for the ensuing year.

President's Address.—The President delivered an address, in which, after some general remarks appropriate to the occasion, he read an instructive and suggestive paper touching the cause of periodicity in certain diseases, and the occurrence of a daily cycle in the human system, and concluding with the suggestion that some practical application might be made in reference to the treatment of disease by the observance of these conditions.

Vote of Thanks.—A very cordial vote of thanks to the President for his address was moved by Mr. OLIVEY, seconded by Dr. MEREDITH, and carried by acclamation.

Communication.—A short paper by Dr. Cordwent was read by the secretary on the question—is the "Fashion" of leaving Heads of new-born Infants uncovered, or unsuitably covered, justifiable?

Inspection of Martock Church, etc.—Before dinner most of the members inspected the very handsome church and other interesting objects in the remarkably pretty town of Martock.

Dinner.—A party of eighteen partook of an excellent dinner, and the usual toasts were drunk afterwards.

The meeting may be marked as one of the most successful ever held.

NORTH OF ENGLAND BRANCH: ANNUAL MEETING.

THE nineteenth annual meeting of this Branch was held in the Library Lecture Theatre, Fawcett Street, Sunderland, on Thursday, July 30th. Forty members were present. As the retiring President, Dr. Embleton, was unable to be present at the opening of the meeting, Dr. Eastwood introduced the President-elect, Dr. DIXON, who took the chair.

President's Address.—Dr. DIXON, after thanking the members for electing him to the honourable position of President, delivered a very able address, in which he dealt with the origin and history of the British Medical Association; and made special reference to the part played by the Association in relation to medical reform.

Votes of Thanks.—On the motion of Mr. MORGAN, seconded by Mr. G. W. BROADBENT, a hearty vote of thanks was accorded to Dr. Dixon for his address.

Dr. PHILIPSON proposed, and Dr. MORISON seconded, the following resolution, which was carried by acclamation: "That the warmest thanks of the meeting be given to Dr. Embleton, the retiring President, for his valuable services during the past year.' Dr. Embleton thanked the members for the resolution

A similar vote of thanks was passed in favour of the Council of Management, and other officers of the Branch; it was proposed by Professor BRADY, and seconded by Dr. DOUGLAS.

Report of the Council.—Dr. DRUMMOND read the following report.

In presenting the nineteenth annual report, it is once more the privilege of the Council of Management to congratulate the members upon the prosperous condition of the Branch. During the past

year, twenty new members were elected, four have resigned, one has left the district, and death has carried off five; so that, at present, the Branch consists of 245 members. The five members deceased are Messrs. Henry Brady, Doyle, Goyder, Hope, and R. W. Smith.

The Treasurer's statement for the year is extremely satisfactory; it shows a balance in favour of the Branch of £79 18s. 7d.

The meetings held by the Branch during the past twelve months were as follows: the annual meeting at Newcastle, the autumnal meeting at Durham, and the spring meeting at Bishop Auckland. At the autumnal and spring meetings, both well attended, an interesting series of papers was read, out of which several very profitable discussions arose. The Council desire to tender their sincere thanks to those members who read papers, and otherwise aided in making the meetings a success.

The Council, through their representative on the Parliamentary Bills Committee, have been apprised, from time to time, of the important measures before Parliament. The Council beg to avail themselves of the opportunity to call the attention of members to the work of collective research at present being pursued by the Association; already the local secretary has, through the zeal and kindness of members, been enabled to forward to London many valuable observations on the different subjects selected for collective investigation.

On the motion of Drs. MUNRO and DAVIS, the report was adopted.

Officers and Places of Meeting for 1883-84.—Dr. EASTWOOD proposed, and Dr. MURPHY seconded, the following resolution, which was carried unanimously: "That the next annual meeting be held at Barnard Castle, the autumnal meeting at West Hartlepool, and the spring meeting at Newcastle-on-Tyne; and that Dr. Munro of Barnard Castle be the President-elect, Dr. Drummond the Honorary Secretary; and Drs. Barron, Eastwood, Foss, Oliver, and Philipson, and Messrs. Middlemiss and Williamson, the Council of Management." On the motion of Dr. ADAMSON, seconded by Dr. LYON, the following gentlemen were unanimously elected to represent the Branch on the General Council of the Association: *Northumberland.*—Drs. Embleton, Maclagan, Oliver, and Philipson. *North Durham.*—Drs. Barron and Dixon, and Messrs. Broadbent and Morgan. *South Durham.*—Drs. Eastwood, Fielden, Foss, and Munro. On the motion of Mr. WILLIAMSON, seconded by Mr. MIDDLEMISS, Dr. Philipson was again selected to represent the Branch on the Parliamentary Bills Committee.

Dinner.—The members and their friends dined in the Empress Hotel, Sunderland; about fifty sat down to dinner. Dr. Dixon occupied the chair, and Dr. Drummond the vice-chair.

SOUTH WALES AND MONMOUTHSHIRE BRANCH ANNUAL MEETING.

THE annual meeting of this Branch was held at the hospital, Swansea, on July 4th. EVAN JONES, Esq., the retiring President, took the chair, and briefly introduced the President for the year, EBENEZER DAVIES, Esq., of Swansea.

A Vote of Thanks was unanimously accorded to the retiring President for his services during the past year, on the motion of Mr. J. G. HALL, seconded by Mr. TALFOURD JONES.

Report of Council.—Dr. SHEEN read the following report.

The Council of the South Wales and Monmouthshire Branch begs to submit to you its thirteenth annual report. It would, first of all, lay stress on the fact that the number of members in the Branch is only 170, being a slight increase over 1881-82. In a Branch covering so extensive a district as ours, our numbers ought to be very much larger, and your Council desires to urge each member to use his influence with his friends, who are not yet members, to induce them to join our ranks. The larger our Association becomes, the more powerful will it be for all important medical interests, as they affect the public health and our own professional standing and welfare.

Since our last annual gathering at Cardiff, two meetings have been held—one at Aberdare, and one at Bridgend—at both of which various matters of professional interest were discussed.

During the year, several matters of deep importance to the profession and the Association have come to the front, and your Council would make a few remarks on some of them.

1. *The Medical Act Amendment Bill* has passed through the House of Lords, and now awaits discussion in the Commons. This important Bill has been ably drawn, and most favourably received by the profession; and it behoves us to do what we can, both collectively and individually, to facilitate its becoming law during the present session. It secures uniformity of examination for licence to practise, direct representation of the profession on the Medical Council (although the extent of this is not so great as it should be), and better education for the student. In one point it is weak, namely, in its penal clauses. The legal profession is much more strictly safeguarded than our own is in this direction; why should this be? We think it should be made penal for anyone but a registered medical practitioner to practise for gain. Although Mr. Mundella declines to accept such a principle, it is most important that a clause should be introduced into the Bill which shall secure this—not so much in the interests of the profession as in the interests of the laity, and the poor more especially, whom, in such a serious matter as the treatment of disease, it is the duty of the State to protect. On this, and some other points in the Bill, one of your honorary secretaries, Dr. Sheen, has had several communications with Dr. Waters, chairman of the Medical Reform Committee, and this Committee has had an amendment put on the paper which would secure protection in this direction. We can only hope that it may be adopted, if the Bill reaches the Committee of the House of Commons.

2. *The Constitution of the Executive of the Association* is a question of importance which has been fully discussed by the Committee of Council and the Council. Your Council has not been idle in this matter. It held a meeting in December last, when certain principles were laid down, and it is satisfactory to note that the whole of these principles have been adopted. They are mainly—

a. The constitution of the executive body by members directly elected by the Branches themselves in proportion to their numerical strength.

b. The abolition of the Council of the Association.

c. The payment of the travelling expenses of the elected representatives out of the funds of the Association.

At a meeting of the Council of the Association held in Birmingham in May last, these principles were all but unanimously adopted, and the whole matter will be dealt with at the forthcoming annual meeting at Liverpool.

With reference to the third point, it is recommended that first-class railway fares be paid. Your Council would suggest that this is going too far; it thinks that second-class railway fare only should be allowed.

Further, your Council is of opinion that the Honorary Secretary should still remain an *ex officio* member of the executive body if he chooses to act. If this is otherwise, he may be, in some instances, placed in an invidious position.

3. *Medical Benevolent Fund.*—The success of your adoption of the plan of inviting each member to contribute £5 a year towards this fund still continues, and will probably result this year in a sum of nearly £40. It is to be wished that the Branches generally would imitate us in this matter, and then we should see fewer of those piteous appeals which appear from time to time in the medical journals.

4. *The Medical Benefit Society* is a scheme which is being discussed in the JOURNAL. It is to be hoped that some such society, on a sound basis, may soon be established, and that all the younger members of the profession, and those who, in life-assurance parlance, may deem themselves "good lives," will at once send in an intimation of their willingness to join such a society. For the rest of the profession, those who know that they are not "good lives," they must endeavour to make provision for themselves and their families in some other way.

Meeting of the Association at Cardiff in 1885.—One important matter which will come before you for discussion to day is the proposal to invite the Association to hold its annual meeting at Cardiff in 1885, with Dr. Edwards as President-elect. Your Council thinks that there can be no question of the desirability of such an invitation. If this be so, the only important question is the financial one. A good deal of money will have to be forthcoming. Your proposed president-elect is generously inclined, but such generosity will have to be supplemented by £400 or £500 if the meeting is to be a success. It is probable that an invitation will also go up to the Association, at its meeting at Liverpool, from the Town Council of Cardiff; as our associate, Dr. Taylor, who is a prominent member of that body, has given notice of a resolution to that effect.

Appended herewith is a statement of account, which shows a balance in hand of £18 17s. 7d. as compared with £19 4s. 4d. at the last annual meeting.

The meetings for the year 1883-84 will be held in the following places: autumn, Newport; spring, Llanelly; annual, Cardiff.

It was moved by the PRESIDENT, seconded by Mr. EVAN JONES,

and carried unanimously, "That the report of Council just read, with the statement of account, be received, adopted, and entered on the minutes."

Officers and Council.—The following were elected. *President-elect:* Alfred Sheen, M.D., Cardiff. *Members of Council:* Messrs. J. G. Hall, George A. Brown, Pearson R. Cresswell, and T. J. Webster. *Honorary Secretaries:* A. Sheen, M.D., Cardiff, and D. Arthur Davies, M.B., Swansea. *Representatives on the General Council:* Messrs. Evan Jones; T. D. Griffiths, M.D.; J. L. W. Ward; Eben. Davies; T. J. Webster; Jabez Thomas; E. R. Morgan; H. N. Davies; Dr. Sheen, honorary secretary.

New Members.—Messrs. E. N. Davies (Cymmer), and D. B. Marsh (Newport) were elected members of the Association, and the former of the Branch as well.

Address of President.—The President delivered an address entitled, "Remarks on Current Medico-political Questions."

A Vote of Thanks was unanimously accorded to the President for his thoughtfully written address.

Invitation to the Association to Hold its Annual Meeting in 1885 *at Cardiff.*—It was moved by Mr. TALFOURD JONES, M.B., seconded by Mr. R. H. LEIGH, and carried by acclamation: "That the South Wales and Monmouthshire Branch invite the British Medical Association to hold its annual general meeting in 1885 at Cardiff, and that Dr. W. T. Edwards of Cardiff be nominated for election as President for that year." Towards the expenses, nearly £400 was promised in the room, including £200 from Dr. Edwards.

It was resolved unanimously that the following members be a deputation to attend the annual meeting of the Association at Liverpool this year, and offer the above invitation: Dr. Edwards; Messrs. Evan Jones; Eben. Davies; T. D. Griffiths, M.D.; J. L. W. Ward; T. J. Webster; Jabez Thomas; E. R. Morgan; H. N. Davies; A. Davies, M.D.; W. Taylor, M.D.; P. R. Cresswell; Talfourd Jones, M.B.; and Dr. Sheen, honorary secretary.

Papers.—The following papers, etc., were read.

1. J. Farrant Fry (Swansea): Notes of a Case of General Lymphosarcoma, with Specimens.

2. E. Rice Morgan (Moniston): Notes on a Case of Loose Cartilage in the Knee-Joint.

3. D. Arthur Davies, M.B. (Swansea): Specimens of Loose Cartilages from Knee-Joint.

4. Dr. Sheen (Cardiff): On a Recent Epidemic of Traumatic Tetanus.

5. Dr. Griffiths (Swansea): An Ovarian Tumour Removed from a Child aged 5.

6. The PRESIDENT showed a child severely burnt on the buttocks by being placed in a gas bath, the gas not having been turned off.

Dinner.—The members, to the number of about forty, dined together at the Mackworth Arms Hotel.

YORKSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting was held at the Firth College, Sheffield, on June 27th, 1883, under the presidency of Dr. KEELING. About seventy members were present.

President's Address.—The PRESIDENT read an address, which has already appeared in the JOURNAL.

Mr. S. HEY proposed, and Mr. KNAGGS seconded, a vote of thanks to the President, which was carried unanimously.

Report of Council.—The SECRETARY read the following report.

The Council of the Yorkshire Branch feel that they can congratulate the members on the fair success which has attended the carrying out of two resolutions passed at the last annual meeting, held at Leeds. The local secretaries of the Collective Investigation Committee, and especially Dr. Barrs, have worked well and successfully; and it is believed that, in the coming record of the year's transactions, Yorkshire will be found to have contributed its share to the important work carried on by that Committee.

The appeal on behalf of the British Medical Benevolent Fund has resulted in the raising of £15 in 5s. subscriptions, and it is believed that no material damage has been done to the regular annual subscriptions. The Council have to regret the serious loss which the Branch has sustained, since its last annual meeting, in the much to be lamented death of Dr. Shann. A new mode of procuring the more thorough representation of the Branches has been carefully considered, and approved of at a special meeting of the General Council of the Association, and will be submitted to the members at the annual meeting to be held in Liverpool in August. It is to be hoped that not the least of the advantages which such a change would secure to the Branches, will be that the unattached members will join their respective Branches. The Parliamentary Bills and Reform Committees have, as usual, been very active; and the latter, with its chairman, Dr. Waters, may be congratulated upon having been mainly instrumental in getting through the House of Lords a Medical Reform Bill satisfactory to the profession. It is hoped that the present session will see it safely passed through the House of Commons. The Parliamentary Bills Committee have been particularly energetic during the last year, having had under consideration the Sanitary and Police Bill (Scotland), the infectious diseases question, the vaccination question, and many others. The number of members of the Branch is the same as last year; and the balance in favour of the Branch is £40 12s. There are numerous unpaid subscriptions. The Council recommend the members to accept the invitation so cordially given from Huddersfield, with Mr. Knaggs as President-Elect.

The report was adopted, on the motion of Dr. LEAK and Dr. LITTLE.

Next Annual Meeting: Officers and Council.—The next annual meeting was fixed to take place at Huddersfield; and Mr. Knaggs was nominated President-elect. Mr. Arthur Jackson was re-elected Secretary and Treasurer.

The following Council, with fourteen permanent Vice-Presidents, were elected: *York:* Mr. Jalland. *Bradford:* Dr. Goyder, Dr. Rabagliati. *Sheffield:* Dr. Banham, Dr. Dyson. *Rotherham:* Mr. Knight. *Halifax:* Mr. Dolan, Dr. Britton. *Leeds:* Mr. Scattergood, Mr. E. Atkinson. *Wakefield:* Dr. Holdsworth. *Huddersfield:* Mr. Knaggs. *Heckmondwike:* Dr. F. B. Lee. *Barnsley:* Dr. Sadler. *Scarborough:* Dr. Hutchinson. *Ripon:* Mr. Bowman. *Harrogate:* Dr. Ford. *Pontefract:* Dr. Muscroft. *Representatives in the General Council.*—Dr. Allbutt, F.R.S.; Dr. Eddison; Mr. Favell; Dr. Holdsworth; Dr. Keeling; Mr. Knaggs; Dr. Matterson; Dr. Meade; Dr. Myrtle; Mr. T. P. Teale; Mr. Wheelhouse; Mr. J. H. Wright.

New Members.—Mr. F. J. Burman (Wath-on-Dearne), Mr. T. B. Crosse, and Dr. R. S. Walton (Scarborough), were elected members of the Association and Branch.

Communication.—The following communication were made:

Mr. Snell exhibited several ophthalmic cases.

The following papers were read:

Dr. C. F. Hutchinson: The Convalescent Institutions of Scarborough.

Dr. Barrs: Tabetic Disease of the Hip-joint—Charcot.

Dr. W. R. Thomas: On Obstinate Constipation.

Mr. Snell: Two Cases of Congenital Absence of Eyeball; in one, of both globes, and in the other, of one; and other cases of congenital eye and ear defects.

Dr. Little: Medical Rubbing *v.* Medical Electricity.

Mr. Pridgin Teale: Uterine Hæmorrhage arrested by Rapid Dilatation of the Os and Cervix, and the application of Carbolic Acid.

Luncheon and Dinner.—The President (Dr. Keeling) gave a luncheon to the members at the Wharncliffe Hotel, before the meeting. The members dined at the same hotel afterwards.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, July 23rd.

Factories and Workshops Act Amendment Bill.—On the motion of Earl GRANVILLE, this Bill was read a third time.—On the motion that the Bill do pass, the Earl of WEMYSS proposed to add to subsection 3 of Clause 7, as an amendment, the following proviso:—"Provided always that this subsection shall not apply to adult labourers employed in whitelead factories." The Bill entered into details in an unprecedented manner. It prescribed that the workmen in the factories to which it would apply must wear certain articles of dress, wash at certain times, and drink certain liquors. Non-compliance with the regulations laid down, would render a man liable to a fine of £2, and in default to imprisonment. It should be noted that by a disregard of the rules in the Bill, a workman could only jeopardise his own health, and could in no way harm that of the community.—Earl GRANVILLE said that there were clearly cases in which it was within the province of the State to prevent a man from becoming, not only a burden to himself, but a burden to others, and, in his opinion, the case with which the Bill dealt was one of them. That the proposed regulations were necessary, was proved in many ways. He had received a copy of the finding of a coroner's jury in the case of a woman whose death was ascribed to the result of a neglect of such regulations as the Bill

would enforce. The regulations to which the noble lord objected were observed in all the best factories already; and the Home Office authorities had sent a copy of the Bill to every employer engaged in the particular trade to which it referred, and not one objection had been made to it. Though the noble lord proposed to exclude men from the operation of the subsection, he would permit its application to women. That, in his opinion, was hardly a fair distinction. He hoped their lordships would reject the amendment. The House divided, and the numbers were—for the amendment, 11; against, 36. Majority, 25. Some verbal amendments were then agreed to, and the Bill was passed.

Army Hospitals.—Lord BURY called attention to the report of the Committee on Army Hospital Services, and to the evidence given before that Committee, which he relied on as justifying him in moving that, while recognising the admirable behaviour of the individual medical officers in Egypt, discipline in army hospitals ought to be administered by combatant officers, leaving to the medical officers medical duties only; also that medical officers ought to be attached to regiments.—Lord MORLEY, who had been Chairman of the Committee, explained the nature of their recommendations. He stated that the Committee were unanimously of opinion that there should not be a double control in the army hospitals, that there should be only one control, and that it should be in the hands of a medical officer. Admitting defects in the present system, he failed to see how the means proposed by the noble lord would remove those defects.—The Duke of RICHMOND and GORDON thought that of all changes made in the army of late years, the worst were those in respect of the medical officers. He concurred with all the military witnesses examined before the Committee, that the medical officers ought to be attached to regiments as they had been formerly.—The Duke of CAMBRIDGE was unable to concur with the Under Secretary for War. He thought that the old system of regimental medical officers was better than the present one of having only surgeons at stations. At present the army surgeons learnt hospital discipline, but not military discipline, and the latter as well as the former was essential for them in time of war. He would combine the station system with the regimental system, and though he would not go the length which Lord Bury proposed, he would have the discipline in large military hospitals administered by military men. After some further conversation, the motion was withdrawn.

HOUSE OF COMMONS.—Monday, July 20th.

The Brighton Board of Guardians.—Mr. P. A. TAYLOR asked the Secretary of the Local Government Board whether he was aware that the Board of Guardians at Brighton were, in contravention of the instruction of the Local Government Board, prosecuting persons who refused to have their children vaccinated, time after time for the same child, and that within the last few days several distraints upon their goods, in such cases, had taken place? and whether he proposed to take any steps in the matter.—Mr. RUSSELL said that the Board had no information as to the facts. They had communicated with the Guardians, and were informed by them that they were unable, at present, to furnish the required information, owing to the temporary absence, on sick leave, of the vaccination officer. The Board had forwarded to the Guardians a copy of the letter, which was addressed to the Guardians of the Evesham Union, setting forth the consideration which ought, in the Board's opinion, to be weighed by the Guardians in determining the question of repeated prosecution under the Vaccination Acts.

July 23rd.

The Army Hospital Corps.—Baron H. DE WORMS asked the Secretary for War whether it was the fact that, when a man of the Army Hospital Corps contracted an infectious or contagious disease, in consequence of his nursing patients suffering from such disease, he was deprived of his extra pay, and was made subject to hospital stoppages while he was being treated in hospital, though the disease had been contracted in the execution of his duty.—The Marquis of HARTINGTON said that men of the Army Hospital Corps were liable to stoppages under the circumstances named, on the general principles that special pay for duty could not be issued except for the performance of the duty, and that all soldiers were liable to hospital stoppages unless in hospital on account of wounds received in action, or of illness contracted on a service with an army in the field. The question of relieving men of the Army Hospital Corps from these stoppages had frequently been considered, but a difficulty had hitherto been felt in treating them differently from other corps. He would, however, look further into the matter.

Surgeon E. R. Corbin.—Mr. TOTTENHAM asked the Secretary of State for War whether he would state under what circumstances Surgeon E. R. Corbin was removed from the Militia force in the Island of Guernsey on May 24th last; whether his resignation dated May 21st was received by the Lieutenant-Governor previously to the order being made for his removal; and whether it was competent for the Lieutenant-Governor of Guernsey to dismiss an officer summarily from the Militia, without a court-martial, or the previous approval of the Secretary of State.—The Marquis of HARTINGTON said that Surgeon Corbin was removed from the Guernsey Militia by the Lieutenant-Governor for an act of insubordination committed on May 18th. The Lieutenant-Governor did not receive Mr. Corbin's resignation, and he appears to have acted within his powers.

The Cholera.—Mr. ONSLOW asked whether there was any truth in the report that a British soldier had died of cholera, and what arrangements had been made for sending out doctors to Egypt.—Lord E. CECIL asked the Under-Secretary for Foreign Affairs whether the alarming accounts in the *Times* as to the ignorance, apathy, neglect of sanitary precautions, and hostility of the Egyptian authorities were correct; whether the administrative anarchy reported from the interior was beyond credence; and what further steps the Foreign Office were taking to force the Egyptian Government to take more active steps in putting a stop to a state of things at once dangerous and discreditable.—Lord E. FITZMAURICE said that Sir Edward Malet had requested the Egyptian Ministers at Cairo to associate with them Generals Stephenson, Wood, and Baker, to form together a commission with full power to order and execute measures to be taken against cholera. Twelve English medical officers were being selected for service in Egypt, and would proceed this week to Cairo. The Viceroy of India had also been asked to despatch, if the Egyptian Government required them, forty experienced Mahomedan hospital-assistants for general cholera duty.—The Marquis of HARTINGTON had received a telegram, dated the 23rd inst., from the General Officer Commanding at Cairo, in which he stated: "Black Watch moved to Camp near Suez 20th. One fatal case cholera eighteen hours after arrival; a second case just reported, doing well. General health of troops as last telegram." An additional number of doctors had been sent out, and more were under orders to go.—Mr. ONSLOW asked whether all the medical men who were being sent out had had practical experience of cholera in the East.—Lord E. FITZMAURICE said that the advice of Sir Joseph Fayrer had been taken, and no appointment would be made without his approval. He believed he might say that all, or nearly all, the medical men who were being sent out had had extensive Indian experience.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Ardwick and Ancoats Dispensary.—Dental Hospital.

THIS useful institution which, next to the Royal Infirmary, is the largest medical institution in the city, is languishing for want of funds. The debt is now £800, and is increasing at the rate of £400 *per annum*. The committee desire to abolish the existing debt, and to raise an endowment fund of £10,000. The total number of patients attended to last year was 6,520, including 2,953 accidents. There is accommodation for 40 beds, but at present only 8 can be used. There are several wards empty, and even those in use are only meagrely furnished. Considering its position in the midst of a populous and poor neighbourhood, it well deserves the support of the wealthy and affluent.

Up to the present, there has been no special dental institution in the city, but the want is being supplied. New premises for this purpose have been opened in Grosvenor Street, and the Earl of Crawford and Balcarres has undertaken the position of president. The Rev. G. M. Burton, M.D., rector of All Saints, is the chairman of committee, and Dr. Lloyd Roberts, the consulting physician; Mr. Hardie, the consulting surgeon; and Dr. Fairclough, the anæsthetic-administrator. The institution is to be supported by voluntary contributions, and its main object is to afford the poorer classes gratuitous advice in all cases of diseases and irregularities of the teeth. It is also intended to be a school for practical dental surgery, open to all students of dentistry, under such regulations as shall be determined by the committee.

It is to be hoped that it will be the aim of the Board of Management to work in unison with Owens College, so that a flourishing school of dentistry might be established for this populous district.

CORRESPONDENCE.

REPRESENTATION IN THE COUNCIL AND GENERAL PRACTITIONERS.

SIR,—My attention has been directed to the letter of Dr. P. M. Braidwood in a recent number of the JOURNAL, in which he urges the election of general practitioners in the Council of the Association. I have the fullest sympathy with this demand, and I can conceive no reform more likely to ensure such elections than that embodied in the proposed new by-laws recommended by the Council and the Committee of Council for adoption at Liverpool. When they become law, it will rest with the Branches of the Association to elect the members of the new Executive Council. This new Council will, through its individual members, be directly responsible to the Branches; and surely these bodies, composed, as they necessarily are, mostly of general practitioners, will elect many general practitioners to govern the Association. The introduction of the principle of direct representation of Branches on the Executive, and the responsibility which it will throw on every member of the Association to take an interest in its management and in its policy, will go far to remove the grievance of which Dr. Braidwood writes. Under the new by-laws, it will at all events be the fault of the members generally if "the high class general practitioners, the best of men, are miserably represented in the central and Branch Councils of the British Medical Association."—I remain, yours truly,

Birmingham, July 23rd, 1883. BALTHAZAR FOSTER.

THE MEDICAL PROVIDENT SOCIETY.

SIR,—A meeting to discuss the necessity of forming a medical provident society was held in Manchester, on Monday last, July 23rd; Dr. Lloyd Roberts occupying the chair.

It was the unanimous opinion of the meeting that such an association would be of great benefit to the profession generally, and suggestions were made as to how a society of that kind could best be established.

The resolutions that were adopted by the meeting, I am requested to state, will be duly placed before the general meeting of the Association at Liverpool, on August 2nd, by Dr. Lloyd Roberts, or Dr. Brierley.—I am, sir, yours truly, WM. WALTER, M.D.

20, St. John Street, Manchester, July 24th, 1883.

THE following is an additional list of the names of gentlemen who have signified their desire to become members of the Medical Provident Society, in response to the circular issued on June 9th.

R. J. Collie, M B.; H. B. Carter, Esq.; Joseph Davies, Esq.; W. H. Emmett, Esq.; E. W. Foster, Esq.; G. H. Fitzgerald, M.D.; J. W. Gooch, Esq.; A. Hamilton, Esq.; T. E. Haywood, M.B.; A. Haig, M.B.; C. Hartley, Esq.; W. C. James, M.D.; S. J. J. Kirby, Esq.; R. A. Lundie, M.B.; J. F. Pollock, M.B.; S. Rees-Philipps, M.D.; F. M. Skues, M.B.; B. L. Tandy, Esq.; J. M. C. Todd, M.D.; E. J. Wood, M.B.

OBITUARY.

ALEXANDER PATRICK STEWART, M.D., F.R.C.P.

A FACE, long familiar to the visitors at the annual meetings of the British Medical Association, will be missing next week. One of our most esteemed and influential members and valued friends, Dr. A. P. Stewart, has ceased from his labours. For some time he had been in failing health, being the subject of cardiac disease, and died on Tuesday the 17th instant. On the previous Wednesday he had attended the quarterly meeting of the Committee of Council, of which he was for many years a member.

Dr. Stewart was born in August 1813, and was, therefore, nearly 70 years old at the time of his death. His father, the Reverend Dr. Stewart, minister of Bolton, East Lothian, commenced his career as a physician, and gained considerable reputation by his successful treatment of consumption by a nutritive and supporting course of medicine and diet. After he had left the medical profession and entered the Scotch ministry, he was consulted by the late Lord Blantyre in the case of his daughter, the Honourable Miss Stuart. The Rev. Dr. Stewart cured her, and afterwards married her. By her he had three sons: the Reverend Dr. Robert Stewart, who gave up his manse at the disruption of the Scotch kirk, and is now Presbyterian minister at Leghorn; Dr. A. P. Stewart; and David Stewart, who became an army surgeon, and lost his life during the Afghan war in 1841.

The subject of this memoir was, before he entered on the study of medicine, a student in the Faculty of Arts of the University of Glasgow, and there received a sound classical education. Among his fellow-students at the time was the late Dr. Tait, Archbishop of Canterbury. Having subsequently gone through the curriculum of medical study, he graduated in the same university as Doctor of Medicine in 1838. After this, he studied for about a year and a half in Paris and Berlin. Having returned, he commenced practice in 1839 in Maddox Street, Hanover Square, from which place he removed in 1845 to the house in Grosvenor Street, which he continued to occupy up to the time of his death.

His first public appointment was that of Physician to the St. Pancras Royal General Dispensary. In 1850, he was appointed Assistant-Physician to the Middlesex Hospital; and in 1855 became Physician. He resigned office in June 1866, and was afterwards appointed Consulting Physician to the Hospital. During the greater part of the time of his connection with the hospital, he was also Lecturer on Materia Medica and Therapeutics in the medical school attached thereto.

In 1855, Dr. Stewart was elected a Fellow of the Royal College of Physicians of London; and in 1867, on the occasion of the visit of the British Medical Association to Dublin, the honorary fellowship of the King and Queen's College of Physicians was conferred on him. He was a Fellow of the Royal Medical and Chirurgical Society, in which he held for some time the office of Librarian and Vice-President; and was also a member of the Clinical Society and of the Anthropological Institute.

Dr. Stewart became a member of the British Medical Association in 1853, and was one of the oldest members of the Metropolitan Counties Branch, which was then formed. On the Council of this, he occupied a seat for the long period of twenty-nine years. After serving for a few years as an ordinary member of Council, he was, in 1858, when it was determined to appoint an additional secretary, chosen as the colleague in office of the late Dr. Ogier Ward. He performed the duties of his office in a characteristically conscientious and able manner until 1874, when he retired. On his resignation, the Council of the Branch unanimously passed a resolution thanking him for his valuable services, "which had tended greatly to the present satisfactory condition of the Association." Immediately afterwards—it being part of the business of the meeting to nominate the officers for the ensuing year—Dr. Stewart was unanimously nominated as President-elect. He, however, declined the office, stating, in a letter to the President, that, while thanking the Council for the honour they wished to confer on him, he must ask them to confer a favour on him by allowing him to decline the proffered honour, which, he said, "is scarcely more exempt from burdens and anxieties than active service." His decision was accepted with regret; but throughout the remainder of his life it was the desire of many to see him in the presidential chair of the Branch—which would have, indeed, been an honour to that body. He was several times spoken to on the subject, and last year the chair was again formally offered to him; but he steadfastly persisted in declining the offer. In the mean time, he retained his seat in the Branch Council as one of its most valued members. On his first refusal of the office of President, he was appointed an ordinary member of Council. In 1878, when the number of Vice-Presidents was increased from two to four, he was one of the first appointed, and was re-elected to the same office the next two years. He afterwards again became an ordinary member of Council, finally retiring, in consequence of the termination of his period of office, at the recent annual meeting. As honorary secretary to the Branch, he occupied for many years a seat on the Councils of the Association. After his retirement, he was for several years one of the elected representatives of the Branch in the Council, by which he was on many successive occasions returned as a member of the Committee of Council.

On his retirement from the office of honorary secretary to the Metropolitan Counties Branch, a number of Dr. Stewart's friends and colleagues determined on presenting him with a testimonial, in recognition of his great services to the medical profession and the public during his term of office. A committee, consisting of some of the leading members of the Association, as well as of the Branch, was formed for the purpose. The sum of about £500 was raised; of this, part was expended on the purchase of a dinner and a breakfast service, with a coffee-pot, the latter having the inscription: "To Alexander Patrick Stewart, M.D., the gift of members of the British Medical Association. 1875." The presentation was made

in June, 1875, at a meeting attended by many of the metropolitan and provincial members of the Association, held at the house of the then president of the Branch, Mr. Curling. Of the total amount raised, the sum of £400 was, at the next meeting of the Committee of Council, presented to the Association by Dr. Stewart, through Dr. Sibson, who had acted as treasurer to the testimonial fund, for the purpose of forming "a fund for the recognition and encouragement of important researches into the origin, spread, and prevention of epidemic disease." This generous offer was at once gratefully accepted, and steps were taken for the formation of a scheme for the administration of the fund. At the general meeting of the Association in Edinburgh in the following August, a special vote of thanks was given to Dr. Stewart for his gift. The first award under the provisions of the scheme of administration was made last year, when, at the jubilee meeting of the Association in Worcester, the sum of fifty guineas was presented to Dr. Vandyke Carter, of the Indian Medical Service, for his recently published work on *Spirillum Fever*.

Besides being a member of the Committee of Council, Dr. Stewart was for many years a member of the Medical Reform Committee of the Association. In the subject of medical reform, he had long taken an active interest; having been, while yet in the University of Glasgow, president of a society of students of that institution, formed for the purpose of promoting reform in our medical organisation. He was a firm and steady supporter of the great principles which the Association has for many years endeavoured to carry out, especially the direct representation of the profession on the General Medical Council.

He was also an assiduous promoter of sanitary reform. An indication of this has already been given, in the reference to his presentation of a prize for the investigation of epidemic diseases. He was for many years one of the secretaries of the joint committee of the British Medical and Social Science Associations, formed in 1868 for the purpose of promoting reform in sanitary legislation.

This brief record of his public work may be summed up by saying, that there was no movement for the promotion of the advantage and utility of this Association, or for the benefit of the profession and the public, in which he did not take part.

Dr. Stewart's contributions to medical literature were neither numerous nor voluminous; but they were always characterised by a sound comprehension of the subject on which he wrote, and by a plain and clear style. His first essay is, however, in itself sufficient to make a reputation. In an article he published in the *Edinburgh Medical and Surgical Journal* in 1840, was the first in this country to point out the distinction between typhus and typhoid fevers. In this paper, he gave the conclusions at which he had arrived after a careful study of the phenomena of the two diseases in the Glasgow Fever Hospital and in Paris. His researches were first communicated to the Parisian Medical Society in April 1840. The essay is thus spoken of by Dr. Murchison in his classical work on *Continued Fevers*: "Dr. Stewart described in a masterly manner the leading distinctions between 'typhus' and 'typhoid' fevers as regards their proximate causes, course, symptoms, and anatomical lesions; and he supported his views by a statistical analysis of cases of both fevers. He pointed out more accurately than any previous observer the differences of the eruptions; and he remarked that the characters of the two diseases, when taken collectively, were 'so marked as to defy misconception, and to enable the observer to form with the utmost precision the diagnosis of the disease and the lesions to be revealed by dissection.'.....The facts and arguments advanced in his memoir forced upon him the conviction that the two fevers were 'totally different diseases.'" He may thus be regarded as the real founder, in this country, of a doctrine which has since become universally accepted; although the names of other eminent men have become more prominently associated with it. His essay is one which it would be interesting to see reprinted; and we would suggest that the New Sydenham Society should publish it in one of their volumes of collections of writings of authors who have passed away. He also contributed to the *Medical Times and Gazette*, in 1854, a paper on Cholera in the Middlesex Hospital; and, in 1866, he published, in the *Transactions* of the Social Science Association, an article on the Medical Aspects of Sanitary Reform. Two papers on sanitary matters were read by him before the Metropolitan Counties Branch. One, read in 1867, on the Working of some Provisions of the Laws relating to Public Health, contained a large amount of laboriously collected and systematically arranged treatment, and was printed as a pamphlet for distribution. In 1871, he read before the branch another paper on Sanitary Science, as viewed by the joint Committee of the British Medical and Social Science Associations, the Royal Commission, and the Government. His latest contribution was a paper published in this JOURNAL, in March 1882, on Homes for Convalescents from Scarlet Fever. He was also an occasional contributor on subjects in practical medicine to the medical periodicals.

Like all men, Dr. Stewart had his failings; but the excellence of his character, his strict conscientiousness and honourable integrity, gained for him the respect of all, and the friendship of many; and all who enjoyed his personal friendship felt it an honour and an advantage to be the companion of such a man.

In what spirit he undertook his work, was well expressed by himself on the occasion of the presentation of the testimonial to him in 1875. "I have long been accustomed to consider service as its own reward.....Feeling, as I do, that the servant should not be above his master, I have always looked upon service rendered to my fellow-men, after the example of Him who went about doing good, much less as a duty than as a privilege." It was not simply the conscientious desire of performing, as he best could, the duty entrusted to him, but also the desire to find opportunities of doing good, that was his ruling motive. With this were combined a careful judgment and a clear and comprehensive manner of expressing his ideas; and all these qualities, moral and intellectual, gained respectful attention to all that he had to say on any occasion. It may safely be said, that no member of the Association has ever won for himself, among his fellow-members, more attached friends, or more sincere admirers of his character, both public and private, than our departed colleague.

Dr. Stewart was never married. In religion, he was a member of the Scotch Presbyterian Church, of which he was an elder. He was deeply religious—one who would have been described of old as "a devout man, fearing God;" and, as has already been intimated, his religious feeling was a guiding principle in his work.

His funeral took place on Monday last at Highgate Cemetery. Among the mourners were his colleagues in the work of the Association and attached friends, Dr. Chadwick and Dr. Edward Waters. The Metropolitan Counties Branch, which he had long and well served, was represented by the past and present presidents (Dr Bridgwater and Dr. Hare), the treasurer (Dr. Walter Dickson), and the honorary secretaries (Dr. Henry and Dr. Grigg). Many members of the Council of the Branch, and other members of the profession, also attended at the cemetery to pay their last tribute of respect to their friend and fellow-worker.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE WESTMINSTER UNION.

WE have already commented on the misconduct of the Master of the Westminster Union, in respect to whom charges were proved convicting him of serious irregularities in the course of his work: These irregularities were of a kind which ought to be most seriously regarded, and we have no hesitation in expressing the opinion that the Board of Guardians are grievously wanting in their duty to the sick poor in not calling upon that officer to resign. This also is the opinion of the Poor-law Board, who have intimated to the guardians that they only abstained from calling upon the Master for his resignation in deference to the wishes of a majority of the Board—a deference which we cannot but think unfortunate and misplaced. The investigation conducted by Mr. Headly was carried on with such an obvious leaning on the part of that official towards the Master as to direct the attention of impartial lookers-on, and to excite unfavourable comment. The facts proved, however, are such as might well shake the confidence of the guardians; but what the animus of a strong party in the Board is in the matter may be seen in the fact that, in place of calling upon the Master to resign, they have turned upon their medical officer, Dr. Joseph Rogers, and proposed to vent their wrath, not upon the guilty, but upon the innocent. They seem to think that the fault is not in doing wrong, but in being found out; and they propose to banish one who has protected the

sick poor consistently throughout the whole of a noble career, and who, on this, as on previous occasions, has not feared to do his duty to those confided to his charge under circumstances of the greatest discouragement, and in the face of open abuse. The course which the guardians have pursued is calculated to bring local institutions into contempt. We earnestly hope that steps will be taken by the Local Government Board which will make these gentlemen understand that it is their duty not to protect the wrong-doer, and to insult, annoy, and injure the officer who has detected the wrong and stood up for the right. We can, we believe, confidently look to the President of the Local Government Board to see that justice is done in such a case.

MEETING OF POOR-LAW MEDICAL OFFICERS.

A MEETING of the Poor-law medical officers will be held at the College, Shaw Street, Liverpool, on Thursday next, the 2nd August, at one o'clock in the afternoon. At this meeting, Dr. Norman Kerr will move the following resolutions:

"That in view of the very large proportion of pauperism produced by intemperance, and the disturbance and impairment of discipline where intoxicants are in use, this meeting notes with pleasure the greatly diminished consumption of intoxicating drinks in workhouses, and strongly urges on all Poor-law medical officers the propriety of prescribing as little intoxicating liquor as may be found compatible with the safety of the sick.

"That this meeting also is of opinion that no pauper should receive payment in intoxicating drink for work done, and that all parochial officials should have the option of a money-equivalent in lieu of an allowance of beer or other intoxicating beverage.

"That this meeting instructs the chairman to forward a copy of the above resolution to Sir Charles Dilke, M.P., the President of the Local Government Board, and to the medical and general press.

THE Local Government Board have reluctantly sanctioned the reappointment of the Medical Officer of Health for the Glanford Brigg Rural Sanitary District, at the reduced salary of £120, as mentioned in our last, but only for one year; and expressed their hope that the authority will, after that period, raise it again to £150.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 19th instant, viz.:

Messrs. Alfred Linnell, Towcester, F. B. W. Phillips, Brighton, M. P. Jones, L.S.A., Upper Lyde, Hereford, and H. J. Tresidder, L.R.C.P.Lond., West Dulwich, students of Guy's Hospital; C. L. Samson, Anerley, and C. P. Childe, Louthborough, Tunbridge Wells, of King's College; Arthur Hillaby, Pontefract, and W. A. Griggs, St. John's, S.E., of St. Bartholomew's Hospital; Gerald Callender, Rugby, of St. Mary's Hospital; H. H. Wigg, Adelaide, S. Australia, and S. N. Cardozo, L.R.C.P.Madras, of University College; C. C. Ellis, Oswestry, of St. George's Hospital; D. W. H. Llewellyn, L.R.C.P.Lond., Osborne Terrace, S.E., of St. Thomas's Hospital; and James Maughan, L.R.C.P.Lond., Liverpool, of the Liverpool School of Medicine.

The following gentlemen were admitted members on the 20th instant, viz.:

Messrs. G. D. Hunter, Cromwell Crescent, S.W., C. S. Robinson, L.R.C.P.Lond., Guernsey, and Edgar Beaumont, Upper Norwood, of St. George's Hospital; J. J. Powell, Launceston, Edward Wilson, Cheltenham, and A. A. Woodson, Sheffield, of University College; W. W. Floyer, Victoria Park, E., E. Edward Sharpley, Louth, Lincolnshire, A. W. Clark, Dorking, J. H. Cuolahan, Bermondsey, George Kendall, Clapham Road, and A. J. F. Brown, L.S.A., Rochester, of Guy's Hospital; H. B. Robinson, Lower Norwood, and C. D. Green, L.R.C.P.Lond., Shandeloes Road, S.E., of St. Thomas's Hospital; H. E. Powell, Hereford, and G. R. M. Wright, L.R.C.P.Lond., Walworth Road, S.E., of St. Bartholomew's Hospital; R. R. Williams, Llanberis, N. Wales, of King's College; and J. T. Lilburne, L.S.A., Duncrieve, N.B.

Five gentlemen passed in Surgery, and, when qualified in Medicine, will be admitted members of the College. One candidate was referred for three months, six for six months, and one for nine months.

The following gentlemen were admitted members on the 23rd instant, viz.:

Messrs. H. W. Allingham, Grosvenor Street, E. C. Arnold, Denbigh Place, S.W., C. E. H. Cotes, Hammersmith, Harry Potter, Denbigh Place, S.W., and H. A. Des Vœux, Kensington, of St. George's Hospital; F. N. Shillingford, Peckham, and A. S. Topham, Doddington Grove, of Guy's Hospital; H. A. Bredin, Liverpool, of the Liverpool School; F. P. Moline, Bristol, of University College; Robert Caldwell, Tavistock, of the Westminster Hospital; Stephen Paget, Harewood Place, and R. H. Wilkinson, East Dulwich, of St. Bartholomew's Hospital; J. A. Southern, Clapham Road, of St. Thomas's Hospital; H. F. Ilicwicz, L.S.A., Haverstock Hill, of the London Hospital; H. M. Sutton, L.S.A., Reading, of St. Thomas's Hospital; and W. H. Moore, of Guy's Hospital.

Eight gentlemen were approved in Surgery, and, when qualified in Medicine, will be admitted Members of the College. One candidate was referred for three months, and three for six months.

The following passed on the 24th instant, viz.:

Messrs. W. A. Evans, L.S.A., Manchester, William Thorburn, L.S.A., Rusholme, and Robert Jennings, L.R.C.P.L., Haslingden, of the Manchester School; E. J. G. Berkley, L.S.A., Hackney, and Ernest Atkins, L.S.A., Plumstead, of the Charing Cross Hospital; T. P. Gostling, L.S.A., Diss, and W. H. Brown, L.S.A., Bexley, of University College; A. J. Hubbard, L.S.A., Ladbroke Terrace, of St. Thomas's Hospital; A. T. Schofield, L.R.C.P.L., Cambridge Gardens, of the London Hospital; Joseph Walker, L.S.A., Kirkby, of the Liverpool School; and J. F. L. Whittingdale, B.A.Cantab., Ingleton, of the Edinburgh School.

Four gentlemen were approved in Surgery, and, when qualified in Medicine, will be admitted members of the College. Three candidates were referred for three months, five for six months, and one for twelve months.

The following passed on the 25th instant, viz.:

Messrs. E. S. Reynolds, L.S.A., Manchester, and F. W. Bennett, L.S.A., Leicester, of the Manchester School; P. J. Strathy, M.B.Toronto, of the Toronto School; Gaspar Griswold, M.D.New York, of the University of New York; Frank Broadbent, Collingham, of St. Bartholomew's Hospital; T. W. Aird, L.A.H.I., East India Road, of the Dublin and London Schools; P. W. Bassett-Smith, L.S.A., St. John's Wood, of the Middlesex Hospital; C. W. Cunnington, L.S.A., Devizes, of King's College; and W. H. Evans, L.S.A., Montagu Place, of University College.

Seven candidates were referred for six months, and one for three months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 19th, 1883.

Davidson, John Matthew, Jamaica Road, S.E.
Greet, Charles Harvey, Vernon Square, King's Cross Road, W.C.
Kirby, Alfred, Batchworth Heath, Rickmansworth.
Lilburne, James Thomas, Brunswick Place, N.W.
Nelham, Albert Edgar, Warwick Street, Pimlico.
Starr, William Henderson, Roseford Terrace, West Kensington Park, W.

The following gentleman also on the same day passed the Primary Professional Examination.

Cropley, Henry, London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH ASYLUM, Winson Green, Birmingham.—Clinical Assistant. No salary. Applications by August 5th.

BRIGHTON, HOVE AND SUSSEX THROAT AND EAR DISPENSARY, 23, Queen's Road, Brighton.—Honorary Assistant-Surgeon. Applications by July 29th.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Application by July 30th.

CITY OF COVENTRY.—Analyst. For each analysis, one guinea. Applications by July 30th.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications by August 6th.

CLIFDEN UNION.—Medical Officer, Dispensary District of Mishboffin and Shark. Salary, £100 per annum, and fees. Election on August 1st.

CORK DISTRICT LUNATIC ASYLUM.—Second Assistant to Resident Medical Superintendent. Salary, £100, with £50 in lieu of rations, per annum. Applications by August 6th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

DOWNPATRICK LUNATIC ASYLUM.—Assistant Resident Medical Officer. Salary, £100 per annum. Applications to the Resident Medical Superintendent by August 1st.

DOWNPATRICK UNION.—Medical Officer, Dispensary District. Salary, £115 per annum, and fees. Election on August 4th.

ENNISCORTHY DISTRICT LUNATIC ASYLUM.—Resident Medical Superintendent. Candidates must be qualified in medicine and surgery, and not be above 40 years of age. Applications to Under Secretary, Dublin Castle, by July 28th.

GLOUCESTER COUNTY ASYLUM.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 20th.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Junior Resident Medical Officer.—No salary. Applications to the Honorary Secretary, Medical Committee of the Great Northern Hospital, 23, Upper Berkeley Street, Portman Square, W., by August 20th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by August 4th.

HUDDERSFIELD INFIRMARY.—Two Junior House-Surgeons. Salary, £40 per annum. Applications by July 31st.

LEEDS SCHOOL OF MEDICINE.—Resident Curator. Salary, £80 per annum. Applications to Dr. Churton, Park Square, Leeds, by August 6th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to Robert Calder, Secretary, 4, Commercial Court, 17, Water Street, Liverpool, by August 15th.

ROYAL SOUTH LONDON DISPENSARY, St. George's Cross, Lambeth Road, S.E.—Honorary District Surgeons. Applications to Mr. Hentsch by July 31st.

SKIRLAUGH UNION.—Medical Officer. Salary, £24 per annum. Applications to Thomas A. McCox, Clerk to the Guardians, Beverley, by August 9th.

STRABANE UNION.—Medical Officer, Dispensary District. Salary, £145 per annum, and fees. Election on August 15th.

SUSSEX COUNTY HOSPITAL.—Dispenser. Salary, £75 per annum. Applications to the Committee of Management by August 1st.

WIRRAL CHILDREN'S HOSPITAL, Birkenhead.—Vacancy in the Honorary Acting Medical Staff. Applications to Mr. T. G. Carver, 15, Lord Street, Liverpool, by August 1st.

MEDICAL APPOINTMENTS.

BEEVOR, C. E., M.D.Lond., M.R.C.P., appointed Assistant-Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, *vice* P. Horrocks, M.D.Lond., M.R.C.P., resigned.

BENNETT, W. H., M.B., B.Ch., L.M.K.Q.C.P.I., appointed Resident Surgeon to the Derry City and County Infirmary, *vice* Fred. McNaught, L.R.C.P.I., resigned.

BOYD, J. C., M.B., appointed Surgeon to the Donegal County Infirmary, *vice* T. B. Barton, M.D., deceased.

BUTTERFIELD, H., M.R.C.S.E., appointed Medical Officer of Health for West Kent District.

COLLIER, W., M.B., appointed House-Physician to the Wolverhampton and Staffordshire General Hospital, *vice* E. W. Hope, M.B., resigned.

CRIPPS, C. C., M.B., appointed House-Surgeon to the London Lock Hospital, *vice* H. J. Dyson, M.R.C.S., resigned.

DICKSON, T. A., L.R.C.S.E., L.M., appointed Dispensary Surgeon to the Paisley Infirmary.

FENWICK, E. Hurry, F.R.C.S , appointed Assistant-Surgeon to the London Hospital.

GIDDINGS, W. K., M.R.C.P., reappointed Medical Officer of Health for the Calverley Urban Sanitary District.

GLANVILLE, G. G., M.P.S., appointed Dispenser to the Public Dispensary, 59, Stanhope Street, Clare Market.

GRANT, D., M.B., appointed Resident Medical Officer to the Manchester Royal Infirmary.

GRIFFITH, T. N., M.R.C.S., appointed Medical Officer to the Norwich Friendly Societies Medical Institute, *vice* W. Johnson, M.R.C.S., resigned.

GROVES, J., M.B., appointed Medical Officer of Health to the Rural Sanitary Authority of the Isle of Wight.

HARTLEY, J., L.R.C.P., appointed Medical Officer to the Alderbury Union. *vice* F. J. Hannan, M.D., resigned.

HAWKINS, F. H., M.B., appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest.

HERMAN, G. E , M.B., re-elected Examiner in Midwifery to the Royal College of Surgeons of England.

HERRINGHAM, W. P., M.R.C.S., appointed Casualty Physician to St. Bartholomew's Hospital, *vice* S. Nall, M.B.

HEYGATE, W. N., M.R.C.S., appointed Honorary Medical Officer to the Eastern Dispensary of Bath, *vice* F. K. Green, F.R.C.S., resigned.

HIME, T. W., M.B., appointed Medical Officer of Health to the Borough of Bradford, *vice* H. Butterfield, M.R.C.S.E., resigned.

HOPE, E. W., M.D., appointed Assistant Medical Officer of Health to the City of Liverpool.

HUGGARD, W. R., M.D., appointed Physician to the St. Pancras and Northern Dispensary, *vice* A. J. McC. Routh, M.B., resigned.

HUGHES, T. J., M.R.C.S.E., appointed Medical Officer and Public Vaccinator to the Workhouse, *vice* W. A. Wilding, L.K.Q.C.P.I., resigned.

KNOTT, S. J., M.R.C.S., appointed Physician to the St. Pancras and Northern Dispensary.

LAWFORD, J. B., M.D., appointed Registrar and Chloroformist to the Evelina Hospital for Sick Children, *vice* A. Newsholme, M.D., resigned.

LLOYD, J., F.R.C.S., appointed Honorary Surgeon to the Queen's Hospital, Birmingham, *vice* J. F. West, F.R.C.S., deceased.

TRUMAN, C. E., M.R.C.S., appointed Assistant Dental Surgeon to the St. Thomas's Hospital, *vice* J. W. Elliott, M.R.C.S., resigned.

WATTEVILLE, A. De, M.R.C.S., appointed Physician to the Electro-therapeutical Department at St. Mary's Hospital.

WEBB, M., M.B., appointed Resident Medical Officer of the Convalescent Hospital at Cheadle to the Manchester Royal Infirmary, *vice* D. Grant, M.B., resigned.

WHITE, Charles J., M.D., appointed Honorary Surgeon to St. Bartholomew's Hospital, Chatham.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BAILEY.—On the 24th instant, at 9, Cavendish Place, W., the wife of George Hewlett Bailey, of a daughter.

DAVIES.—July 3rd, at Jarrow-on-Tyne, Durham, the wife of Hugh Walter Davies, L.R.C.P., M.R.C.S.Eng., of a daughter.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY. .....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eve, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S , 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

Coroners and Medical Witnesses.

Sir,—I shall be glad of an opinion upon the following circumstances. An elderly man almost suddenly dropped down dead. His companion sent for me immediately. After my visit, the coroner was informed of the fact by telegram, and was told that a *post mortem* examination would be necessary. He telegraphed to me to make a *post mortem* examination, and to write to him the cause of death by the night mail. I replied by letter that I had made such an examination as directed, and that I was prepared to give the necessary evidence before the jury. The next morning he telegraphed to me to carry out his instructions, and reply, stating cause of death. I replied by telegram that I had made the *post mortem* examination, and should proceed in the regular course and give my evidence before the jury. He again telegraphed to say, that, as I refused to carry out his instructions, he should consider the question of my fee. To this I replied by letter, that it was not incumbent on me, as a medical man, to state the cause of death, except to a jury, and that I must remind him I had not received any official order, and that what had been done, was done upon the good faith of his position as coroner, and that I should be prepared to give the necessary evidence upon the receipt of my full fee. The coroner, before having received this reply, sent a message through the assistant overseer, to say that my fee of two guineas should be paid, at the same time giving an order for the man's burial. Upon this promise I gave a certificate of death. The case, however, was kept from a jury. This conduct upon the part of a coroner is, I believe, not uncommon. It has occurred to me before, but I have always regretted my acquiescence to it. It is not only the question of losing part of the fee, but an obvious principle is involved, and as I have reason to believe it was a matter of personal convenience to the coroner on this occasion, a different and more liberal course on his part might have been adopted. I shall be glad to hear any opinions about the matter.—Yours, etc.,

A Country Practitioner.

*** The coroner has a discretionary power as to the holding of inquests in cases of sudden death, but before he takes upon himself the responsibility of declining to hold a public inquiry into such cases, he must be very well assured that the death arose from natural causes. Such responsibility few coroners care to accept, and hence in every sudden and unexpected death it is not only the usual, but the most prudent course, to hold an inquest in due form. By so doing, all parties concerned have an opportunity of being heard, and the possible unpleasant suspicion that the coroner and the doctor, or the friends have "settled the case between them," is effectually dispelled. It is not unusual for a witness to withhold the giving of evidence until he is assured that his fees for so doing will be forthcoming. In the case in question, it was right to do so; more especially as the coroner is not empowered by law to pay any fee for making a *post mortem* examination, unless he has previously ordered it, and not even then unless an inquest is held. The telegram of the coroner was doubtless equivalent to his order, but as no inquest was held in the case, it would be interesting to ascertain from what source the coroner paid the two guineas for the *post mortem* and medical report. Possibly he has made some private special arrangements with the magistrates of the county, similar to those existing in Kent, by which *post mortems* and reports are paid for if ordered by the coroner, whether an inquest is held or not. We think it very undesirable that the practice of coroners should vary so frequently as it does, for were it more regular and precise, the difficulties mentioned in the letter could hardly have occurred.

A Quiver-full.

The Madrid *Estafette* states that a Spanish gentleman, Señor Lucas Nequeiras Saez, who emigrated from his native land to America seventy years ago, recently returned to Spain in a steamer of his own, and brought with him the whole of his family, which consists of no fewer than 197 souls, sons-in-law and daughters-in-law not included. Señor Saez has been three times married. His first wife had 11 children at 7 births, his second had 19 children at 13 births, and his third had 7 children at 6 births. The youngest of this family of 37 is aged 19; the eldest, who is 70, has 17 children, of whom the first-born is 47. Of Señor Saez's 23 sons, all of whom are living, thirteen are married, six are unmarried, and four are widowers; and of his surviving daughters, nine are married. The grand-daughters number 34, and of these twenty-two are married, nine are unmarried, and three are widows; and of the 45 grandsons, twenty-three are married, seventeen are unmarried, and four are widowers. There are also 45 great-granddaughters, and 39 great-grandsons, of whom three are married. Señor Saez has never tasted wine or any alcoholic liquor, and lives chiefly upon a vegetable diet, with but little salt. In spite of his 93 years, he is still hale and hearty, and makes a point of walking briskly for at least three hours every day. If such be the results of vegetarianism and temperance, we fear those doctrines are not likely to find many followers in countries where population is large, and employment scanty, as in Great Britain, for instance.

A Member should address his communications to the General Secretary and Manager, Francis Fowke, Esq., 161A, Strand, in whose department such matters lie.

Sea-Sickness.

Sir,—May I ask you to correct a misprint in my communication on the above subject, published in the last number of the Journal, p. 113. The fourth paragraph is obscure from "Now, if we follow this out," etc., down to "in other words, paralysed." What I meant to convey was that the sympathetic nerve was acting irregularly, governing, as it does, the power of absorption by the veins in the stomach; in the case of sea-sickness, it failed to do so, and absorption was held in abeyance, while secretion, which is governed by the action of the pneumogastric nerve, was acting normally.—Yours truly,

Gosport, July 23rd, 1883. R. Vacy Ash, M.B.

Cysticercus in the Eye.

Sir,—Concerning the case of cysticercus cellulosæ extracted by myself from the vitreous body, and quoted by Dr. Sinclair in the Journal for July 7th, the operated eye reads now Snellen 2/3, and sees Snellen XL at fifteen feet.—Very truly yours,

J. Hirschberg.

Berlin, N.W., 36, Karl Strasse, July 12th, 1883.

Dr. Mushet's Proposals at the Annual Meeting.

Sir,—In the Journal of last Saturday, Dr. Mushet gives notice that he will move three resolutions at the meeting in Liverpool. I think everybody must admit that these resolutions are of the most vital importance to the whole profession; to my mind, they are more important than all the other business put together. Dr. Mushet's proposals (carried out) would raise what the lawyers usually call "the humane profession" to a profession by which you could live, and be none the less humane; and there would be much less laughing by the public at "our prices." To put down all the advantages accruing from their adoption, would be to fill two or three pages of the Journal. It is the duty of every member of the Association to back up Dr. Mushet's proposals in every possible way. There can be no opposition to these resolutions. What must be the motives of any man who opposes them? I shall be curious to learn. The motives for their adoption must be apparent to all of the 20,000 men who are constantly having the "noble profession" thrust down their throats, whilst the pay is kept a long way from their pockets. Dr. Mushet's proposals must be carried out; and he will be a greater benefactor to his profession than Hunter was to the public.—I am, etc.,

Bolton, July 13th, 1883. Edward Sunderland.

Professional Etiquette.

Sir,—Would you kindly give me your opinion in the following case? I had a patient (eight months gone in pregnancy) with a whitlow on the end of her left thumb. I urged her to have it lanced on several occasions, pointing out to her most plainly the risk she was running of premature labour, blood-poisoning, and death, if she did not have it opened; but without avail. Erysipelas set in on the wrist and forearm. Matters became urgent. I again pleaded with her to have it opened, and that in the presence of her nurse and lodger, but without avail. I then suggested that this lodger's medical man, Mr. D., should see the case with me. This was on a Monday. In the middle of that day, I asked the patient's husband to call and ask Mr. D. to see his wife with me at six o'clock that evening, as I thought that time would be most convenient to Mr. D. I never heard from Mr. D.; but, on the following day (Tuesday), I passed the end of the street where my patient lived, and saw, opposite to her door, Mr. D.'s phaeton. I saw one or two more patients, and then returned home (my home is five minutes' walk from my patient's). To my surprise, I found Mr. D.'s phaeton outside, and Mr. D. in my consulting-room, just finishing a letter for me. He said that he had been to see Mrs. T., and that he had made several incisions in the arm, and given directions as to what was to be done. I mildly expostulated with him for having gone alone, and suggested that, as he had undertaken the case in my absence, he had better go on with it. To which he replied, that he was a "consultant" in the case, and had been called in "consultation," and should not go on with the case.

I should like to know whether Mr. D. was acting properly in going to see my patient in my absence, without sending me any notice, and lancing her arm and giving directions, without consulting me in any way whatever? We are both licentiates of the College of Physicians of London.—I am, etc.,

Truth.

*** Ere replying to the question submitted by "Truth," it may be well to note that, when "a second opinion" is desired in a case, it is better (indeed, the prescriptive custom) that the practitioner in attendance should communicate by note, or in person, with the proposed consultant, and arrange the time and place of meeting, rather than entrust a message to another, by whom a correct delivery is ever more or less uncertain and doubtful. Had such been done in the above case, it is more than probable that the necessity for "Truth's" letter would not have arisen.

Having suggested 6 P.M. as the hour for consultation—(it is scarcely necessary to state that, as a rule, it rests with the consultant, and not with the regular attendant, to fix the hour of meeting)—we assume that "Truth" was in attendance to meet Mr. D., and had, moreover, assured himself, by inquiry, that his message had been duly delivered. In such case, it would be the duty of Mr. D., as a simple act of courtesy to a brother practitioner who had sought his opinion, either to have met "Truth" in consultation at the stated hour, or to have sent him a verbal or written explanatory communication. To visit and operate upon the patient in the absence of, and without any communication with, the ordinary medical attendant, cannot be looked upon otherwise than unprofessional.

A Flagrant Case of Professional Advertising.

"Interesting to gentlemen. I, Dr. Daniel Sutherland, surgeon, at the New Medical Hall, 73. Jamaica Street, Glasgow, hereby intimate to all whom it may concern, that I have long studied and treated confidential complaints and weaknesses as a principal part of my practice, both here and in Edinburgh, though never formerly made known by advertisement, and it is possible this notice may be construed as a breach of professional etiquette; but I think it very pardonable when I consider the number of gentlemen constantly consulting me with their constitutions injured, and complaints aggravated, after being for months and years the dupes of quacks and druggists. I consider it a righteous necessity in the public interest to advertise the fact that a member of the profession proper devotes his time to the study and treatment of these special complaints. Gentlemen are, therefore, inexcusable if they fall into the hands of empirical pretenders. I make free to assure gentlemen entrusting me with their confidence, that they may rely upon the highest professional honour and skilled conscientious treatment, whether they visit me at 73, Jamaica Street, Glasgow, or communicate with me by letter, which will have my immediate attention.—I am, faithfully, Daniel Sutherland, licentiate of the Royal College of Physicians, licentiate of the Royal College of Surgeons; also of the Faculty of Physicians and Surgeons. For seven years councillor and trustee of the City of Edinburgh, and manager of the Royal Maternity Hospital, Edinburgh; president of the Scottish Christians' Evidence Society; medalist (Royal College Surgeons) 1867; awarded Queen's Prize (Science of Chemistry) Kensington Museum, 1868; public honours (Royal College of Surgeons) 1869, etc., etc."

The above is forwarded to us from the *Kilmarnock Herald* of July 20th, 1883.

If the colleges are to retain their place as heads of the profession, such an advertisement challenges their attention.

Flowers and Fruit for Hospitals.

Sir,—During the spring, summer, and autumn, many parishioners, through their clergy, collect and send flowers and fruit to the various London Hospitals. It is with much regret that I learn from a very active clerical donor, that, with rare exceptions, these offerings are not acknowledged. The hospital authorities cannot be fully aware that many little children take great interest in gathering for these distributions among their afflicted fellows, and perhaps even playmates. It would be sad if this outcome of love and sympathy were to be quenched by a want of ordinary courtesy on the part of the official recipients, especially when a simple post-card to the clergyman of the parish, or remitter, would be enough to acknowledge the gift, with proper grace.—I am, sir, yours faithfully,

F. H. Vertue.

Red House, Southwold.

Royal College of Surgeons of England.

The following questions were submitted to the candidates at the recent pass-examination for the membership of the College. A. *Surgical Anatomy and Principles and Practice of Surgery* (four questions at least to be answered, including one of the first two). 1. Describe the operation of enucleation of the eyeball; enumerate all the structures divided in its performance. 2. Describe an amputation a hand's breath below the knee-joint, and give the relative position of the structures seen on the face of the stump. 3. Mention the causes and describe the treatment of purulent discharge from the ear. 4. Give the various positions in the air-passages in which a foreign body may lodge; describe the symptoms and treatment in each case. 5. Define briefly the following terms: *a.* ranula; *b.* epulis; *c.* melanosis; *d.* Pott's disease; *e.* paraplegia; *f.* renal colic; *g.* staphyloma. 6. What are the causes, symptoms, and results of acute suppuration in the knee-joint? Give the treatment appropriate to its various stages. B. *Midwifery and Diseases of Women* (three questions to be answered). 1. How would you treat a case of labour rendered difficult by impaction of the breech? 2. What are the causes of rigidity of the os uteri during labour? How would you treat this condition? What is the lochial discharge? What are its characters in a natural lying-in? What alterations in it would you regard as indications of a morbid process? How would you treat the conditions in question? 4. What symptoms are commonly associated with retroflexion of the unimpregnated uterus? How would you treat this condition? C. *Principles and Practice of Medicine* (three questions, including No. 4, to be answered). 1. Describe the signs and symptoms of hydrothorax, and the points of distinction between it and conditions which may be mistaken for it. Mention the causes that give rise to it, and the treatment required in different circumstances. 2. Describe the symptoms and course of tubercular meningitis, and the pathological changes as observed after death. 3. Describe a fit of ague. What varieties of this disease are found in England? What is known as to the conditions in which it arises? What treatment is required? 4. Indicate the effects and uses of calomel, tartarated antimony, iodide of potassium, digitalis, colchicum, and ipecacuanha. Name the preparations of each and their doses.

The Parcels Post and the Carriage of Medicines.

Sir,—To anyone who has been seriously impressed with an idea, and has laid it before his fellows, it must always be a cause of wonder when he finds that his view of the matter is not shared in by others. Trying of late to conceive how it came that my late suggestion to your readers (that they should move the Postmaster-General, on behalf of the sick poor in country districts, to extend to packages of medicine the exemption he will extend to newspaper-parcels) elicited absolutely no response, I thought of only three possible explanations. The first was, that I resided in a part where the circumstances were wholly exceptional, and that elsewhere, country postmen were not employed in the same way as here to distribute medicine. The second was, that my brethren were indifferent because the matter did not directly affect themselves, although they knew it seriously concerned many of their patients as such; and though, if they would but see it, it must greatly embarrass themselves in their endeavours to treat the ailments of the outlying poor. Each of these explanations was equally incredible; and then a third occurred to me, that they had never thought about the question at all, perhaps did not even know of the threatened difficulty, and had never read my letter. This last solution is borne out by the appearance in your last issue of Dr. Myers's letter on the same subject; for it is evident that he, at least, overlooked mine in the Journal for June 9th. I hope that his letter, which I hail as being on exactly the same lines as my own, and as expressing his independent conviction that an otherwise just and reasonable restriction threatens to affect most unhappily the sick poor in country districts, may command more attention. I would wish, moreover, to lay before your readers why it is necessary that they should speak out, if the harm is to be prevented.

To see this, they have only to consider that the classes on whom this stroke will fall with greatest weight, are just those who have not the slightest chance or ability to stir in the matter for themselves. They are, and have always been, wholly outside the machinery of the body politic. They have thus no active interest in its operations, and they know, very few of them, what is being proposed by the legislature or executive; and, of a mere detail like this, they may be assumed to be in absolute ignorance. They have no means of, or training in, organising a self-defensive movement; they are without representatives, leaders, or organs; they have always been taught, by the forcible education of fact and practice, that it is theirs to be legislated for, and to be taken care of by their betters. If then, they do not know the mischief that is impending, and even did they know, they could do nothing to avert it. Does it not behove us, sir, who alone can duly estimate the trouble, toil, suffering, and possibly even death—all of them avoidable—that may follow in the wake of this proposed restriction, to bring the matter in its true light to the attention of the Postmaster-General?

"A Member" is mistaken in supposing that the conveyance of medicine by postmen is objected to. What it is proposed to discontinue is the permission, hitherto enjoyed by rural postmen, to carry parcels "outside the bag," *i.e.*, parcels which have not passed regularly through the post. The reason assigned is, that probably the regular post will furnish as heavy a load as the postman will be able to deal with. Another, I should think, would be the very fair argument, that every parcel carried "outside the bag" by the postman, would represent a loss to the Post Office. Mr. Fawcett proposes to exempt newspaper-parcels from this restriction; and I suggest that he should be induced, if possible, to extend a similar privilege to medicines sent out by the medical men of country districts to their patients.—I remain, yours truly,

Thos. M. Watt.

Hovingham, Yorks, July 2nd, 1883.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. Edward Goadby, Clifton, Yorkshire; The Hon. Secretary of the Tricycle Union; Dr. Imlach, Liverpool; Dr. Thorne Thorne, London; Mr. F. W. Lowndes, Liverpool; Mr. S. Nall, London; Dr. Styrap, Shrewsbury; Mr. J. Fletcher, London; Mr. C. Lowther Kemp, London; Mr. G. Ratcliffe Keeling, Junior; Dr. Needham, Gloucester; Dr. C. M. Thompson, Bombay; Dr. B. A. Duncan, London; Dr. G. C. Tayler, Trowbridge; A Senior; Mr. G. L. Webster, Bewdley; Mr. A. A. Tindall, London; Mr. Forster, Darlington; Dr. Grant Bey, Cairo; Dr. Greenhill, Hastings; Dr. G. de G. Griffith, London; Mr. J. Moore, London; Mr. E. B. Brodribb, Colne; Mr. E. White Wallis, London; Mr. L. W. Bickle, London; Dr. F. E. Pocock, London; Dr. S. West, London; Mr. W. Bain, Heaton Chapel; Dr. Arlidge, Stoke-upon-Trent; Mr. Gustav Ellis, London; Mr. W. L' Heureux Blenkarne, Buckinghamshire; Dr. C. Cotton, Ramsgate; Dr. Samuel West, London; Dr. J. Alfred Austin, Tongue; Mr. Robert Calder, Liverpool; Dr. Illingworth, Clayton-le-Moors; Messrs. White and Wright, Liverpool; Dr. Manson Fraser, London; Mr. H. B. Runnalls, Saltash; Mr. J. S. Wood, Upper Tooting; Dr. J. Bain Sincock, Bridgwater; Mr. C. E. Watkin, Liverpool; Mr. H. D. Palmer, Nayland; Mr. A. R. Manby, Swaffham; Dr. Sawyer, Birmingham; Dr. Gill, Croydon; Our Aberdeen Correspondent; Dr. Goodhart, London; Dr. Cremen, Cork; Dr. C. Lange, Copenhagen; Mr. T. M. Watts, Hovingham; Dr. W. Culver James, London; Dr. E. Penny, Greenwich; Mr. C. H. W. Parkinson, Wimborne; Mr. Arthur Kempe, Exeter; Dr. Theodore Maxwell, Woolwich; Dr. Kirk, Partick; Mr. H. P. Price, Narberth; Mr. G. S. Lee, Sheffield; The National Rifle Association; Dr. A. T. Roberts, Brighton; Dr. Glascott, Manchester; Dr. Milson, London; Dr. B. Foster, Birmingham; Dr. Pinkerton, Southport; Mr. Haslehust, Bridgnorth; Dr. Vacy Ash, London; Messrs. Townes and Curtis, Brighton; Dr. Robert Rentoul, Liverpool; Mr. C. H. Spooner, Brighton; Dr. J. W. Moore, Dublin; Mr. C. Wheelhouse, Leeds; Dr. Roderick Maclaren, Carlisle; Dr. G. H. Fitzgerald, Newcastle-on-Tyne; The Secretary of the Social Science Association; Mr. Shirley F. Murphy, London; Mr. Sinclair Westcott, Canterbury; Mr. Chapman, Yoxall; Mr. D. A. King, London; Dr. L. H. Ormsby, Dublin; Dr. Saundby, Birmingham; Dr. A. Dempsey, Belfast; Dr. W. J. Kennedy, Dalkeith; Our Dublin Correspondent; Dr. Mackie, Alexandria; Our Glasgow Correspondent; Mr. T. H. Bagshaw, Salford; Mr. B. Roth, London; Dr. Walter, Manchester; Dr. J. Wallace, Greenock; Mr. H. N. Custance, London; Mr. James Macpherson, Wick, N.B.; Mr. G. A. D. Mackay, Greenock; Dr. J. R. Burke, Dublin; Dr. Priestley, London; Dr. E. W. Orton, Bedworth, Warwickshire; Mr. W. J. V. Harle, London; Messrs. Sampson Low, Marston, and Co., London; Mr. G. E. Barron, Ascot; Mr. F. P. Taylor, Colchester; Dr. Tripe, London; Dr. J. M. Bright, Forest Hill; Dr. R. J. Garden, Aberdeen; Dr. T. Eyton Jones, Wrexham; Dr. Cremen, Cork, etc.

BOOKS, ETC., RECEIVED.

The Retrospect of Medicine; Being a Half-yearly Journal Containing a Retrospective View of every Discovery and Practical Improvement in Medical Sciences. Edited by William Braithwaite, M.D. Vol. LXXXVII; January-June. 1883. London: Simpkin, Marshall and Co. Edinburgh: Oliver and Boyd. Dublin: Hodges, Foster, and Co., and Fannin, and Co. 1883.

The Student's Guide to the Practice of Medicine. By M. Charteris, M.D. Third Edition. London: J. and A. Churchill. 1883.

Guy's Hospital Reports. Edited by H. G. House, M.S., and Frederick Taylor, M.D. Vol. XLI. Being Vol. 26, third series. London: J. and A. Churchill. 1883.

Vichy and Its Therapeutic Resources. By Prosser James, M.D., M.R.C.P. Fifth Edition. London: Baillière, Tindall, and Cox. 1883.

The Electro-Magnet, and Its Employment in Ophthalmic Surgery, With Special Reference to the Detection and Removal of Fragments of Steel or Iron from the Interior of the Eye. By Saxon Snell. London: J. and A. Churchill. 1883.

Body and Will; Being an Essay Concerning Will in Its Metaphysical, Physiological, and Pathological Aspects. By Henry Maudsley, M.D. London: Kegan Paul, Trench, and Co. 1883.

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PRESIDENT'S ADDRESS,

DELIVERED AT

THE FIFTY-FIRST ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION,

Held in LIVERPOOL, July 31st and August 1st, 2nd, and 3rd, 1883.

BY

A. T. H. WATERS, M.D., F.R.C.P.,

Senior Physician to the Royal Infirmary, and Professor of Medicine in University College, Liverpool.

THE PRESENT ASPECT AND FUTURE PROSPECTS OF MEDICINE.

GENTLEMEN,—I esteem it an honour of no common kind to be elected President of the British Medical Association, and to be called upon to take the chair at one of its annual gatherings; and to me the honour has a special value, for I can look back on many years of close relation with the Society; it has been the means by which I have formed friendships whose importance I cannot overestimate, and its meetings have been amongst the most interesting circumstances of my life. Your kindness, therefore—the kindness of my fellow-residents, and of the Association at large—in placing me here to-day, deserves my warmest thanks, and will always be held in grateful remembrance.

Twenty-four years have passed since the Association met in Liverpool to celebrate its twenty-seventh anniversary. These years have been marked by the uninterrupted prosperity of our Society, by a large increase in our numbers, and an increasing interest in the proceedings of our annual gatherings. With reference to our success, it may, perhaps, be sufficient to say that, whereas at that time, and up to 1866, we numbered about 2,300 members, we are now 10,000 strong. May the future progress of the Association be ever in accordance with its experience of the past; and may he who shall open its next session in this city be able to say, with as much truth as I can to-day, that the Association has increased in strength with its increased years.

But, gentlemen, whilst we congratulate ourselves on the success of our efforts in connection with this large Association, let us never forget that we are all members of a still larger body—that we belong to the great commonwealth of medicine, which knows no distinction of race, or clime, or people; and that, whilst it is our duty, and should always be our aim, to promote the special objects for which our Society was founded, our highest duty and our noblest aim should be to foster the general interests of medicine, and to endeavour to advance it as a science and as an art. And, in the few remarks which I have to address to you on this occasion, I purpose to dwell, very briefly, on some of those points which seem to me worthy of our attention with reference to the present condition and future prospects of our profession; for, although there are many topics of local interest to which I might refer, all that relates to Liverpool—its medical history, its hospitals, its school of medicine, its University College, its public buildings, its river, and its docks—has been so well treated of in some recent numbers of our JOURNAL, that any further observations on the subject are altogether unnecessary.

When last we met, in Worcester, we celebrated our jubilee, and it was well to look back on the period which had elapsed since our Society was founded, and to refer with satisfaction to the good work which it had done, and the progress which medicine had made during the previous fifty years. And whilst echoing to-day all that was then so ably expressed, I think it would be well if we were to consider that we have now entered on a new phase—that we have taken, as it were, a new departure, and that with the great advantages we possess we should, as a society, and also as a profession, strive to develop our science more rapidly in the future than it has been developed in the past, and that our progress should be more marked in all that relates to the higher aspirations of our calling.

Nor are there wanting signs which point to the probability of such a consummation. We now see a higher standard of medical education insisted on; we see, on all sides, the inductive method of investigation brought to bear on the great problems of medicine; more and more we see dissatisfaction with our present uncertain and inexact knowledge; and we cannot doubt that the observations which are being carried on, and especially those which are being conducted under the auspices of our Collective Investigation Committee and of the Society for the Cultivation of Medicine by Original Research, will before very long bear fruits, and lead to generalisations of the most important kind.

To my mind, there is nothing in the present aspect of medicine more satisfactory, or more likely to raise it from the region of empiricism and place it on a higher scientific level, than the endeavour now being made to render our knowledge more definite and exact; and if I were to point to one circumstance which, in my opinion, has, probably more than any other, contributed to this result, I should say it was the introduction into our practice of *instruments of precision*. These have furnished us with means by which the senses may be placed in immediate relation with the actual phenomena of disease; and these phenomena are sometimes of so simple a character, yet so indicative of the general morbid state, and require so little mental analysis, that the very tyro can almost read their significance.

No more important step was ever made in practical medicine than that of the application of physical principles to the diagnosis of diseases of the chest. In what condition would now be our knowledge of diseases of the lungs, had the researches so largely associated with the name of Laënnec never been made? In what condition was the knowledge of cardiac diseases before the investigations and experiments of the physiologist gave us definite information with reference to the movements of the heart, the action of its valves, and the causes of its sounds? The differentiation of lung and heart affections, by the aid of physical inquiry, the possibility of making an exact diagnosis without investigating one single general symptom, constitute a triumph for medicine which is not to be surpassed in the practical application of scientific principles in any other department of human knowledge; and we must not forget that this marked advance has been achieved in a comparatively short space of time, for it was not till 1819 that Laënnec gave his observations to the world.

What can be more striking than the results of physical inquiry in pulmonary or cardiac diseases? Let us suppose a student in medicine following, for the first time, a competent teacher through the wards of a hospital. He sees him stop at the bedside of a patient suffering from one of these affections; he watches him as he makes his examination; he hears a few leading questions put; he sees a few gentle blows struck; a brief application of the stethoscope; and then, without any hesitation, the physician, turning to his class, tells of the nature of the case—that there is consolidation of a lung; effusion into the pleura; disease of a particular valve of the heart, hypertrophy of its walls, or degeneration of its fibres. He speaks of the mode of origin of the affection, the course it will probably take, and the issue that will come. Our student is struck with astonishment at the apparent facility of the diagnosis, and the rapidity with which it has been made. He watches the progress of the disease, and he finds the conditions which were foretold becoming developed; and (if, unhappily, the case terminate fatally), on a subsequent day, following his teacher to the *post mortem* theatre, he sees the body of the patient submitted to examination; he sees revealed by the scalpel the condition which exists. He sees that there is consolidation of a lung; effusion into the pleura; valvular disease of the heart; hypertrophy of its walls, or degeneration of its fibres; he sees, in fact, a verification, in its minute details, of the diagnosis that was made, and he is apt, perhaps, at once to conclude that medicine is one of the most exact of the sciences.

It would be well if in all departments of medicine there were the same facilities for exact diagnosis as in diseases of the heart and lungs; but what the application of acoustic principles has done in these affections, the application of chemical principles, and the use of the microscope, the ophthalmoscope, the laryngoscope, and the sphygmograph, have in a measure done for the diseases of some other organs. And may we not hope that, with reference to the diseases of the nervous system—the most obscure of all which come under the notice of the physician—the researches of the present day, and the attempts now being made to clear up our knowledge of the physiology of the brain, and to localise its various functions, may be followed by results which will add largely to our powers of differentiating nervous affections, and of successfully treating them?

Again, in referring to instruments of precision, let me observe how important are the results which have followed the use of that instrument which, when the Association last met here, was scarcely ever used in this country, but which is now the constant companion of every practitioner—the clinical thermometer. How valuable is the information which it gives! How intimately does it place that

important factor of fever—increased temperature—under our observation! Without attempting to discuss the relations of heat to the other phenomena of fever, I may observe that, in a large number of cases of disease, the measure of the temperature is undoubtedly the measure of the danger; and that the immediate recognition of its rise to an inordinate extent is the first step towards the application of means on which the life of the patient may depend. Were this the proper occasion, I should like to dwell on the great value of which the scientific use of the thermometer has been, and is likely still further to be, to the practical physician. Not only has it enabled him to recognise conditions of hyperpyrexia franght with extreme peril, and thus to use at the right moment measures for reducing temperature which have been followed by the most beneficial results; not only has it afforded a means by which the constant attendant on the sick can ascertain the development of serious symptoms; but its further application, and the recognition, by its use, of the special oscillations of temperature which characterise some diseases, have enabled the physician to distinguish between affections in which other means of diagnosis have been insufficient; whilst, by still more extended observations with the instrument, we shall perhaps be able to explain, more fully than we now can, the causes which underlie the variations of temperature which are so marked a feature of some affections; and possibly this knowledge may influence beneficially our treatment of them. And, in referring to this subject, I cannot refrain from alluding to the fact that it was a Liverpool physician, Dr. Currie, who, early in the present century, was the pioneer in the use of cold applications to the surface of the body in the treatment of fevers; and, although Currie's practice fell into disuse, the merit of initiating a method of reducing temperature, which the use of the thermometer has enabled us in the present day to place on a more successful basis, may, I think, be fairly claimed for him.

How often has the use of the laryngoscope enabled the practitioner to recognise the true bearings of certain laryngeal symptoms, and to distinguish between organic disease of the larynx and the results of pressure from a thoracic tumour! How often has it enabled him to decide on the nature of a laryngeal growth, and the possibility, or otherwise, of successful medical or surgical treatment! How much do we not owe to the introduction of the ophthalmoscope—an instrument which has literally thrown a flood of light on the affections of the eye, and may be said, indeed, to have revolutionised the whole practice of ophthalmic medicine; whilst, by enabling us to recognise certain conditions of the eye, and to interpret their significance with reference to other morbid states, it has materially aided the work of the general physician!

The sphygmograph is an instrument which, though largely employed in hospital work, has not hitherto found its way into general use. It cannot be said to have had much influence on our practice; but I think we often derive important indications from it with reference to the state of the arterial system, and the degree of arterial tension which exists; and possibly by a more frequent employment of it we might be able to recognise, at an earlier stage than we now can, those manifestations of incipient disease which frequently pass unnoticed, and therefore untreated. Further, in certain acute diseases, the sphygmograph often gives indications which are important in regard to prognosis. The hyperdicrotism of the pulse, as shown by the instrument, may indicate the extreme gravity of a case which other symptoms fail to point out.

I am glad to see that in the Section of Medicine a discussion is to take place on the subject of arterial tension, and I hope that some valuable information may be elicited from it. I believe that important results may be expected to follow from more exact observation on the condition of the arterial system.

The great results which have followed the application of physical principles to the recognition of disease, constitute the commonplaces of medicine of the present day; and perhaps I ought to offer some apology for dwelling upon them; they are, nevertheless, the great facts of medicine, they are the facts to which we can point as showing the scientific basis of our art, and their value can be appreciated only by those who are engaged in the practical application of therapeutics. They are, moreover, the main guarantee which we have for progress in the future; for who shall doubt that the next half century will be more fertile in the production of instruments of precision, and in bringing scientific principles to bear on the work of the physician, than that which has just passed? Who shall doubt that as the result of the more rigid application of the inductive method of research, and more careful and combined clinical investigation, our powers of generalising on disease, and of differentiating between the variations which it presents, will be largely increased; that diagnosis will be more easy, and treatment more successful?

In considering the stand-point of medicine, we should always bear in mind that medicine must be judged by the therapeutic results which it achieves; and in proportion as we can show that the researches of the physiologist, the pathologist, and the chemist, and the application of scientific principles, have enabled the physician to deal more successfully with disease, to anticipate its development, to recognise its earliest symptoms, to mitigate its severity, and reduce its rate of mortality, so do we establish for our art a claim on the confidence and gratitude of mankind; and in this respect the present state of medicine shows no slight advance on the past, and promises a more rapid progress in the future. The past five and twenty or thirty years—not to go further back—have been marked by the general development of views with reference to many diseases, such as have largely and beneficially influenced our treatment of them; and as I took an illustration of the value of physical investigation from diseases of the chest, permit me to refer again to some of these affections in speaking of the question of treatment. With regard to the affection which we term pneumonia, have we not seen the introduction into practice of a mode of treatment which has deprived the disease of much of its terror, and greatly reduced its mortality? Whatever be the views which we entertain of the nature of pneumonia, the important fact remains that we may enumerate amongst the successes of medicine of the present day a large reduction in the mortality from the affection.

Again, the recent development of the practice of tapping the chest in pleuritic effusion, an operation comparatively rarely performed thirty years ago, is, in my opinion, a very marked improvement in therapeutics. Those who have carefully watched the progress of medicine in this matter, know full well how great have been the changes which have taken place within the last quarter of a century, and especially since the introduction of the aspirator. It is impossible to refer to all those to whom we are indebted with reference to this subject, but Trousseau, as a pioneer, and Bowditch, whose large experience and satisfactory results exercised so beneficial an influence, I must not pass over; whilst there are many in this country to whom we owe no less a debt of gratitude. There is, perhaps, from the facility with which tapping may be performed, and the almost entire absence of risk when it is properly performed, a fear that it may sometimes be resorted to unnecessarily. But, from what I may term a somewhat large experience in the operation, I can speak with confidence of its value and safety in both acute and chronic effusions; and I cannot but think that, as the result of the early performance of the operation, we shall see, every year, fewer of those cases of deformed chest which so frequently follow neglected pleuritic effusion.

How satisfactory have been the practical results which have followed the researches that have been made, within the past half century, into the nature of continued fevers! It is now about forty years since Stewart, whose recent loss we have to deplore, published his investigations in typhus and typhoid fevers, and showed their distinct and separate individuality. Other labourers have since worked in the same field, and have established, beyond a doubt, the facts which he then demonstrated, the knowledge of which has largely tended to the prevention of these affections, and enabled us to trace to their source many outbreaks which, in former times, would have been involved in mystery. Nor can we point, perhaps, to any one circumstance which has had a more beneficial influence on the treatment of these diseases than the recognition of the pathological changes by which they are characterised. The precautions which we consider imperative during convalescence in the one disease—precautions which may be, in large measure, neglected in the other, are but the outcome of the careful investigations which have been made into the morbid changes by which the two affections are attended. And if we have abandoned the idea that these fevers can be cut short by any measures, or the administration of any drug; if we have no faith in any specific line of treatment, and are, for the most part, content to watch our patients carefully, and to guide them, as it were, through their attacks, this is not scepticism—it is the result of a more intimate knowledge of these diseases, of a better acquaintance with their natural history, and a better appreciation of their pathological changes. We wait for further insight into their essential nature, and we are not without hope that fresh discoveries will give us increased power, in regard both to their prevention and their treatment.

It is impossible to enumerate the various affections in which

there is a marked improvement in treatment, and those which I have referred to must be considered simply as illustrations of my position; but whilst I speak with satisfaction on this subject, I must not forget to mention that, in the midst of many successes, we have instances of, I will not say actual, but comparative, failure. Our knowledge of the pathology of some affections remains very imperfect, and our therapeutics are in some respects very unsatisfactory. Although rheumatic fever is one of the most common diseases, it must be confessed that we are ignorant of its pathology. During the past few years there has been introduced into practice a mode of treating the disease by the compounds of salicylic acid, which has met with general adoption, and has been largely successful. I can add the testimony of my experience in its favour; but still, with all the opportunities which we possess of studying the affection, we are as yet unable to give any satisfactory explanation of its essential nature.

Again, how unsatisfactory is the knowledge we possess with reference to the pathology of diabetes! We have long recognised its clinical features, and we are often able to modify its course, and mitigate its symptoms; but of its real nature we are ignorant, and nothing has tended to show this more than the discussion recently carried on at one of our societies. But this confession of our ignorance is one of most promising features of our day, it is that which gives us assurance that every effort will be made towards increased knowledge in the future. Whence comes this want of success in the investigation of the nature of diabetes? We have approached it from the physiological side, from the chemical side, and from the pathological side, and have failed. Can we hope that by combined observation of its clinical features, of its life-history, and its relations to families and individual peculiarities we may elucidate its nature? May we hope that it is one of those subjects which will be inquired into, and the problems of which will be solved by the labours of our Collective Investigation Committee? I commend it to their consideration.

And here I must express the great satisfaction with which, in common, I am sure, with every member of the Association, I have seen the establishment of this Collective Investigation Committee, how strongly I feel that it is capable of accomplishing most valuable work, and how much I think we are indebted to Professor Humphry for initiating the movement. Doubtless, a large part of the work of the Committee will consist in collating facts with reference to specific diseases; but there is one line of inquiry which, I trust, will receive from it a share of attention. I mean the consideration of the points of difference between functional disturbances, and the early symptoms of organic affections. How difficult is it sometimes to say, when some slight symptom presents itself, and when no objective signs of organic disease can be discovered, whether that symptom indicates incipient structural change or mere functional disarrangement! Upon the right appreciation of the phenomenon, however, the safety of the patient may depend; for, although we stand almost powerless to arrest the course of confirmed structural changes, there can be no doubt that, could we recognise the earliest steps in these changes, could we see clearly the points of departure from normal conditions in various chronic and hitherto incurable maladies, we might do much to check these alterations of structure, and prevent the further progress of the disease.

In an investigation of this kind, our hospital work is comparatively useless. There we are brought into relation, for the most part, with disease already well marked—disease which has produced its easily recognisable results; and if patients present themselves with slight symptoms, they perhaps soon recover, and are lost sight of. It is in the daily work of private practice that observations such as I have referred to can alone be satisfactorily made; and it is, therefore, to the great bulk of practitioners throughout the country that we must look for aid in this matter. It involves a lengthened study of each individual case; a close watching, not for weeks or months, but for years; and perhaps the facts gathered in a lifetime might be but few. It relates to the consideration of subjective symptoms which we cannot accurately estimate with our present physical means, but which are intimately associated with individual peculiarities and idiosyncracies, and often form the most important elements in our diagnosis, prognosis, and treatment. It may be that, with more refined instruments of precision and greater scientific knowledge, we shall bring many of these symptoms within the range of physically recognisable facts; but, in the meantime, inquiries such as I have referred to may materially aid us.

But, gentlemen, of all the questions which now engage the attention of the pathologist and physician, there is no one which surpasses in importance that which relates to the dependence of certain diseases on micro-organisms. The subject is one of the greatest possible interest, and fraught with bearings of a practical character which already have had, and are doubtless destined still further to have, a vast influence on the prevention and treatment of disease. The establishment of the fact that pébrine, chicken-cholera, and splenic fever depend on the presence of specific micro-organisms, and that relapsing fever has associated with it, if not indeed causing it, a like organism, must be classed amongst the most striking discoveries of the present day, and undoubtedly mark an epoch in the history of pathological science; whilst the gradually accumulating evidence that tuberculosis is the result of a parasitic element seems likely to lead to its being placed in the same category as those affections the pathology of which appears now to be clearly established. Moreover, the brilliant results which have followed the process of attenuative culture of the virus of some of the affections to which I have referred, and the protective influence of vaccination by these attenuated fluids, as carried out by Pasteur, lead us to hope that, by further researches in the same direction, we may yet discover some means for checking the ravages of tuberculous and other allied diseases, as certainly as the great discovery of Jenner has enabled us to check the ravages of small-pox.

Nor is it possible, perhaps, to point to any single fact in connection with the practical application of science which is more striking than that of the relation of disease to minute organisms. The whole subject has been evolved from the researches of a few naturalists who studied the smallest of living beings. What possible use, might it not have been said, could investigations of this kind have in reference to the maladies either of man or the lower animals? And yet we have seen that these studies of minute life have led to the prevention of a disease which threatened to destroy the source from which we derive one of our staple products of manufacture; they have been largely instrumental in checking the ravages of a malady which is so fatal amongst the flocks and herds of various countries; they have led to the introduction into the practice of surgery of a mode of treatment, the beneficial effects of which it is not for me to dilate on; and, lastly, it seems likely that they will materially alter our views with reference to some of the most serious diseases to which mankind is subject.

These facts tend to show on how wide a basis the science and art of medicine rest, and how closely their advance is mixed up with, and dependent upon, the progress of other sciences. In truth, there is nothing in the whole range of nature which the physician may not make use of for the purposes of his work.

Of the many problems which await solution in connection with the subject which I have just considered, no one is more pressing than that of the dependance, or otherwise, of pulmonary consumption on the bacillus which has been so largely found, not only in the morbid deposits which result from the disease, but in the expectoration of phthisical patients. Should it be found that in all cases of genuine tubercular phthisis the bacillus tuberculosis is present, and should future researches show that the disease is caused by the parasite, a solidity will be given to the pathology of the affection, and perhaps the therapeutics of it will be materially aided. Speaking from clinical experience, I cannot but conclude that the disease to which we give the name of phthisis has more than one mode of origin. Further investigation will perhaps clear up the doubt which exists on this point; and here I should like to observe that there are some affections of the lungs which closely resemble, in their clinical features, acute phthisis, and yet which, under careful treatment, do not go on to a fa tal issue. Of such cases I have now seen several. Their general symptoms, their physical signs, their temperature-ranges, made me conclude that I had to deal with cases of acute pulmonary tuberculosis, and I have expected a fatal result, but recovery has taken place. These cases occurred before attention was directed to the presence of bacilli in the sputum of phthisical patients, and no examination of this secretion was made. In instances of a similar kind, we shall now be able to use this method of investigation, and possibly it will afford a valuable means of differential diagnosis, and enable us to give, in cases where the bacilli are absent, a more favourable prognosis than the general symptoms would otherwise warrant. I may say, in regard to the cases to which I have referred, that they were treated by free nutrition, the administration of quinine, and a somewhat liberal quantity of alcoholic stimulants.

The great point which remains to be decided, and which I hope the discussions which will take place at this meeting will help to decide, is, whether the so-called *Bacillus tuberculosis* is the cause or the consequence, of the tuberculous disease.

I have spoken of the advance which medicine has made as the result of the application of scientific principles, and an improved knowledge of physiology and pathology; and I would further remark that the past years have been fertile in the introduction of substances which are of the highest value to the physician in the actual treatment of disease. The bromine compounds, chloral, croton-chloral, the various forms of pepsine and pancreatine, the salts of salicylic acid, may be enumerated, amongst others which the chemist has furnished for our use; and, whilst we may perhaps feel that he will best serve the ends of medicine who shall teach us how to employ most successfully the remedies we already possess, and whilst we would deprecate the incessant desire for the introduction of new chemical compounds, let us by no means discourage the laudable ambition of enriching our *Pharmacopœia* with agents of sterling value. We must never forget that, in addition to the useful drugs to which I have already referred, the present age has given us, by the agency of the chemist, means by which we can annihilate the pangs of the most painful manipulations of surgery, and obviate the tortures formerly incidental to all operative procedures.

In the face of such a fact as this, we may be pardoned if we express a doubt whether we have arrived at the limit of our therapeutical discoveries, and whether we may not hope that the labours of the chemist will, in the future, give us new elements for our use, or that some of those compounds which now possess only a scientific interest may, in course of time, pass into the hands of the practical physician, and add to his powers of controlling certain forms of disease.

It is not for me to speak of the triumphs of modern surgery, and the successful results which have followed the application of scientific principles in this great department of medicine. We are apt, perhaps, to conclude that it is here that the most striking advances have been made; but I venture to think that, in proportion to the difficulties which have had to be solved at the hands of the physician, medicine pure has made a progress as great as that which has characterised the sister art of surgery, or, indeed, any other art in which science has been brought into practical application. Consider how difficult are the problems which disease presents; the complexities of organic life; the many peculiarities and tendencies of each individual man; the inherited liabilities; the subtle influences of habit, of diet, and of climate; and those social and moral forces which exercise so great a power on the varying conditions of civilised life; and then say whether it can be expected that we shall be able readily to arrive at grand generalisations on disease. In the great progress which has been made during the past fifty years, we have the strongest possible indication of increased progress in the future. The labours of each generation will correct some errors of the preceding one, and will carry us somewhat nearer to the truth; but the temple of medical science can never be crowned. Each addition to our knowledge will but point out to us fresh fields for labour—new subjects for investigation; and we may rest assured, that the demands which will be made on the practitioners of medicine will ever be increasing, as it shall become more apparent how intimately their labours, and the sciences on which medicine depends, are associated with the well-being of mankind.

And there is, I think, a favourable circumstance in connection with our profession at the present time which is likely, not only to have a beneficial influence on its actual advance, but with reference to the estimation in which it will be held by the public at large. Resting, as it does, on a basis of scientific observation, and depending for its progress on scientific researches, it will meet with more and more recognition in proportion as it appeals to a public which is more and more scientifically educated; and we now see that physical science is assuming, more and more, its proper position in the education of the young. Whilst I would express a hope that, in the general education of the people, and especially of those who are in the higher walks of life, the cultivation of literature in its widest sense will always maintain a due prominence, I trust that the movement which is now so perceptible with regard to the teaching of physical science, will continue to meet with that support which I think it so fully deserves; and in connection with this subject I cannot but express the satisfaction which I, and I am sure I may say we all, have felt in seeing rise up, in the various great centres of population in this kingdom, those institutions for higher education which add so much to the teaching power of these centres. The movement is really a comparatively recent one, and we in Liverpool were somewhat backward in it; but, a few years ago, some of those who had long felt the want which existed, determined to make a strenuous effort to give to this city what Manchester, Birmingham, and other cities had already provided for themselves. Relying on the liberality of the public of Liverpool, an appeal was made for the foundation of a college in which the higher branches of the arts and sciences should be taught. That appeal was largely responded to, and now we see in our midst a college, with a staff of professors, which I trust is destined to do a work which will reflect honour on itself, and credit on those who founded it. It is true that, as yet, the organisation of the institution is not complete, and that a further sum of £50,000 is wanted, in order that the full advantage of affiliation with the new Victoria University may be reaped. But we are sanguine that this amount will soon be forthcoming, and that the position of equality with Owen's College, with regard to university degrees, will be assured.

The School of Medicine, so long known in connection with the Royal Infirmary, has now become the Medical Faculty of the College.

Since we met in Liverpool, as I have already said, nearly a quarter of a century has elapsed; and by the gaps which time has made in our ranks, and the fact that the Association is now reassembled here, we are reminded that, whilst individuals pass away, societies and communities may remain. I trust that the time is far distant when our Society will show any symptoms of degeneracy or decay; but in its very magnitude and its great prosperity, there exists an element of danger. I have, however, the strongest possible conviction that the wisdom of the Association guiding and directing its executive body, which shall be at once the representative and the reflex of the whole constituency, will conduct the society safely through the dangers and difficulties which may beset its path. United, we are all-powerful. Acting in unison, and animated with one feeling for the progress and well-being of our profession, there is no subject in connection with its scientific, its political, or its social aspect which we may not grapple with, and grapple with successfully. As year by year rolls on, we may hope that our numbers will increase, until at length it shall be a very exceptional circumstance in this country for a member of our calling not to belong to the British Medical Association. In concentrating, as we may then be able to do, the whole force of the body medical on any given object, we shall exercise a power which may either compel Nature to reveal her innermost secrets, or influence a Government in the legislation of the State.

But, time warns me that I must bring my remarks to a close. Looking to the results which have been achieved, I feel warranted in saying that, with our present advantages, and working from our present standpoint, we have every reason to believe that the progress of medicine in the future will be marked by more rapid strides than those which have characterised it in the past; and, standing here to-night, I can look forward, with confidence, to the time when a future president of the Association, inaugurating the centenary of its birth, shall speak with triumphant voice, and in glowing language, of the advances which our profession shall have made. He shall tell of improved methods of research, and new instruments of diagnosis. He shall speak of the important generalisations which the collective investigation of disease, carried on for fifty years, has led to. He shall point to the greater facilities with which the differentiation between functional disturbances, and the early symptoms of organic disease may be effected. He shall, perhaps, be able to show how many affections which ultimately lead to great alteration of structure, and eventually to a fatal issue, have their origin in functional disarrangements neglected in their beginnings, and gradually inducing changes which at length become irremediable; and thus he shall show how closely physiology and pathology are connected. He shall, perhaps, be able to point to the establishment of the true pathology of those diseases which from recent investigations appear to be dependent on the presence of micro-organisms, of tuberculosis, and other allied affections, and, as a result of this, he may possibly tell that, by the adoption of a practice analogous to that which has had so marked a result in reference to splenic fever and chicken-cholera, and which has rendered famous the name of Pasteur, an almost complete immunity is enjoyed from those terrible maladies which have hitherto in large measure baffled the skill of the most accomplished physicians.

And, gentlemen, amongst the many changes which, I venture to think, these revolving years will bring, may we not hope, that, with the higher status as a science which medicine shall have attained, and the higher estimation in which the profession shall be held, will have come a fuller recognition of the claims of its members to some of the higher honours of the State; and perhaps the president of that occasion, or some of those who may listen to his words, may

belong to that upper branch of our legislature to which hitherto no practitioner of our art has reached. The votaries of medicine want no other encouragement than that which comes from advancing their own science to stimulate them to the highest exertion for the general weal, but it cannot be doubted that both in the interest of the public, and in reference to the promotion of the health and well-being of the people, the presence of medical men in the House of Lords would strengthen the powers of that House and beneficially influence legislation.

But if the results to which I have alluded, and the advances which I have ventured to foreshadow, are to be realised, if medicine is to be raised from the region of empiricism, and to be placed on a higher scientific level, and if we in this country are to take our part in the researches by which the great problems now awaiting solution are to be determined, then must all unwise legislative restriction on the work of the physiologist and pathologist be withdrawn; then must all measures which fetter the action of the original investigator be removed; and I trust that, by the labours of the Society which has been established for the cultivation of medicine by original research, a more enlightened public opinion will be formed, which will aid in bringing about these results.

Medicine must more and more proceed on the lines of exact observation and careful scientific inquiry; and in connection with this it is satisfactory to know that one of our great guilds is about to devote a portion of its means to the encouragement of work such as I have referred to; and I trust that our own society will be able yearly to devote larger sums than at present to a like cause.

And now, gentlemen, in conclusion, permit me, in the name and on behalf of the local members of the Association, to bid you all a cordial welcome to Liverpool. Our Association is now so numerous and so powerful, its meetings offer so many features of interest and attraction, that, wherever they may be appointed to be held, we look forward with confidence to large and influential gatherings; but we desire that this meeting shall not only be successful in a scientific and professional point of view, but shall also be rendered interesting and agreeable to all who may honour us with their presence. We cannot show you grand architectural monuments mellowed by age and famous in the annals of history, such as characterise our metropolitan towns; we cannot take you to classic halls like those which give so great a charm to the visits which we pay to our university cities; but we trust that, in traversing the different parts of this great centre of commerce, and in visiting the docks which line the shores of the Mersey, you may see something that will interest you; and that, when your temporary sojourn amongst us shall be over, you may feel, not only that you have assisted at a successful anniversary of the British Medical Association, and contributed to the promotion of those objects for which it was founded, but that your visit has been one of satisfaction and of pleasure.

TREATMENT OF WARTS AND CONDYLOMATA BY CARBOLIC ACID.—M. Jullien has described in the *Annales de Dermatologie* the treatment used by Tommaso de Amicis and himself in cases of warts and condylomata. It consists in repeated cauterisations by means of pure carbolic acid, and is best adapted to large sessile growths, or to fumigating cauliflower-like vegetations. The *modus operandi* is very simple. Crystals of pure carbolic acid are kept in a small bottle; the warts having been washed, the bottle is warmed in a flame or in nearly boiling water and the crystals touching the glass melt. The fluid is supplied with a brush or cotton-wool to the whole surface of the warts, which assume at once a shiny white appearance. The white layer soon falls off, and on the next day the operation can be repeated. Pure carbolic acid causes much less pain than either chromic or acetic acid. It has been noted that when the cauterisations are repeated, the last are more painful than the first. The number of cauterisations necessary for curing the patient is, of course, variable. In a case of vegetations on the glans and prepuce, the cure was complete after two applications.

DONATIONS.—Mrs. Heywood has given £500, Lady Luisa Percy £105, "Deo gratias" (per Mrs. Henry Norris) £100, and Mrs. Joseph Hoare £50, additional, to the cancer fund of the Middlesex Hospital.—The Earl of Mount Edgecumbe has given £250, additional, to the South Devon and East Cornwall Hospital new hospital building fund.—Mr. Herbert Clarke has given £105, additional, to the British Home for Incurables.—Mrs. Nathaniel Montefiore has given £100 to University College Hospital.—The Grocers' Company have given a second £50 to the East London Nursing Society.—The Duke of Cleveland has given £50 to Charing Cross Hospital.

ADDRESS IN SURGERY.

BY

REGINALD HARRISON, F.R.C.S.,

Surgeon to the Liverpool Royal Infirmary.

SOME RECENT ADVANCES IN THE SURGERY OF THE URINARY ORGANS.

MR. PRESIDENT AND GENTLEMEN,—The honour of addressing you on this occasion having been conferred upon me by your Council, I cannot enter upon the task that is before me without expressing my consciousness of inability to accomplish it in the manner I would desire. This sense of insufficiency is by no means lessened when I look at the names of those who have preceded me; when I remember the interest with which I, in common with you, listened to their words; and when I consider how completely abreast this great Association is kept, by means of its JOURNAL, with everything relating to the progress of surgery. On the other hand, long connection with this Association gives me the assurance of having to address a sympathising audience—one disposed to overlook defects in any honest endeavour to set forth the advancement made in our art.

Surgery, I need hardly tell you, has long been cultivated in the new city which has now the honour of receiving you. The hospitals of Liverpool, and their records, show that the same ardour prevails here as elsewhere, both at home and abroad; whilst its position as a school of surgery indicates that it has entered, not unsuccessfully, into honourable rivalry with its competitors. But it may be asked, especially by those visiting Liverpool for the first time, Are there no traditions here? Are there no footprints of those who have left behind them works which place us in their debt, and which will render their names famous wherever and as long as surgery is known? It seems to me that one advantage connected with the itinerant character of our meetings is, that places suggest references to local celebrities of the past, whose works cannot be thought over without advantage. In our desire to push forward, we sometimes forget to look back, and to reflect upon that which has been achieved and how it was brought about. Such reflections cannot fail to be of service in reminding us that surgery is not entirely of modern creation, that we have a few distant relations whose connection it is desirable to keep up, and that there still remain links which associate us with the great ones of the past. These links connect us, not here alone, but everywhere, with the names of Park and Alanson, to whose work I now wish for a moment to refer.

Henry Park was surgeon to the Royal Infirmary from 1767 to 1798. I cannot do better than quote a passage which our local historian, Sir James Picton, has selected (*Edinburgh Review*, October 1872) as paying a deserved tribute to his memory. "In the latter portion of the last century, when a vigorous flash of originality seemed to light up the annals of surgery, Park, of the Liverpool Infirmary, may be said to have accomplished the first act of conservative surgery. His patient being a sailor, to whom the loss of a foot and leg would have been tantamount to the loss of his means of getting bread, determined him to make the experiment of simply excising the diseased part—the knee-joint—and retaining the foot and leg. This he did so successfully that, to use his own words, the patient some years after the operation 'made several voyages to sea, in which he was able to go aloft with considerable agility, and to perform all the duties of a seaman; that he was twice shipwrecked, and suffered great hardship without any further complaint in that limb.' This was a crucial test of success, that should have stamped the operation as one of the greatest surgical triumphs of the time; but, like so many other great strides taken in that age of extreme vivication, it was in advance of its fellows, and was destined to be arrested for the better part of another half-century."

I need not on this occasion dwell on the claims that excision of the knee-joint has to be regarded as one of the recognised operations in surgery. Though there may be differences of opinion in reference to the circumstances indicating it, there can be no doubt that it will for ever remain as a brilliant memorial of the surgeon whose name is associated with it.

Of Mr. Alanson, Park's colleague, and surgeon to the Royal Infirmary from 1770 to 1794—whose work has been aptly referred to

by Mr. Sampson Gamgee[1] as "one of those forgotten surgical classics which I would venture strongly to impress on the attention of my younger brethren"—I will speak in the following passage from the Presidential Address of the late Dr. Vose, delivered on the last occasion this Association met in Liverpool: "To Mr. Alanson, formerly a surgeon to our Royal Infirmary, we are indebted for many important suggestions, made at a time when the science of hygiene was but little regarded anywhere. His remarks upon the ventilation of hospitals, the use of iron bedsteads, the necessity of frequent white-washing, and the establishment of sanatoria in the pure air of the country for convalescent patients, testify to the correctness of his professional judgment, and to his zeal for the welfare of his fellow-creatures. It is by his treatise upon amputation, however, that the memory of this gentleman, as an original thinker in surgery, has the strongest claims to our gratitude and regard. He tells us that, among upwards of forty amputations performed upon the old system, which had come under his notice, ten died of tetanus, two of bleeding, three from mortification, four from exhausting suppuration; while eighteen experienced hæmorrhage, and nearly all had excessive fever. Most of the patients suffered from exfoliation of bone, conical stumps, or wounds that would not heal. After the adoption of his improved method of procedure, he had the satisfaction of being able to announce that, out of upwards of thirty amputations, taken indiscriminately, which were performed at the infirmary, not one died, and none had secondary hæmorrhage; while, in a month after operation, the wound was either altogether, or as nearly as possible, healed in all the cases."

As is well known, in Alanson's method of amputating, provision was made for the covering in of the bone, after its section, by the integuments.

Such, then, are illustrations of the useful work which was being done by surgeons in this comparatively modern city about one hundred years ago. Gratitude for improvements, the value of which is still fully and freely acknowledged, justifies the foregoing references to the work of these distinguished men.

The selection of material for presenting to you to-day has occasioned me no little anxiety. Following immediately upon an address which will for ever render our jubilee year memorable—an address in which justice was done, by the distinguished representative of surgery from Ireland, to the great subject of surgical progress generally, whilst its prominent features were forcibly brought out, I may well hesitate where to tread.

In considering the history of surgery as detailed in Mr. Stokes's admirable address, the thought naturally occurs that its diffusion is as remarkable as its progress. Compare, for example, the condition of surgery prior to the existence of our Association with its position as set forth in the columns of our own JOURNAL, or in those of the other great representative of medical opinion in this country, the *Lancet*. In the former period, departures from the ordinary routine of surgical procedure were confined to a few hands, and the benefits resulting from improved methods of treatment were shared in by a very limited number. Now, no sooner is a method of treatment or an operation proved to be efficient, than it is taken up and practised wherever scientific surgery can reach; the peer is no better off than the peasant, and the cottage-hospital rivals in its successes those obtained in more palatial edifices.

So beneficently catholic is our profession that it hails with the greatest satisfaction, not only the discovery of new means of relief, but the adaptation of others to a form which permits of their more general adoption and usefulness; whilst, on the other hand, it regards with suspicion all methods of treatment which unnecessarily restrict or conceal that which was intended for the common good.

I propose to occupy the remainder of the time at my disposal by a reference to some of the more recent advances and work in connection with the surgery of the urinary organs.

Commencing with the kidneys, we are at once struck with what surgery is doing for them. Until quite recently, the diseases of these organs were regarded as belonging almost exclusively to the province of the physician, and probably they would have remained so had preventive medicine obtained fuller development.

A more extended acquaintance with the pathology of the kidney has brought to light conditions in which the work of the physician requires to be supplemented by that of the surgeon. Pain arising from an undue mobility of the organ, tumours, deposits, hæmorrhages, and collections of fluid within it—all these morbid states are now recognised as capable of relief or cure by fixing, opening, or extirpating the abnormal or disordered organ; whilst numerous illustrations have already been afforded of the successful removal of stones from positions where they must have ultimately led to the disorganisation of the kidney in which they had become impacted.

It would be premature at present to endeavour to formulate anything like precise rules in reference to the application of the various operations on the kidney to which I have briefly referred; they are at present comparatively new to us, and we must occupy ourselves in cautiously moving in the direction they indicate, and in collecting experience rather than in drawing conclusions other than very general ones.

Amongst many valuable contributions to the literature of this subject which have appeared, I would include one by Dr. R. P. Harris (*American Journal of the Medical Sciences*, July 1882) of Philadelphia, which contains an analysis of one hundred cases of nephrectomy. From this, as well as other communications which have more recently been published in this country, we may draw at least three conclusions of value, so far as the operation of extirpation of the kidney is concerned. These are:

1. That nephrectomy has been the means of saving many lives under circumstances where no other method of treatment was likely to be of service;

2. That this operation has been practised in cases where the probability of a successful termination appeared to be very remote; and

3. That a method of effecting the removal of the organ different from that which was selected, or a procedure less heroic, might, in some instances, have tended to increase the chances of success.

In these directions, then—in selecting cases for operation, in rejecting others as unsuitable, and in determining relatively to the case in question the best method of procedure—I take it that good work has yet to be done.

It appears to me that among the difficulties we have to contend with in the application of nephrectomy, two stand out prominently: (1) the kidney it is proposed to remove may be the only one; (2) the opposite organ may be similarly affected, though in a less degree, yet sufficient to interfere with those compensatory changes being carried out which are essential when one excretory organ has to supply a lack of service on the part of another. The literature of this subject will already be found to illustrate the class of difficulties to which I am referring.

The lesser proceedings, which include the exploration of the kidney, and the removal of calculi and of pent-up fluid, are necessarily attended with a diminished risk, and have already proved of much value.

In undertaking a new class of operations, we must bear in mind the past history of many methods of treatment, now justly regarded as successes, but which, severally, had a very unpromising commencement. Look at the unsatisfactory position held by ovariotomy only within a period represented by the memory of the majority of us here present to-day. Yet the high dignity to which it has been raised in the rank of surgical operations, by the skill and enterprise of Sir Spencer Wells, Keith, and others, is now frankly and fully admitted by the whole medical world.

In the treatment of certain affections of the bladder, we shall find that much progress has been made, and that the way has recently been opened for prosecuting other important advances. These will be chiefly illustrated by the modern practice of lithotrity and the treatment of tumours and intracystic growths.

Till a few years since, the removal of stone from the bladder by crushing had been conducted on the lines laid down by Civiale some half-century ago. Though this method of proceeding has included amongst its advocates, past and present, surgeons of eminence, it cannot be said that, as then practised, it was either gaining ground or confidence. Indeed, I think I may say there was an increasing tendency to limit its application and to substitute lithotomy in all cases but those of the simplest kind. The mortality consequent upon the retention of broken calculi within the bladder was sufficient to induce all but the most ardent admirers of lithotrity to hesitate to give it the preference over a proceeding in which, whatever might be the risks, there was at least a guarantee that the whole of the stone had been removed.

Whilst the surgical mind was thus to some extent in doubt as to the limits to which the crushing operation of stone might safely be pushed, two important communications followed rapidly upon each other. That both of them should have emanated from America merely indicates that the desire to advance the art of surgery is not limited to the old country, but is a natural outcome of advancing civilisation and humanity.

The first of these papers was by Dr. Otis, of New York, who de-

1 *Transactions International Medical Congress*, 1881, vol. ii, p. 352.

monstrated beyond all reasonable doubt, and in a manner which had not previously been attempted, that the male urethra was capable of safely receiving far larger instruments than were generally employed. Following upon this, and probably influencing the views of the author, came Dr. Bigelow's paper on the removal of stone from the bladder by crushing and withdrawing it at a single operation; the latter communication clearly showing that the bladder was tolerant of much more prolonged manipulation than had previously been believed.

It appears to me that the originality of Bigelow in no way detracted from the importance of the work that had previously been done in this country and elsewhere, or compromised the acumen of those who were most interested in the progress of this department of surgery.

That Bigelow's method of procedure is a great step in advance—that it has extended the limits of lithotrity and curtailed those of lithotomy—there cannot be the least doubt. But to suppose that it is capable of universal application, or ever likely to be so, is as unreasonable as to suppose that the art of surgery in no way differs from the art of administering Holloway's pills. But does the lithotrity of to-day represent the finality of its perfection? I trow not. When we consider what chemistry, electricity, and other agencies are doing—how physical force is in many directions being supplanted by other means—can we doubt that there are yet improvements in store in the methods of effecting the destruction of concretions within the body? Nay, are there not already significant indications that such improvements are nigh at hand? Is it likely that the fruit of the labours of Garrod, of William Roberts, of Ord, of Vandyke Carter, and others has been already gathered? May not a more perfect knowledge of the physical and physiological laws which regulate the production of concretions in the human body result in enabling us not only more surely to prevent them, but to destroy them?

Considering the great activity that has within recent years been shown in demonstrating the preventable nature of many diseases, and the energy that has been displayed in grappling with them, it seems remarkable that no adequate steps should have been taken to ameliorate the hygienic condition of certain parts of this country where the amount of calculous disease is excessive, and the inhabitants, consequently, are exposed to an inordinate risk of contracting it. The admirable address by Mr. Cadge before our Association at Norwich, in 1874, furnishes abundant data for the further prosecution of inquiries of this kind. I cannot help thinking that if it could be shown to be even probable that the dogs, cats, rabbits, or frogs of the aforesaid districts were inconvenienced in a like manner with their owners, the matter would long ago have been forced upon our legislature with all the exaggeration that usually characterises agitations of this kind.

Though surgery has invariably shown itself equal to the circumstances and emergencies with which it has been called to cope—though the prevalence of stone in a district has always been compensated for, as far as this is possible, by the appearance of those most competent to deal with it—these are no reasons why such conditions should be permitted to continue. Had time or occasion offered, I think it would not be difficult to prove that circumstances, either fortuitous or by design, have been found to exercise a marked influence in diminishing or increasing, in certain places, the tendency to calculous disease.

One word in reference to lithotomy before I leave the subject of stone. There is no great operation in surgery, I believe, which furnishes more successful results than this. Taking the experience of the two hospitals in this city with which I have been associated, I find there have been within my recollection 102 cases of lithotomy in persons of all ages, but chiefly in children, and operated on either by my colleagues or by myself. In only five of these cases could I ascertain that a fatal result followed. My late esteemed friend, and our former associate, Mr. Southam, speaking of his own experience of lithotomy at Manchester, informed me that he had operated 120 times, and could only recall one death. In the great majority of the Liverpool cases the stones were not exceedingly large, and I have no doubt that many of them might have been removed by lithotrity. I question, however, whether the small mortality these figures indicate would thereby have been still further diminished, even if the calculation were made on a basis corresponding with the most successful statistics in lithotrity that have hitherto been obtained.

Passing to tumours of the bladder, it is not surprising, seeing what has been done for tumours of the ovaries, uterus, and intestines, by Sir Spencer Wells, Keith, Lawson Tait, Treves, and others, that growths occupying the interior of the bladder should have received special attention. Though the literature relating to this subject has been of a somewhat fragmentary character, such compilations as Stein's recent work, *A Study of Tumours of the Bladder*, conclusively show that some gratifying results have already been attained in both sexes. The great distress connected with this class of growths, the uncertainty as to the precise nature of the affection, in the first instance, and subsequently the kind of symptoms that accompany it, have naturally suggested the employment of means, having for their object their removal by operation.

Sir Henry Thompson has done good service in giving prominence to the employment of digital exploration of the bladder, and in furnishing illustrations of the great advantage that this proceeding is capable of affording in suitable cases.

From a consideration of some of the extremely valuable records which have been published by various surgeons, where the bladder has been opened for the removal of tumours, it appears to me that it might have been better had the operative proceeding terminated with the detection and exploration of the growth by the finger. The chief dangers which experience has shown to be liable to attend the performance of this class of operations, are:

1. The chance of rupturing a bladder, the coats of which have been rendered less resisting than natural.

2. The provocation of a hæmorrhage which it has been found difficult to control.

3. An incomplete removal of the growth.

On the other hand, an examination of many tumours of this kind, of which villous growths or tufts furnish the best examples, shows that there is nothing in their connections or relations which need necessarily interfere with their complete removal. Precise information as to the presence and attachments of these growths we may now obtain with comparative safety. Whether their removal is to follow upon their discovery will be a matter for further consideration.

With the view of extending our knowledge of these growths, a committee of this Association is occupied in collecting information relating to them. The report of this committee will, I hope, form the basis of an interesting discussion in the pathological section, which will be opened by Mr. Paul.

I now come to speak of the prostate, and I shall do so in reference to the part it takes in obstructing micturition, for the reason that it is this symptom which, in some form or other, brings the patient under our care. It appears to me that enlargement of the prostate is specially interesting to us in relation to its earliest, and to its most advanced, forms, and it is to these that I shall more directly refer.

If we take the obstructive disorders of the urinary apparatus, and inquire what feature of them is most detrimental to the associated parts, the answer undoubtedly will be, the misdirection of the muscular force that is thereby entailed. How can we explain the structural alterations which take place behind the obstructed point, and which manifest themselves in different ways, except as the results of urinary retention and retrograding pressure? How frequently do we find, in cases of stricture or enlarged prostate, that the whole of the apparatus behind the primary constriction consists of little else than dilated saccules and tubes. Is not this distinct evidence of back-pressure going on, though it may be imperceptible, from the moment that impediment arises to the escape of urine from the bladder? The more we study animal mechanics, either in their physiological or pathological application, the more can we appreciate the truism that force is never lost. If it is not permitted to act for good, it must be productive of evil; if it is not exerted towards the legitimate fulfilment of a normal act, it must inevitably exercise a corresponding pressure in an abnormal direction. Whenever I see, in the *post mortem* room, an ordinary specimen of dilated kidney, tortuous ureter, or sacculated bladder, associated with an enlarged prostate, or a stricture, the expression "misdirected force" almost involuntarily escapes from me.

Such considerations as these have long led me to believe that our treatment of prostatic stricture—or by whatever name we know it—commences, as a rule, far too late; we delay until the bladder shows, by the formation of a pouch, or a saccule, behind the prostate, the first bad influence of back-pressure before we seek to rectify it.

I have endeavoured to prove how much good may be done by the adoption of judicious mechanical treatment on the appearance of indications that the prostate is commencing to obstruct micturition; and I have founded my suggestion upon a condition which may be seen illustrated in any museum—viz., one in which, though the gland has become large, obstruction has not been known to occur

An extended adoption of this practice has convinced me that the pressing symptoms connected with an enlarging prostate may be kept in abeyance by the timely employment of those principles of treatment which are generally recognised as being applicable to any tubes within the body which are threatened with occlusion, and are within our reach.

In the more advanced forms of prostatic enlargement, where the bladder has been converted into a receptacle little better than a chronic abscess in which urine stagnates, surgery has done much to afford relief.

When the comfort that catheterism is capable of affording has ceased to be effectual, other plans of establishing a drain for the urine are at our disposal. It is not necessary that I should discuss the various means of effecting this; let me, however, say a few words in reference to two which have more recently come under notice: these are—first, incision into the bladder from the perinæum; and, secondly, paracentesis through the enlarged gland.

For the purpose of securing a more or less permanent channel for the escape of urine from the bladder, other than by the urethra, I must admit that, following the practice of Syme, and to some extent of Edward Cock, I have a decided preference for an incision through the perinæum, on the twofold ground of safety and comfort. We have had numerous examples of the great benefit that cystotomy is capable of affording for bladder-affections dependent upon a large prostate—none perhaps more striking than the case narrated by Mr. Lund, on the memorable occasion of the meeting in London of the International Medical Congress. The paper closes with this observation: "I have thus placed on record this case, unique in its character, and interesting and encouraging in its results, with the hope that, should a similar case occur to any surgeon now present, he will not hesitate to give his patient the chance of benefit from a course of procedure so simple in its nature, and so likely to be followed by temporary, if not permanent, benefit." (*Transactions of the International Medical Congress*, vol. ii.)

I may be permitted here to submit to your notice a method of puncturing the bladder through the enlarged prostate which has afforded very gratifying results. It consists in passing the trocar through the gland, and retaining it in the perinæum, so as to afford a permanent as well as a convenient drain for the urine. I should have had more diffidence in commending this operation to your notice had it not received the approval of our distinguished associate, Professor Gross, whose contributions to the surgery of the urinary organs are held in deservedly high repute on both sides of the Atlantic.

Though the primary object of cystotomy, as usually practised, is merely to place the bladder at rest by providing a continuous drain for the urine as well as the products of cystitis, it occurred to me, as it had already done to others, that it would be possible to extend this proceeding, with the view of removing those barriers to micturition which the hypertrophied gland so frequently presents.

It was to meet conditions such as these that Mercier introduced and practised division of the prostatic bar by means of a cutting instrument introduced along the urethra. This plan, though admirable in its conception, was open to the objection that in its execution it was necessarily uncertain, there being no means of surely ascertaining that the section was confined to the obstruction to be removed. On carefully considering the position of matters, as well as the proposals that had been made, it appeared to me more reasonable to attempt to divide the prostatic obstruction at the neck of the bladder from an opening made into the membranous urethra, than by means of instruments which had to traverse the whole length of the canal. I have recently brought under notice a case (BRITISH MEDICAL JOURNAL, June 9th, 1883) in which I thought it desirable to explore the prostatic urethra from an opening made in the perinæum, and through which I was enabled to divide with precision a prostatic barrier. The division of this portion of the gland was followed by complete restoration of the power of micturition, and has so far proved of permanent advantage.

The proceeding which I have thus put into practice seems first to have suggested itself to Mr. Guthrie, but I cannot find that he ever employed it. That it is not identical with the somewhat extensive incision of the prostate as for lateral lithotomy, which was practised by Sir William Blizard, is at once obvious. Its aim is to divide the obstruction—and the obstruction alone—by an opening so planned as not to expose the patient to undue risk; whilst, at the same time, it is capable of affording the greatest amount of room for manipulation by an extension of the incision, should this be found to be necessary.

I need hardly observe that a proceeding of this kind should be undertaken before the bladder has passed into a condition of confirmed and irremediable atrophy; otherwise, though we may succeed in removing an obstacle to the introduction of the catheter, our prospect of restoring the power of micturition will be as hopeless as it has proved to be under somewhat similar circumstances where the operation of lithotomy has been undertaken.

It is impossible to avoid the conclusion, from their examination after death, that many atonied bladders might have been prevented becoming so by the timely removal of the obstruction by which a condition of permanent paralysis was induced and maintained.

The operative treatment of the enlarged prostate, when it obstructs micturition to a degree that cannot be met by judicious catheterism, is yet, I believe, open to considerable improvement.

Though the literature relating to either complete or partial excision of the prostate is very limited, there is much in it of promise. In one case, where I extirpated the whole gland for malignant disease, the benefit that followed far exceeded my expectations. It was that of a middle-aged man, who, by reason of a carcinomatous prostate, was threatened with a speedy and painful death. I cut down upon the gland in the median line, and succeeded in enucleating it tolerably cleanly with my finger. I saw this patient eight months afterwards in very fair health, and quite able to go about his business. So far, he has enjoyed an immunity from the symptoms which induced me to perform this operation; and, though his disease is a malignant one, we have every reason to be content with the results obtained.

Then we have numerous examples where considerable masses of the prostate have been removed with very great advantage in the course of operations on the bladder. Amongst these, I would specially mention an important case by Mr. Bickersteth (*Royal Medical and Chirurgical Society*, 1882); and, more recently, another by Dr. John Ashhurst, of Philadelphia, in which the whole of an enlarged third lobe was successfully removed.

Cases such as these seem to favour the hope that operative surgery will be found capable of affording more relief to exceptional instances of this kind, and of extending to the large prostate the treatment which in some degree is applicable to other deep-seated growths.

Passing to the urethra, I would again take the opportunity of adverting to the value of Otis's work in regard to the dimensions and dilatability of this canal; if he had done no more than contribute to the improvement of lithotrity—and this cannot be questioned—we should still be largely in his debt. I cannot, however, follow him in his views relating to the performance of internal urethrotomy as a means of treating stricture of the urethra. My impression is, that this operation is losing instead of gaining ground in the opinion of many who have ample opportunities of judging fairly of its merits. That it is an operation fitted for the treatment of stricture in its early stage is a conclusion I am disposed to take exception to, on the ground that it is neither necessary nor safe as compared with other methods. I believe that, in its early stage, stricture may be successfully combated by the employment of thorough cleanliness combined with the judicious use of dilatation, as we are accustomed to practise it in this country.

If internal urethrotomy gave a greater immunity than other operations from a recurrence of stricture, or did away with the necessity for subsequent mechanical dilatation, then, perhaps, with the view of avoiding other risks to which all persons suffering from stricture are liable, I might feel more disposed to employ it; but, as such is not the case, and the risk attending its performance is not inconsiderable, I cannot concede the importance which is claimed for it by its more ardent admirers. That internal urethrotomy in some cases is a necessity—as by it we are enabled to render amenable to treatment a stricture hitherto intractable—I am willing to admit; but to recommend it as capable of effecting a permanent cure is quite another thing.

The treatment of impassable stricture of the urethra has received an important addition by the practice which Mr. Wheelhouse has introduced, the great credit of which he seems desirous rather of sharing with his surgical colleagues than of appropriating to himself, as I see he always refers to it as the "Leeds operation." Like other conditions which may be spoken of as relative to something else, rather than as fixed or defined, the impassable stricture is, I believe, gradually becoming rarer, a circumstance which is largely due to the great improvement that has taken place in the construction of instruments specially adapted to their treatment, amongst which I may mention the filiform bougies and the tunnelled instruments of Gouley, of New York. For the purpose intended, I do not think there is any proceeding equal to that which Mr. Wheelhouse

has introduced, and I have no hesitation in including it amongst the improvements to which I am now referring.

Permit me, without apology, in this mechanical age, where invention after invention for the treatment of stricture comes upon us with marvellous rapidity, to claim a moment's consideration for what Mr. Savory has called the medical aspect of this question. We all know what irritation is: there is such a thing as irritation of a stricture, either by what passes through it naturally or is introduced to correct it. Let us not disregard, as a principle of our treatment, the importance of securing for the urethra that physiological rest of which the late Mr. Hilton wrote so well.

The question may here very properly be asked whether, in our search for novelties as improvements in treatment, we have discovered any new diseases, the better management of which, by reason of our recent acquaintance with them, we may in all fairness leave to our descendants to determine. The admirable Bradshaw Address of Sir James Paget will, no doubt, have the effect of quickening our perceptions in this direction.

Though I cannot point to any discoveries of this kind as affecting the region which is now occupying our attention, I may note one gratifying result of extended clinical and pathological investigation: I refer to the juster assignment of symptoms to the causes producing them—symptoms which, not very long ago, were looked upon as constituting independent diseases. But, if we have not discovered any new diseases, we must remember that varying circumstances may at one time add intensity to some disorders, and considerably modify the progress of others. I have a strong impression that the times through which we are passing, characterised as they are by the production of great and continuous nerve-tension, have brought into prominence a state of brain-strain which is apt to show itself in any organ which may happen to be deranged or is overtaxed.

A recent author seemed rather to conclude that tension of this kind was most injuriously felt and shown by our American cousin, whilst the Britisher, for some reason or other, was less influenced in this manner. Whether this be so or not, I am not prepared to decide, but I am disposed to believe that purely nervous affections—affections associated, as far as we can determine, with no obvious structural alteration—are more common than they used to be. That they occasion much distress, and cause persons who suffer from them to be unduly apprehensive, will be generally admitted. Nay, further, by their mimicry of more certain diseases, they induce a condition of anxiety which is often intolerable. It is well, too, to bear in mind that the interpretation of symptoms, as also their prevention and amendment, are frequently to a large extent dependent on a recognition of the possible existence in a patient of exaggerated nerve-tension.

Before an audience of this kind it would be presumptuous on my part to indicate in detail the many improvements that have taken place in the treatment of surgical disorders of the urinary organs; further, where there have been so many contributors toward this progress it would be invidious for me to particularise.

Let me, however, in common fairness to those to whom we are much indebted, say one word in reference to the advance that has been steadily made in the construction of the means and appliances used for these purposes.

I can remember some instruments which five and twenty years ago, or even less, were regarded as improvements, but have now passed into obscurity or to the shelves of the museum. In no department of applied mechanics has greater perfection been obtained than by the surgical mechanician, and nowhere is this better illustrated than in the instruments employed in the treatment of urinary diseases.

It seems almost ungenerous, after referring to several proceedings of an operative kind, the doing of which entail pain and involve risk for the sake of advantages to follow, that I should allow to pass unnoticed the work of those who have removed the one and lessened the other. In chloroform and anæsthetics we have a priceless boon, without which surgery would long ago have been at a stand-still, and many persons now living in comfort and enjoyment would ere this have ceased to exist. I am not old enough to remember the pre-anæsthetic age; and, therefore, am unable to draw a contrast which will be a vivid one to some of the "elder brethren" I am addressing to-day. I am reminded, however, of an incident bearing upon such a contrast, which, with your permission, I will briefly relate.

Some two years ago, a sea-captain, a patient of mine, and by no means a bad amateur doctor, on returning from sea, told me somewhat gleefully that he had successfully performed an amputation. Whilst his ship was at Ruruta, an uncivilised island in the South Pacific, a poor native got his arm entangled in a sugar-crushing machine. As there was no doctor on the island, my friend the captain was summoned, and at once saw the necessity for removing the shattered fragments of the limb. The shrieks and struggles of the powerful aboriginal were most fearful. Recognising the necessity for taking steps to save the man's life, the captain hurried off to his ship, and returned with the necessary implements, together with a quart of the newest and most potent rum. In the absence of chloroform, he induced his patient to swallow this fiery compound, wine-glassful after wine-glassful, until intoxication was induced, and subsequently profound alcoholic insensibility. Then the tourniquet was applied, and amputation successfully performed. Recovery rapidly took place. So pleased was the savage with the effects of anæsthesia that he subsequently offered to let my friend cut off some of his toes provided that the process of inducing insensibility was repeated.

Next in importance to chloroform and anæsthetics are those means which have been recently promulgated for diminishing some of the greater risks contingent upon wounds and surgical operations. About antiseptics, I desire to speak in no uncertain terms. Though our views may not be unanimous, though some of us may be sceptical about the import of germs, and of sprays, and of other details, can we doubt that when the surgical historian of the nineteenth century has to recount the men as well as the measures that have favourably influenced the progress our art has made, the name of Lister will occupy a conspicuous place?

I have now done. It has not been my ambition to hold up to you a golden calf; to attempt to dress it in flowers of rhetoric and to ask you to worship it. I have rather endeavoured to remind you of some of the directions in which surgery is now travelling, and to estimate in a measure the pace at which it is going. It is impossible to engage in a work of this kind without a full conviction that though our art is an imperfect one, it is distinctly a progressive one. In the course of your visit to this, which has been aptly referred to as the second city of the empire, you will find almost all the arts and sciences laid under contribution for the development of commercial enterprise. The activity displayed in the promotion of trade and commerce will probably suggest the inquiry whether *we* are constantly progressive, whether *we* are in correspondence with the times in which we live.

There need, however, be no hesitation in asserting that, whether we are regarded as preventers of disease, or as practitioners of medicine or of surgery, every one of us in his daily practice is constantly demonstrating that, year by year, something additional is contributed by our profession to the comfort and the life of man.

THE WESTMINSTER SANITARY AID ASSOCIATION.—A drawing-room meeting was held lately at the residence of Mr. W. H. Smith, M.P., Grosvenor Place, for the purpose of extending the work commenced by the Westminster Sanitary Aid Association in arresting the spread of typhus, typhoid, scarlet fever, and such diseases. Archdeacon Farrar was, on the motion of Major Cavendish Fitzroy, elected to preside; and, on taking the chair, said that the purpose of the meeting was intensely practical. Since the formation of the Association, visitors had been appointed, who had worked by three methods—they had taught the practice of disinfection, the necessity of removing the patients and of isolating them, and they had assisted the poor to carry out the necessary precautions. He showed that, with very small means, the Association, in the course of the year, had greatly lessened the spread of these preventable evils, and thus lessened the stream of human misery which was always flowing. He gave facts from his own personal knowledge of the great practical value of the Association, and expressed his deep regret that so small a sum as £250 had not been raised. He appealed to them that on the lowest grounds of personal selfishness, the well-to-do should support this work; for he reminded them that disease spreading in the habitations of the poor was not unlikely to affect other circles. Mrs. Johnstone of Hastings then gave a summary of her successful experience in lessening the spread of infectious diseases; and she showed the necessity of providing against infection, instead of waiting, as some unwise people would do, until an epidemic broke out. Mr. Barnard Holt, as medical officer of health for the district, warmly urged the need for voluntary help in lessening zymotic diseases. Mr. Michael, Q.C., urged upon the ladies present to give their earnest attention to sanitary questions. Other practical suggestions were given, and the meeting concluded.

ADDRESS IN PATHOLOGY.

BY

CHARLES CREIGHTON, M.D.

ON THE AUTONOMOUS LIFE OF THE SPECIFIC INFECTIONS.

MR. PRESIDENT AND GENTLEMEN,—I have unusually good reasons for prefacing my address with an apology. I cannot claim to speak from the fulness of experience, which has given so much value and distinction to the addresses that have been delivered before the Association; and I have a subject assigned to me which demands experience and a mature judgment in no ordinary degree. Pathology is a growing science, its aspects are constantly changing, a single year's work brings us a multitude of new and often puzzling facts; and although the issues are of the most momentous kind, not even the wisest and most judicial minds in the profession can alway see their way to a clear and definite opinion.

But, amidst all this uncertainty, there is one central and guiding principle in the doctrine of disease which we may hold fast to. It is the physiological principle, or the idea that diseased states of the body are but modifications of healthy states, deviations from the beaten track, perturbations of the normal life, shortcomings of the physiological standard. Thus, even in so formidable a malady as diabetes, we are still within sight of the line of health; there may be a physiological glycosuria; and that fact, as Dr. Bence Jones says, proves to us that the disease is only a little way distant from health. "Here as elsewhere," says that eminent chemist and pathologist, "there is no definite limit where health ends and disease begins." To find the proper physiological analogies for diseased processes is the task of modern pathology; and I do not think that there is, in the whole range of science, any better kind of intellectual exercise than to expose the working of the ordinary laws of structure and function under the mask of disease. The physiological idea is, indeed, the hope and inspiration of pathological science, as it is also of medical practice. But there is no reason why I should attempt to say again what has so often been well said before. Members of the Association who heard Professor Michael Foster, at the Cambridge meeting, discourse on the "Relations of Physiology to Pathology," will not have forgotten how he proved that the difference between these two sciences was merely a superficial difference, whether as regarded method or subject-matter. We shall, most of us, also recall Professor Huxley's lucid exposition before the International Medical Congress, of the "Connection of the Biological Sciences with Medicine," wherein he showed that pathology was that branch of biology which concerned itself with perturbations of the normal life.

That view of pathology is one that we all share; and as I have endeavoured, according to my opportunities, to work out physiological analogies of disease in particular instances, I shall not be suspected of any want of sympathy with the general principle. But I am none the less confronted with the difficulty that a great deal of pathology appears to be quite different in kind from any physiology known to us. What are the physiological analogies of the infective and constitutional diseases, and how large a part of pathology do the diseases of that class stand for?

There is, I believe, a serious difficulty here, and a difficulty that made itself felt in the very first system of physiological medicine that was given to the world. Broussais was the author of the first attempt at a physiological scheme of disease; and it was only a year or two ago that Professor Charcot was claiming for his brilliant countryman the credit of having broken down the dualism of health and disease, and of having eradicated that old and pernicious habit of regarding disease as a separate entity. But Professor Charcot said nothing of the rock on which Broussais is generally accounted to have made shipwreck. The author of the first physiological medicine was thorough-going, and it was because he endeavoured to be comprehensive and consistent that he failed. He left out no great disease from his physiological scheme, not even typhus nor Asiatic cholera; they were all perturbations of the normal life, and a good many of them were forms of gastro-enteritis. Professor Charcot may be right in claiming the physiological medicine of Broussais as the example for all subsequent times; but it is quite certain that it served also as a warning to those who next took the physiological medicine in hand. They were careful to lighten the ship by throwing overboard Asiatic cholera, typhus fever, and, in fact, the whole of the acute and chronic infections. Just about the time when the thorough-going system of Broussais had provoked the inevitable reaction, Professor Henle had made his suggestion about minute parasitic organisms being the causes of the specific infective diseases; and it is curious to read, at a distance of forty years, in the first volume of the German *Archives of Physiological Medicine* (p. 88), how Griesinger, one of its sponsors, promptly availed himself of the parasitic hypothesis of Henle in order to account for all those diseases which had been prudently omitted from the physiological programme.

But I venture to say that, when we congratulate ourselves upon the physiological basis of pathology, we do not always reflect how much of disease is thus excluded from the class of disturbed physiological processes, and how small a fraction remains to fill the physiological categories. There are several passages in Sydenham's works in which he gives his estimate of the proportion that the species of disease—the *morbi typo induti*—bear to the rest; he estimates diseases of a specific type at two-thirds of the whole; and it will be admitted, I think, when we look abroad as well as at home, and when we read history as well as contemporary records, that this estimate shows his fairness of mind and his sense of proportion.

The serious difficulty, then, which I spoke of—the difficulty that must have been present to the mind of Broussais, and must occur more or less to everyone—is that a physiological medicine, which leaves out the larger and more formidable half of disease, is hardly worthy of the name. The doctrine that morbid processes are after all merely perturbations of normal processes, or, as Hunter said, "a perversion of the natural actions of the animal economy," is the great principle of scientific pathology; but we shall have to speak less enthusiastically of it, if it should appear that it has no place for the long list of infective diseases—for plague, for cholera, for yellow fever, for typhus, for small-pox, for leprosy, for syphilis, for cancer, for consumption. If the physiological idea is to be good for anything, it ought to be good for those; for they are the real difficulties of pathological science, and the real *opprobria* of the medical art.

I am sanguine enough to believe that the physiological doctrine will one day be shown to be as large in its application as it is rational and hopeful in its spirit. It is for that reason that I have decided to use this public opportunity that has come to me—and come to me most unexpectedly, and, I feel, most undeservedly—in order to speak of certain aspects of the specific infections, which are perhaps not the aspects most commonly brought before us at present. One would wish to think of these diseases, strange and terrible though they be, as still joined in continuity with the common disorders of structure and function; and I am accustomed to express for myself this connection by a formula, which has no other value than belongs to a mode of thought or a form of words, but may still serve as a convenient or empirical standing ground for those who seek to observe a certain unity and sequence in their study of disease.

I shall endeavour, then, to discover some relation between common aberrations of structure and function and the specific infections, or a relation between disordered states of the body and the self-existent species of disease; and I shall make this attempt with two or three representative instances. It will be convenient to begin with cancer, for the reason that the suggestions that I have to make arise most naturally out of the study of cancer.

Cancer is an infection, although its infective power does not extend, except in heredity, beyond the individual body in which the disease takes its rise. I do not forget that some pathologists consider cancer to be no more than an overgrowth of epithelium. But we shall find it difficult to explain to a patient with cancer that he is suffering merely from an overgrowth of his epithelium. All the world knows what cancer is, and no microscopic analysis will ever persuade men that cancer is anything but the devouring thing, the implacable enemy, that the common eye sees it to be. What the microscope does show us, is that a cancerous tumour has not always been cancerous. If we take any of the common seats of cancer—the stomach, or the uterus, or the breast,—we shall find that the disease may be traced back to a point at which it comes within the category of structural and functional irregularities. I say structural *and* functional, because it seems to me that if we attend only to the structural features of the disorder, as some of our German colleagues are content to do, we are likely to miss the central idea of the deviation from the normal. In the favourite seats of cancer, the secretory function is not always or altogether

what we often take secretion to be. Under certain circumstances, solid products, or cells, form part of the secretion, and those cells do not always get carried off, as the cells do in an ordinary catarrh, by discharge from the surface, or by way of the lymphatic drainage, but they may stagnate and accumulate in the deeper textures of the organ or part. So far, there is nothing in the morbid process for which we may not find close physiological analogies. In some of the secretions of the invertebrata, and even in certain glands of the higher animals, the secretion retains its solid or cellular character for a considerable time. Again, the heaping up of the solid or bye-products of secretion in the spaces of the underlying connective tissue is found to occur in the breast as a perfectly natural incident.

Still further, the free space of a gland may become filled with cast-off epithelial cells; or the epithelial lining may be raised into wart-like growths. Even a whole gland, like the breast, or a whole lobe of the gland, may be uniformly affected in the way of overgrowth, producing an adenomatous condition, or the condition of simple glandular tumour. There is nothing cancerous in all this; we are still within sight of the line of health. The cancerous element comes in usually after a particular time of life, and it consists in the implication of other tissues than the glandular or secreting structure, whose irregularities were the exciting cause. Epithelial cells that have not been used for secretion can become mischievous as infecting cells, and if we now examine the region of disease, we shall find the marvellous spectacle of an epithelial kind of structure springing from the tissues around where there is no epithelium naturally; a little later, the same epithelial pattern is, as it were, carved out of the parenchyma of lymphatic glands, or of the liver, or in the deeper layers of the skin, or even in still more unexpected places. The pattern of this widely distributed structure is always the same in a given case, and there is always something in it which reminds us of the primary seat of glandular disturbance. An intelligible disorder of structure and function, not without its close analogies in physiology, has acquired a kind of individuality or independence, and a power to reproduce itself throughout the body; or, in other words, it has become a ravaging cancer.

I shall not delay here to go into the particulars of this extraordinary process, or to enter upon controversial matters. I take cancer as a striking instance of a disease which may be traced along the track of physiological perturbations for a certain distance, after which it becomes what all the world knows it to be—a semi-independent life, an *imperium in imperio*, a power inseparable from the general life of the body, compatible even with blooming health for a time, but in the end sure to gain the mastery.

In taking a full and fair view of cancer, of its physiological beginnings, and its ultra-physiological course, we cannot but admit that there is some truth in that hard saying of Paracelsus: "In such a disease, a man is himself and another, he has two bodies at one time, enclosed the one in the other, and yet he is one man." This kind of Platonic mysticism is not what one would choose to import into exact science. But we are bound by a regard for facts; and I do not see how the facts of cancer, whether they be microscopic or clinical, can be done justice to, unless we admit that a state of the body may be raised to the power and dignity of a life of semi-independence. I purpose speaking, in the sequel, of this semi-independence under the name of autonomy; and I shall endeavour to show, in the case of two or three other representative infective diseases, how a perturbation of the physiological life has acquired its autonomy, or what the pre-autonomous stage of those infections may have been. This doctrine of acquired autonomy and the pre-autonomous stage is the formula in terms of which I would express the relation between ordinary perturbations of structure and function and the specific infections, the relation between disordered states of the body and the self-existent species of disease.

If cancer has always been the great popular instance of a disease enjoying a kind of life of its own within the body, consumption hardly yields to it in its relentlessness, and it far exceeds it in its prevalence. Is it possible, in the case of consumption, to show that a wasting infection has arisen out of common disturbances of the physiological life? Before so critical an audience, I shall not have the hardihood to speak of consumption in general—of the disease about which so great masters in pathology as Laennec and Virchow have differed widely. But there is a form of tubercle, the bovine form, in which the facts are much less ambiguous, and much easier to deal with, and, as it happens, more familiar to myself; and for bovine tubercle, or, as it is sometimes called, the pearl-disease, I shall venture to inquire whether the small beginnings of it may not be found in a certain kind of disturbance of ruminant nutrition, just as we find the pre-cancerous stage of cancer in certain irregularities of the apparatus and process of secretion. Those beginnings would correspond to what I have called the pre-autonomous stage; while the autonomous life of the disease, as a semi-independent thing, would be shown in its infectiveness.

Bovine tubercle is a more complete example of infection than cancer. It is a constitutional disease pervading the whole body; it is likely to end in wasting and cachexia; it is very liable to be inherited by the offspring; it can be given to other animals, by inoculation or by feeding, in experiments, and probably also by accident; and there are recorded cases in veterinary practice, which lead us to think that it hangs about a stall, or spreads from stall to stall by volatile contagion. There is, in fact, no disease, in human or veterinary pathology, that shows a more complete autonomy; it is constitutional, hereditary, infective, and contagious.

The pearl-disease is peculiarly a ruminant malady, and it is curiously limited within the ruminant order itself. It does not occur in the sheep, nor, as far as we know, in the deer; and by far the larger number of cases are found in the domesticated bovine species, in which it is, indeed, much too common. I have been on the outlook for specimens of it among the animals that die in the Zoological Gardens in London, and my experience hitherto has been curious and suggestive. I have hitherto found the peculiar anatomical characters of this form of tubercle in only three species: the eland, a large South African antelope, like a cow; the nilghau, a large Indian antelope, whose name means "the blue cow;" and the prong-horned antelope from America, another of those half-way animals between the bovines and the antelopes, which the late Mr. Forbes, the prosector at the Zoological Gardens, took much interest in as a transition species. It is certainly a remarkable thing that those antelopes, which resemble the bovines so closely in zoological characters, should resemble them also in their liability, under confinement, to a distinctive kind of new formation. This kind of tubercle is not only an affair of the ruminant order, but it is an affair of a small group of ruminants, mostly belonging to one genus.

What, then, are the distinctive anatomical characters of this distinctively ruminant disease? The morbid anatomy of bovine tuberculosis has been written with as little reference to theory or preconceived opinion as could be wished. It has been, in great part, observed by those whose business lies with cattle; and the popular names of the disease in all countries will show us how it has presented itself to the common observer. The various names show that it is primarily an affection of the serous membranes; the Germans have called it the "pearl-disease," from the rounded whitish nodules attached to the abdominal and thoracic surfaces; the French have named it "pommelière," from a fancied resemblance of the nodules to clusters of potatoes; in England, it has been called "the grapes;" and, in Scotland, "angle-berries." I am merely repeating the language of all authorities, including Professor Virchow, when I say that the disease is primarily one of the serous membranes—a growth of multiple nodules, usually small and flattened, often suspended by a stalk, and sometimes as large as a cherry or an apple. These are the beginnings of the disease; but it extends from the serous membranes, by infection, to the lymphatic glands, which become changed into the same mortar-like substance that is found in the degenerated nodules. The lungs, also, are very apt to get infected, as they so often do with new formations of a sarcomatous nature; and the infection may, in the end, reach most of the organs, as well as the bones and joints, causing the animal to die of general cachexia and wasting.

Such is the usual sequence of events where the disease is originally acquired; but in the cases of inheritance—and these are now estimated at more than one-half—there may be some departure from this order; in them, the formations in the lymphatic glands, lungs, and other viscera, may be more conspicuous than the serous-membrane nodules; but even in the inherited disease, the pleural or peritoneal surfaces will usually show characteristic traces of the primary new formation. Some allowance must be made for certain modifications in the order and distribution of the disease, when it is communicated directly to the offspring by a sire or dam which had acquired it; and it is all the more necessary to be clear on this point, since, at the present day, the hereditary taint would seem to be so widely distributed throughout the bovine stock as to obscure somewhat the original characters of the disease. In what I have to say, I must speak of the disease as it is primarily acquired, and as it is described in the earliest writings, and by its popular names.

It starts then, as a multiple nodular condition of the abdominal

and thoracic serous surfaces, it acquires the character of a constitutional disease, it goes all through the body, it passes directly to the offspring, it may be inoculated upon healthy animals or communicated to them by feeding, and it is not improbable that it passes by volatile contagion. The infectiveness within the original body, and the faculty of passing to other animals, is what I would call its autonomous life, and I would look for its pre-autonomous stage in the peculiar groups of multiple nodules on the serous surfaces. What then is the origin of these nodules, in what relation do they stand to any known disorders of ruminant nutrition, or, rather, of the nutrition of those ruminants that are closely confined, artificially fed, and over-milked?

I am not aware that the suggestion which I have to make has occurred to anyone before, and I put it forward, therefore, with some diffidence. This suggestion arises out of a consideration of the forms and favourite seats of the nodules, and of their structure, and degenerations. One cannot help observing that these multiple nodules are especially apt to grow in the seats of fat-formation, and to assume the external form of deposits of fat, either the stalked and pendulous form, or the flattened form of confluent lobules or patches. Now the bovines are somewhat peculiar in the way in which they lay on fat. They have not so much of subcutaneous fat as the sheep or the pig, but they are very apt to have internal formations of adipose tissue, sometimes in situations where one would imagine that it could serve none of the ordinary purposes of fat. Besides the common deposits of fat about the abdominal organs and in the thorax, there may be lumpy masses of it even on the pleura covering the ribs, and on the diaphragm; and, in highly fed animals it is not unusual to find a lobulated layer of the same tissue all over the surface of the spleen, and even on the surface of the liver. It can hardly escape us that those serous surfaces which are invaded in the course of this excessive fat-forming habit, are just the localities where the pearl nodules are found. There is, indeed, one rather important exception to this rule, namely, the borders and surfaces of the lungs. I cannot say whether a border of fat ever occurs round the margins of the lungs in cattle, as it occurs round the spleen and liver, or under the pulmonary pleura, as it is found under the costal pleura; but, if that should be the case, the analogy with the pearl-disease would be complete, so far as situation goes; otherwise, we must explain the nodule of the pulmonary pleura on the hypothesis of secondary infection. As regards form, the resemblance between the physiological and the pathological formations is most striking; in both cases we may find either a finely lobulated stratum of translucent tissue, or coarser lumpy masses, or pendulous nodules.

But, after all, the diseased nodules of the serous membranes are not fat, or, at all events, they are not composed of adipose tissue throughout most of their extent. They are not multiple lipomata; but it would be strictly correct to describe them as multiple fibromata, or sarcomata with a deficient blood-supply, or rather as a multiple tumour-formation containing a mixture of those two kinds of tissue, growing in the seats of fat-formation, and assuming the lobulated, or lumpy, or pendulous forms of the sub-serous fat.

I do not think that I have gone beyond the facts in this statement of the naked-eye characters of the primary new growths to which the bovines are so liable, and I cannot help thinking that there must be some connection between them and vicissitudes in the nutrition of those animals as manifested in that tissue which would be most affected in nutrition, namely, the fat-tissue. The facts may be explained in two ways, both of which may be applicable, although I would regard one of them as more probable than the other. Either the formations on the serous membranes are atrophied or degenerate masses of fat in which the blood-supply has failed to a great extent, or they are radically new growths which have sprung up in the old lines of fat-formation or where fat may once have been. The description in a veterinary text-book of retrogressive changes in the multiple lipomata of the serous membranes, reads very much like a description of some of the bovine tubercles that we meet with; the oily contents of the fat-cells disappear, the connective tissue hardens and thickens, calcareous matter is deposited, and a mortar-like substance takes the place of what once was fat. But there is another and perhaps better way of accounting for the fact that the morbid growths are found in some of the favourite seats of the internal fat and in its peculiar shapes. It is a well-known zoological characteristic of the bovines that their fat is naturally apt to come and go from time to time, in the wild state, according to the periodicity of the seasons, and in the domesticated state, according to a multitude of artificial practices in the management of dairy and farm stock. Nothing can be more artificial, for example, than the conditions which cows in town dairies are subjected to: the close confinement, the unnatural feeding, and the excessive milking. It is quite conceivable that an animal, under those circumstances, and more especially when it is growing old, would depart from its natural fat-forming habit, and put on, instead, an embryonic kind of tissue, which is neither fat nor anything else of a physiological kind, although it occupies the old seats of adipose tissue, runs into the familiar mould, as it were, and grows to the old pattern.

Whether we take the one explanation or the other, or the two together, there is, I think, a pretty strong chain of evidence that bovine tubercle begins as a disorder of nutrition. It is oftenest acquired by animals that are farthest removed from their natural conditions—by cows imprisoned in town dairies; and the disease that those animals are so peculiarly liable to begins as a kind of multiple morbid growth, which occupies the very seats of the internal fat and runs into its very shapes. Now, the abdominal and thoracic fat is precisely the tissue that might be expected to show the effects of malnutrition in the way of structural changes. The tubercles are simply collections of embryonic tissue in which the formation of blood-vessels has been inadequate, and in which degeneration has inevitably followed; and anyone who has studied the development of fat will readily admit that the same embryonic cells growing in the particular localities might have become fat-cells if the blood-supply had been sufficient.

Whether I have indicated truly or not the circumstances in which we should seek for the beginnings of this peculiar kind of new growth, I am confident, at least, that we must look for these beginnings in some physiological disorder or other within the small group of ruminants, and not elsewhere. Disordered nutrition appears to me to be able to account for this kind of multiple tumour-disease, just as I believe that disordered secretion can account for the beginnings of cancer. Disordered nutrition shows itself in various ways within the body; but there is only one tissue that it specially affects, and that is the adipose tissue, just as the glandular tissue is the proper seat of secretory disturbances. In the one case as in the other, the disorder of function finds a structural expression; it acquires length, breadth, and thickness; or, in other words, it results in a tumour. The functional disease thus acquires the degree of individuality which may be ascribed to a tumour, and that must be the beginning of its life of semi-independence within the body. In both cases, the pre-autonomous stage is a common disorder of structure and function—of secretion in the one case, and of nutrition in the other; and each goes on to acquire the mysterious power of infection. But they become autonomous in different ways, or under different circumstances. I have already spoken briefly of cancerous infectiveness, and I have elsewhere endeavoured to trace the connection between it and the antecedent glandular disturbances. In bovine tubercle, I should ascribe the infectiveness to the *multiplicity* of the primary nodules, and to the fact of their being seated on the serous membranes, which are so fundamental a part of the lymphatic system. Multiple tumours of the serous membranes are favourably situated for infecting the lymphatic glands, and the infection of the lymphatic glands is only the beginning of an autonomous career. Professor Virchow has shown in his great work on morbid growths, how the lobules of abdominal fat may become multiple stalked lipomata, each lobule becoming a kind of individual tumour, and growing as such; and he adds the following remarkable words: "There is no doubt that this kind of multiplicity does not differ altogether from what we find in malignant tumours or in an infective dyscrasia;" and if that can be said of multiple lipomata still retaining the proper structure and nutrition of fat, it can be said, with even greater truth, of those multiple growths of the abdominal and thoracic surfaces which we have good reason for taking to be rather the degenerations or substitutes of the fat.

There is one other point to be noted in connection with bovine tubercle. It may or may not be primarily due, as I have supposed, to an error of nutrition in the abdominal and thoracic deposits of fat, but its morphological characters are certainly peculiar, and they belong, in a sense, to the bovine organisation. If I may so speak, it has sprung out of bovine soil, and the marks of its bovine origin never quite leave it, even when it is set up in the bodies of animals widely removed from the ruminants. A mere condition or state of the ruminant body can be abstracted, as it were, from all other ruminant conditions, and made to live in another body; and that is an extreme instance of what is meant by the autonomous life of the specific infections, or of the semi-independent existence of the species of disease.

Having presented cancer, and one of the varieties of tubercle, in

this light, I shall next inquire whether this formula of an acquired autonomy may not be applied to a third great disease, representative of another class of infections, I mean small-pox. Small-pox may be looked at from more than one point of view without losing sight of its main features. Our great English dermatologist, Willan, looked upon small-pox as a skin-disease; but Willan was also one of the first to investigate the history of small-pox epidemics throughout the world, and he was not likely, therefore, to underrate its importance as a pestilence. Hebra also ranks small-pox among the cutaneous disorders, and the authorities of the Allgemeine Krankenhaus at Vienna have given practical effect to Hebra's doctrine so far as to place the small-pox wards under the department for diseases of the skin; and I can testify, from an experience of the Vienna small-pox wards, that the disease does not lose any of its contagious power by being classified among skin-diseases. An experience gained under those circumstances is apt to make an impression, and, from that time, I have never been quite able to think of small-pox except as an ill-smelling condition of the human skin which one person may impart to another. It is a skin-disease which has been reproduced with the greatest accuracy and fidelity in millions of copies for hundreds of years, and the extraordinary closeness of the mimicry has given rise to the opinion that the disease is really the uniform effect of some unknown poison. But the anatomical structure and evolution of the pock is too elaborate to be the simple and direct effect of an extrinsic poison; it is not like a flea-bite, or like the nettle-rash which comes out in some peculiarly constituted persons after eating shell-fish, or, as I have known, even from eating a single wholesome strawberry. The pock is a complicated affair, and there is a history written in it, a history of characters acquired bit by bit, as in the evolution of living things, a history which has been transacted within the body; and the stages of this history are run through with more or less completeness in every case of the communicated disease. The papules had developed fluid in their summits, they had grown in a peculiar way to the breadth, the original centre had become a distinct depression; and in the course of this evolution, certain partitions had been formed in the interior of the pock. Further, the pock is more deeply rooted in the skin than most skin-diseases known to us; for its base goes down to the vascular layer of the corium, and, when it scabs, it leaves a considerable defect of substance, (more particularly in those localities such as the face, where the vascular layer of the corium is well developed,) a peculiarity among skin-diseases which can hardly be matched unless it be in some of the tropical forms of impetigo. This skin-disease is ushered in by much constitutional disturbance or fever; and, as in some other skin-diseases which are not contagious, the fever abates when the eruption has come out, and the subsequent constitutional disturbance is exactly in proportion to the number of the pocks.

The remarkable thing is that all this complexity of anatomical structure, of stages of evolution, and of characteristic fever, should have preserved its unity and individuality through so many transmissions, in all sorts and conditions of men, and in all parts of the world. The disease possesses what I would call autonomy in a high degree, and, from that point of view, it becomes a matter of no ordinary interest to inquire into its pre-autonomous history.

Professor Hirsch, in his *Handbook of Geographical and Historical Pathology* (a work which we are soon to have in an English dress), concludes an elaborate review of the historical evidence about small-pox with the opinion that we have to go to tropical countries, to Hindostan and to the interior of Africa, for its original seats, and to go back to a remote antiquity to find the beginnings of it. Lichtenstein, one of the early explorers of Africa from the southern end, found small-pox to be prevalent wherever he penetrated, and he found it among tribes who professed to have got it from nations still farther from the sea. According to Pruner, the disease is peculiarly an African disease. We may take it, therefore, that small-pox was originally a disease of the black skin, and it is in keeping with that historical and geographical induction to find that the black-skinned races are by far the most susceptible of the disease even nowadays, when it is set up only by contagion.

It is impossible to speculate to any purpose on the rise and development of small-pox out of some common and frequent disorder of the black skin under such influences as tropical heat and moisture or under the peculiar conditions which obtain among the swarming populations of tropical countries. One naturally thinks of a complex form of "febrile lichen," a skin-disease which Dr. George Gregory admits that he could not always diagnose from small-pox; and if we imagine a widely prevalent kind of febrile lichen to follow somewhat the same development that Willan describes in a remarkable case of lichen agrius, we should have a not very remote analogy for what I should call the pre-autonomous stage of small-pox, both in the structural characters and in the constitutional fever. We are, at least, justified in thinking of some form of tropical skin-disease, widely spread within a certain zone, very apt to recur in the individual, and with each recurrence to become more inveterate, and to develop a more complex structure. Given a number of people suffering from such a cutaneous disorder at one time, and some great migration or invasion, and we shall probably have the circumstances under which the skin-disease would become communicable, would pass by contagion to the skins of those who had never incurred the disease by natural causes, and pass all the more easily to them if they belonged to an entirely different race, or presented the ordinary contrasts of civilisation and barbarism, of white skin and black.

I do not say that it is an easy thing to construct the circumstances under which this disease of the black skin acquired, what I would call, its autonomy. It was probably a gradual process; its semi-independence must have been hardly won and slowly consolidated, until, at length, it was ready to start on its devastating campaigns. Small-pox has been a disease on so stupendous a scale, that it must seem to be mere hardihood to speak of it as a condition of the skin, originally acquired in the tropics, which has been passed on from one body to another. But, even if history and geographical distribution had told us nothing, the loathsomeness, the peculiar odour, and the no less peculiar scars of small-pox, might of themselves suggest another skin than ours; and I have seen too many instances of the minute mimicry that goes with every infection, to feel any surprise that a disease, which is native under a tropical sun, should impress upon its victims in every country something even of the primary ethnological characters.

And now let us compare the autonomous disease, as we know it, with the original skin-disease out of which it must have grown. The contagious small-pox is distinguished by what Sir Thomas Watson calls "the very curious fact" that it generally occurs but once in a person's life. "In this," says Watson, "the contagious disease offers a remarkable contrast to inflammations, which, having happened once, are, for that very reason, more apt to happen again;" and he goes on to show the impropriety of ranking small-pox under the head of cutaneous diseases; it would "more rightly be called a blood-disease." But there need be no antagonism between the view of small-pox as a cutaneous disease, and the view of it as an infection. This formula of an acquired autonomy, and of a pre-autonomous stage, which I have been recommending as a sort of nostrum for our intellectual difficulties, appears to me to be a means of reconciling those antagonistic opinions which have arisen, not so much in connexion with small-pox, as in the controversies about some other infective diseases, which are supposed still to develop *de novo* from time to time. Small-pox, in its pre-autonomous stage, would be precisely that kind of skin-disease which, having happened once, is, for that very reason, more apt to happen again; it would recur in the same spots, as in the early stages of leprosy, and it would become more rooted and more inveterate each time it came back. The inveteracy of this morbid condition of the skin, due in part to neglect, would be its first step towards acquiring that remarkable power of semi-independence within the body, which I have been endeavouring to illustrate under the name of autonomy; it is this acquired power that enables it to pass to another person's skin as an individual state of the body, which can be, as it were, abstracted; and its individuality is proved by the best of all tests of what constitutes an individual—the test of parentage; for the skin-disease that springs up in the contaminated body is exactly like the skin-disease which must have been originally acquired. But the infected or impregnated body runs through all the stages of the malady—papule, vesicle, pustule, scabbing, and scarring—in rapid succession in two or three weeks, and it is thenceforward done with that particular form of skin-disease for ever. This autonomous form of the disease is a brief abstract and chronicle of its whole protracted development or evolution; it sums up the past, and just as it sums up the past, so it anticipates the future.

Small-pox appears, then, to be a clear case of a morbid condition of the body, namely, a cutaneous condition, which has been enabled to lead a kind of independent life. But small-pox is one of those diseases that always pass directly from one body to another, and the direct succession of cases does not appear ever to have been broken. There is, however, another large class of infections, corresponding to Pettenkofer's division of the exogenous contagia, which are not only able to subsist for long periods outside the human body, but

which even require a certain amount of external putrefaction in order to make them potent. Cholera is one great example of a disease of the exogenous group, and yellow fever is another; and I shall ask your attention for a few minutes to some facts relating to the latter disease; for here, at least, it must seem as if we had got quite away from common disorders of structure or function, and into an absolutely separate region of disease, where the physiological principle does not serve us.

Yellow fever is one of those maladies in which historical and geographical facts are of even greater importance than microscopic or chemical, and hardly less important than clinical; and, as I have been lately occupied in turning into English the German sentences of Professor Hirsch's treatise on Geographical and Historical Pathology, I have had occasion to reflect upon the more salient facts in the history and geography of yellow fever. The first point that strikes one is, that it appeared in the seventeenth century as a new disease. For more than a century after the Spanish conquest of America, and for many years after the first English and French colonisation in the west, there was no yellow fever, and, when it did come to Guadaloupe and Barbadoes, it was recognised as something quite different from the ever-present malarial fever. The next point is, that there is something quite peculiar in its geographical distribution. At the present day, we are apt to think of yellow fever as the fever of the Gulf of Mexico and Brazil; but it had been the scourge of Philadelphia, and even of New England, for many years before it broke out in New Orleans at all (1796); and its first appearance at Rio was in 1849. In reading Bancroft's treatise on this disease, published in 1811, it is curious to notice how much yellow fever has shifted its ground; it has always remained true to certain shipping places in the West Indies, but the other great centres in Bancroft's time have absolutely ceased to be the seats of yellow fever; and some of the places that are among the worst seats of the fever now are not even mentioned in Bancroft's pages. In fact, it is not latitude and longitude that explains the peculiar distribution of the disease. There is only one thing that covers its history, and its geography and the remarkable changes in its distribution, and that is the slave-trade. Disregarding its occasional and widely ranging excursions, and confining the attention to the localities where it is or has been, at one time or another, endemic or repeatedly epidemic, these are found to be the creeks and wharves and low shipping quarters of the ports of debarcation of the slave-trade, together with a few much less endemic, but not less significant spots, in Spain and on the west coast of Africa—the places to which vessels engaged in the contraband slave-trade had gone on their return voyage. The single exception to this curious rule is Peru; but Peru is hardly an exception, when we bear in mind the many points of resemblance between its coolie trade across the Pacific and the old African slave-trade.

It was an inquiry into the disastrous outbreak at Barcelona in 1821, in which 5,000 persons died, that gave the first clue to the connection between yellow fever and the slave-trade. The circumstances were investigated by Dr. Audouard for the French Government, and the same physician was sent again in 1823 to inquire into a more limited epidemic at a small port in Biscay. The facts were very much the same in the two outbreaks; ship-carpenters, engaged in repairing vessels that had arrived some time before from the West Indies, were seized with a prostrating illness, which they attributed to putrid emanations from the bilge water, and they became the first victims of an epidemic which proved to be yellow fever. Dr. Audouard found that the vessel which started the infection in the 1823 epidemic was a slaver; and, on recalling the facts of the Barcelona outbreak two years before, he found that the two vessels chiefly concerned in it were also slavers, in proof of which, he said, they might still be seen with the irons for securing the slaves fixed in the planking of their holds. It was ascertained also that one of them had had an extraordinary amount of dysenteric sickness and mortality among her human cargo on the previous voyage. He calculated that about sixty Spanish vessels had been engaged in this contraband trade in 1820, that they had taken out about 15,000 slaves from Africa to the West Indies, and had returned to Spain with merchandise before going down to the African coast for their next cargoes. This was, in fact, the time of the irregular slave-trade, when the vessels were not adapted for it, and the crowding and sickness on board was at its worst; and this period corresponds to the remarkable outburst of yellow fever, both in America and in Spain and on the West Coast of Africa, from about 1790 to 1820.

It is a perfectly well-known fact, admitted equally by Lind and Bancroft, that the slaves on board a slave-ship did not suffer from yellow fever, although they suffered much from dysentery and from what used to be called the "horrors of the middle passage;" so that a slave-ship would arrive at her destination with no contagious fever on board, but saturated with the filth of her human cargo. The facts discovered by Dr. Audouard in two Spanish outbreaks suggested to him a general theory of yellow fever; it was a peculiar form of typhus due to the emanations from the putrid dysenteric discharges of the negro, and the fever owed its well-marked specific type to the fact that the matters which excited it could be traced to the negro body, There was something, he said, quite peculiar in the negro constitution, and it was not surprising that the discharges from his sick body should be able, when fermented, to produce in others a typhus fever of a peculiar type.

Dr. Audouard's papers were communicated to the French Royal Academy of Sciences, and accepted for publication. The Academy, however, did not adopt his opinions, and they pointed out, after the manner of academies, that his facts related to only three slave-ships and to only two outbreaks. But the author had shown that a great part of the West Indian trade with Spain was carried on by ships engaged in the contraband slave-trade, and that the same circumstances which led to the epidemics investigated by himself must have arisen often at all the Spanish ports where yellow fever was an almost annual occurrence. Not only so, but the whole history and geography of yellow fever in America was on his side; seaports where cargoes of slaves had been landed year after year had presumably become saturated with the peculiar filth of the trade, and it is just the landing-places and shipping-quarters of those ports that are the foci of infection. In some of them, such as Vera Cruz, the poison seems to have become peculiarly fixed in the soil, so as to defy all attempts at getting rid of it. But in the great cities on the Atlantic seaboard of the United States, the fever was practically eradicated soon after the importation of negroes ceased. During the sixteen years after that date (1808), yellow fever appeared only seven times in the different ports of the Union, whereas in the sixteen years preceding the abolition of the traffic it had broken out fifty-eight times.

In the Spanish seaports also, the great epidemics of yellow fever are an almost forgotten tradition. But in Brazil they are of recent date, the first of them as recently as 1849, and Brazil was then and had been for some time the great market for the African slaves, when the ports of other countries except Cuba were closed to them.

A still more unlooked for confirmation of Dr. Audouard's theory may be discovered in the establishment of yellow fever in the seaports of Peru within quite recent times; the first outbreak having been at Callao and Lima in 1853. An account of it was sent from Lima to the *Edinburgh Medical Journal* by Dr. Archibald Smith, who says: "The first cases of the Lima fever were vulgarly attributed to the excessively crowded shiploads landed at Callao of poor and sickly Chinese, who were ill-fed, ill-clothed, and badly cared for on the voyage from their native country. But," he adds, "I, as a practitioner, could not trace any symptoms of this fever to them." But Dr. Smith's objection to the popular explanation of the yellow fever in Peru is precisely the strongest argument in favour of it; the Chinese, like the negroes, did not suffer from yellow fever, and they are said, indeed, never to take it on shore; but they suffered from those dysenteric and other non-contagious ailments which were the antecedents of yellow fever. The disease, since that time, has appeared at various other ports on the Peruvian coast; its outbreak at one of them, in 1868, was so sudden that the populace attributed it to an earthquake; but a communication sent to the French Foreign Office more reasonably connects it with the Chinese immigration, which, as the report says, has profoundly changed the sanitary condition of the whole Peruvian coast.

But there is another argument for Dr. Audouard's theory, which he makes hardly any use of. It is the immunity of the negro from yellow fever, notwithstanding his great liability to cholera and the common forms of typhus, including ship-typhus. This immunity is perhaps not so striking now, when the negro blood is less pure, but all the earlier authors were much impressed by it. Thus, Doughty, who saw much of yellow fever in Jamaica at the beginning of the century, says: "In the natives of Africa, the constitution appeared to me as secure against yellow fever as a person who has had the small-pox"—and he might have said the yellow fever itself—" is against its recurrence." Fenner, a more recent authority in New Orleans, says: "It is a well-established fact that there is something in the negro constitution that affords him a protection against the worst effects of yellow fever, but what it is I am unable to say." Mr. Clarke, the author of a paper on the "Topography and Diseases of the Gold Coast," in the first volume of the *Epidemiological Transactions*, says: "I have heard and read of negroes taking yellow fever, but in no

case did it happen at Sierra Leone during its prevalence in 1837, 1838, 1839, 1847; nor, so far as I understand, in 1859; and no example of it occurred to any of my medical brethren in the course of their practice." This is certainly a remarkable testimony, when we consider that ninety-nine hundredths of the population of Sierra Leone are negroes. And to show that this is the immunity of negro blood, and not of acclimatisation, I take the most remarkable experience of all, that of the French expedition to Mexico from 1862 to 1866. There was a heavy mortality from yellow fever among the motley gathering of troops at Vera Cruz in the summer of 1866; not only the French soldiers, but Arabs from Algiers, Indians from the interior of Mexico, and Creole troops from the West Indies, were decimated by it; whereas, in a body of 400 negro soldiers from the West Indies, there were only three cases, with one death; and in a black regiment of 500 men raised in the Soudan and Nubia, there was not a single case.

If, then, we put together the facts of this remarkable disease: when we consider that its advent into the world coincided with the rise of the slave-trade; that its habitat is or has been the ports of debarcation of the slave-trade, and those places in Spain and the West Coast of Africa to which slave-ships went on their return voyage; that its exacerbations have coincided with the most lawless period of the negro traffic; that it gained a footing in the ports of Brazil in 1849, when the slave-trade flowed into that channel; and that it has become endemic subsequent to 1853 on the Pacific coast of South America, in those ports of Peru which were the seat of an infamous Coolie traffic—we cannot but see in all this concurrence of testimony a proof that Dr. Audouard was right in describing yellow fever as a peculiar form of typhus, originating at all its endemic centres in the filth of slave-ships, just as he showed that it had so originated, as a matter of fact, in two of the Spanish outbreaks. But if that evidence should not be enough, we have only to add the fact that the negro cannot take the disease, although it rages most in the very quarters where negroes live. The yellow fever still lurks about the wharves and shipping quarters of towns where cargoes of slaves used to be landed; and every few years, when the weather is at the hottest, it rises into a pestilence, as if it were the ghost of the slave-trade walking. But it passes by the negro, as if it recognised the ties of blood; and I want no other fact than that to prove that even this infection, belonging to the exogenous group, is but one step removed from perturbations of the normal life, and that it carries with it the indelible stain of its origin.

The connection between yellow fever and the dysenteric and other discharges of the negro body, is only a part of that general connection between dysentery and typhus which has often been noticed in wars and famines. It formed the subject of a debate, in 1861, before the Epidemiological Society, in which the late Dr. Murchison gave an outline of the argument that he afterwards maintained with so much learning and research in his treatise on Continued Fevers. The celebrated cases of jail-fever, in which prisoners brought up at the assizes gave typhus to the judges, and counsel, and jury, are full of pathological interest; and it may be well, at the present day, to recall the fact, which arrested the attention of Lord Bacon, that the prisoners were not suffering from typhus themselves. But we need not go farther back than twenty years ago, or farther away than the city of Liverpool, for proofs of the *de novo* origin of a specific fever; no more striking proof was ever given of the genesis of typhus out of dysenteric and other filth than in the case of the Egyptian frigate which came from Alexandria to the Mersey in 1862 to be refitted. There were four hundred Arabs on board, who had suffered a good deal from diarrhœa and dysentery; they had met with rough weather all the way from Alexandria, and the hatches had been battened down for two or three weeks continuously. When the ship arrived in the Mersey, the 'tween decks was in a disgusting state of filth, and the pilot who took the vessel up the river remarked to his wife when he went home that that ship would be heard of again. He was himself the first victim, for he was seized with a fatal form of hæmorrhagic typhus about a week afterwards. More than one hundred of the crew were on the sick-list, chiefly from dysentery, but it was carefully ascertained that none of the cases were typhus. Most of the Arabs went to a public bath in their filthy state, and in a few days typhus broke out among the bath attendants. Some of the crew were admitted into the Southern Hospital for various non-contagious disorders, and there also typhus broke out.

All the facts of this most interesting case were communicated to the Epidemiological Society by the late Dr. Duncan, medical officer of health. It was Dr. Duncan's opinion, and also Dr. Cameron's, the present President of the Medical Section, that the outbreak was clearly traceable to the Egyptian ship and her filthy crew, but that it was not traceable to pre-existing cases of typhus, whether on the voyage or in Alexandria before sailing.

There is one other class of cases which I shall just mention—the cases in which the mere contact of human beings in an average state of health and cleanliness sets up various epidemic disorders among the inhabitants of remote islands, where strangers rarely come. Mr. Darwin, in his narrative of the voyage of the *Beagle*, quotes instances of this in the South Seas, on the excellent authority of Williams, the missionary; and it is to typhus that Mr. Darwin compares these cases. "It would almost appear," he says, "as if the effluvium of one set of men shut up some time together was poisonous when inhaled by others, and possibly more so if the men be of different races."

I shall take one other illustration of the doctrine of acquired autonomy, and I shall take both the facts and the doctrine from Sir Thomas Watson. The English troops that served in Egypt in 1801, under Sir Ralph Abercromby, suffered much from the ophthalmia of that country, which is always brought on by exposure to cold after being heated, by the glare of the white and parched ground, by the dust in the air, and such-like causes peculiar to the climate of Lower Egypt. No one, in those days, thought that Egyptian ophthalmia was a specific infection. But some of the English soldiers returned with it uncured, and it soon became contagious in the home garrisons; and it was found, after a lapse of eight or nine years, that there were no fewer than 2,317 soldiers pensioners upon the public bounty from blindness in consequence of ophthalmia. Those who knew the disease as it occurs in Egypt denied that it was contagious, and those who saw it in England were as positive that it was contagious. Watson reconciles the two views. He says that "there is nothing absurd nor unlikely in the supposition that diseases may first arise from some other source, and then become capable of spreading by contagion;" and he says elsewhere: "My own creed upon the matter is this—that the disease may, and often does arise, independently of contagion, from the agency of ordinary causes of inflammation; and that, having so originated, it acquires contagious properties, which develop themselves only under circumstances that favour the propagation of most of the contagious complaints." A parallel to the Egyptian ophthalmia of 1801 may be found in certain cases of syphilis described by Baron Larrey in his surgical history of the same campaign. The Alexandrian syphilis, which the French troops contracted freely, was peculiarly free from "grave symptoms" and "easily cured"; but it proved very "obstinate and difficult to destroy" in those who brought it back with them to France.

In choosing to speak of infective diseases from a standpoint which is not the dominant standpoint of the time, I fear that I have laid myself open to the charge of taking advantage of a public opportunity in order to get a hearing for a somewhat peculiar view; but the words which I have just quoted from Sir Thomas Watson will show that this doctrine of common disorders acquiring specific power has not been absent from the thoughts of those who lived in the philosophical period of medicine. Nothing would be more agreeable than to adduce other instances of the same kind from the history of medicine, and I especially regret that time will not permit me to say something of this principle of autonomy, as it was held by the thoughtful and talented writers who were known in Germany fifty years ago as the natural-history school. But in anything that concerns the natural history of disease, we may go direct to Sydenham, who was the author of the phrase, and in Sydenham we shall find a very explicit statement of the doctrine of an acquired autonomy, and a preautonomous stage in the specific diseases. Sydenham uses the language of the humoral pathology of his time, but that matters little. The humours, he says, may, under certain circumstances, be raised to the dignity of a substantial form or to a species, a specific disease being one that takes its rise in this specific exaltation or specification of some juice of the body; and he expressly mentions the antecedent condition of the humour before it had put on its species—*antequam hanc induerat speciem.* If I have preferred to speak of the acquired autonomy of a disease, and of its preautonomous stage, I mean no more than Sydenham means here, as the context of the passage would show.

Sydenham compares these species of disease to the species of animals and plants, only that their life is an integral part of the general life of the body; and as we have an Origin of Species for animals and plants, it is natural to think of the origin of disease species. But there is a difficulty in the latter which the Darwinian problem is free from. In the origin of species, we are dealing with individual things, each with its well rounded, independent life

but where is the individual life in disease? In my humble opinion, the germ will not serve our purpose, for, according to the great Darwinian analogy, the germ is always a part of the individual, and always presupposes the individual. The germ, or the sperm, is no doubt a peculiarly important part, and it is charged with the most marvellous representative powers; but it is always representative of the individual, and it derives its powers from the individual. Such, at least, is our only analogy.

If, then, we must have the individual to start with, before we can apply the "origin of species" to disease, we come back to the old question, how a morbid state of the body can become a semi-independent thing, how it can exist, not in absolute independence of the body, but autonomous within it, an *imperium in imperio*. This is the perplexing question which I stated at the outset with reference to cancer, a disease which, in the popular estimation is almost synonymous with a semi-independent life, and I quoted the words of Paracelsus: "In such a disease, a man is himself and another; he has two bodies at one time, enclosed the one in the other, and yet he is one man." I have spoken to several metaphysical friends of the difficulty of conceiving how a mere state of the body, a complex or integrated morbid state, can become an individual existence with the power of propagating itself; but I cannot say that I have got anything satisfactory out of them. We shall probably have to settle this question within our own science as a part of the subject-matter of pathology. Pathology is indeed varied enough in its subject-matter. It studies disease on many sides, as the founder of this Association planned that it should be studied—the side of its anatomy and its physiology, of its geography and its ethnology, of its history and its natural history. Its aspects are as various and attractive as the fruit trees in the Mohammedan paradise. But there is nothing in all this boundless field of inquiry that is more likely to occupy the mind of the profession for years to come, as it has occupied it in times past, than the difficulty for conceiving how a state or condition of the body can become a species of disease.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OBSTETRIC MEDICINE,

At the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

By GRAILY HEWITT, M.D., F.R.C.P.,

Professor of Obstetric Medicine, University College; President of the Section.

THE QUESTION OF FOOD IN OBSTETRIC AND GYNÆCOLOGICAL PRACTICE.

Gentlemen,—Permit me, in the first place, to express the deep sense which I entertain of the honour conferred upon me by the Council of the Association in requesting me to preside over the meetings of this section. I trust that I shall be favoured with your kind indulgence in endeavouring, to the best of my ability, to fulfil the duties entrusted to me.

It is with much pleasure that I congratulate the section, and our esteemed colleague, Sir Spencer Wells, on the public recognition of his important services in the cause of humanity which is embodied in the honour which he has recently received. The extended application of surgical skill to the relief of a class of diseases which were formerly considered incurable, and in which Sir Spencer Wells has taken so considerable a part, constitutes a great claim by gynæcological practitioners on the gratitude of the public, and I am quite sure that you will join with me in felicitating our distinguished colleague on his well-merited reward. None the less is the profession to be congratulated on the further recent developments in the application of surgical skill to the relief of suffering which have been made by gynæcologists, as evidenced by the fact that novel and bold operations, which were hardly thought of as possible before ovariotomy had become an established success, have of late been performed with a large amount of success also.

While, however, we congratulate ourselves on the brilliant achievements of gynæcological surgery, it is well to be reminded that there are other kinds of work to be done, on the due carrying out of which the lives and health of vast numbers of the community depend, and in which, as gynæcologists, we are deeply interested.

I take advantage of this opportunity to present to you a few observations on a matter which has for some years deeply interested me, and concerning which I have arrived at conclusions which, to me at all events, appear to possess a certain value, viz., The Question of Food in Obstetric and Gynæcological Practice.

Now, it may appear unnecessary at this period of medical history, and in the present advanced state, as it is considered to be, of medical knowledge, to insist on the importance of food in maintaining a healthy activity of the vital processes. But a lengthened experience has convinced me that the public at large have no practical knowledge of this, and that the most disastrous effects result in multitudes of cases from this ignorance of simple physiological laws.

Engaged as I have been more particularly in obstetric and gynæcological practice, the non-observance of these important physiological laws in connection with the occurrence of diseases of the uterus, disturbances of the functions of the uterus and ovaries, and the diseases incidental to child-bed, has forced itself on my notice. It is pretty certain that the generalisation which applies to these classes of disease extends, or would be found to extend, to diseases of other organs of the body, for it is the merit of a true generalisation that it is of wide application.

There are certain terms in general use by the public and by the profession which are often employed in a vague, unmeaning, and indefinite manner—such as "weakness," "delicacy," etc.—whereby it is intended to designate a condition very frequently met with, but the essential nature of which is, as my experience has shown me, very imperfectly apprehended. It is well recognised that this weakness, delicacy, or what not, is very commonly observed not only in young women coming under the notice of the gynæcologist, but also in women who have arrived at adult age, and suffering from disorders in connection with pregnancy, parturition, and child-bed. My observation has in a particular degree been attracted to the presence of this condition. I have taken every opportunity in my power for analysing its nature and ascertaining its essential cause. One conclusion arrived at is, that this general weakness is very far more common than is supposed as an antecedent in cases coming under our notice as gynæcologists, and it may even be said that it is almost invariably present in a marked form in such cases. Another conclusion is, that the "weakness" is associated with and caused by a long-continued inadequate dietary, and that it is essentially what may be termed "chronic starvation." The rational view of the matter is, that this "weakness" is, in the very large majority of cases, preventable; that it should be regarded as the first stage of a serious possible disease; that it is mostly the result of chronic starvation; that it is curable, to a greater or less degree, in most cases; and that it is of the highest importance that it should be formally and carefully treated, as other diseases are, instead of being allowed to smoulder on until the constitution is thoroughly undermined, or until some ailment distinctly classified in our nosology makes its appearance.

It may be asserted that, as yet, neither the public nor the professional mind has seized the importance of preventive measures in regard to disease. It is, indeed, true that the sanitary engineer is at work in our houses; but it cannot be said, as yet, that anything like systematic attention is devoted to the maintenance of healthy and vigorous growth, and the prevention of those diseases which are ultimately so deadly in their effects in many cases; I mean what may be termed the nutritional diseases incident to the human frame.

The analogy between the growth of a plant and of the human organism is one which has been often pointed out. The various chemical changes involved in a continuance of healthy growth in the plant and in the animal, are well capable of definition. We know that the plant requires air, moisture, and a supply of nutritive material regularly, and in sufficient quantity. And we should know, for physiologists inform us of the fact, that the vital processes in the human organism require, for their continuance in a vigorous state, material supplies of a suitable kind, as well as hygienic surroundings, fresh air, and the like. Again, it is well known by good gardeners that nothing so effectually protects the plant from external injurious influences, from blight, from the attacks of parasites, from insects, and from the diseases to which plants are liable, as the maintenance of the plant in a state of active growth. Once let the growth fall off in its vigour, the plant becomes forthwith liable to fall a victim to canker, to the pestiferous invasion of insects, to deterioration, to weakness, and often to decline and death.

It is a remarkable circumstance that so little as yet seems to have been done in the investigation of the effects of an insufficient dietary, looking at it from the quantitative point of view, although the effects of complete deprivation of food are well known. Thus, in the last edition of Parkes' well known work on hygiene, it is stated

that little is known on the subject of the effects of insufficiency of food; and the space devoted to the consideration of this matter is less than one page.

The valuable facts recorded by a series of careful inquiries into the changes occurring in the human body in a state of health do not seem as yet to have been applied at all extensively to the treatment or prevention of disease. It should be known that each day the human body undergoes, in a state of health, a certain degree of waste and loss; and that, experimentally, it has been found that health is maintained by daily administration of certain quantities of material in the shape of food. The obvious inference is that, when the supply is continuously below the amount of daily waste, deterioration must occur, and a state of weakness will result.

It is a curious circumstance that the physiological law and the popular impression (shall I say, in too many instances, the "medical" impression) are found widely different. Physiology teaches the necessity for a continuous supply of a certain quantity of food. The popular impression is, that some people do not require so much food as others; and, consequently, important quantitative diminution in the supply often escapes attention. I must confess that, not very many years ago, I shared in the popular impression. What induced me to form the opposite conclusion was that, in the first place, I was struck with the fact that, in almost every case coming under my notice, a state of what was termed "weakness" by the patient had been notably present; and, secondly, that, on inquiry, this weakness was almost always found to be associated with a notably deficient dietary. For the last six or seven years, I have tested the accuracy and applicability of these generalisations, by carefully inquiring into the past history of patients—mostly suffering from some uterine or ovarian disease, or some affection incidental to child-bed; and these conclusions have stood the test of this long-extended inquiry. I have to state the important conclusion, that a continuous insufficiency of food, or what may be termed a "chronic starvation," more or less intense in different cases, was found to have existed almost universally. Consequently, I have naturally been led to consider chronic starvation as a most important factor in disease, certainly in those classes of cases which have come more particularly under my notice.

It will be well to cite a few typical instances:

1. A young married lady, aged 24, consulted me for a severe retroflexion of the uterus, which appeared to have set in shortly after her first labour, some months previously. She underwent treatment for this affection; and, in the course of it, one day her mother came with her, and inquired of me why it was that her daughter had become liable to this affection. I replied that, in all probability, it was due to a previous condition of weakness, and insufficiency of meat as an article of food. "Yes," said the patient, "that is very likely true; for when I married, and could please myself, being very fond of sweets, I took little ordinary food during the first year, but lived chiefly on sweets, and ate little or no meat at all."

2. A young lady, aged 18, suffered much from menorrhagia, and her condition became finally one of complete inability for exertion. It was ascertained that this patient had lived regularly as regards her diet, but that her diet consisted principally of bread and puddings; and, having a marked aversion to meat, she had taken very little for two or three years previously; and it is the fact that I was afterwards consulted by two of her sisters presenting uterine symptoms, and with a corresponding history as regards the previous dietary.

3. Again, a young lady of very active habits, but who hardly ever took meat, became very ill after an unusual exertion, was affected with severe sickness, which went on unchecked for nearly a year, and was finally so ill that her life was despaired of. Here, the previous dietetic deficiency was most marked. The patient was finally completely cured, the sickness being found to be a reflex symptom dependent on an uterine displacement.

These cases might be multiplied *ad infinitum*.

I have been much interested in observing, also, the effects of previous insufficiency of food in apparently predisposing patients to attacks of puerperal septicæmia. In the cases of this disease which I have seen in consultation, I hardly recollect having seen a case where the patient so affected had, during the pregnancy, lived fairly well; and the worst cases have been those in which the patients fed badly and insufficiently during the pregnancy, and had been fed on a gruel diet after the labour was over. In cases where severe sickness during the early part of the pregnancy prevents the proper nutrition of the patient, the system is liable to become much impoverished, and an insufficient dietary may be, and often is, the preliminary to a dangerous childbed.

With very few exceptions, and those exceptions only tending to prove the rule, it is, I hold, impossible to find patients suffering from chronic uterine disease, who have not undergone, at some former period, what may be termed a starvation process; and careful inquiry generally elicits the fact that the quantitative deficiency in the diet extended over a considerable period. In many cases, the patients are found to be still under the influence of a deficiency in this direction, and to be "eating," as the expression is, "next to nothing."

The period of life during which quantitative deficiencies in the dietary are most common, is the two or three years immediately following the arrival of puberty. The girl is at school probably, her appetite is bad, or the food is not palatable, or is deficient in important particulars, or, as I have found in some cases, she eats little in order to keep thin; the strength fails, the appetite diminishes, and a habit of taking little is formed—particularly little animal food is taken. Three or four years of the most critical stages of life are thus passed, a time at which the body should be growing fast, and to maintain this growth in adequate vigour, large supplies of nutritious material are required; instead of which, the supply is far below the normal standard. The result is a general impairment of vigour and of vital action. On the generative organs, the effect is, as I have observed in numbers of cases, most decidedly injurious; and the effect, in most instances, is of this kind, that the tissues of the uterus lose their normal firm healthy consistence. The further result is, that the pelvic organs as a whole, but particularly the uterus, undergo a subsidence in the pelvis; the uterus becomes liable to change of shape, and other alterations, more or less marked, in different cases. Slight exertions, slight accidents, or even moderate exercise, are, under these circumstances, liable to act most prejudicially on the softened and weakened contents of the pelvis. This is a faithful description of what I have observed to occur in very many cases. I refrain from pursuing the further history of patients so affected, as not falling within the scope of these remarks.

It is generally admitted by authorities on the subject of diet that nitrogen is the most essential of all foods, and that a certain amount—about three hundred grains—should be taken daily. In cases of chronic insufficiency of food, it appears that the diminution in quantity of food most frequently affects the nitrogen. Meat is the article of diet which, as a rule, is the source of the greater part of the needed amount of nitrogen, for, in England, at all events, meat is the popular article of food; and, in cases of chronic starvation, we mostly find that the quantity of meat taken is exceedingly small. "Never a meat-eater," "Do not like meat," "Have got out of the habit of taking meat"—such are common replies made to interrogations of patients under these circumstances.

No doubt, meat can be replaced dietetically by other foods containing nitrogen in sufficient quantity; but practically, owing to the habits of families, good substitutes for meat are not easy to find. The weakly one of the family is too often allowed to take her own course, and, if she does not take meat, often gets nothing sufficiently nitrogenous to answer the same purpose. Of all the nitrogenous foods, meat is admitted by all authorities to be the most easily digested, most easily assimilable, and most rapid in its nutritive action. Milk is, of course, a most valuable alternative food; but, in these cases of absence of sufficient meat, we do not find it has ever been taken in any such quantity as to make up for the deficiency; and the quantity of bread consumed, even supposing it to be pure and of good quality, is in such cases entirely inadequate to supply the required quantity of nitrogen. I need not allude to the effect of deficiency in the other constituents of the diet. It is sufficient for my present purpose to show that the nitrogenous elements, while they are of all the most important, are those which are markedly absent in the cases now under consideration.

There are few observations bearing on the subject now under discussion which can be quoted from published works. Professor Voit (*Untersuchung der Kost*, Munich, 1877) mentions an interesting fact. In a public institution, a home for girls, on which, he reports, the diet included an average quantity of 170 grains of nitrogen only, the girls appeared healthy, but their muscles were found to be weak, and menstruation was found to be delayed in many cases until the sixteenth or seventeenth year.

Parkes states that when the nitrogen is reduced to from 70 to 100 grains daily, the body gradually lessens in activity, and passes into a more or less adynamic condition, which predisposes to the attacks of all the specific diseases, especially malarious affections, typhus, and pneumonia, etc.

It must be assumed from what is known that if the minimum

quantity of nitrogen—which, for the sake of argument, we may put as low as 250 grains in the case of a young woman—be not given, a condition of weakness will soon be induced, and with greater or less rapidity, according as the quantity of nitrogen falls much or little below this 250 grains *per diem*. Thus it is easy to understand why, in a year or two, with an average daily consumption of only 100 grains of nitrogen, for instance, important modifications of the nutritive processes are effected, whereby there is produced a direct predisposition to disease.

It is now some sixteen years ago since I first publicly discoursed on the importance of nutrition in the treatment of disease. I have made it the basis of my practice for some years past, and four years ago I described the condition to which I have now again referred as "chronic starvation." In the United States, Dr. Weir Mitchell has employed a system of rapid feeding, assisted by massage and electricity, for the cure of weakly, nervous sufferers, a system which has been found most successful, and Dr. Playfair has done good service in introducing Dr. Weir Mitchell's method into this country. The method in question is essentially a rapidly acting means of introducing nutritive material into the system, and it is dependent for its success on the fact that the principle of the curative influence and action of food is adequately recognised.

It is probable that it will be found, on further investigation, that particular deficiencies in the dietary result in deterioration of particular tissues of the body. The field for inquiry in this direction appears to be a large one. Deficiency in the quantity of meat taken, certainly, according to my experience, appears to have an enormous influence in predisposing to uterine ailments; but, no doubt, other organs of the body also suffer from deficiency in this article of diet. And I have abundant evidence that it plays a very prominent part in predisposing to the serious wasting diseases so often fatal in this country. I refrain from dilating further on this particular point, because such discussion would in this place be inappropriate.

The conclusion which is obviously suggested by the foregoing considerations, is the necessity for a greater attention to the question of diet, in the bringing up of families, than appears at present to be given to it. We all know that health and a good appetite usually go together. But it seems to be too frequently the case that, when the appetite is absent, such absence is taken as a matter of course, and receives no notice. It results from what has been stated, that absence of appetite may lead to most serious results. It is not immediately dangerous, but it is the first step possibly in the downward course. A continuously bad appetite constitutes a grave condition, and should be seriously regarded.

If it be a rigorously proved fact, that the human body is dependent for its existence, in a state of vigour, on an adequate and regular supply of food, it behoves us to take all possible opportunities of enforcing this great principle; and in making it known as a great and universally applicable measure and precaution in the prevention of disease.

CASE OF ENTERIC FEVER WHICH HAD TWO RELAPSES.—Dr Robt. W. Forrest, in a paper reprinted from *The Glasgow Medical Journal* for May, 1883, describes a case of enteric fever in which the interesting feature was "the unusual duration *(sic)* of the interval between the first and second attacks." The primary attack ended on the 30th day, when the temperature became normal. After an interval of thirty-two days the temperature again rose. The first relapse lasted twenty-three days, and, after a further interval of seven days, a second relapse occurred. So long an interval between the primary attack and the relapse, as occurred in this case, is very unusual. Dr. Forrest formulates the question whether the first relapse was due to the primary infection or to a new infection. Very wisely he does not attempt to solve it.

BEQUESTS AND DONATIONS.—The Rotherham Hospital and Dispensary has received £175 further, making a total of £675, under the will of Mr. John Brown.—The Queen's Hospital, Birmingham, has become entitled to £100 under the will of Mr. Thomas Aston, £100 under that of Mr. Edwin Cotterill, and £100 under that of Mr. Thomas Lowe.—Mr. William Foster has given £105, Mr. John Foster £105, Mr. James Walton £105, and Mr. John Dawson £100, to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties, Lancaster.—The Corporation of the City of London have given one hundred guineas to St. Mary's Hospital.—The Sussex County Hospital, Brighton, has received £104 9s. 7d. under the will of Mrs. M. Sayer.—Sir Philip Rose Bart., bequeathed £100 to the Hospital for Consumption and Diseases of the Chest, Brompton.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PHYSIOLOGY,

At the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

BY E. H. SCHÄFER, F.R.S.,

Jodrell Professor of Physiology in University College, London.

THE STRUCTURE OF THE ANIMAL CELL.

THE subject which I have selected to bring before you in this section is the structure of the animal cell. To physiologists and pathologists this is a subject of so general an interest as to need no apology for its introduction. Especially does this seem an appropriate time and occasion for its review, by reason of the fact that there is no single subject in anatomical or physiological science which has absorbed of late more attention than this one, and moreover because it is one in which I myself who have been honoured by being selected to preside on this occasion have for many years taken a particular interest.

In the first place, let us consider the views which were formerly held regarding the structure of the animal cell. The earliest notion was that expressed by its name, a hollow space enclosed by firm walls. The space was occupied by fluid, which might contain granules. Schwann (*Microscopical Researches*, 1839, Sydenham Society's Translation, 1847) succeeded in crushing a young cartilage-cell; it "suddenly shrank together, whilst a clear fluid streamed out, thus proving the contents of the cell to be fluid and transparent." The wall is essential to the idea of the cell; even the lymph and pus-corpuscles have an envelope or cell-membrane enclosing the cell-contents. Mucus-corpuscles are exceptional in so far as that "an especial cell-membrane cannot be distinguished" in them; it may, nevertheless, still exist. The nucleus is a simple vesicle, filled with fluid; with, at the most, one or more solid particles—nucleoli—suspended in the fluid, it is not essential to the idea of a cell, or at least may disappear even from living succulent cells, it is often adherent to the cell-wall. This notion of the animal cell is an extension of that which had been already formed from observations on the vegetable cell, no independent line is taken, the facts regarding the plant-cell seem clear enough, the elements are large and conspicuous; what more likely than that the animal cell should possess the same structure?

The most conspicuous fact in this idea of the cell is the importance of the cell-membrane. This did not serve merely to inclose the fluid contents of the cell; it had a direct relation to nutrition and growth. Kölliker (*Manual of Human Histology*, 1852: Sydenham Society's Translation, 1853) expressly declares that "the power of growth is not simply innate in every organic membrane, manifesting itself when sufficient formative material is offered, but requires special conditions, which are only realised by the cell-membrane." Further: "While the membranes grow by the attraction of material from the surrounding fluid, by virtue of their priority, they allow substances to penetrate into their interior. This filling, however, does not take place by the cells admitting every kind of matter indiscriminately, but they...take up one constituent (of the cytoblastema) and reject another." And this selection is the property of the cell-membranes, for a little further on we read, "The cell-membranes do not act as mere filters, but allow one substance or another to permeate them, according to their chemical constitution, the constitution of the fluid which imbues them, their condition of aggregation, and their thickness." This is not a mere process of endosmosis, although this also "must be taken into account as a condition in the absorptive action of cells, though hitherto it has been too freely appealed to, and cells have been too often considered as vesicles provided with merely indifferent porous membranes."

Given such structural conditions—a vesicle filled with fluid, and enclosed by a structureless membrane—it was not easy to understand how changes were brought about in the cell-contents, although the occurrence of such changes was not to be ignored. Schwann assumed the existence of a special force—metabolic force—capable of producing such changes; but this assumption could not, of course, advance the explanation. Others were disposed to endue

the nucleus with a kind of catalytic power; others, the cell-membrane. There was an obvious difficulty in comprehending how this seemingly inert bag of fluid could be endowed in so remarkable a manner as to minister to development and growth, to nutrition, secretion, tissue-formation, and even to contractility and motion.[1]

The establishment of two important facts led eventually to the overthrow of the vesicular theory of cell-structure. One was the existence of cells without an envelope. It was admitted, even by Schwann, and by most observers after him, that in some cells, pale blood-corpuscles amongst the number, it was not possible to demonstrate the existence of a cell-membrane. Its existence in them was merely assumed. The second fact was the exhibition by cells of those peculiar and indefinite changes of shape which are known under the name of "amœboid movements.[2]

It had, moreover, by this time been shown by the botanists that the vegetable cell is something more than a simple cellulose vesicle with fluid contents and a nucleus. It was admitted that the nucleus was embedded in a clump of soft substance, clear and transparent indeed, but yet somewhat more solid than the rest of the cell-contents; that a layer of similar substance lined the cellulose wall, and that threads of it might here and there cross the cell-cavity. V. Mohl (*Vermischte Schriften*, 1845) termed this substance "protoplasm;" the name was afterwards extended to the substance of the animal cell, and the properties which had before been supposed inherent in the cell-membranes began to be transferred to it.

Histologists were, therefore, fully prepared to receive a new definition of the animal cell, when, in 1861, Max Schultze ("Ueber Muskelkörperchen u. das, was man eine Zelle zu nennen habe," *Arch. f. Anat.*, 1861) clearly showed that the vesicular theory could no longer be upheld, but must be replaced by a totally different idea. It was demonstrable that, in many instances, no membrane exists; it was also demonstrable that the cell-substance is in most cases not fluid, but composed of the soft contractile substance already known as protoplasm or sarcode. A clump of protoplasm enclosing a nucleus is for the future to be looked upon as sufficient to constitute a cell. There may, it is true, be a cell-membrane; there may be adventitious granules, globules, in the protoplasm; but these are accidental, not essential to the definition; they may, indeed, even interfere with some of the manifestations of vital activity which are otherwise exhibited by the protoplasm. The cells which, under the previous theory, were exceptional, are henceforth typical—the colourless blood-corpuscle, the embryonic cell; those which were most typical—cartilage-cells, epithelium-cells, cells of the chorda dorsalis—are specially modified, degenerated, some of them, with their activity reduced, or narrowed into the performance of a single function. The cell-membrane has had its day. Even when present, it is no longer regarded as of any functional importance. It renders the cells more inert, instead of more active; it prevents those amœboid movements, those manifestations of contractility whose importance is by this time completely acknowledged.

But what, after all, is this protoplasm, upon which the attention of biologists is now concentrated, which performs so many and such various functions, which is recognised as the living substance *par excellence?* A speck of jelly or slime; structureless—at least, not necessarily exhibiting any structure; homogeneous, except for the possible presence of granules of other material, or globules of fat or fluid embedded in it; unformed itself, yet capable of forming all the tissues, all the secretions, all the products of the animal body (Beale). Its chemical composition but little known; certainly a large proportion of water; next to this, a proteid substance or substances, inorganic salts, protagon, glycogen, fatty and other matters also found; but who knows whether essential or accidental? The molecular constitution only guessed at, and that probably badly. It is true, we have advanced a step in our definitions; but are we nearer an explanation of the manner in which these wondrous phenomena of growth, of chemical metamorphosis, of movement and contractility, are brought about? I think that no one would venture upon an affirmative answer.

[1] The contractions which had up to this time been observed in protozoa, or in some cells of metazoa, were very generally referred to the cell-membranes. It was Donders who first ascribed contractility to the cell-contents instead of to the cell-membranes, but Leydig had long before contended for the importance of the cell-contents relatively to the cell-membrane.

[2] These were first described in the pale blood-corpuscle by Wharton Jones (*Phil. Trans.*, 1846), but it was not immediately that the importance of his observation was recognised. Even after several years, the cell-membrane still held its own; so that, in 1853, Busk and Huxley (Translation of Kölliker's *Manual*, note on page 46), alluding to this very case, write: "It is certainly the membrane which contracts in these cases, for it pushes out processes which are only subsequently filled by the granular contents." But the membrane here spoken of is evidently something very different from the mere fibre which had previously been assumed to enclose the contents of the corpuscle.

As for the nucleus and nucleolus, these occupy much the same position in this scheme that they did in the previous one. It is true we no longer hear of the "action of the nucleus" upon the cell-contents; its special reproductive function has long since been fully recognised; in respect of its structure, little or no advance has been made. The second picture of cell-structure, which I have presented to you, is the one with which we are most of us familiar: the speck of protoplasm enclosing a nucleus, devoid of structure, but capable of varied functions. I will now invite you to consider a third picture which has been gradually developing during recent years, and which at the present moment bids fair to supplant the other.

Imagine a round soft sponge, the horny skeleton replaced by soft contractile substance, the interstices occupied by fluid, a spherical vesicle imbedded at one part in like substance, and you have at once an idea of the most modern view of cell-structure. Suppose, further, the network or spongework capable of contracting so as to express fluid from the meshes, or expanding so as to admit more fluid into them; suppose granules of various kinds to be floating in this fluid, and to be moved from place to place within the cell, by the currents caused by such contractions; suppose materials formed within or imbibed by the cell to accumulate in this interstitial fluid, ready as in many secreting cells to be discharged from the cell by the contraction of the network (in obedience to an excitation operating either directly upon the cell, or indirectly through the nervous system); even suppose, in ciliated cells, rhythmic contractions of the network acting upon the bases of the cilia, which are prolonged into the cell, and in this way causing to-and-fro movements of the projecting cilia—given this structure combined with the contractile function, and in a comparatively simple fashion many of the phenomena of cell-activity can be explained.

But before we accept definitely this new theory of cell-structure, it behoves us thoroughly to examine the grounds upon which it is based. In the first place, it may be pointed out that the view is not so novel as may, perhaps, be supposed. Stricker, in his handbook (article on "The Cell," p. 20, 1871), devotes a page to its discussion, for the possibility of such a structure had already, even then, been mooted for some time, and that by physiologists of the highest eminence.

Stricker writes thus: "Brücke (*Ueber d. sog. Molecularbewegungen*) ascribes to the salivary corpuscles a system of spaces, in which an intracellular fluid is contained. He claims the same for the protoplasm of the vegetable cells in the hairs of the stinging-nettle. Heidenhain (*Studien des Physiol. Instituts in Breslau, II*) agrees with this view, and further suggests that the intracellular fluid is moved by the protoplasm in the same way as the intestinal contents by the peristaltic movements of the intestinal wall." The considerable space, within many vegetable cells, occupied by fluid, across which threads of protoplasms here and there pass, is not here meant, for it is expressly stated that "this cell-fluid is not to be confounded with that which is assumed to exist in the interstices of the protoplasm." Further: "In the case of the flask-shaped glands of the frog's eyelid, it is seen that the bulk of the gland-cells undergoes considerable variation. At times the cells project so far into the lumen as to reduce this to the smallest possible compass; at other times, they are so contracted as to cause the gland to resemble a bladder merely lined with epithelium-cells. It is not easy to explain this change, otherwise than by supposing that the gland-cells have, by contracting, squeezed fluid out of their substance," an idea which has later been still further developed by Stricker, who, in conjunction with Spina, has been able actually to observe the contractions of the cells which were then only assumed.

Although, therefore, this modern view of the structure of protoplasm, as a network or spongework with fluid interstices, is not altogether novel, yet its advocates now claim for it an entirely different standing. Then it was merely a theoretical assumption, now it claims to rest upon observed facts. Let us see, then, for ourselves what these facts really are, and what they really prove.

In cells of the most various kinds, ova, pale blood-corpuscles, epithelium-cells, nerve-cells, vegetable-cells, which have been subjected to the action of hardening fluids, such as alcohol, bichromate of potash, picric acid, and especially chromic acid, it is easy to convince one's self of the presence in the cell-substance of a fine and closely interlaced network of fibrils. This fact, which was first distinctly pointed out by Frommann, and independently by Heitzmann, was soon supported by the extensive observations of Klein, and by the more special works of Arnold, Schwalbe, Flemming, and other histologists. Arguing, then, from this alone, viz., the appearance of protoplasm after it has been subjected to the in-

fluence of hardening reagents, we should have no hesitation in ascribing to that substance the sponge-like structure which the theory we are considering assumes that it possesses.

But before coming to a decision upon this subject, it behoves us to inquire how far we are justified in assuming that the structure which protoplasm exhibits after the action of reagents, exists in the same protoplasm in the living and unaltered condition. It is also important to ascertain whether the reagents we are in the habit of employing are capable of themselves producing appearances such as those we have to deal with.

To reply first to the latter inquiry. It must be conceded that the hardening reagents which we employ are undoubtedly capable of producing in organic fluid, and semi-fluid substances coagula, which, under conditions at present ill understood, may assume the form of networks. Unless, therefore, the intracellular networks which are observed are constant in appearance in the same cells, no matter what the hardening agent employed, constant, that is, in the general disposition of the fibrils, the objection is undoubtedly open that the apparent structure may be the result of the action of the reagents. But if it can be shown that even in the fresh and living protoplasm there exists, although not perhaps distinctly visible, yet sufficient indications of the presence of such a network, this objection would, in a great degree, be invalided; for it is conceivable, indeed certain, that different reagents may produce somewhat different changes in a pre-existent network, and in this way give it somewhat of a different character. Practically, then, the decision of the question ultimately turns upon the existence or non-existence of this structure in living protoplasm, especially in the protoplasm of cells, which exhibit it distinctly after the action of reagents.

For the special study of this question, it will, perhaps, be well to select two or three specific examples, and we may choose for the purpose cells of such widely different appearance and functions as a colourless blood-corpuscle, a cartilage-cell, and a glanular epithelium-cell, all of which are admitted to show a reticular cell-structure in hardened preparations. Let us see, then, what is observable in them in the living condition.[3]

The colourless blood-corpuscle of the newt or salamander is the easiest of cells to observe in the living state. Thus seen, its protoplasm is clear; and, when the corpuscle is flattened against the cover-glass, it is so completely exposed to view that, with the carefully constructed objectives which are now made, it is difficult to believe that any indications of structure which it might present would remain wholly undetected. Under these conditions, the nucleus is obvious, and the reticular structure of the nucleus is evident enough. But, in the protoplasm itself, what can be seen? In some corpuscles, a number of distinct refracting granules, grouped around the nucleus, sometimes on one side of this. The granules are imbedded in the clear protoplasm; they move from place to place within the cell, gliding as a group from one part to another, flowing into previously clear protrusions of the cell, to all appearance freely, and in no way seeming to encounter obstacles. In other corpuscles, clear spaces, vacuoles, less refracting than the protoplasm which encloses them, occupied by fluid—one, two, or more in the cell—occurring in the granular corpuscles as well as in others. In some corpuscles are many such vacuoles; in some, indeed, the protoplasm is crowded with them; they are of varying size; they appear to increase in number if the preparation be kept for a time—can, in fact, be seen in process of formation, produced by enclosure of fluid at the periphery of the corpuscle. When thus numerous, the protoplasm, in optical section, has all the appearance of a network; but the meshes are not like those of a sponge; they do not intercommunicate; they are isolated spaces, filled by clear drops of fluid, embedded in an otherwise continuous and homogeneous protoplasm.

To take, now, the second example, that of the cartilage-cell. This, which in the hardened tissue shows a fine network in its protoplasm (Frommann), has been carefully observed in the living state by Flemming, with special reference to this very question (of the pre-existence of the intracellular network). Hear, therefore, what Flemming has to tell us regarding the appearance of the living cartilage-cell—his object the gill-lamina of the salamander tadpole, his objective the 1-18th oil-immersion of Zeiss, the observer himself conspicuous for his keenness of observation; witness the result of his work on the division of nuclei. This is what he says regarding it (*Zell-substanz*, p. 22, 1882): "That the filaments can be seen to be united together into a network, so that there is a real connection of the filaments with the peripheral part of the nucleus .... I am compelled, in spite of Frommann's positive assertions to the contrary, to deny." The filaments here spoken of are peculiar convoluted threads of variable length, which, as well as fatty and other granules, can be seen suspended in the otherwise clear substance of the cell Their nature will be referred to later.

Lastly, let us go to the glandular epithelium-cell. Examined in the resting (fasting) condition, and with a good objective, nothing can be more distinct than the reticular structure of the epithelium-cells of the parotid in sections of the hardened tissue. A fine close and uniform network with clear interstices—this is the apparent structure of the protoplasm. But turn to the living cell. Langley has shown us how, in the thin outlying parts of the gland in the rabbit, we may examine the cells, the blood still circulating in the vessels of the acinus, the normal conditions almost perfectly preserved. And what is here to be seen? Each cell packed full of granules, distinct strongly refracting granules, embedded in clear protoplasm—distinct granules, certainly not merely nodes of a network. Crush a cell in serum, and observe the granules set free. And yet, in the cell hardened in alcohol or chromic acid, no sign of granules, their places taken by clear spaces, the protoplasm between them, and enclosing them in the form of a fine network.[4]

But, it may be asked, may not this protoplasm, itself between the vacuoles in the case of the pale blood-corpuscle, and between the granules in the case of the epithelium-cell, possess a yet fine reticular structure? Such a possibility cannot be denied. Theoretically, it may even be probable; all that can be said is, that in the living condition no such structure is visible.

It is, however, to be distinctly understood that although this must be stated regarding the structure of the protoplasm of animal cells in general, and although doubt still rests on the existence of a constant and definite structure in all protoplasm indiscriminately, this doubt is by no means to be extended to individual cases. In cells which have become highly specialised as to function there is every probability that some specialisation of structure will ere long become manifest. And such we accordingly find. Without unnecessarily multiplying examples, I may instance the fibrillation of muscular fibres, both voluntary and involuntary, the fibrillation of nerve-cells and fibres, that of many ciliated cells, of some secreting cells, and even the convoluted filaments in the cartilage-cell already referred to. Of the pre-existence of these structures there is no reasonable doubt, but they are not of general occurrence, and it is neither possible nor permissible to infer from them a definite and uniform structure for all protoplasm.

The structure of the nucleus has been no less an object of recent investigation than that of the rest of the cell, but there is a much greater agreement amongst histologists with regard to it; and its consideration need not detain us so long as that of the cell-protoplasm. The original idea of the nucleus was a spherical vesicle, bounded by a definite membrane. The membrane encloses a fluid and separates this nuclear fluid from the fluid contents of the cell[5]. In the nucleus fluid there are discovered one or more round solid particles—nucleoli. Therefore a cell consists of a nucleolus in the centre, outside this a membrane forming and enclosing the nucleus, outside this another membrane enclosing the cell-contents and forming the cell.

The original idea of the structure of the nucleus persists long after the original idea of the structure of the cell has been superseded. The nucleus of the protoplasmic cell of Max Schultze is practically identical with the nucleus of the vesicular cell of Schwann. If anything, the importance of the nucleus has receded. The original nucleus could exert an action upon the cell-contents. Now it is doubtful whether the changes which the nucleus can be observed to undergo may not really be passive, may not really be produced by the amœboid activity of the cell-protoplasm. It is only quite lately that the nucleus has reassumed its pristine importance; that the independence of its changes has been recognised, can in fact not fail to be acknowledged. Its function is unquestion-

[3] The necessity of insisting upon the examination of a cell in an absolutely normal living condition in order to determine a point of this nature, must be evident from the known fact that protoplasm, which is semi-fluid during life, undergoes, immediately after death, a kind of coagulation analogous to that which occurs in muscle and in blood-plasma. It is in consequence of this coagulation that a tissue like that of the liver, which is mainly composed of protoplasmic cells, becomes much firmer and more rigid after death than it was during life. We cannot certainly say that this coagulation is not accompanied by the formation of fibrils like those which are exuded from blood-plasma in the form of fibrin, so that, even if we are able to observe such fibrils, without the action of reagents, in a cell, the protoplasma of which is already coagulated, it does not follow that they are also present in the living condition.

[4] Compare Flemming (*Zell-substanz*, etc., p. 42). Flemming has gone wrong in this instance, in consequence of relying solely on hardened preparations.

[5] Some of the older histologists regarded the nucleus as solid and homogeneous

able; it initiates, presides over, the reproduction of the cell; in some cases is concerned in promoting its rejuvenescence. We are no longer content to accept as the typical structure of the nucleus of a living active cell an inert vesicle, inclosing a fluid and one or more solid particles. We can recognise in nearly all cases a further structure—a network, coarser or finer, open or close, of threads which pervade the nucleus, and unite the nucleoli to the enclosing membrane. There is no doubt as to the existence of this intra-nuclear cell. It is even more constant than the nucleoli, for the latter may not always be visible; the network of filaments is seldom absent. First noticed in certain specialised cells, and judged peculiar to them, it is now recognised in cells of every kind, ova, nerve-cells, muscular cells, epithelium-cells, colourless blood-corpuscles, coloured blood-corpuscles of ovipara. As in so many other instances, one is astonished that so obvious a structure should have remained so long obscure.

With this network the nucleoli are connected; indeed, many particles which were before described as nucleoli are now only recognised as thickenings of the network. The network is not inert; it alters from time to time, as do also the nucleoli; it is probably contractile: certainly, changes of shape may sometimes be observed in the nucleus, both within the cell, and when escaped from a ruptured cell. In division, moreover, the filaments and the whole substance of the nucleus undergo changes as rapid as remarkable. Altogether, it is clear that the nucleus is capable of a large amount of independent vital activity. What more natural, then, than to regard it as consisting of protoplasm in no essential point differing from the rest of the protoplasm of the cell? This view (indicated first by Beale, who included the nucleus and protoplasm of the cell together under the term "formative matter") has, in fact, been adopted by Frommann, Heitzmann, Klein, Stricker—histologists who were among the first to pave the way for the general recognition of the reticular structure of the nucleus. They bring the nucleus into absolute continuity with the protoplasm, its filaments prolonged into those of the protoplasm, its membrane little but a closer interlacement of the same filaments, the nucleoli only thickenings of the filaments. Throughout the whole cell-nucleus and cell-protoplasm is a continuous network of protoplasm. Apart altogether, however, from the reasonable doubt of the pre-existence of fibres in all cell-protoplasm, this conclusion is one which, in the face of the striking contrast of chemical nature (as shown by their behaviour to re-agents and staining fluids) between nucleus and protoplasm, can in no way be upheld.[6]

Putting aside, then, this continuity with the cell-protoplasm, it is admitted that the typical nucleus is composed of the following parts: (1) a nuclear membrane bounding it externally; (2) a network of fibres; (3) a nucleolus or nucleoli; (4) a clear substance filling the nucleus in the meshes of the network of fibres. 1, 2, and 3 agree, on the whole, chemically with one another, although optically they present differences; they differ entirely, both optically and chemically, from 4; they appear to be more solid, 4 more fluid; they are, therefore, grouped together under the name *nucleoplasm*, or *karyoplasm*, whilst the clear substance is termed the *nuclear juice*, or *matrix*. When a nucleus divides, all its karyoplasmic parts blend; the distinction between them is lost; they are transformed into a system of contorted fibres, imbedded in clear matrix. These fibres undergo remarkable changes, apparently spontaneous, which result in their separation into two groups, and the reformation of the structure of a typical resting nucleus from each group. Into the details of these remarkable changes I do not propose here to enter; I refer to their occurrence only as showing the individuality, the independence of the nucleus. When we believed that a nucleus divided simply by undergoing a process of constriction into two, it was conceivable that the constriction might be produced, not by any exercise of spontaneity on the part of the nucleus, but by the presence of the surrounding protoplasm. Such a notion is no longer tenable; the nucleus possesses an independent activity, as well-marked as that of the protoplasm itself.

It seems probable that we are on the eve of yet further discoveries with regard to the structure of the nucleus. It has, indeed, been shown by Balbiani that, in certain cells of chironomus-larvæ, the nuclear filaments are transversely marked at short and regular intervals, as if made up of a succession of particles cohering together in series. And it may well happen that this proves a general feature in the structure of nucleoplasm, and that the changes which occur in division may be ultimately referred to re-arrangements of their constituent particles. It is even conceivable that we may some day gain an insight into the nature and mode of action of the forces which cause such rearrangement, and even discover means to modify or restrain their action. No doubt, the idea is yet chimerical, but it is almost justified by the prodigious advantages which have of late been made in our knowledge of the structure and changes of the cell-nucleus.

It would appear then, that the nucleus of the cell is not the structureless body which we, at one time, thought it; on the contrary, it has a manifest and complicated structure, which has not even yet been fully unravelled, and, in the performance of its function, it exhibits changes of structure which, until lately, had remained entirely unsuspected. Regarding the body of the cells, we must be less positive; that, in special cases, it is differentiated, is undoubted; that, in all cases, it is reticular, is not proved, although theoretical considerations render such a structure not improbable.

I think we should be cautious of accepting conclusions which, however much supported by theory, do not rest on the basis of incontrovertible facts. Some histologists and pathologists would carry the reticular theory farther even than the limits of the cell. Continuing the protoplasmic network into the intercellular substance, they pervade all parts with it, binding together the separate cells of the organisms with a web, whose closely linked threads are finer than the finest gossamer, conveying the marvellous properties of protoplasm—its formative power, its chemical activities—to the most remote recesses of the organism. Inspired with enthusiasm for a new theory, they do not hesitate to carry it beyond the point which properly observed acts justify. We ourselves should have a care, lest, enticed by the facility with which certain phenomena seem to be explained, we follow too far along paths which lead away from the track of conscientious observation and just surmise.

[6] There is not even a probability that nuclei can be formed, *de novo*, out of protoplasm, or from anything but a pre-exisiting nucleus. The doctrine of free cell-formation, which originated in the days of Schleiden and Schwann, and which supposed the deposition of nuclei in a homogeneous blastema, and the formation of cell-substance around them, has long been given up as a general principle, although the new formation of nuclei, independently of pre-existing nuclei, has long lingered. It would seem, however, that it must now definitely be surrendered. All recent researches on cell-formation and multiplication point to the fact that the dictum of Virchow with regard to the cell must be extended to the nucleus: *Omnis nucleus a nucleo*.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PATHOLOGY,

At the Annual Meeting of the British Medical Association, in Liverpool, August, 1883.

By T. HENRY GREEN, M.D.,

Physician to Charing Cross Hospital, and Senior Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton; President of the Section.

GENTLEMEN,—The decision of the Council of our Association to confer the great honour of presiding over the Pathological Section upon one so junior as myself, I venture to regard as indicative of a desire on their part to encourage those of us who have still time and opportunity to prosecute more particularly the study of that important subject the annual discussion of which we meet to-day to celebrate. In accepting this position, however, I cannot but feel that, inasmuch as pathology is so inseparably united with, and so largely dependent upon, clinical medicine, the success of our meetings would have been better promoted by the guidance of one to whom age had given a riper knowledge and a sounder judgment.

Upon advance in our knowledge of pathology must necessarily depend advance in the very aim and object of our art—the rational treatment of disease. A survey of the past affords, I think, good ground for congratulation. During the last few years much has been done, much that will be enduring, much that will serve as firm bases upon which we may build in the future. In no department of medicine has progress been so marked and sure. Than such success, what better stimulus could we have to increased and persevering labour?

In considering the prosecution of our work, the number and the complexity of the pathological problems which still remain to be solved; some of which, from the gravity of the issues they involve, are, even at the present moment, assuming so much importance that both the profession and the public are anxiously waiting for the truth, we cannot but recognise the difficulties with which we are surrounded, the responsibility which rests upon our decisions,

the attitude of scientific criticism which it becomes us to assume.

Of the threefold source of our knowledge of disease—observation after death, observation during life, and pathological experiment—that first named has undoubtedly received the most attention. Morbid anatomy has ever been a favourite study with the junior workers in our profession. It is natural that it should be so; for our work is more capable of demonstration, and for the most part beset with fewer difficulties, than are the other methods of investigation. Let us beware, however, lest we attempt to give to it too great a prominence. I cannot help thinking that there is at the present time rather a danger of erring in this direction. Our literature teems with minute histological details, and our knowledge of the structural alterations which accompany disease would appear to be well-nigh complete. We are thankful that it should be so; and medicine will ever recognise her indebtedness to the long line of workers who have contributed, and are still contributing, to this end. But are we not too prone to be satisfied with our histology? Forgetful of the fact that the structural changes are not the disease, but only one of the many results of abnormal physiological processes, do we not allow these changes to unduly influence us in our estimation of the diseased state? We have attempted, perhaps, to look at and to explain disease too exclusively from an anatomical standpoint, and have thus incurred the danger of losing sight of factors in the process which may be of much greater importance than the revelations of the microscope. We are now beginning to learn, and to appreciate in all its important bearings, the fact that different diseased processes may produce the same structural change; that histological similarity does not necessarily imply pathological identity.

What has come, for example, of our anatomical conception of tubercle? What confusion could have been greater than that which has been existing during all these years from attempting to frame a definition of tubercle upon a purely anatomical basis? The impossibility of such an anatomical limitation has been gradually unfolding itself. As long ago as the oft-quoted debate at the Pathological Society of London in 1873, some of us ventured to question whether what was then known of the pathology of tuberculosis warranted an anatomical definition of the lesions. Five years later, Professor Klebs believed that he had demonstrated the existence of a microphyte in tubercle, to which he attributed its infectiveness. More recently, Dr. Martin, of Paris, proved experimentally that, in the lower animals, lesions produced by the introduction of irritating non-inflammatory particles may be precisely similar histologically to those produced by the inoculation of true tubercle; and now comes what appears to be still more conclusive evidence—the discovery by Koch of the tubercle-bacillus. The results of this tendency are also seen in the classification of disease, markedly so in the case of phthisis. The attempts which have been made during recent years to subdivide this disease into such varieties as "pneumonic," "tubercular," and "fibroid" phthisis, have had, perhaps, only a doubtful pathological justification; they have, on the whole, tended to mislead, and, with increasing knowledge, such divisions become increasingly untenable. In Bright's disease, again, the two types of kidney-lesion represented by the terms tubular and interstitial nephritis have served as bases for the subdivision of a disease, the differences in the characters of which are probably due rather to differences in the intensity and duration of the diseased process than to any differences in its real nature.

There is another matter connected with this branch of our subject to which I should like to allude—the study of disease as we meet with it in the *post mortem* room, apart from minute histological investigation. It is unnecessary, in such a meeting as this, to insist upon the importance of *post mortem* examinations. Of these, the greatest aids to education in diagnosis we possess, it may perhaps be said that he who has completed the largest number of his cases by necropsy, is likely to be the best practitioner. The value of *post mortem* examinations in this connection is so generally recognised, as scarcely to need comment. But, in order thus to utilise our cases, we must be familiar with the naked-eye characters of disease as seen after death. We must be able to recognise and to appreciate the significance of macroscopical changes. A superficial investigation is all that most of us have the opportunity of making; but it is for the most part sufficient. It will make us pathologists; and, although most of the work will be done by those who have time for more comprehensive study, we must remember that advance in our knowledge of disease is a gradual process, and is contributed to by the little workers as well as the great. What, therefore, I would venture to encourage is, an increasing study of the macroscopical characters of diseased structures. I do so because, in the education of our students at the present day, when a knowledge of minute changes is so increasingly demanded, I think I observe rather a tendency to allow morbid histology too much to replace morbid anatomy. There is, perhaps, a danger of the medical student spending too little time in the *post mortem* room, and prosecuting his work too exclusively in a room supplied with section-cutters and various dyes. I shall not be accused, I believe, of underrating the value of the study of microscopical changes, but I wish to insist upon the importance of endeavouring to familiarise ourselves with the macroscopical alterations with which they are associated.

The value of pathological experiment as a means of increasing our knowledge of disease, it would perhaps be difficult to overestimate. How much it has done in the past, and how much may we expect of it in the future. What, for example, could be more important than those investigations of Cohnheim which prove conclusively that when blood-vessels are injured either by direct irritants or by the temporary deprivation of their arterial supply, they become so altered that they are no longer capable of retaining the constituents of the blood? This constitutes the very basis of that large class of morbid processes which come within the category of inflammation. Or, again, than those of Koch, Davaine, Burdon Sanderson and others, on the nature and causes of septic infection, and of Koch on tuberculosis? And yet experimental pathology is at present only in its infancy, and the obstacles to its development in this country seem to be almost insurmountable. Condemned by the well-meaning but ignorant public, restricted by the legislature, with little or no pecuniary encouragement, even its utility questioned by some clinical pathologists, on the ground that deductions from experiments on the lower animals are not applicable to man; a means of investigation which is probably capable of giving us a clearer insight into the nature of many diseased processes than is any other method, seems to be well-nigh in danger of extinction. In saying this, I do not wish to be misunderstood. In such experimental methods the value of results must depend upon the skill and special knowledge of the experimenter, and success is only to be acquired by a long and careful training. It is a means of investigation, from the very nature of it, likely to be prosecuted with advantage only by the few. We should see to it, therefore, that every encouragement is offered to the few to do for us that all-important work which we are unable to do for ourselves. We would not blame the legislature for restricting promiscuous experiment, but we would ask them to recognise the great value of this method of inquiry, and doing so, to offer, not only greater facilities, but some practical encouragement to those who are qualified and willing to work. If such were the case, we should be spared the opprobrium of finding English names so conspicuous by their absence in most that relates to this branch of pathology.

Great, however, as is the value of pathological experiment, we must never lose sight of the fact that, its results must be submitted to the criticism of the clinical pathologist before they can be accepted as applicable to disease. Experimentation on the lower animals, however great may be the precautions taken to exclude error, is open to so many sources of fallacy, that even when its results are utilised merely for the purpose of explaining disease in the animals themselves, much uncertainty is unavoidable. But when these results are applied to disease in man, the sources of fallacy become so indefinitely multiplied, that deductions from them are almost valueless unless the conclusions arrived at are more or less in accord with those justified by other methods of observation. If this be so, and I think no one can gainsay it, how exalted among pathological methods becomes the position of clinical investigation. It is the province of the clinical pathologist to utilise the results both of experimental and of histological research, for the purpose of helping him to solve those obscure pathological problems which are daily presenting themselves to his notice. To those who are thus intelligently and studiously investigating disease as it is met with at the bedside of their patients, progress in pathology must ever be largely, if not mainly, owing. Let us, therefore, never be guilty of a tendency to underrate the pathological value of clinical medicine. Clinical facts, remember, are as much facts as are histological or physiological ones, and they can never be lost sight of in pathological generalisations without prejudice to the truth. Let those of us, therefore—and we must ever constitute a large majority—whose work is almost exclusively clinical, remembering the pathological value of our work, endeavour increasingly to aid in the accumulation of clinical facts. Our work is laborious, progress is necessarily slow, we shall probably meet with but little public recog-

nition or reward; but, as we proceed, we shall become increasingly competent to estimate the value and utilise the results of other methods of observation; and we shall have the satisfaction of knowing that our labours are in no small degree tending to further the attainment of that for which we all strive—pathological truth.

In the few remaining minutes of your time that I shall venture to occupy, I should like, if I may be permitted, to exemplify what I have been saying by an appeal to pulmonary pathology. In these days of specialism, such a descent from the general to the particular is, I trust, pardonable. I select diseases of the lungs, not only because they happen to have for me a special interest, but because some of them are just now very prominently before the notice both of the profession and the public.

If we take three such common diseases as broncho-pneumonia, pneumonia, and phthisis, and inquire into our knowledge of their pathology, we shall see how the several methods of investigation have contributed to this knowledge, and how unwarrantable is any attempt to generalise from one method to the exclusion of others. First, of broncho-pneumonia. Our knowledge here appears to be well-nigh complete. Morbid anatomy shows the prominent part played by pulmonary collapse in the causation of the pneumonic process, the inflammatory consolidation being almost exclusively confined to those portions of the lungs in which collapse has taken place. Pathological experiment tells us that stagnation of the circulation, such as occurs in the collapsed lung, so injures the blood-vessels that they become no longer capable of retaining the constituents of the blood. From clinical medicine, we learn that this disease is invariably associated with bronchial catarrh, and is especially prone to occur in weakly children—the two conditions the most favourable to collapse—and that it tends to prove fatal by progressive interference with the respiratory function, its severity being directly proportionate to the extent to which the lungs and bronchi are implicated. The conclusion, therefore, that, in a case of bronchial catarrh, the occurrence of broncho-pneumonia is, for the most part, due to the supervention of pulmonary collapse, is warranted by the several methods of observation we have been considering; and the importance of keeping this pathological teaching in view in the prevention and treatment of this disease, it would be difficult to overestimate.

In the case of simple pneumonia, however, it is otherwise. Of this disease, although we have of late years learnt much—much that is of the utmost practical value—we have still much to learn. The pulmonary consolidation, which constitutes the prominent local lesion, is obviously due to an accumulation of inflammatory products within the air-vesicles; and, judging from *post mortem* examination alone, we might conclude that the disease was a simple inflammation of the lung, giving rise to a varying amount of constitutional disturbance. Such, in fact, is the view that was formerly held as to the nature of pneumonia. But it is not supported by pathological experiment, and it is distinctly negatived by clinical observation. Experimentally, it is found to be impossible, by mechanical or chemical injuries of the lung, to produce that fibrinous exudation which is so characteristic of the earliest stages of the pneumonic consolidation. This, perhaps, in itself is not of much value. The evidence of clinical medicine, however, is overwhelming. A disease, in which there is no relation between the extent of the local lesion and the severity of the general symptoms, coming on with a sudden abruptness, and usually declining with almost equal rapidity, often before the pulmonary consolidation is fully developed, is obviously not to be regarded as a simple pulmonary inflammation, of which the clinical phenomena are symptomatic, but as a general disease, of which the lung-consolidation is the prominent local lesion. This is the present position of our knowledge, surely a great advance on the past, and one which is exercising a most favourable influence upon treatment. But our knowledge is still very incomplete. We have yet to learn the nature of the disease, and the circumstances under which it originates. *Post mortem* examination has, perhaps, revealed most that it is capable of teaching; pathological experiment may still throw some light; but probably to clinical observation, such collective investigation, for example, as is now being carried out under the auspices of this Association, we must mainly look for the further solution of this pathological problem.

And now we come to phthisis, a disease which, perhaps more than any other, has engaged the attention of pathologists; a disease, the very mention of which, in a pathological meeting, is apt to be received with alarm, so endless is the discussion which may arise out of the different views held respecting it. At the same time, the new interest which is given to the subject by Koch's great discovery, and the all-important questions which arise therefrom, will, I hope, be considered sufficient excuse for venturing on such debatable ground. At the present moment, there is, I believe, no question so much demanding the careful attention of pathologists, as that arising out of Koch's investigations on tuberculosis in their relation to pulmonary phthisis. It is not for me, and it is probably not for many of us here, to say whether Koch's experiments are free from error. In dealing with such complex pathological problems, investigations require to be repeated and varied before the results obtained from them can receive unconditional acceptance; and we must look to our skilled experimental pathologists for a verification, or otherwise, of Koch's results. It is for us, however, when such important statements are made by men whose knowledge and reputation are a guarantee for the value of their work, to give to their statements our careful consideration, and to see how far the conclusions which they necessitate are in accordance with those justified by other methods of research, and not to reject them simply because they may be apparently at variance with existing knowledge.

In the case before us, the statement comes from one of the greatest living authorities on the kind of investigation of which we are speaking, Dr. Robert Koch; and let me add—and surely this must enhance its claim on our acceptance—Koch's investigations have been verified by one of our own countrymen, one who has a special reputation for this kind of work, Mr. Watson Cheyne. Notwithstanding, therefore, that some have questioned Koch's conclusions, and have experimentally arrived at different results, it behoves us, I think, whilst waiting for further evidence at the hands of the experimental pathologist, to submit a question involving such grave issues to other tests, in order that we may, peradventure, by so doing, promote, and even hasten, the attainment of the truth.

Koch's conclusions, up to a certain point, will, I presume, be pretty generally admitted. That the tubercle-bacillus is, at all events, a very constant associate of tuberculous processes is now supported by such an accumulation of evidence, that we are probably justified in regarding it provisionally as a fact. This fact is already being largely utilised for purposes of diagnosis and prognosis, especially in pulmonary diseases, and the work being done in this direction by Heron, Gibbes, Dreschfeld, West, and others, is likely to lead to results of much clinical value. But Koch's conclusions go much farther. In so far as they relate to phthisis, they amount to this—the presence of the tubercle-bacillus is essential to the development of a phthisical process, and if this be so, it follows that phthisis is most probably a communicable disease. How far, I ask, is such teaching in accordance with the present position of our pathological knowledge on the one hand, and with that of clinical medicine on the other?

The teaching of pathology respecting phthisis justifies, I think, the following three propositions. 1. The morbid processes which lead to phthisical consolidation of the lung are inflammatory in their nature; by which it is simply meant to imply that they owe their origin to some kind of injury of the pulmonary tissues. 2. Phthisical consolidation of the lung differs from most other forms of pneumonic consolidation, inasmuch as it exercises an injurious influence upon the adjacent and distinct pulmonary tissues, and thus tends to spread. To this infective property, which varies very considerably in different cases and under different circumstances, the progressive character of phthisical consolidation is largely due. 3. The infectiveness of phthisical consolidation is, in all probability, due to changes in the inflammatory products, for the occurrence of which the presence of organisms is a necessary condition. Koch's investigations seem, therefore, to supply the element that is wanting to establish the truth of our pathology as far as it has gone—they discover the organisms, the existence of which had been foretold. But they do much more than this; they appear to prove that the organisms are specific. This, if true, is undoubtedly a most important additional link in the still incomplete pathological chain, and our previous knowledge of the pathology of phthisis is, as it seems to me, rather in favour of than against its acceptance.

If we appeal to clinical medicine, the greatest, and what seems to some the insurmountable, objection to the acceptance of the tubercle-bacillus as an essential element in the causation of phthisis is the fact that clinical experience seems to be altogether opposed to the view that this disease is communicable. In considering the question of communicability or contagiousness, however, it must be borne in mind that something more than the presence of the bacillus is obviously necessary to produce phthisis. As the organisms are to be found in the breath and sputum of phthisical patients, the source of infection must in some situations abound, and yet we know how exceedingly rare are instances in which it can be shown that the disease has been communicated. This second factor is something

inherent in, and peculiar to, the individual; and, whatever it may be, its existence is in all probability necessary, in order that any bacillus coming from without may exercise an injurious influence. The question of the contagiousness of a disease is sometimes a clinical problem difficult to solve; and although one may certainly state that phthisis is not readily communicable from one individual to another, and that, if it be so at all, the existence of something abnormal in the individual is necessary as well as the presence of the contagium; we are not, I think, justified in refusing to accept this outcome of Koch's teaching simply on the ground that, up to the present time, the evidence of communicability is so meagre. It is for us now to submit this question—by no means a new one, remember—to the most rigid clinical investigation. This is, as you know, being done by the Collective Investigation Committee, and the evidence already forthcoming is sufficient, I believe, to justify a doubt as to whether our previous notions on this subject have not been erroneous.

Another objection to this teaching has been made by the clinical pathologist, on the ground that it takes no account of that all-important element, hereditary predisposition, the influence of which is so marked, that its consideration must necessarily occupy a prominent place in any study of the pathology of phthisis. As to the exact nature of what is transmitted, we are at present ignorant, and it is not my purpose now to discuss it. We shall, however, probably be right in saying that it includes a condition of constitutional feebleness, which renders the individual abnormally incapable of resisting injurious influences. But, whatever it may be, it is something inherent in the individual; and may we not find in it that second factor to which we have alluded, the existence of which would seem to be necessary in order that any bacillus coming from without may cause phthisis?

To the influence of heredity may be added that of the state of the general health. Quite apart from any inherited tendency, there can be no doubt that an impaired state of health greatly favours the development and the progress of phthisis; and it is when these two are associated, as they so frequently are, that we appear to have the condition most favourable to the development of the disease. Such impaired health, therefore, we may regard as another element of that second factor—the something inherent in the individual. In what way these inherent elements furnish the condition necessary in order that the bacillus may become injurious, we have yet to learn. I believe, however, as I have ventured to indicate elsewhere, that an explanation may possibly be found in the existence of slight stagnation of the blood-stream in the higher portions of the lungs, which the inherent conditions tend to produce.[1]

It would appear, therefore, accepting provisionally the truth of Koch's investigations, that two conditions, at all events, are necessary for the development of phthisis—the presence of the tubercle-bacillus, and something, inherited or acquired, inherent in the individual. About the latter there can be no reasonable doubt, and although the evidence respecting the former is still quite incomplete, and we must await further and perhaps prolonged investigation before admitting the necessity of an organism from without, our present knowledge, both pathological and clinical, appears to present nothing exclusive to the probability of its truth.

What, then, I would ask, in bringing these few remarks to a close, is our duty with regard to this all-important subject? A pathology of phthisis which includes any such factor as a contagium from without involves issues so grave that we very rightly hesitate in accepting it, and require that it should be submitted to the closest criticism before we allow it to influence us in our practice. The position in which we are placed is undoubtedly a difficult one. To accept unconditionally Koch's teaching as it applies to phthisis, in the absence of more complete evidence, is obviously quite unjustifiable; and, having regard to the important social questions which must arise, extreme caution is necessary in giving publicity to any opinion respecting it. I allude, of course, more particularly to the communicability of the disease.

But are we justified in completely rejecting it? Supported as it is by the authority of its author, confirmed by other competent experimenters; for the most part in accordance with, and not involving any mutilation of, existing pathology; and although in some points apparently, yet not conclusively, at variance with clinical medicine,—does it not demand from us something more than mere careful investigation? Are we not bound, even now, to be more or less guided by it in the prosecution of our practice? In the treatment of phthisis, whilst never losing sight of the conditions inherent in the individual, should we not recognise the probability that there may be something introduced from without? In attempting to prevent the disease, is not the question forced upon us—How far is it justifiable to allow individuals who are not consumptive, but who inherit a phthisical tendency, and especially when such individuals are out of health, to intimately associate with those who are already suffering from this disease? Such questions as these are now coming prominently before us, and in endeavouring to answer them, we must look to Pathology as our guide. If I read her aright, she is, I think, pointing in the direction foreshadowed by Klebs and Koch, and is asking us, those engaged in the practice of our profession, not only to help her in the attainment of the truth, but also, in the meantime, to act up to our light and to use her, even in her incompleteness, for the good of our fellowmen.

[1] See lecture on the Tubercle-Bacillus and Phthisis, BRITISH MEDICAL JOURNAL, February 3rd, 1883.

AN ADDRESS

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At the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

BY THOMAS LAWES ROGERS, M.D., M.R.C.P.,

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GENERAL HOSPITALS AND HOSPITALS FOR THE INSANE.

GENTLEMEN,—I propose to devote a short time, by way of introduction to the business of the Section, in drawing a parallel between general hospitals and those specially instituted for the treatment and care of the insane.

In looking back on the commencement of both classes of institutions, and in following the course of their development, and more especially of the legislative enactments relating to both, nothing impresses one more than the fact that, whilst general hospitals were primarily founded, and have been since continuously devoted to the cure of disease, those for the mentally affected have been always more directed towards the safe custody of the patients than to their cure, and more in the interest of the public generally than in that of the patients themselves.

The earliest records of the history of the country show that the care and custody of all the sick were entrusted to the religious houses. "For the sick, if medicine was required, there was none to be had except in the monastery," whilst for the lunatic, chains, fetters, and stripes, were the chief treatment, varied with charms, incantations, and certain herbs gathered at particular seasons; the influence of the moon over mental disease being undoubted, evidence of which remains to the present day in the etymology of the word "lunatic."

That hospitals were founded exclusively for the reception of lunatics, we have the authority of Stowe that, in 1370, a hospital was founded in the parish of Barking "by Robert Denton, chaplain, for the sustentation of poor priests and other men and women that were sick of the phrenzie, there to remain till they were perfectly whole and restored to good memorie." This is perhaps the earliest record of the foundation of a special hospital in England, and it will be observed that it was founded with a curative intention.

At the time of the suppression of the monasteries, during the Reformation, St. Bartholomew's and Bethlem Hospitals were incorporated by Henry VIII, in 1546-47, both having been previously founded as monasteries some centuries earlier.

To enter at any length into the history of this hospital is beyond my present purpose; but to those who are interested in the subject, and who have not yet read it, Dr. Hack Tuke's recent work, the *History of the Insane in the British Isles*, will be found to contain a mine of interesting information, most carefully and industriously gleaned from every available source.

But taking the period of the suppression of the monasteries as a starting point, and making a comparison between St. Bartholomew's Hospital, as a type of a general, and Bethlem, as that of a special hospital, how unequal the progress of the two institutions!

Whilst the former has always had for its medical staff the most eminent physicians and surgeons of the day, and its course has

been one of steady advance to the high position it occupies at present, the latter had more and more deteriorated until, I might almost say, within our own time, certainly within the memory of men now living.

How has it come to pass that of two institutions starting at nearly the same period, and under similar auspices as to endowment, one should have gone steadily on towards perfection, whilst the other should even have deteriorated from the dark ages in which it was founded?

The explanation is, I think, to be found in the separation of the treatment of diseases affecting the mind from that of all other classes, from insanity being considered almost beyond the pale of the profession, and from the lingering prejudices which associated mental diseases with witchcraft and demoniacal possession, as an affection which might be exorcised, charmed, or beaten out of a person, but was not to be combated by rational or scientific treatment; as though it were an affection *sui generis*, and not amenable to any recognised rules of medical treatment.

I recollect, when a boy, being told by a countryman, a Wiltshire shepherd, that a neighbour had been sent to an asylum, and he was so bad that they thought he would have to be smothered. This was said in perfectly good faith, and accepted by me as true, and it was no doubt the common belief of the uneducated country folk of that period, that the most dangerous lunatics were thus treated.

On looking back at the revelations of the treatment of the insane in certain hospitals, which formed the subject of an inquiry by a Parliamentary Committee in 1815, one is disposed to ask if the treatment my shepherd believed in would not have been kindness compared with that which the lunatic really underwent.

Among the few benefits which the French Revolution, with its doctrine of the "rights of man," has conferred on mankind, the contemporary amelioration of the condition of the insane through the efforts of Pinel, must be considered one of the greatest, and a striking instance of a work of humanity conceived and carried out in the midst of the scenes of bloodshed, and the *bouleversement* of the ancient order of things, and of the destruction of institutions which characterised that period.

How far the doctrine of the rights of man influenced the mind of Pinel in the determination that some of the rights of humanity should be rendered to the poor lunatic, we have no evidence to show, but that the tardy acceptance of his doctrines and practice may be partly ascribed to the reaction throughout Europe which followed the Revolution—and that revulsion of feeling, amounting to hatred, of the Revolution itself and of its authors, may have made even humane people insensible to any real reforms which sprang from that period—may be fairly assumed.

In mentioning the name of Pinel as the pioneer of the reformation in the treatment of the insane, I ought not to omit mentioning the name of a countryman of our own, William Tuke, a citizen of York, and a member of the Society of Friends, who, almost contemporaneously with Pinel, was working in the same direction by founding the York Retreat, in 1792, for the insane members of the Society, in which a complete revolution in the treatment of the insane was affected; the history of the foundation of this institution, and its subsequent progress, being given to the world by his grandson, Samuel Tuke, in 1814.

Although the name of Tuke is, at the present time, so well known in connection with the subject of mental disease, there may be some now present who are not fully aware of the debt that the world at large, and the insane portion of it (by no means a small one) in particular, owe to the truly philanthropic labours of these noble-hearted men, whose benevolent disposition towards the insane has been inherited by their representative in our own profession, Dr. Daniel Hack Tuke, lately president of the Medico-Psychological Association, the great grandson of William Tuke, whose absence from our present meeting is a source of much regret to me, and especially from the cause, being the recent loss of his son, a young man of great attainments, who had already distinguished himself in medical literature, and who promised worthily to follow in the footsteps of his father and ancestors.

When we remember that the reformation in the condition of institutions for the insane in this country was introduced by a layman, it may well cause a feeling of shame that the change did not originate from a member of our own profession; and is only another indication of the manner in which diseases of the brain, affecting the mind, were habitually regarded by the profession as being a subject almost foreign to it.

To the same cause, it is, no doubt, due that the example, demonstrated by Mr. Tuke, of a more rational way of treating the insane, did not find general favour till another half-century had elapsed, when the teaching of Tuke was taken up and enforced by Dr. Conolly, who revolutionised the treatment at Hanwell, and, by his book on the *Treatment of the Insane*, published in 1856, brought the subject prominently before the profession and the public. In connection with Conolly, I ought not to omit the names of Drs. Charlesworth and Gardiner Hill, both of Lincoln, who both worked contemporaneously with him in the same direction.

But the greatest factor in the work of reform was the legislative enactment introduced and carried, after many abortive attempts at legislation, by the present chairman of the Lunacy Commission, the venerable Earl of Shaftesbury—viz., the Act of 1844-5, which not only provided that adequate provision should be made for the lunatic poor by the erection of asylums in every county in England; but also, and this was still more important, provided for a competent inspection of all asylums, public as well as private, by the present Board of Commissioners.

Previously, the duty of inspecting asylums, and the granting of licences to metropolitan houses, was vested in five Fellows of the College of Physicians; and the manner in which this duty was performed may be understood from the evidence given by Dr. John Bright before a Committee of the House of Commons.

He says, "In the first place, with respect to the granting licences, there is only one day in the year in which, according to the Act, the licences can be granted; then with respect to the persons to whom the licence may be granted, any person applying for that licence is entitled to have one; again, any person committing any offence, save and except the refusing admission to Commissioners on their visitations, may be continued, and is continued, in the exercise of such powers as that licence communicates to him. The Commissioners have no power to disturb in the management of his house any keeper of a house, whatever offences he may have committed, or however unworthy he may appear to them to be. Supposing any person who had, in the eyes of the Commissioners, acted improperly, to apply in October, at the usual and the only period in the year for granting licences, they conceive, and they are advised, that they are obliged to grant a licence to that individual."

A licence for a house to receive and take charge of insane patients was therefore at that period (1828) more easily obtained than one to sell beer and spirits at the present time.

Thus, whilst the only legislative sanction that general hospitals have received has been by way of royal foundations and charters, hospitals for the care and treatment of the insane have required stringent legislative enactments to lift them out of the abyss in which they were sunk.

The explanation of this is that, owing to the views with which insanity was regarded, the treatment of the insane was, with few exceptions, relegated to an inferior class of medical practitioners; and the absence of publicity made matters worse. When publicity was introduced into asylums through the means of a board of competent inspectors, by their published reports, and the comparisons thus made, this, besides doing way with abuses, introduced a spirit of emulation amongst the responsible officers, and had the same effect which rival and independent teachers and practitioners of medicine and surgery, and the rising medical schools have had in general hospitals.

No man likes to feel that he himself, or an institution with which he is connected, is behind the age; and so, when the fact is brought home to him, he is stirred into exertion. When the condition of asylums was everywhere on the same dead level of the lowest depth, the spirit of emulation could scarcely exist.

Asylums for the insane and general hospitals must always essentially differ in two important points. Into the latter, patients are admitted solely to be cured, if possible, of their diseases, and are eventually discharged, whether cured or not, within a definite period. In the second point, their admission, as well as their discharge, is voluntary.

An asylum, on the other hand, fulfils two distinct functions: it is a hospital for the purposes of cure, as far as that can be accomplished, but it is also a place of detention for those who cannot be cured, and who require protection themselves, or for those from whom the public require protection; and neither the admissions nor the discharges are voluntary.

Putting aside, for the moment, the compulsory nature of the admissions, the treatment of a patient admitted into an asylum does not differ materially from that of one of the same class of life admitted into a general hospital. He is generally kept in bed for the first day or two for closer observation; the case is taken with the same minuteness of detail as to the physical condition as it

would be in a hospital; the notes of the medical examination, as well as of the mental condition, with a diagnosis of the case, being entered in the books. With curable cases who recover in a short time, there is, therefore, but little difference between the routine of a hospital and an asylum; but, when recovery is delayed, or, as is unfortunately too frequently the case, recovery is from the first altogether hopeless, the similarity of the two institutions disappears, and the alternative function of the asylum may be considered to be entered upon: the compulsory detention of the subject. No doubt, to the physician, the first part of his duty—that of treatment with the expectation of curing, rather than with the mere end of safe keeping of the person committed to his charge—is the most attractive; but, with the exception of Bethlem Hospital, and, to a certain extent, St. Luke's, no public institution for the care of the insane offers this attraction.

But the second duty of the physician, though far less attractive, is no less important. He knows that, from the nature of the disease, committal to an asylum is in many cases a life-sentence, and his function is then to render this deprivation of civil rights as little irksome as possible; without hope himself to encourage hope in his patient, and to act on the principle that no class is so degraded that it is incapable of being raised in the social scale; by a careful and continuous medical observation of every individual patient to look for any indications of improvement, and, by carefully selected employment and recreation, to develop what good may exist in the individual, and, in a moral aspect, to act on the principle enunciated, I believe, by Arnold of Rugby, to seek more to develop and encourage the good than to repress the evil.

For all this, the most unwearied patience is absolutely necessary. The duty is not one that will bring much renown, and a man must be contented if he does not receive appreciation, and happy if he escapes misrepresentation. Looked at from the highest point of view, I can conceive no professional life more useful or more honourable than that of an asylum-physician. To say that we do not always attain the height of this ideal is to say we are but human.

I have thus far pictured the contrast between the present system treating the insane, and that which prevailed scarcely more than fifty years since, between a *régime* of chains, whips, filth, and nakedness, the rotatory chair, *bains de surprise*, and other ingenious tortures—a mode of treatment which, looked at from our present standpoint, must be regarded as more adapted to produce insanity than to cure it—and the present method in which restraint is rarely used, and even solitary exclusion but seldom; where, instead of violent coercive measures, with no regard to decency or sanitary laws, we have fairly capacious, well ventilated, and more or less tastefully furnished and ornamented wards, where no sanitary precautions are omitted, and where scrupulous cleanliness is the rule; where, in fact, the insane are treated as human beings, who, though mentally degraded, are yet capable of being raised "on stepping-stones of their dead selves to higher things."

In fact, if the system which has apparently been successfully tried in Scotland, and notably in the Lenzie Asylum, near Glasgow, of dispensing with locks to the doors, be carried out in this country, as it must be if a more extended experience demonstrates its practability, thus doing away with the last semblance between the arrangements of an asylum and a prison, it is not easy to conceive in what direction the moral and economic means of treating the insane can be carried further.

When patients can be well fed and clothed, receive constant medical attention, be employed in healthy occupations, and live in a palatial residence, and all for a cost of about ten shillings a week, there certainly does not seem much room for greater comforts or economy.

Of the more purely medical treatment of mental diseases it is not possible to speak with the same satisfaction.

The records of actual recoveries are said not to show a higher ratio now than in the old times, whilst the number of insane persons under supervision increases from year to year out of all proportion to the increase of the population. But statistics cannot be relied on in making such a comparison, as in the first place those referring to a time antecedent to the appointment of the present Lunacy Board are comparatively worthless, only a small proportion of the insane poor ever having been registered; and in the second place, owing to various causes, a vast number of pauper patients are now sent to asylums, who, when there was inadequate accommodation for them in these institutions, were maintained by friends or detained in workhouses, or suffered to wander at large and beg for their maintenance.

In the next place—and this is really the principal factor in the increase of the pauper population of our asylums—the accumulation of the chronic and incurable insane must be taken into consideration. Out of every 100 patients admitted into our asylums, less than forty recover, and about thirty die in the first five years, on a rough calculation, leaving an incurable residuum; and as insanity, except in certain forms, does not necessarily tend to shorten life, the accumulation goes on increasing year by year.

I say that insanity does not necessarily tend to shorten life, but it would be more accurate to say that the tendency, whatever it is, is more than counterbalanced by the care that is taken in providing those affected with proper food and clothing, and in removing them from risks to which they would otherwise be subject. The insane thus move in a little world of their own. In a large proportion of cases, they are capable, under certain conditions, of fulfilling the ordinary functions of life. The unsound mind works in an altered groove, but still a groove that has some regularity, which may be likened to certain physical conditions, such as a false joint, or to some organic changes of vital organs, in which the organ, though permanently damaged, is yet capable of fulfilling its functions in a modified manner, and which enables its possessor to share in the cares, the duties, and the enjoyments of a tolerably active life. With the brain, however, the organ of the mind, in this damaged condition, the position of the individual as a member of the human family in his relations to his fellow-men is no longer the same; he is unable to take his part in the affairs of life. If he be a man dependent for his living on his own exertions, he becomes a pauper, and there is only the asylum or the workhouse, or the assistance of friends, for him to fall back upon; if a man of independent means, he requires protection for the management of his property.

It may be asserted that, in the first place, modern science ought to be able to bring about more recoveries; and secondly, that a better use might be made of those I have described as partially recovered, than by keeping them shut up in asylums for the rest of their days.

As regards the first contention, let us consider the class of cases that are admitted into asylums. Setting aside those hitherto deemed incurable, such as general paralysis, and insanity associated with epilepsy, there is a large class in whom mental disease appears only as a climax to a long process of deterioration, produced frequently by indulgence in habits of intemperance and other vicious propensities, which has gradually undermined the constitution, not of the brain only, but of the nervous and arterial systems, and also of the visceral organs.

Mental unsoundness being the final outcome of such a condition, can it be expected that the one will be cured, whilst the other—the cause—remains?

Insanity occurring as an idiopathic disease in a subject otherwise healthy, and without a strong hereditary predisposition, is as curable as any other acute disease; but when it is merely one among many signs of an altered constitution, the prospect of recovery is proportionately small.

In but a few of the *post mortem* examinations made in asylums is the brain found to be the only organ diseased, and the changes in this are often, except in certain recognised forms of disease affecting the mind, so slight as not to be detected by the naked eye, and, in fact, far greater changes may be found in the brains of those who have died not insane, than in recognised lunatics; as in the insane themselves the extent of coarse brain-disease is often not commensurate with the degree of psychical disturbance.

Are we, then, to assume that insanity may exist without the brain being affected, and that medical treatment is useless? I by no means wish to imply this, but to indicate that, as the whole animal economy suffers more or less in diseases affecting the mind, so our examination should include the functions of every organ, with a full inquiry into the antecedent history of the patient; and instead of seeking for specific remedies for a disease of which we scarcely know either the exact nature or the precise seat, we should have regard more to the general condition of the body, and rely more upon general than upon specific treatment.

Of really specific remedies, few are known in medicine; and certainly the search after those capable of curing mental disease has been like that of the alchemists of old for the "philosopher's stone." One narcotic after another has been tried and vaunted, only to be relinquished with disappointment, if not with disgust; from the hellebore of the ancient Greeks down to our own day, the changes have been rung upon opium, tartar emetic, the bromides, chloral hydrate, conium, and hyoscyamine; each have had their day, probably to be succeeded by others, with the same result.

The general use of narcotics has been characterised as "chemical

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restraint" by one of our most vigorous and accomplished writers; another eminent physician, in an address delivered before this Association, likened the action of chloral to the performance of a pugilist, rather giving the preference to the pugilist. And as for hyoscyamine, I can only compare its action to that of the old-fashioned rotatory chair, from the description given of that ingenious instrument of torture, the effect of which would seem to resemble an aggravated sea-sickness.

In my younger days, it was the fashion to administer immense doses of opium; and I remember a quaint remark made by a wise American physician (Dr. Edward Jarvis, of Massachusetts), who, when I had pointed out a woman who was taking ten grains of morphia for a dose, asked me if I did not find it an expensive diet.

Should, then, all narcotics be discarded from lunacy practice? By no means; but relegated to their proper position as adjuvants rather than as specifics; as useful remedies for procuring a night's rest for a restless patient, but useless, if not injurious, when given with a view to suppress maniacal excitement, which is, after all, only a symptom of a disease of the nature of which we know but little.

A few words, in conclusion, as to the advantage or necessity of sending patients to an asylum.

I fancy it is a common idea that, when a physician, who is in any way connected with an asylum, is called to see an insane patient, it is a foregone conclusion that he will recommend the speedy removal to an asylum.

That this is the case, to a certain extent, is due to the fact that he at once realises the difficulty of treatment at home. But the question is one chiefly of convenience and expense.

I will not attempt to indicate what cases should, and what should not, be sent to an asylum; but I wish to point out a few of the considerations which must influence the decision of the medical attendant.

General hospitals are, of course, established solely for the benefit of the poorer classes; and though some persons who can afford to pay for their medical attendance, out of penurious motives seek, through the means of the hospital, and sometimes under disguise, to obtain assistance gratuitously, there are no advantages nowadays, either in nursing or medical services, that cannot equally well be obtained by paying for them in a private house. With an insane patient, it is very different. If he lives in a town house, his eccentricities, if he goes abroad, are likely to attract attention, and to inflict injury on his social or business reputation; if suicidally disposed, there is the constant danger, even with a relay of attendants, of his finding an opportunity of carrying out his design.

Then, if he be the head of a family, and accustomed to be obeyed in all things, he will not quietly, in his own house, consent to be under the direction of an attendant, who stands to him in the relation of a servant; then the services of relatives are injurious to both parties. On the one hand, it being the characteristic of insanity, more than of other ailments, to intensify egotism, this failing is more likely to be encouraged by the tender sympathy of kind but not judicious relations, than repressed, and discouraged, as it should be, by a discreet attendant. It is also a well established fact that insane people are more apt to entertain delusions antagonistic to their own nearest and dearest relations than towards perfect strangers, and these often cause a bitterness of feeling, which remains after the delusions themselves have subsided.

Then the question as it affects other members of the same family; if there be an hereditary tendency, nursing an insane brother or sister will be likely to develop it in the nurse.

I have known repeated instances of one sister taking charge of another and becoming insane herself in consequence, and within the last two or three years I have had three sisters one after the other under my care in one of whom the attack seemed to be immediately produced in this manner, but they all eventually recovered. Putting aside these circumstances, if the means of a patient admit of securing thoroughly efficient attendants in a country house where exercise can be obtained without attracting observation, and, still better, if the services of a discreet and educated companion can be secured, all the advantages can be gained that could be procured in the best regulated asylum without the name, and this is with some people an important consideration. It is not an uncommon expression to speak of sending a person to an asylum as "branding him with the taint of insanity," as though this particular treatment were the taint and not the disease itself, and as though treatment in an asylum necessarily presupposed a more decided attack rather than as being due to the pecuniary or other necessities of the patient.

The fact, too, of a person having been in an asylum is thought to be more likely to become known than if treated in a private house, and this may interfere with the advancement of sons and daughters in the world, a weakness of human nature which we have to take into account, and which, though as asylum-physicians we cannot approve, as fathers of families we must sympathise with. In many cases also an attack of mania or melancholia may be of such a transitory nature that removal to an asylum is altogether unnecessary.

But with the poorer classes, where the head of the family, the bread-winner, or the wife, the head of the household, becomes insane, there is scarcely an alternative to the asylum, and therefore the name has less terror, and from my own observation I do not find that the fact of a young woman having been in an asylum is any bar to matrimony.

I have mentioned the great increase of insanity in this country and the accumulation of insane persons in asylums; let me ask your attention, for a few minutes, to observe the distribution of these insane persons.

Referring back to the sixth Report of the Commissioners, that for 1851, the earliest I have had at hand, I find that, on January 1st of that year, there were only 25 county and borough asylums in England and Wales, two only of which had been erected under the Act of 1844-45. These 25 asylums received 8,083 patients, 232 only being private cases. There were 13 registered hospitals, containing 1,299 patients, of whom only 328 were paupers; and there were 120 licensed houses in London and the provinces (excluding those receiving less than 5 patients), of which 39 received pauper, and 81 private, patients only. These 120 licensed houses contained 6,751 patients, of whom 4,112 were paupers, and 2,639 private cases.

On January 1st, 1882, there were 61 county and borough asylums, receiving 42,691 patients, of whom only 584 were private cases.

The number of registered hospitals remained the same, viz., 13, receiving 1,907 patients, almost all private cases.

The licensed houses were reduced from 120 to 73, and the number of patients they contained was 4,528, fewer by 2,000 than in 1851, 1,410 being pauper, and 3,118 private, patients.

I have no record earlier than 1859 of the number of lunatics registered as being maintained in workhouses, or residing with their relatives and friends; but, on January 1st of that year, there were 7,963 lunatics in workhouses, and 5,920 residing with their friends, out of a total of 36,762 registered lunatics.

On January 1st, 1882, there were 12,233 lunatics in workhouses, and only 6,564 residing with their friends, out of a total of 74,842, the term lunatic including imbecile persons and idiots, though I have not included special institutions for idiots, nor the asylums for the naval, military, and Indian service, nor the State asylum at Broadmoor, in this communication, as their numbers are limited, and are foreign to the purpose for which I introduce these figures, which is to show where the great accumulation takes place.

Thus it will be seen that the number of licensed houses has been reduced from 120 to 73 in this period of thirty-one years, and the number of private patients contained in them has only increased in the same period by about 500, the pauper class having been reduced by 2,700.

The number of patients in registered hospitals has only increased by 280 in the thirty years, whilst the number in county and borough asylums has swelled from 8,000 to 42,700, or, including the Metropolitan District Asylums, to 47,400.

In the twenty-four years from 1859 to 1882, whilst the total number of registered lunatics, idiots, and imbeciles, has increased from 36,761 to 78,842, the number of those who are maintained by their relatives has only increased by 644, and of these 644 only 315 were paupers, and the proportion has been decreasing steadily for the last ten years, thus showing a disinclination on the part of the public to incur the burden and responsibility of keeping their insane relatives at home when they could be better taken care of in an asylum.

It is thus evident that the great increase in the number of pauper patients is out of all proportion to that of those classed as private, and thus the two principal factors in producing this accumulation to which I referred are the pauperising effect of insanity, and the increasing disinclination of friends to keep their insane relatives at home; the former is a natural cause which legislation cannot affect, and the question arises, how far it can affect the latter, and if it could, is it desirable that it should?

Hitherto the tendency of legislative enactments has been rather to increase and perpetuate this accumulation than to relieve it, and the onus of showing how the lunatic poor can be better provided for than by maintaining them in asylums, rests rather with those who

object than with those who are contented to accept the condition as it exists.

Such institutions as lunatic colonies are impracticable in this country, even if they were desirable in themselves; and in Scotland, where a trial has been made, it has not been, I understand, a success. It is certain that, only in a very small proportion of cases, can insane persons be safely maintained in families for the same cost that they are in asylums; and when so maintained, they are often neglected; and the State cannot be expected to pay a higher rate on merely sentimental grounds.

As was said by One of old time, "The poor ye have always with you;" and until we arrive at an universal "City of Hygeia," the lunatic poor are not likely to cease out of the land; and those who complain of the cost of maintaining them, should be rather thankful that they themselves enjoy the blessing of a sound mind.

I feel that I ought to offer an apology for the very elementary nature of this address. To those engaged in the same specialty I can have told nothing that they did not already know; but as the establishment of a psychological section has the effect of bringing us, for the time, into closer relations with the general body of the profession, the idea occurred to me that sketching a parallel between hospitals for the sick and for the insane, might be both suggestive and interesting, using the term in the military, rather than in the mathematical sense; for, as in the one, the lines do not always keep at the same distance, so, in my illustration, we find institutions for the cure of the sick and of the insane approaching each other in the character of curative institutions, receding in proportion as the curative element in asylums gives place to the mere safe detention, and re-approaching in the common object that both should have to benefit suffering humanity.

Whatever may be said for or against hospitals for special bodily diseases, those for the cure of diseases affecting the mind must be special, as the admission of insane people into general hospitals would be fraught with danger to the sick; but though the institutions must be special, there need be nothing special in the treatment, except in the larger share that moral means must have over medical; and it must not be lost sight of, in the legal haze that envelops the insane, that insanity, especially in its primary relations, is a department of medicine in which there is a great field for research. The harvest is indeed abundant, but the labourers are but few; and there is ample scope of work for the younger members of our profession in endeavouring to solve some of the problems connected with it.

Is it too much to hope that, at some future time, the success which has attended the researches in the direction of localising the motor functions of the brain, may yet be extended to the sensory and intellectual functions, even to tracing the precise cause and seat of a fixed delusion, or to explain the changes that occur with rhythmical order in a case of "*folie circulaire*," or recurrent mania? A few years spent in an asylum for the pnrpose of clinical study and research, even without the intention of devoting one's life to the specialty, would be time well spent, both in the mental discipline that it would inculcate, and also in helping to create an educated opinion and sounder views than generally prevail on the subject of mental diseases and their treatment.

At a recent meeting of the Société de Pharmacie, convened specially to consider a report which was intended to serve as a preliminary chapter to the forthcoming edition of the *Codex*, it was decided that, instead of attempting to define a tablespoonful as a measure of weight or of volume, it would be preferable to propose to medical men to agree that, when they prescribe a tablespoonful, they are to be understood to order a quantity equal to fifteen grammes of distilled water. At the same meeting, the size of the normal *compte-goutte* was defined that the diameter of the tube at the point from which the drop falls should measure three millimètres exactly. An opinion was also expressed that the practice of measuring certain very volatile liquids by drops should be abandoned.

The Alexandra Palace and Park.—A deputation from the Hornsey Local Board, accompanied by the Earl of Shaftesbury and Lord George Hamilton, M.P., recently presented to the Court of Common Council a memorial, asking the Corporation of London to take steps to secure the Alexandra Park as an open space for public recreation. Mr. Bedford moved that the memorial be referred to the Coal, Corn, and Finance Committee. With the grain duty, the Corporation had freed Epping Forest, Ham Park, Coulsdon Common, and Burnham Beeches; and they must now apply to Parliament for power to purchase Alexandra Park, and to carry out other useful objects. The motion was carried unanimously.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF DISEASES OF CHILDREN,

At the Annual Meeting of the British Medical Association in Liverpool, August 1883.

By SAMUEL GEE, M.D., F.R.C.P.,

Physician to St. Bartholomew's Hospital and to the Hospital for Sick Children.

A SURVEY OF THE LITERATURE OF THE DISEASES OF CHILDHOOD.

In all studies of this kind, we turn to Hippocrates first of all. Among the numerous treatises which bear his name, there is only one which is devoted to the pathology of children, and that is the essay on dentition. It is a chain of aphorisms, concerning the common disorders of children who are teething; vomiting, diarrhœa, cough, convulsions, and fever are mentioned, but almost half the treatise relates to "ulcers of the tonsils," a disease difficult to identify in modern practice. In the work which especially bears the name of the *Aphorisms*, there are some slight references to children's diseases: *e.g.*, in bk. iii., aph. 24, 25, 26. "To little and newborn children: aphthæ, vomiting, coughs, sleeplessness, frights, inflammation of the navel, watery discharges from the ears; at the approach of dentition: pruritus of the gums, fevers, convulsions, diarrhœa, especially in cutting the canine teeth, and in those who are particularly fat, and have constipated bowels; to persons somewhat older: affections of the tonsils, incurvation of the spine at the vertebra next the occiput, asthma, calculus, round worms, ascarides, acrochordon, satyriasmus, choerades, and other phymata." But, in all the Hippocratic treatises, the passage which is, for us, the most interesting by far, is that remarkable description of mumps, which we find at the beginning of the first book of the *Epidemics*. I believe we may affirm that it is the only description left us by the ancients of that one of the very few acute specific diseases which they knew. Although mumps is thus the earliest acute specific disease to be recorded, yet has it been the last to gain universal acceptance; you will remember that Felix Niemeyer does not admit the acute specific form of parotitis which we call mumps. In Celsus, Aretæus, and Aurelian I do not recollect anything relative to children's diseases worth notice, nor need I refer to the little which Paulus has to say upon our topic.

The name of Rhazes must be held in honour by us; for he is the earliest writer of a treatise upon the diseases of children; such as it is; for the chapters, which are very short, consist almost wholly of therapeutics, often absurd enough. Of semeiology, or description of disease, there is little or nothing. Rhazes was born about the middle of the ninth century, in Persia. He has another claim to our notice, inasmuch as the earliest extant writings upon small-pox and measles bear his name.

The seven hundred years which passed away between Rhazes and Francis Glisson, added hardly anything to knowledge. Yet I must mention the first English book upon children's diseases, namely, "*The Boke of Childerne*, composed by Thomas Phayer, studiouse in Philosophie and Physicke," published in 1544. This is that same Phayer who is better known as a translator of a part of the Æneid. It is clear that Phayer's book is founded upon Rhazes, who is referred to in several places, and in one is spoken of as "Rasis, a solemne practicioner among phisicions." But Phayer's list of diseases is fuller than that of Rhazes, and perhaps it will not be found wearisome to read the heads of the sundry chapters of Phayer's little book.

The sixteenth century was rife in Latin poetry, and even in medicine the poets found work for their muses. You all know the name of Fracastorius, the author of the poem called *Syphilis*, in three books. (I may just say, in this place, that Paracelsus was the first to mention inherited syphilis, in 1529.) Fifty-four years after the appearance of Fracastorius's poem—namely, in 1584—Gaucher de Sainte Marthe, or Scævola Sammarthanus (as he Latinised his name), published a poem, also in three books, called *Pædotrophia*—that is to say, the rearing of children. The first book relates to the fœtus, or, what is the same thing, to the management of pregnant women; the second, to the management of sucklings; and the third, to their diseases. Ste. Marthe was a French gentleman, but not, as might be supposed, a physician. His merits as a

Latin poet I will not pretend to gauge. Some have held his *Pædotrophia* to fall not far short of the *Georgics;* and it might be asked why the rearing of babies should sound more like burlesque in a poem than the rearing of corn, vines, and cattle. Be this as it may, the poem has been translated into English twice. The earlier translation is anonymous, and was published in 1710; the latter is by H. W. Tytler, M.D., and appeared in 1797. Tytler's version is closer to the original, but dull; whilst there is a coarse vigour about the earlier translation which makes it amusing.

Here I may just allude to an Italian poem upon the suckling of children, written about 1560, by Luigi Tansillo; the title, *La Balia*, or *The Nurse;* and it was deemed worthy of translation by the eminent citizen of Liverpool, William Roscoe. The second edition, which I possess, bears date 1800. The author denounces wet-nurses, and exhorts the Italian ladies themselves to suckle their children.

Leaving this laureate fraternity of poets, let me speak of a little book entitled "*De Morbis Puerorum, or, a Treatise of the Diseases of Children, etc.* By Robert Pemell, Practitioner in Physick at Cranebrooke in Kent. May the 29, 1653." He, no doubt, practised among the rich clothiers who then dwelt in the Weald of Kent, and in Cranbrook especially. His book is an improvement upon Phayer's, yet perhaps it is hardly too much to say that there had been no great increase of knowledge since the time of Rhazes, or even of Hippocrates.

But better things were at hand. On the thirtieth page of this book, Pemell refers to "a learned treatise set forth lately by three or four doctors," on rickets. This was no other than Glisson's "*De Rachitide sive Morbo Puerili, qui vulgo The Rickets dicitur, Tractatus*," first published in 1650. Glisson marks the beginning of a new epoch in the knowledge of children's diseases, and may be said to hold a place like that of Vesalius in human anatomy, of Harvey in physiology, of Morgagni in morbid anatomy, and of Laënnec in semeiology. There can be no doubt that Glisson discovered rickets, yet he was not the first to print a book upon the subject. He spent more than five years in writing his treatise, and he was helped by other Fellows of the College of Physicians; so that rickets had been much talked about before the appearance of Glisson's book, and he was forestalled by those who had the pen of a ready writer. I may mention Theophilus de Garencieres, who is said to have published at London, in 1647, a small book upon rickets, entitled *Angliæ Flagellum, seu Tabes Anglica*, which I have not seen.[1] In 1649, Arnold Boot published, at London, a small book entitled *Observationes Medicæ de Affectibus Omissis*, the twelfth chapter of which contains a description of "tabes pectorea," or rickets. But what shall I say of Daniel Whistler, who, in 1684, published in London an essay upon rickets, which he pretended to be a reprint of an academical thesis which he had first printed in 1645, or five years before Glisson's book appeared? I cannot help thinking that too much trust has been put upon Whistler's word of honour. Haller, for instance, in his *Bibliotheca Medica Practica* (1777) speaks (vol. ii, p. 706) of an academical disputation, *De Morbo Puerili dicto Rickets*, published at Leyden in 1645 by Daniel Whist (*sic*). The mistake in Whistler's name makes it doubtful whether Haller had seen the disputation which he quotes. Dr. Norman Moore, some years ago, caused inquiries after this alleged thesis of Whistler's to be made at Leyden, and he tells me that they know nothing about it there. It was in 1684, the year wherein Whistler published his essay in London, that he died in well-deserved disgrace, having robbed the College of Physicians, of which he was then President. Wherefore, in that year, his word of honour was about as trustworthy as a dicer's oath. In short, Dr. Moore believes, and I agree with him, that Whistler's academical disputation of 1645 may be but another of Whistler's frauds.

Glisson, I say, discovered rickets. He asserts that rickets was a new disease, which had first appeared in Dorset and Somerset about 1620. But Glisson was born in Dorset in 1597; so that in 1620 he would be twenty-three years old; and the doubt rises whether the newness belonged to the disease, or to the mental eye of the young man. In general I am not disposed to put much faith in the upspringing of new diseases. I find it more easy to believe that they have been overlooked; still more, that they have been confounded. I find it more easy to believe that men have been blind, rather than that nature has been inconstant during the few hundred years which go to make up written history. Else we must suppose that a new Pandora has emptied her box upon our unhappy age, so many are the new diseases which we know only too well, and our fathers knew not all. I can believe that morbid poisons spread from one part of the world to another, as the intercourse of men becomes more free. I can believe that syphilis first appeared in Europe at the end of the fifteenth century, and, if I could believe that rickets is nothing but a form of inherited syphilis, I would admit it to be possible that rickets arose about a hundred years later. Otherwise, if it be due to the operation of common causes, it must have existed so long as the present conditions of human life.

In the same shire of Dorset was born, twenty-seven years after Glisson, a man whose name is still more famous, Thomas Sydenham. In his writings we find the first clear references to three diseases of childhood, under their present names; I mean whooping-cough, Vitus' dance, and scarlet fever. But Sydenham makes no claim to have discovered these diseases; yet his descriptions are a starting point in their history. With regard to his description of scarlet fever, I must say that it seems to me to tally more with the scarlatiniform kind of roseola described by Dr. Maton, than with what we call scarlet fever. I cannot omit to remind you that Sydenham has left us the first good and sufficient history of measles.

Sydenham was prone to jesting of that grave kind which dullards misunderstand. You remember the answer which he gave to Blackmore, who asked for advice as to medical books: "Read Don Quixote, sir." Dr. Walter Harris fell another victim to Sydenham's naughty habit. Harris had written a book, *De Morbis Acutis Infantum*; and, showing it to Sydenham, the great man said that it was the only book which he himself would fain have written. With this *imprimatur*, the book was republished several times, and translated three times into English—namely, by W. Cockburn, M.D., John Martyn, and by an anonymous hand in a collection of tracts on children's diseases published in 1742. Yet Harris's is a poor production; all that I have carried away from a perusal is, that he attended the son of the Right Hon. the Earl of This, and the daughter of the Right Rev. the Bishop of That, to say nothing about people of inferior quality.

With the eighteenth century, books upon our topic become numerous. Most of them are bad enough, but those which were written to teach (or to catch) the people, are by far the worst. Some of these books of advice to mothers, on the rearing, and feeding, and nursing of children, sick and well, are, indeed, masterpieces of twaddle. It would almost seem as if the writers wished to make good the saying, that an old woman is the best doctor for a baby. Yet, perhaps, this excuse may be made, that the ignorance of most women is such that even twaddle is better than nothing.

Take Boerhaave's *Aphorisms* for a standard of knowledge at the beginning of the century, and you will find that teeth and worms, like two inauspicious planets, still rule the sphere of children's diseases. And mark the simplicity of this pathology—until two years of age, or a little later, children are breeding their teeth; afterwards, worms become common; so that, between the one and the other, we never need to fail for a diagnosis.

In the eighteenth century, children's diseases came to be much better understood in three particulars: namely, croup, tubercular meningitis, and the eruptive fevers. First, with regard to croup. It is spoken of under the name of "the croops," by Dr. Patrick Blair, in a letter to Dr. Richard Mead, dated Cowpar of Angus, July 6th, 1713, and published in a book entitled *Miscellaneous Observations*, etc., London, 1718 (p. 92). But Blair's description is very meagre, and the first adequate history of croup is Francis Home's, published at Edinburgh in 1765. The first bronchotomy in croup was performed by John Andree on February 11th, 1782, at Hertford, I believe. In a paper read before the Medical Society of London on October 31st, 1796, Henry Field first distinguished spasmodic from inflammatory croup.

Next, with regard to acute hydrocephalus, or tubercular meningitis, as we now call it. Single and ill-described cases of the disease were published by Dr. St. Clair and Mr. John Paisley before the appearance of the treatise of Robert Whytt. Yet no damage can be done to the claim brought forward on behalf of Whytt, that he must be deemed the discoverer of acute hydrocephalus, inasmuch as he was the first to write a history of the disease, in the true empiric sense of the word history. Whytt's *Observations* were published at Edinburgh in 1768, two years after his death.

Lastly, with regard to the eruptive fevers, small-pox and measles had been well distinguished by Sydenham. In 1730, Fuller affirmed that chicken-pox (or crystals, as he calls it) was a distinct disease. But Heberden's paper, read before the College of Physicians on

[1] Since the above was written I have, through the kindness of Dr. Allchin, perused the copy of De Garencieres which belongs to the Medical Society, and I find that the treatise does not relate to rickets at all, but to a kind of pulmonary consumption, not easy to identify. Yet the book has been largely quoted, especially by the Germans, as a treatise on rickets; the title I suppose misled them. The learning of too many goes no further than the title-page, and this at second hand.

August 11th, 1767, is the real beginning of our knowlege about chicken-pox. The anginal form of scarlet fever was first studied in this century; Fothergill's *Account* appeared in 1748; and in 1779 Withering established the scarlatinal nature of the disease. In 1798, Edward Jenner published his *Inquiry into Cow-pox*. And, in order to complete this topic, I will just enter the next century, and refer to Maton's paper, read before the College of Physicians on April 4th, 1814, wherein the scarlatiniform variety of contagious roseola is first described.

Poets still found themes in our branch of knowledge. Dr. Hugh Downman, of Exeter, published, in 1774, the first instalment of a didactic poem entitled *Infancy; or the Management of Children*. The poem, complete in six books, was published in 1788. The copy I possess is called the sixth edition, and dated 1802. Unluckily, Downman writes in metre without rhyme, and blank verse opens the floodgates of prolixity.

We have now reached the nineteenth century, and literature becomes so immense that any chronicle and brief abstract of the time will be very defective. The great increase of knowledge in our age has been chiefly due to two causes, namely, to the study of morbid anatomy, and to the invention of the methods of physical examination, which are, indeed, the study of morbid anatomy in the living subject. In both these respects pre-eminent, the name of Laënnec at once comes to mind; and no man, since Hippocrates, has exerted so powerful an induence upon medicine as he. His fame as the inventor of auscultation has dimmed what would otherwise have been his fame as a morbid anatomist. And I must not forget Bayle, whose book on phthisis, published in 1810, and whose earlier papers, are the starting-point of the modern doctrine of tubercle; and how large a part tubercle plays in the pathology of children I need not say. Bretonneau's work upon diphtheria and typhoid fever was so original and so conclusive, that he may almost be said to have discovered those diseases. It was in France that inherited syphilis was first discussed in a manner such as the importance of the topic deserved. Duchenne discovered the pseudohypertrophic form of paralysis, and what he calls "obstetrical paralysis." And lastly, how successfully the pathology of the nervous system has been cultivated by living Frenchmen, you all know well.

Coming back to our own country, I will refer to the work of Willan upon skin-diseases; to John Clarke, whose description of laryngismus stridulus is the first which deserves notice; to William Charles Wells, the discoverer of scarlatinal albuminuria; to John Burne, whose papers upon typhlitis are the beginning of definite knowledge of that disease; and to George Gregory, of whom the same may be said with regard to tubercular peritonitis.

Dr. Bowditch of America is still alive, yet I cannot help alluding to his invention of the method of paracentesis which is now commonly called aspiration. It is true that the adaptation of a syringe to a cannula is as old as Anel, and perhaps older; but it is no less true that the chest was not aspirated before the day of Dr. Bowditch.

Lastly, I must mention the three most useful means of physical examination which we owe to Germany, namely, the thermometer, reintroduced by Wunderlich; the ophthalmoscope, invented by Helmholtz: and the laryngoscope of Türck and Czermak.

Before I sit down, I wish to bring before you one truth, which this sketch makes very clear. Looking over the names of the men whom we have celebrated, the men who have made our knowledge what it is, I do not find one who could be called a specialist in children's diseases; but the multitude are mad after specialties. No wonder; for we are the descendants of those who, in their sickness, worshipped fetishes and charms, or sought after star-gazers and the touch of kings. Our children will deem us to be, in other respects, no less simple. Besides, it is a true saying that "the world suspects a man who can do two things well." As the poet says

> "One science only will one genius fit;
> So vast is art, so narrow human wit.

But art is not yet so vast, nor human wit so narrow, that the diseases of children need be made a specialty; and I believe that none of us are specialists in the popular and evil sense of the word. For my own part, if I may speak so much of myself, being physician to a hospital for children, and to a much greater hospital for people of all ages, I can see that my knowledge of children's diseases would be much poorer and meaner than it is, were it not for the larger experience I gain at St. Bartholomew's. I wish that the governors of the general hospitals would make more provision for sick children, and then the need for special children's hospitals would pass away.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OTOLOGY,

At the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

By GEORGE P. FIELD, M.R.C.S.Eng.,

Aural Surgeon to St. Mary's Hospital, London; President of the Section.

RECENT PROGRESS IN OTOLOGY.

GENTLEMEN,—In taking the chair in the Section of Otology, at this our annual gathering as members of the British Medical Association, I must, in the first place, acknowledge the great honour that has been conferred on me by my election as President. Secondly, I offer a cordial welcome to you all, and thank you for your presence at our meeting in Liverpool to-day, in furtherance of those objects that we have most specially at heart.

From the excellent list of papers promised, it is evident that none of us can fail by his attendance here to gain, from the recorded experience of others, valuable additions to his own store of knowledge, and hence to his means of practical usefulness in his profession.

It was but a twelvemonth since that, at Worcester, we were accorded the privilege of making a distinct section for diseases of the ear. Previously, as many of you are aware, it held a far inferior position in our conferences; and, indeed, a rumour has reached me that this year diseases of the ear, with those of the eye, narrowly escaped being referred once more in twinship to a sub-section, because, forsooth, the ear and eye are both organs of the senses, and in many respects allies.

Having, however, secured our position, it behoves us to do our best to maintain our vantage-ground; endeavouring first, individually in private, to perform sound scientific work; and then, collectively, at our annual gatherings, by hearty co-operation and mutual assistance, to render the practical results of each man's experience the common property of us all.

As much as in us lies, must we make it our care to demonstrate, that we British aurists, and therefore they whom we are called upon to treat, are enabled to reap great advantages from the fact that, at least once a year, we meet together for the deliberate discussion of those matters to which professionally we devote our chief attention.

I am strongly inclined, indeed, to conclude, from the benefits which I perceive to accrue from our Association meetings, that great good would result from the formation of an Otological Society of Great Britain. Our nearest Continental neighbours, and our American friends, have their otological societies and journals; and the fault will be ours if we in England, through self-seeking, jealousy, or other failings, do not vie with them in their generous work.

A society such as the Ophthalmological, or, possibly, somewhat more resembling the Dermatological recently established, would, I feel persuaded, at once cause otologists to labour better together for the common weal.

Such organisations would naturally tend to foster a spirit of enquiring into the yet unsolved problems of aural science. When we reflect that, for its foundation on a scientific basis, aural surgery is indebted to an Englishman, Toynbee, and that the first master-builder after was another fellow-countryman of ours, namely Hinton, our apparent indifference to the progress of the superstructure, upon the basis they have laid down for us, seems not a little strange. I have to add that, after penning the remarks just read, I received a communication, signed by two gentlemen, in which is urged the conclusion to which it seems we had all three simultaneously come, viz., the desirability of the formation of an Otological Society for Great Britain. But I think that this scheme can only be carried out successfully by calling a general meeting to arrange how it is to be constituted. For a few of us to attempt to organise a society, without consulting others interested, is sure to end in failure and disappointment. Should such a society come into being, I believe, gentlemen, that by hearty co-operation we may render it conducive alike to the strengthening of our bonds of professional fellowship, and the increase of our knowledge.

What I will in no wise seek now to do is to set before you anything like a minute survey of what during the past twelve months has been effected in the science we represent to-day. To attempt a mere enumeration of the long series

of papers in connection therewith, that have of late appeared would be an undertaking well-nigh profitless; and, in the time at our disposal, to test the breaking-strain of your patience with a summary of the contents of simply the more important, would be scarcely less unproductive of good.

I shall not, I would explain, endeavour to produce for your inspection a pre-Raphaelite picture of the otological events and discoveries of 1882-3; but, instead, I shall content myself with setting forth, to the best of my ability, some few of the more prominent and suggestive subjects for consideration that have, of late, occupied the attention of aurists at home and abroad. I shall then proceed to sketch more generally the developments we have seen since the time of Toynbee, and the benefits that have thus been secured to the human race; and, finally, I shall essay to depict, as definitely as the laws of perspective will allow, certain of the possible and probable realisations of the future. Among the recent otological treatises which strike me as specially valuable, on account both of their originality and their clinical importance, is Dr. Ormerod's discussion as to the relations of epilepsy to ear-disease, published in the April number of *Brain* this year.

Other masterly productions, dealing with different branches of our subject are, Dr. C. H. Burnett's remarks on the advantages of a dry local treatment in otorrhœal diseases, in the *American Journal of Medical Science*, an essay of Dr. Shiffers, of Liège, on the prognosis and treatment of otorrhœa, the paper by Dr. Woakes, in the BRITISH MEDICAL JOURNAL for April of this year, on "Auditory Vertigo and Menières Disease," and that by Dr. St. John Roosa, on "The Effects of Noise upon Diseased and Healthy Ears," in the *Archives of Otology*, June, 1883, and a host of others too numerous to mention.

So long as the mind of the profession continues to manifest its vitality by papers so practical in tone as these, there need be no fear that our views respecting the causation and treatment of aural maladies should exhibit a bias too purely theoretical. The truth is that, as the lives of the greatest pioneers of our profession have abundantly demonstrated, the most brilliant theoretical deductions in medical science are compatible only with the active discharge of the great vocation of the healer.

Did I require any illustration, in respect to aurists, of the truth of this observation, I need only point to the career of Professor Politzer, who, within the last twelve months, has been among us, and who, by his union of sound theoretical knowledge with practical experience and consummate skill, has proved himself to be rightfully accredited one of the greatest living proficients in the pathology and treatment of diseases of the ear. The laws laid down for us in his truly admirable writings, he has enforced and supplemented by the beautiful series of pathological preparations which, through the kindness of Dr. Semon, he has recently given us the opportunity of inspecting. Let us hope that, when next he favours us with his presence, we may, not only as individuals, but as a society, be able to accord to him a welcome in keeping with our high estimation of his work—a greeting which, I need hardly say, we should similarly proffer to any eminent member of the profession.

In connection with the subject of aural disease, there is nothing more striking than the contrast between the condition of the hopelessly incurable cases of deaf-dumbness in past and in modern days. There was a time when it was held that—

> "Nec ratione ullâ docere, suadereque surdis
> Quid facto esset opus,"
> "To instruct the deaf no art could ever reach,
> No care improve them, and no wisdom teach;"

And, at a much later date, we find Dr. Johnson designating the education of the deaf and dumb as a "philosophical curiosity." History, however, records for us sundry attempts, within the last three centuries, to arrive at what may justly be regarded as one of the greatest triumphs of modern philanthropy: the systematic instruction of the deaf-dumb in the arts of speech and lip-reading.

It came to be discovered that the deaf were able to make their eyes serve them in some measure for ears, so that, by observing the motions of the lips and tongue of a speaker, they might learn, not only how to comprehend what was said, but how themselves to articulate. Thus it was that, long since, Wallis in England, Amman in Holland, and Braidwood in Edinburgh, were enabled to confer upon pupils of theirs the power of holding converse by word of mouth. There were but few, even among those who undertook to teach them, that, until within comparatively recent times, did not hold the benefit to the deaf of acquiring utterance to be far out of proportion to the labour thereby entailed.

Whereas, not many years ago, the deaf and dumb that did not not learn the art of finger-speech were condemned to a miserable life of intense solitude, now, by the attainment of lip-reading, through the pure oral mode of instruction, these unfortunate ones have opened out to them a new existence, in which they are restored to the greater number of the privileges of society.

It is true that the invention of the finger-alphabet has done much for the social condition of the deaf and dumb; still, as Kitto, who from the age of twelve was himself deaf, remarks, although one may become possessed, through it, of "the solid bones, the dry bread, the hard wood, the substantial fibre of life," one "gets little of the grace, the unction, the gilding, and the flowers, which are to be found precisely in those small things which are not worth reporting on the fingers." The medical profession may congratulate itself on its steadfast advocacy of the pure oral, as opposed to all other systems for the education of the deaf. By its means a degree of happiness and of success in life, otherwise unattainable, has been placed within the reach of deaf-mutes—a matter of no slight moment, seeing that these, as census-statistics have shown, number one in every 1,650 of our population. It may be expected, I think, that, as time goes on, this notable proportion will be considerably reduced. There are, as you are aware, two classes of deaf-mutes—the mute because congenitally deaf, and the mute because, though, born capable of hearing, rendered deaf before the acquirement of speech. The latter class is that with which we, as medical men, are most intimately concerned, for it is largely recruited from cases which, had they received timely remedial treatment, need never have been compelled to enter the precincts of our schools for the deaf and dumb. But, in order that we may successfully deal with such, two things are necessary: first, skill in prophylaxis—a thing in which there can be no doubt, I think, that we are steadily making progress; and, secondly, the opportunity of combating aural disease betimes. Now, no one that has been able to compare the effects of early and of late treatment in ear-disease following on those banes of childhood, scarlet fever and measles, can have failed to come to the conclusion that obstinate otorrhœa and its, in many a case, terrible outcome—complete non-congenital deafness—are to be attributed, it is true, indirectly, but still most indubitably, to the apathy of the parents and guardians, not to say, in certain instances, the culpable indifference of the medical attendants of children, as to the progress of aural diease, until it has wrought irreparable damage in the ear. I am fully alive to the fact that some persons, on hearing this last statement, might not rerain from hinting that we aurists are perpetually harping on the same thing. Alas! that there should be any necessity for our monotonous and unwelcome notes! Would that not merely the world of laymen, but members of the profession by the thousand, lapped in the soft Lydian airs of the old school of expectant practitioners, did not require to have dinned into them the absolute necessity of adopting early and active measures for the arrest of aural disease! Do we not, all of us, day by day, meet with instances of the sad results of neglected discharge from the ear, which has been studiously ignored by medical men, on the presumption that a flow of offensive pus can do no harm, and that its arrest would be likely to induce cerebral mischief? Without doubt, nature alone, in many a case of ear-disease, effects a cure; some constitutions may, unassisted, escape a sea of ills; but there are others that cannot reach the shore of health and safety without the aid which it is our duty to proffer whenever we find a fellow-creature struggling in the stream of human maladies.

I am given to understand that managers of assurance companies are beginning to comprehend the fact that some risk is involved in a chronic discharge from the ear. Were they, as we, repeatedly the witnesses of the fatal effects of cerebral abscess, meningitis, pyæmia, and other complaints due to this cause, they would not be slow to include it among their more serious disqualifications for life-insurance, and to regulate their premiums accordingly. It is scarcely, however, our province to hint to the actuary means by which he may lessen evaporation from the golden streams that flow so abundantly into his coffers, even if the hard-worked members of the profession did obtain therefrom an occasional driblet. Roughly speaking, I should say that each of us, in the course of a twelvemonth's practice, sees as many as five or six deaths from neglected otorrhœa. It would, in fact, be interesting to ascertain by our next meeting what in the aggregate numerically has been our precise experience with respect to the fatality of chronic ear-disease—a subject which might afford no unworthy occupation for the far-reaching energies of our excellent Committee for the Collective Investigation of Disease, even if, in consequence, certain of the subjects which it has taken in hand received less thorough attention.

What seems to me a matter singularly noteworthy, constantly forced on our attention in connection with otorrhœa, is the stolid indifference with which the public regard the whole question. Our worst cases—those, *e.g.*, in which the prompt employment of the trephine is indicated—are, I think, scarcely ever those which have received the benefit of early treatment, for they have been brought under the notice of the private practitioner, or have been taken to hospital solely because of the supervention of fatal symptoms.

It was but a few days since that my colleague Dr. Broadbent asked me to see a girl of 18, admitted under him at St. Mary's, with intense pyrexia, as a result of purulent otitis, from which she died only eighteen hours after her admission into hospital. As in all such cases, the otorrhœa, which had finally become fatal, had for years been permitted free scope for its pernicious action.

Happily, the students of most of our provincial and of all our metropolitan medical schools are now, at length, receiving instruction in the principles of otology, so that we may look confidently to the future to provide a phalanx of both willing and able opponents to aural disease in all its phases.

There is one condition which, while it by no means invariably produces complete deafness, yet as a rule seriously impairs the hearing, namely, perforation of the membrana tympani. In some instances, the surgeon is successful in healing perforations of many months' or even of some years' duration; but usually, I need scarcely say, an old-standing perforation is beyond the pale of curative remedies.

It is astonishing to me how many persons, having ascertained that it is futile to attempt the repair of an injured membrana tympani, resign themselves to a permanent condition of deafness, simply because they and their medical advisers have learnt nothing of the great benefit that may result from the use of an artificial drum-head. "I know you can do nothing in my case," said a gentleman to me, who for thirty-three years had been deaf in both ears, "but my friends want me to see you, and so here I am." I found him suffering from double perforation. By steady practice, according to my instructions, in the adjustment of pellets of cotton-wool, he, in a fortnight's time, was enabled to hear perfectly well.

All of us have had such cases, and could bear witness that, but for the apparent ignorance of both the profession and the public as to the use and efficacy of artificial drum-heads, deafness due simply to perforation of the membrana tympani might be of less frequent occurrence than at present. There is one subject in which the profession may congratulate itself that great advances have of late years been made, and that is the treatment of otorrhœa. The remarks of Burnett, in the article already referred to, with respect to the advantages of dry local applications in otorrhœal diseases, are so pertinent, that I cannot do better than refer to them here. One of the greatest hindrances to cure in an ear-disease accompanied by otorrhœa is, as he points out, the presence of granulations and polypoid growths; but, nevertheless, the old treatment for such a complaint—copious syringing, and the instillation of various liquids—is, with a large number of practitioners, the uniform procedure. Now, as the natural warmth of the ear, together with the introduced fluids, tends to promote granulation, and to keep up a morbid discharge, it is clear that, in many instances, a moist treatment of otorrhœa is contra-indicated. The cleansing of the ear with cotton-wool, introduced on a probe, and the subsequent application of an antiseptic powder, as, for example, boracic acid, may, on the other hand, be found of very considerable efficacy.

I doubt not that, in the course of the discussion here to take place, there will be elicited an opinion on Politzer's method of dealing with otorrhœa by the application of rectified spirit, as also various kindred topics, to which I need not now, therefore, further allude.

I think we may say that the treatment of non-suppurative aural catarrh is as yet in its infancy, and that the results obtained therefrom are still far from satisfactory. It is possible that advantages of which we little dream have yet to be derived from the use of electricity, and of the microphone and other ingenious contrivances. The feasibility of hearing through the teeth has for ages been recognised, and a Dr. Buchner, in the eighteenth century, showed that thin slips of wood might successfully be used as conductors of sound to the teeth of persons who, though afflicted with deafness, were without lesion of the auditory nerves at their origin. Of late years the invention of the audiphone has conferred on such persons the power of employing the teeth in ordinary conversation as auditory media; and doubtless, as through such gatherings as these we continue to stimulate the growth and promote the diffusion of otological knowledge, we shall by degrees acquire many another new artificial aid to hearing, with greater facilities for the education of the deaf and dumb, and, best of all, an acquaintance with the principles of the prevention of aural disease such as shall infinitely surpass in its practical utility all our methods for either its alleviation or its cure. In conclusion, it cannot have escaped the notice of the section that I have touched but lightly on the two subjects selected for discussion at our present meeting, leaving of necessity altogether unnoticed many other most interesting questions.

NOTES ON BOOKS.

Where to take a Holiday; Reports on some Home and Foreign Health-Resorts: being the Holiday Number of the "London Medical Record." (London: Smith, Elder, and Co., 15, Waterloo Place, S.W.)—This collection of papers on various health-resorts, by physicians who have devoted much attention to this department of practice, is likely to prove extremely serviceable to the large class of people who take a holiday for the sake of its renovating effects upon their health, and who desire to know what special locality has been found by experience to prove most beneficial for cases and constitutions similar to their own. Medical practitioners, too, who may be hesitating where and how to spend an autumn holiday with most advantage, or who may be seeking for similar information on behalf of patients, will find useful matter in these pages. In fact, none of the chronic ailments in which baths, change of air, scene, and occupation are known to be beneficial fail to receive adequate notice; though the subject is approached rather from the side of the health-resorts than from that of the ailments benefited by residence thereat. The first paper in this number of the *Record* is one on the "Spas of Great Britain and Ireland," by Inspector-General Macpherson, which is teeming with information of the practical kind. The second essay is entitled "Continental Climatic Resorts in Summer," by Dr. Hermann Weber, which shows that it is their great abundance which renders selection difficult; it divides these resorts into seaside and inland places, and gives ample information under both heads. Dr. Symes Thompson follows with a paper on the "Choice of English Health-Resorts," arranged in the same manner, and showing that our own country is certainly not deficient in the variety of its health-resorts, and that a judicious choice of these should, in many cases, be preferable to the "rush abroad," now so popular. Dr. C. Parsons contributes an exhaustive article on "Sea-Bathing." Dr. Vintras describes pleasantly the "Seaside Resorts on the French Coast, from Dunkirk to Havre;" and Dr. Burney Yeo, the "Pyrennean and adjacent Summer Health-Resorts," in pages full of information for invalids. Dr. George Thin indicates how summer holidays may be advantageously taken at sea, and for what classes of invalids they are specially indicated. Next comes a long article giving particulars of the climate, water-supply, health-statistics, lodging-accommodation, and general resources of typical English and foreign health-resorts, arranged in alphabetical order. The localities noticed are Aberystwith, Aix-la-Chapelle, Barmouth, Bath, Blackpool, Bournemouth, Brighton, Broadstairs, Buxton, Dover, Filey, Folkestone, Great Yarmouth, Hastings and St. Leonard's, La Bourboule, Llandudno, Margate, New Brighton, New Shoreham, Teignmouth, Tenby, the Lake District, and Tunbridge Wells. Hints to travellers, from the medical point of view, giving precautions as to apartments, exercise and recreation, drinking and food, and clothing follow next, and are excellent; and the review ends with articles on preparations useful for travellers, another on travelling costumes for ladies, and a third reviewing certain recent guide-books to mineral waters and watering-places. Altogether, the information on health-resorts gathered into these fifty-three pages is probably better and more than has ever before been offered to the public at so small a cost

BEQUESTS AND DONATIONS.—Miss Mary Gardner, of Ombersley, bequeathed £200 to the Worcester Infirmary. Miss Agnes Ellis, of Newcastle-on-Tyne, bequeathed £100 to the Whitley Convalescent Institution, and £100 to the Newcastle Infirmary. Mrs. Sarah Brown of Upper Berkeley Street, bequeathed £100 to the Royal Hospital for Incurables, Putney. "A Friend" has given £150 to the Gloucester General Infirmary, and £50 to the Gloucester Eye Institution. The Instruments and Furniture Fund of the West-End Hospital for diseases of the Nervous System, &c., has received £182 10s. from Mrs. Gilbert, being the proceeds of a fancy dress ball given by her at the Kensington Town Hall. Messrs. Baring, Brothers, and Co., have given £50 to the North Eastern Hospital for children.

FIFTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in LIVERPOOL, July 31st, August 1st, 2nd and 3rd, 1883.

First General Meeting: Tuesday, July 31st.

The first general meeting was held at the College, Shaw Street, on Tuesday, July 31st, at 3 P.M.; Dr. W. Strange, the retiring President, took the chair.

The minutes of the previous meeting were taken as read (having been published in the Journal), and confirmed.

Address of Retiring President.—Dr. Strange, on taking the chair, addressed the meeting as follows.

Gentlemen,—A writer of the last century, more terse and sententious than most of those of to-day, has said that two of the chief duties of man are "to live honestly, and to die gracefully."

The twelvemonth-long official life of your President, although a most honourable one, is yet not free from anxieties. So that, although a natural ambition may have prompted him to accept the high honour of it, when tendered by your hands, the experience of its anxieties and responsibilities will, in all probability, induce him, when his period of office is about to terminate, gracefully if he can, but certainly willingly, to transfer the sceptre to another.

This feeling would induce me to be brief in my farewell address to you to-day, even if I did not feel, as I do, the impropriety of trenching upon time which properly belongs to my successor. But, gentlemen, the thankfulness which I feel for the high honour you did me last year, and the respect due to you as my constituents, demand that, in relinquishing my office, I should give you some short account of my stewardship.

Last year, a great, a successful, and even a triumphant Association, returned to the place where, fifty years before, it had emerged with fearful and timid steps, and yet with hope and promise of future greatness. How that promise has fructified, you saw at our gathering last year. Anxious minds, I assure you, presided over that jubilee of our society, as others had done over its birth. Doubtful of possessing the power and ability to show you that welcome and hospitality which the great occasion required at our hands, I and my colleagues, short-handed enough, undertook a work which I even now fear was performed but very imperfectly. But, for whatever imperfections we might show, I knew we should have your kind and considerate forbearance. We did our best; and if that best was small, it will form the greater foil to the far larger provisions for your instruction and entertainment made by our successors in this great city.

But one good result, I am glad to think, has come out of our efforts at Worcester. Already other towns, not much larger than ours, are in the field, anxious, before long, to welcome you; and so, I trust, it will be that alternately we shall meet at such great centres of energy and wealth as this of Liverpool, and in the learned retirement of the classic muse, or in some quiet rural capital.

The most interesting subject which has engaged our attention during the year is the reform of the governing Council of the Association. This subject has arisen out of the fact that the Association has now arrived at years of maturity; has succeeded to a splendid fortune; and thinks it is time to take possession of it. Like a noble ship which has escaped many shallows, and weathered many storms, she now rides freely on the ocean, and proceeds on her prosperous course. No wonder that the crew are desirous of taking the management of her into their own hands, and of relieving of their charge those who, from the first, have piloted her and guided her in the troublous period of her early voyages. And I do not doubt, gentlemen, that it is with feelings of deep gratitude for their past services that you now relieve these Nestors of their charge.

A new scheme for your government has been sketched out by the Committee of Council; it has been laid before the Council and adopted by it, and it will be recommended for your approval to-day. It will be for you to judge of its fairness, of its comprehensiveness, and of its fitness for the present condition of the Association. And let it not be supposed, gentlemen, that this question of your Government is a trivial matter. For myself, I recognise most heartily that the first and greatest object of our associated life is, and ought to be, the pursuit of knowledge, and the dissemination of truth. And, whilst I envy the man who inaugurated it, I yet delight in such work as was so auspiciously begun, three years ago, at the Cambridge meeting by my friend Professor Humphry. Nevertheless, we must not forget that a good form of government is essential to the success even of the scientific work undertaken by us; for, unless every man's equal rights be recognised in a democratic society like ours, there will be no peace for its rulers, nor any confidence in their measures.

Gentlemen, the years to come are full of hope and promise. May I venture upon one piece of advice. Let us settle all disputed points now; so that perfect harmony, resulting from perfect satisfaction, may reign over all our future deliberations. In this way will medical science and medical art be afforded that peaceful atmosphere and that undisturbed soil in which alone they can take root and thrive.

To all matters affecting your interests, more particularly those concerning the reform of the Council, I have devoted my time in no grudging manner. It is, I conceive, the duty of your president not to be content with the honours and duties of the week of his meeting, but to take an intelligent interest in all your affairs, to watch over your interests as the one man specially elected to do so; and these, to the best of my ability, I have endeavoured to do.

I have now, on bidding you farewell, great pleasure in ceding this chair to one who, I feel assured, will fill it with dignity and impartiality—one whom the profession in this great city has chosen for their leader, and whom you are now waiting anxiously to hear; and one to whom, I am sure, I may pledge myself that every one of the hundreds or thousands present at this great meeting will delight to do honour.

The President (Dr. A. T. H. Waters) then took the chair. The meeting, he said, was one purely for business purposes; he would, therefore, refrain from any remarks, even of thanks, until the evening meeting, and would at once call upon the President of the Council to read the annual report.

Report of Council.—Mr. Wheelhouse, President of Council, read the following report.

"At the fiftieth anniversary, held in Worcester last year, an invitation was received and cordially accepted to meet in Liverpool this year; and your Council have much pleasure in meeting you in this great commercial centre.

"The arrangements made for the Addresses and Sections, and the interesting sights and excursions provided for you, promise a most successful meeting.

"On July 1st, 1882, the number of members on the books was 9,563. Since that time 755 new members have been elected, of whom 198 joined at the half-year, and paid 10s. 6d. only. There have been 159 resignations and 129 deaths. The total number of members on the register on July 1st, 1883, was 10,050.

"The revenue of the Association for the year ending the 31st December last, was £19,076; and the expenditure, including the losses from death, bad debts, and amounts written off for depreciation of plant and type, amounts to £16,288, leaving a surplus of £2,788. The Committee of Council have invested, since the last annual meeting, £1,000 in the London and South Western Railway 4 per cent. Debenture Stock, and £743 in North Eastern Railway Debenture Stock. The total investments now amount to £13,267, exclusive of trust funds; the cost being £14,213; and the annual income from investments is £470. The surplus may be considered satisfactory, after the great demands that have been made on the income. The principal increase has been for the purpose of the Collective Investigation Committee (£474); and there has been an increase of £328 in the cost of the Journal, £171 being for printing a larger number of copies, and £108 for additional postage.

"One of the first duties which devolved upon your Committee of Council on entering office for the year, was an important and pleasant one, viz., that of receiving an application from 51 members of the medical profession of the North-West Provinces of India and Oudh, to be recognised as a Branch of the Association. This important Branch was at once recognised, and a cordial vote of thanks was passed to Mr. Shirley Deakin for his successful efforts in founding 'the first Indian Branch.' The Association has now a large constituency in the colonies. Your Council look upon the steady increase of colonial Branches as most satisfactory. Later in the year the Committee of Council recognised the Branch of British Guiana. The colonial Branches, placed in order of their recognition, are as follows:—

The Jamaica Branch...	1877 ...	40 members
The South Australia and Adelaide ...	1880 ...	51 ,,
The Victoria and Melbourne ...	1880 ...	57 ,,
The Sydney and New South Wales...	1880 ...	86 ,,

The Allahabad and North-West Provinces of India	...	...	1882 ...	51 members
The British Guiana	...	...	1883 ...	25 „

"The long distances and the fatiguing journey from the principal centres of the Southern Branch, and the consequent loss of time, caused the Dorset and West Hants district of the Southern Branch to apply to the Committee of Council for recognition as a distinct Branch, which, after some consideration, was given.

"Your Council desire to draw your attention to the remarkable progress which the Association has made in the encouragement of scientific investigation, as manifested in the establishment and proceedings of the Collective Investigation Committee.

"The Scientific Grants Committee continues its work of scientific investigation, and proposes, with your sanction, to make a most important extension in its operations.

"With regard to the political action of the Association during the past year, the Medical Reform Committee has succeeded in securing the powerful support of the Government; and there is strong reason to believe that the Medical Acts Amendment Bill, subject to amendments when in Committee, will become law during the present session of Parliament.

"The Parliamentary Bills Committee has continued its operations with its usual vigour and watchfulness.

"Your Council does not trouble you with more than a bare reference to these Committees and their work, as full details of each are to be found in their respective reports published in the JOURNAL.

"Your Council report that, at the last meeting of Committee of Council, a resolution was passed recommending that an assistant to the General Secretary be appointed at a salary not exceeding £200 *per annum*, in consequence of the increased and increasing pressure of work in the secretarial department.

"A communication was received from Mr. R. S. Bartleet, of Redditch, offering a prize of £20 to the inventor of the best instrument or apparatus for the temporary relief of persons inconvenienced by noise. This has been referred to the Otological Section, which has been asked to report upon the matter to you during the present meeting.

"A resolution was passed at the meeting of the Council, held at Worcester, on Wednesday morning, August 8th last, of which the following is a copy:—

> 'Resolved: That the Committee of Council be requested to consider in which way direct representation of the Branches can best be secured.'

This, by a resolution of the Committee of Council, was referred to a subcommittee, consisting of the following members, viz.:—

> 'The President of Council, the President, the Treasurer, Dr. Alfred Carpenter, Dr. Ward Cousins, Dr. Alexander Davidson, Dr. Grigg, Dr. Holman, Mr. Arthur Jackson, Dr. Parsons, and Dr. A. P. Stewart.'

"This subcommittee met three times, and the result of its deliberations was drawn up in a report, which, after passing the Committee of Council, was placed before a special meeting of your Council, held at Birmingham, and, with some alterations, was adopted, and published in the JOURNAL of May 26th, 1883. The alterations in the by-laws, necessary to carry these views into effect, will be placed before you at this meeting for your consideration. To these by-laws, notices of several amendments have been given. Your Council places before you the code which has been carefully considered by your Committee of Council, worked out by your solicitor, and settled by counsel.

"By a resolution of the Council, held at Birmingham, it was recommended that the payment of first-class railway-fares be paid to members attending the meetings of the executive body. In this resolution, Dr. Eyton Jones has given notice of amendment, of which the following is a copy:

> 'That it would be unfair and unjust to pay the travelling expenses of one section of members of Committee of Council, without, at the same time, paying the like expenses for all members of the new Council, and for all attendances at committee-meetings of the parent Association; and, as such attendances would amount in the aggregate to a very large annual expenditure, it is impolitic and unwise to adopt such a resolution.'

"An important correspondence has appeared in the JOURNAL on the question of the formation of a benefit society, and resolutions were passed at the Birmingham and Midland Counties Branch, of which the following are copies:

> 'Resolved: That this meeting, called specially to consider the question, is of opinion that a medical sick benefit society would be of great advantage to the profession; and, if instituted in connection with the British Medical Association, could be successfully established.'
>
> 'Resolved: That the Committee of Council be requested to take steps to ascertain the opinion of other Branches upon this subject; and, should that be found to be favourable, to take such other steps as may seem desirable.'

"Upon receiving these, a resolution was passed at the meeting of the Committee of Council, of April 11th last, as follows, viz.:

> 'Resolved: That the Committee of Council cordially approves of the formation of a medical provident society, and will provide a place of meeting at Liverpool for those members of the profession who may be willing to discuss the propriety of forming themselves into one. The Committee of Council is of opinion that such a society, to be successful, should be originated, supported, and managed entirely by its own members. Under any other circumstances, it would partake of a charitable character, inconsistent with the idea of self-help; and this would be most deleterious, if not fatal, to its permanent success. The Association is precluded by its memorandum of association, which, under the Companies' Acts of 1862 and 1867, is unalterable, from expending any of its funds in constituting or managing such a society. It is equally precluded from expending any of its funds in guaranteeing or making up any deficiencies which might arise in such an undertaking. Any effective connection between the Association and the society appears, therefore, to be impracticable.'

"Upwards of 800 members have signified their approval of this project, and these gentlemen will be afforded an opportunity at Liverpool to discuss the subject.

"For much valuable and disinterested work, voluntarily rendered, you are greatly indebted to the honorary secretaries of the Branches. Your Council have to regret the loss of the services, by resignation, of Dr. Davidson and Dr. Joseph Coats, who have for many years ably and courteously filled the offices of honorary secretaries to the important Branches of Lancashire and Cheshire, and Glasgow and West of Scotland; by death, we have lost Dr. Kendal Burt, Honorary Secretary Border Counties Branch; and Dr. Gibson, Representative Secretary of the East York and North Lincoln Branch on the Committee of Council.

"Your Council desire to express deep regret at the great loss which the Association has sustained by the death of their colleague, Dr. A. P. Stewart, whose untiring devotion to the affairs of the Association, and whose high personal character rendered him a most invaluable adviser for many years on the Committee of Council.

"Your Council report, with much sorrow, that amongst those who have passed away since the last annual meeting, are Dr. Waller Lewis; Mr. G. Critchett; Dr. E. Crisp; Sir Thomas Watson, Bart.; Sir James Alderson; Prof. W. Pirrie; Mr. J. T. Clover; Dr. C. Morehead; Mr. R. Lyell; Dr. Robert Elliot, Carlisle; Dr. Francis Ker Fox, Bristol; Mr. Thomas Watkin Williams, for eight years your General Secretary; Dr. George Mackenzie Bacon, Cambridge; Deputy-Inspector-General Archibald Alexander; Mr. James L. Holloway, C.B.; Dr. William Farr; Mr. Benjamin Wills Richardson, Dublin; Mr. Benjamin Bell, Edinburgh; and Dr. George B. Whiteley."

The financial statement, for the year ending December 31st, 1882, was taken as read. It was published in the JOURNAL of April 21st, 1883.

Dr. BRIDGWATER (Harrow), in proposing the reception and adoption of the report and financial statement, reminded the members that that was the third time the Association had met in Liverpool, and on each occasion it had manifested great vitality. At present, they had to discuss an important change in their constitution, which would demand their earnest attention. The report was one continued pæan of success—a record of patient and successful effort. Though, in response to a gradual desire for progress, in accordance with the spirit of the age, the Association was about to change its government, and to ask the Committee of Council to retire in favour of another body, he hoped those gentlemen would feel that they were retiring with honour, and that they had the gratitude of the members at large. He hoped that the Association would not be carried away by the unconscious sense of power, often produced by a full pocket; but would remember, however flourishing their finances might be, that it was not politic to drain them too deeply. He moved: "That the report of the Council, together with the financial statement for the year ending December 31st, 1882, be approved, adopted, and entered on the minutes."

Dr. EWART (Brighton), in seconding the resolution, expressed his entire concurrence with the remarks of Dr. Bridgwater as to the success of the Association.

The motion was unanimously adopted.

The New By-laws.—The PRESIDENT OF COUNCIL (Mr. Wheelhouse): It will be remembered that at the Worcester meeting a question was raised as to whether the Association is represented in its Committee of Council in the best way, and the Committee was requested to take steps to ascertain in what way the Association could best be represented in the executive body. The Committee, at its first meeting, appointed a subcommittee to consider and report

on the whole question. It consisted of men of influence in their various districts. They met three times and presented a report; and the matter then came before a special meeting of the Council at Birmingham. The report was passed by that body, and if it be your pleasure to carry out the proposed change, new by-laws will be required, and certain formalities will have to be gone through before they can be accepted, as some of them are inconsistent with the Articles of Association. I am about to propose for your consideration, if it be your wish to consider them, a series of new by-laws recommended to you for adoption by the Committee of Council; but I must ask you distinctly to understand that no vote can be taken to-day which will have any legal validity, for the following reasons. The British Medical Association is governed by the Companies Acts of 1862 and 1867, according to which no by-law can be made which is inconsistent with the Articles of Association; and some of these proposed new by-laws are inconsistent with the Articles of Association as they stand. The Articles of Association can only be altered in one way, viz., by a vote of the Association assembled in extraordinary general meeting, which vote must be confirmed by that of another extraordinary general meeting, to be held not less than fourteen, nor more than twenty-eight days after the first one. It is therefore suggested that we shall now take the sense of this meeting upon the changes proposed; and, should you think proper to adopt this course, and it is found that the sense of the meeting is in favour of the proposed changes, then, at an extraordinary general meeting, to be held on Thursday next, at 10 A.M., I shall propose such alterations in the Articles of Association as will enable us legally to pass these new by-laws. Should the vote of the extraordinary general meeting be in favour of such alterations in the Articles of Association, a second extraordinary general meeting will have to be held, not less than fourteen, nor more than twenty-eight, days afterwards. At this second general extraordinary meeting, the alterations in the Articles of Association will have to be again submitted to the vote for confirmation or the reverse. Should they be then confirmed, an adjourned general meeting of the Association will be immediately afterwards held, at which, for the first time, a valid and binding vote on the alteration of the by-laws can be taken. I propose, therefore, now, that, subject to the conditions and limitations that I have mentioned, we now proceed to consider the proposed by-laws. And, in order to bring the matter before the members, I propose that they be adopted.

Dr. STRANGE, in seconding the motion, said he desired to say a few words on what might be called the moral aspects of the question. For years past there had been a latent dissatisfaction, not with the way in which the affairs of the Association had been carried on, but with the technical constitution of the governing body. He had read the reports of the last twenty or thirty meetings, and observed that there had been a strong undercurrent of desire for the change that had been at last definitely proposed. He had, though not much of a Radical, always looked upon the Association as a democratic one, all the members having equal rights; and if that were generally acknowledged, it would do more than anything else to allay the chronic complaints made from time to time at their meetings. At Worcester they were asked to consider in what way the Branches could be best represented. But the Branches did not include all the Association; they formed only two-thirds of it; there was, therefore, a large proportion of the members to whom the proposed boon would be no boon at all. That, however, was not the question before them. The proposal to give to the Branches a representation according to their numbers needed no word of commendation from him. The next point was to find out what would be a good number of representatives, so as not to overweight the Council. It was proposed that one representative for every two hundred would be a workable number; that would add sixteen members of Branches to the existing Committee of Council, and he did not think the number would overweight the Council. Others thought that the twenty elected members should be eliminated, and that would mean the abolition of the Committee of Council. Considering the position of the Association, and the large funds at its disposal, the majority of the twenty elected members, after carefully considering the matter, openly and honestly avowed their conviction that the time had come for giving up the old system. No one liked to deal with large funds unless he was delegated to do so. It was different when they had no funds to deal with. He did not fear, as he did once, the sweeping away of the whole constitution. He believed they would have no cause to regret it, but that, at the same time, they would be thankful to those who retired under the present circumstances. They should be very cautious how they sent up untried men, and he hoped that the elimination would not be carried out to any great extent. He thought they would still have the same honoured men before them as hitherto; and that, when in the course of years they retired, other men equally trustworthy, would be found to take their places.

Mr. NELSON HARDY (London) asked if he could move on Thursday the amendments of which he had given notice.

Mr. UPTON (the Solicitor of the Association) said they could not be proposed before the Articles of Association had been altered.

Mr. HUSBAND (Bournemouth) suggested that the by-laws and the amendments should be informally considered with a view of ascertaining the opinion of the members.

Dr. FITZ-PATRICK (Liverpool) agreed with Mr. Husband that the matter might then be fully considered. He did not agree with Dr. Strange that there had been a latent desire for a change; the desire had been strongly and openly expressed that the members should have a little more to do with the government of the Association, and not be handed over to a self-elected body. He repudiated the idea that the members were like pirates, and wanted to seize the ship now that it was full of treasure. They might have too much treasure, and it would be as well to distribute it a little more judiciously.

The PRESIDENT said it appeared to be the sense of the meeting that the by-laws and the proposed amendments should then be considered; and he would therefore receive any proposals on the subject.

After some discussion as to the mode in which the subject should be brought forward, the first new proposed by-law was read by the Secretary and submitted for adoption.

Election of Members.—Any qualified medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may (subject as hereinafter mentioned) be elected a member by the Council, or by any recognised Branch Council, provided that the power of such Branch Council shall only extend to the election of male persons.

No person shall be elected a member unless he has the votes of not less than three-fourths of the members present at the meeting of the Council or Branch Council at which he is proposed for election, and has agreed in writing to become a member, and to pay his subscription for the current year.

Any member may be expelled from the Association by a resolution of the Council, if carried by three-fourths of the members present, subject to confirmation by the next annual meeting, and he shall thereupon cease to be a member, and shall not be eligible for re-election. One month's notice of the intention to propose such resolution shall be given to any member affected thereby.

Dr. A. CARPENTER (Croydon) desired to point out that, by omitting the words "Committee of" before "Council," the proposed by-law practically settled the whole question of the future of the Association; and he thought a vote ought not to be taken on it until the members had decided whether the Committee of Council was to be a thing of the past.

Mr. NELSON HARDY (London) moved the following amendment:

"Paragraph 1. That the latter clause shall read as follows: 'Provided that the power of such Council or such Branch Council shall only extend to the election of male persons not practising homœopathy, nor advertising.'"

As the clause stood, he said, there was a restriction on the Branch Councils as to the admission of any but male persons, but there was no such restriction on the Council itself. He assumed that it was not desired to have one law for the Branch Councils and another for the general Council. The object of the amendment was to remove any doubt upon that point. It was also open to Branch Councils to elect members practising homœopathy; but he imagined that ninety-nine out of a hundred of the members of the Association did not wish to have persons practising homœopathy in their ranks. Homœopathy had the same relation to their art as astrology to astronomy, or alchemy to chemistry. The difficulty had been that sometimes members were not known to be homœopaths until after they had been elected. As to the practice of advertising, he would hand in a small handbill which had been largely circulated by a person who had been a member of the Association, and in which he offered "advice and medicine, 4d.; day-visit, with medicine, 1s."

Dr. J. HADDON (Hawick) seconded the amendment.

Dr. WARD COUSINS (Southsea) rose to address the members on the question whether the new constitution should be adopted, but was called to order.

Mr. JOHN DIX (Hull) said there was no by-law which prohibited the admission of any persons as members except women. There was no rule excluding homœopaths; but the general feeling was that there ought to be such a rule. The question would have to be dealt with at some time. The new executive body might be requested to deal with it, and take the feeling of the Branches upon it. At present, it was only by the exercise of an arbitrary authority

that a homœopath was excluded. There was an old by-law, that every candidate for membership should sign a declaration that he was not a homœopath, and did not intend to become one; and no one could explain why the law had fallen through. He did not think that Mr. Nelson Hardy's amendment met the case, and he thought it ought to be delegated to the incoming executive body.

Mr. HUSBAND thought it would be undesirable to do anything to advertise homœopathy, or make it more powerful than it was. It was said that the Committee of Council had no right under the present laws to exclude a homœopathist. They had a right to exclude anybody; and the Committee of Council had taken the greatest care that no homœopathist should be admitted. The difficulty was, that some men became homœopathists after their admission. For himself, he would leave homœopathy to the contempt of all well regulated minds. Having thus relieved his conscience, he should vote against the amendment.

Several members rose to address the meeting, but were greeted with loud cries of "Vote;" and ultimately the President put the amendment, which was lost.

After some delay, during which Dr. GILBART SMITH (London), Mr. RIVINGTON (London), and Dr. B. O'CONNOR (London), essayed to address the meeting, the resolution was carried.

The second proposed by-law was then submitted from the chair, viz.

Subscription.—The subscription to the Association shall be one guinea *per annum*, which shall entitle each member to the privileges of membership, and to receive the JOURNAL of the Association for the current year. The subscription shall date, and be considered due in advance, on the 1st of January in each year, except in the case of a member admitted on or after the 1st July, when the subscription for such part of a year shall be half a guinea in advance.

Any member whose subscription shall not have been paid on or before the 31st December of the current year shall be suspended from all privileges of membership; and, at the end of the succeeding year, if the arrears be still unpaid, he shall cease to be a member, and shall be ineligible for readmission until he shall have paid all arrears due at the period of his suspension. Any member wishing to withdraw from the Association shall give written notice of his intention to the General Secretary on or before the 1st December of the current year.

Dr. WARD COUSINS (Southsea) moved as an amendment, pursuant to notice:

"The Honorary Secretary of each Branch shall forward to the General Secretary, on or before the 31st day of March, on or before the 30th of June, and on or before the 31st day of October in each year, a statement of the moneys received by him on behalf of the Association; and on the 31st day of October in each year he shall close the Branch account for the current year, and shall give notice that all unpaid subscriptions must be forwarded direct to the General Secretary of the Association. A notice of the annual closing of the Branch accounts shall be inserted in the JOURNAL during the month of October."

There ought he said, for the sake of regularity and good financial organisation, to be certain fixed days for the payments by the Branch secretaries to the head office, and the accounts should be closed on those days. There would be no confusion arising from some members having paid in one direction and some in another.

Mr. MARTIN seconded the amendment.

Mr. HUSBAND suggested that the amendment should be referred, as a matter of detail in the conduct of the business, to the incoming Council.

The amendment was put and lost.

Mr. NELSON HARDY moved another amendment, as follows:

"Paragraph 1. In second line, after the word 'membership,' insert 'including the right to vote for representatives in the Executive Council.'"

Dr. STRANGE, in seconding the motion, said that the by-law proposed to enfranchise the Branches, but to disfranchise three thousand members of the Association who were not attached to the Branches; and that, he thought, was an unfair proceeding. He had had letters from many members who said that they could not join the Branches without losing a day or two; and he did not see why such persons should lose their privileges as members of the Association.

Mr. WHEELHOUSE said that the persons alluded to by Dr. Strange disfranchised themselves; and, so long as they abstained from joining the Branches, they deserved disfranchisement.

Dr. WARD COUSINS supported the amendment, and said he thought the power of voting should be given to every person residing within the area of any Branch.

The meeting was then adjourned to the evening.

ADJOURNED MEETING.

The members reassembled in the evening at 8.15.

Vote of Thanks to Dr. Strange.—Dr. A. CARPENTER (Croydon) proposed that a vote of thanks be given to Dr. Strange for his services as President for the past twelve months, and that he be elected Vice-President for life. Members who had watched the progress of affairs in connection with the Association would know that Dr. Strange had been to the front, and that he had laboured with honour to himself and advantage to the Association. He would not draw any comparison between Dr. Strange and other Presidents (some of whom were on the platform), and would simply say that he had not fallen short of any of his predecessors.

Dr. DAVIDSON (Liverpool) seconded the motion, which was unanimously adopted.

Dr. STRANGE, in acknowledging the vote, said it had been one of the great pleasures of his life to assist in the work of the Association; and that he hoped to continue to give it assistance for a considerable time longer. The honour of being President of the Association was extremely great. The year of his presidency indeed would live in his memory as the one distinguished year of his life, otherwise undistinguished, and would remain as a happy memory as long as he lived.

Foreign Visitors.—The PRESIDENT said that the meeting had been honoured by the presence of several distinguished foreigners and others, amongst whom were Dr. Austin Flint (New York); Dr. Lefferts, Professor Snellen (Utrecht); Professor Titanus (Amsterdam); and others.

President's Address.—The PRESIDENT then delivered an address, which is published at page 209.

The New By-laws.—The consideration of the by-laws, adjourned at the morning meeting, was then resumed.

Mr. HUSBAND, taking up the adjourned discussion on Mr. Nelson Hardy's amendment for giving the right to all members to vote for representatives in the Council, said that if the supporters of the amendment would bring forward any practical scheme by which their object could be obtained, he would give it his best consideration; but at present the proposal was a visionary one. Everyone could enfranchise himself by joining the Branches, which were the backbone of the Association.

Dr. FITZ-PATRICK asked if there had been any application to the Association from the 3,000 unattached members.

Mr. WHEELHOUSE: None whatever.

The amendment was put and negatived.

The two following by-laws were passed without discussion:—

Honorary Members.—Any person of professional or scientific eminence, and recommended by the Council, may be elected an honorary member at the annual meeting of the Association.

Annual Meeting.—The date of the annual meeting shall be fixed by the Council; the place of meeting being determined prospectively in each year by the vote of the Association.

The following by-law as to officers was then proposed from the chair.

Officers.—The President of the Association shall be elected annually, at the annual meeting, and shall enter upon the duties of his office at the next annual meeting, and until then shall bear the title of President-elect. Each retiring President shall be eligible for election as a Vice-President for life, provided that he continue to be a member of the Association.

The President of the Council shall be elected by the Council. He shall hold office for three years; and at the first meeting of the Council after the determination of such office, a new President of Council shall be elected for the then ensuing three years; and every member who has served the office of President of the Council shall be eligible for election as a Vice-President of the Association, provided that he continue to be a member of the Association.

The Treasurer shall be elected at the annual meeting. He shall hold office for three years, and shall be *ex officio* a member of the Council, and every member who has served the office of Treasurer shall be eligible for election as a Vice-President of the Association for life, provided that he continue to be a member of the Association.

The Treasurer of the Association shall receive the subscriptions and other moneys payable to the Association, and discharge all accounts which have been ordered by the Council to be paid.

The Editor of the JOURNAL shall be elected by the Council, and be remunerated in such manner as the Council shall think fit.

The Secretary of the Association shall be elected by the Council. He shall reside in London, and devote his whole time to the business and affairs of the Association and the office of the JOURNAL.

The duties of the Secretary shall include being present at the meetings of the Association and Council, the recording their respective minutes, the conducting of the correspondence of the Association; the superintending the collection of subscriptions; the enforcement of the regulations as regards those in arrear, and acting in general obedience to the directions of the Council.

The Secretary shall be remunerated in such manner as the Council think fit. The Editor and Secretary shall hold their respective offices during the pleasure of the Council, subject to receiving or giving (as the case may be) three months' notice to determine their respective appointments.

The offices of Secretary and Editor of the JOURNAL shall not be held by the same person.

Mr. NELSON HARDY proposed, as an amendment:

"Latter clause of first paragraph to read, 'Each retiring president shall be eligible for re-election, by the Association in annual meeting assembled, as a vice-president for three years, provided that he continue a member of the Association.'"

He pointed out that the by-law, as proposed, did not state by whom the vice-presidents were to be elected; and the object of the amendment was to make it clear that they were to be elected by the annual meeting.

The amendment was agreed to, and the paragraph as altered was adopted.

On the motion of Dr. STRANGE, seconded by Dr. FOSTER, the following addition was agreed to:

"That the president and president-elect be *ex officio* members of all committees and subcommittees."

The succeeding paragraphs of the by-law were then agreed to.

The following by-law as to the Council was then proposed from the chair:

Council.—The Council shall consist of the President, the President-elect, the President of Council, the Vice-Presidents of the Association, and the Treasurer (who shall all be *ex officio* members of the Council); and of members representing the Branches, who shall be elected as follows:

(*a*) Every Branch shall be entitled to elect one representative member, and every Branch consisting of more than 200 members shall be entitled to elect an additional representative member for every complete 200 members of which it shall consist.

(*b*) The election of such member or members shall be annual, and he or they shall hold office from immediately before the annual meeting of the Association next after his or their election until immediately before its next following annual meeting.

(*c*) The return of the election of the representative member or members of each Branch shall be communicated in writing to the Secretary of the Association by the President or Secretary of such Branch not less than one month prior to the annual meeting of the Association.

(*d*) No person shall be eligible as a representative member unless, at the time of his election, he shall be resident within the area of the Branch nominating him as their member.

(*e*) In default of and until election by any Branch of a representative member or of representative members, or so far as such election shall not be complete, all the powers conferred on the Council shall belong to and be exercised by the *ex officio* members thereof alone, or by the *ex officio* members and such representative members of the Council as may have been duly elected by any Branch or Branches, and of whose election return shall have been duly made as before mentioned.

(*f*) By-law (*e*) shall not take effect until the annual meeting in 1884; and, in the meantime, the Committee of Council in office at the time of passing these By-laws shall be the Council, and shall have all the powers conferred on the Council by the Articles of Association or the By-laws.

Notice shall be given forthwith to the Secretary of the Association by a Branch, of a representative having ceased to belong thereto; but until such notice shall have been received by the Council, no resolution or vote shall be deemed invalid by reason of a disqualified member taking part in its proceedings.

The Council shall annually prepare a report of the general state and proceedings of the Association for the past year, to be presented by them at each annual meeting of the Association.

The Council shall, at each annual meeting, propose the place of meeting for the next annual meeting, and nominate the President-elect.

A record of the attendance of each member of the Council at its meetings shall be kept and published annually in the JOURNAL.

The Council shall meet not less than four times a year, and shall be presided over by the President of the Council, or in his absence by a chairman to be appointed by the meeting. Its meetings shall be held at such time and place as the Council shall appoint. Seven members shall be a quorum.

The President of Council may, if he think right, and upon receiving a requisition, signed by not less than ten members of the Council, and specifying the business for which a special meeting is required, shall, call together a special meeting thereof, but at such meeting no business shall be transacted other than that for which such special meeting was called.

The Council shall manage the general affairs and business of the Association, except as otherwise provided by the articles or by-laws. They shall also regulate the order of business, and shall nominate the readers of addresses at each annual meeting. They shall decide what shall constitute a section, and who shall preside over the same; and shall also arrange the division into sections of the matters to be discussed and considered at such meeting.

The Council shall direct the publications of the Association, and shall take cognisance of any matter which may require immediate decision.

The Council shall at each meeting next after the annual meeting of the Association, appoint a public accountant to audit the accounts of the Association, and, if directed by them, to prepare a balance-sheet, financial statement, and report, up to December 31st in each year. A financial statement shall be published in the JOURNAL within the first four months of each year.

In the event of the incapacity of any officer of the Association during his term of office, the Council may appoint any member to act for him. In the event of the death or resignation of the holder of any office, the holder of which is required to be elected by the Association at annual meeting, the Council may appoint a successor till the next annual meeting.

On Section (*a*), Dr. RICKARDS (Birmingham) said that, if that section became law, certain large Branches would be inadequately represented. If, for example, the Birmingham and Midland Counties Branch, with its 358 members, were represented in the same proportion as the West of Ireland Branch, it would have fifteen representatives; but, under the proposed by-law, it would only have two. He proposed the addition of the words: "and Branches consisting of not less than 150, but less than 400 members, shall be entitled to an additional representative for every 150 members." The result would be an addition of only five representatives, which would not be very great, especially as some of the elected representatives would probably not attend on account of the distance.

Dr. CARPENTER (Croydon) submitted that Dr. Rickards was out of order, no notice having been given of his proposed addition; but the President ruled that the proposal could be made.

Dr. WHITTLE (Liverpool) seconded the amendment.

Mr. WHEELHOUSE said the Committee had carefully considered the question, and had come to the conclusion that the proposed representation was the fullest that could be given, and that any addition to it would make the Council unwieldy.

The proposed addition was put and negatived; and the section was adopted.

On Section (*b*), Dr. FOSTER (Birmingham) proposed as an amendment:

"That the election of such member or members shall be annual, and he or they shall hold office from the second day of the annual meeting of the Association next after his or their annual election, until the second day of the next following annual meeting."

Dr. STRANGE seconded the amendment, which was adopted.

Section (*c*) was adopted without discussion.

On Section (*d*), Dr. MAHOMED (London) said there was no restriction as to the number of years a member might serve on the Council, and proposed that it should be limited to five years, after which he should be ineligible for election for at least one year.

Mr. OAKES (Birmingham) seconded the amendment.

Dr. FITZ-PATRICK (Liverpool) said the Branches were the best judges of how long a member should serve on the Council, and protested against any restriction.

Dr. MAHOMED contended that his amendment would render the Branches more free to act in reference to a change of representatives.

Dr. FOSTER (Birmingham) said that the proposal of Dr. Mahomed was an insidious attempt to tie the hands of the Branches, and he therefore opposed it.

The amendment was put and negatived; and the section was agreed to.

The remaining sections were adopted without discussion.

The following by-law as to the Journal and Finance Committee was proposed:

Journal and Finance Committee.—The Journal and Finance Committee in office at the time of passing these By-laws, shall remain in office until the new Committee is formed, as next hereinafter provided, and shall then retire.

At the meeting of the Council held next after the annual meeting in 1884, a subcommittee of fifteen members of the Council shall be elected, who, together with the President, the President-elect, the President of the Council, and the Treasurer (who shall be *ex officio* members), shall constitute the Journal and Finance Committee. Three members shall form a quorum. The three elected members who shall have been longest in office shall retire annually; and if, owing to any two or more having been in office for the same period, there shall be any doubt as to which shall retire, the matter shall be decided by ballot amongst such two or more. Members retiring shall be ineligible for re-election for the ensuing twelve months. Members of the Council shall be annually elected by the Council to fill places for the time being vacant by retirement, death, or otherwise.

The Journal and Finance Committee shall meet not less than four times a year, twice at least at the office of the Association, and shall enter a report of its proceedings in a book which shall be read to the Council for adoption.

The Journal and Finance Committee shall examine into the general working of the office and JOURNAL, and certify the quarterly accounts, prior to their being presented to the Council.

An amendment proposed by Mr. NELSON HARDY was withdrawn, and the by-law was agreed to.

The following by-laws were also adopted without discussion.

Trustees.—The property of the Association shall, when necessary, be vested in three trustees chosen by the Council. The Trustees shall be eligible for any other office of the Association.

Communications.—All communications to the Association shall be the property of the Association, unless the Council allow the right of property therein to be specially reserved to the contributors.

The following by-law, as to Branches, was proposed from the Chair.

Branches.—Any number of members, not being less than twenty, may form themselves into a Branch of the Association, subject to such Branch being recognised by the Council.

Each Branch shall be free to govern itself as its members shall think fit; but no Branch law shall be valid which, in the opinion of the Council, may contravene any fundamental law of the Association.

Each Branch shall pay its own expenses, and no Branch shall be deemed for any purpose the agent of the Association, or have power to incur any obligation in its behalf.

Dr. WARD COUSINS proposed, as an amendment: "Any member or members, not less than one hundred, residing within, or not less than twenty-five residing without, the limits of the United Kingdom of Great Britain and Ireland, may form themselves into a Branch of the Association, subject to such Branch being recognised by the Council." He subsequently, at the suggestion of several members, changed one hundred to fifty; and, thus modified, the amendment

was put and negatived; as was also another amendment by Dr. O'CONNOR, seconded by Dr. OSCAR WOOD, that any number of members, not less than fifty residing within England, and not less than twenty-five outside England, might form themselves into a Branch.

The by-law, as proposed, was then agreed to.

The following by-law, as to alteration of rules, was adopted.

Alteration of By-Laws.—No by-law shall be made, altered, or repealed, except at an annual meeting, nor unless a written notice, specifying the nature and object of the proposed amendment, shall have been given to the Council at least one month previously. Such notice shall be forthwith published in the JOURNAL.

Payment of Travelling Expenses of Members of Council.—Dr. CARTER (Liverpool) moved: "That the return first-class fares of every member to meetings of the executive body be paid by the Association." He said that members ought not to be required to sacrifice time and money in attending meetings of the Council; and it was only common justice, especially in the present state of the funds of the Association, that their railway expenses should be paid.

Dr. FITZ-PATRICK (Liverpool) seconded the motion. The Association, he said, was perfectly well able to make the proposed payment, and there was no reason why it should not be made.

Dr. EYTON JONES (Wrexham) moved as an amendment:

"That it would be unfair and unjust, to pay the travelling expenses of one section of Members of Committee of Council, without at the same time paying the like expenses for all Members of the New Council and for all attendances at Committee Meetings of the Parent Association, and as such attendances would amount in the aggregate to a very large annual expenditure, it is impolitic and unwise to adopt such a resolution."

He said that one of the greatest glories of the Association was that its work had been mainly done by volunteers. He had himself been a member of his Branch for a quarter of a century, and had filled all its offices without the slightest expectation of receiving payment of his travelling expenses. After all, the railway-fare was a very minor consideration in comparison with the time expended. Besides, if Dr. Carter's motion were adopted, the same principle would have to be extended to the committees, and that would involve a very large outlay. One of the great objects of the Association was the promotion of science; and that certainly would not be served by the payment of the railway-fares of the members of the Council. He should be ashamed of the Association if it did not now, as formerly, possess volunteers who would serve it for the honour and glory of the profession. He ventured to assert that there was no Branch that did not possess such men, who were willing to work without fee or the hope of reward.

Dr. A. CARPENTER (Croydon) in seconding the amendment, said that the pecuniary state of the Association was largely due to the labours of the Editor of the JOURNAL and of the General Secretary. It was highly desirable that the Association should have freehold premises of its own; and when that object was attained, their funds should be devoted without restraint to scientific investigation, and not frittered away in the payment of a large number of railway fares.

Mr. DIX (Hull) said that no doubt each Branch possessed some individual who was willing to pay his own expenses, but the objection to the present method was that the Branch was limited in its choice to that particular individual. If payment were made, the choice of the Branches would be materially enlarged.

Mr. WICKHAM BARNES (London) opposed Dr. Carter's motion, and said that if the principle were extended to committees, it would involve an expenditure of £2,000 a year.

Dr. MCVAIL said it was absurd to talk of "payment" to members of the Council, when the time expended in travelling was considered. No doubt gentlemen living near London were ready enough to pay their own fares, but the case was different in connection with distant Branches, some of which had specifically stated that they could not pay the money required. It was unjust to tax a distant member with the payment, perhaps, of thirty guineas a year for doing the work of the Association—an expenditure that often precluded the possibility of suitable men offering their services as members of the Council.

Professor HUMPHRY (Cambridge) agreed with Dr. Carpenter in regard to the great indebtedness of the Association to the labours of the Secretary and the Editor; and maintained that the funds obtained by their good management ought to be employed in the promotion of science, and the practical work of the profession.

Mr. NELSON HARDY, in supporting the motion, said that proposals had been made by supporters of the amendment for the payment of the expenses of the members of the Parliamentary Bills Committee. On the committees on which he had served, he had never seen a Scotch, and rarely an Irish member; and there were many matters in which they ought to have the benefit of the opinions of members from those divisions of the kingdom.

Dr. STRANGE said that he had made inquiries of the secretaries of the four Irish and the four Scotch Branches; and of the five replies he had received, only two made any point whatever of the payment of expenses.

Dr. KERR (London) said that any actuary or man of business would tell the members that, if they carried Dr. Carter's motion, they would be almost committing an act of commercial and financial suicide.

The amendment was carried by a large majority, and was also adopted as a substantive motion.

Dr. Mushet's Proposals.—Dr. BOYD MUSHET proposed the following motion, of which he had given notice:

"1. The British Medical Association universally and absolutely condemns the acceptance and tenure of all *gratuitous* medical appointments— whether to general, special, home or cottage hospital, dispensary, infirmary, convalescent home, or other institution. It resolves that a permanent Committee be appointed to accomplish their speedy and utter abolition."

"2. That the same Committee report on the inadequacy of the salaries of medical officers in the service of the Local Government Board, and devise prompt and energetic measures for equitable payment."

"3. That the Committee also determine a scheme to ascertain and register a list of defaulting patients throughout the country."

The motion was seconded by Dr. HADDON, and, on being put to the meeting, was negatived by a large majority.

The meeting then adjourned.

SECOND GENERAL MEETING, WEDNESDAY, AUGUST 1ST.

Dr. WATERS, the President, took the chair at 11 A.M.

Committee of Council.—Mr. WHEELHOUSE, President of the Council, said that the following gentlemen had been elected to serve on the Committee of Council for the ensuing year: T. Clifford Allbutt, M.D., F.R.S.; G. B. Barron, M.D.; T. H. Bartleet, M.D.; L. Borchardt, M.D.; T. Bridgwater, M.B.; A. Davidson, M.D.; B. Foster, M.D.; E. Long Fox, M.D.; A. J. Harrison, M.B.; C. Holman, M.D.; Evan Jones, Esq.; H. T. Lanchester, M.D.; C. Macnamara, Esq.; D. C. McVail, M.B.; F. A. Mahomed, M.D.; Frederick Mason, Esq.; W. Moore, M.D.; R. H. B. Nicholson, Esq.; S. W. Sibley, Esq.; T. Sympson, Esq.

The Place of Annual Meeting in 1884.—The PRESIDENT OF COUNCIL said that a cordial invitation had been received to hold the next meeting in Belfast, and moved that it be accepted, and that Dr. Cuming of Belfast be appointed President-elect.

Mr. LUND (Manchester) seconded the motion, and said that, from what they knew of the profession in Belfast, and of Dr. Cuming's position, they were sure to have an extremely interesting meeting, and one that would advance the great objects of the Association.

The motion was unanimously adopted.

Dr. CUMING (Belfast) expressed his warmest acknowledgments for the high distinction conferred upon him. He should have accepted the responsibility with serious misgivings, had he not been aware that, in selecting him, the Association was desirous of honouring the profession in the part of Ireland from which he came. The invitation to Belfast had been given in a cordial spirit, and the greatest pleasure had been expressed by all the members of the North of Ireland Branch, and other members of the profession, at the prospect of receiving the members of the Association; and, in welcoming them, they hoped to have the hearty co-operation of their brethren in Dublin. He trusted that it would be interesting to the members to visit a town like Belfast, which had long been distinguished for the energy of its inhabitants, and their success in industrial pursuits; and he hoped that time would be given for visiting some of the beautiful and picturesque scenery in which the North of Ireland was so rich.

Address in Surgery.—Mr. REGINALD HARRISON (Liverpool) delivered the address in surgery. It is published at page 213.

Mr. ALFRED BAKER (Birmingham) proposed that the best thanks of the Association be given to Mr. Reginald Harrison for his able and interesting address in surgery. They must all, he said, have been delighted at Mr. Harrison's reference to the migratory character of the Association, and its development of local talent. They must have been pleased too that instead of selecting some ancient topic connected with their art, he had brought succinctly before them the gradual advances made in modern surgery. He had shown how an operation designed for one purpose had subsequently been extended, with variations, to another. It was in this way that they learned to treat abdominal diseases with such marked success, and were now applying the same principles to the hitherto unassail-

able urinary organs. Mr. Harrison had further shown that it was not in England alone that such advances had been made, but that they had stretched across the Atlantic. Indeed, they were all as willing as the Americans themselves to welcome every step that they made in the progress of surgery or medicine. They were pleased to think that Mr. Harrison had selected the subject of the latter part of his address because it was one to which he had given great attention. In Liverpool the means of observation on that subject were very wide, and there were many members of the profession who were quite ready to avail themselves of them.

Dr. JOHN MOORE (Belfast) in seconding the motion, said that Mr. Harrison's address had quite refuted the assertion made a few years ago by an eminent surgeon, that operative surgery had reached perfection. There was one point that might be further impressed on their minds with regard to early interference in some cases, which, when neglected, entailed great suffering. He referred to the use of the flexible catheter recommended by Mr. Jonathan Hutchinson, in the case of enlarging prostates, which could be used with great advantage, by the patients themselves, at an early period.

The motion was unanimously adopted, and the meeting adjourned

EXTRAORDINARY GENERAL MEETING: THURSDAY, AUGUST 2ND.

ON Thursday, an extraordinary general meeting was held, to consider the articles of association. These were approved; and it was decided to hold a second statutory general meeting at Exeter Hall, on Friday, August 17th, to again consider the resolutions passed on Thursday. The report of the Collective Investigation Committee was presented by Professor Humphry; and, after some discussion, was adopted, with amendments. The new by-laws will be brought forward for discussion at the meeting of the 17th.

OBSTETRIC MEMORANDA.

ON THE USE OF HOT-WATER INJECTIONS DURING LABOUR.

IN the summer of 1879 I was working at the Rotunda Hospital, and the thought suggested itself to a friend of mine, with whom I was at that time engaged, to try the effect of vaginal hot-water injections at the beginning of labour. We followed this plan in a number of cases, particularly in those in which the labour was tedious, in the conditions of rigid os, and where the cervix was very thin and sickle-shaped. In all it seemed to give much comfort to the patient; it greatly hastened the labour (a great boon to those in the country at a distance from home), and kept all the parts very soft. In no case did it seem to produce any tendency to *post partum* hæmorrhage, or interfere with uterine action. In regard to the question of these injections for *post partum* hæmorrhage, I think the history of the following case is of some interest.

Mrs. D., aged 23, florid, was in her second pregnancy; labour was natural but tedious. At the birth of the child, there was scarcely any hæmorrhage. A few minutes afterwards a terrific rush of blood took place, followed by the expulsion of the placenta. Kneading, ergot (nearly one ounce), and injection of cold water, were used and failed. The patient was now blanched, almost pulseless, and, as a last resource, we determined to try hot water. Taking water from the kettle as hot as our hands could bear, we rapidly injected it into the uterus. The hæmorrhage at once ceased, firm contraction took place, and the patient made a very good recovery.

We were in the habit of washing out the uterus in all cases of still-birth, and on the slightest sign of any rise of temperature or pulse, using warm water with a little carbolic acid; the danger and trouble very little, the benefits very great. I cannot help feeling that not enough of this is yet done.

T. PERCY TAYLOR, Colchester.

I HAVE read with great pleasure the remarks of Drs. Beckingsale and Boxall, published in your JOURNAL. When I was resident accoucheur at St. Thomas's Hospital for three months, 600 cases were attended by the obstetric clerks from the hospital, and I used hot-water injection for seven severe cases of secondary hæmorrhage after delivery, and several times since; and tincture of perchloride of iron with water in four cases. I never regretted using the former, and never had a bad result; and my experience is, that it is cleaner and more effectual than the perchloride. The mode of application was the same as Dr. Boxall used. The temperature of the water was such as to enable me to bear my hand in it for a second.

JOHN R. LUNN.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 4th, 1883.

THE ANNUAL MEETING IN LIVERPOOL.

THE annual meeting has opened and progressed with the success which might have been predicted from the importance of the place of meeting, from its convenience in respect to its central position and numerous lines of access, from the scientific eminence and hospitality of the profession, and from the well-known ability of the President of the year. The arrangements have been modelled on the most satisfactory types of former years, with the advantage that the place of meeting selected was sufficiently spacious to supply rooms for all the Sections, to afford facilities for all the conveniences for which members now look, in the way of reception-rooms, post-office, reading-rooms, etc., and also for the housing of three kinds of museum—the Pathological Museum, the General Museum, and Sanitary Museum—under the same roof. The thoughtful care of Dr. Davidson, Dr. Creswell Rich, Mr. Mitchell Banks, and the presidents and secretaries of the various local committees, deserve grateful recognition. It is a noticeable feature in the local organisation for the arrangements of this meeting, that a strongly manned committee was formed for each special purpose. There were a Reception Committee, of which Dr. Cameron was chairman, and Dr. Rich secretary; a Museum Committee, of which Dr. Carter acted as chairman, and Dr. Whitford as secretary; a Printing Committee, of which Dr. Caton was chairman, and Dr. Greves secretary; a Soirée Committee, with Mr. T. Shadford Walker as chairman, and Dr. McClelland as secretary; a Dinner Committee, having as its chairman Mr. McCheane, and its secretary Dr. Dickinson; a Local Entertainment Committee, with Dr. Gill as chairman, and Mr. D. Harrisson as secretary; an Excursion Committee, of which Dr. Cregeen was chairman, and Mr. Puzey secretary; and a General Purposes Committee, with Dr. Waters as chairman, and Dr. Davidson as secretary. In order to co-ordinate the action of these Committees, the President, the Local Honorary Secretary, and the Treasurer, are *ex officio* members of all Committees.

The order of business followed differed somewhat from that observed at previous meetings. It has frequently been a subject of deliberation and observation that the practice of opening the meeting with the President's address, which is the natural and ordinary method of opening any such meeting, and of following it by the discussion of general business, led to inconvenience, inasmuch as it postponed the consideration of important matters of business to a late hour, when the attendance was apt to become thin, and the meeting scanty. On this occasion, the first meeting was appointed to be held at 3 o'clock in the afternoon, and to be wholly devoted to the discussion of general business, with the facility for adjourning such of the business as remained incomplete for consideration at a second meeting in the evening, which was opened by the President's address.

The business before the meeting was of considerable importance, as it included the discussion of a new series of by-laws, framed for the purpose of modifying the constitution of the Committee of

Council in such a manner as to make it more directly representative of the various Branches. This matter had been previously discussed at a special meeting of the General Council summoned at Birmingham, of which we have already given a full report, and in another column will be found a report of the proceedings of Wednesday. As might have been anticipated, they were not altogether of an unanimous character; and it must also be said with regret that, during part of the proceedings at least, there was a considerable amount of disorder. The meeting, however, addressed itself from the first to the consideration of the very complicated questions put before them with an evident determination to get on with the business, and to deal with it in a broad, liberal, and candid spirit. Unfortunately, not all the speakers appeared to possess as much deference for the wishes of the meeting, and for the authority of the President, as enthusiasm for the particular opinions which they desired to advocate. Under such circumstances, the duties of the President became very arduous, and the patience of the meeting, as well as the forbearance of the speakers, who evidently felt that they had a right to be heard, and who intended, if possible, to be heard under any difficulties, were severely taxed. General good humour, however, prevailed, and in the end, as might be expected in any assemblage of educated and public-spirited Englishmen, the proceedings were carried forward with due regard to form, under the advice of the solicitor of the Association; and, as it will be seen, the main conclusions arrived at by the Committee of Council after consulting the Branches, and by the General Council after receiving the report of the Committee of Council, were adopted with but little modification.

At the close of the meeting, the opinion seemed to be generally prevalent that the new constitution was one which had in it the germs of a satisfactory settlement of grave questions of an administrative character which have lately been discussed; and that, for a time, at least, it might be expected that no such question would need a further discussion, and that the new constitution would be allowed to work with universal good will, and that all members would cordially and loyally support those who had taken part in this discussion, and who had assisted at the important meetings of the Association which had been devoted to these administrative questions.

The address of the President happily combined scientific interest with passing allusions, conceived in a spirit of catholic liberality, to some of the leading topics of the day. It was entirely worthy of the place and occasion, and has done much to give to the meeting from its outset a highly satisfactory character.

Upwards of 800 names were registered on the first day, and the meeting itself has been so numerously attended, that at its close we shall probably be able speak of it as one of the most largely attended, and in every way one of the most successful meetings of the Association. The local hospitality has been manifested so generously, although, it is said, with some little want of organisation, and the public entertainments provided are so varied and comprehensive, and the weather has been so favourable, that our Liverpool brethren may congratulate themselves that at this meeting they have worthily supported their reputation for independence, for liberality, and for scientific earnestness.

THE PRESIDENT'S ADDRESS.

THE eloquent, energising, albeit homely address, which many of us listened to on Tuesday evening, and which we publish in full to-day, will well repay attentive perusal and after-thought. Probably, with most of us, the first dip into a presidential or any other address on general topics, is one of curiosity. We look to see the characteristics of the individual; we seek here or there the touches which stamp the work, as those of a bust are said to individualise a sculptor, or the colour and general treatment are held to indicate beyond dispute the brush of a particular painter; and, on the other hand, we search how the lecturer, working, so to speak, in his own niche in the great economy of nature, can come withal into the full gaze of a larger world, can grapple with the surging problems for ever dashing against the fortress of the unknown, and wearing away its walls; can place his mind in relation to the problems of the day, at an angle athwart the stream, that all must impinge upon it and glide off again with added knowledge, and that better than knowledge, pregnant suggestion; how, in short, he can play the part of the master-teacher to the hungry, eager, listening, and critical crowds. And these two points or parts of an address come out prominently and properly in the one we have just listened to; prominently, because all through it there is an unmistakable leaning towards the advantages that have accrued to medicine by the adoption of new instruments and methods of precision; and properly, because individual leanings are everywhere modestly subordinated to those larger questions which concern the profession as a whole, and which bind it into one brotherhood. We will not dwell now upon the characteristic individuality of the address; but, in passing for a moment the other more general topics concerned, we cannot forbear to say, that any who are in any degree acquainted with the medical literature of the last five and twenty years, will know how much our advance in the knowledge and treatment of pulmonary diseases is due to the studied and careful writings of our President of this year.

But, as regards the presidential message to the Association, what are its parts? Well, in the first place, it seems to us a happy idea that would seize on a moment when most people are resting to take a breath, the first meeting after a jubilee of years, to sound an energetic "Go forward!" Jubilees are interesting festivals, but they are eminently surfeiting, and exhaust by their prodigality of exercise. The rhythm of the Cheyne-Stokes respiration is an apt type of the life-history of many a society—dormancy at one end, spasm at the other, in slowly recurring periods. But that is a poor sort of vitality. Last year was our jubilee, and we are now so early reminded, as befits a vigorous body like our own, that we have started on a new path; that a new phase of our existence opens before us; that there ought to be no relaxation; no looking back; not much of anticipation, save in its best sense, that the past and the future are nothing in the face of a stern to-day. The reality of our anticipation must evince itself in the solidity of the work of the present. The temple of Medicine will never be crowned, and work for all hands must ever be the first necessity of progress.

Few amongst us are there who will not agree with Dr. Waters that signs are not wanting which point to the probability that we are on the eve of still more rapid advances than those achieved hitherto. Medical education is being forced higher and higher, and, if not retarded by the competitive system, with its attendant handmaid, cramming, which seriously threaten it, the finest of mental groundwork, both natural and prepared, will find its way into the main or tributary streams of our profession; and happily, indeed, can it be said of medicine, and all that it embraces, that, if only our aim be high, there can be no lack of work for any. Take the main stream, the actual dealing with disease and its treatment, and our collective investigation movement will tell anyone of the magnitude of the work in hand, and that the good which it promises is far-reaching in its scope. Who can doubt the success of a Committee of the whole House, so to speak, and a Committee not of speech, but of act and deed such us this! Its scientific value ought to be incalculable; but we venture to think that its value as a social instrument, also, will be not inconsiderable. It will help to teach us, as individuals, of our ignorance; and, were it to do nothing more, that lesson alone, well learnt, would make "medical ethics" obsolete, at any rate in the sense in which it seems usually applied: as an equivalent, perhaps, to "the strength of sin is the law." Collective investigation should make us all more tolerant, and thus set many a man free from the sordid jealousies which bind him down, and waste his energies, for the more ennobling and beneficent pur-

pose of using his wings. Collective investigation, thoroughly established, necessitates more freedom of intercourse between the various sections of the body medical; and it teaches, and therefore gives every one an interest in, the fact that every unit has his place, and is the complement of all the rest.

But never for a moment let it be forgotten that progress entails work, patient, persistent work at collecting crumbs, probably in many cases to make a loaf not for ourselves, but for posterity. Shall this frighten us when we have every reason to believe that some future President of the Association, as Dr. Waters says, in inaugurating our centenary, shall by our means speak with triumphant voice and glowing language of the advances which our profession has made? Were it to do so, then the brotherhood of medicine would be a lie, whereas we take it, with our President, to be the dominant element and cause of what progress we have made. But true as is the existence of a bond of common feeling such as this amongst all who call themselves medical men, it is by no means so real as it might be, as it can be, as it ought to be, as it must be, if, as a profession, medicine is to occupy the position which, of right, belongs to it in the State. Our needs, in this respect, have never yet been half realised. Probably all of us, as individuals, have wondered at the astounding fact that no medical man has ever entered the House of Lords as a peer. And why not? Explanations very likely may differ, but all will admit it is not that the intellectual capacity is wanting; it is not the want of adequate pecuniary resources; it is not the want of time; it is not the want of any social qualities, for our leading men associate as equals with a time-born aristocracy. What then is wanting? We take it that, to the mind of one educated upon a scientific basis, any search for honours is too low an aim. The woolsack is the castle of every barrister. The law lives by self-assertion, by the struggle for existence, by man being pitted against man, and the hardest head wins the prize. Honourable ambition is the motive power, and the law could ill do without it. But ambition has no place in science; strictly speaking, there are no competitors and no goal to pass. Each worker has his own goal, to race for which is fatal to his success. Science has to conquer nature—not what is often called human nature—and hence it comes that it requires a patron, and, as a natural result, it takes the position accorded to it by patronage, which is not that of merit but of grace. Now, how is all this to be remedied? Plainly, by taking the patronage of our Queen Bee into our own hands. When we, as a body, have so welded ourselves as to know the mind of the profession, and to have a common purpose, then, and not till then, shall we have a place in the State befitting our wealth of knowledge in all that concerns the highest interests of a nation. Yes, and narrowing the question down to a definite issue, then, and not till then, shall we be able to recommend to the chief officers of State that this or that man shall receive a peerage.

Those that do not ask do not want, is a very old saying. What is more true, is that in the present day even more than in the past, those that don't ask don't get what they want. The medical profession is not yet in the position to be able to ask with any authority, much more to press its requirements, in any determined manner, upon the ear of reluctant councillors who have been bred in a school of dialectics, and trained to devote all their energies to the consideration of schemes of high policy, into which natural science can, even in its more ambitious movements, have little, if any, concern.

The President's address tells us in plain language how the British Medical Association, which now numbers its associates by thousands, can accomplish certain unquestionably desirable ends. What we have to do, individually and collectively, is, to keep both the means and this end in view. Can we but do so, we need have no fear that the revolving years will bring a higher status to the science of medicine, a higher estimation of the profession at large, and a fuller recognition of the claims of individuals to some of the higher honours of the State. But until this is all accomplished, as an Association, we must not rest satisfied; honours as such are beneath the aspirations of the true scientific bent. Nevertheless, honours enlarge the sphere of action of their possessor, and they are a nation's tribute to those professions, albeit by individuals, which minister to the necessities and emergencies of its vitality; and however much individuals may be unwilling to receive such tribute, however much it may seem a trivial matter to seek for honours at the hands of as yet unwilling donors, as a profession, we cannot afford to rest without them, since, as the world goes, this is the only gauge of its appreciation of our services. Gratuitous relief is cheaply valued, and so will it be with the medical profession at large, so long as we permit our wealth of knowledge and of labour to go unrequited.

THE ADDRESS IN SURGERY.

Mr. Reginald Harrison's address, though dealing with a special subject, and mainly of practical interest, is one of some value, as it sets forth the views and acquired knowledge of a highly experienced surgeon with regard to the many important advances that have of late been made in the surgery of the urinary organs. In the treatment of many of the surgical affections of these organs, it is difficult, and indeed impossible, to apply any strict antiseptic method with good prospects of success; and it is well to have the fact clearly put before us, that notwithstanding the revolution effected in other branches of surgery under the influence of Listerism, a commensurate advance has been made in vesical and urethral surgery.

The full force of some apt remarks made by Mr. Harrison in his introductory remarks, on the beneficent catholicity of our profession, and on the remarkable diffusion, as well as progress, of modern surgery, becomes evident on consideration of many of the points in this address. For the many recent improvements made at home in the surgery of the urinary organs we are indebted both to provincial and metropolitan surgeons; and the value of very important plans of treatment, first suggested by American and German surgeons, has been thoroughly tested and proved by workers in this country.

After a brief allusion to the work of Park and Alanson, both formerly surgeons to the Liverpool Royal Infirmary, Mr. Harrison directs attention to the operative surgery of the kidney. Here we find no additions to our present very incomplete knowledge on this subject; but useful suggestions are given as to the directions and aim of future study. Although, since the appearance in 1876 of Gustav Simon's classical *Chirurgie der Nieren*, renal operations have been repeatedly performed, and an American surgeon was last year able to publish an analysis of as many as one hundred collected cases of nephrectomy, it would be premature, as Mr. Harrison states, to formulate at present any precise rules in reference to the application of the various operations that have been performed on the kidney. With regard to the operation of extirpation of the kidney, Mr. Harrison thinks that, from the observations already recorded, and from the several published communications, three conclusions of value may be drawn. Nephrectomy, he holds, has often saved life in otherwise incurable cases; it has often been practised in very unfavourable cases; and "a method of effecting the removal of the organ different from that which was selected, or a procedure less heroic, might, in some instances, have tended to increase the chances of success.

In discussing the subject of vesical calculus, Mr. Harrison expresses a conviction that there are yet improvements in store in the methods of effecting the destruction of concretions within the body. It is suggested that stone might be dealt with to some extent as a preventable disease, and that adequate steps might be taken to improve the hygienic condition of districts where calculous disease prevails to a great extent. We must confess to much doubt as to whether the work of the lithotritist and lithotomist is likely to be relieved very much by any activity on the part of the medical

officer of health. The problem of the causation of calculous disease is one of great difficulty, and still remains involved. The well-known address of Mr. Cadge before the Association at the Norwich meeting amply furnished, as Mr. Harrison acknowledges, data for the further prosecution of inquiries. Mr. Harrison himself has evidently studied this subject, and carried on inquiries, but he does not advance beyond the statement that "he thinks it would not be difficult to prove that circumstances, either fortuitous or by design, have been found to ensure a marked influence in diminishing or increasing, in certain places, the tendency to calculous disorder." Mr. Harrison, though acknowledging that Bigelow's method of procedure is a great step in advance, and that it has extended the domain of lithotrity, and curtailed that of lithotomy, holds that it is very unreasonable to suppose that it is capable of universal application, or even likely to be so. In a brief reference to the subject of lithotomy, evidence is afforded of the great success of this operation in the hands of many provincial surgeons. "There is no great surgical operation," Mr. Harrison believes, "which furnishes more successful results than this." Of 102 cases of lithotomy in persons of all ages, but chiefly, it is stated, in children, performed in two hospitals in Liverpool, five only were fatal; and the late Mr. Southam of Manchester operated 120 times, with but one death. Notwithstanding the great advance of lithotrity, and the tendency to an almost exclusive favour for this procedure on the part of most surgeons at the present day, Mr. Harrison, who has himself been extremely successful as a lithotomist, does not seem disposed to neglect the cutting operation. Although, in the great majority of the Liverpool cases, the stones were not very large, and probably many of them might have been crushed, he questions "whether the small mortality indicated by his figures would thereby have been still further diminished, even if the calculation were made on a basis corresponding with the most successful statistics in lithotrity that have hitherto been obtained."

In alluding to operations for the removal of tumours from the bladder, Mr. Harrison states that, on consideration of the valuable results of this practice, it appears to him that in some of these cases it might have been better had the operative proceeding terminated with the detection and exploration of the growth with the finger. The chief risks of this class of operations seem to be rupture of the bladder, excessive and obstinate hæmorrhage, and difficulty of removing the whole growth.

The most interesting portion of this address, we think, is that relating to prostatic disease. Mr. Harrison advocates early treatment, if possible, of prostatic stricture; and points out that much good may be done by the adoption of judicious mechanical treatment on the appearance of indications that the prostate is commencing to obstruct micturition. In the treatment of prostatic disease in an advanced stage, and when it has become necessary to establish a continuous drain of urine by an abnormal passage, the perineal incision is preferred to the higher operation, on the twofold ground of safety and comfort. Reference is made by Mr. Harrison to the cases recorded by himself and Mr. Bickersteth of removal of prostatic tumours by surgical operation. In the as yet scanty literature relating to either complete or partial excision of the prostate, there is considered to be matter of much promise. Mr. Harrison has extirpated the whole gland for malignant disease, with very good results. Excision of a considerable portion of enlarged prostate, first practised and advocated by Sir William Fergusson, has recently been performed by Dr. John Ashhurst of Philadelphia, and by other surgeons, with success.

In his remarks on the treatment of urethral stricture, the author of the Address in Surgery, though not strongly advocating any one plan of treatment, shows that he is much opposed to the practice of internal urethrotomy. This he regards as an operation that is losing rather than gaining ground, one that is neither necessary nor safe as compared with other methods in the treatment of stricture in the early stage and not affording greater immunity from recurrence than other methods.

THE ADDRESS IN PATHOLOGY.

In his Address on Pathology at the meeting of the British Medical Association, Dr. Creighton makes an attempt to class the specific infections with other diseases as being, in their first origin at least, merely "modifications of healthy states, deviations from the beaten track, perturbations of the normal life, shortcomings of the physiological standard." Attempts to bring infective diseases under the head of disturbance of the physiological processes, attempts to show that in these as in other diseases "there is no definite limit where health ends and disease begins," have as yet entirely broken down, and it is generally held that the infective diseases cannot be included in the physiological scheme of disease. Struck, however, by the fact that these infective diseases constitute a large proportion of medical ailments, and that, therefore, diseases developed on the physiological principle are rather the exception than the rule, Dr. Creighton boldly tries to show that these diseases are also in their essence merely shortcomings of the physiological standard. As the subject is of great interest and importance, we shall indicate his line of argument, and inquire how far his attempt has been successful.

Dr. Creighton illustrates his views in the first instance from cancer. He considers that this disease commences in a disturbance of the function of the part of the organ in which it begins. The secreting function in these organs consists in the formation of cells, which are carried off by the fluid part; but, under certain circumstances, the cells may stagnate and accumulate in the part. Epithelial cells, which in this manner, have not been used for secretion, can become infecting cells, and set up a cancerous process spreading independently through the body. Before these cells have become infecting, we have what Dr. Creighton calls the pre-autonomous stage of the cancer, or the state where there is merely a perturbation of the physiological processes. When the disease is established, it has entered on its autonomous or independent stage.

Bovine tubercle, small-pox, yellow fever, and contagious ophthalmia are also considered. Tuberculosis, as it affects cattle, has a peculiar tendency to the formation of nodules on certain serous membranes. Dr. Creighton points out that these nodules are apt to appear in the places where nodules of fat are normally found, and he attempts to trace a relation between the fat-masses and the tubercular nodules. The pre-autonomous stage of this disease consists, most probably, in the departure, under artificial conditions, from the natural fat-formation and the deposit, in its stead, of an embryonic tissue. This functional disease acquires individuality, and by-and-by the power of infection, or, in other words, autonomy.

The pre-autonomous stage of small-pox is said to be a tropical skin-disease, of the nature of lichen. Given a large number of people suffering from this skin-affection at the same time, and crowded together, this skin-disease becomes catching, and the autonomous stage of small-pox is established. The pre-autonomous stage of yellow fever, which is next treated of, is not so clear. The facts refer its introduction to slave-ships, and its origin to the filth of the slave-ships; but the exact pre-autonomous stage, *i.e.*, the physiological disorder of the body from which it originated, is not mentioned.

These are examples of what Dr. Creighton means by the pre-autonomous and the autonomous stages of disease, and of the mode in which he proposes to bring the specific infections into the physiological system. The result is, however, scarcely unsatisfactory when the subject is viewed in the light of recent scientific discoveries, though it would no doubt have been an excellent disquisition, and have attracted much attention, had it been published

fifteen or twenty years ago. At the present day, however, when infective diseases are discussed, one expects to hear some mention of micro-organisms, and some reference to the part which they have been proved to play in some infective diseases, and which they may be supposed to take in the production of others. It may be well, therefore, if we look shortly at Dr. Creighton's address, from the standpoint of bacterial pathology.

Cancer is a disease about the origin of which too little is known, and it differs too strikingly from what are commonly looked on as the specific infective diseases to be considered under this heading. Speculations as to its origin from disturbances of the physiological functions and structure of the part are quite warranted in the present state of knowledge; but it is quite otherwise with tubercle, small-pox, and the various true infective diseases. The recent researches on acute tuberculosis in animals, and on tuberculous diseases in man and cattle, are so definite and striking, that some reference ought to have been made to the tubercle-bacillus, to its constant presence, and to its relation to the pre-autonomous and autonomous stages of the disease. If the tubercle-bacillus is the cause of bovine tuberculosis, as it is the cause of the acute tuberculosis in rodents, the pre-autonomous stage of the disease, as described by Dr. Creighton, falls away at once. Dr. Creighton admits the infective nature of the tubercular nodules; for he says "it tuberculosis) can be given to other animals by inoculation or by feeding, in experiments, and probably also by accident; and there are recorded cases in veterinary practice which lead us to think that it hangs about a stall, or spreads from stall to stall by volatile contagion." But the proof is surely sufficient that these nodules impart the disease to other animals by virtue of the bacilli which they contain. If, then, there be a pre-autonomous stage, it follows that the acquisition of infective power, or, as Dr. Creighton puts it, of complete autonomy, is simultaneous with the appearance of these bacilli. This brings us to the real point at issue; viz., what connection is there between this pre-autonomous stage and the bacilli which give the disease its autonomous life?

It may, indeed, be said that, during the pre-autonomous stage, a soil is being prepared for the subsequent growth of the bacilli which give autonomy to the disease. But, then, how can it be said that the autonomous stage, *i.e.*, the disease itself, is derived solely, or even mainly, from the previous physiological disturbance? And against this view it is to be remembered that, when these bacilli are inoculated directly into animals, no pre-autonomous stage is necessary. The only other way out of the difficulty would be to say that these bacilli are spontaneously generated in the animal body as the result of the disturbances of the normal processes. This, put in other words, is to say that certain disturbances of the physiological life of an animal can result in the development of vegetable life. Why these particular disturbances first originated, and why this particular plant was evolved, are questions left unanswered. But we need not pursue this line of argument further, seeing that every instance of spontaneous generation yet investigated has been refuted. Entirely ignoring bacilli, Dr. Creighton assumes that "a mere condition or state of the ruminant body can be abstracted, as it were, from all other ruminant conditions, and made to live in another body." How a condition, *i.e.*, an attribute of a body, can be converted into an entity, capable of independent existence, is quite unintelligible; and we are not surprised when we are told that Dr. Creighton's metaphysical friends have been unable to assist him in this matter. In the case of bovine tuberculosis we must imagine that some condition, some attribute, of the ruminant body has become converted into a plant, a bacillus, capable of independent life. Possibly it is because a bacillus is so small that certain minds cannot grasp the idea of its existence, and of its destructive power; and we may therefore take an example where the parasite is somewhat larger. Scabies is a disease of the skin capable of passing from one person to another. On Dr. Creighton's method of bringing this disease into the physiological category, we must suppose that there was a pre-autonomous stage where people were liable to be affected by a peculiar papular or pustular eruption, and that, under certain unknown circumstances, this disease acquired autonomy; or, under certain unknown circumstances, the scabies-insect was generated; or, under certain unknown circumstances, a condition or state of the body was abstracted, as it were, from that body converted into an itch-insect, and thus enabled to live in another body, and produce a similar disease. This is, of course, an absurdity; but the two diseases, scabies and tuberculosis, are in this respect completely analogous.

Having said thus much about bovine tuberculosis, it is unnecessary to consider the other affections mentioned by Dr. Creighton, for the same arguments can be brought forward in each case. In these instances, also, great inconsistencies could be shown, as, for example, where we are told that the eruption in small-pox is too elaborate a development to be the simple and direct result of an extrinsic poison, and yet we are not led to believe that in every case of small-pox there is a pre-autonomous stage, but rather that that stage occurred in its first development, and that afterwards a contagium was produced which now causes the disease. But this contagium affecting a healthy individual, extrinsic though the poison is, produces the pustule with all its elaborate arrangement. Dr. Creighton holds that small-pox was originally a disease of the negro races, chiefly because Lichtenstein found it prevalent wherever he went in Africa, and found it among tribes who professed to have got it from nations still farther from the sea. This is surely extremely slender evidence. Still more slender, however, is the proof as to the origin of yellow fever. Dr. Creighton says: "It passes by the negro as if it recognised the ties of blood, and I want no other fact than that to prove that even this infection, belonging to the exogenous group, has sprung remotely from physiological disorders of the body, and that it carries with it the distinctive marks to its native soil." It is strange that the facts in favour of bacterial pathology should fail even to attract the attention of one so easily convinced by such slight proof. In the case of yellow fever, indeed, the facts mentioned seem to indicate that the disease originated in the dysenteric, and other discharges, after they had left the body of the negro, rather than in any physiological disturbance within the organism. A great deal more could be written on the matter of this address, showing the weakness of the arguments employed, but our space is insufficient. We do not ascribe this weakness to any inefficient treatment of the subject on Dr. Creighton's part. It is impossible, at the present day, to find any stronger arguments in favour of the physiological principle of disease, as applied in this way to the origin of the specific infections.

THE library of the Obstetrical Society will be closed from August 13th to September 13th.

MR. FIELD, Aural Surgeon to St. Mary's Hospital, has been appointed Dean of the Medical School.

PROFESSOR G. M. HUMPHRY, M.D., F.R.S., has accepted the Presidentship of the Sanitary Congress to be held in Glasgow in September next.

THE subject of the Astley Cooper prize to be competed for in 1886 is "Diseases and Injuries of the Nervous System, and their Surgical Treatment."

HIS Royal Highness the Prince of Wales has accepted the position of vice-patron to the Royal Hospital for Diseases of the Chest, City Road, which was founded by H.R.H. the Duke of Kent A.D. 1814. The receipts of the public festival, at which the Prince of Wales presided, on June 1st, have reached the sum of £5,082.

SIR EDWIN SAUNDERS, dental surgeon to the Queen, has presented the leasehold premises, No. 39, Leicester Square, adjoining the Dental Hospital of London, value £2,400, to the authorities of that institution, for the purpose of its enlargement.

IN view of the possibility of an outbreak of cholera, the Paris Municipal Council have voted 480,000 francs for the erection of wooden buildings in the bastions of the fortifications to serve as hospitals. Eventually these will be used for patients suffering from other infectious diseases.

DIPHTHERIA AT ALDERSHOT.

A SERIOUS outbreak of diphtheria is reported at Aldershot. The cases have occurred chiefly among the men of the Royal Irish Regiment, which lately returned from Egypt. A special medical board has commenced an inspection of the whole camp-buildings, with a view of ascertaining their sanitary condition.

A CENTENARIAN.

LAST week, at Holme Pierrepont, Notts, Mr. Knightly Smith, a resident in the parish, received from his fellow-parishioners an address and engraved plate in celebration of the completion of his one hundredth year. Mr. Smith was born at Ogbourne St. George, near Marlborough, on July 21st, 1783.

ADMINISTRATION OF HOSPITALS.

THE first meeting of the Provisional Committee of Hospital Managers, appointed at the recent Conference held under the auspices of the Social Science Association, took place on Monday last. Steps were taken for adding further names to the Committee, and a Subcommittee was appointed to prepare a draft programme for consideration by the enlarged Committee, the members of which will be called together in the autumn.

FISH AS A FOOD.

IT was stated, at the last meeting of the Bristol guardians, who have adopted fish dinners in their workhouse, that on one day they used five hundredweight of good fresh fish from Grimsby, costing, with carriage, £5 11s. 4d., in place of two and a half hundredweight of beef, costing, at 65s. per hundredweight, £8 2s. 6d. They gave the inmates of the workhouse in weight of fish twice as much as they gave of beef, and yet they saved £2 11s. 2d. on one day's consumption, as compared with meat-diet.

DESTRUCTION OF INFECTED CARCASES.

THE rapid, complete, and economical destruction of the carcases of animals which have died of certain contagious diseases is a subject of considerable importance. M. Girard has just proposed to the French Academy of Sciences the plan of dissolving diseased carcases in cold concentrated sulphuric acid, and using the resulting liquid for the production of a valuable manure, in the form of a nitrogenised superphosphate of lime. M. Girard gives details of a number of experiments. He found that the entire carcase of a sheep dissolved in the acid in eighty hours, leaves only a coloured liquid.

PREVENTION OF CHOLERA.

MISS ETHEL H. MANSON, matron and superintendent of nursing at St. Bartholomew's Hospital, has written to Mr. Ernest Hart, chairman of the National Health Society, stating that in case of cholera reaching England, she wishes it to be known that she is prepared to render any assistance in the power of a trained nurse, by actively taking part in the work herself, or by personally superintending the work of others. Surgeon-General Gordon, C.B., who has had great experience in India, has also communicated to the same gentleman his willingness to undertake duties in connection with any outbreak of cholera, should such occur in the metropolis; and suggests also that a list should be opened, to which retired medical officers, of whom there are a great number who have had much experience of cholera in India, and other dependencies of Great Britain, could enter their names for duty in case of any emergency calling for such assistance.

TESTIMONIALS TO MR. ALFRED BAKER.

LAST week, at the General Hospital, Birmingham, a life-size portrait in oils, painted by Mr. F. Holl, R.A., of Mr. Alfred Baker, who for thirty-three years has been connected with the institution—first as house-surgeon and afterwards as honorary surgeon—was formally presented to the governors of the charity, to be added to the fine collection of paintings which adorn the board-room of the hospital. At the same time, a silver salver and handsome dessert-service were presented to Mr. Baker, the portrait and service of plate being subscribed for by his professional colleagues, by the governors of the hospital, and by a number of other friends. The occasion of the presentation was Mr. Baker's retirement from active service, and his election as consulting-surgeon to the great charity with which he has so long and so honourably been connected. Dr. Russell, senior physician to the General Hospital, in making the presentations, referred, in graceful terms, to the services Mr. Baker had rendered to medical science and education, and to his dignified tenure of the office of President of the Association.

THE CONTAGIOUS DISEASES ACTS.

IN an article on the effects in Plymouth, Stonehouse, and Devonport, of the withdrawal of the restrictions of the Contagious Diseases Acts, a local daily contemporary (the *Western Morning News*) says: "Gradually but surely, noted by but few, but terribly real in its progress, foul mischief is spreading in the three towns. Ever since Mr. Stansfeld's resolution was allowed to have the effect of a legal enactment, its results have been causing consternation to the doctors, embarrassment to the police, prospective misery to hundreds of innocent women and children unborn, profit to the chemists, and the increase of sin and sinners. Comparing the last ten weeks with ten weeks a year ago, we learn, on incontestable authority, that there are now in the Military Hospital, Stoke, 184 patients against 118; in the Naval Hospital, Stonehouse, 100, as against 45. In each case, for reasons easy to explain, the numbers would have now been considerably less, instead of more, but for Mr. Stansfeld; and the character of the disease is daily becoming worse. On the other side of the picture, and accounting for what has been stated, there are now in the female lock-wards twenty inmates, whereas the number, estimated on past years, should have been forty-five. The number who have voluntarily entered has been 30, as against 130 who should have been admitted. These figures, however eloquent they may be, tell but a fraction of the sad tale."

THE DISEASES PREVENTION (METROPOLIS) BILL.

REPRESENTATIONS having been made to the authorities as to the unsatisfactory nature of the existing arrangements for the treatment of cholera-patients in the event of an outbreak of the epidemic occurring in the metropolis, Sir Charles Dilke introduced a Bill on Thursday night for the purpose of transferring the powers now vested in the metropolitan vestries to the Metropolitan Asylums Board. The powers of that Board will, it is understood, be somewhat increased. As its present constitution was framed in 1867, after the last epidemic of cholera, its functions have hitherto been confined to the treatment of cases of infectious disease such as small-pox, and it has at present no power to deal with cholera cases. The Bill does not deprive the vestries of the powers which they now possess, either as sanitary authorities or as local authorities under

the Diseases Prevention Act; and, under its provisions, the vestries as well as the Metropolitan Asylum Board may have duties imposed on them with regard to the provision of hospital accommodation. The Bill also provides that, in the case of vestries providing cholera hospitals, the cost of the hospital buildings, and a considerable proportion of the salaries of the officers and servants employed in the hospitals, shall be a charge on the Metropolitan Common Poor Fund, and consequently will be defrayed, not by the particular locality, but by the whole metropolis.

ROYAL COLLEGE OF PHYSICIANS.

AT an ordinary quarterly meeting of the Royal College of Physicians, Dr. W. Osler, was admitted *in absentiâ* a Fellow of the College, A letter was read from Earl Granville stating that he had requested the Netherlands minister to afford every facility to Dr. Duckworth and Dr. Ewart, who had been appointed to represent the College at the Congress at Amsterdam. The College was informed that the appointment of Sherard Professor of Botany at Oxford, hitherto made by the President and Council, was, by a recent Act of Parliament, vested in that University. The President informed the College that the marble sarcophagus for Harvey's remains was completed, and that it was proposed to have a suitable ceremonial in October, at which the Fellows were invited to attend. Thanks were voted to Captain Shaw for services rendered to the College. The College officers for the ensuing year were elected. In the place of Dr. Southey, Dr. Gowers was elected a Curator of the museum; Drs. Fincham and Wilson were elected Censors; Dr. John Harley was elected Examiner in Physiology; and Dr. Broadbent was elected Examiner in Medical Anatomy and the Principles and Practice of Medicine. The library report and the curator's report were read and adopted, and the finance report was referred to the council. The report was read from the Medical Bill Committee, and ordered to be entered. This report announces that the amendments advocated by the College have been adopted.

CARRIAGE OF INFECTION BY RAGS.

THE statement by a morning contemporary that fifty tons of rags have been imported into this country from Alexandria, is one of some gravity, for rags received from Egypt and Turkey are, at the best of times, extremely filthy, and, during the prevalence of cholera abroad, it might well be considered whether these rags should not undergo some process of disinfection. When the last epidemic of cholera was at its height, this question was, indeed, seriously discussed by the medical authorities here, but no practical steps were, we believe, agreed upon. There seems to be a general impression that foreign rags are disinfected before importation, but it has been shown by Dr. Parsons, of the Local Government Board, when investigating the whole subject of rag-infection, which is also at the present time under his notice, that, in the cases where any process of disinfection is carried out, it is practised rather with a view of preventing the importation of disease by their means than for the security of foreign countries, and can only be a safeguard to the latter in the case of rags passing through from port to port. In the maritime regulations of the Egyptian Board of Health as to plague, it is prescribed that disinfection of susceptible objects, among which rags are included, shall be rigorously carried out. A French decree, dated March 15th, 1879, compels all rags imported into France by sea to be disinfected; and the importation of rags is restricted to certain ports where disinfecting apparatus have been provided. In order to evade this requirement, it has been the practice to unload cargoes of rags at neighbouring ports in other countries, and carry them into France by land. With a view of preventing this, it has been recommended that the importation of rags by land be restricted to certain frontier towns, where facilities for disinfection exist, and that all rags be disinfected before leaving, or even entering, the warehouses, and be not allowed to remain on the quays. Objection has been taken to these conclusions, some holding that the disinfection of all imported rags would be an impracticable and unnecessary interference with trade, and that infected articles should preferably be disinfected at their place of origin, as the law in England requires. It would seem that neither in France nor Belgium does the law forbid the selling or exposure, without previous disinfection, of infected clothing or rags. In Holland, the law is similar to that in England; and in Turkey, disinfection of some kind is said to be applied to all articles suspected of being infected. As regards the processes of disinfection which are least harmful to the rags, the following have been recommended. 1. Prolonged exposure to air. 2. Chemical disinfection: (*a*) by gases, as sulphurous acid; (*b*) by pulverised solids, as carbolic powder. 3. Disinfection by heat: (*a*) by hot air; (*b*) by high pressure of steam.

MEDICAL BARONETCIES.

So far as we can learn, twenty-six baronetcies have been conferred on members of the medical profession during the last hundred years. George III bestowed baronetcies on Sir Walter Farquhar (1796), Sir Richard Jebb, Sir Everard Home, and Sir Henry Halford (1809). The baronetcies of Jebb and Home are now extinct. George IV gave baronetcies to Sir M. Tierney and Sir Astley Cooper (1821). The baronetcy of Tierney is now extinct. William IV conferred baronetcies on Sir Charles Mansfield Clarke (1831), and Sir Benjamin Brodie (1834). We believe the following is a complete list of the baronetcies bestowed on members of our profession by Her Majesty: Sir James Clark (1837), Sir Henry Marsh, Sir Philip Crampton (1839), Sir Henry Holland (1853), Sir Charles Locock (1857), Sir William Fergusson (1866), Sir James Simpson (1866), Sir Dominic Corrigan (1866), Sir Thomas Watson (1866), Sir William Lawrence (1867), Sir William Jenner (1868), Sir James Paget (1871), Sir Robert Christison (1871), Sir William Gull (1872), Sir George Burrows (1874), Sir Spencer Wells (1883), Sir Andrew Clark (1883), Sir Prescott Hewett (1883). Of the baronetcies conferred by the Queen, one, that of Marsh, is extinct. Of the eighteen medical baronets created during the present reign, eight survive. Of the eighteen Victorian baronetcies, eleven have been given to physicians, five to surgeons, and two to obstetric physicians. All the eight medical baronets now living practise in London.

SCOTLAND.

THE LECTURESHIPS ON PHYSIOLOGY IN THE EDINBURGH SCHOOL OF ARTS.

DR. JAMES HUNTER, Lecturer on Physiology in the Edinburgh Extra Mural School in the new Veterinary College, has been appointed Lecturer on Animal Physiology in the Watt Institution and School of Arts, Edinburgh.

ABERDEEN ROYAL INFIRMARY.

A SPECIAL general meeting of the managers of the Aberdeen Royal Infirmary was held last Monday in connection with the filling up of the post of superintendent, which has been rendered vacant by the death of Dr. Edward Wagstaff Robertson. A considerable discussion took place as to what were the necessary qualifications for the position, some proposing that the appointment should be thrown open to anyone having the capacity to administer the general business work of the institution, purchasing of stores, book-keeping, etc.; others, that the candidates should be licensed medical practitioners. The general opinion expressed by the managers was in favour of a medical man, and in the end a motion was carried to the effect that a preference would be given to a licensed practitioner, but the appointment would be advertised as open to all candidates. The salary is £250 per annum, with free house and allowances.

ILLNESS OF THE BISHOP OF PETERBOROUGH.

THE great interest which Bishop Magee has always taken in matters connected with medicine, and the very valuable service which he has, at various times, by his eloquence and influence, rendered to the profession, must intensify, in the minds of our Associates, the anxiety, which is so widely manifested throughout the country, in his lordship's illness. We are therefore glad to give our readers the following brief sketch of its nature and progress. On the evening of July 4th the Bishop was suddenly attacked with violent pain in the epigastrium and right hypochondrium, suggesting the idea of an impacted gall-stone. Symptoms of local inflammation, with complete suspension of the functions of the bowels, speedily set in. Towards the end of the first week, the inflammation extended to the whole peritoneal cavity. To the other distressing and exhausting symptoms of the malady was added, as the serous coating of the bladder became involved, extreme irritability of that organ, with loss of its expulsive power, calling for the use of the catheter at least every two hours. During the third week, the general peritonitis subsided, but as the serous effusion into the peritoneal cavity became absorbed, and the tympanitic distension of the abdomen decreased, it became obvious that the local inflammation in the neighbourhood of the duodenum was still progressing. A mass of exudation, which since the beginning of the second week could be felt indistinctly, deep in the epigastrium, now became more obvious, and a severe rigor which occurred on the twenty-fourth day, was followed by a rapid enlargement of this swelling, the increase in its size being accompanied by symptoms of complete occlusion of the bowel. On the twenty-seventh day there were indications that the abscess had opened into the bowel, probably into the duodenum, and the symptoms of obstruction disappeared. Since that time the pain and other local symptoms have been much relieved, but the Bishop's general condition remains very precarious. The high temperature, delirium, and other symptoms are probably the result of fœtid pus still pent-up in the abscess-cavity. Although the Bishop is a man of great nervous and muscular vigour, he has always had a very feeble circulation, and during the progress of this illness, as each fresh complication developed itself, he seemed in great danger of sinking. Notably after the rigor on the twenty-fourth day, his pulse was for thirty-six hours either imperceptible or so feebly perceptible that it could not be counted. The sight was dim, the hearing dull, the skin bathed with copious sweat, the surface cold, and all indicated complete collapse. It is obvious that the case is still one of the gravest import. Not only is the danger from septic absorption, in the Bishop's exhausted condition, very great, but the reparative powers might possibly interfere mechanically with the free passage through the bowels. Moreover, the origin of the cause of the attack is not clear. An impacted biliary or pancreatic calculus is not altogether precluded as the source of mischief. The sudden occurrence of a slight invagination of the duodenum, with any previous morbid condition, would also account for the setting in of the inflammation; but it seems more probable that there has existed for some time a certain degree of narrowing of the bowel, and that the impaction of a portion of imperfectly masticated food, or some other accidental circumstance, combined with this pre-existing cause to light up the acute attack. The history of dyspeptic troubles for many years, and the excellent health of the Bishop immediately prior to the attack are grounds for hoping that this chronic narrowing, if it exists, is of a simple, non-malignant character. The Bishop has been attended throughout his illness by Mr. Duke, of Great Easton, and by Dr. T. J. Walker, of Peterborough, and these gentlemen have twice had the advantage of consultation with Sir Andrew Clark. We are reminded that, exactly three years since, many of our Associates who, at the close of the Cambridge meeting, joined the excursion to Ely and Peterborough, partook of the hospitality provided for the party by the Bishop, at the palace; and two years before that, when the members of the East Anglian, South Midland, and Cambridge and Huntingdon Branches met at Peterborough, under the presidency of Dr. T. J. Walker, the Bishop, and Mrs. Magee, received the members at the palace, and a very pleasant half-hour was spent in the hall and grounds at the close of the business meeting.

CHOLERA IN EGYPT.

(FROM THE SPECIAL CORRESPONDENT OF THE BRITISH MEDICAL JOURNAL.)

DR. MACKIE, Surgeon to H.M. Consulate, Alexandria, has turned the attention of Sir Edward Malet, K.C.B., Consul-General at Cairo, to several important subjects in relation to the cholera epidemic in Egypt. He refers to a letter sent to him by Dr. Dutrieux, from Mansourah. This letter contained a report which does not appear to be satisfactory or complete. The typhoid condition often observed in convalescent cholera-patients seems to have been taken for typhoid fever, which Dr. Haddad, on the other hand, has been careful to distinguish. Dr. Dutrieux has insisted on the local origin of the outbreak, without giving sufficient practical evidence; he corroborates all former reports of the extreme unsanitary condition of Mansourah and its neighbourhood. Dr. Mackie had addressed a letter to Baker Pasha suggesting that, if the *cordons* for the villages were to be of any use they ought at once to encircle a considerable district, and not single villages only, as the moment the disease broke out in a village many of the inhabitants succeeded in escaping to adjacent towns and hamlets before the infected village could be dealt with by the authorities. Baker Pasha replied that the Egyptian Government could hardly dispose of a force sufficient to surround large districts; he was ready, however, himself to carry out certain preventitive measures if the Government would allow and assist him. Dr. Mackie points out to Sir E. Malet that isolation of single infected houses involved great hardships. Thus, in one case, a Mrs. Y. was taken ill with choleraic symptoms; on learning the fact, the whole of the inmates of the large lodging-house where she lived rushed into the street, fearing ten days of isolation by a *cordon*. Many of them, not afraid of cholera, would have willingly stayed and nursed Mrs. Y., a friendless old woman, but they could not be kept away from their duty out of doors, and so they begged the officers of the sanitary authorities not to shut them up in the house. These officials came and isolated the house; but, finding no nurse to attend upon Mrs. Y., they removed her to the Deaconesses' Hospital, much against her will, and there she died in twelve hours. Dr. Mackie shows that, in such cases of isolation, a staff of nurses should be kept in readiness for patients who have no friends to take care of them, and are too ill to be removed.

Dr. Mackie has also suggested that the medical gentlemen sent out from England should be provided with good double tents and kitchen-tents for use in the infected districts, with good servants to prepare their food; the houses of the sheikhs and other local dignitaries being extremely objectionable, and the native diet up-country utterly unsuited to hard-working doctors. He forsees many difficulties in the utilisation of the English medical men recently dispatched to Egypt, and strongly urges that the Egyptian Government should allow them to act under the Cholera Relief Committee. This appears to be an excellent arrangement, and, if accepted, Dr. Mackie has agreed with the Committee to join the English doctors and act as a negotiator between them and the Egyptian Government, aiding them, at the same time, by his local experience.

Dr. Mackie informs us, in addition to the news contained in the above-mentioned suggestions to Sir E. Malet, that the local authorities continue to give an infinite amount of trouble to all engaged in medical and sanitary arrangements, owing partly to political and administrative inexperience, but still more to certain well-known Oriental ideas prevalent in Egypt; for if the individuals stricken with cholera were left alone, crying out pious and submissive Moslem invocations till their death, the native officials would trouble nobody. At Alexandria, where Europeans muster in force, there is less opposition than elsewhere. Our correspondent confirms what has been reported in the daily press concerning the imperfect burial of offal from the slaughter-houses. Near Alexandria, over twenty or thirty acres are strewed with entrails covered with a thin layer of gravel, and left to rot and stink or to be torn up by flocks of dogs. It has been asserted in Parliament, on the authority of General Harman, that a report in the *Times* of July 10th, on the state of the slaughter-houses was exaggerated; but our correspondent fully confirms the truth of the worst accounts which have been received in England.

Dr. Flood still insists on his opinion that the cholera was imported by the fireman of the *Timor*. Dr. Mackie states, in concluding his correspondence, "Thank God for a good climate, in which we can live with doors and windows constantly open to let out foul air, which otherwise would kill us."

Cairo, July 23rd.

DR. GRANT BEY has issued, in his capacity as Senior Surgeon to the chief Egyptian Government railways, a printed sheet of useful "Advice to Staff during the Present Epidemic."

THE following is the analysis of the Damietta water:—Mineral matter normal; large quantity of organic matter, .210 per litre, probably animal, seeing the presence of ammonia. It contains matter in a state of putrefaction and infusoria, especially vibriones and vegetable deposit.

THE MICRO-ORGANISM OF CHOLERA.

M. PASTEUR, who has just obtained a grant of fifty thousand francs from the French Chambers to send a scientific mission to Egypt to investigate whether the cholera be not due to the development of a microscopic organism in the human body, states, in a letter to the *Voltaire*, the reasons which induced him to recommend the Board of Health to send out the mission in question. He says: "I urged the sending out of this mission on account of the great progress that science has made, since the last cholera epidemic, respecting transmissible diseases. All diseases of this class that have been the subject of a thorough investigation, have led biologists to the conclusion that they were caused by the development in the body of man, or animals, of a microscopic organism, causing therein disturbances, frequently fatal. All the symptoms of the disease, all the causes of death, are directly under the influence of the physiological properties of the micro-organisms. What is needed at present to meet the requirements of science, is to ascertain the primary cause of the scourge. Now the present state of our knowledge indicates that we should direct all our attention to the possible existence in the blood, or in such or such an organ, of an exceedingly minute being, whose nature and properties would, in all likelihood, account for all the peculiarities of cholera, both as regards its morbid symptoms and the mode of its propagation. The existence of that micro-organism once ascertained, would speedily settle the question as to the measures to be taken to check the spread of the disease, and might possibly suggest new therapeutic means to cure it." The mission consists of Drs. Roux, Thuillier, Straus, and Nocard. M. Pasteur hopes that, by scrupulously attending to the hygienic precautions he has written down for them, the great danger they are incurring may be minimised.

DIARRHŒA MORTALITY IN LONDON.

AT a time when the possible reappearance of cholera in London is deeply engaging the public mind, a few statistics as to the health of the metropolis during the past four weeks, especially with regard to the mortality from diarrhœal diseases, as compared with that at the time of the outbreaks of Asiatic cholera in 1849, 1854 and 1866, will be of interest. Though the epidemics of cholera in the years above mentioned did not occur precisely at the same time of the year, the disease may be said to have assumed a severely epidemic form on each occasion during the month of July. For the purpose of a satisfactory comparison of the present mortality from diarrhœal diseases in London with that which prevailed in the corresponding period of the three cholera years, 1849, 1854 and 1866, the four weeks of July in each year are taken. In 1849 the average weekly deaths from diarrhœal diseases in London during July were 135, which considerably exceeded the average number in the corresponding period of the preceding ten years. During that month the deaths referred to cholera averaged 488 weekly, having increased from 152 in the first, to 783 in the last week of the month. Though cholera had been present in the metropolis for some time in 1849 previous to July, it was not until that month that the mortality therefrom began to rise rapidly. The week of the maximum number of deaths from diarrhœa in 1849 was that ending September 15th, while the deaths from cholera reached their highest number (2,026) the week previously. In the year of the next cholera epidemic, 1854, the average weekly number of deaths from diarrhœa in London in July was but 59, which was slightly below the average of the same period in the preceding ten years. The deaths from cholera, which were but one in the first week of that month, rose to 133 in the last week, giving an average weekly number of 41 deaths. During this epidemic the maximum number of deaths both from diarrhœa and cholera occurred during the week ending September 9th, when 284 deaths resulted from diarrhœa, and 2,050 from cholera. During the last cholera year (1866) the deaths referred to diarrhœa in July averaged 206 weekly, and considerably exceeded the number in the same period of the ten preceding years; while the fatal cases of cholera during the month, which had been but 14 in the first, rose to 904 in the last week, equal to a weekly average of 324. During this epidemic the maximum number of deaths both from diarrhœa and from cholera, 354 and 1,053 respectively, occurred in the first week of August, after which they rapidly declined. During the four weeks of July ending on Saturday last, the 29th ultimo, the deaths referred to diarrhœal diseases have averaged 274, which exceeded by 47 the average weekly number returned in the corresponding month of the ten preceding years 1873-82, but were considerably lower than those recorded in the same period of several recent years. It may also be noticed that the deaths from simple or English cholera during July, which during the past ten years have averaged 10 weekly, have this year not exceeded nine, and have been lower than those recorded in the same period either of 1876, 1878 or 1881, when the fatality of diarrhœal diseases was considerably more excessive in the metropolis than it has been this year.

THE MEDICAL ACTS AMENDMENT BILL.

THE MEDICAL ALLIANCE ASSOCIATION.

ON Monday, July 16th, a deputation from the Medical Alliance Association had an interview with the Right Hon. A. J. Mundella, at the Privy Council Office, Whitehall. The deputation, introduced by Mr. Hopwood, Q.C., M.P., consisted of Dr. Joseph Rogers, Dr. T. J. Vallance, Mr. R. Hodgson, Mr. R. H. S. Carpenter, Dr. Chaple, Mr. Nelson Hardy, Mr. R. W. Thomas, Mr. W. G. Bott, Mr. T. E. Webb, Mr. Hentsch, and Dr. F. J. Allan.

Dr. JOSEPH ROGERS said that the first point that the Association and the great bulk of the medical practitioners throughout the country wished to bring before the notice of the right hon. gentleman, was their claim to have direct representation on the various divisional boards. The next point to which he wished to draw attention, was that unregistered persons should not be permitted to practise, and that the restrictions relating thereto now existing should be perpetuated; and that was asking no more than was done in the case of the law. All who were entitled to practise, should have some recognised common title, whether a general practitioner, doctor, or surgeon, whereby medical men should be known from the base vulgar who assumed medical titles, and who acted as having some legal qualification to attend those who were most likely to be deceived. They desired that the clause directed against the assumption of unregistered titles should not be relaxed, but even, in some respects, made more stringent; and, finally, in the public interest, they considered that any person should have the power to prosecute those who offended under this Act. He was aware that there was a feeling in favour of allowing free trade in medicine; but the poorer middle classes required to be protected from impostors who would trade upon their ignorance and credulity, and who pretended to a knowledge of medicine which they did not possess, which led, in many instances, to the most serious results to the health and comfort of the people who came under them.

Mr. NELSON HARDY said that, as a former president of the Association, and as a member of the Reform Committee of the British Medical Association, it had been his duty to examine all the Bills affecting the profession introduced into Parliament since 1870; and, without wishing to be discourteous, he was afraid he must say that this Bill was about the worst of the whole; and that was the general opinion of the Association. In the first place, so far as legislation could do, the Bill proposed to abolish the Colleges of Physicians and Surgeons, and the Apothecaries' Society, to take from them their legal status, and to deprive them of the fees on which they existed. They were quite willing to see these bodies reformed, but what was proposed by the Bill was abolition. Again, the Bill proposed to throw open the practice of the profession to druggists and quacks, so long as they did not assume medical titles. They objected also to the provision by which colonists and foreigners were put in a better position than Englishmen, thus making it a distinct advantage for a man to be able to prove he was not a British subject. Again, the Bill made no provision for an effective and joint examination, with equal fees and equal curricula. in each part of the kingdom. Another point was, that it did not give the general body of the profession any representation. All along their contest had been, not for more seats on the Medical Council, but for representation on the Medical Boards, and this they had hoped would have been attained by the Bill. The Bill failed to amend the Penal Clause of the Act of 1858; indeed its effect was rather to weaken than to strengthen that clause. It was possible that the department might say they would wash their hands of the

matter; but even that would be a less evil than to mock the profession with a sham examination, sham representation, sham penal clauses, and a settlement of the foreign diploma question on protectionist principles.

Mr. R. H. S. CARPENTER contrasted the present Bill of 1883 with that of 1881, characterising the latter as diametrically opposed to the Government Bill, and observing that it was the only Bill that had been drafted in accordance with the wish of the profession. He contended that the feeling of the profession had been misrepresented by Dr. Waters and the BRITISH MEDICAL JOURNAL.

Mr. MUNDELLA pointed out that his time was limited, and asked the deputation to put on paper any amendments which they suggested, in order that he might have an opportunity of thoroughly considering them.

Mr. MUNDELLA, in reply, said it had been urged by the deputation that the medical profession had no direct representation on the governing bodies. That was true; but in future there would be representation on the Medical Council, though whether that representation was adequate or not was a matter of opinion. All he could say was, that if he were to judge from the expressions of opinion conveyed in petitions from all parts of the country, it seemed that there was a general desire that this Bill should receive the sanction of Parliament. With regard to non-registered persons practising, all the restrictions now existing would continue without alteration. He must point out, however, on the subject of increasing the penalties, that the Bill was introduced for providing better medical education, higher qualifications, and better government in the profession, and not to enter into a crusade against unqualified practitioners. That should be the subject of a separate Bill; and if they desired to increase the restrictions, he advised them to introduce a Bill for that purpose, though he held out but little hope of it passing.

Mr. NELSON HARDY: Then I am sure we would rather have no Bill.

Mr. MUNDELLA: Because you cannot have your own way with respect to the prosecution of unregistered practitioners, therefore you would rather not have the standard of qualification raised so far as the general qualification goes. He denied that the effect of the Bill would be to abolish the Colleges of Physicians and Surgeons, though the power of placing on the *Register* would no longer belong to them; and he contended that such an amendment of the law was right and necessary, because, under the present state of things, the matter had become something like a Dutch auction. This Bill aimed at establishing an uniform test for the admission of men to the profession in the three kingdoms. He sincerely trusted, as he believed, that the Bill had the general support of the medical practitioners of the country; and he was encouraged in his belief by the fact that petitions in favour of the Bill, signed by the most eminent men in the profession, had been sent to him from all parts.

The deputation thanked the right hon. gentleman and withdrew.

THE BRUSSELS MEDICAL GRADUATES' ASSOCIATION.

ON Monday, July 16th, a deputation from the Brussels Medical Graduates' Association had an interview with Mr. Mundella, Vice-President of the Council, at the Education Department, Whitehall, for the purpose of asking for an amendment of the Bill which would permit the degree of the University of Brussels, and of other foreign universities granting scientific titles only, to be registered in the same manner as those foreign degrees which are qualifications to practice, provided the Medical Council consider the examination for such scientific titles proof of sufficient professional knowledge. The deputation was introduced by Mr. Coope, M.P.; among those present being Drs. Gayton (President of the Association), E. J. Nix (Vice-President), Danford Thomas (ex-President), J. P. Lewis, Palmer, Bonney, Keen, F. Ernest Pocock (Honorary Secretary), and others.

Dr. GAYTON called attention to the petition from the Association, presented to the House of Commons by Lord G. Hamilton, the prayer of which petition he was then endeavouring to support. He said that foreign degrees, which were qualifications to practice in their respective countries, were to be admitted to the *Register*, should the Medical Council "recognise" the universities granting them; but that the Brussels, and other degrees, which were scientific titles only, and not qualifications to practice in Belgium or elsewhere, were, *for that reason alone*, to be debarred from being "recognised" by the Council, and could not therefore be registered. The Association considered that, were this restriction removed, there would still remain the necessity for "recognition" by the Medical Council, as a safeguard against the admission of worthless degrees. He pointed out, further, that the deputation, and those whom they represented, were all qualified and registered practitioners, holding, in addition to their British qualifications, the degree of Doctor in Medicine from the University of Brussels.

After some conversation,

Mr. MUNDELLA, in reply, said that the deputation had brought before him a legitimate and honest grievance. He believed all medical men desired the advancement of their profession; and that the gentlemen who practise it should be duly qualified. He was glad that they approved of that principle. They would agree with him that there should be some attempt to arrive at some uniform test, and that there should not be a number of examining bodies, the main question being who should bid the lowest. The Bill would improve the education and status of the profession, and give much greater confidence to the public. Every registered practitioner should be qualified to deal with all points of surgery, medicine, and midwifery. The members of the deputation, having taken a title at an important Continental University, wished to know whether they were to be precluded from the use of that title, and whether they would suffer for using it in their daily profession. It was a fair question, and should be very fully considered.

The deputation then thanked the right honourable gentleman, and the interview terminated.

ASSOCIATION INTELLIGENCE.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

NOTICE is hereby given, that an Extraordinary General Meeting will be held at Exeter Hall, London, on Friday, the 17th instant, at two o'clock in the afternoon, at which special resolutions, adopted by an extraordinary general meeting, held in Liverpool, on Thursday August 2nd, will be proposed for confirmation.

FRANCIS FOWKE, *General Secretary.*

August 2nd, 1883.

The following are the special resolutions passed at Liverpool:—

"That Articles 2, 9, 13, 15, 16, and 26, be altered by striking out the words 'Committee of' in the places where those words occur."

"That Article 7 be struck out, and the following Article be substituted therefor."

"7. Any member whose subscriptions shall not have been paid on or before the 31st of December of the current year shall, without prejudice to his liability to the Association, be suspended from all privileges of membership: and at the end of the succeeding year, if the arrears be still unpaid, he shall cease to be a member, and shall be ineligible for re-admission until he shall have paid all arrears due at the period of his suspension. No member shall (except in case of his death or expulsion, or his ceasing to be a member under the previous provisions of this article) cease to be a member without having given previous notice in writing of his intention in that behalf on or before the 1st day of December in the current year to the Secretary hereinafter mentioned, and paid all arrears of subscriptions (if any) due from him."

"That Article 11 be struck out, and the following Article substituted therefor."

"11. Subsequent general meetings shall be held once in every year, commencing with the year 1875, at such time as shall be fixed by the Council, and at such place as may be prescribed by the Association in general meeting; and if no time is so fixed, a general meeting shall be held on the 20th day of August in every year, commencing as aforesaid, and shall, if no place is so prescribed, be held at such place as may be determined by the Council."

"That Article 17 be altered by striking out the words 'and the Committee of Council.'"

"That the words 'and Committee of Council' in the heading before Article 25 be struck out."

"That Article 25 be struck out, and the following article substituted therefor."

"25. The business of the Association shall be managed by the Council; and the constitution, duties, powers, and mode of procedure of the Council shall be determined on from time to time by the Association in general meeting."

"That Article 28 be struck out, and the following Article substituted therefor."

"28. There shall be the following officers of the Association, viz., a President of the Association, a President-elect, Vice-Presidents, a President of the Council, a Treasurer, an Editor of the JOURNAL, and a Secretary. The officers (other than the Editor of the JOURNAL and the Secretary) shall respectively be designated or elected, and hold office for such period, and have and enjoy such duties, powers, and privileges, as shall be determined from time to time by the Association in general meeting. The Editor of the JOURNAL and Secretary shall respectively be designated or elected, and hold office for such period, and have and enjoy such duties, powers and privileges, and receive such emoluments, as shall be determined from time to time by the Council."

"That Article 30 be amended by adding the following words after the word abode, 'or by publication of such notice in the JOURNAL, and forwarding a copy of the JOURNAL containing such notice to such member prepaid and addressed as above mentioned."

"That Article 31 be altered by adding the words 'or a copy of the JOURNAL in the second and fifth lines of that Article after the word 'letter.'"

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Committee of Council will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

November 9th, 1882.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL, JULY 11TH, 1883.

CORRECTION.—By an accidental omission in the proceedings of the Committee of Council published in the JOURNAL, the name of Dr. C. Holman was omitted from the report of attendances at the meetings of the Committee of Council. Dr. Holman has attended five meetings.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 26th, 1883.

Bowen, Randall Edward Arthur, Stockwell.
Chalmers, Alexander Henry, Howard Road, Penge.
Dyer, Sidney Reginald, Harlesden.
Harris, Charles Joshua Joseph, Strathblaine Road, Wandsworth Common.
Jollye, Arthur Dixon, Donington, Spalding, Lincolnshire.
Lace, William Francis, Pill, near Bristol.
Travis, William Owen, Liverpool.
Williams, Frederic Newton, George's Square, S.W.
Wilson, William, Drumbain, Ayr, N.B.

The following gentleman also on the same day passed the Primary Professional Examination.

Brickwell, Henry Taylor, London Hospital.
Long, John William Francis, Guy's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

ABERDEEN ROYAL INFIRMARY.—Superintendent. Salary, £250 per annum. Applications by August 14th.

BARNWOOD HOUSE, Gloucester.—Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Needham, Medical Superintendent.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Dispenser. Salary, £70 per annum. Applications by August 9th.

BOROUGH ASYLUM, Winson Green, Birmingham.—Clinical Assistant. No salary. Applications by August 5th.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications by August 6th.

CORK DISTRICT LUNATIC ASYLUM.—Second Assistant to Resident Medical Superintendent. Salary, £100, with £50 in lieu of rations, per annum. Applications by August 6th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

DOWNPATRICK UNION.—Medical Officer, Dispensary District. Salary, £115 per annum, and fees. Election on August 4th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by August 18th.

GENERAL INFIRMARY at Gloucester and GLOUCESTERSHIRE EYE INSTITUTION.—House-Surgeon. Salary, £100 per annum. Applications by September 1st.

GLOUCESTER COUNTY ASYLUM.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 20th.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Junior Resident Medical Officer.—No salary. Applications to the Honorary Secretary, Medical Committee of the Great Northern Hospital, 23, Upper Berkeley Street, Portman Square, W., by August 20th.

HARTLEPOOLS' HOSPITAL AND DISPENSARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications to J. Rawlings, Esq., 12, Cliff Terrace, Hartlepool, by August 18th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by August 4th.

LEEDS SCHOOL OF MEDICINE.—Resident Curator. Salary, £80 per annum. Applications to Dr. Churton, Park Square, Leeds, by August 6th.

MANCHESTER ROYAL INFIRMARY.—House-Surgeon. Applications by August 8th.

MANCHESTER ROYAL INFIRMARY.—Assistant Medical Officer to the Monsall Fever Hospital. Applications by August 8th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to Robert Calder, Secretary, 4, Commercial Court, 17, Water Street, Liverpool, by August 15th.

NORTH DUBLIN UNION.—Medical Officer for North City (No. 1 West) Dispensary District. Salary, £145 per annum. Applications to the Acting Assistant Honorary Secretary (Dr. Tate, North Dublin Union), by August 6th.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 16th.

QUEEN'S COLLEGE, CORK.—Professorship of Midwifery. Applications to be sent to the Under Secretary, Dublin Castle, not later than August 25th.

QUEEN'S COLLEGE, Ireland.—Professor of Midwifery. Applications to the Under Secretary, Dublin Castle, by August 25th.

QUEEN'S HOSPITAL, Birmingham.—Casualty Surgeon. Applications by August 15th.

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Assistant-Surgeon. Applications by August 7th.

SHEFFIELD UNION.—Medical Officer. Salary, £60 per annum. Applications by August 15th.

SKIRLAUGH UNION.—Medical Officer. Salary, £24 per annum. Applications to Thomas A. McCox, Clerk to the Guardians, Beverley, by August 9th.

STRABANE UNION.—Medical Officer, Dispensary District. Salary, £145 per annum, and fees. Election on August 15th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant-Physician. Applications by August 27th.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £70 per annum. Applications by August 15th.

WORKSOP DISPENSARY, Notts.—House-Surgeon. Salary, £120 per annum. Applications to the Honorary Surgeon, Mr. C. A. Whall, Worksop.

MEDICAL APPOINTMENTS.

BRYANT, T., F.R.C.S., Senior Surgeon to Guy's Hospital, appointed a Consulting Surgeon to the Bolingbroke House Pay Hospital.

FENNER, Robert, M.R.C.S.E., appointed Health Officer for the district of Notre Dame Bay, Newfoundland.

GIBB, William, M.B., C.M., appointed Assistant-Physician to Woodilee Asylum, Lenzie, *vice* John Keay, M.B., C.M., resigned.

GREENE, F. W., L.R.C.S.I., M.B.Univ.Dub., appointed Medical Officer to the Mallow Union Hospital, co. Cork.

HILL, J. Higham, M.D., F.R.C.S., appointed Government Medical Inspector for the United States of America at the Port of London.

HUGHES, Thomas Jones, M.R.C.S.E., L.S.A.Lond., appointed Medical Officer and Public Vaccinator to the Workhouse and First District of the Church Stretton Union.

HUGHES, Thomas Jones, M.R.C.S.E., L.S.A.Lond., appointed Medical Officer to the Loyal Caradoc Lodge of Odd Fellows, and to the Leebotwood Widow Protection Lodge of Odd Fellows.

JEPHCOTE, R. W., L.R.C.P.&S.E., appointed Medical Officer and Public Vaccinator to the Alcester District and Workhouse, *vice* J. Martin, F.R.C.S.E., resigned.

KING, David A., M.B., M.R.C.P., appointed Assistant-Physician to the Hospital for Consumption, etc., Brompton, *vice* Dr. Owen, resigned.

MALING, W. H., M.R.C.S., appointed Second House-Surgeon to the Sunderland Infirmary.

MARSHALL, J. G., M.B., appointed House-Surgeon to the Doncaster General Infirmary and Dispensary, *vice* W. Walter, M.R.C.S., resigned.

SANDFORD, H. V., M.D., appointed Medical Officer of Health to the Herefordshire Rural Sanitary Board.

SHEARER, Frank, M.B., C.M.(Glasg.), appointed Dispensary Physician to the Paisley Infirmary.

SKRIMSHIRE, Charles Parnham, M.R.C.S., L.S.A., appointed Public Vaccinator for the Brymmor District of the Crickhowell Union.

SMITH, J., M.R.C.S., appointed Medical Superintendent to the Dalrymple Home for Inebriates.

STAFFORD, Thos. J., L.R.C.S.I., appointed Medical Officer to the Boyle Union (No. 1 Dispensary District), *vice* E. T. Blakeney, L.K.Q.C.P.I., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

STARTIN.—On July 28th, at the Highams, Surbiton Hill, the wife of James Startin, of Sackville Street, Piccadilly, of a son.

TOOTH.—July 28th, at 34, Harley Street, the wife of Howard H. Tooth, M.B., of a daughter.

MARRIAGES.

DAVIES—BATCHELOR.—On the 1st instant, at the Congregational Church, Cheltenham, by the Rev. J. M. Blackie, LL.D., Francis Joseph Davies, F.R.C.S., of Abercarn, Monmouthshire, youngest son of W. J. Davies, J.P., F.R.C.S., of Penner House, near Newport, Monmouthshire, to Eleanor Batchelor, of Park Lawn, Cheltenham, second surviving daughter of the late T. B. Batchelor, of Newport, Monmouthshire.

THORP—ELIOTT.—July 26th, at Liskeard, Cornwall, Dr. J. H. Thorp, of Liverpool, to Miss A. S. Eliott, daughter of the late J. Eliott, banker.

DEATH.

MCCLELLAND.—July 31st, at 29, Marina, St. Leonard's-on-Sea, John McClelland, Esq., M.D., of 6, Lancaster Terrace, Regent's Park, W., late Principal Inspector-General of Her Majesty's Indian Forces.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE COMMUNICABILITY OF PHTHISIS.

SIR,—In the *Collective Investigation Record*, which reached me this morning, I notice the following passage under the above heading: "A great number of the returns (473) were simple negatives, containing only the word 'No,' meaning that no case had been observed by the member making the return, but without any expression of opinion." Now the circular issued to obtain answers as to the communicability of phthisis stated that the answer was to be "Yes or No" to the question whether the member had observed any case in which phthisis seemed to be communicated, and if so, he might give his experience upon certain points; so that the answer "No" does not mean that no case had been observed, but that no case in which phthisis seemed to be communicated had been observed, and in that way conveyed a negative opinion; at least, such was the intention of yours very truly,

W. J. B.

A. W. GRIFFIN.—The notice of new preparations is dependent on their scientific value and general interest to the profession, and not in any way a matter of business advertisement.

EDUCATION OF A DEAF MUTE.

SIR,—Can you, or any of your readers, kindly inform me the address of a lip-reading institution? My patient, aged 6, can utter short words and syllables, but is quite deaf.—Yours faithfully,

LICENTIATE.

MR. J. W. LADS will find that the works of Roscoe, Bloxam, Oliver, and Bentley, will suit his purpose.

HOT-WATER ENEMATA IN DELIVERY.

IN Dr. Beckingsale's communication on "Hot-water Enemata in Delivery," in the JOURNAL of July 14th, at the end of the last paragraph but one, the sentence, "On this account, it has not the after-relapsing effect of chloroform on the uterus it otherwise commonly has," should be: "and, on this account, chloroform has not the after-relaxing effect on the uterus it otherwise commonly has"—when administered in connection with the enema, being understood.

W. L. H. B.—Mr. J. F. West's essay on "Shakespeare from a Surgeon's point of View" was published in the *Birmingham Medical Review*, 1881, new series, vol. iv, p. 265. Copies may be obtained through the publishers, Messrs. J. and A. Churchill.

COMMUNICATIONS, LETTERS, etc., have been received from: Mr. H. A. Sinisty, Ealing; Mr. Fearnley, London, M.B., M.R.C.S.; Mr. B. Townson, Liverpool; Dr. Styrap, Shrewsbury; Dr. Illingworth, Clayton-le-Moors; The Pictorial World; Mr. F. A. Cooper, London; Mr. C. F. Coombe, Worthing; Mrs. Grant, Dumfries; Mr. F. W. Green, Mallow, Cork; Mr. H. T. Groom, Everton; Mr. Reginald Harrison, Liverpool; Dr. Manson Fraser, London; Dr. S. W. Smith, Pershore; Mr. James Barrow, Sunderland; Dr. D. A. King, London; Our Aberdeen Correspondent; Dr. J. Wigmore, Bath; Mr. J. E. Viney, Chertsey; Dr. Ravenhill, Birmingham; Mr. A. Thomson, Staffordshire; Dr. A. N. Jones, Manchester; Dr Sawyer, Birmingham; Dr. McDougall, Murrumburrah, Australia; Dr. P. O'Connell, Sioux City, Iowa, U.S.A.; Mr. A. W. Griffin, Bath; Mr. W. J. Simpson Ladell, London; Dr. Imlach, Liverpool; Dr. T. Hall Redwood, Rhymney; Dr. Dudgeon, London; Dr. Moritz, London; Mr. J. Martin, Alcester; Mr. R. Fenner, Betts Cove; Sir W. Mac Cormac, London; Messrs. Lewis and Sons, Clifton; Mr. A. H. Benson, Dublin; J. Robbins and Co., London; Dr. B. Foster, Birmingham; Mr. T. L. Walford, Reading; Dr. P. Burgess, London; Mr. F. Treves, London; Dr. E. Schwimmer, Buda-Pest; Mr. J. V. Fitzgerald, London; A Subscriber; Messrs. McMullin, London; Dr. D. Powell, London; Mr. H. Harris, London; Dr. J. Higham Hill, London; Dr. William Smyth, Banbridge; Mr. S. Huggett, Liverpool; Dr. E. L. McSheehy, Knaresborough; Mr. James Rhyton, London; Mr. R. J. M. Oswald, London; Dr. C. Baber, Brighton; Medical Student; Dr. Fairlie Clarke, Southborough; R. Sumner and Co., Liverpool; Dr. C. G. Comegy, Cincinnati; Mr. M. Duggan, Castle Eden; Dr. Orange, Crowthorne; Messrs. Wyleyst and Co., Coventry; Mr. J. Moore, London; Junior Surgeon I. M. S.; Dr. H. Sainsbury, London; Dr. Rabagliati, Bradford; Mr. A. Kempe, Exeter, etc.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON METRIA (SO-CALLED PUERPERAL FEVER).[1]

By LOMBE ATTHILL, M.D.,
Ex-Master of the Rotunda Hospital, Dublin.

YOUR Secretaries have requested me to initiate a discussion on the subject of Metria—a term which includes a number of affections which, though allied in some respects, are in others very dissimilar, but all of which are commonly classed together under the very incorrect title of "puerperal fever." I admit the force of their argument, that no more important or practical subject could be brought forward for discussion here; but I hesitated to accede to their wishes, because it is very recently that I read before the Obstetrical Section of the Dublin Academy of Medicine a paper on metria, which has already appeared in print, and from which my present communication cannot possibly materially differ. But, as your Secretaries still considered it advisable that I should bring the subject under the notice of this Section of the British Medical Association on the occasion of its annual meeting, I consented to do so.

The pathology of metria is still far from being perfectly understood. Two facts alone are admitted by all who have studied the subject carefully; namely, first, that puerperal women are liable, under certain circumstances, to be inoculated with septic matter conveyed to, and deposited in, the vagina by the hands of the attendants, as well as by other agencies, when, either through carelessness or ignorance, proper precautions have not been adopted to prevent such an occurrence; and that the disease produced by such inoculation is not an unfrequent source of one of the forms of metria; secondly, that puerperal women may be self-inoculated by poisonous matter originating within their own bodies, from the decomposition of blood-clots formed within the uterus after parturition, or of portions of the membranes or placenta which have been retained *in utero*; the only difference of opinion on this point being, that Dr. Matthews Duncan and others term the disease thus produced "sapræmia"—that is, resulting from the absorption of putrid matter—thus distinguishing it from "septicæmia," or the disease produced by "organisms which, when conveyed to the blood, multiply indefinitely in it;" while those which are the product of putrefaction "do not survive, far less grow, therein." (Dr. Matthews Duncan on Puerperal Fever, *Lancet*, Nov. 6th, 1880.)

I hardly think that anyone will dispute the correctness of the foregoing points; they have been established beyond all doubt; and it is certain that poison, introduced into the system by one of the two ways indicated, is the cause, in the vast majority of cases, of so-called puerperal fever, whether occurring in private or hospital practice. But there are many who believe that the whole subject is summed up in a belief of these very important propositions, and who think that to go outside these lines is only to cause difficulty and to create confusion. I admit this; but it seems to me that such an argument is almost an appeal *ad misericordiam*, and that it cannot be admitted for a moment. I believe that, in addition to the two preventable forms alluded to above, we have others; and I ask the members of this Section to consider whether we have not, in addition to these, two other forms of metria, which it may not be possible to guard against—namely:

1. A form of self-infection, occurring under special conditions, to which I shall allude by-and-bye, which is not preventable by the adoption of any antiseptic treatment;

2. An epidemic, highly infectious, form, which spreads by the same means as ordinary epidemics do.

Before commencing the discussion of these propositions, it is essential to bear in mind that I entirely concur in the opinion now generally held, that septicæmia, occurring in a puerperal woman, is not capable of being communicated to another puerperal patient by any means other than the direct transfer of the infectious matter to some portion of the mucous membrane lining the genital track Septicæmia, however, when it attracks a puerperal woman, may be spread by various agencies, as well as by the hands of the attendant—for instance, by the nozzle of a syringe, by the use of infected sponges, by imperfectly washed napkins, bed-linen, etc.; but not through the medium of the air breathed by the patient. Of the truth of this I have not the slightest doubt.

You will observe that I have spoken of the two ordinary forms of puerperal septicæmia as being preventable. It is evident that, with thorough cleanliness, and the use of antiseptic precautions, septic poison should never be introduced into the patient's system by the attendants; further, I believe that it is possible to prevent self-infection in a healthy woman, by adopting precautions to insure a good and permanent contraction of the uterus, and by washing out the uterus whenever we have reason to suspect the existence of clots, etc., in it, with a disinfecting fluid. With the former object, I make it a practice to put all patients in whom a relaxed condition of the uterus exists, on ergot, from the moment labour terminates, continuing its administration for at least a week. I believe a relaxed condition of the uterus to be a very common predisposing cause of self-infection in puerperal women; it favours the formation of clots *in utero*, and also, the orifices of the uterine sinuses being left open, the absorption of septic matter is favoured.

In proof that I do not exaggerate the importance of imperfect contraction of the uterus, as a main factor in the production of puerperal septicæmia, I may point out that I recently saw, in consultation, three patients suffering from this affection, in all of whom labour had been so rapid that the child was born before the arrival of the medical attendant; and, it is a well-known fact, that relaxation of the uterus is very liable to follow the too rapid emptying of that organ.

This train of reasoning has led me to believe that imperfect uterine contraction is one of the causes of the frequent occurrence of septicæmia in unmarried women. The mortality from septicæmia amongst them is very great, and there is no doubt but that the great mental distress these poor creatures suffer, interferes with the recuperative process which should take place rapidly in the uterus after parturition. The muscular fibres of the organ do not contract as they should; the blood-supply, consequently, is not cut off, the mouths of the sinuses remain open, the denuded placental site, instead of becoming rapidly restored to its normal condition, becomes unhealthy, and the fœtid discharge, which, under these circumstances, takes the place of the normal lochia, enters the system, either directly through the open mouths of the placental sinuses, or is absorbed at the site of some fissure in the mucous membrane lining the genital track. This is one form of puerperal septicæmia which I fear is beyond the reach of preventive treatment. No antiseptic precautions can prevent its occurrence, no treatment that I know of will stay its progress. In patients suffering from certain forms of chronic disease a similar condition is observed, and similar results follow.

In my opinion, the infection arising from any of the forms of metria to which I have alluded, cannot be carried by the attendants from one patient to another, if precautions be adopted to prevent it. And only a year ago I was strongly inclined to believe that epidemics of so-called puerperal fever would not occur so long as such precautions were adopted. Those enforced by me among the pupils attending the Rotunda Hospital were the following.

1. Students attending the practice of the hospital should not undertake *post mortem* examinations, be engaged in dissections, or attend an hospital containing patients suffering from infectious diseases; and

2. Before proceeding to examine any patients, they washed their hands in a solution of carbolic acid.

During the first six years and a half of my mastership, these sufficed to prevent the occurrence of anything like an epidemic of so-called puerperal fever. Deaths from septicæmia, especially among unmarried women, from time to time occurred, but the disease never spread; in August last, however, the hospital being at the time extremely healthy, a patient was admitted who complained of pain in the abdomen, and who vomited constantly, the fluid ejected being greenish. She stated that she had been in labour for more than twelve hours, and that, during the whole of that time, she had been vomiting; and it was subsequently elicited that she had been complaining for some days previously, and also that she had been seen, at the commencement of labour, by some practitioner, who advised her to go into hospital. The os, at the time of admission was about one-third dilated labour progressed very slowly

[1] This paper was prepared by Dr. Atthill, who was announced in the programme to open the discussion on the subject. He was, however, not present, and his paper was not submitted to the Section. It is published here to make the series of papers on the subject complete.

and she finally was delivered by the forceps. Vomiting ceased after delivery for a time, but soon recurred, everything swallowed being ejected, with large quantities of greenish fluid. The abdomen became tympanitic, the pain intense, matters went from bad to worse, and she died on the fourth day after delivery. Her appearance strongly resembled that of a patient suffering from typhus fever.

Another patient was admitted on the same day as the last patient, and she lay for a short time in the bed next to her. This patient's labour also was slow, but it terminated by the natural efforts. She was attacked with symptoms of acute peritonitis thirty-six hours after delivery, and almost immediately afterwards we noticed a very peculiar, almost black, appearance of the face. The course of the disease was identical with that of the preceding case, but was even more rapid. The first symptoms showed themselves on the morning of the 29th, and she died on the 31st.

The disease now spread rapidly, and so virulent was the epidemic that, out of twenty-nine women admitted during six days which intervened between the delivery of the first patient and the issue of the order to refuse admission to all applicants, eleven women were attacked, and nine died.

The admission of patients being stopped, the wards were thoroughly disinfected, the walls lime-washed, the floors washed with a strong solution of chloride of lime, the cupboards, presses, etc., scoured, the nurses' clothes, as well as their bedding, being washed and aired, and placed in the hot-air chamber. Patients were re-admitted on September 12th; and from that date till the expiration of my mastership on November 4th, during which time 118 women were admitted into the hospital, the health of the patients was excellent, and, I am informed, continues to be so still. No more successful effort to stamp out disease than this was ever recorded. This, and the fact that the epidemic was distinctly imported into the hospital, and that it did not originate in it, are facts as important as they are satisfactory; and though the occurrence of the outbreak was a cause of great distress to me, and though it was a great disappointment that, at the very close of my mastership, such a misfortune should have happened, still these two facts lessened the regret I naturally experienced.

Some years previously, a patient suffering from erysipelas of the head and face was, during the night, sent up to the labour-ward, her condition not having been detected till she was being undressed. The child's head was in the perinæum, and she could not be sent out. She was at once removed to a separate ward, and early next morning transferred to a fever hospital; but though her stay in the Lying-in Hospital was so short, several patients were attacked, not with erysipelas, but with so-called puerperal fever, and one died. The disease was limited to the one ward. I ask you, gentlemen, to consider what the disease attacking these women was. To me, it seems to have been a disease originating by the introduction into the system of a puerperal woman of the infection of erysipelas, which infection was modified by the peculiar state of the system and of the blood which exists in puerperal women, and which, therefore developed an apparently different disease; and I am strongly inclined to the belief that outbreaks of so-called puerperal fever, when it assumes an infectious and epidemic form, are due to the introduction of the poison of some ordinary zymotic disease into the system of a puerperal patient, the symptoms being, under such circumstances, totally different from those occurring in cases of septicæmia.

REMARKS ON METRIA.

Being an Introduction to a Discussion in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Liverpool, August 1883.

By JOHN THORBURN, M.D.,
Professor of Obstetric Medicine in Owens College, Manchester.

I had no intention of bringing the subject of Metria before this section until I learned that it was about to be introduced as one of the special subjects for discussion. One or two points in connection with it I had hoped to bring before the Obstetrical Society, in order to obtain some expression of opinion upon them. This occasion, however, seems to furnish an equally good, if not superior, opportunity.

In March 1881, I ventured to make some remarks on the subject of metria to the Manchester Medical Society, which I published and forwarded to many gentlemen now present. Following in the lines of an address delivered by Dr. Matthews Duncan at Birmingham in 1880, I adopted the views now almost universally held, discarding altogether the idea of a distinct and specific puerperal fever, and considering the symptoms so familiar to us all after delivery as having their origin in more than one separate cause. The conditions of the puerperal system are such that there is a strong tendency for these symptoms, however diversely originated, to assume a somewhat definite and uniform character, still designated by most of us as "puerperal fever." The ordinary forms of sepsis and zymosis are here at work in a soil specially prepared to influence them by the blood-changes of pregnancy and labour.

I will not discuss the special part played by each of these causes, by pyæmia, septicæmia, sapræmia, and the like, as I feel sure this will be done more ably by others, but I will confine myself to three moot points.

1. The position of the zymotic diseases as a frequent cause of metria.

2. The difficulty in including epidemic "puerperal fever" in the same kind of classification as the more sporadic forms.

3. The advisability of adopting the term metria, and abandoning altogether that of puerperal fever. On the last point, it would be of great importance to obtain, as far as the rules of the Section permit, a collective expression of opinion.

1. As regards the share taken by the zymotic diseases in the production of symptoms wholly characteristic of the puerperal state, there is much confusion of thought and expression. That in some way the poisons of scarlatina, or erysipelas, or typhoid fever may sometimes cause in the puerpera symptoms scarcely distinguishable from those of puerperal fever, is hardly now disputed, even by those who still hanker after the exploded idea of a fever of that name which is strictly *sui generis;* yet one so far removed from this idea as Dr. Duncan, does not include zymosis along with septicæmia, or in his list of causes.

On the one hand, every obstetric practitioner must have seen cases of typical, and even mild scarlatina, running their course unaffected in any way by the coexistence of the puerperal state. I have seen intense phlegmonous erysipelas of one limb in a recent puerpera, who, beyond the moderate rise in temperature, showed no other metrical or puerperal symptoms, and suckled her child successfully throughout.[1]

On the other hand, who has not seen cases of puerperal fever, if ever there were such a thing, in its most typical and fatal form, where the sudden rigors, intense tympanites, high temperature, facial expression, and rapid death, with or without colliquative sweating or diarrhœa, were our only guides to diagnosis; while the subsequent clear proof of scarlatinal infection of the patient, or the handing on of it to nurses or relatives, or even, more rarely, the occurrence of specific rash in the hour of death, have clearly stamped the disease as metria of scarlatinal origin? Such cases are usually hushed up, but the consulting physician sees too many of them.

If puerperal fever and metria are to be used as collective terms at all, I do not see how, from a practical point of view, we can avoid including zymotic causation. A puerpera who has scarlatina which can be distinctly diagnosed, has scarlatina, and there is an end of it; but a woman who has the symptoms roughly described above, has puerperal fever, or metria, or whatever we are compelled to call it; and scarlatina, or drain-poison, or erysipelas may, for ought we know, be its cause.

2. As regards epidemic puerperal fever, many who have adopted the modern views as to ordinary sporadic cases of disease, hesitate to apply them to epidemics, where numerous cases are met with in rapid succession, or side by side, and when the cases are all of the same severe and fatal character. A further knowledge than we yet possess of how disease-germs propagate, or, in certain circumstances, become hybrid, or how their activity becomes attenuated or intensified, will probably make this matter plain enough; but, meanwhile, no one believes that sporadic hospital-gangrene, or erysipelas, which can often, in ordinary practice, be traced to its real sources, is a different disease, a disease more really *sui generis*, when it attacks almost every patient at the siege of Lucknow, or in the trenches before Sebastopol. Precisely the same causes—and there is seldom only one cause—are at work; and if they occasionally produce an epidemic with remarkable uniformity and severity of symptoms, it is exactly analagous to what occasionally happens in a lying-in hospital, or, more rarely, in individual practice. From this point of

[1] Several cases of erysipelas in conjunction with puerperism, but not causing metrical symptoms, are recorded in the *American Journal of Obstetrics* by Campbell and others; and Hugenberger, in the *Archiv für Gynäcol.*, vol. xiii, p. 387, mentions many attacking the genitals; but there seems to be an agreement that, in all these cases, the phlegmonous character was absent.

view, and it surely cannot, nowadays, be considered a purely theoretical one, there would seem to be no difficulty in conceiving how that tolerably definite train of symptoms which ensues from the action of septic or zymotic germs in the hyperinotic blood of a puerpera may occasionally become stamped with the characters of absolute uniformity and epidemic virulence. The wave passes over, as those of all epidemics do, and we return to sporadic cases. Time will not permit me to further work out this.[2]

3. We have, lastly, the question of nomenclature, in many instances a very important one. If we are agreed that puerperal fever, meaning thereby a specific fever, totally distinct from the ordinary sporadic cases of septic or other poisoning, is non-existent, what are we to do with its name? Are we, as common sense would, I think, suggest, to abandon it altogether? Or are we to use it for the purpose of denoting something else which involves a totally different form of ideas, and the belief in which ignores or deprecates any such thing as a specific fever? Or are we, as is practically done on all hands, to call our apparently desperate cases puerperal fever, and to carefully abstain from giving the title to cases which seem likely to recover, or when the name would be dangerous to our own practices? Those who are in general practice, will agree with me that considerations of this kind do often bear on the use that is made of a term which has ceased to have an accurate scientific meaning, but which has not ceased to have a very serious popular one. Why should we retain the term at all, except those of us who are still prepared to defend the pathology involved? Every argument of which I can think points the other way. In some instances, there is an obvious advantage in retaining terms which have lost their original meaning, but which still do convey something to the mind that is universally agreed upon. But this is not the case here. To one man the name conveys its original meaning, and thereby serves to perpetuate a fallacy; to another it may have the more harmless meaning of a collective term for nearly all the febrile affections of the puerperal state. To the general public it means, and will for many years continue to mean, death and despair. It is possible, of course, to draw some kind of boundary at which puerperal fever commences, and ordinary septic inflammation, or fever, ends, just as one might place rheumatic fever on one side of a line, and acute rheumatism on the other; but surely, if this latter distinction were practically one of almost life and death, we should all consider it as discredited and condemned.

If, then, we are to give up puerperal fever, are we in a position to do without any collective term? Are our ideas as to the varied forms and results of blood-poisoning so advanced, that we can now say definitely, what I hope we always try to ascertain: "This is a case of pure inflammation of this or that organ, independent of any sepsis; this is a case of septicæmia, of a common surgical type; this is a case of purulent absorption, and that of zymotic poisoning?" I am bound to confess that I should be compelled to change my diagnosis and terminology, in many cases, almost from day to day; that what appeared to me at first to be a peritonitis, might turn out to be a typhus or scarlatina, or might leave strong suspicions that it was so.

If, then, we must have another collective term, what is there better than metria? It is ready to our hand, and is simple and easy to pronounce, which, in these days of barbarous Græcomedicalese, is something in its favour. It was strongly recommended by Dr. Farr, that unrequited master of vital statistics. It was adopted by the late Registrar-General, and is already incorporated in our national health history-books. It is sufficiently indefinite to serve the purpose of a provisional and collective term. The public will soon understand by it all that is required—viz., a critical form of febrile or inflammatory attack, to which puerperal patients are liable, but which depends on many causes, against which they and we must guard. They will build their hopes or fears, not on a mere name, but on our interpretation of the individual symptoms. The profession will recognise it as conveying no exploded views on pathology, but as leaving an open door for newer ones. They will consider it as a generic term for symptoms, common in their character and confined to the puerpera, though allied to symptoms otherwise modified in the surgical ward; and demanding, in every case, the earnest study of the practitioner as to their causation, prognosis, and treatment.

[2] It would be inexcusable not to make some reference to the very able papers of Dr. Napier, in the *Obstetrical Journal* for 1880, on puerperal fever. He, along with Fordyce Barker, defends the old position of a specific puerperal fever *sui generis*. The time-limit imposed by our regulations, allows no opportunity of consulting, step by step, such arguments as he adduces. I can only say that his invaluable collection of facts produces in me an opinion diametrically opposed to his own.

Abandoning the term puerperal fever, until the pathology of blood-poisoning is further advanced, we can only choose between metria and chaos.

If our rules permit such a thing, and if there be anything like unanimity on this point, it would be of much service if we could give forth some collective recommendation. Its general adoption would save a world of trouble and misunderstanding.

I trust that this concise, and perhaps somewhat dogmatic, treatment of the three points thus raised will be taken as holding out topics for discussion, rather than as an attempt fully to discuss them.

OBSERVATIONS ON PUERPERAL FEVER.

Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Liverpool, August 1883.

By THOMAS MORE MADDEN, M.D., F.R.C.S.E., Dublin,

Obstetric Physician to the Mater Misericordiæ Hospital; formerly Examiner in Midwifery at the Queen's University; Assistant-Physician to the Dublin Lying-in Hospital; and past Vice-President of the Dublin Obstetrical Society.

PUERPERAL fever, or metria, has always been a favourite subject of obstetric controversy, and we should, I think, be much indebted to Dr. Thorburn for so ably introducing the consideration of perhaps the most important practical question that can be here discussed; for, as long as we have one death in every five hundred deliveries—in other words, that 5,514 women die annually in this country after childbirth from an infective disease consequent on parturition—it cannot be unimportant for us to discuss its prevention and treatment (*Annual Report of the Registrar-General for* 1882).

It would be obviously impossible, within the very limited time at our disposal, to give any exhaustive or adequate attention to so vast a subject as this. We may, however, each, from our own clinical experience, say a few words on those points which appear to us of great practical importance.

According to the annual reports of the Registrar-General, no fewer than 44,306 deaths from metria were registered in England between the years 1847 and 1881 inclusively. To these must be also added 120,140 fatal cases registered within the same time, and tabulated in another column as resulting from "childbirth and metria." In other words, 164,446 deaths from septic puerperal disease have occurred in this country in a shorter period than the lifetime of many of us who are now discussing its prevention and treatment.

Nor in Ireland has the mortality from this cause been less alarming than in England. Thus, we learn from the registration reports that, during the past ten years, about 3,500 deaths from metria have been registered in Ireland. These figures, however, I think by no means represent adequately the actual mortality from puerperal fever in either country. The majority of parturient women, especially in country districts, have no skilled medical assistance during labour, being then too generally dependent on the good offices of some friendly neighbour or midwife. Under such circumstances, when death from metria occurs, we can hardly expect any accurate statement of its true cause. And probably the very last cause that would willingly be assigned by an ignorant or unscrupulous person for the death of anyone under his or her care after delivery would be puerperal fever.

The statistical reports just referred to might also be cited, did time permit, to prove another fact of great practical importance, viz., that, notwithstanding the unquestionable advance which, within the past few years, has taken place in the obstetric art, puerperal fever or septicæmia is now as rife as at any former period. And we are apparently still as far as ever from that promised "stamping out" of puerperal fever which has been prognosticated so confidently by some obstetricians as the result of the recently improved methods of delivery and antiseptic treatment of puerperal patients. But, on the other hand, we have certainly progressed materially of late years in the treatment of all puerperal diseases, and more especially septicæmia or metria.

Pathology of Puerperal Fever.—Dr. Atthill's views on this subject appear to have been generally adopted by other recent authorities, many of whom now agree with him in believing that, in the first place, there is no such specific disease as puerperal fever—that is, a specific disease in the same sense as small-pox or scarlatina; secondly, that inoculation or absorption of septic matter from without is a frequent cause of one form of metria, *i.e.*, puerperal septicæmia; and, thirdly, that puerperæ frequently become self-poisoned by auto-infection from decomposition of retained clots, or

shreds of membrane or placenta; the result being what some call puerperal sapræmia, in contradistinction to septicæmia. These are Dr. Atthill's views; and his experience has been so great, and his authority is so high, that it is with great regret I find myself obliged to dissent, as I do, *toto cœlo*, from the first of them, and to some extent from the others also. We are, however, met here to arrive at accurate conclusions on debatable questions, by the exchange of our individual experiences and views. Hence, having been for upwards of twenty years in practice, and having been for some years connected with the largest lying-in hospital in Great Britain, I have had some opportunity of gaining experience on this subject. I have, therefore, no hesitation in saying that, in common with others who have had similar experience, I am as convinced as I can be of any fact whatever of the existence of puerperal fever or a specific infectious disease peculiar to puerperal women. The entity of this disease is in no way affected by whatever name we may choose to term it; and whether we speak of it as puerperal fever, metria, septicæmia, utero-peritonitis, sapræmia, or by any other appellation, its distinct existence remains as unmistakable as that of measles, scarlatina, typhoid or typhus fever, or any other zymotic disease; although its predominant symptoms are varied, as those of these diseases also are, at different periods, and during different epidemics, by the prevailing atmospheric epidemic constitution, by the general condition of the patient, by the intensity of the septicæmic intoxication in each case, and by a variety of other modifying circumstances.

In considering a malady of such gravity as this, any needless subdivisions or hair-splitting pathological distinctions are, I think, misplaced, and are rather calculated to embarrass than to assist the practitioner who has to deal practically with the different aspects of the disease at the bedside of the puerperal patient. Hence I think we should still retain the old name of puerperal fever, as most generally applicable, and conveying no debatable theory.

Causes of Puerperal Fever: Infection, Auto-inoculation, Hospitalism, etc.—With regard to the causation of puerperal fever, several much disputed questions present themselves. For my own part, I regard puerperal fever as a zymotic infective disease, prevailing periodically as an epidemic, and being, moreover, endemic in some places, under certain circumstances.

It is unquestionable that the disease may result from infection with the poison of other zymotics, such as erysipelas, scarlatina, and typhus fevers, as well as be induced by auto-inoculation with septic matter self-generated in the patient's system, or by hetero-inoculation with septic matter introduced from without. Dr. Burdon Sanderson's views with regard to the gradually increasing virulency of successive inoculation with the exudations of peritoneal inflammation, have been gradually accepted by pathologists. According to this doctrine, if the exudation of a simple peritonitis be injected into the peritoneum of another animal, the disease assumes a more active form in the second than in the first instance; and so on gradually develops its intensity, until at last a virus is reached of the virulence of malignant peritonitis in the human subject. This gradual evolution from traumatic infectivity to the intensified virulence of malignant septicæmia, concludes Dr. Sanderson, teaches plainly what we could not otherwise learn.

The same view is also deducible from clinical experience. Thus, in the Dublin Lying-in Hospital, before any epidemic outbreak of puerperal septicæmia, a few sporadic cases of puerperal fever are noticed to occur, at gradually shortening intervals between them. These cases are usually at first of a mild type, and most of the patients primarily attacked recover. Soon, however, the number of the cases and the virulence of the disease increase, until the hospital at last becomes the hotbed of epidemic puerperal septicæmia, from which recovery is exceptional, and which cannot be arrested until the institution has been closed for some time.

It would, therefore, be impossible to glance, however briefly, at the etiology of puerperal fever, without some reference to the alleged influence of lying-in hospitals in the epidemic spread of this disease. For many years I doubted that these hospitals had any bad influence; and, in former discussions on this subject, I took part in maintaining that even the largest institutions in which lying-in women are aggregated could be, by proper hygienic management, conducted without any fear of their ever proving centres of epidemic puerperal disease; and I only regret that, with my present experience, and from a full review of the facts bearing on the subject, I can no longer hold this view. The mortality caused by puerperal fever in the population at large, great as it is, amounting, as I have already observed, to about one death in every 500 deliveries, is fearfully exceeded in all special lying-in hospitals, in which large numbers of puerperal women are aggregated together. In these institutions, the germs of septicæmia are developed with a rapidity and attain a virulence unknown under any other circumstances. Thus, in the two Dublin lying-in hospitals, the mortality from puerperal fever is now five times larger than in extern deliveries in the population at large throughout England, as shown by the last reports of the Registrar-General and of the Hospital Board of Superintendence.

There is unquestionably much to be said in favour of large lying-in hospitals, such as that admirably managed institution the Rotunda Hospital, which is an enduring monument of the self-sacrificing charity of its founder, a member of our profession, and is the justly revered Alma Mater of the Dublin School of Midwifery, which has done so much for the progress of obstetric science. But vast as are the benefits that have been conferred by great maternity hospitals such as this on innumerable women in their hour of direst trial; countless as may have been the lives therein saved from all the emergencies of childbirth; great as is the utility of such institutions as centres of obstetric education; yet all these considerations are, I fear, outweighed by the fact that puerperal fever therein finds its favourite *habitat*, and that its virus radiates thence at certain intervals in outbursts of epidemic malignant puerperal septicæmia.

Amongst the causes of puerperal fever, some reference should be made to laceration, during labour, of the cervix uteri. This accident, especially where the injury has been occasioned by the abuse or premature employment of the forceps before the natural dilatation of the os, is probably a very important, though generally entirely unrecognised, factor in the modern etiology of puerperal septicæmia. Under such circumstances, the danger of rupturing the undilated parts is self-evident. And it is equally obvious that thereby is afforded a ready channel for the auto-inoculation of the patient with any septic poison existing in the lochial discharge, which may be absorbed through the raw edges of the lacerated surfaces, and thus give rise to septicæmia. There can be no question as to the toxic effect of inoculation with even apparently healthy lochial matter; and, therefore, much more likely is this to occur when the lochia are in an abnormal or vitiated condition, as is so generally the case a few days after difficult and instrumental deliveries.

Treatment.—There can be no question of the general fatality of epidemic puerperal fever; but still, we have improved considerably in our treatment of this disease, as shown by its result. It is not so very long since an eminent obstetrician reported that he would quite as soon be called to a case of hydrophobia as to one of puerperal fever. I remember hearing the late Dr. Stoker, in the course of a discussion on this subject, saying that, during an extensive practice, extending over forty years, he had very frequently been called in consultation to cases of puerperal fever in the later stages, and that, during this long period, he had never seen a single instance of the kind in which the patient recovered. Now, I am sure that there is no practitioner present who, thanks to the recent progress of obstetric medicine, has not been enabled to treat successfully at least some of those cases which, only fourteen years ago, proved uniformly fatal in the practice of one of the most eminent physicians of his day.

The treatment of puerperal fever must be governed by the predominant symptoms of each case, and depends largely on the prevailing epidemic type of the disease, which varies widely at different times. Even within the comparatively short period included in my own obstetric experience, several changes have taken place in the prevailing type of puerperal fever in successive epidemics, and hence in the treatment required. We now seldom, if ever, meet with the true inflammatory utero-peritonitis, for which, in my student days, mercury with opium, and free depletion by leeching, were almost invariably prescribed. I well remember often seeing the puerperal patient's abdomen covered, under such circumstances, by what the late Dr. McClintock graphically described as a poultice of leeches. And, I may add, that I have still a lively recollection of the benefits derivable, in appropriate cases, from this line of treatment. Within the last fifteen or eighteen years, however, I have never seen a case of puerperal fever in which any form of depletion could be tolerated; the disease having now, in common with all others, assumed an asthenic, or typhoid, form, and like them appearing more in the character of a septicæmic, than of a true inflammatory malady.

Thus, when, some years after my first acquaintance with the practice of the Rotunda as a student, I became one of the medical staff of the same hospital, two forms of puerperal fever came before me;

one with marked uterine pain and tenderness and abdominal distension, and the other without any localised pain; both accompanied by a low typhoid condition tending to death, and obviously requiring stimulation, and especially the free use of turpentine by the mouth, by enemata, and by external application in stuping the abdomen. The form of puerperal fever now most frequently met with is distinctly remittant in its type. Several cases of this kind have come under my observation in which the fever was of the tertian character. Still more usually, however, there are daily matutinal remissions. Thus the temperature and pulse in the second week of the illness often fall each morning to little above normal, and again rise throughout the afternoon, until in the evening the former has reached 105°, and at the same time the pulse becomes above 120.

In the treatment of the remittent forms of puerperal septicæmia, our main reliance must be placed in quinine. This should be given in medium doses of from three to four grains at short intervals of three to four hours, and continued until the pulse and temperature have been sufficiently reduced, and cinchonism has been maintained for some days.

I may here repeat that, with very few exceptions, all the cases of puerperal fever I have recently seen were of an essentially asthenic type, presenting all the symptoms of so-called malignant puerperal fever or septicæmia, and, consequently, were not suitable cases for any form of depletion; but, on the contrary, required the free use of stimulants and nutriment.

Whatever other treatment may be indicated, however, the use, twice daily, of warm antiseptic intra-uterine and vaginal injections is essential in every case of puerperal septicæmia. The use of such injections, for the purpose of thoroughly washing out septic exudations from the cavity of the uterus, is self-evident. But, at the same time, it should be said that they require to be used with far more caution than is generally practised. Nor should we ever fail to impress on the nurse, in such cases, the risk of probably injecting virus into the open uterine sinuses; or, on the other hand, of forcing the injected fluid through the patulous Fallopian tubes. I have more than once seen injury caused, in both these ways, by want of such caution in the use of the ordinary siphon syringe.

Mr. F. J. BAILEY (Liverpool) said that there was no doubt at all that, with the advance in the obstetrical art, the term puerperal fever—which, in olden times, was commonly used—ought not now to be used to embrace all those forms of feverish disturbance that were met with. A condition of feverish disturbance was, he believed, induced in all women by the want of proper nourishment, and the absence of sufficient of the nitrogenous element in food; and the poisons induced by the presence of scarlet fever and diphtheria ought to be classed under their distinctive names. Those cases of fever following septicæmia from putrid clots or small portions of retained placenta inducing alarming fever and inflammation of a characteristic kind, should also be classed under their generic name. Then, again, there was pyæmia, from pus floating about. There was the condition known as surgical fever, arising from the shock to the system. The use of forceps did not induce it, nor did a torn perinæum; in many, the early use of the forceps would prevent it. Great cleanliness and antiseptics were no doubt absolutely necessary.

Dr. FANCOURT BARNES (London) had for some years, from his connection with the Royal Maternity Charity and the British Lying-in Hospital, seen many cases of puerperal fever. He was content to retain the term puerperal fever, as fairly describing that condition in a lying-in woman where there was suppuration present in the joints, high temperature, with suppression of the lochia, terminated by death. This form was well known to be that variety which was most likely to be conveyed by the midwife or practitioner to another patient. The origin of these cases was obscure. In many there was no discoverable lesion of the parturient canal, and yet, within a few hours, the symptoms above-mentioned would present themselves. When a patient in the Lying-in Hospital caught scarlatina or diphtheria, that was not puerperal fever, but scarlatina or diphtheria. He thought the most convenient classification was that introduced by Dr. Robert Barnes, viz., autogenetic and heterogenetic. It was difficult to treat puerperal fever. The wisest thing was to adopt prophylactic measures. These he had used for several years in the British Lying-in Hospital. No patient was left lingering in labour until her pulse and temperature had risen. When the os uteri was fully dilated, and the head made no progress, the forceps was indicated. Carbolic washings of the genitals, delivery, in hospitals, under the carbolic spray, and due contraction of the uterus, secured by quinine, opium, and ergot, constituted the chief points in the immediate antiseptic system. Since he had adopted these measures in the British Lying-in Hospital, 450 women had been delivered, with only two deaths. This was, of course, far below the general mortality of lying-in women throughout the country. This was, at least, 1 in 100.

Dr. ALDERSON (Hammersmith) took great interest in the subject of metria. Cases of puerperal fever had caused him much anxiety. He thought it a matter of importance to recognise the disease at the earliest possible period; perhaps only then could fatal results be prevented. Too often, it was thought, puerperal fever did not occur after easy labours. His most serious cases had been after perfectly natural and easy labours; and it was, therefore, most important to be watchful after the easiest labour. Where metria occurred, there was, generally, at an early period, on the second or third day, some departure from normal convalescence; either a rigor, a quick running pulse, a distended abdomen, offensive lochia, diarrhœa, or excessive sickness, in acute puerperal fever always. He did not believe in serious cases of metria occurring in patients who were doing splendidly well up to the third or fourth day, as Dr. Lister mentioned in his remarks, recorded in the *American Obstetric Journal*. As to its origin, there were perhaps autogenetic causes, but they were rare; heterogenetic origin was the rule. The poison was brought from without. The result of his experience and observation was that, as Dr. Graily Hewitt had observed: "Puerperal fever consists, more or less, in an injection into the blood of some poisonous animal matter; it is a form of pyæmia." He regretted to say that he conveyed it, in attending three patients, twelve years ago, after examining and handling a case of erysipelas of the scrotum, sloughing; although he had in the interval driven in a dog-cart to Hanwell, and some hours had elapsed. The first and third cases were both primiparæ; the second a multipara, and, in consequence, he believed, less liable to receive the poison, and had only some mild symptoms, and quickly recovered. The other two were fatal; they resembled each other in every particular. It might frequently follow attending patients after examining cases that would at first perhaps hardly be thought likely to produce metria, such as whitlow, small abscesses, etc. By being on the watch for the earliest symptoms of this dire disease, he had not had a fatal case of puerperal fever for several years; and also, by taking all prophylactic precautions against any chance of conveying any germs from septicæmic cases. It is an interesting and important question, when we must suspend practice. He had carried out for many years Dr. Williams's suggestion, at the Obstetrical Society, 1874, of disinfecting his clothes and himself with the fumes of iodine, and with the happiest results.

Mr. J. E. BURTON (Liverpool) would pass over the differential diagnosis between these two forms of metria, and glance for one moment at the cause of sapræmia, and some of the earlier stages of the disease. He would suppose a clear and undoubted case of sapræmia or putrid intoxication. The patient was poisoned by her own putrid discharges. But a patient's discharges should not be putrid, and would not be so without cause. This cause lay in too long retention of the normal muco-sero-sanguineous discharges. This abnormal retention of discharges was in its turn the result of imperfect *post partum* uterine contraction, or even of complete absence of them; and the matter was traced a stage further back. This want of contraction, or imperfect contraction, was the result of inhibitory influence, produced by chill, excitement, grief, or perhaps other kinds of nervous shock. Thus he brought back all these cases of sapræmia to imperfect *post partum* uterine contraction as their prime cause. In nearly all these cases, if a digital examination were made, the os uteri would be found gaping, the body of the uterus forming an actual cavity, the blind end of which lay at a lower level than the opening, so that the discharges could not escape unless the uterus contracted and expelled them. The uterine wall would be found hard, œdematous, and tender, with its power of contraction almost or altogether in abeyance, so that the discharges which the uterus could not expel, and which could not escape by their own gravity, from the position of the patient, formed a sort of pool, only the overflow of which found its way out. Under such circumstances, it was not wonderful that chemical changes set in. The germs of change were not far to seek; the intestinal canal was full of them, and it was no difficult matter for them to find their way through the intestinal walls into the vagina, in spite of antiseptic precautions and occlusive dressings over the vulva. Even in those cases in which portions of decidua or placenta remained in the uterus, the course of events was much the same; the one point of difference being that, in the one case, the uterus failed to expel normal liquid discharges, and in the other the uterus failed to expel a

solid normal discharge. In both, the first step in treatment was the timely removal from the uterus and from the body of everything that should be expelled. With this object in view, injections were employed to wash out the vagina and uterus; enemata of castor-oil and turpentine were used, and hot poultices were applied over the abdomen, as both these means produced uterine contractions; and further, with the same object in view, he had for some time past always administered ergot, and kneaded the uterus as far as the case would allow. He considered these latter important adjuncts to the other treatment. It was almost time to cast off the traditional binder, at any rate after the first twenty-four hours; and, in place of it, to resort to inunctions, kneading, and massage. If this were adopted as the routine practice, the uterus would be stimulated to more effectual contractions; there would be less sapræmia. It ought to be the first duty of medical men to act the part of police officers, and see that all discharges "moved on." It was better to get rid of them than to try to render them innocuous. He had intended to speak of the connection of erysipelas with metria, and would mention that the genital parts ought always to be carefully scrutinised in every case of pyrexia, for the purpose of ascertaining whether any lacerations had become erysipelatous, and to observe that he saw a case not long ago in consultation that ultimately recovered. The gentleman in attendance, he afterwards learned, had, within a short period, had five cases of metria; and an inmate of his own house was at the time suffering from erysipelas. With regard to other infectious diseases, he thought he had seen typhoid fever take on the symptoms of metria, both with a favourable and with an unfavourable termination. Scarlatina he had seen both with the distinctive rash and without it. When the rash was absent, the scarlatina was most likely in an abortive form, *i.e.*, the patient had already had the disease once, and was incapable of developing it in its perfect form a second time. When scarlatina broke out in a house, those who had already had it might suffer from pyrexia and sore-throat of short duration; and he held that such a scarlatinal pyrexia, attacking a lying-in woman who had already had the disease, might in place of it set up scarlatinal metria. He thought he was supported in this by the frequency with which, in times past, the introduction of scarlet fever into lying-in hospitals was followed by an outbreak of puerperal fever. On May 16th, 1875, a patient died of scarlatina in the Rotunda Hospital, Dublin. She probably suffered from the disease a few days before she died. On the 17th, two deaths were reported from peritonitis, or, as would now be said, "metria." There was another on the 20th, one on the 23rd, another on the 24th, another on the 25th, another on the 27th, and another on the 28th; another on June 3rd, another on the 15th, another on the 29th, one on July 14th, and one on the 15th. Thus a death from scarlatina in a lying-in hospital, in which infection could easily spread, was followed by thirteen deaths from metria within a short time. Of course, there was no absolute proof that the scarlatina was the originator of the succeeding cases of metria, but the probability was strongly in favour of such a belief being well founded.

Mr. DONOVAN (Whitwick) thought the name of the disease called puerperal fever was of little moment. He had had a good many cases, and had generally found that it arose not in cases of difficult labour, but in those which had no difficulty. He had for several years—since reading Dr. C. Bill's paper on the treatment of puerperal fever—given frequent and large doses of tincture of muriate of iron (*Edin. Phar.*), having first cleared out the bowels. This treatment he had never found to fail. Some held that the tincture of the muriate of the *Edinburgh Pharmacopœia* and the tincture of the perchloride of the *British Pharmacopœia* were the same. This was wrong. He believed that the injection of carbolic and other antiseptic solutions were thoroughly wrong, and most injurious. Before the uterus could be washed out, the fluid must be introduced into it, and, with open vessels and a patulous os uteri, there probably would be absorption of some of that fluid. He did not see the use of introducing a noxious fluid into an organ which was in the most favourable condition to absorb that fluid. The after-pains were nature's means of clearing the uterus of septic fluids; and he thought the early getting out of bed and the giving up the use of the bed-pan would do much to help the uterus in clearing itself of the retained fluid, which might probably help to set up septicæmia. The common idea that puerperal fever must be usually fatal he thought a grave mistake. He could not see any reason why puerperal fever should not, under proper treatment, become a disease which should possess few terrors for the patient or for the practitioner.

Dr. GRIGG (London) asked if there were any such specific disease as puerperal fever; or did the disease embrace many affections altered or modified by the peculiar state of the blood and nervous system of the puerperal woman? He inclined to the belief that the reason there was such confusion of thought and such difference in regard to this disease, arose from the fact that few, if any, called upon to attend puerperal fever, had an opportunity of seeing a *post mortem* examination of the woman attended. The question could only be decided by carefully conducted *post mortem* examinations. The results obtained by an examination of such cases were as follows. 1. The disease began in the uterus. These were cases where operative measures, manual or otherwise, had been adopted; or where there were protracted labours, infection by attendant, or endemic influences. 2. The disease took its origin in the pelvis. These cases were long standing or recent pelvic disease, or cæcal mischief; the uterus being intact. 3. There was general or diffused peritonitis with no uterine misthief. These cases were standing or recent disease of the large internal glands, the kidneys, liver, etc. The result of these examinations was that erysipelas appeared to be a form of the disease, if not the disease itself. He had never seen an epidemic of puerperal fever, where local erysipelas or phlebitis had not occurred at the same time. Again, the constitutional symptoms were exactly analogous to those of erysipelas. He believed the disease to readily respond proper management. The disease, if left to itself, terminated in a crisis by vomiting or purging, or both. If much opium were given early, it arrested the peristaltic action of the bowels, which could never again be restored. An impression should be made on the system by the administration of sudorifics coupled with opium; either Dover's powder, or the hypodermic injection of morphia. Iron should be given, not too early, but after the second or third day of the pyrexia. Quinine was a most useful remedy, but it was not right to administer it too early in the disease. It was much more effective if given later on. A good emetic in the form of ipecacuanha was an excellent remedy, if given early. Injections should only be used when there was an offensive discharge.

Dr. ALEXANDER (Liverpool) said there were two kinds of so-called puerperal fever; the first where the disease was in reality erysipelas, typhus or scarlet fever. In such cases, the epidemic disease modified the conditions of the lochia, and produced a metria that, in its turn, modified the epidemic disease. In the other class of cases, the disease always began in the uterus, and was really a septicæmia dependent on the altered conditions of the uterine contents, produced by obstruction to the flow of lochial fluid, nervous conditions that relaxed the uterus, putrid poison introduced from without, etc. The putrid discharge was absorbed, and poisoned the patient. Acting upon this theory, his treatment had been, whenever the fever was high, to make the uterus contract by pressure of the hand on the abdomen, and put on a firm binder. He gave a dose of ergot and liquor ammoniæ acetatis, continued every four hours. If the patient's temperature did not soon abate, *i.e.*, in a few hours, he washed out the uterus carefully once, and continued the former treatment. Since adopting this treatment, he had had no trouble with puerperal fever. The treatment must be adopted early.

Dr. WYNN WILLIAMS (London) considered those cases only as puerperal that were due to septicæmia, which might arise either from within or without the body; when arising from without, there must be suppuration, such as there was in scarlet fever, erysipelas, etc. It generally, however, arose from within, due to the retention of clot or other animal matter becoming putrid. The object, then, was to destroy the septic matter, which was best done by syringing the uterus with tincture of iodine, three drachms to eight ounces of water, and continuing the process until the fluid returned of the same colour as before. Experiments on guinea-pigs had satisfied him that iodine and septic poison could not exist together. A practitioner might surely free himself from all trace of septic poison by placing some grains of iodine in a saucer, and applying a spirit-lamp to the bottom of it, and allowing the fumes to fall all over his person.

Dr. A. D. MACDONALD (Liverpool) was happy to support the view of Dr. Wynn Williams that washing the hands with a weak solution of iodine was a great means of prophylaxis. He had recently attended cases of erysipelas and of scarlatina—using this solution—and having no metria following. A short time ago, he was called to a case of puerperal fever delivered by a midwife where she, after warming and using the iodine, as well as having a short holiday, had not had a bad case. This case illustrated the communication of the contagium through hand-shaking with a nurse who had attended a case of septicæmia.

Dr. EDIS (London) thought the whole question of metria was of so

much importance to the practitioner, that anything throwing light upon it was of interest. Prevention was the key-note: not to allow the patient to drift into powerless labour; to secure efficient contraction of the uterus and expulsion of all the decidua; to be scrupulously cleanly in all the appointments of the lying-in room and in those in attendance there; to avoid all risk of infecting the patient with any contagion, whether exanthematous or otherwise. If febrile symptoms occurred, the proper course was, to wash out the uterus, to sustain the patient's powers by appropriate nourishment, and stimulant if necessary, and to encourage rather than check the natural tendency to vomiting or diarrhœa. Quinine and opium should be given, or iron, as might be indicated. The mere name of puerperal fever was merely a comprehensive term to express very many and varied conditions occurring in the lying-in patient, and not any specific disease.

Dr. NESFIELD (Manchester) thought a large number of cases of puerperal fever were due to septic poison, and arose in the uterus itself from membranes, clots, or lochial discharge. Still, many cases arose from poison outside, as erysipelas, or scarlet fever, and especially the malignant forms of scarlet fever. The treatment of these two classes of cases must, of course, be very different in its results. When the disease was autogenetic, the uterus might be cleansed by washing it out with a double-stream catheter; and perhaps the poison might be quickly got rid of. It was not so with an erysipelatous poison; still, here the syringing of the uterus with mild antiseptic lotion was useful. His plan was, if there were any deviation in the ordinary convalescence, to take the temperature; and, if there were any serious increase, to wash out the vagina, and perhaps the uterus itself. As to the contagiousness of puerperal fever, if sporadic and due to auto-infection, simple precautions by means of disinfectants were sufficient; but if there were erysipelas or scarlatina, much evil must follow any further attendance on cases of midwifery.

Dr. WALLACE (Liverpool) pointed out some of the principles which ought to guide in considering this disease. The term was misleading, or at least confusing. It would be better to diagnose the fever proper which attacked the patient; and Dr. Wallace could only recollect one case where the medical man had carried scarlet fever to the house and children of the patient, and to the patient herself, from which she died. Contagious exanthemata were rarely carried by the medical man; but, on the other hand, septicæmia had far too often been carried by hospital-surgeons to patients. The point to be noted from this was to keep the hands septically clean; and the clothing ought always to be changed, if the practitioner had been attending a case of contagious disease. With these precautions, metria might be checked, and, except in autogenetic forms, prevented.

Dr. GRAILY HEWITT (President) congratulated the Section on the valuable information elicited from the various speakers. As to the term, he agreed with Dr. Thorburn in advising the use of metria as a designation for the disease. Although the speakers had expressed opinions of a different character, there was a general concurrence on certain important general principles, and that this serious disease must be considered as not only preventable, but in most instances curable. The prevention of the disease was secured, first, by prevention of the introduction of septic matter from without. The autogenetic cases were, he considered, common; and in this class of cases the important point was to raise the health and strength of the patient, and thus prevent absorption by ensuring active contraction of the uterus. Mr. Burton's and Dr. Alexander's observations showed the great importance of uterine contraction in curing the malady. On this subject, he was pleased to find the treatment found so successful by Dr. Alexander was identical with that recommended by himself at the discussion on puerperal fever at the Obstetrical Society of London some years ago. He mentioned a case of mental shock producing severe metria, cured by pressure, copious administration of food, and stimulants. Here the pressure was found sufficient without intra-uterine injection.

Mr. WILSON (Liverpool) said that the medical man in attendance on a woman in labour should never make a vaginal examination without previously thoroughly washing his hands, using the nail-brush and disinfecting soap, if at hand. The obstetric bag should always contain a pot of vaseline, to which carbolic acid or thymol had been added.

PRESENTATION.—Mr. R. A. Turnbull, Medical Superintendent of the Fife and Kinross District Asylum, has been presented with a teapot, coffeepot, and an inkstand, by the officers, attendants, and servants of the asylum, on the occasion of his marriage, as a token of their esteem and respect.

INVESTIGATIONS INTO THE PHYSIOLOGICAL ACTION OF BARIUM CHLORIDE.

BY SYDNEY RINGER, M.D., F.R.C.P.,
Professor of Medicine in University College;
AND
HARRINGTON SAINSBURY, M.D., M.R.C.P.,
Physician to the North-West London Hospital.

THE element barium belongs to the group of the metals of the alkaline earths, and chemically stands to the other members of this group, viz., strontium and calcium, as cæsium does to the elements rubidium and potassium, from the group of the metals of the alkalies.

Calcium we know to be a necessary constituent of the organism, to rank, in fact, as a food; but, inasmuch as experimental evidence has abundantly shown, for the chemically allied elements sodium and potassium, that chemical analogy does not necessarily involve physiological analogy, so here we are not surprised to find that the evidence, so far as it goes, shows the, chemically, yet more closely allied elements calcium and barium to be very widely separated physiologically.

Concerning the action of the element barium but little is known therapeutically, though it has been employed thus; it is, however, recognised as a toxic agent. Physiologically, it has more recently been investigated by R. Boehm;[1] in this paper, he refers, under the literature of the subject, to Hufeland's statement, that the salts of barium were not toxic; and to the explanation, by the same authority, of the opposing results which Arnemann and Girtauner had obtained, as due to the presence of arsenic, etc., as impurities. The evidence of Brodie, Orfila, and Gmelin, is then quoted, as disproving Hufeland's teaching; whilst Gmelin is made to sum up the action of barium salts thus: as chiefly on brain and cord; as destroying the irritability of voluntary, but not of involuntary, muscles; as causing inflammation of the stomach; as influencing the heart's action.

Reference is then made to Blake (*Edinburgh Medical and Surgical Journal*, 1841), as recording increased blood-pressure and final heart-paralysis; also to Mialhe, and, later, to Onsum's theory, that the action of barium was by embolism, insoluble barium sulphate being formed in the tissues, with subsequent capillary obstruction. Cyon, 1866, denies the evidence of embolism, and explains the nature of the toxic action, as did Gmelin. Finally, James Blake (*Journal of Anatomy and Physiology*, 1874, 1) is quoted as stating for barium, strontium, and calcium, that, when injected into the arteries so that the heart receives the dose gradually, the cardiac paralysant action is inversely as the atomic weight of the base.

Boehm's own experiments were for the most part with chloride of barium, but experiments with the nitrate and the acetate showed that "the effect was due to the base, and was only influenced by the degree of solubility of the salt chosen." (We have here another illustration of a law which the salts of potassium exemplify well, viz., that the action of the base may be traced in each of its salts.) The salts were tried on frogs, on hares, rabbits, cats, and dogs; and, besides the general effects, those on the circulatory system in particular were noted. Boehm gives the following summary.

1. The activity of the heart, both for cold and warm-blooded animals, is increased by barium salts; in mammals, systolic arrest of the left ventricle obtains always; in frogs, systolic arrest of the ventricle obtains frequently.

2. The small arteries are, most probably, much diminished in calibre; whether by nervous action, or direct action on the muscular tissue, is doubtful.

3. The endings of the inhibitory vagus are paralysed.

4. The centripetal excitability of the depressor nerve is not destroyed.

5. An enormous rise in blood-pressure and a lessening of the pulse-rate occur; this with moderate doses—larger doses paralyse the heart, probably the intracardiac ganglion apparatus.

As to the other effects, Boehm states that the respiratory disturbances are clearly of central origin, the consequences of central irritation; that the asphyxia is secondary to cardiac paralysis; that the stormy gastro-intestinal symptoms (diarrhœa and vomiting) are due to an enormous increase in the activity of the hollow viscera; that the bladder suffers similarly, but that no marked changes are to be discerned in the mucous membranes. Boehm concludes that

[1] "Ueber die Wirkungen der Barytsalze auf den Thierkörper." *Archiv für Experimentelle Pathologie und Pharmakologie*, 1875, iii, pp. 216-251. See also *Handbuch der Gerichtlichen Medicin-Vergiftungen*, 1882.

either the whole sympathetic system is strongly affected, or unstriped muscular tissue generally and specifically.

To pass from these experimental effects on animals to those observed in man in poisoning cases, we find, in works on toxicology, special mention of palpitation[2] as a symptom of barium poisoning; purging and vomiting are also specially referred to, but are somewhat variously explained; for, whilst Woodman and Tidy describe very marked changes in the mucous membrane of the alimentary tract, Schuchardt, in Maschka's *Handbuch*, notes almost complete absence of marked changes here. Marked frequency of micturition is also noted as a symptom. *Post mortem*, Woodman and Tidy describe both sides of the heart as distended with blood. This last statement is in opposition to the experimental results of Boehm; but, independently of precise agreement or of modes of explaining, we already sufficiently see that the gap between barium and calcium is, physiologically, a very wide one.

To return, however, to the discrepancies above noted, we may remark that Toxicology in very many instances affords but the roughest of experiments, and further, that as we ascend in the animal kingdom, the element shock increases to the extent of masking, in many cases, the direct action of the particular agent on particular tissues; it is thus, perhaps, that the diastolic heart in poisoning cases may be explained.

The present experiments were undertaken in order to attempt to clear up some points in the problem. Obviously, as the question now stands, the main point for decision is, whether barium acts directly on the tissues in which it manifests itself, or indirectly on these through the medium of the nerves? This question has been taken up by Dr. Gaskell, with respect to the vascular system.[3] His experiments were principally with acids and alkalies, and from them he was led to conclude that the dilated and contracted states of the arterioles, following on the circulation, respectively, of an acid and alkaline fluid, were due to the direct action of the acid and alkali on the plain muscular fibres. He was thus led to speak of acid and alkali-like actions, and to infer that drugs, acting directly on the vessels, would class themselves in these two lines. Dr. Gaskell's line of argument was a somewhat different one to that which concerns us, for the question of local nervous mechanisms was then considered; whilst that which we have to decide upon is—given systolic arrest of the ventricle, and rise in the blood-pressure, as the result of poisoning the entire organism; is this the result of direct action, or of action through the nervous system? Action on local nervous mechanism would, in this problem, count as direct action.

To answer this question, our first experiments were with pithed frogs. The method of experimentation was as follows. Three frogs were selected, as nearly of a size as might be; all three were pithed, and the hearts exposed *in situ*. In this pithing, the cord was cut through in the interval between the occipital and the first vertebra, and the brain, with the portion of the medulla oblongata above the section, destroyed, and the brain-cavity plugged to prevent hæmorrhage. The cord below the section was left intact with certain of the frogs. This section is so close to the origin of the vagi from the medulla oblongata, that we may take it as most probable that their centres are destroyed in this process of pithing. In order, however, to be sure of this, the upper part of the cord below the section was destroyed in certain other frogs, by means of a hot wire. In such it was certain that both the vagal and vaso-motor centres were destroyed, and accordingly an impulse could not possibly be reflected either on to heart or blood-vessels; apparent impulses could not control either system. This is, of course, assuming the absence of vaso-motor centres low down in the cord, which is probably a working hypothesis.

After the exposure of the hearts, the pulse-rate was counted, and then again for two or three times, at intervals of ten minutes, to allow of the shock following the pithing and exposure passing off. Then the barium chloride[4] was injected into two of the frogs, the third being kept as a control-frog. Seven such experiments (twenty-one frogs) were performed, and the results uniformly were as follows.

1. Increased vigour of action of the heart followed the barium chloride injection; this was most marked in the action of the ventricle; with increasing dose the diastole of the latter became less and less complete up to the final stage of systolic ventricular arrest. In many cases the effects following a first dose would gradually pass off to be again brought out on again injecting more of the drug.

2. The production of inco-ordinate ventricular action, so common with digitalis, was also commonly witnessed here.

3. The effects on the pulse-rate were less satisfactory; retardation was the rule, and in one marked case of slowing the ventricular rhythm was noted to be just one-half as frequent as the auricular. In this case, the upper half of the cord had been destroyed; in another case, however, in which this had been done, very decided acceleration followed the injection. In the case of four of the frogs, the barium chloride was without notable effect. A source of error in the estimation of the pulse-rate are the movements of the animal, which, after the above-described method of destroying the brain, are at times a little difficult to control, the frog attempting to regain the ventral position. It was for this reason the experiment of simply destroying the cerebral hemispheres was not performed.

The retardation of the pulse-rate clinically observed in the employment of digitalis is held by Schmiedeberg[5] to be due to the rise in blood-pressure; and inasmuch as retardation is recorded for barium chloride,[6] and as its further heart-effects resemble those of digitalis so closely, the above recorded experiments were chiefly for the purpose of ascertaining if this slowing could obtain after the heart could no longer be influenced centrally through the vagi. We find that such retardation can obtain; and, therefore, that this action on the heart cannot be a reflex one. Nor can the increased vigour of the ventricle, its inco-ordination, and its systolic arrest be the result of a reflex influence.

The following experiments with the excised heart, undertaken with another view, viz., that of comparing the effects of the chlorides of barium, calcium, and magnesium, answer the last question yet more definitely.

Mode of Experimentation.—The excised frog-heart was tied on to the perfusion cannula of a Roy apparatus, and fed with an artificial blood-mixture.[7] The ligature was placed as nearly as might be in the auriculo-ventricular groove. Of the blood-mixture, 100 cubic centimètres were taken for each experiment. The dose of the drug was kept uniform, and added every quarter revolution of the cylinder; it was sufficiently large to bring the experiment to an end within about the hour. (It must be borne in mind that we are here working with a very complex fluid, and that the results hence will not be comparable with those gained with a comparatively simple fluid.[8])

The experiments were made in December 1882 and January 1883.

For the purpose of exciting the heart, break-shocks alone were employed, except in the cases in which it was wished to observe the modifying influence of the drug on the effect of continuous faradisation applied to the heart.

The solution strength was 10 per cent. of anhydrous barium chloride; it was very faintly acid.

Of the results obtained, we will here mention only that the heart was arrested in full systole; whilst, at the same time, it was noted that the barium salt would either start rhythmic action or would increase the frequency of already existing spontaneous action. These two facts, then, are to be noted: systolic arrest and the tendency to excite or promote spontaneous action—and this as the result of direct action on the cardiac tissue. The further results obtained by this method of experimentation will be reserved till the chlorides of magnesium and calcium are treated of.

We have seen, thus, the effects of barium chloride on the entire organism (in Boehm's experiments), on the organism with the heart and vessels loosed from central control, and, finally, directly on the tissues of the excised heart. In each case, we have seen persistent spasm of the muscular tissue excited. It may here further be recorded that the direct application of a 1 per cent. solution of barium chloride to the heart *in situ* will produce a local spasm at the point of application.

This being the action on the muscular tissue of the heart, the question next for solution was, What is the action on the muscular tissue of the vascular system generally; is it local, or is it through the nerves? To answer this, the method of experimentation of

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[2] See Guy and Ferrier; also Woodman and Tidy's *Handbook of Forensic Medicine and Toxicology;* also Maschka's *Handbuch der Gerichtlichen Medicin*, Band ii., p. 173.

[3] *Journal of Physiology*, Vol. iii., No. 1, August, 1880.

[4] A 10 per cent. solution of barium chloride, free of water of crystallisation, was used, of this as much as 0.5 to 0.7 cubic centimètres, in doses of 0.1 cubic centimètre, were injected.

[5] *Archiv für Experimentelle Pathologie und Pharmakologie*, Band xvi.

[6] Boehm, *Op. cit.*

[7] A solution of dried bullock's blood in ordinary tap-water so as to represent normal blood, and further diluted with two and a half times its volume of tap-water saline.

[8] *Vide* paper in the *Practitioner*.

Gaskell with the acids and alkalies was adopted. The tortoise, however, was chosen in place of the frog, the former animal being, for one thing, more convenient to handle on account of the larger size of the vessels, whilst a further advantage was to be found in the extreme pertinacity of life of its tissues.

Mode of Experimentation.—The animal was pithed, its shell sawn in half, and a cannula tied into the abdominal aorta. Special care was observed in the pithing to endeavour to destroy the cord as completely as possible. The cannula was fed by simple syphon action with the required fluids, and the hinder half of the body only being used in the experiment. The flow was into the tissues by the abdominal aorta, and out through the cut veins. The preparation was placed on a titled glass plate, and the fluid escaping from the veins caught and carefully measured. The plan of measuring the through flow in a given interval of time was adopted.

The pressure varied in the different experiments, but during each experiment was maintained constant within about 0.5 centimétre by constant additions to the supply-vessel, which was of large capacity so as to retard changes in level.

RESULTS.—In the first experiment, on May 2nd, 1883 (temperature of room 16.5°C.; head of pressure = 19 centimétres), the method of counting the rate of flow by the number of drops per minute at definite intervals of time was adopted. Saline solution 0.6 per cent. (tap-water saline) was first circulated, then replaced by saline solution + barium chloride 1 per cent.; with 10c.c. of this solution in 100c.c. of saline, the flow rapidly fell to one half the original rate.

In the next experiment, on May 5th, the quantity escaping in a given interval of time (every five minutes) was measured. The head of pressure 23.5 centimétres; the rate of flow quickly fell from 7c.c. in five minutes for saline solution to 2c.c. in five minutes for barium saline (1c.c. of 1 per cent. barium chloride in 100c.c. saline).

The next experiment will be given in full.

May 7th. Temperature of room 17°C.; head of pressure 28 centimétres.

The following numbers were observed:

	Outflow per 5 minutes.		Outflow per 5 minutes.
Saline solution 0.6 per cent. supplied	40.6c.c.	Barium solution replaced	20c.c.
	31		23.3
	34		21
	31		19.2
	28		11.8
Barium chloride, 10 per cent., 1c.c. in 100c.c. saline	20		6.2
	16		3.8
	8		
Saline replaced	4.2	Saline replaced	3.8
	3.1		3.9
	4.2		2.7
	2.5		4.6
	2.8		11
	4.5		14
	5.7		19
	8.4		24
	14.4		
	15.5		
	21.8		
	21.7		

It is to be noted that the washing out of the barium chloride by saline was a slow process, and that the original quick rate of flow was not regained.

May 10th. Temperature of room 14°; pressure, 30 centimétres:

	Outflow per 5 minutes.		Outflow per 5 minutes.
Saline solution 0.6 per cent. supplied	44c.c.	Barium solution replaced	24c.c.
	48		21
	44		15
	47		11
Barium chloride 1 per cent. 2c.c. in 100c.c. saline	33		
	19		
	15		
	14		
Saline replaced	12	Saline solution with 1c.c. KCl. 1 per cent. in the 100c.c. saline	9
	11		24
	14		32
	22		40
	21		40
	25		34
			40

In this latter experiment it will be noted that a much weaker solution of barium chloride was used—1 per cent.; the percentage quantity of the salt present in the circulating solution being 1 per 5,000. In both of the last experiments the alternation of effect with the presence and absence of drug is clearly convincing; and the fact of the replacement of the second barium effect by a freer through-flow on again circulating saline, demonstrates the persistence of vitality of the tissues to the end of the experiment, showing that the barium effect cannot be explained as simply physical. The addition of the small quantity of potassium chloride to the saline in the end-stage of the second experiment was simply for the purpose of seeing if a well known arrestor of the cardiac diastole would aid in dilating the vessels; whether it did so or not is unimportant here, since that which alone concerns us is that the vessels did dilate, and hence retained their vitality.

This, then, represents the action of barium chloride on the vessels uncontrolled by central nervous agency; and the influence of the salt in exciting spasm of the arterioles by its direct action upon them may be considered as fairly established. But, given a more vigorously acting ventricle, which is what we have to note in the first stage of barium chloride action, then spasm of the arterioles serving, as it must do, to dam back the blood, will of necessity lead to heightened blood-pressure; and this Boehm's experiments have shown to be a very notable effect of the salt. (It is not unlikely that the sequence of events has been reversed above, and that spasm of the arterioles as a first effect is followed by more energetic action of the ventricle, to meet the increased obstruction on the arterial side.) Boehm further records (*op. cit.*) that, after the administration of barium chloride, section of the cord below the vaso-motor centre was almost without effect on the heightened blood-pressure; this observation, as also that of a curiously beaded appearance of the arteries of the mesentery, are both in accordance with direct local action.

To complete the argument, the following experiment was performed. The cerebral and optic lobes were destroyed. There was thus the whole thickness of the cerebellum at least between the surface of section and the fourth ventricle, and we may take it that the vaso-motor centre was certainly uninjured. From the brainless tortoise the whole abdominal shell-wall was then removed, care being taken, as far as possible, to avoid wounding the vessels, especially the large abdominal veins. The peritoneum was then opened by a longitudinal incision, and the descending aorta exposed, ligatured proximally, and a cannula tied in distally. The large vein running up in front of the right lung to the liver was then exposed, and ligatured proximally; similarly, the two large veins in the anterior abdominal wall were proximally ligatured. All three veins were then opened distally, and the saline circulation started, as in the previous experiments. By the means adopted, a free outlet from the veins was provided for the inflowing saline, and the escaping fluid could be caught and measured, as in the foregoing experiments. The vessels, moreover, through which the saline was flowing, were under central nervous control, since the nervous system, including the vaso-motor centre, was intact; and at the same time it was possible to influence the nervous system by introducing the poison into the circulation of the anterior half of the body. This last was, in the first instance, attempted by injection into the subcutaneous tissue in the region of the neck; but subsequently, in order to make sure of the entry of the poison into the systemic circulation, it was introduced through a cannula tied proximally into one of the veins of the anterior abdominal wall.

Two experiments with barium chloride after this method were unsuccessful, for some reason or other—*i. e.*, the results were purely negative; the introduction of the poison into the anterior circulation was without effect on the saline circulation, and, similarly, the addition of barium chloride to the saline circulation itself was without effect—a fact almost proving some flaw in the operations, since the direct action on the tissues had come out so clearly. The third experiment proved a complete success; and we here record it.

July 4th. Temperature of room, 21° C.; pressure in the saline circulation = 30 centimètres.

	Outflow from saline circulation per 5 minutes.		Outflow from saline circulation per 5 minutes.
0.1 c.c. $BaCl_2$ 10 per cent. diluted with 0.9 c.c. saline injected into cardiac circulation	53 c.c.	Injection of 0.2 c.c. $BaCl_2$ + 0.8 c.c. saline. In all 0.4 c.c. of the barium-chloride had been used...	58
	52		60
	48	Injection of 0.1 c.c. $BaCl_2$ + 0.9 c.c. saline = 0.5 c.c. of barium-chloride.....	56
	46		60
	44		53
	48		50
	48	$BaCl_2$ 0.5 c.c. added to 100 c.c. of the circulating saline	40
	50		30
	54		18
Injection of same quantity $BaCl_2$ repeated	54		12
	59		3
			6

Thus, then, the poison, though it must have been pumped by the heart to the vaso-motor centre, was yet unable to influence the

vessels of the hinder extremities, which, however, responded at once to the direct local action of the barium chloride.

It may be objected that the very free vascular anastomosis which obtains in the tortoise scarcely renders practicable the isolation of the one circulation from the other. This objection would certainly be a valid one had we got a positive result, *i.e.*, had the injection of the poison into the anterior circulation caused contraction of the vessels of the posterior circulation, since the poison might have entered through the anastomoses, and have affected the tissues directly; but it can scarcely hold for a negative result such as was here obtained.

This ends the experiments; we may just briefly recapitulate the steps in the argument.

1. We have the experiments of Boehm showing the systolic heart, the retarded pulse-rate, and the heightened blood-pressure, resulting from barium chloride action.

2. We find that the systolic heart and the retardation occur equally when the centres of reflex control are destroyed.

3. We find that the local application of the salt, in diluted solution, to the heart *in situ*, produces local spasm at the point of application; and also that the excised heart is arrested in full systole by the drug.

4. We find that the vessels freed from central nervous control respond to the direct action of the salt.

5. We find that we are unable to influence the calibre of the vessels through the nerves apart from direct local action.

We here see that the action on the heart is a guide to the action on the arterioles, or *vice versâ*, and this we should be inclined to expect; since, on tissues resembling one another, we should look for a resemblance of effects. This question will be gone into more fully in a paper shortly to be published, on the digitalis group generally, in respect of which the experiments were conducted after the same methods described here.

To the marked resemblance in action between barium chloride and digitalis we need scarcely draw further attention. Boehm pointed it out, and it is sufficiently manifest. But of the alternative which he gave us for barium chloride action, viz., either action on the whole sympathetic system, or on unstriped muscular tissue generally and specifically, we must choose the latter.

The therapeutic value of barium chloride yet remains to be determined; the drug is clearly a very powerful one, and in this respect is widely separated from its chemical analogue calcium chloride. As to the directions in which clinical observation should extend, we get a clear indication from the digitalis-like action of the drug.

CONTAGIOUS PNEUMONIA.

By WILLIAM BRUCE, M.A., M.D., Dingwall.

I HAVE ventured to bring the following cases before the local Branch in the hope of eliciting (1) facts as to whether its members have seen similar cases; and (2) the opinion of gentlemen present, as to the conclusions to be drawn from what is certainly a remarkable series of patients labouring under the same disease.

I may mention that pneumonia is a rare disorder in this district, and that I noted this fact in filling up my card of pneumonia to the Committee for the Collective Investigation of Disease. With regard to the question of infection or non-infection, I am not prepared to give a decided opinion. With some minds, the facts as detailed will doubtless lead to the conclusion that the theory of infection or specific germs will alone account for this peculiar outbreak; whilst others will look to an epidemic influence. Certainly, the weather was excessively cold, ungenial, and dry, with nightly frosts, about the time the disease prevailed most largely. On the other hand, I heard of cases some miles from this district before I saw it myself; and it will be observed that some of the cases occurred later, when the weather was seasonably warm. Again, there were three sets of cases, occurring in groups of three each, and one set of two—a very remarkable set—which are very difficult to explain on any other theory than that of direct infection.

The cases may be geographically divided into three groups: a larger one comprehending eight cases, a second of four, a third of two; whilst the other cases were scattered. Unfortunately, no *post mortem* examinations could be got; and I must also regret that we were too long in thinking seriously of examining the sputa.

I am much indebted to my friend Dr. Sinclair, who examined most of the cases with me, and recorded the majority of them. My neighbour, Dr. Adam, has, I understand, had a good many similar cases, but is rather inclined to look upon the disease as one of the nature of influenza, with pneumonic complications. My friend Dr. Sutherland of Invergordon, thirteen miles off, has had twenty-four cases, some of them proving fatal in old broken-down people, and occurring from February to May, as follows: February, four cases; March, five cases; April, thirteen cases; May, two cases. Dr. Sutherland kindly tells me that one group of these cases consisted of J. F. (April 5th); D. F., his neighbour (died on April 28th); H. F., brother to D. F. (May 12th); and M. F., daughter of H. F. (May 22nd.)

The following are short notes of my own cases. I may mention that the first is not a very characteristic case, and that we were in much doubt as to its real nature at the time. It certainly was not typhoid fever, which we were inclined at first to consider it.

GROUP I. CASE I. *Ill-defined Case of Basic Pneumonia; Recovery.*—Widow M., aged 67, was visited for the first time on May 12th. She stated that on May 10th she had had a shiver, with vomiting and purging, lasting twenty-four hours. On the day of visit, the temperature was 99.8°, pulse 110, respirations 32. The tongue was dry and dark. The heart-sounds were weak; the first sound low and prolonged. Examination of the lungs elicited nothing abnormal.—May 17th. Pulse 105; temperature 100°; respirations 40; tongue dry and cracked. There were no lung-symptoms. The bowels were constipated.—May 24th. Pulse 105; temperature 99°; respirations 38. She had pain in the right side, and slight dulness at the base of the right lung in the axillary line. The cough was slight; the expectoration scanty, and not tenacious or rusty.—May 26th. Temperature 101.5°. The tongue was raw in the centre, dry at the sides. There was dulness at the lower part of the right lung, with want of motion and bronchial respiration. There was no tympanites; no spots.—May 28th. Pulse 98; temperature 99°; respiration nearly normal. She had slight dulness and pain in the right side, and slightly bronchial breathing, without crepitation. The tongue was cleaner.—May 31st. Pulse 65; respirations 22. The pain in the side had disappeared. The tongue was slightly glazed. There was a tendency to vomit, although the appetite was fair.—June 2nd. Pulse 90; temperature 99°; respirations normal. There was irritability of the stomach, which only retained wine and Liebig's extract of meat.—June 4th. The tongue was clean. There was no vomiting. The appetite and general appearance were improved. Pulse 110; temperature and respirations normal.—June 7th. Pulse 90; temperature 98.6°; tongue clean. The breath-sounds were normal. There was no dulness.—June 13th. She was getting on well, sitting up in bed. Since the third day of the attack, the bowels had been constipated, and were moved only by laxative medicines.

CASE II. *Acute Left Basic Pneumonia in Neighbour and Nurse of Previous Case; Recovery.*—The subject of this case lived next door to No. 1, and, up to the date of her own illness, attended to her as nurse. Mrs. V., aged 35, was first visited on May 28th. Two days previously, she had a shiver, and became very ill. On the day of visit, the pulse was 130, respirations 32, temperature 103.6°. There were rusty sputum, cough, pain in the right side, dulness at the base of the right lung, small crepitation, and increased vocal fremitus. The face was flushed; the lips were livid.—May 30th. There were crepitation about the spine of the scapula, dulness, increased vocal fremitus, cough, and rusty sputum. Pulse steady; tongue slightly furred.—June 1st. Pulse 136; temperature 103°; respirations 50. There were cough, rusty sputum, fine crepitation, and dulness of the right base. The face and lips were livid.—June 2nd. Temperature 98°; pulse 80; respirations 35. She felt much easier; had slight pain only in the side. There was still dulness. The tongue was cleaning; the face was less flushed. She had profuse perspiration last night.—June 3rd. Pulse 80; temperature 98°; respirations normal. There was no pain in the side; very slight dulness. Crepitation was heard.—June 4th. The pulse, temperature, and respirations were normal. Her general condition was improved.—June 7th. She was better, but felt weak.—June 13th. She was getting up, and doing very well. Pulse 75.

CASE III. *Acute Right Basic Pneumonia in the Child of the Previous Case; Recovery.*—Girl V., aged 10, was first seen on May 31st. On the previous day, she had a rigor. To-day, the pulse was 120; temperature 102°. She had white furred tongue; pain in the right side; dulness at the base of the right lung, with bronchial breathing. Respirations 25. She had cough; the sputum was tenacious.—June 2nd. Pulse 80; temperature 99°; respirations 20. There was no

pain in the side; slight dulness; small crepitation; cough.—June 4th. The child was up, and going about.

It will be observed that these three cases occurred at the same time, and were actually treated in the same house.

GROUP II. CASES IV, V, VI. *Acute Pneumonia in three Children simultaneously, in the same House; Recovery.*—Anna Bella McL., aged 10, was first seen on May 24th. For two or three days previously, the patient had been confined to bed, complaining of headache, with cough and bloody expectoration. On the day of visit, the pulse was 150, temperature 103.6°, respirations 60. There were rusty sputum, pain and dulness in the side, crepitation, and cough. She was flushed.—May 26th. The cough was much abated; the sputum was tenacious, but not bloody. She had pain and dulness in the side. To-day, a second child was found to have cough, with quick pulse and high temperature, and showed symptoms of commencing pneumonia.—May 31st. Anna Bella was sitting up, very pale and weak. She had pain and dulness in the side. The fever was much modified. The expectoration was tenacious. Cough was still present. To-day, two younger children were suffering from cough with high febrile symptoms, pain in the side, and rusty sputum.—June 2nd. The elder child was better. The two younger children still had cough, pain in the side, and other symptoms of pneumonia.

GROUP III. CASE VII. *Acute Pneumonia in a Brother, Sister, and Child simultaneously, in the same House. Death in the Two Older Subjects.*—John D., aged 55, was first seen on June 21st. For a few days before this he had been ill, with cough, headache, nausea, etc. At the time of visit there were bronchial râles with pain in the chest.—June 23rd. Pulse 100; respiration 50. There was dulness over the lower half of the right lung, sonorous and sibilant râles all over that lung; crepitation at the base of the left lung; and prune-juice expectoration. The lips were blue; the face livid. He could hardly expectorate.—June 24th. The patient died.

CASE VIII.—Elizabeth, aged 10, child of the above, and sleeping in the same room, was attended at the same time.—June 24th. Pulse 132; temperature 102.2°; respiration increased. She had a flushed face. There was dulness at the base of the right lung. She had slight tympanites; some diarrhœa; no spots.—June 25th. There was dulness at the base of the right lung. She had pain in the side; cough; and tenacious sputum. Pulse 90.—June 26th. The patient was up, but still had cough, with pain in the side, and signs of consolidation at the right base.

CASE IX.—Ann D., aged 60, sister of Case 7, came to the house to attend the funeral.—June 30th. She had pain in the left side; fever, and bronchial breathing.—July 3rd. Pulse 112; temperature 101°; respiration 45. There was dulness at the left base; crepitation at the angle of the scapula; and increased fremitus. Cough, rusty sputum.—July 6th. She was very weak; the tongue was dry. Pulse 80, intermittent. The skin was not hot. There was dullness all over the right lung, and bronchial breathing. A loud systolic *bruit* discovered. The friends state that at night the patient became delirious; that on the 7th she ceased to expectorate; the delirium deepened into unconsciousness, and on the afternoon of the 8th, she died. It will be observed that these three cases occurred in the same house, and that the subject of the third case was a visitor, who arrived after the death of the first case.

GROUP IV. CASES X AND XI. *Acute Pneumonia in two Lads Working together; Recovery.*—Two lads who worked together were seized with pneumonia, the one on May 13th, the other on May 15th. The disease was well-marked in both cases. In the lad last attacked, the acute symptoms terminated by crisis on the ninth day; and the case of the first, though not under observation throughout (another medical man being in attendance), is reported to have been a typical one.

SCATTERED CASES, XII, XIII, XIV, XV, XVI. *Acute Pneumonia, occurring in the same District at the same Time; Death in One Old Subject.*—CASE XII, Nellie McN., aged 8, was first seen May 31st. She had been ill for a few days previous. On the day of visit the pulse was 160; temperature 103°; respiration 40. There was dulness of the left base; pain under the left nipple.—June 1st. The febrile symptoms were much abated. The girl was up and going about, but an examination of the chest showed dulness to be still present, with bronchial breathing and increased vocal resonance.—On the 3rd the patient had to take to bed again; and at the visit on the 4th, the pulse was 132; temperature 102.6°; respiration 40. She still had pain in the left side; there was dulness with increased vocal resonance. She had diarrhœa.—June 8th. Temperature 101.6°; pulse 140; respiration, 48. Other symptoms were as at the last visit. This patient was not seen for a week after, when she was found to be quite well.

CASE XIII.—Hugh M., aged 7½, was seen on May 15th. The night before he had rigor, with much restlessness. Now, there was dulness of the lower lobe of the left lung.—May 1st. There were fine crepitant râles, with rusty sputum, and high febrile symptoms. This was a severe case throughout, but on the tenth day there was profuse perspiration, and the temperature and pulse fell to normal. The boy rapidly recovered.

CASE XIV.—M. was seen on June 20th. There was evidence of consolidation. In a few days rusty sputum appeared. This appeared to be an ordinary case of pneumonia, and it terminated favourably.

CASE XV.—Bella M., living in a house close to Cases 1, 2, and 3, Group i., was visited on July 3rd, and found to be suffering from pneumonia, the symptoms being very marked and severe. Stimulants were given, and after a week the patient began to recover. She is now doing very well.

CASE XVI.—On May 13th an old man was visited, who proved to be suffering from high fever and dyspnœa, with crepitant râles at the base of both lungs. He gradually became worse; and on the fourth day he died. This patient was taken ill whilst the body of his son, who had undoubtedly died of pneumonia, lay in the house.

NOTES ON AN EPIDEMIC OF PNEUMONIA.

BY THOMAS F. RAVEN, L.R.C.P., Broadstairs.

THE term "infectious" pneumonia may have several meanings. It may imply that a series of cases of the disease have a common origin in some septic influences, or that pneumonia, arising from insanitary conditions, possesses and exercises peculiarly infectious properties; or, thirdly, it may be applied to pneumonia, unconnected with unwholesome surroundings, where it is found that the disease has been communicated by one patient to others.

In the following instances of acute pneumonia occurring in one household, it is in the first of these senses that the word "infectious" is applicable; as there is strong inference that the spread of the disease was attributable to a general source. It is certain that the patients were living under conditions favourable to the production of zymotic disease, and the various dates of their seizures tend to show that, in each instance, the pneumonia had a common origin. Had the disease been communicated from patient to patient, the incubation period, whatever it may be, would probably have determined a regularity of date in the successive attacks. It may also be noted that there were no sputa in any of the cases. The household in question consisted of three adults and seven children, the eldest of whom was nine years old, and the youngest an infant at the breast. The children were fair-skinned and delicate-looking. They inherited a phthisical tendency on both sides, and they would appear to be very susceptible of infection, as measles, scarlatina, enteric fever (twice), and whooping-cough have visited the family. During this epidemic of pneumonia, there were among them cases of rötheln. The house was drained into an unventilated cesspool. Three cases of croupous pneumonia had occurred in cottages within a very short distance, a few weeks previously.

All the adults, and the infant, and one little girl, seven years of age, escaped. Four of the children suffered sharp attacks of croupous pneumonia. One child had what appeared to be an aborted attack. It was impossible to isolate the cases properly. All that could be done was to prevent any healthy child from sleeping in a room occupied by one with pneumonia. During the daytime, the children were all in and out of the sick-rooms, throughout the epidemic. Very briefly, the cases occurred as follows.

CASE I.—H. J., a boy, aged six, was taken ill on May 27th, 1883. The fever was sharp, and it ran three days before physical signs could be detected. The right apex was then affected. No sputa appeared. A sudden decline of temperature occurred on the seventh day. Resolution was rapid and satisfactory. No typhoid symptoms were observable throughout.

CASE II.—A. J., a girl, aged 8, was attacked on June 11th. The temperature rose at once above 104°. No physical signs existed until June 14th, when the left base was found hepatised. On the eighth day, after a gradual decline of temperature, there was a sudden rise of more than a degree, concurrently with invasion of the apex; but the following day, the temperature fell seven degrees in sixteen hours, and recovery followed. Throughout the illness, there were no typhoid appearances.

CASE III.—A. J., a boy, aged 9, had rigors, diarrhœa, and delirium on June 14th. On the 17th of the month, physical signs were de

tected in the right apex. Persistent delirium characterised this boy's case, from onset to crisis. Beyond the delirium and diarrhœa, there were no symptoms resembling those of typhoid fever. The temperature, which was sometimes lower in the evening than in the morning, rose to 104.6° on the sixth day. On the tenth day, it fell suddenly to a subnormal point. During resolution, a strongly marked friction-sound was heard at the right base.

CASE IV.—K. J., a little girl, aged 3 years, was attacked, on June 19th, with sickness and convulsion. The left base was found to be affected on the 22nd. The apex was gradually invaded. The attack was not so sharp as those of the other children, but more tedious. No signs of resolution in the hepatised lung appeared until the sixteenth day of the disease.

CASE V.—Not the least interesting case was that of E. J., a boy, aged 4. He was suddenly taken ill, with diarrhœa, sickness, and fever, on June 21st. These symptoms speedily subsided, and on the day following he appeared quite well. But in another twenty-four hours he was again feverish, and he was also delirious. His temperature rose to 101°. However, next day, he appeared to be shaking off his illness, and on the 25th he was quite well again. No doubt symptoms like these might arise from indigestion, or some other trivial cause; but, in the absence of any explanation of the kind, and giving due weight to surrounding circumstances, it was thought probable that this child's attack was one of pneumonia, without inflammation of the lung; and this conclusion is strengthened by comparing the cases of the other children with it. In each instance, as has been shown, pneumonia existed for three days without any lung-inflammation.

In this little epidemic of pythogenic pneumonia the salient points are, first, the absence of typhoid symptoms; and, secondly, the delay that occurred between the onset of fever and the development of the lung-affection.

SEA-SICKNESS AND ITS PREVENTION.

BY J. HENRY BENNET, M.D.
Formerly Obstetric Physician to the Royal Free Hospital.

IN his interesting letter on sea-sickness which appeared in the JOURNAL of July 7th, Mr. Kendall mentions various modes of treating sea-sickness, but does not speak of its prevention. From twenty-five years' personal experience, and from that of scores of friends and patients, I think I may say that I have discovered a very simple means of preventing sickness, in most cases, in short voyages. This preventive remedy is merely the ingestion of strong coffee some time before embarking.

I discovered the influence of strong coffee quite accidentally. A quarter of a century ago I was travelling on urgent business from Paris to London, and on arriving at Folkestone found that I had an hour or more to dispose of. I went into a *café*, and ordered a cup of *café noir*, the strong black coffee frequently taken on the Continent, with sugar only; this cup I repeated. The weather was awful, the sea tempestuous, nothing but dire necessity would have induced me to start, and I expected to be ill in five minutes, being a wretched sailor. To my utter astonishment I remained perfectly well throughout a tedious and very rough passage. Indeed, I think I was the only passenger on board who was not ill. This circumstance made me think that perhaps it was the strong coffee that was the cause of the immunity, and subsequent experience has proved that such was the case. To succeed, however, certain precautions are necessary. The coffee should be taken long enough before embarking to ensure its absorption; say one hour, if alone with sugar, about two hours and a half, if with milk. Moreover there should be nothing whatever in the stomach; nothing for the stomach to do. To prevent exhaustion, however, a good easily digested meal should be taken about four hours before embarking. The coffee, also, should be good and strong, unmixed with chicory, otherwise it produces no effect. If sickness ensue and food be thrown up, the conditions necessary, according to my experience, to secure immunity have not been secured, and the non-success is not a real failure. I consider that an infusion of about an ounce and a half of pure coffee-powder is about the quantity necessary. It should be infused (medicinally) in about four ounces of boiling water for ten minutes, say in a warmed mug or jug, poured off and drunk with sugar as *café noir* an hour before leaving, or as *café au lait* (with milk) two hours and a half before. It is best made at home, and put in a bottle, to avoid chicory or English wish-wash.

Contrary to the generally received opinion, I do not think that the stomach being full on going on board is a prevention against sea-sickness. In my experience I find that it promotes and causes it. The poor stomach, full of food, buffetted about, refuses to do its work, and in desperation rejects its contents. I have been at sea nearly a hundred times since then; thanks to the coffee, I have scarcely ever been sick on short journeys (under ten or twelve hours), and very many persons to whom I have recommended the plan have enjoyed similar immunity. The influence must be that of a brain and nerve-tonic, which strengthens the sympathetic nervous system and renders it less impressionable to liquid shocks. I have published elsewhere the opinion that sea-sickness is probably due, in a measure, to disturbance of the circulation by the irregular motion, and to its influence on the sympathetic nerves. All the blood in the body is irregularly banged about by the motion of the vessel in a rough sea. Animals at sea for the first time are as ill as ourselves, especially dogs, and it cannot be fear, for on land fear does not produce sickness with them or with us, unless very exceptionally.

On longer journeys, I advise travellers still to take the coffee in the same way, and then to lie down in their berths. The influence of a strong dose of coffee on the nervous system lasts for eight or ten hours. During this time, the body may become accustomed to the motion of the ship. They had better, I should say, take no food, either liquid or solid, until the feeling of thirst or of hunger show itself. For the first (thirst), a mineral water, soda or Apollinaris, with or without brandy or champagne, may be sipped. For the second (hunger), *café au lait*, with or without a little bread, may be taken; and, that agreeing, curry, as advised by Dr. Kendall, could be tried.

In the continued sickness of long voyages, many patients of mine have derived immense, and often permanent, relief from the injection into the rectum at night of 15 or 20 drops of laudanum, in an ounce and a half of warm water, to be retained, by means of a small elastic baby injection-ball. If not retained, it can be repeated in half an hour or an hour. Sleep is generally obtained, even in extreme cases; and, during sleep, the body may become accustomed to the motion, as will coffee. Some patients have told me, or written to me, after long voyages, that this mode of employing laudanum has saved their lives. I have proposed, as have others, the hypodermic injection of morphia; but I have no personal experience of its use, and cannot say whether or not it acts better than the injection of laudanum *per anum*. When on board ship in short passages, I am generally too fearful of personal sickness to be of much use to others, feeling it prudent to remain perfectly quiescent; and I have not made any very long sea-voyages.

Probably strong tea, brandy, wine, indeed any powerful nerve-stimulant or sedative, would have the same effect as coffee if taken in the same manner—that is, sufficiently long before going on board to be absorbed, and to leave the stomach empty and quiescent.

Clearly, the usual non-success of remedial agents taken for sea-sickness is owing to the stomach itself refusing to absorb what is put into it, once sickness has commenced. A glass of pure water, instead of being absorbed in a few minutes, will often be thrown up an hour or more afterwards, just as it was taken. I have often known chloroform thrown up half an hour or more after its ingestion, perfuming the ship with its odour. The rectum is not sick, and has not lost its power of absorption.

A naval surgeon, who had passed a life at sea, once told me that what he had found of most benefit in confirmed desperate sickness was drinking constantly warm or lukewarm water. A jug of warm water and a glass are placed beside the patient, who is told to swallow half a tumblerful when the sickness comes on. It is immediately thrown up, but easily, and by-and-by calm comes. The real remedy, however, is to stay on land, or to return there, if possible; but the coffee plan, judiciously carried out, has shorn the Channel of its horrors in my case, and in that of many others.

SURGICAL MEMORANDA.

EXCISION OF SCIRRHOUS TUMOUR FROM THE BREAST OF A PATIENT AGED 74.

TWO years ago, Mrs. J. noticed a small nodule in her left breast; but she thought nothing of it for some months, as it gave her little or no pain. However, the tumour gradually increased in size, and she felt shooting pains, which she described as passing towards the stomach, and which she took for flatulent spasms. In July 1882, she had to undertake very heavy work in assisting in removing and lifting heavy book-cases. This caused the tumour to grow rapidly, and the suffering to increase so much as to cause her to seek advice.

Dr. Augustus Brown, after careful examination of the tumour, and finding that, although adherent to the nipple, it was quite free at its base, advised its removal, a decision in which I quite concurred, as the patient, though old, was of a good constitution. It was accordingly removed on January 20th, 1883. Two incisions were made in the non-adherent skin above and below the tumour; the skin was carefully dissected off the breast-tissue above and below the tumour, and the mass was removed, with a considerable margin of the gland, in order not to interfere with the capsule of the tumour. The vessels being secured during the dissection of the mass, there was very little loss of blood. The edges of the wound were well adjusted with sutures and strapping, and then covered with lint soaked in a solution of two drachms of compound tincture of benzoin to eight ounces of water. A pad of cotton-wool and a flannel bandage completed the dressing. At the end of a week, the dressings were removed, and the wound had healed by the first intention. The patient is at present perfectly free from pain, and enjoys better health than she has for several years.

This result, I think, justifies the operation being undertaken at the very great age of 74, as it renders the rest of the patient's life tolerable. JOSHUA RHYS, 30, Barbican, E.C.

NOTES ON BOOKS.

The Holiday Annual: A Handbook of Practical Information on Holiday Topics. Edited by A. B. C. London: Sir J. Causton and Sons, 47, Eastcheap, E.C.—The English summer having "set in with its accustomed severity," the London exodus may be expected shortly to commence, even if it has not already begun. The seniors of the profession, and those who have no large school-bills to meet, have the whole of Europe and of still more distant climes before them in which to take their recreation, without stint of money or of time; but, by a still larger section of professional men, the question of ways and means has to be very largely consulted in arranging for the autumn outing. To such the *Holiday Annual* might be expected to give information not easily obtainable elsewhere; and the low price at which it is sold (sixpence) is another point in its favour. Unlike ordinary guide-books, which are devoted to special localities, this is a collection of notes of trips actually undertaken last autumn by tourists in various directions; each essay details the route taken, the hotels occupied, and the expenses of all kinds actually incurred. The information is of the most practical kind, and is just such as would prove most serviceable to intending tourists desiring to know the likely cost of a trip before setting out thereon. Amongst the localities visited and noticed in the *Annual* are Norway, Llandudno, the Ardennes, Glasgow by boat from Liverpool, Switzerland, the Thames, Cassel in France, Cornwall and South Devon, North Wales, Normandy, Ireland, and Iceland. There is also much valuable information upon the subject of travel generally, which the would-be sight-seer might consult with advantage. This is the seventh year of publication of this handy little work, and the numbers for each of the four years (1879, 1880, 1881, and 1882), we are informed, can still be obtained. They contain notes of rambles to many other districts; so that, altogether, the five numbers detail accounts of expeditions to most of the districts available for holidays to those who have only about three or four weeks at disposal.

How to Examine the Chest. A Practical Guide for the Use of Students. By SAMUEL WEST, M.D.Oxon., M.R.C.P., Physician to the City of London Hospital for Diseases of the Chest, Victoria Park; Medical Tutor and Medical Registrar at St. Bartholomew's Hospital; Assistant-Physician to the Royal Free Hospital. London: J. and A. Churchill. 1883.—After careful perusal, we can cordially recommend this work as a concise guide for the student. The book is divided into three sections; the first section dealing with the thorax, its several parts and regions, and more particularly with the topography, palpation, percussion, and auscultation of the lungs. Brief explanations are given by the author of the healthy and morbid signs that may be elicited by these methods. In a similar manner, in Section II, the position and sounds of the heart and their modifications in disease are dealt with, and in Section III the mediastinum and its principal parts and diseases. The work is fully illustrated by diagrams, and the author adopts the useful plan for students of adding a synopsis at the end of each chapter enumerating the principal points to be observed. This little work is essentially written for students, and the author professedly does not enter into controversial matters; but there is good evidence in its pages that he has duly considered and weighed the works of others.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

BICHLORIDE OF METHYLENE.

MESSRS. ROBBINS and Co. have forwarded to us the following letter.

We shall feel obliged by the insertion of a reply to a paper by Dr. Junker, published in your JOURNAL, July 21st.

In that paper, Dr. Junker particularly calls attention to a report by a foreign chemist, who states that, on examination of methylene, he found it to be composed of a mixture of chloroform and alcohol,

To that statement we give a most emphatic denial, and say that by no admixture of chloroform and alcohol can any preparation be made possessing the same chemical qualities and other characteristics of methylene.

A mixture of chloroform and alcohol can be easily detected by simple distillation; by this means, the alcohol can be, to a considerable extent, separated from the more volatile chloroform, giving a higher boiling-point, and low specific gravity. By treating methylene in a similar way, and comparing results, the difference in the general behaviour of the two compounds is manifest.

When Dr. Richardson introduced methylene to the profession in 1867, we adopted for making it the only practicable method known, as given in some of the chemical works, viz., by the action of metallic zinc on a mixture of chloroform and ethylic or methylic alcohol. On application of heat, strong chemical action takes place, with formation of chloride of zinc from the chloroform, and oxide of zinc from the alcohol, proving clearly a chemical change in the liquid.

The process, although apparently simple, is not without difficulties in practice; the zinc, so readily attacked at first, soon becomes protected by the oxychloride, making a long-continued action more difficult to sustain, thus causing a wide difference of temperature from the first to the last stage of the process. These difficulties were so great, that Dr. Richardson, making the first specimen with which he experimented, told us that it had taken him ten days to produce fifteen ounces of the fluid.

Long experience has enabled us to obtain more uniform results. We now distil the methylene at about 127° to 128° Fahr., and, as a rule, never varying more than three degrees from the first to the last part of the distillation.

We have constantly invited medical men to see the process in operation, and shall be happy to do so again to anyone in the profession who may take an interest in the matter.

On the medical question of the action of methylene, we naturally have nothing to say; but we are bound to quote the following report from Dr. Junker, published in the *Medical Times and Gazette*, February 15th, 1868. "It appears to have several advantages over chloroform. Its effect takes place rapidly, and without any previous stage of excitement. No violent muscular contractions usher in the anæsthesia; rather a cataleptic state, during which the limbs remain pliable. The patient frequently continues talking during the whole time of anæsthesia, but talks coherently, mostly saying prayers, without leaving out a single word—not rambling and unintelligible, as after chloroform. The patient awakes suddenly, and perfectly collected. In some cases no sickness occurred after this narcotic; in others, many hours after the effects of anæsthesia had passed off, and laudanum having been given during the interval. In one case sickness set in almost immediately after the operation, but could not fairly be attributed to the effects of methylene, as the pathological condition of the patient fully accounted for the occurrence of this symptom." Dr. Junker's success is assumed to be connected with the above expressed experience. Is this all a mistake? —We are, sir, your obedient servants, J. ROBBINS AND CO.

The Teignmouth Local Board and Urban Sanitary Authority, in re-appointing the Medical Officer of Health, have increased his salary from £50 to £60 per annum.

FIFTY-FIRST ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in LIVERPOOL, July 31st, August 1st, 2nd and 3rd, 1883.

EXTRAORDINARY GENERAL MEETING, THURSDAY, AUGUST 2ND.

AN extraordinary general meeting of the Association was held at 10 A.M.; Dr. A. T. H. WATERS, President, in the chair.

Alterations of Articles of Association.—The PRESIDENT explained that the meeting was an extraordinary general meeting of the Association for the purpose of considering alterations in the Articles of Association, and passing special resolutions thereon; and he called upon the President of the Council, Mr. Wheelhouse, to make a statement on the subject.

Mr. WHEELHOUSE said they had met to consider whether they would so alter the Articles of Association as to bring them into uniformity with the new by-laws, which had been fully considered at a previous meeting. A two-thirds vote of those present would be required to pass the resolutions that would be submitted. The alterations that would be proposed were of the simplest character, alterations of a word here and there; but it was necessary to make them, because the law was so strict that it would not permit the existence of any by-law which was not in exact accordance with the Articles of Association. The meeting was in no sense a meeting for the further consideration of the by-laws, because that would take place at an extraordinary meeting to be held in London on August 17th; and if anyone desired to bring forward any further amendment in connection with the new by-laws, he would have an opportunity of doing so on that occasion. The special resolutions would then be again considered, and, if agreed to, confirmed. It was necessary that there should be two general extraordinary meetings, and the present meeting was the first of them. He moved:

"That Articles 2, 9, 13, 15, 16, and 26, be altered, by striking out the words 'Committee of' in the places where these words occur."

Dr. FOSTER (Birmingham), in seconding the motion, reminded the members that a two-thirds vote of those present would have to be taken, and that those who did not vote at all would be counted as voting against the resolution.

The resolution was agreed to.

Mr. WHEELHOUSE moved "That Article 7 be struck out, and the following article be substituted therefor:

"7. Any member whose subscription shall not have been paid on or before the 31st of December of the current year shall, without prejudice to his liability to the Association, be suspended from all privileges of membership; and, at the end of the succeeding year, if the arrears be still unpaid, he shall cease to be a member, and shall be ineligible for readmission until he shall have paid all arrears due at the period of his suspension. No member shall (except in case of his death or expulsion, or his ceasing to be a member under the previous provisions of this Article) cease to be a member, without having given previous notice in writing of his intention in that behalf, on or before the 1st day of December in the current year to the Secretary hereinafter mentioned, and paid all arrears of subscriptions (if any) due from him."

Mr. HUSBAND (Bournemouth) seconded the resolution, which was agreed to.

Mr. WHEELHOUSE moved:

"That Article 11 be struck out, and the following article substituted therefor:

"11. Subsequent general meetings shall be held once in every year, commencing with the year 1875, at such time as shall be fixed by the Council, and at such places as may be prescribed by the Association in general meeting, and if no time is so fixed, a general meeting shall be held on the 20th day of August in every year, commencing as aforesaid, and shall, if no place is so prescribed, be held at such place as may be determined by the Council."

Dr. EYTON JONES (Wrexham) seconded the resolution, which was agreed to.

Mr. WHEELHOUSE moved:

"That Article 17 be altered by striking out the words 'and the Committee of Council'."

Dr. WADE (Birmingham) seconded the motion, which was agreed to.

Mr. WHEELHOUSE moved:

"That the words 'and Committee of Council' in the heading before Article 25 be struck out. That Article 25 be struck out, and the following Article substituted therefor:

"25. The business of the Association shall be managed by the Council; and the constitution, duties, powers, and mode of procedure of the Council shall be determined on from time to time by the Association in general meeting."

The resolution was seconded and adopted.

Mr. WHEELHOUSE moved:

"That Article 28 be struck out, and the following Article substituted therefor:

"28. There shall be the following officers of the Association, viz.: a President of the Association, a President-elect, Vice-Presidents, a President of the Council, a Treasurer, an Editor of the JOURNAL, and a Secretary. The officers (other than the Editor of the JOURNAL and the Secretary) shall respectively be designated or elected, and hold office for such period, and have and enjoy such duties, powers, and privileges, as shall be determined from time to time by the Association in general meeting. The Editor of the JOURNAL and Secretary shall respectively be designated or elected, and hold office for such period, and have and enjoy such duties, powers, and privileges, and receive such emoluments, as shall be determined from time to time by the Council."

Dr. STRANGE (Worcester) seconded the resolution, which was agreed to.

Mr. WHEELHOUSE moved:

"That Article 30 be amended by adding the following words after the word 'abode,' 'or by publication of such notice in the JOURNAL, and forwarding a copy of the JOURNAL containing such notice to such member prepaid and addressed as above mentioned.'"

The resolution was seconded, and agreed to.

Mr. WHEELHOUSE moved:

"That Article 31 be altered by adding the words 'or a copy of the JOURNAL' in the second and fifth lines of that Article after the word 'letter.'"

Mr. NICHOLSON (Hull) seconded the resolution.

Mr. NELSON HARDY (London) questioned the desirability of passing the resolution, which rendered the sending of a copy of the JOURNAL sufficient notice to a member of a matter which might gravely affect his position and character. The notice might be in an obscure place, or in small print, and it was quite possible that he might never see it.

Dr. NORMAN KERR (London) proposed, as an amendment, that the notice should be by letter, and also by a copy of the JOURNAL.

Mr. WICKHAM BARNES (London) seconded the amendment.

Mr. HUSBAND said he did not see the necessity for the proposed alteration. If any communication had to be made to a member, it ought to be done in the ordinary legal way, and not simply by a copy of the JOURNAL.

Mr. ERNEST HART (London) said it was necessary that every member should have legal notice of any resolution, however general in its character; and the resolution now proposed was only intended to apply to such general notices, not to any question affecting the personal character of the members.

Mr. HUSBAND said that Mr. Hart's explanation had removed his objection to the resolution.

Dr. NORMAN KERR withdrew his amendment, and the resolution was agreed to.

Mr. WHEELHOUSE proposed:

"That the second statutory extraordinary general meeting be held at Exeter Hall, London, on Friday, the 17th instant, at two o'clock in the afternoon, at which the foregoing special resolutions will be again considered, and, if agreed to, confirmed."

Mr. WICKHAM BARNES (London) seconded the motion.

Mr. BROWN (Bacup) asked if it would be competent to members to move amendments at the meeting on August 17th.

Mr. WHEELHOUSE said that amendments could be proposed on that occasion.

Dr. FOSTER (Birmingham) said there would be two meetings on August 17th—a continuation of the present meeting, a special meeting to confirm the alterations in the Articles of Association; and then the adjourned annual meeting, to take into consideration the by-laws agreed to on Tuesday, with any amendments thereon.

The resolution was agreed to.

THIRD GENERAL MEETING.

The third general meeting was held immediately after the conclusion of the extraordinary meeting.

Report of the Collective Investigation Committee.—Professor HUMPHRY (Cambridge) proposed "That the report of the Collective Investigation Committee be approved and adopted." (It was taken as read, having been published at page 194 of the JOURNAL for July 28th.) It would be seen, he said, from the manner in which the subject had been taken up, that collective investigation had now become one of the great facts of the Association. For the success of that work two things were absolutely requisite; first, that a large number of members should participate in it; and secondly, that they should have full confidence that the results of their work would be appreciated and turned to good account. They had already evidence that a large amount of work had been done by the members, and the record of that work would show that

it had been thoroughly appreciated, and was already being turned to good account. In doing work of that kind, a member of the Association was twice blessed, first by contributing to the general stock of professional knowledge, and secondly, by contributing to the stock of his own individual knowledge.

Dr. CHADWICK (Tunbridge Wells), in seconding the motion, said that in the work of the Committee they had the realisation of the fondest hopes of those who desired that the members of the Association might be amongst the leaders of scientific investigation. They also had the assurance that the work was now in the very best hands.

Dr. EYTON JONES (Wrexham) desired to say, on behalf of the members of the Association, how greatly indebted they were to Professor Humphry for the deep interest he had taken in the subject. The money of the Association could not be expended in a better direction. The object was a perfectly legitimate one, and, he believed, would contribute more than any other to the advancement of professional knowledge.

Dr. HADDON (Hawick) said that the history that had been given or the movement was not an accurate one. He believed that Dr. Ransome in 1864 read a communication at the meeting in Cambridge, advocating a movement of that kind; and, as far as he was aware, no other suggestion of the kind had been made, until Dr. Ransome's recommendation to the Lancashire and Cheshire Branch to begin the work in 1872. That Branch received a grant of £10 from the parent Association to carry on an investigation with regard to the duration of infection. The whole subject was gone into, and a report was drawn up and transmitted to the JOURNAL; but it was unfortunately lost, and had never been published in their transactions. The sum of £8 was expended, and £2 was returned to the funds of the Association. The next movement in the history of collective investigation was taken by himself at the Manchester meeting. In the course he took on that occasion, it was suggested that he was aiming a shaft at the editor of the JOURNAL; but nothing was further from his intention. The next step was taken by Professor Humphry, to whom the Association was greatly indebted for the establishment of the committee. It was not creditable to them that it should be only at the suggestion of the President that such steps were taken. They might wait a long time before getting a president who would so fully recognise the responsibility of the Association in such a matter. He hoped that a more extended and accurate history of the movement would be published. He objected to the proposed payment for the reports. Some of those reports contained not only opinions, but suggestions as to treatment; but the object was simply to ascertain facts. If payments were made at all, they should be made to those who drew up the cards that were sent out. The proposal to pay the gentlemen who drew up the reports, appeared to be like an attempt to insert the thin end of the wedge, with a view of obtaining payment of the expenses of the members attending the meetings of the Executive Committee in London. That was a principle upon which the Association had already decided in the negative. At the Ryde meeting, he had proposed that a secretary should be appointed at a salary of £500 a-year. Professor Humphry suggested £200 a-year; but he (Dr. Haddon) maintained that they could not expect any member of the profession to work for that sum. As soon as the secretary was appointed he resigned, and he believed that no other secretary than Dr. Mahomed had been elected. He did not think that the instructions given at the general meeting at Ryde had been carried out. A secretary was to be appointed for the special work, and part of his work would be to draw up the reports on the results of the investigation, and not to hand them to other persons. With all deference to the Committee, he thought that, if it proceeded as it had done, its praises would not be sounded as they had been.

Dr. MAHOMED (London) said he wished to take the opportunity of acknowledging the work which Dr. Haddon had done in connection with the subject of collective investigation, but, unfortunately, the facts had only come to the knowledge of Professor Humphry and himself within the last three or four days. He wished that Dr. Haddon had long ago put himself in communication with the Committee, who would have been very glad to receive his advice and assistance. He thought that Dr. Haddon had not the least conception of the amount of work involved in the preparation of the reports. If the secretary were required to draw them up, the chief object of the Committee would be destroyed. It was not intended that the work should be personal or individual, but that it should be the work of a body of men. The secretarial work was very laborious, and it would be quite impossible that the person who undertook it should analyse the returns and draw up the reports. The returns required very careful reading, and in many cases further correspondence with the writers of the cards. The work was of a special character, involving a great expenditure of time, and it thoroughly deserved to be remunerated. If it were to be of an honorary character, the choice of the Committee would be very much limited; and they could hardly expect good work to be done without paying reasonable remuneration. He could state, from personal knowledge, that the writer of the report on phthisis had devoted all, and more than all, his spare time to its preparation. The mere filling up of the cards was a very small matter, involving but little time and labour, not more than from five minutes to a quarter of an hour; indeed, in many cases the work was largely done by simply scratching out particular words.

Mr. GLAISTER (Glasgow) maintained that if members, travelling a considerable distance to attend meetings in London, were not to be paid their expenses, no payments should be made to the writers of the reports.

Dr. WADE (Birmingham) said it was thought by some members of the Committee, who were then present, that the paragraph with regard to payments was perhaps a little too peremptory, laying down, as it did, the exact rate of payment to be made; and they requested permission to make a slight alteration, stating that payment should be made "at the discretion of the Committee of Council."

Mr. MALCOLM MORRIS (London) said there was a great distinction between the payment of the writers of reports and the payment of members attending committees. In the one case, the work might be done by any member of the Branch; in the other case, it was skilled labour that could not be performed by anyone, and ought therefore to be remunerated.

Professor HUMPHRY said he took upon himself the entire responsibility of the imperfect history to which Dr. Haddon had alluded. He was sorry that he made any omission in it; and if Dr. Haddon would draw up a supplementary statement, the conductors of the *Record* would be happy to publish it in a subsequent number, which, it was hoped, would soon appear. He was anxious not to take too much credit for the work, because the credit was almost entirely due to the exertions and the intelligence of Dr. Mahomed. They were also greatly indebted to the secretary for the great trouble which he had taken in the matter, and the earnest desire he had shown to promote the work of collective investigation. With regard to the payment of the writers of the reports, it should be remembered that those gentlemen were working out, not their own views, but the results obtained by other men.

Dr. HADDON maintained that the principle of payment for such work was altogether at variance with the principles of the Association. No great skill was required in writing a report, which ought to be merely a synopsis of the results obtained. He moved:

"That the principle implied in the recommendation be not carried out, and that no payment be made for such work."

Dr. GLAISTER seconded the amendment.

Mr. MORRIS said that the names of the writers of the reports were appended as a guarantee of good faith, and to show that the work had been done by competent authorities.

Professor HUMPHRY said he was quite sure that the members who sent in their cards did it in the expectation of their work being turned to good account, and they would naturally be most anxious that the results should be submitted to the most competent persons to draw up the reports. No money, he thought, could be better spent than that paid for work of that description. As at present amended, all that the report asked was that the members would sanction payments being made in such a manner as the Committee of Council might think fit.

The amendment was put and lost, and the resolution for the adoption of the report as amended was agreed to.

FOURTH GENERAL MEETING, FRIDAY, AUGUST 3rd.

The fourth general meeting was held at 10 A.M. on Friday, Dr. WATERS, President, in the chair.

Address in Pathology.—Dr. C. CREIGHTON delivered the Address in Pathology. It was published at page 218 of last week's JOURNAL.

Sir SPENCER WELLS (London) proposed:

"That the best thanks of this meeting be given to Dr. Creighton for his able Address in Pathology."

It appeared, he said, from the conclusion of the address, that Dr. Creighton fully entered into what he believed to be a true definition of pathology, which had been exposed to the taunt that it had degenerated into what might be called merely morbid anatomy, just as it had been said that the Pathological Society of London had degenerated into a society for the exhibition of specimens. They

looked upon pathology as something far higher than that; and, if he had had time to get up a little carefully prepared impromptu—[*laughter*]—he might speak of the noble ship arriving in Liverpool from America being carefully conducted through its voyage, protected from the storms, guided through the currents, and brought into port by the skill and precautions of the captain and pilot; and then he might compare what they had done with the persons who, after the ship had been wrecked, carefully put aside all the salvage, and gave a correct account to the owners of the damage done and of the value of the wreck. That might be taken as an illustration of the greater value of the pathologist, the captain and the pilot, than that of the mere wrecker. He fully concurred in all that Dr. Creighton had said as to the true bearings of modern pathology, its value in protecting the human race from disease, lengthening life, and saving it from suffering. He had fully entered into that view of the case, and it was one which he was quite sure would commend itself to all who had listened to his address.

Dr. B. FOSTER (Birmingham), in seconding the motion, said they had before had addresses in medicine, surgery, and even in pathology, but they had never before had the new and rising school of pathology, that promised so much in the elucidation of disease, represented at their annual meetings, and he congratulated the meeting on having had so able an address from so able a representative of that school. It was a truth that could not be too often repeated, that in pathology they had nothing but disordered physiology, and that truth had been well brought home to them in Dr. Creighton's address. When Claude Bernard began to teach the great fundamental fact on which progress must rest, he raised up a school of which Dr. Creighton had been the exponent on the present occasion. He had taught them that by working from the normal condition, and watching the deviations from it, they might learn those secrets of the abnormal which might enable them to combat and overcome disease. Whether or not they followed Dr. Creighton in his generalisation about disordered nutrition being the beginning of tubercle or cancer, or in his theory as to the origin of small-pox, they had all been equally interested by the lucidity and ability with which he had brought forward his facts, and they all congratulated him on his escape from the hands of the metaphysicians. The moment an investigator of physical phenomena came into contact with metaphysics, it was to be hoped that he would receive the repulse that Dr. Creighton had received in his endeavour to obtain from that barren study some information on the bearings of physiology.

The motion was unanimously agreed to.

Dr. CREIGHTON briefly acknowledged the vote of thanks, and the meeting adjourned.

CONCLUDING GENERAL MEETING, FRIDAY, AUGUST 3RD.

The concluding general meeting was held at 2 P.M., the PRESIDENT in the chair.

Report of the Medical Reform Committee.—The Report of the Medical Reform Committee was taken as read. It was published at page 137 of the JOURNAL for July 21st. The following paragraph was added to the report:

"The Committee have to deplore the death of their devoted friend and counsellor, Dr. A. P. Stewart, whose services on the Committee were beyond all praise, and whose loss is irreparable."

Dr. WATERS (Chester), in moving the adoption of the report, said it was very satisfactory to know that all the numerous details to which reference had been made had been laid before the Government in the most effective manner. For the first time in the history of medical legislation, the Government now looked upon the Association and the profession as backing them up in their attempt. The principles for which the Association had always contended were specified in the report handed in at the Worcester jubilee meeting; and they comprised, first, the formation of divisional boards for the conduct of a compulsory minimum examination in each division of the kingdom, which should confer the sole qualification for registration and licence to practise, such examination to include medicine, surgery, and obstetrics; secondly, direct representation of the profession on the General Medical Council, and the diminution of the influence of the licensing corporations thereon; thirdly, strengthening the powers of the General Medical Council thus amended in composition; fourthly, making more effective the penal clauses of the Medical Acts against a false assumption of medical titles; fifthly, the conduct of prosecutions for offences against the Act by the Public Prosecutor in each division of the kingdom. There were objections taken to the Bill in the first instance, because it proposed to inflict an annual tax upon the members of the profession; and that, at their solicitation, was abrogated. Then, with regard to the titles long used by members of the profession, who were on the *Register*, but which had not been recognised by the Council for Registration, by a saving clause introduced into the Bill, the gentlemen holding those titles would continue to use them; in fact, the saving clause protected the present rights of all existing registered practitioners. Those were the two great points to which they attached special importance. There were other matters of detail to be fought out between the universities and the corporations; but they did not enter into the subjects which the Reform Committee had had delegated to it. That Committee distinctly confined its action to the subjects involved in the five points to which he had referred. The Bill had been supported by numerous petitions from the profession, by the schools in Lancashire, Liverpool, Manchester, Sheffield, and Leeds, and by the Branches; in fact, for the first time, the profession and the Government were endeavouring to carry a Bill through Parliament in the interest of the profession and of the public. Dr. Waters concluded by moving:

"That the report of the Medical Reform Committee be received and adopted, and that the Committee be re-appointed as follows, with power to add to their number: Dr. E. Waters, Dr. Alfred Carpenter, Dr. M. M. De Bartolomé, Dr. C. Chadwick, Dr. Balthazar Foster, Mr. Ernest Hart, Rev. S. Haughton, Mr. W. D. Husband, Mr. C. Macnamara, Mr. F. E. Manby, Mr. W. H. Michael, Mr. R. H. B. Nicholson, Dr. W. F. Wade, Mr. C. G. Wheelhouse, Dr. Yellowlees."

Dr. DE BARTOLOMÉ (Sheffield) seconded the motion.

Dr. MCVAIL (Glasgow) asked if the adoption of the report committed the Association to the construction of any medical board in either of the three divisions of the kingdom.

Dr. WATERS said he had already explained that it was not within the duty of the Committee to settle any point of that kind. The Association would be in no way committed to the special composition of any divisional board.

Dr. MCVAIL said he should like to add to the names already mentioned in the resolution those of Dr. George W. Balfour, President of the Royal College of Physicians of Edinburgh; Dr. Heron Watson, ex-President of the Royal College of Surgeons of Edinburgh; and Dr. James Morton, of the Faculty of Physicians and Surgeons of Glasgow—in order that Scotch opinion might to some extent have an opportunity of being heard on the Parliamentary Committee during the present year.

Dr. WATERS said it was a delicate matter to add to the numbers of a Committee, not very numerous, several gentlemen who were distinct and decided partisans, and were not likely to be influenced by any arguments brought forward against the opinions which they entertained, and had in the most powerful manner submitted to the Government. If it were the opinion of the members present that the gentlemen referred to should be added to the Committee, he, as Chairman, should be glad to see them; but he thought it ought to be understood that they were partisans, whose special work it would be to support the Scotch corporations against the Scotch universities. They did not wish to balance the claims of those gentlemen, who could fight out their battle between themselves. He should like to have a Scotchman upon the Committee, and if Dr. McVail himself would consent to serve on it he should be delighted.

Dr. MCVAIL said that there was one "partisan" on the Committee from Scotland, Dr. Yellowlees of the University of Glasgow; and he thought there ought to be one at least on the other side. He would propose the name of Dr. Heron Watson of Edinburgh.

Dr. WATERS assented to the proposal.

Dr. JACOB (Dublin) said it had been a pleasure to him, as representing Ireland, to work hand in hand with Dr. Waters and the other members in promoting legislation. They had now arrived at a stage in the progress of the measure which placed the Association in a peculiar position. The Bill stood for the second reading in the House of Commons, having passed the three readings in the House of Lords. It had been the policy of the Committee to allow the Bill to go forward without starting any amendments, lest they might be throwing such difficulties in the way as would lead the Government to abandon the Bill. In that policy he concurred; but the second reading might be taken within the next three or four days, and the time would then have arrived for the Association to obtain the necessary amendments to make the Bill acceptable to the profession. While he approved of the principle of the Bill, he altogether disapproved of its being permitted to pass without some needful emendations. Government and Parliament had at length been forced to admit the principle of direct representation on the Medical Council; but his complaint was that, in the Bill, the direct representative was placed in a most subordinate and humiliating position, and, when the time came, he

hoped the Committee would take steps to have that altered. Again, it was contemplated that all the detailed work should be done by Local Boards in the three divisions of the kingdom, and that all the central work should be done by the Medical Council in London. His complaint was that in the preliminary settlement of the schemes to regulate the examinations, appoint the examiners, etc., the direct representative had no voice, and he was left to exercise what influence he might subsequently in the Medical Council itself. When he remembered that the action of the Council had been confined to half a dozen days in July, he protested against the direct representative being limited to such influence as he could exercise as an eighteenth portion of the Council sitting in the dog-days. The direct representative should be placed *ex officio* upon the local medical board. Unless something were done in the direction he had indicated, the last stage of legislation would be worse than the first. He had reason to believe that, if the matter were urged by the Association, the Government would be willing to yield.

Dr. EYTON JONES (Wrexham) said that, as the meeting had heard the views of an Englishman, a Scotchman, and an Irishman, it was but fair that a Welshman should be heard. They were all deeply indebted to Dr. Waters and the Committee for the great labour they had bestowed upon the subject. Dr. Waters had thrown his whole soul into it, and, but for his determined and indefatigable exertions, he believed the corporations would have had their own way. If a direct representative were appointed, he hoped it would be in the way suggested by Dr. Jacob, and that the first person appointed would be Dr. Waters himself.

The motion was then agreed to.

The Rev. Dr. HAUGHTON (Dublin) congratulated the Association on the position it then occupied. Having heard the remarks of Dr. Jacob, he was glad to think that there was no substantial difference of opinion amongst them. He had come to the meeting at great inconvenience, to say what he could on behalf of unanimity, and in support of the principle of the Bill, whatever modifications might be necessary. He became a member of the Reform Committee in 1869, at the Leeds meeting, and he had attended some of its most important meetings at the summons of Dr. Waters. At the Manchester meeting in 1877, there was some little difference of opinion amongst them, but he had determined to stick to the ship, and to do what the Association wished, and he did it loyally. The principles for which they contended were the direct representation of the profession on the Council, the one-portal system, and what he had ventured to call the "persecution of the quacks." He did not himself go in for persecution, but would consent to a moderate amount of stimulation. If all quacks were put down, where would they all be? How would it be in politics? His opinion was that there was a greater number of quacks in the House of Commons than in any other body with which he was acquainted, and was it likely that they would put down medical quacks? Hawks did not pick out hawks' eyes. He thought that Dr. Jacob had underrated the importance of the services that could be rendered by direct representatives on the Medical Council. The Council would contain six Crown representatives, presumably respectable and excellent; four representatives of the profession, who would, of course, be the cream of the cream of the whole Council. There would be eight other members; and, supposing they were all as great rogues as himself, what mischief could they do against the others? [*Laughter.*] The Council of the future would not be like the Council of the past, on which he had the pain of sitting, only to see measure after measure of useful reform doggedly and silently voted, not argued, down by the corporations. He sincerely congratulated the profession on the success which it had attained. With regard to the representation on the Local Boards, a word in season might be desirable. The functions of the different members of the Council were not all the same. The Crown representatives were men of high standing and large principles, and he presumed that the direct representatives would be of the same class. They were not the men whom he, as a working educationalist, would consult about the details of education and examination. They were men of great importance in laying down broad general principles; but the application of those principles should be conducted by Local Boards, composed of persons directly engaged in the work of education. The question was, no doubt, one that ought to be considered; but, if it were pressed on the Government now as an important matter, the Bill might be shipwrecked. There was not a word about the direct representative having a seat on the Local Board in the report of the Royal Commission or in the Bill. They had to consider the equity of the case as well as their own wishes. They might desire the direct representative to have a seat on the Local Board as well as on the Council; but had he, or the Crown representative, the right to such a seat? They ought not to forget the beaten party in the struggle. There were nine corporations practically disestablished, and they had no means of being represented on the Medical Council but through the Local Boards, which ought to be regarded as their peculiar property. Mr. Mundella had stated publicly that, if the placing of direct representatives on local boards were pushed in a serious way, he should consider it destructive to the principle of the Bill. Ought they, under such circumstances, to run any risk now that they were in sight of the harbour? Under present circumstances, any appearance of a difference of opinion ought certainly to be avoided. If any alteration were needed, it would be an easy thing to bring forward, a few years' hence, an Amendment Bill; but it would be very difficult, if the Bill were now shipwrecked, to bring in a new one.

Report of the Parliamentary Bills Committee.—This report was taken as read. It was published at page 181 of the JOURNAL for July 28th.

Dr. B. FOSTER moved:

"That the report of the Parliamentary Bills Committee be received and adopted, and the gentlemen whose names are as follows be reappointed the Committee for the ensuing twelve months: Hart, Ernest, Esq., Chairman; Barnes, J. Wickham, Esq., Bolt Court; Barnes, Dr. Robert, Harley Street; Bartrum, J. S., Esq., Bath representative of the Bath and Bristol Branch; Bruce, Dr. W., Dingwall, N.B.; Bryan, Dr. J. M., Northampton, representative of the South Midland Branch; Bucknill, Dr. J. C., F.R.S., Wimpole Street; Carpenter, Dr. Alfred, Croydon; Davies, Dr. Andrew, Cardiff, representative of the South Wales and Monmouthshire Branch; Dewes, Dr. E., Coventry, representative of the Birmingham and Midland Branch; Down, Dr. Langdon, Harley Street; Duffey, Dr. G. F., Dublin, representative of the Dublin Branch; Ewart, Surgeon-General, Brighton; Forsyth, Dr. A., Greenwich; Foster, Dr. B., Birmingham, representative of the Birmingham and Midland Branch; Gibson, Dr. G. A., Edinburgh, representative of the Edinburgh Branch; Grigg, Dr. W. C., Curzon Street, W.; Hardy, H. Nelson, Esq., Dulwich; Harries, J. D., Esq., Shrewsbury; Harrison, Reginald, Esq., Liverpool, representative of the Lancashire and Cheshire Branch; Henry, Dr. A., Highbury Hill, representative of the Metropolitan Counties Branch; Holman, Dr. C., Reigate, representative of the South-Eastern Branch; Jackson, Mr. Arthur, Sheffield, representative of the Yorkshire Branch; Jones, Dr. Eyton, Wrexham, representative of the North Wales Branch; Kerr, Dr. Norman S., Grove Road; Macmillan, Dr. A., Hull, representative of the East York and North Midland Branch; Miller, Sir W., Londonderry, representative of the North of Ireland Branch; Moore, Dr. J., Belfast, representative of the North of Ireland Branch; Morris, Dr. E., Spalding; Nicolson, Dr. D., Broadmoor, representative of the Southern Branch; Orange, Dr. W., Broadmoor, representative of the Reading Branch; Ord, Dr. William, Brook Street, W.; Orton, Dr. C., Newcastle, Stafford, representative of the Staffordshire Branch; Partridge, Surgeon-General, Anerley; Phillips, Dr. H. H., Reading, representative of the Reading Branch; Philipson, Dr. G. H., Newcastle-on-Tyne, representative of the North of England Branch; Prankerd, John, Esq., representative of the West Somerset Branch; Quain, Dr. R., F.R.S., Harley Street, W.; Rees Philipps, Dr. S., Exeter, representative of the South-Western Branch; Rogers, Dr. Joseph, Soho Square, W.; Rogers-Harrison, C. H., Esq., Stockwell Road; Royle, Dr. P., Manchester; Sheen, Dr. A., Cardiff, representative of the South Wales and Monmouthshire Branch; Sibley, Septimus W., Esq., Harley Street, W.; Smart, Sir W., M.D., K.C.B., Castleton Road, West Kensington; Spanton, W. D., Esq., Hanley, representative of the Staffordshire Branch; Stear, Henry, Esq., Saffron Walden; Taylor, Dr. M. W., Penrith; Vinen, Dr. E. H., Bayswater, W.; Whittle, Dr. E., Liverpool, representative of the Lancashire and Cheshire Branch; Williams, Dr. Charles, Llanbedr, Merionethshire."

He said the constitution of the Committee was in many respects an example to every committee of the Association, being composed of representatives elected directly by each Branch. It was, moreover, the only political organisation that the profession possessed; and, remembering that the power of the profession in the State was not what it ought to be, they ought to be glad that they had an organisation for exciting political influence. He trusted that that influence would grow, and that, as the great social and sanitary questions came to the front, the voice of the profession would be heard with greater force. It was a fortunate thing that the influence of the Committee over legislation had been increasing. When recent army warrants had been about to be brought forward, they had been previously sub-

mitted to the chairman and members of the Committee; and no great measure of recent years affecting the status, pay, and position of their brethren in the army had been passed without the Committee knowing all about it in good time, so as to be able to offer suggestions and obtain modifications. The Ministers of the country were more and more turning to the Committee and asking for its advice. During the recent session, they had seen the question of the notification of diseases debated with some acrimony in the profession and within the walls of the House. On that subject, the Committee had exerted an useful influence, and had obtained from the President of the Local Board such concessions as would prevent any Act from being passed that would force upon medical men unheard a duty which they were unwilling to undertake. The Committee had also been doing useful work with regard to the position of militia-surgeons and ship-surgeons. The way in which militia-surgeons had been treated was simply disgraceful. Every official under the Bankruptcy Law retired on a pension, sometimes of £700 or £800 a year; the militia-surgeon gave the best years of his life to the service, and was turned adrift without anything like adequate consideration. The action of the Committee and of certain representatives of the profession in the House of Commons had been most valuable in eliciting a strong parliamentary protest against this injustice, which would in the end, he believed, be remedied. Again, when the vaccination question came before the public, the Committee issued a very valuable memorandum, which had a potent influence in enabling members of Parliament to answer their constituents, and avoid undue pressure.

Dr. NORMAN KERR (London), in seconding the motion, said that the work done by the Committee had been of the most delicate, yet of the most important character, and to no member of the Committee was the Association so much indebted for work of priceless value to the profession and the public as to its able and ever active chairman.

Dr. FITZPATRICK (Liverpool) asked whether it would be competent for him to move then or at the meeting in London on the 17th, a motion that had been entrusted to him by Mr. Macnamara, to the effect that the Parliamentary Bills Committee should be instructed to watch all proposals for legislation on the subject of the Contagious Diseases Act, and that it should oppose any attempt to repeal the Acts, and should endeavour to induce the Government to restore a more perfect observance of that Act.

Dr. WHITTLE (Liverpool) said he objected to any such motion being brought forward without notice.

Dr. FITZPATRICK maintained that it was competent for the Association to instruct the Parliamentary Bills Committee on the subject, and that they would have no right to take action upon it without such instruction. He would withdraw the motion if it could be taken at the meeting in London.

The PRESIDENT said he should like to take the sense of the meeting whether the resolution should be discussed there or at the meeting on the 17th instant in London. The motion at present before the meeting was the reception of the report of the Committee.

Dr. FITZPATRICK said that the Committee appeared to be the only one that did not nominate its own chairman. He observed that in the list of names proposed the word "chairman" followed the name of Mr. Hart. That was not the case with the other reports. He had no doubt that the Committee would unanimously appoint Mr. Hart chairman, but he did not think that gentleman should be appointed by the Association itself.

Mr. ERNEST HART said that, as a matter of fact, that was the only committee which was perfectly regular in regard to the appointment of chairman. He believed it had been the almost invariable custom for the chairman of committees of the whole Association to be originally nominated by the annual general meeting. Dr. Waters, as Chairman of the Medical Reform Committee, had never been selected by the committee, but by the Association. The business of a committee, such as the Parliamentary Bills Committee, began from the moment of its appointment, and it would be the duty of someone to watch all that related to legislation until the Committee was called together. Unless a chairman were appointed for that purpose, the Committee would have to be called together at once, at great cost and difficulty, to appoint a chairman, or its business might fall into abeyance for many months. Whether they chose to honour him, or impose upon him a laborious task, by electing him as chairman, was a matter for their consideration; but it was certainly for their convenience that some chairman should be nominated.

The Rev. Dr. HAUGHTON (Dublin) pointed out that the name of Dr. Waters was placed first, out of alphabetical order, in the list of names of members of the Medical Reform Committee, and it was evident that the omission of the word "chairman" after his name was a printer's error.

Dr. FITZPATRICK moved an amendment to the motion for the receipt of the report that the word "chairman" be omitted, and that the Committee appoint its own chairman.

The amendment was put and two hands held up in favour of it; and the original resolution was adopted.

The Contagious Diseases Acts.—Dr. FITZPATRICK moved that the Parliamentary Bills Committee be instructed to watch the proposals to legislate on the subject of contagious diseases, to oppose any attempt to repeal the Contagious Diseases Acts, and endeavour to induce the Government to restore a more perfect observation of these Acts.

Surgeon-Major MCCORMACK seconded the motion.

Dr. EWING WHITTLE (Liverpool) said that, when Mr. Stansfeld's motion was carried, practically abolishing the Acts, there was a very general consensus of opinion that it was desirable to get rid of the agitation. It had been very difficult to bring the matter before the public, because the Press would never report the meetings that were held respecting it; but now they could scarcely take up a newspaper without seeing the Contagious Diseases Acts prominently referred to. The opponents of the Acts, after twelve years' agitation, had done what perhaps had never before been accomplished—they had beaten a strong Government and a strong Parliament in a way that was never expected, because not one man in half a million expected that Mr. Stansfeld would carry his motion. Both Government and Parliament were greatly astonished at the result. He hoped the Association would be cautious in the steps that it took, and not commit itself to a principle which would meet with the scorn and opposition of every religious body in the kingdom.

Mr. GLAZEBROOK (Liverpool) opposed Dr. FitzPatrick's motion.

Mr. JOHN BROWN (Bacup) expressed a hope that the Parliamentary Committee would not interfere in any way with the Contagious Diseases Act.

Dr. WHITTLE moved: "That the Association is not yet prepared to entertain the question."

The amendment was lost.

Mr. GLAZEBROOK (Liverpool) moved the omission in Dr. FitzPatrick's resolution of the words, "and endeavour to induce the Government to restore a more perfect observance of that Act."

Dr. JACOB (Dublin) seconded the amendment, but expressed his intention of voting against it.

The amendment was put and lost by a great majority. The original resolution was then carried.

Report of the Scientific Grants Committee.—This report was taken as read. It was published in the JOURNAL for July 28th, page 193.

Dr. WADE (Birmingham), in moving the adoption of the report, said that it consisted of three parts. The first gave a description of the work done for the Association by those who had obtained grants; and he thought they might congratulate themselves that the results had been satisfactory. The last paragraph in the report referred to a matter which, when the report was written, was undecided upon; but, since that time, the Committee had held another meeting, and had resolved not to ask the Association at present to undertake the responsibility of a private laboratory, mainly on the ground that there was no body which was prepared to exercise such superintendence as would cause it to be effectually carried on within reasonable pecuniary limits. If that business were undertaken, they would have to spend much more than £400 a-year, the sum put down as the cost of the maintenance of the laboratory. The other portion of the report was of a more important character, and perhaps it would be for the convenience of the meeting if he asked it to pass the report on the understanding that the meeting would not be thereby bound to support the second resolution that he should propose. He would simply move:

"That the Report of the Scientific Grants Committee be received and adopted, and the gentlemen whose names are as follows be reappointed the Committee for the ensuing twelve months, and that a grant of £300 be made for the purposes of the Committee: Dr. Wade; Mr. Wheelhouse; Dr. Clifford Allbutt, F.R.S.; Mr. Alfred Baker; Dr. Lauder Brunton, F.R.S.; Dr. Alfred Carpenter; Dr. Chadwick; Sir Andrew Clark, Bart.; Professor Michael Foster, F.R.S.; Professor Arthur Gamgee, F.R.S.; Dr. Gairdner; Professor Humphry, F.R.S.; Mr. Husband; Professor Lister, F.R.S.; Sir James Paget, Bart., F.R.S.; Professor Burdon Sanderson, F.R.S.; Dr. Edward Waters, F.R.S.; Dr. S. Wilks; Mr. Ernest Hart, Honorary Secretary."

Mr. HUSBAND (Bournemouth) seconded the motion.

Dr. HADDON (Hawick) said that he had remarked on a previous occasion that he saw no value for the money expended, and he was still of the same opinion. He was glad to find that another resolution was about to be proposed for the establishment of scholarships. Those scholarships, he thought, should be established in each division of the kingdom, and should be attached to the universities, where they would be much appreciated.

The resolution was agreed to.

Dr. WADE then proposed:

"That the Committee of Council be authorised to offer two research scholarships of the value of £150 each *per annum*, tenable, at the discretion of the Scientific Grants Committee, for three years."

The resolution, he said, if carried, was intended to bind the Association for three years, if the Council found that the results obtained were satisfactory. They had obtained in the past a great deal of valuable work from the grants that had been made. There had, however, been one difficulty with which they had to contend, and which, to a certain extent, explained the remarks of Dr. Haddon. It was intended, when the grants were instituted, that the results obtained should be published in the JOURNAL; but it was found that many of the grantees would not work under those conditions, and wished to be allowed to publish the results in other quarters. The Committee was, of course, desirous that the Association should get credit for the work done at its cost; but it was of still more importance that the work should be done, whether the Association got credit for it or not. It was now considered that, by appointing gentlemen as research scholars, their work would be directed, and the lines of research chosen, by the Committee, or a subcommittee appointed for that specific purpose.

Mr. ERNEST HART, in seconding the resolution, said that he was primarily responsible for the proposal contained in it. The subject was one of great importance, and it ought not to be taken up unless the Association were satisfied as to the desirability of the proposal; but, if it did take it up, it ought to look to a large development of it in the future. He looked upon it as a great step in advance. As they had been only able to make small grants in the past to individuals who did their work at various places, and under great pressure of time, they had only been able to produce certain desultory results, which, however, had been in many cases of a most important character, and reflected great honour on the Association. They wished these results to be published where they would be most useful. Many of them were of an extremely technical character, and, if published in the JOURNAL, very few readers would be interested in them. Many of them had appeared in the *Transactions* of the Royal Society and of the Cambridge Philosophical Society, and in magazines devoted to physiology. In every case, they had been accompanied by an acknowledgment of the grant, and it was known and recognised in every learned society in Great Britain that the Association made annual grants in aid of researches of that character. It was now proposed to appoint British Medical Association Science Scholars—gentlemen who had recently come from the universities, and were equipped with full knowledge and capacity to carry out their researches, and would devote their time to the investigation of subjects ancillary to medical science. The original proposal was to have four such scholarships, but the Treasurer, in his wise regard for the funds of the Association, suggested that they should start with only two, and the other members of the Committee had deferred to that suggestion.

The Rev. Dr. HAUGHTON (Dublin) asked how the scholars would be appointed, and said that the large grant of the Royal Society for the endowment of research had worked so unsatisfactorily, that it was practically condemned. Possibly the more modest proposal of the Committee would do more good than the more ambitious projects of the Royal Society and the Royal Academy of Ireland.

Dr. HADDON (Hawick) said that Dr. Haughton's inquiry was a matter well worthy of consideration. He hoped that the Committee would not hamper the scholars by requiring their work to be done in England, since their inquiries could often be carried on much more pleasantly and cheaply on the Continent.

Mr. WHEELHOUSE suggested that the selection of the scholars might be left to the universities.

Mr. ERNEST HART said that among the members of the Committee were many persons of the highest scientific knowledge and experience; and it was impossible to suppose that there could be better judges of the details that would have to be considered.

Dr. WADE said that the Committee had not gone into details without considering under what considerations the money would be granted. Great care would be taken, as in the past, with reference to the persons to whom grants would be made; and the Committee would take the best means at its disposal to select men who would do the work well. The Committee would not limit the places of study and research, and would not object to the work being carried on in Continental schools and laboratories.

The resolution was put and carried.

Report of the Habitual Drunkards' Committee.—The report was taken as read. It was published at page 195 of the JOURNAL for July 28th.

Dr. NORMAN KERR (London) moved:

"That the report of the Habitual Drunkards' Committee be received and adopted, that the Committee be reappointed as follows, with power to add to their number: Dr. Alfred Carpenter, Dr. G. F. Blandford, Dr. William Cadge, Dr. C. Cameron, M.P., Dr. J. W. Eastwood, Dr. B. Foster, Surgeon-General C. R. Francis, Mr. W. C. Garman, Mr. Carsten Holthouse, Dr. H. Munro, Mr. G. W. Mould, Mr. R. H. B. Nicholson, Surgeon-Major G. K. Poole, Dr. J. Rogers, Dr. J. P. Scatliff, Dr. Farquharson, M.P., Dr. H. W. Williams, Surgeon-Major G. J. H. Evatt, Dr. Norman Kerr, Dr. E. H. Vinen, Dr. Balding (Preston), Dr. Rayner Batten (Gloucester), Dr. Harrison Braithwaite, Dr. Wm. Carter, Dr. C. R. Drysdale, Dr. J. Hill Gibson, Dr. Alexander Grant, Dr. C. J. Hare, Mr. J. Prankerd (Langport), Dr. Valentine Reid, Dr. George Robertson, Mr. Balmanno Squire, Dr. Danford Thomas, Mr. F. Vacher (Birkenhead), Dr. Walker (Putney)."

Dr. MCVAIL (Glasgow) seconded the motion, which was agreed to.

Dr. NORMAN KERR moved:

"That the Dalrymple Home for Inebriates be recommended to the sympathy and support of the Association and the profession as a public experiment of much importance, and that the influence of the Association be employed to endeavour to secure from Parliament a lessening of the barriers to voluntary admission into a retreat, in addition to a strengthening and extension of compulsory powers for the detention and admission of habitual inebriates in such establishments."

He hoped that the Home would be opened in October for the admission of patients. It had taken many years to bring it within sight of opening, and the work had been done chiefly by two or three members of the Association. The institution was the child of the Association, and ought therefore to receive its hearty support. He hoped when the present Act expired an effort would be made to remove some of the existing barriers to the admission of patients, and to obtain power such as was possessed in New York to apply a little gentle compulsion for a few days to inebriates to enable them to recover their senses, and then decide whether they would go further under the operation of the Act.

Dr. HARE (London) in seconding the motion, said that the power of the Association could not be exercised more beneficially than by supporting the Dalrymple Home. He felt sure that, backed up by the Association, the Government would be more willing than heretofore to carry out measures that were required for the protection and cure of inebriates.

The resolution was then agreed to.

Joint Committee of the British Medical and Social Science Associations.—Dr. CARTER moved the re-appointment of the Joint Committee of the British Medical and Social Science Associations.

Mr. ERNEST HART suggested that the committee should be allowed to drop. It had not, he said, met for the last year or two, and there was no particular business to be brought before it.

Mr. Hart's proposal was agreed to.

A letter was read from Mr. Rivington, stating that he would move a resolution, of which he had given notice, at the adjourned meeting in London.

Militia-Surgeons.—Surgeon-Major MCCORMACK moved:

"That this Association views with regret the long delay in the redressal of the grievances of the militia-surgeons of the United Kingdom, and expresses the hope that, in view of the recent strong expression of opinion in the House of Commons, in support of a favourable consideration of their case by the Government, the Minister of State for War will grant the request of the militia-surgeons recently submitted to him by motion."

Surgeon-Major SMITH (Yarmouth) seconded the motion, which was agreed to.

Votes of Thanks.—The following resolutions were unanimously agreed to:

Moved by Dr. ALEXANDER DAVIDSON (Liverpool), and seconded by Dr. NORMAN KERR (London):

'That the thanks of the Association be given to the Chairman

and Directors of the Liverpool College for the use of the building for the purposes of the meeting."

Moved by Dr. M'VAIL (Glasgow)), and seconded by Surgeon-Major EVATT (Woolwich):

"That the very hearty thanks of the Association be given to the Worshipful the Mayor and to the Corporation, for the kindness they have shown in giving the use of the Walker Art Gallery, Picton Reading Room, and Public Museum, for the purpose of holding the *soirée* on Wednesday, August 1st, and also for the general arrangements they have made for the convenience and comfort of the members, which have added so much to the success of the meeting."

Moved by Dr. CARTER (Liverpool), and seconded by Dr. JACOB (Dublin):

"That the thanks of the Association be presented to his Worship the Mayor of Liverpool, for his kindness in arranging to receive the members of the Association at a *soirée* this evening."

Moved by Mr. KAVANAGH (Liverpool), and seconded by Dr. MCCORMACK (London):

"That the best thanks of the Association be given to the Anchor, Cunard, White Star, and Guion Companies, and to the directors of the Mersey Tunnel, for their attention and hospitality, and to the committees of the various clubs for their kindness in throwing open their houses to the members of the Association during the meeting."

Moved by Dr. THOMAS DAVIS (Londonderry), and seconded by Mr. VACHER (Birkenhead):

"That the warm thanks of the Association be given to the members of the North Wales Branch; to the medical profession of Southport; to the directors of the Blackpool Hydropathic Establishment; and to the medical profession of Lancaster, for their hospitality to the members on the various excursions."

Moved by Dr. BUSHELL ANNINGSON (Cambridge), and seconded by Dr. ROBERT ARCHER (Liverpool):

"That the hearty thanks of the Association be given to Mr. Bickersteth for his kindness in providing for the members an excursion on the river."

Moved by Mr. LOWNDES (Liverpool), and seconded by Dr. DIXON (Sunderland):

"That the cordial thanks of the meeting be given to Mr. Rich, the postmaster, for the admirable arrangements of the postal and telegraph office of the meeting, and also to the Telephone Company for providing a special wire."

Moved by SIR WILLIAM MILLAR (Londonderry), and seconded by Dr. RICHARDS (Bangor):

"That the sincere thanks of the Association be given to the President and Liverpool members of the Association for their admirable arrangements for the meeting, and for the brilliant *soirée* of Wednesday evening."

Moved by Dr. CHADWICK (Tunbridge Wells), and seconded by Mr. SHADFORD WALKER (Liverpool):

"That the hearty thanks of the Association be given to Dr. Alexander Davidson and to Mr. Mitchell Banks, for their arduous and successful labours as honorary secretary and treasurer of the fifty-first meeting."

Moved by Dr. EYTON JONES (Wrexham), and seconded by Mr. MASON (Bath):

"That the cordial thanks of the meeting be given to Dr. Rich, Mr. Puzey, Mr. Damer Harrisson, Dr. Dickinson, Dr. Greves, and Mr. Paul, and the members of the various local committees, for their great labours to render the meeting a successful one."

The President left the chair, and the President of the Council took it.

It was moved by Mr. HUSBAND (Bournemouth), and seconded by Dr. HARE (London), and resolved:

"That the best thanks of the meeting be given to the President, Dr. A. T. H. Waters, for presiding over this, the fifty-first annual meeting of the Association, and for his able conduct in the chair."

A cordial vote of thanks was also given to the Bishop of Liverpool for his sermon in the Pro-Cathedral on the opening day of the meeting.

Adjournment of Meeting.—Mr. WHEELHOUSE moved:

"That the annual meeting do now stand adjourned to Friday, August 17th, at Exeter Hall, immediately after the extraordinary general meeting, which will take place at 2 o'clock in the afternoon, at which the proposed new by-laws will be considered."

Dr. B. FOSTER seconded the motion, which was agreed to, and the meeting was adjourned.

DINNER.

The annual dinner of the Association was held in the Philharmonic Hall, Liverpool, on Thursday, August 3rd, Dr. WATERS, President, in the chair. The loyal toasts having been duly honoured,

The PRESIDENT, in proposing the health of "the Bishop and Clergy of the diocese, and of the ministers of religion of all denominations," said that there existed an intimate relation between the two professions, a relation which was forcibly illustrated in his lordship's discourse, when inaugurating the proceedings of the British Medical Association. Medical men could bear testimony to the zeal and assiduity with which the ministers of religion performed their duties, which were often of a most serious character, involving no little personal risk, and sometimes even sacrifice of life.

The BISHOP OF LIVERPOOL, in responding, said he esteemed it a very great honour to be present on that occasion. From the first moment when he heard of the meeting of the Association being about to be held at Liverpool, he informed those concerned in it with what pleasure he should contribute anything in his power to make it a successful and happy gathering. He thought, from what he had heard and seen, that the meeting had been both a successful and a happy one. There was no one better able to judge of the value of the medical profession than the clergyman. If he did his duty, he was necessarily brought into contact with medical men, and was a constant witness of the zeal, diligence, perseverance, and patience which they exhibited in the exercise of their profession. If all professions attended to their work in the same way, the world would be better than it was, and England would be a happier country. During his forty years' experience as a minister, he had seen wonderful examples of the patience of medical men. A large portion of his time was spent in rural parishes, and he had often known medical men pulled out of bed at all hours of the night and taken hither and thither, with none to consult and none to assist them, and having perhaps to perform very difficult operations; and at the same time he had seen their efforts defeated by the lamentable ignorance of the labouring classes in reference to diet and treatment. When he remembered how often their best efforts were entirely baffled by the difficulties with which they had to contend, he marvelled at the patience which they exhibited. He had also been struck with the remarkable humility displayed by the eminent medical men with whom he had been brought into contact—men like Aston Key, Sir Thomas Watson, and Professor Miller; such men continually manifested a deep sense of how little, after all, they could do for their patients.. He heartily wished success to the efforts of so noble a profession. As he had said on a previous occasion, he who had a good doctor near him, and a good servant in his house, had reason to be thankful for two great blessings. No profession had made greater advances during the last century than the medical. That was well illustrated during the last campaign in Egypt, about which so much had been foolishly said with reference to medical men. Whatever faults or difficulties there might have been, certain things that used to be seen in times of war, certain diseases and difficulties in hospitals, were entirely absent, in consequence of the far greater care which science enabled to be applied to the sick and wounded than could be applied in days gone by. He hoped that the Association would continue to prosper, and that the medical profession would advance in importance and in usefulness.

Dr. CHADWICK, in proposing "The Army, Navy, and Reserve Forces," said that the toast always commended itself to the feelings of Englishmen. Twenty years ago he should have proposed the toast without any *arrière pensée*, because he should have known that the mere mention of their brave defenders would have drawn from the assembly a shout of approbation. But they were living in different times, and there were amongst them some, actuated perhaps by the best motives, who might feel that peace with dishonour was a thing to be desired. ["*No, no.*"] At any rate, in that company, he believed the toast would be well received. A great bond of sympathy existed between the members of the medical and the military professions. A mistaken economy might limit the means placed at the disposal of those who had to defend the country, and in like manner a mistaken philanthropy might limit the means by which medical men were able to contribute to the welfare of humanity. But he was sure that the members of both professions would do their duty in spite of all the obstacles that might be placed in their way. He begged to couple the toast with the name of Director-General Crawford, who had already received a distinguished honour from his sovereign, and had secured the good opinion of those with whom he was associated. [*Applause.*]

Director-General CRAWFORD, in responding, said that as Director-General of the Army Medical Department, he was, to some extent,

responsible for the health of the army, which, he could assure them, was exceedingly good. He made that statement with all the more pleasure, because the progress and development of the profession, during the last fifty years, had been the direct cause of the improvement that had taken place in the health of the army and navy; and he had no doubt he might add the volunteers. Looking back twenty-five or thirty years, and remembering the history of the Royal Commission which investigated the health-conditions of the army, they would see the need there was for sanitary reform; and there could be no doubt that the reform which followed the recommendations of the Committee, made on the advice of the medical profession, had been one of the greatest gains received by the country from progressive science during the present generation. There was ample proof before the Association that, in the great work of promoting the health of the soldiers, medical men in the army had shown themselves, in peace and in war, competent to deal with disease and death, whether in the camp, in the battlefield, or in the plague-stricken plains of Egypt. It was a pleasure to him to know that he need not defend the medical department, at all events, to the British Medical Association. Thanks to their able editor, and to the uprightness and straightforwardness of the medical press at large, they were all well aware that there was no case against the medical department of the army, With reference to a remark made by the Bishop of Liverpool, he should be glad to be permitted to read two brief sentences from the proof-sheets of an unpublished lecture reviewing the state of the army during the last fifty years. The writer, Professor de Chaumont, referring to the condition of the, army in Egypt, stated: "I should refer briefly to the late war in Egypt. The events are fresh in the memory of all; the genius with which it was planned, and the consummate skill with which it was carried out. It was waged in the hot season of a subtropical region, under circumstances which placed great strain upon every part of the force, yet the hygienic results were extremely good." After enumerating the statistics of the diseases and wounds of the army through the campaign, the writer said: "As for the deaths, there were 170 in the whole course, of which 98 were from battle or accidents, leaving only 74 from disease, or a ratio of 5.88 per thousand for the 87 days which the campaign lasted, equal to 24.65 per thousand expanded for a year, a ratio not much greater than the Guards showed in London before the Crimean War. It was even six per cent. less than the exceptionally healthy Abyssinian campaign, which had previously stood out as a hygienic model. If it be added that, in a country with such an evil reputation for disease, not one man out of 1,145 cases of ophthalmia lost his sight, and that there was for the first time in the world a campaign fought without a single case of hospital-disease, I think I may well express my opinion that the army medical officers deserve well of this country." The Volunteers, he had no doubt, would always be at their post when called upon. Recently, the ranks of medical men had been called upon for volunteers to go to Egypt, and the number was considerably in excess of the requirements. He, too, had had to send reinforcements to Egypt to meet an enemy much worse than Arabi and his men—the cholera—and he had had an ample supply of able volunteers ready to take the field at any moment. He was grateful to the profession for the way in which they had always been good enough to receive him when he had come amongst them, and to the British Medical Association they were all greatly indebted for the distinctions they conferred upon good professional service. If the military profession were only rewarded by the nation as the British Medical Association had rewarded some of its members for distinguished professional work, they would not only have a still more abundant crop of volunteers, but a still more successful development of the work which their profession did when called upon to deal with great occasions of epidemic disease.

Dr. AUSTIN FLINT (New York), in proposing the "British Medical Association," said he desired to express his thanks for the honour of the invitation to attend the fifty-first meeting of the Association, and to participate in some small degree in the sectional work. He could not adequately express the satisfaction he had derived from his attendance. Having reached a period of life when happiness was derived from retrospection rather than from anticipation, so far as the present life was concerned, he desired to say that the social and professional events of that meeting would ever hold a prominent place in his memory. His official connection with the American Medical Association rendered it proper for him to state that, for the most part, American institutions—political, literary, educational, and philanthropic—were based on their knowledge of the institutions of Great Britain, which the Americans rejoiced in calling their "mother country." The American Medical Association was modelled closely upon the British Medical Association; and, in view of a relation which he might venture to call maternal, he was sure they would be gratified to know that the transatlantic daughter was zealously and dutifully striving to follow, at a respectful distance, in the footsteps of an honoured mother. As an evidence of the alacrity with which the institutions of the old were introduced in the new world, he might mention that the British Medical Association in age exceeded that of the American Medical Association by only fifteen years. It had always appeared to him that it must be a pleasing reflection to Englishmen that the English language was, as no doubt it would be for all time, the language of the vast continent of North America. English literature was American, and the proceedings of the British Medical Association commanded hardly less interest in the new than in the old world. He would even venture to state that there was not a hamlet, within the limits of the United States, so distant or so obscure, that the report of the proceedings of the British Medical Association would not be speedily conveyed to it by the BRITISH MEDICAL JOURNAL and the medical press generally. He had great pleasure in proposing the British Medical Association, associating with the toast the name of Mr. Wheelhouse. [*Cheers.*]

Mr. WHEELHOUSE, in responding to the toast, thanked Dr. Flint for the kindly manner in which he had spoken of the Association. That the British Medical Association should be a pattern which had been followed in America was a matter of profound satisfaction. He desired to take the opportunity of thanking also their professional brethren in Liverpool, the Corporation, and all those who, by their efforts, had made the present gathering one of such complete professional success and social happiness. [*Cheers.*] He also wished to return thanks to those who had read the admirable addresses to which they had been privileged to listen. With regard to the Association, he might be permitted to speak of it as a social and as a scientific body. As a social gathering, they were assembled from all parts of the kingdom, representing all branches of the profession. These different branches met for friendly intercourse, showing that one heart was beating through the one great profession, and that they had but one object in view, how best to serve their country. There were no calls to which they were not ready to respond, under whatever circumstances; and to be able to meet together once a year to cheer each other in their work, and to help forward the advancement of science, was a sincere pleasure to them all, for which he was sure they were deeply grateful. But their greatest claim was as a scientific institution. Every man could do a little towards the advancement of science, by giving the results of his own experience. None among them was so humble or so hard-worked that he could not add something to the general stock of knowledge. By the movement that had been made in connection with collective investigation, every man in the profession would be able to communicate the result of his observations; and if the appeal were properly responded to, the result would be that, in a few years, they would have a mass of facts that would place them in a position which the profession had never hitherto attained. The Association did its best to advance science by its Scientific Grants Committee, and in other ways helping forward those who were working in any special department, and so seeking to advance the scientific interest of medicine and surgery as to make every member of the profession a better practitioner than he would have been a few years ago. The Association also had a political aspect. It was growing in power, and he hoped that that power would not be weakened or lost by any dissension that might arise amongst them. Let them all seek to advance the best interests of the profession and the public to the best of their ability. So long as they did so, seeking the greatest good to the greatest number, they would be doing something to place the profession, socially, scientifically, and politically, in a still higher position than it at present occupied. [*Cheers.*]

Mr. HUSBAND, in proposing the health of the President, said that the man who was at the head of so great an Association, even for so short a period as twelve months, must be a man of no ordinary ability and character. In the intellectual city of Liverpool, celebrated as it had long been for the high tone and practical ability of those who represented it in medical matters, a man must possess more than ordinary power and influence whom the profession of Liverpool had selected to represent it. Dr. Waters had, at an early age, been associated with the fortunes and work of the Association; and there was no one to whom, in those early days, it was more indebted for wise counsel and help. He had always acted with a calm judgment and in a courteous spirit, and they were all deeply indebted to him for his assistance in raising the Association to the glorious position which it now occupied. [*Cheers.*]

The PRESIDENT, in responding to the toast, expressed his high sense of the honour that had been conferred upon him. He fully appreciated the distinguished position in which he had been placed—a position which, when he came to Liverpool nearly thirty years ago, an utter stranger, he could never have hoped to attain. Looking back upon his connection with the Association, he felt that the position he now occupied was due to the fact that he had ever steadily had in view the interests of the great body of which he was now the head. He believed that no member of the profession had ever rendered a service to it without meeting with his reward. It had been to him, and to every other member of the Local Committee, a source of the greatest satisfaction to think that the meeting had been a successful one. The labour connected with it had not been light, and he desired to acknowledge the great assistance he had received from the various committees that had been appointed. There had been but one feeling throughout the profession in the city, from the first moment when it was proposed to invite the Association to Liverpool, viz., a desire to give the Association a hearty welcome. It was not for him to say how far they had succeeded; but, bearing in mind the number of those who had honoured them with their presence, he hoped he might say that the meeting had been, on the whole, a satisfactory one. [*Cheers.*]

Dr. WADE proposed "The Mayor and Corporation of Liverpool." The members, he said, were greatly indebted to the Mayor and Corporation for the use of the splendid suite of rooms, adorned with treasures of art, in which the most successful *conversazione* he had ever attended was given on Wednesday evening; and he desired to express, in anticipation, their thanks for the entertainment that would be given by the Mayor on Friday; but, more than all, they were indebted to the Mayor and Corporation for the *éclat* which the sanction of the governors of a great city like Liverpool gave to their proceedings—a sanction that had been given with ungrudging liberality. He would couple the toast with the name of Alderman Livingstone. [*Cheers.*]

Mr. Alderman LIVINGSTONE, in acknowledging the toast in the absence of the Mayor, who was entertaining Her Majesty's judges, said that, as long as Liverpool existed, he hoped its magistrates would always take an interest in the well-being, not only of the city itself, but of the great associations that might honour it by their presence. He might say, without affectation, that he believed that upon no occasion ought the chief magistrate to feel a higher sense of honour than he did in connection with the visit of the British Medical Association. It had been his privilege to be associated with many members of the profession, and he had derived, not only great pleasure, but a large amount of instruction from that association. In the ranks of medical men were those who had cultivated all the highest arts which rendered life dignified and delightful. He hoped that the fact of the British Medical Association making Liverpool its centre would put an effectual stamp upon a very large and important public work which was then in contemplation. Liverpool then would stand higher than she did at the present time as a medical and scientific town, because he confessed, as a citizen, that in those two great points she had hitherto proved lamentably deficient. [*Cheers.*]

Dr. STRANGE proposed "The Readers of Addresses and Officers of Sections." They were all, he said, much indebted to the gentlemen who had been kind enough to take so much trouble in connection with the present gathering. They had always been fortunate in their readers of addresses and officers of sections, but he did not know that they had ever been more fortunate than on the present occasion. Those who had heard the address already delivered would know that it required no eulogy from him, and they were all ready to express in anticipation their gratitude for the address which was yet to come. [*Cheers.*]

Mr. REGINALD HARRISON briefly acknowledged the toast on behalf of the Readers of Addresses.

Dr. GRAILY HEWITT acknowledged the toast on behalf of the Officers of Sections.

Mr. ERNEST HART, in proposing the "guests," said that they cordially welcomed among them the physicians of America, France, Germany, and their guests from Holland and other countries. Americans they regarded not only as brothers in the profession, but as kinsmen in blood who shared with them the common heritage of history, literature, and science. They were honoured by the presence of the President of the American Medical Association, who was so much one of them that they had not put down his name to answer for the toast, but they had assigned that duty to Professor Tilanus, of Amsterdam, who bore a name which was honoured throughout his country, and had been honoured for generations. His father was, like himself, a most distinguished surgical operator and teacher. Professor Tilanus had also a claim upon them, since, as an active organiser of the great International Congress in Amsterdam, he welcomed the English guests so warmly that from that Congress sprang the last international gathering, held in London. He now came amongst them charged with an invitation to the British Medical Association to attend the Congress which would be held in September. In Holland they would find the English of Holland in September, a brave, industrious people, who had conquered their the Continent, a brave, industrious people, who had conquered their land from the sea, who, like the English, had been powerful upon every sea, who had been their old respected enemies, as now they were their old familiar friends, who had known how to extend their small force by spreading over wide colonies, and who had always been united with England by close bonds. England owed to them a famous king, and it was now associated with Holland by ties of marriage in the Royal Family. The other names with which he would associate the toast were well known amongst them. Mr. H. B. Gilmour, Chairman of the Liverpool Royal Infirmary, was at the head of one of the greatest charitable institutions in this country, and with an institution closely connected with one of the medical schools. It was well known that the relations between the managers of the hospitals of Liverpool and their medical staff were of the most cordial character. They were now endeavouring to extend the influence of their schools, and to enlarge the Royal Infirmary. Sitting by his side was a gentleman (Mr. Adamson) hardly less important than Mr. Gilmour, connected as he was with the Southern Hospital, another of the great institutions of the city. They gladly welcomed as guests so many gentlemen who had helped to bring to a high point of prosperity and fame the medical associations of the city. He desired also to connect with the toast the names of Dr. Fenwick, of Canada, a worthy representative of that part of greater England to which we were now looking as a land of promise, and Dr. Jacob, the President of the Irish Medical Association, their sister association in Great Britain, to which they were united by the closest ties of affection and mutual aid in public endeavours. [*Cheers.*]

Professor TILANUS, in acknowledging the toast, said he was well acquainted with the benefits of an institution like the British Medical Association, and he wished its members all possible success in their labours for the advancement of science, and in raising the social position of medical men. He had been officially requested to invite the members of the Association to the Medical Congress to be held in September, in Amsterdam, which he had no doubt would be a successful one, since the Queen of England had already appointed three distinguished men as British representatives.

Mr. H. B. GILMOUR also acknowledged the toast, and said every guest present desired to acknowledge most gratefully the admirable arrangements which had been made for his reception. Alderman Livingstone had made a delicate allusion, to which he desired for a moment to refer. In attending a lecture that had recently been delivered, he had heard a statement made to the effect that, as the outcome of a meeting of the Association a few years ago, there now existed one of the most perfect and complete modern hospitals in England. He did not know that it would be possible to say the same with regard to Liverpool, because he was glad to think that they had already an important work in hand, and fairly well advanced, but he hoped that one result of the present meeting would be to give a fresh stimulus to that work, namely, the erection of a new Royal Infirmary. He did not know how long it would be before the British Medical Association again held its meeting in Liverpool, but he hoped that long before that time arrived they would have an hospital of modern construction, with all the most approved appliances, which would be recognised as one of the institutions in the country that would be at once an honour and a pride to Liverpool, relieving the suffering poor and promoting the education of future generations of medical men.

Dr. FENWICK also acknowledged the toast, and expressed a hope that the British Medical Association might, on some future occasion, follow the example of the British Association, and hold one of its meetings in Canada.

Dr. JACOB expressed the hearty desire of the members of the Irish Medical Association to co-operate with their brother practitioners in England, and said he hoped that the British Medical Association would, by steady persevering agitation upon medical subjects, do its best to increase its political influence.

Dr. FOSTER, in proposing the "Local Committee," said the members were deeply grateful to those gentlemen for their labours in making the Liverpool meeting a great success. It might seem almost invidious to couple the toast with the name of any one gentleman. He could not refrain from saying how much indebted they

were to the admirable exertions of Dr. Cresswell Rich, to the courtesy and unfailing devotion of Dr. Davidson, and to the energy and ability of the local treasurer, Mr. Banks. When the meeting was recollected as amongst the most successful of the meetings of the Association, the names of those gentlemen and their colleagues would be held in high honour. [*Cheers.*]

Mr. BANKS (Local Treasurer) said that Dr. Davidson, and not himself, ought to respond to the toast; but one result of his having to reply was, that he was able to tell the members how much Dr. Davidson had done for them. For many weeks, he had sacrificed everything to do his duty to the Association. He was delighted to find that the services of Dr. Rich had been duly appreciated. He ventured also to return thanks on behalf of Mr. Damer Harrisson, who had done so much to assist the members in the local excursions; on behalf of Mr. Paul and Mr. Bushby, who had provided the Pathological Museum and Exhibition; of Dr. Dickinson, to whose exertions they were indebted for that evening's entertainment; and of Mr. Puzey, who, if the weather permitted, would give them one of their best excursions on Saturday. For himself, he had begun to think that he was one of the most unpopular men in Liverpool; his office having been to get money. His consolation now was, that the money had been well spent.

The health of "The Ladies" having been proposed by Dr. THUDICHUM, and duly honoured, the company separated.

SERMON BY THE BISHOP OF LIVERPOOL.

A SPECIAL morning service was held at the Pro-Cathedral on Tuesday, July 31st, when the Bishop of Liverpool (Dr. Ryle) preached to a large congregation of members of the British Medical Association and others, including a number of local clergy. The Litany was intoned by the Rev. W. R. Duncan. The other clergy present wearing their robes were the Revs. Canon J. Stewart, Canon Warr, Canon Jones, Canon Feilden, Canon Carr, Canon Anderson, Canon Penrhyn, and Canon Rycroft.

The BISHOP selected as the text for his discourse, "Luke, the Beloved Physician" (Colossians iv, 14). There are, he said, two things in this text which I shall take for granted, and not dwell on them. One is, that Luke here mentioned is the same Luke who wrote the third Gospel and the Acts, and was the friend and companion of St. Paul. The other is, that Luke really was a physician of the body. On both these points, the consent of learned men, who have a right to command our attention, is almost universal. For it is a significant fact that the great Apostle of the Gentiles, who was ever ministering to men's souls, makes honourable mention of one who ministered to men's bodies. One great phenomenon of the Christian religion is the dignity and importance which it attaches to the human body. Many of you need hardly be reminded that some of the schools of heathen philosophers regarded the body with contempt, as a hindrance and not a help, a clog and a drag, and not an aid, to the soul. Even those nations which paid most attention to the body when dead, like the Egyptians, Greeks, and Romans, knew nothing of a future existence of the body after death, even at the most distant period. The heroes described by Homer and Virgil are only ghosts and airy figures, with nothing material about them. When St. Paul, on Mars' Hill, spoke of the "resurrection of the dead," we are told that "some mocked." Even Pliny, in his *Natural History*, says there were two things which were beyond the power of God—one was to give immortality to mortals, and the other was to give bodily life again to the dead. Turn now to the Christian religion, and mark what a contrast it presents. Whether you look at its leading facts, or doctrines, or practical instruction for the present, or hopes for the future, the human body is continually brought to the front, and its importance magnified. Look, to begin with, at the great mysterious truth which lies at the foundation of our holy faith—the incarnation of Christ. When the Eternal Son of God came down into this sin-burdened world, to bring redemption, and change the whole condition of our fallen race, He took on him a bodily nature just like our own, sin only excepted. Look, in the next place, at the great cardinal doctrine of Christ's atonement. That wondrous distinctive verity of our faith, that solution of the problem, "How can sinful man have peace with God?" is indissolubly bound up with Christ's body. It is the blood of Christ's body to which true Christians owe all their comfort while they live, and their hope when they die. Look, further, at the crowning facts of Christ's resurrection and ascension into heaven. When our Lord came forth from the grave where Joseph and Nicodemus had laid Him, on the third day, He, to use the words of our Fourth Article, "took again His body, with flesh, bones, and all things appertaining to the perfection of man's nature." In that body He ascended into heaven, and there sits till He returns to judge all men at the last day. We have a priest and advocate with the Father who has a body. Look, again, at the practical precepts and exhortations which the Apostles are continually pressing on us in the New Testament. They frequently speak of the body and its members as instruments of righteousness, as a part of the Christian's nature requiring his constant care, and as a means of exhibiting his sanctification and holiness. Where and how could the graces of temperance, soberness, chastity, and self-denial be shown forth except in and through the body? Look, finally, at that grand distinctive hope which sustains the Christian amidst the deaths, and funerals, and pains, and partings, and sufferings of this world. That hope is the resurrection of the flesh after death. But, after all, the importance which Christianity attaches to the body is not one whit greater than which is continually attached to it by the children of the world. It is easy to sneer at the simple facts and doctrines of Christianity, and to talk great swelling words about "mind," and "thought," and "intellect," and "reason." But there is no getting over the broad fact that it is the body and not the mind, and the wants of the body, which govern this world. Statesmen and politicians know this full well, and often to their cost. Their tenure of office depends in great measure on the contentment of the people. And who does not know that nothing creates popular discontent so much as high prices of corn, and general dearness of food for the body? Merchants and shipowners, of all men in the world, ought to know the importance of the body. Corn and meat and sugar and tea to feed the body; cotton and wool to clothe the body—what are these but the very articles which create the main portion of the commerce and carrying trade and business of a nation? In the face of such facts as these, it is the highest wisdom, both in the Church and the world, never to forget the importance of the body. To promote cleanliness and temperance and social purity, to aim at the highest standard of sanitary arrangements, to encourage every movement which can increase the health and longevity of a people, to provide as far as possible good air, good water, good dwellings, and cheap food, for every man, woman, and child in the land—these are objects which deserve the best attention both of the Christian and the man of the world. There is a mine of deep truth in the saying, *Sanitas sanitatum: omnia sanitas.* Whatever students and bookworms and philosophers may please to say, there is an indissoluble connection between the bodies and minds and souls of mankind. You cannot separate them. Not one of the three can be safely neglected. The Church which only cares for saving souls, and the State which only cares for educating minds are both making a vast mistake. Happy is that country where body, soul, and mind are all cared for, and a continual effort made to provide for the health of all three. Observe the honour which our Lord Jesus Christ has put on the medical profession. It is a noteworthy fact that one of the four men whom our Lord chose to write the Gospels was a "physician." Not only does ecclesiastical history, with almost entire harmony, tell us this, but there is strong internal evidence in St. Luke's writings to confirm it. An ingenious writer has lately published a book which proves that many Greek phrases and expressions used in the third Gospel and the Acts are thoroughly medical, and such as a physician of that age would use in describing the symptoms of disease or of returning health. In short, there is little room for doubt that out of the twenty-seven books which make up the little volume of the New Testament, two of the longest come from the pen of a medical man. There is another fact of even deeper significance which demands attention. I refer to the very number of cases of sickness and disease which our Lord was pleased to heal during the period of His earthly ministry. To cure the leprous, the dropsical, the palsied, the fevered, the lame, the blind, was the continual labour of love of Him who was "God manifest in the flesh." To use the deep and mysterious words quoted from Isaiah by St. Matthew, "Himself took our infirmities and bare our sicknesses." Now, why was this? Why did our Lord adopt this line of action, and habitually condescend to devote time and attention to the humbling, and often loathsome ills, to which flesh is heir? Partly, I believe, to remind us that He came to remedy the fall of man; and that, of all the consequences of the Fall, none cause so much trouble, and affect all ranks and classes of society so thoroughly, as sickness. But partly also, I believe, to teach Christians, in every age, that to minister to the sick is eminently a work of mercy according to Christ's mind. He that endeavours to check disease, to alleviate suffering, to lessen pain, to help the self-curative powers of nature, and to lengthen life, may surely take comfort in the thought that, however much he may fail, he is at any rate walking in the foot-

steps of Jesus of Nazareth. Next to the office of him who ministers to men's souls, there is none really more useful and honourable than that of him who ministers to the soul's frail tabernacle—the body. He that thinks of these things will not wonder that the rise and progress of Christianity have done much for the office of the physician. That nothing was known of medicine or surgery before the Christian era, it would be unfair to say. The names of Podalirius and Machaon in Homer, the better known, less mythical name of Hippocrates, are familiar to students; but it is a certain fact, that the sick were never so systematically cared for, and the medical profession so honourably esteemed, as they have been since the Church of Christ leavened the world. The builders of the Parthenon and Cóliseum built no infirmaries. You will find no ruins of hospitals at Athens or Rome. The infidel, the sceptic, and the agnostic may sneer at Bible religion if they please, but they cannot get over the fact that medical and surgical knowledge have always advanced side by side with the Gospel of Christ. Clever and ingenious as the heathen inhabitants of India, China, and Japan are at this day, it is notorious that their acquaintance with anatomy and materia medica, and treatment of bodily disease, are beneath contempt. Few of us, perhaps, realise what an immense debt we owe in Christian England to the medical profession—how much the comfort of our lives depend on it, and how vastly different is the condition of those whose lot is cast in an heathen country, or an uncivilised back settlement of a colony. He that has a good servant in his house, and a good doctor within reach, ought to be a thankful man. Fewer still, I believe, realise what enormous strides medicine and surgery have made in the last two centuries, and are continually making in the present. Let any one read old Baxter's semi-medical sermon in the *Morning Exercises*, and observe his receipts for hypochondria and dyspepsia, and then say whether he ought not to be thankful that he lives in the nineteenth century. The mere fact that our ancestors knew nothing of quinine, chloroform, vaccination, the stethoscope, the laryngoscope, the ophthalmoscope, or the carbolic spray, speaks volumes to any intelligent mind. It only remains for me now, both in my own name and in the name of all ministers of religion in Liverpool, to offer a hearty welcome to the British Medical Association. May your conference be happy, interesting, and useful. None, perhaps, have such constant opportunities of seeing the value of a medical man's services as Christian ministers. We meet you in sick-rooms and by the side of death-beds, and we know the self-denying labour which your profession entails, and the ungrudging and often unpaid attention which the sick almost invariably receive at your hands. There ought always to be the utmost harmony and friendly feeling between the two professions. The sick-room is the common ground on which we meet. On that ground, we can greatly help one another. I think we can help you by teaching your patients the paramount importance of obedience to your orders, of submission to your advice, of attention to your rules about diet and sanitary matters, and by encouraging patience and quietness of spirit. I am sure you can help us by gently and wisely reminding those whose cases are past recovery that it is their duty to accept the inevitable, that this life is not all, that they have souls as well as bodies, and that it is wise to look calmly at their latter end, and a world to come, and to prepare to meet God. We have much in common in our two professions—you in caring for men's bodies, and we in caring for men's souls. Like yourselves, we cannot command success, and give health at our will. Too often, like yourselves, we visit in vain, exhort in vain, advise in vain, preach in vain. We find that life and death are in higher hands than ours. You find that, under the most skilful treatment, people will die; and we find that, under the most faithful teaching, many continue unmoved in conscience and dead in sins. Like yourselves, we often feel our ignorance, cannot diagnose or discern symptoms, and feel doubtful what to say. We have both great need to be clothed with humility. But I trust, like Sir Henry Lawrence, we both "try to do our duty," and persevere. That there never may be wanting in Great Britain a continual supply of able, right-minded, faithful medical men; and that we who minister to the soul, and you who minister to the body, may always work harmoniously together, and help one another, is the earnest prayer of him who addresses and welcomes you here to-day.

The offertory was on behalf of the British Medical Benevolent Fund.

HIS GRACE THE DUKE OF NORFOLK has been elected president, and Sir John Brown and Mr. Mappin, M.P., have been elected vice-presidents, of the Sheffield Public Hospital and Dispensary for the ensuing year.

ENTERTAINMENTS, ETC.

SOIRÉE BY THE PRESIDENT AND LOCAL COMMITTEE.—The *soirée* given on August 1st by the President and the Local Committee was a most brilliant entertainment, and will stand out in the annals of the Association as one of the most memorable events in connection with its third visit to Liverpool. The art-gallery, reading-room, and museum, in William Brown Street—in which, by the considerate courtesy of the Corporation, the assembly took place—form a suite of apartments unequalled for their general attractiveness, and there could scarcely be desired a place in which men of science, art, and literature—of whom the gathering was in a great measure composed—would be so likely to find such a variety of objects to gain their attention. Three thousand invitations had been issued, and fully one-half of this number were accepted by the most prominent citizens, at the head of whom was the Mayor (Mr. William Radcliffe), who was accompanied by the Mayoress. The principal entrance for the guests was under the portico of the Walker Art Gallery, a covered archway having been devised for their comfort. The reception of those who had been invited to the *soirée* took place on the principal landing of the grand staircase, in front of the fine marble statue of the founder of the gallery, Sir Andrew B. Walker. The steps leading to the new extension of the gallery were tastefully set out with blooms and foliage plants, while conspicuous in this charming decorative group was a fountain. Here were seen beautiful specimens of the croton, dracænas, palm, fern, and bouvardios; the general collection being of unusual merit. This very artistic arrangement, which was generally admired, had been carried out by Messrs. R. P. Ker and Sons, of Basnett Street and Aigburth nurseries. The guests were received by the President and Mrs. Waters; the Chairman of the Soirée Committee, Mr. Shadford Walker, and Mrs. Walker; the Treasurer, Mr. W. Mitchell Banks, and Mrs. Banks; and the Local Secretary, Dr. A. Davidson, and Mrs. Davidson. In one of the picture-rooms was an exhibition (in cases) of old illuminated manuscripts and missals and rare specimens of binding, in cases belonging to Mr. Shadford Walker, together with Mr. Newton's collection of caricatures and Mr. Edgar Browne's collection of the famous sketches by his father, Hablot K. Browne, better known as "Phiz." In inner rooms, Professor Lodge and Mr. Clarke exhibited philosophical apparatus of interest from University College. In the room to the right of the reception-hall, recitals were given by Mr. John Thomas, the Queen's harpist. The permanent collection of pictures belonging to the Corporation, which has recently been rearranged, received much attention, and the latest addition to the art treasures of the city, Mr. W. Dendy Sadler's picture, "Friday," just presented by Mr. James Pegram, was regarded with much admiration. The Picton Reading Room was lighted by electricity. On the tables there was displayed a valuable and interesting collection of illuminated books, selected and arranged by Mr. Peter Cowell, the chief librarian. On the side-benches were placed a number of powerful microscopes, lent by members of the Microscopical Society, this section of the entertainment being under the superintendence of Mr. J. Sibley Hicks. A covered archway, lighted with Chinese lanterns, led the visitors from this part of the building to the Rotunda Lecture Hall, where a most appreciative musical entertainment was provided by Kalozdy's Hungarian band. The Free Library was used as a refreshment buffet. The great hall of the Library and the Mayer Museum were illuminated by the electric light, the arrangements for which had been entrusted to Messrs. Holmes and Vaudrey, electrical engineers, the electricity being stored in batteries supplied by the Electric Storage Company. This was the first occasion on which such an experiment was tried, and it proved in every way successful. In the Free Library Hall, Streather's band gave performances, whilst the Liverpool Vocalists' Union gave a concert in the Mayer Museum. In the theatre, Mr. C. T. Gatty exhibited photographs of interesting objects by the oxy-hydrogen lantern supplied by Mr. Knott, the well-known optician of Elliott Street. At half-past nine o'clock, the Rev. H. H. Higgins and Mr. T. J. Moore, curator of the museum, conducted parties through the various departments of the museum, and gave pleasing descriptions of vertebrate and invertebrate animals. Not the least interesting auxiliary entertainment of the *soirée* was the Shakespearian recital of Mr. W. Creswick, an old Liverpool favourite. Reference to the assistance given by Mr. Charles Dyall, the curator of the Walker Art Gallery, in the designing of the fine effect in the entrance-hall, must be made; and praise is also due to Mr. W. Mitchell Banks for his untiring efforts in connection with the very successful carrying out of the *soirée*. The programme of the *soirée*, unique in design and admirably executed, was the work of Mr. J. Orr Marples, of Liverpool and London Chambers.

The principal approach to the Art Gallery and the adjoining buildings was early in the evening surrounded by an immense concourse of spectators. The great crowd of visitors necessitated extra vigilance on the part of the police authorities. The buildings were surrounded by an extra staff of constables, who kept order surprisingly well.

RECEPTION BY THE MAYOR OF LIVERPOOL.—The *soirée* given by the Mayor at the Town Hall, in the evening of Friday, formed a fitting and enjoyable termination to the Association's visit to Liverpool, and the members, as well as the visitors, will retain very pleasant recollections of their reception by his Worship. Of the invitations issued for the reception, no fewer than 2,950 were accepted; and of these, 1,200 were sent out through the local committee of the Association, to members and their ladies, and 277 were issued by the Mayor, among the most prominent citizens. The Mayor and Mrs. Radcliffe arrived at the Town Hall shortly after eight o'clock, and commenced to receive the guests in the drawing room at 8.30, there being an almost incessant stream of arrivals until ten o'clock. The police-band were stationed on the left side of the grand staircase, and performed selections of music during the evening, the orchestra in the large assembly-room being occupied by a skilled company of instrumentalists under the direction of the able leader of the band of the Royal Alexandra Theatre (Mr. John Ross), whose programme was characteristed by great taste and judgment. The grand staircase and the reception-rooms were chastely adorned with choice plants and shrubs from the Botanic Gardens. They had been arranged with much care by Mr. Richardson, curator of the gardens, who also, aided by the horticultural resources at his command, had converted the crypt into a very pleasant retreat for the guests. The floor was carpeted, and palms, ferns, and other plants were effectively displayed. Refreshments were served in the council-chamber, under the superintendence of Mr. Benyon, the keeper of the hall.

EXCURSIONS.

EXCURSION TO CONWAY AND LLANDUDNO.—About ninety members of the Association, in response to an invitation from the North Wales Branch, visited the ancient borough and castle of Conway, on Saturday, August 4th. They were met at the landing-place by Alderman William Jones, the mayor, and several members of the corporation, and were escorted to the ancient castle, where they sat down to an excellent luncheon; Dr. Eyton Jones, of Wrexham, President of the North Wales Branch, occupied the chair. The usual loyal and patriotic toasts having been duly given, Dr. Eyton Jones proposed "Prosperity to the British Medical Association," coupled with the name of Professor Cuming of Belfast, President-elect. In proposing the toast, Dr. Eyton Jones gave a most cordial welcome to the members of the Association, who were received by Welshmen within the walls of an old Saxon fortress. As regarded the visit of the members of the British Medical Association to North Wales, he was sure that would be appreciated by all Welshmen. Dr. Cuming, in acknowledging the toast, touched upon the pleasant incidents characterising their brief stay in the Principality, and acknowledged the courtesy with which the Association had been received by the Mayor of Conway, and the great attention Drs. Hughes and Prichard had exhibited towards the comfort of their guests, whose record of a brief though pleasant stay in North Wales would be marked with a long array of white stones. "The North Wales Branch" was proposed, in conjunction with the names of Dr. R. Arthur Prichard of Conway, President-elect, and Mr. Lloyd Roberts of Denbigh, Honorary Secretary, who acknowledged the compliment. Dr. Joseph Rogers of London, on behalf of the British Medical Association, proposed a vote of thanks to the Mayor of Conway, for the ready assistance he had rendered in connection with the visit. The vote having been duly carried, the proceedings terminated. Some of the members proceeded to wander amongst the castle-ruins, others to visit the parish church, which, by the courtesy of the Rev. H. Rees, was thrown open; whilst others went by rail to Llandudno, where a five o'clock tea was provided at the Tudno Castle Hotel. Conveyances were provided for a drive round the Great Orme's Head, and in the evening the party returned to Liverpool by steamer. Their comfort during their brief but pleasant stay in Carnarvonshire was well looked after by Drs. Hughes (Penmaenmawr), R. A. Prichard (Conway), Jones (Llanrwst), Hughes (Menai Bridge), the Mayor of Conway, Mr. A. Wood, Mr. W. Thomas, (National Provincial Bank), and others. We regret to state that what would otherwise have been a most enjoyable excursion, was marred by a sad accident, by which two men were seriously injured. As the steamer was approaching the town of Conway, a cannon was fired in honour of the visit. On the third repetition of the firing an explosion took place. One of the gunners, an elderly man named William Jones, received frightful injuries of the eyes and right arm. The younger man's face was also terribly injured. On the facts becoming known a subscription was at once opened, and about £18 collected at the luncheon to relieve the immediate necessities of the sufferers. It is to be hoped that further contributions will be sent to the Mayor of Conway, or to the President of the North Wales Branch, Dr. Eyton Jones, of Wrexham. The following detailed statement of the injuries sustained by William Jones has been furnished by Dr. Emrys Jones, of the Royal Eye Hospital, Manchester, and Dr. J. W. Brown, of Belfast. The right eyeball was ruptured through the sclerotic; the tension was greatly diminished, indicating escape of vitreous humour. There was no perception of light; the face, eyelids, and conjunctivæ were covered with gunpowder, which was as far as possible removed. In the left eye there was a transverse wound across the cornea; the lens and vitreous body were injured; there was a slight perception of light. The prognosis in both eyes is very unfavourable. The condition of the right hand was such as to require immediate amputation, which was performed by Dr. Brown.

VISIT TO SOUTHPORT AND BLACKPOOL.—A number of members paid a visit to Southport and Blackpool. A short time ago, a few of the medical gentlemen of Southport formed themselves into a committee to promote excursions of the members at the close of their visit to Liverpool. Invitations were sent to fifty members to breakfast at the Prince of Wales Hotel in Southport, but about seventy availed themselves of the opportunity of paying a visit to that watering-place, and many took their wives with them, all of these ladies being the guests of the local committee. Dr. Barron, of Southport, occupied the chair, and he was supported by the Mayor of the borough (Mr. J. Wood, J.P., LL.D.), Dr. Jacob, of Dublin; Dr Douglas Powell, Physician to the Middlesex and to the Brompton Consumption Hospitals; and Mr. Shadford Walker, of Liverpool. In giving the toast of "The British Medical Association," the Chairman dwelt upon its great usefulness, and upon the general advantages it possessed in the way of facilitating that communication between medical men which was calculated to benefit them so much. Dr. Powell, in responding to the toast, paid a very high compliment to the local secretary (Mr. Pilkington). After breakfast, the guests were taken through the Aquarium and Winter Gardens, and they all expressed their delight with their visit to Southport, and with the generous hospitality they had received. In the afternoon, a number of them went by train to Blackpool, the remainder going by steamer to the same place, where they were entertained by the directors of the Hydropathic Establishment.

VISIT TO CHESTER.—A considerable number of the members of the Association visited Chester on Saturday. The party, which numbered about 200, including ladies, were conveyed by special train from Lime Street, reaching Chester at 11 A.M. The great bulk of the party at once proceeded to Eaton Hall, where luncheon and an inspection of the mansion and grounds occupied them for two or three hours. They then returned to Chester, where the various objects of interest in the city were visited. In the evening, dinner was served in the Grosvenor Hotel.

MR. BICKERSTETH'S RIVER EXCURSION.—A very pleasant excursion on the River Mersey was generously provided by Mr. E. R. Bickersteth, the president of the Surgical Section. Starting from the Liverpool landing-stage, the *Sunflower* proceeded some miles seaward, giving her three hundred passengers a good view of the various docks, and some charming coast scenery. Having arrived at the large Alexandra Dock, the party disembarked, some visiting the North Fore Lighthouse; the remainder, by the kindness of Captain Graham, were steamed, on board the *Hodgson*, round the dock, and a visit was paid to that magnificent steamship of the Guion line, the *Alaska* (the greyhound of the Atlantic), and the one hundred-ton hydraulic crane. The party having returned to the *Sunflower* a luncheon was provided, to which ample justice was done, and the steamer proceeded up the river for some miles towards Runcorn. During this trip a visit was paid to the *Indefatigable*, a training-ship for the orphan sons of sailors, and an interesting scene was witnessed. The young blue-jackets—the youngest being eleven years of age—were drawn up in line, and went through their carbine and sword exercises in a way which elicited the approval of all present. On nearing the landing-stage about 2 o'clock, Dr. Charles proposed a vote of thanks to Mr Bickersteth, which was accorded with great enthusiasm.

VISIT TO THE WIRRAL CHILDREN'S HOSPITAL.—Among the most interesting of the many buildings in Liverpool and its neighbourhood open to visitors on presenting their members' cards was the Wirral Children's Hospital. This building, which was formally opened by the Duke of Westminster on June 21st, is situated just on the borders of the town of Birkenhead, occupying high ground on a ridge of new red sandstone about a mile west of the river Mersey. The hospital consists of an administration-block and one wing, it being intended to erect a second wing as soon as funds can be raised for the purpose. There is at present a provision of forty-two beds, besides ample accommodation for a large out-patient department. The style of the building is domestic Gothic, the material used being Ruabon red brick and red stone dressings, with terra cotta string courses and enrichments. The gables are filled in with the Cheshire half-timbered black and white work, and the roof is red-tiled. The basement-floor, which is scarcely half below ground, is occupied with the kitchen, scullery, pantries, larders, storerooms, and cellars. On the ground-floor is the vestibule, having a beautiful arched ceiling in terra cotta; a fine hall, panelled round in walnut-wood; and corridors leading right and left. The corridor on the right leads to a handsome committee-room, 30 feet by 16½ feet, and to the part of the building where the new wing will join on. The corridor to the left leads to the house-surgeon's two rooms, a large linen-room, and No. 1 Ward, 56 feet by 20 feet. The out-patient department is also on this floor, but it is provided with a separate entrance. It consists of a vestibule, two waiting-rooms, consulting-room, examination-room, and dispensary, besides lavatories and latrines. On the first floor is the nurses' sitting-room, occupying the space above the hall and main entrance; and to the right, over the committee-room, are the nurses' bedrooms. The lady-superintendent's rooms are on this floor, and are over the house-surgeon's. Over ward No. 1 is Ward No. 2, both being in all respects similar, and each giving accommodation to fourteen patients. The operating-room is also on this floor. Over the out-patients' department is Ward No. 3, with eight beds. All the wards have bath-rooms and lavatories, and latrines properly cut off from the wards. On the second floor, besides servants' rooms, etc., etc., a large room not at present appropriated, is a separation-ward with proper offices, etc., for the isolation of cases of infectious disease, should an outbreak occur among the in-patients. The laundry, mortuary, etc., are, of course, built away from the hospital. Special arrangements were made for a party to visit the hospital on Wednesday afternoon, August 1st; and Dr. Braidwood, the senior medical officer to the institution, kindly undertook to act as guide, and conducted about thirty members and others over the building. The simplicity and beauty of the design, and the excellent quality of the work throughout was much praised. Special attention was called to the stained glass in the upper panes of the windows, illustrating nursery rhymes. These were executed by Messrs. Ballantine and Sons, and presented to the hospital by T. L. Pelling, Esq. The handsome gates in wrought iron and bronze, presented by Mrs. Dowie, were also much admired, and the specially designed furniture. Of professional interest were a collection of plaster casts, some coloured, Dr. Braidwood's novel mode of treating reducible hernia in children, his long splint, and the arrangements for systematic case-taking. As the patients only took possession of this hospital on July 30th, it certainly reflects the highest credit on the lady-superintendent, Miss Cunnington, that the wards presented such an orderly and cleanly appearance.

MR. BENJAMIN A. BRICKWELL, who was reappointed medical officer of health for the Amersham Rural Sanitary district, at £50 *per annum*, in lieu of £100, as before, promptly declined the appointment, and the authority again invite applications for it.

HUMAN OBESITY.—Last week the death was recorded of the "fattest woman in the world," a member and special curiosity of a travelling circus company in America, who appears to have been smothered in her bed by rolling upon her face, she being unable to turn upon her back without assistance. Miss Conley, the adipose prodigy in question, though probably the most enormous of her sex, weighing, as she is stated to have done, 497 lbs., fell far short of the bulk of the famous Daniel Lambert, who died in 1809, at Stamford, at the age of 40. Lambert weighed no less than 52 stones 11 lbs., that is 739 lbs., or close upon half as much again as the American lady. He was 5ft. 11in. in height, measured 9ft. 4in. round his body, and 3ft. 1in. round the leg. It is said that he never drank any alcoholic beverage, and that he usually slept less than eight hours a day.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 11th, 1883.

THE ANNUAL MEETING IN LIVERPOOL.

THE annual meeting which has just been concluded will be memorable in the annals of the Association, not only as one of its most numerous and highly successful gatherings, but as a meeting at which a large amount of extremely important business was transacted. The discussion on the by-laws, although very animated and, at times, passing beyond the limits of order, was conducted with the most cordial good feeling, and ended in the approval, by the meeting, of the new code, practically unaltered. The registration of the Association under Parliamentary forms, interposes obstacles to the prompt and simple proceedings in respect to such by-laws, which are taken in merely voluntary associations not bound by charters such as those to which the Association had previously been accustomed; hence the fact that two meetings were necessary for the purpose of taking the mind of the Association as to the proposed change of by-laws, and then for the purpose of legally altering the Articles of Association, so that the by-laws and Articles of Association should be strictly conformable, led to some misunderstanding and some impatience. The obligations of the law must, however, be complied with; and it is well to remember, and necessary to remind all those of our Associates who are interested in administrative questions, that, according to Act of Parliament, a further meeting will be necessary to give legal effect to the changes proposed and accepted by the general meeting, and that such meeting is fixed for Friday, August 17th. At this meeting, according to the notices given, some amendments, which have not yet been discussed, will be brought forward; and as the proceedings at the meeting will be final and binding, it seems important that everyone should understand that the discussion of the by-laws is not yet over, and that a good attendance of impartial and unprejudiced persons, having the interests of the Association at heart, and concerned for its good working, is extremely desirable.

This meeting will be held on Friday, August 17th, at Exeter Hall, at two o'clock in the afternoon.

The further proceedings of the general meeting included the reception and discussion of the reports of committees, more than one of which this year contained matters of considerable interest and importance. The annual meeting is an occasion on which the action of the committees of the whole Association can be openly discussed and effectually dealt with; and as opposition had been made during the year, loud and active, although comparatively confined to a very small number of persons, to the action by which the Medical Reform Committee has, under the guidance of its chairman, Dr. Waters energetically laboured to carry out the mandate entrusted to it by the Association, and to give Parliamentary effect to the declared wishes of the Association with respect to medical reform, there was reason to anticipate that this sentiment might find some expression at the meeting, where it would have been perfectly legitimate and effective. No such sentiments, however, found expression at the general

meeting; and the statement of Drs. Waters and De Bartolomé, energetically supported by Professor Haughton, of Dublin, appeared to meet with universal approval. Throughout the meeting no voice was raised except to express thanks for the arduous and self-sacrificing labours of the Committee, and especially for the enthusiastic self-devotion with which Dr. Waters has applied himself to the work, and to the carrying out of the will of the Association, which he has done so much to guide and to inform on this matter. The mandate of this Committee remains, therefore, strengthened and unaltered, and they have received fresh direction from the Association, by the approval and confirmation of their report in all its details, to continue in the course which they have thus far pursued. The report of the Parliamentary Bills Committee, referring to a great amount of work of which, necessarily, only a small part appears in the published proceedings of the Committee, was warmly received and unanimously adopted. Great stress was laid at this meeting on the importance of strengthening the political power of the Association, and its influence upon the Government. This Committee has for many years devoted itself to that task, and in fact it would be difficult to name any other organisation on this side of the Channel by which the political interests of the profession are energetically and systematically considered and maintained, The task is one of great delicacy and great labour, involving much responsibility, and requiring for its effective performance constant vigilance, the exercise of critical judgment, an experience of public affairs, and an acquaintance with public men. It is hard to fulfil adequately all these requirements; but we may express the hope that, to some extent at least, the endeavour to meet them has not been unsuccessful, and we believe that the work done and the approval of it shown by successive annual meetings has enabled the Committee to render great service for a long succession of years to all the varied interests of the public departments of the profession, and has served the general advancement of progress and influence in the councils of the nation.

The special feature of the report of the Scientific Grants Committee was the recommendation to the Association to initiate a new departure in the support of scientific research, in aid of medicine and the ancillary sciences, by the creation of scholarships of research, of the annual value of £150 a year, tenable for three years, at any of the suitable schools or laboratories of the British or Continental universities and medical schools. This proposition, involving an expenditure of the funds of the Association, was one of the great purposes for which the Association was created, viz., to promote the advancement of medical science and knowledge; it was received without a dissentient voice, and adopted by the meeting. We hail this step as one of great promise, which will redound to the honour and credit of the Association, and are possessed with a firm and hopeful anticipation that the results will be such as to lead the Association to desire the development of this scheme to its full extent, by the creation, according to the original proposition, of further scholarships of the kind. The members at large and the whole profession will, we believe, draw the most hopeful auguries from the fact that the Association, on this ground, has decisively encouraged the proposition to use its resources for the purposes of the advancement of knowledge and the promotion of science, in preference to other proposals of a different character which were put before it.

It will be seen by reports which we present that the public receptions and entertainments were of the most hospitable and brilliant character. The Sections were, as a rule, very largely and fruitfully attended—the only exception being, we believe, the Sections of Pathology and Physiology, in which the attendance was much less numerous than might have been desired.

We shall proceed rapidly and continuously with the publication of the principal papers read, and the discussions thereon, in all the Sections.

The museums were of unusual extent and interest, and we shall publish in an early number an extended notice of them.

The collateral meetings were also this year more numerous and important than on any previous occasion. The meetings of the Poor-law medical officers and of the militia-surgeons were well attended, and the resolutions adopted will serve considerably to advance the objects in view. The resolution passed at the general meeting in support of the claims of the militia-surgeons has been at once forwarded to the Secretary of State for War, and a question in relation to it will be put this week in the House of Commons.

Dr. Joseph Rogers, the unfailing friend of the sick poor, had this year a story of personal persecution to relate; and we feel confident that, in so just a cause as that he set forth, he will have the sympathy and support of his medical brethren in the Poor-law medical service, of whom he has long been a friend and champion.

The meeting of the adherents of the proposed Medical Provident Society was, considering the circumstances, as large as it was earnest and energetic. This meeting has, we believe it will be found, done much to consolidate the foundations for the new society; and so large a number of adherents while the society is still in its inchoate stage, and so much active intelligent and thoughtful support from persons of local influence in all the different parts of the country, are of the best augury. No one, we imagine, conceals from himself that the task to be undertaken is one of serious difficulty, and which will require all the energy, all the cool business-capacity, and all the enthusiasm for humanity of its friends, and all those who intend, if possible, to carry it out in a thoroughly business-like manner, and with a determination to make it a success. A large committee was formed, for which further names were urgently requested, with the view of forming local committees at the seat of each of the Branches; and resolutions were adopted for communicating the proceedings to the officers of Branches, and soliciting their aid. It must not, however, be forgotten that this is essentially a society for self-help; and that every man who takes an interest in it must feel that the success of the movement will depend very largely upon himself and his friends and that to trust, in such a matter, too much to official organisation, is far from being a presage of success. Official organisation in such a matter only can help those who really are in earnest to help themselves; and, for this reason, it is strongly to be desired that every one should lend a hand to widening and strengthening the foundations of this association, by giving his individual support, and thus securing for the association the large constituency which is essential to its prosperous course.

THE GOVERNMENT MEDICAL BILL.

In reply to Sir Trevor Lawrence, the Prime Minister, on Monday last, the 6th instant, stated that the Government intended to pass the Medical Bill this session, thereby maintaining the same attitude with respect to it which he has invariably done since the Bill was brought down from the House of Lords. The exigencies of public business require that other Bills should first be passed in the House of Commons in order to send them to the Upper House; whereas the Medical Bill having passed through the Lords, there is not this same necessity for immediately considering it. There is every reason to expect that, when the Bills which have to go to the Lords have passed through the House of Commons, the Medical Bill will be immediately proceeded with. Mr. Mundella, in his reply to the deputation of medical graduates of the Scottish universities, when Sir Lyon Playfair, Sir Andrew Clark, Dr. Dyce Duckworth, and Dr. Spencer Cobbold spoke for the deputation, stated that he was anxious to pass this Bill, and that he hoped and believed that, in the present month, he would carry it through the House of Commons. Stronger and more hopeful language could not have been used by the Prime Minister and the Vice-President of the Privy Council, who has im

mediate charge of the measure; both have expressed themselves most unequivocally in favour of the Bill.

In our last issue, we reported the proceedings at a deputation from the Medical Alliance Association to the Vice-President of the Privy Council. One member of the deputation objected to the Medical Bill, that it proposed to abolish the Colleges of Physicians and Surgeons. On this point, the presumption is that the Colleges may well be allowed to take care of themselves, and that Mr. Mundella was correct when "he denied that the effect of the Bill would be to abolish the Colleges of Physicians and Surgeons, though the power of placing on the *Register* would no longer belong to them." It was further objected that the Bill proposed to throw open the practice of the profession to druggists and quacks, so long as they did not assume medical titles. To this objection, Mr. Mundella replied that, "with regard to non-registered persons practising, all the restrictions now existing would continue without alteration."

The Vice-President further pointed out: "on the subject of increasing the penalties, that the Bill was introduced for providing better medical education, higher qualifications, and better government in the profession, and not to enter into a crusade against unqualified practitioners. That should be the subject of a separate Bill; and if they desired to increase the restrictions, he advised them to introduce a Bill for that purpose, though he held out but little hope of it passing." To this, the answer was given, "Then I am sure we would rather have no Bill." This remarkable avowal of a determination to resist to the utmost all medical legislation which does not embrace the prosecution of bone-setters, herbalists, and all unqualified quacks, while leaving untouched all quackery within the registered ranks of the profession, was met by the following severe but hardly unmerited rejoinder from Mr. Mundella: "Because you cannot have your own way with respect to the prosecution of unregistered practitioners, therefore you would rather not have the standard of qualification raised so far as the general qualification goes."

We have so often dwelt on the impossibility, as we believe, of inducing the Legislature to frame enactments against bone-setters, herbalists, and quacks generally, that we will not further dilate on the subject; but it may be instructive to specify what recently transpired in the Hong Kong Legislature when a Bill for the registration of medical practitioners was brought before it. In Clause 27 of the Government Medical Bill, an amendment on the Bill, as originally drafted, was submitted to the Government by the Medical Reform Committee, in respect of medical titles. This amendment is introduced in Subclause (2), Clause 27, and is as follows. "On and after the aforesaid day, if any person, whether a registered medical practitioner or not, who practises for gain, or professes to practise, or publishes his name as practising medicine or surgery, or receives any payment for practising medicine or surgery, takes or uses a medical title which is by this Act not permitted to be entered on the *Register*, he shall, on summary conviction, be liable to a penalty not exceeding twenty pounds."

An attempt was made by the Hong Kong legislature to introduce this clause in their proposed Registration Bill, but it was defeated, and the clause rejected as too stringent and unduly oppressive in its interference with the freedom of the community.

The chairman of the Medical Reform Committee of the Association, and the BRITISH MEDICAL JOURNAL, have been especially singled out, during the past year, for misrepresenting the feeling of the profession with respect to the Government Medical Bill; and it was stated to the Government: "That it did not give the general body of the profession any representation. All along, their contest had been, not for more seats on the Medical Council, but for representation on the medical boards; and this, they had hoped, would have been attained by the Bill." If this report of what was said be correct, it is scarcely possible for misrepresentation to go further. The Association and the profession have always demanded direct representation on the Medical Council. The Bills of the Association, the so-called Conference Bill of 1881, provided for the formation of a Medical Council composed of Crown nominees, university and corporation representatives, and direct representatives of the profession. It was contended that this composition would create a Council worthy of all confidence, as representing all interests, viz., the Government, the universities, and the various licensing corporations, together with the general body of the profession.

Under all these Bills, in accordance with the principle advocated by the Association for the formation of a conjoint examining board in each of the three divisions of the kingdom, the universities and corporations in each division were to combine to form a conjoint examining board, subject to the approval of the General Medical Council; but in case the universities and corporations in either division of the kingdom should not succeed in doing so, the General Medical Council should then have the power, and be required, to form a conjoint examining board for any such division of the kingdom. The Association and the profession never asked, they could not ask, for representation on the medical boards; for such boards had no existence; and the divisional boards, for the first time proposed since the report of the Royal Commission, are entirely and absolutely the result of that Commission. Whether the direct representatives of the profession in the Medical Council are to have seats in the proposed divisional boards, while the Crown nominees on the Medical Council are not to enjoy the privilege, is a question which will doubtless be raised when the Medical Bill gets into Committee of the House of Commons; but the Association has never instructed the Medical Reform Committee to press the point. The Committee has been directed to secure, as nearly as possible, seats for direct representatives of the profession on the Medical Council in the proportion of one-half the number allotted to the universities and corporations; and the Royal Commissioners in their report, and the Government in their Medical Bill, have granted all the Association asked.

The draft of the report of the Medical Reform Committee was published in the BRITISH MEDICAL JOURNAL of July 21st; the proceedings of the Committee during the preceding year were given in this report in full detail, and ample opportunity for cavil and objection was thereby afforded before the adoption of the report was proposed by Dr. Edward Waters, of Chester, the Chairman of the Committee, and seconded by Dr. De Bartolomé, of Sheffield, on Friday, August 3rd, at the annual meeting of the Association in Liverpool. As on all previous occasions, the report was adopted without a division, and the Committee re-appointed. Stronger, or more decided approval of the work of the Committee could not be given. The Committee clearly represents the voice of the Association, and we hail with joyful anticipation the carrying of the Medical Acts Amendment Bill of 1883.

CHOLERA AND QUARANTINE.

THE note forwarded from the English Government on July 31st to Lord Lyons, has naturally excited much comment on both sides of the Channel. The note is little more than a summary of the scientific observations of English and Indian sanitarians on the alleged contagiousness of cholera, and upon the preventive value of quarantine. It was agreed at the Conference of Vienna in 1874, that, once cholera had appeared in Europe, quarantine should be forthwith abolished in the Mediterranean ports while the epidemic lasted, and that the system of medical inspection should be substituted. Sporadic cases of cholera have been reported from various Mediterranean ports, and the note seems a well-timed reminder, therefore, to the European nations, that there are other and more active measures for the suppression of cholera than quarantine, which is "not only useless, but really harmful,"

The French nation have sent to Egypt a commission consisting of four medical men, all of them pupils of Pasteur, and initiated in his methods of discovery, to study the question of the contagiousness of cholera. Much interest naturally attaches to this investigation; and it is to be hoped that some other European nation may be induced to nominate an independent commission to criticise and corroborate both the methods that may be adopted, and the results when they are obtained. But the contagiousness of cholera has long been studied in England, where the disease has four times appeared in epidemic form, and in India, where it is almost endemic.

It was fit, therefore, that the result of these studies should be communicated to the French nation. The wording of the Note is courteous, and no attempt is made to force the conclusions to which our sanitarians have come upon other nations. "Some divergencies of opinion" are admitted, but it is stated, in general terms, that "no theory concerning the origin or propagation of cholera should be accepted as true, and that the history, the causes and the nature of the disease, both in its endemic and epidemic forms, are yet to be discovered." It is a fact that no trustworthy history of the causes and courses of local outbreaks of cholera has yet been compiled. The French commission will do good service if they write the true history of the present epidemic in Egypt.

The outbreak at Damietta, which has no communication with India, while the Red Sea route remained free, will be explained. That ships from Bombay were allowed free *pratique* at Suez will certainly not be alleged as the cause, for none had arrived in free *pratique* until four days after the epidemic had commenced. The "marvels of pond life" in Egypt will be investigated, and afford ample reason for radical sanitary measures for the supply of pure drinking-water. Now that the epidemic is happily declining, there will be a final opportunity for judging the worth of the so-called sanitary *cordon*. The custom of shutting up persons in good health, says the Note, with patients, either on board ships, or in lazarettos, or in towns, is calculated to increase, for physical and moral reasons easily understood, the number of persons attacked, to augment the violence of the disease, and to transform the prison into a hotbed of contagion. All this is admitted by many contagionists.

Quarantine is condemned irrespective of the question of contagion. If there be a cholera-germ, then every lazaretto is an institution for its artificial cultivation. But there are practical inquiries to be made which the French Commission will probably not attempt, and whose solution will be left to the English staff. Of the British troops less than 150 have been attacked with cholera, and the Egyptian troops have also remained comparatively free. How far this is due to the ease with which troops are marched from infected quarters to healthy camps, and how far it is due merely to their dietary and general management, remain yet to be told. Again, a few scattered cases of cholera have occurred daily in Alexandria, but as yet there has been no epidemic there. Formerly, cholera has been as fatal in Alexandria as in Cairo. For example, in July, 1848, the cholera death-rate was about equal in the two cities. Why contagion has failed to propagate the disease in the present instance must be explained.

It is affirmed in the note to Lord Lyons that cholera has never been shown to have been imported by ship from the Indies to Egypt or to Europe. It is not, of course, denied that cholera occasionally occurs on board ship, but the tendency is towards its spontaneous disappearance during the voyage. As the Sanitary Commissioner with the Government of India has remarked, since 1865 Egypt has not suffered once until now. Aden, which is still nearer to India, has never suffered to any extent—only twice since 1865 has there been a slight outbreak there. But cholera has prevailed in different parts of Europe in ten different years since 1865. It is endemic in parts of the Russian empire, yet no alarm is expressed by other countries. The English sailing vessels, the *Persia* and the *North Wind*, are often loosely quoted as having introduced cholera into Jeddah from the Indies in 1865. They sailed from Singapore with Javanese pilgrims, touched at Aleppy on the Malabar coast and at Makallah on the southern coast of Arabia, and reached Jeddah. The voyage in the one case was about fifty days, and in the other over eighty. There was no cholera among the pilgrims until the vessels were anchored off Makallah, where new passengers were shipped. Cholera was prevalent during the early part of the year in various towns in the Hadramaut coast; and it is possible to suppose that Jeddah became infected either by the cholera creeping along the land, or by the sick pilgrims carried in the ships from Makallah. But in neither case can the disease be said to have been imported from India; and in every alleged instance of such importation the allegation has failed to bear examination.

THE Library of the Royal Medical and Chirurgical Society will be closed on Monday, August 13, and re-opened on Thursday, September 13 next.

SIR CHARLES DILKE has decided to make the Diseases Prevention (Metropolis) Bill a temporary measure, expiring at the end of August, 1884, except so far as concerns the port sanitary authority of London.

QUAIN'S *Dictionary of Medicine*, published by Messrs Longmans and Co., must take rank amongst the most remarkable of successes in modern medical literature. The sale has already reached 7,000 in this country, and a large issue has been sold in America.

THE well-known portrait of Dr. Quain, painted and presented to him by his friend and patient, Mr. Maclise, R.A., has been exquisitely engraved by Mr. Barlow, R.A. This portrait has been published by Messrs. Agnew, Bond Street.

Mr. EDWARD THOMAS THRING, of University College, L.R.C.P.E., has been elected to the Medical Scholarship of the Society of Apothecaries of London, of the annual value of £100, tenable for two years. The Surgical Scholarship will be competed for at the close of the winter session 1883-4.

NOTWITHSTANDING Mr. Peter Taylor's crushing defeat this year he has given notice that he intends, next session, to again introduce a measure for the abolition of compulsory vaccination. It seems a pity that so much perseverance should be wasted on such a hopeless and injurious cause.

DR. J. W. TRIPE and the sanitary staff of Hackney have commenced a house-to-house visitation and inspection of the district under their supervision, particularly with reference to the water-supply. A code of health instructions has been distributed throughout the district, and notices issued requesting the immediate notification of choleraic disease to the sanitary authorities.

A VERY interesting report has been published by Chaffey Bey as to the origin of the outbreak at Damietta. After a careful analysis of all the circumstances of the case, he arrives at the conclusion that the cholera was not imported, but broke out spontaneously on account of the condition of the river and city, which this year presented conditions similar to those to be found on the banks of the Ganges when the epidemic made it appearance. The great fair at Damietta attracted a crowd of fifteen thousand people, who for eight days lived on foul water and decayed fish.

MR. FRANCIS FOX, in a letter to a contemporary, calls attention to the fact that, within a few yards of the reservoirs and filter-beds

of the Southwark and Vauxhall Water Company at Battersea, which company supplies a large area of London, there is a dust-yard, into which the refuse of Covent Garden is collected, and there mixed with manure and the contents from the ash-pits of dwelling-houses. The ashes are then riddled and picked over in the usual manner in such places, with the natural results of much dust and stench. Assuming the correctness of Mr. Fox's statements, there seems to be an ingenious frustration of the precautions taken by the water company, by the proximity of the dust-yard. Probably, now the attention of the company is drawn to the danger of the diffusion of disease by this state of things, due precautions will be taken to protect the filter-beds from the introduction of floating particles in the air arising from the processes carried on in this adjacent dust-yard.

SEVERAL copies have been forwarded to us by medical men of a very official looking document printed on foolscap paper in large type, and endorsed on the back "Cholera. Urgent—Instruction to Householders." On examining, however, this official-looking document, which appears to be widely circulated in the W.C. district, the explanation is to be found at the end, in which Dr. G. O. Drewry appends the following note:

"I need scarcely point that it is too late to attempt these alterations when an epidemic is upon us, and it is idle to waste time in discussing the probabilities of its arrival. The conditions described ought never to be allowed to exist for an instant, and, in conclusion, I can only add that I shall be pleased to give further information on this vitally important subject to the householder in the parish who chooses to apply for it, without charge, any day between 10 A.M. and 12, and 6 P.M. and 8 P.M., and will also examine and point out the necessary alterations in any house within a mile from Southampton Row, and see that they are properly made, for a small fee. 96, Southampton Row, July, 1883."

It is not surprising that medical men object to this rather too plausible and insidious form of advertising.

CENTENARIANS.

THE mortality returns for England in the year 1881, which have just been completed, record the deaths of no fewer than ninety-one persons who were registered as being 100 years old and upwards when they died. Of these aged persons twenty-five were men, and sixty-six were women. The ages of the men are recorded as follows. Nine were 100 years old, five 101, three 102, one 103, two 104, three 105, one 108; and one who died at Holkham, in Norfolk, if the register is to be relied upon, had attained the phenomenal age of 112 years. Of the women, twenty-four had reached 100 years, fifteen 101, eight 102, five 103, six 104, two 105, three 106, and three 107.

TRIAL OF LUNATICS BILL.

THE Bill, introduced by the Lord Chancellor, "to amend the law respecting the trial and custody of insane persons charged with offences," provides as follows. 1. Where in any indictment or information any act or omission is charged against any person as an offence, and it is given in evidence on the trial of such person for that offence that he was insane, so as not to be responsible, according to law, for his actions at the time when the act was done or omission made, then, if it appears to the jury before whom such person is tried that he did the act or made the omission charged, but was insane as aforesaid at the time when he did or made the same, the jury shall return a special verdict to the effect that the accused was guilty of the act or omission charged against him, but was insane as aforesaid at the time when he did the act or made the omission. 2. Where such special verdict is found, the Court shall order the accused to be kept in custody as a criminal lunatic, in such place and in such manner as the Court shall direct, till Her Majesty's pleasure shall be known; and it shall be lawful for Her Majesty thereupon, and from time to time, to give such order for the safe custody of such person during pleasure, in such place and in such manner as to Her Majesty may seem fit. 3. All provisions in any existing Act, or in any rules or orders made in pursuance of any existing Act, having reference to a person or persons acquitted on the ground of insanity, shall apply to a person or persons in respect of whom a special verdict is found under this Act.

THE CASES OF DIPHTHERIA AT ALDERSHOT.

THE few cases of diphtheria which have recently occurred at Aldershot hardly deserve to be called an "outbreak," although they have been so designated. There has been no fresh case since June 19th. A total of seventeen cases occurred between March last and June, as follows.

	Admitted.		Died.
Men.....	7	.....	1
Women ...	1	.....	0
Children...	9	.....	3
Totals ...	17		4

The majority of them were of mild type, and occurred in the permanent barracks. At the present time, a board of officers is inquiring into the cause, and any sanitary defects that may exist in camp. The cause of the appearance of the disease seems to be obscure.

ROYAL COLLEGE OF SURGEONS.

AN ordinary monthly meeting of the Council of the College was held on Thursday, the 9th instant. The minutes of the Quarterly Council, held on the 12th ultimo, were read and confirmed. A report was received from the General Purposes Committee. It was resolved to award the John Hunter Medal to Professor Owen, C.B., F.R.S., superintendent of the New Natural History Museum, for the great services he has rendered to comparative anatomy. Mr. Hulke was appointed to the seat in the Board of Examiners in dental surgery, rendered vacant by the retirement, by rotation, of Mr. Timothy Holmes. Mr. Erichsen brought forward a motion to the effect that it is desirable that, when the advisability of obtaining an alteration of the charter as to the method of election of members of Council is being considered, the advisability of making other amendments should be at the same time considered. The motion was referred to the committee appointed to consider the question of the election of members of Council.

CHOLERA HOSPITALS FOR THE METROPOLIS.

THE Bill which Sir Charles Dilke has introduced into the House of Commons for making the Metropolitan Asylums Board the hospital-authority for the metropolis, in the event of cholera reaching our shores, seems likely to meet with some opposition from the vestries, if not from the Asylums Board itself. It would appear, from what Mr. Galsworthy said on Saturday, that the Bill has been introduced without any official communication with the managers, and that the latter are by no means inclined to accept the responsibility for providing and maintaining an indefinite number of hospitals for completely coping with a possible cholera epidemic. The managers are apparently desirous of supplementing the accommodation which each of the vestries and district boards is bound to provide, but which, with striking unanimity, each has neglected to provide. Though there seems no reason to fear that the epidemic, even if it should reach the metropolis, will be at all serious, it is obviously most undesirable that there should be any administrative deadlock as to the proper procedure in the event of our being brought face to face with cholera. Looking to the lateness of the session and the near approach of the holidays, it is of the utmost importance that a basis of agreement should be at once arrived at between the Local Government Board, the asylum managers, and the local sanitary authorities; and we earnestly trust that the matter will not be

allowed to drift into the unsatisfactory position in which it was left at the last cholera-scare in 1871. An opportunity of exceptional advantage now offers for placing the hospital arrangements of the metropolis on a proper footing, and it would be a thousand pities to allow it to be frittered away.

A NIGHT MEDICAL SERVICE.

AN inquest was held last week on a little girl, aged 6 years, whose parents live at Peabody Buildings, Bermondsey. The child was taken ill on Wednesday August 1st, with diarrhœa, and the mother said she tried to borrow the sum of fourpence from a neighbour, but, as no money was forthcoming, no medicine could be procured for the sufferer. During the night, the deceased was greatly purged, and witness would have gone for a doctor, but that she had no money to pay for one. On Thursday morning, the witness went for Dr. Prigmore, but when he did arrive the child had expired. The coroner remarked that this was a most distressing case, and he could only condemn the conduct of the parents in not seeking parochial relief, or calling in medical aid sooner. As there was at the present time great fear that the cholera might spread in this country, he would try to do all that which in his official position he could to impress upon the minds of parents the necessity of at once seeking medical aid when diarrhœa made its appearance in their families. The jury agreed that death was due to exhaustion from an acute attack of diarrhœa, and they returned a verdict to that effect. At the same time, they wished to express their opinion that the father had shown neglect by not seeking medical aid sooner than he did. It was certainly the duty of the father to obtain medical assistance, but it must be taken into consideration in this case that the extreme poverty of the man prevented his paying for advice, and that obtaining the assistance of the parish medical officer is a process requiring more time than the exigencies of this case, at any rate, allowed. The nature of the malady, and the poor circumstances of the parents, add to the body of evidence which urgently calls for the establishment of a night medical service for London, similar to that in operation in Paris and New York. Were such a system in operation, immediate aid would be available; and, indeed, it would be well, in the possibility of apprehended disturbance of the public health from the zymotic influences now at work, that local sanitary authorities should, in concert with the police, organise some such system, so that immediate aid may be available in stopping these neglected but dangerous diarrhœal attacks.

REGULATION OF NEW BAKEHOUSES.

ONE of the greatest objections to the present law as regards bakehouses is that a very large proportion of the old bakehouses are almost entirely underground, and it is allowable for new bakehouses to be built in this manner. They are frequently damp, dirty, dark, and badly ventilated, and consequently injurious not only to the health of the men employed in the trade, but are objectionable for the making of bread and other articles of food. It is, therefore, proposed in the Bill which has lately passed the House of Lords, that it shall not be lawful after the passing of the Act to use any newly built bakehouse of which one-half is not above the level of the ground. The Earl of Pembroke has written to the *Times* objecting to any rigid rule by this description, as, in the event of circumstances rendering necessary the erection of a bakehouse more than six feet above the ground-level, the builder could not construct it more than twelve feet high, whilst if allowed to go deeper, a lofty room could be made. This seems at first sight to be a fair argument, provided that the ceiling of the bakehouse was required to be at least six feet above the ground-level (but from the letter this does not seem to be the proposal), but it is proposed to give discretionary power to make exceptions to the rule, if the inspectors were otherwise satisfied with the fitness of the bakehouse. The working of these permissive clauses in Acts of Parliament is, as a rule, objectionable, as what would satisfy one person of the fitness of the bakehouse, would not be satisfactory to another, and consequently what might be legal in one district would not be legal in another. In cases such as these it is better to fix some rule by the Act which will prove all instances rather than allow a dispensing power which might in some cases undo all the good which the Act would otherwise confer. At any rate no such power should be given unless at least six feet in height of the interior of the bakehouse should be above the ground-level.

MILLER MEMORIAL HOSPITAL.

LAST week the foundation-stone of a hospital, in connection with the Royal Kent Dispensary, Greenwich, was laid by the Earl of Dartmouth, in celebration of the centenary of the dispensary and as a memorial of the late Canon Miller, the vicar of Greenwich and the founder of Hospital Sunday. From a statement read by Mr. W Bristow, it appeared that the authorities of the dispensary, finding the necessity of hospital accommodation in the neighbourhood of Greenwich, and aided by the "Memorial" funds raised to the name of the late Canon Miller, had come to the resolve to erect an addition to the widely extended charity of the dispensary by building a hospital. This is to be in the circular form adopted in Belgium and in America. Prayer was said by the Rev. Brooke Lambert, and the stone was then laid by the Earl of Dartmouth. Baron H. de Worms, M.P., in proposing the customary vote of thanks to the Earl of Dartmouth, dwelt upon the necessity of hospital accommodation being made in a district which has no general hospital accommodation nearer than Guy's Hospital, a distance of five or six miles from Greenwich, and remarked that nothing could be more touching than the association of this hospital for the relief of pain, sickness, and suffering with the name of Canon Miller, whose life was passed in alleviating the sorrows and pains of his fellow-creatures. Professor Marshall, President of the Royal College of Surgeons, seconded the motion, and said that he had taken the very greatest interest in the subject of circular wards for hospitals. He stated that these would be the first erected in England, but that others would soon follow, and would give the best means of administering to the sick. The vote was carried by acclamation, and the Earl of Dartmouth, in acknowledging the vote, expressed his gratification that as a neighbour he had been invited to be associated with this good work about to be carried out in a practical way, especially as that work was associated with the name of Canon Miller. He remarked that the staff of the institution, honorary officers as they were, deserved the warmest gratitude of the population, seeing that upwards of 11,000 patients had been attended during the year, and he concluded by wishing success to the institution,

"A DIFFERENCE OF OPINION."

THE relations between the medical officer of health of the Totnes Rural Sanitary District, and at least one of the local practitioners do not appear to be as cordial as could be desired, and recently this lack of harmony has culminated in something nearly approaching a public quarrel regarding the accuracy of a diagnosis. The case which gave rise to this regretable incident, was that of an old lady, aged 86, who died on July 14th, the cause of death being certified by Mr. Hains, the medical attendant, as typhus fever. Mr. Cape, the medical officer of health, on learning of this death, and having serious doubts regarding the nature of the case, paid a visit to the house in which the death had occurred, and made an investigation into the circumstances. His inquiry led him to the conclu- that the cause of death could not have been typhus fever; and in his report to the sanitary authority, he laid this conclusion before them in tolerably strong language. Mr. Hains was present at the meeting, and declared that the typhus symptoms had declared themselves on Wednesday (July 11th), and that he knew as much

about typhus as Mr. Cape. The dispute might have waxed stronger, but fortunately the chairman would not allow Mr. Cape to reply to Mr. Hains, and the board quickly passed to other matters. It is, perhaps, not surprising that Mr. Cape should have had doubt regarding the accuracy of the nomenclature adopted in the death-certificate in this case; but his method of procedure in regard to it was most unwise. Harmony, mutual deference, and courtesy are essential to sanitary progress, and medical officers of health should use their utmost discretion to avoid all cause of irritation to their fellow-practitioners with whom their duties bring them in contact. The doubts which the medical officer of health might reasonably entertain in this case, might, perhaps, have been kept from public discussion.

THE NEW EYE HOSPITAL AT BIRMINGHAM.

THE new buildings of the Birmingham Eye Hospital, to which the old and prosperous institution, established sixty years ago by Mr. Joseph Hodgson, is about to remove, stand upon an advantageous site in the centre of the town, of 1,080 square yards in extent, with a frontage to Church Street of 134 feet, to Edmund Street of 68 feet, and to Barwick Street of 70 feet. The new hospital is built of red brick, with dressings of Derbyshire stone, and the design of the structure is enriched with moulded brickwork, carved brick panels, and some pieces of elaborately carved stonework. There are five stories, the highest of which is formed within a mansard roof, having pavilions at its four corners. The ground floor is given up almost entirely to the out-patient department, which in every particular is kept separate from the department for in-patients. A spacious hall, entered from Barwick Street, and measuring 70 feet by 33 feet, forms a commodious out-patient waiting-room. At the end of the hall remote from the door is the consulting-room, with operating-room and two dark rooms. On one side of the hall a large dispensary is conveniently placed. These three rooms do not occupy the whole of the floor, space being found besides for a domestic department. On the ground-floor are two other entrances to the building—the principal door, in the centre of the Church Street face of the block, and a tradesman's door, in Barwick Street. The basement, which throughout half its length is above the level of the street, affords accommodation for the porter, and contains also a larder, a leech-room, a small mortuary, a furnace-room, and plenty of cellaring. The first and higher floors are different in plan from the ground floor and the basement, which are rectangular blocks, and are built in the form of the letter E, without the middle projection. The first floor and the succeeding floors thus consist of a central block and two wings, a central area being formed in the building by means of furnishing the out-patients' waiting-hall on the ground-floor with a lantern roof. On the first floor, the house-surgeon's and the matron's private rooms are over the principal entrance, and the remainder of the space, together with the whole of the second floor and a portion of the third, is devoted to the accommodation of in-patients. There will be beds for seventy in-patients, forty-five for males and twenty-five for females. On the third floor the centre of the block is occupied by the kitchens. In another part of the third floor, and looking out upon the internal area through a big oriel window, there is a large and conveniently-arranged operating-room and convalescent ward. On each floor there is a complete arrangement of bath-rooms, lavatories and water-closets, which are carefully shut off from the wards. In addition to the staircases, three lifts have been constructed—one each for the male, female, and kitchen departments. The staircases are all of stone, and the corridors are laid with fire-proof flooring. The wards are floored with teak, which will be cleansed by dry-rubbing. The wards and corridors are heated by steam-pipes, the wards being also furnished with open fire-places.

THE PERILS OF STEAM TRAMCARS.

EVERY week has lately brought records of deaths and mutilations wrought by steam tramcars. These dangerous means of transit are now to be found in operation in nearly every populous place throughout the country. The perils which steam tramcars bring, in the thoroughfares they occupy, to pedestrians and passengers in ordinary vehicles have already been noticed in our pages. The unfortunate, and, in many cases, clearly preventable, disasters to which we now more especially refer, have affected only travellers in the new modes of conveyance. Already several tramcar passengers have been killed in our streets, and not a few have been more or less seriously injured. Steam tramcars, as we have at present known them, appear to have introduced into our busy roadways many of the risks of railways without their safeguards, and to have added thereto some peculiar perils of their own. They have placed in our crowded streets the hazards which attend the use of steam as a motive power, unchecked by all the elaborate precautions which experience and discipline have furnished on our railways; and they have developed special dangers of their own, in that they ply in thoroughfares which are not exclusively reserved for their own use, but are filled with foot-passengers, equestrians, velocipedists, and travellers in carriages drawn by horses. Recent disasters have severely shaken public confidence in the safety of steam tramcars as at present worked in our streets. Possibly a little more experience of the dangers of these novel vehicles, especially to those who ride in them, may terminate the employment of steam tramcars by the operation of the inexorable laws which accomplish the universal extinction of the unfit. But, so long as steam tramcars are used, it is imperative that those responsible for their management, namely, their proprietors, their drivers, and their conductors, as well as the central and local authorities which have power to restrain and regulate their working, should take all care to render their traffic as little dangerous to the public as possible. That there is urgent need for increased diligence and watchfulness, the almost daily occurrence of "accidents" abundantly proves. Experience has shown that danger is most apt to arise in the several points of overloading, excessive speed, and defective brake-power. At Huddersfield, a lamentable catastrophe lately arose because a huge overladen car, in the absence of adequate brake-power, attained a dangerous velocity in descending a steep gradient, and, in consequence, turned over in rounding a sharp curve. Local authorities are usually armed, under their by-laws, with penal power to check the overloading of vehicles in the thoroughfares of their districts; and it is for the police to be on the alert to prevent the dangerous overcrowding of tramcars, and to put it down by instituting proceedings against infringing companies before the magistrates. The risks which spring from defective brake-power are evident. Upon the perfect working of the brakes of tramcars, the passengers in those carriages are dependent for their safety in descending or in ascending steep inclines. Nor is it enough that the brakes should be sufficiently powerful for their purpose. There must be reliable hands ready to work them at the proper moment. One or two recent casualties appear to have happened because the conductor, whose most responsible office it was to manage the brakes, was engaged in some other duty, such as the collection of tickets, at the very instant when his services were most needed to regulate the speed of his car.

SCOTLAND.

A FURTHER step has been taken towards the erection of the permanent observatory on Ben Nevis, a deputation from the Scottish Meteorological Society having visited the summit of the hill, and marked off the site of the building.

An outbreak of typhus fever, of a severe type, is reported to have occurred in the village of Elgol, in the Island of Skye; and, as the

medical man in attendance on the cases has himself caught the contagion, it is to be hoped no time will be lost by the sanitary authorities in dealing with the epidemic, and furnishing proper assistance.

THE published reports of the weather for the past month show that, in Scotland, July has not maintained its usual character of being the warmest month of the year. In fact, with the exception of a few days at its commencement, the conditions have been most unseasonable, and at times the weather has been really cold. There were also several severe thunderstorms in different parts of the country.

ON Saturday, July 28th, the annual general meeting of the Aberdeen, Banff and Kincardine Branch of the British Medical Association was held. Dr. Angus Fraser, President, occupied the chair. Dr. Keith of Aboyne, was elected president of the Branch for the ensuing year. The President gave an interesting address on "Tubercle-Bacillus." Afterwards the members joined with the North of Scotland Medical Association.

HEAVY DAMAGES AGAINST A CHEMIST.

AN action was recently brought against an Aberdeen druggist by the widow of a man who was alleged to have died through the negligence of one of the druggist's shopmen in supplying some poisonous compound by mistake for salicylate of soda. The case did not go to proof, but was settled by the defender paying £400 in full of the damages and the expenses sued for. A case such as this should impress on dispensing chemists the importance of making themselves thoroughly sure as to the qualifications and reliability of the assistants they engage in connection with their business.

SCOTCH FISHERY BOARD SCIENTIFIC INVESTIGATIONS.

A COMMITTEE of this board, with Professor Cossar Ewart as its head, has been appointed to carry on some special scientific investigations this autumn, the scope of their inquiry being to increase a knowledge of the habits, food, and life-history of the herring. We understand that the committee have been requested to especially direct attention to the spawning-beds of the herring, and to discover what influence the spawning so much further from shore than formerly will have on the herring-harvest. Seeing the importance of the herring-fishery as a branch of industry, and as a source of food-supply to the people of Scotland, the Fishery Board could not have directed their efforts to a better object of inquiry. It is the intention of the committee to dredge first in the Moray Firth.

INCREASED HOSPITAL ACCOMMODATION FOR GLASGOW.

FROM time to time, the sanitary authorities in Glasgow have experienced the want of sufficient hospital accommodation, especially when zymotic diseases have been at all rife in the city; and the subject has been brought up already by Dr. Russell. It has now been resolved to take further action in the matter; but there seems to be a difference of opinion as to how this can best be done. One proposal, which meets with Dr. Russell's approval, is to enlarge the already existing hospital at Belvidere to the extent of thirteen pavilions in all, representing 390 patients; while others are in favour of having the additional accommodation provided within the municipal bounds, but elsewhere than at Belvidere. The Hospitals Committee are to report on the matter, which it is to be hoped they will do without any great delay, as it is a question closely affecting the health of the city.

GLASGOW UNIVERSITY.

THE summer session in the Medical Faculty of this university was brought to a close by the graduation ceremony, which took place in the lower hall of the museum, the Principal, Professor Caird, presiding. The gentlemen on whom degrees were conferred numbered about a hundred, and they were presented by the Dean of the Medical Faculty, Professor Leishman, and "capped" by the Principal. After this, the medals gained in the different classes were presented to the successful candidates, and the proceedings terminated by an address from Professor Gardiner, in which he dwelt on some of the aspects of the medical profession, and paid a high tribute to the system of medical education as carried on in our Scotch universities. Of the theses for the degree of Doctor of Medicine, those of Drs. Inglis and Newman were considered worthy of commendation; while of the graduates in medicine and surgery, Mr. J. Innes Dunlop was awarded first-class honours; and to the same gentleman, as being the most distinguished graduate in medicine of the year, was given the Brunton Memorial Prize.

AMBULANCE COMPETITION AT IRVINE.

AT the Government Camp of Instruction held recently at Irvine, for the volunteer artillery of Scotland, the subject of ambulance work and drill was not lost sight of, and an open competition was held, for which several stretcher-detachments entered. The competitors were tested in their knowledge of the first treatment of injuries, in the removal of the wounded from the front to the first dressing-station, by means of stretchers and improvised methods of transport. The successful detachment belonged to the Lanark Artillery, but the general intelligence shown by all the detachments was most gratifying, and the report of the umpires appointed bears this out, for it states "that the medical officers have to express their great satisfaction with the careful manner in which the several detachments did their drill; their behaviour was steady and soldier-like; complete silence was observed; and the various movements were gone through with great precision." We are glad to see the authorities encouraging work of this kind, which may prove useful in many of the every-day accidents of civil life.

THE NORTH OF SCOTLAND MEDICAL ASSOCIATION.

THE annual meeting of the North of Scotland Medical Association was held in Aberdeen on Saturday, July 28th; Dr. Manson of Banff, the President, in the chair. Dr. Manson gave a most interesting and graphic account of the rise and progress of the Aberdeen Medical School from the time when the Professorships in Medicine were very limited in number, until the present time, when every branch of medical science has a professor. The union of the two universities—King's College and Marischal College—was really the making of the Medical School. Dr. Manson referred to the many eminent men who were connected with the school, and amongst others to Dr. Clarke, the inventor of the soap-test which still bears his name, to Dr. Kilgour, whose strong common sense, and whose almost intuitive perception of salient points of a case, were strongly marked characteristics of this estimable physician, whose name was a household word in the north of Scotland. A high tribute was paid to the memory of the late Professor Pirrie, whose ability to impart knowledge in a clear, easily remembered form was, perhaps, unequalled, and who certainly had few rivals as an enthusiastic, painstaking and demonstrative lecturer.

ABERDEEN UNIVERSITY.

THE various medical classes closed on Friday, July 27th, when the honours-lists were announced. This session has been one of pre-eminent activity, and without doubt it has been one of the most successful in the history of the Medical School. This is due to the fact that year by year more opportunities are afforded to the students for doing practical work. To every chair there is attached a practical class, and this is the mainspring of the recent success of this school. With the introduction of Practical Physiology, Prac-

tical Pathology, and Operative Surgery, the facilities for study have increased, and students have not been slow to take advantage of these facilities. Further, the extramural classes which have been recognised by the University, for Instruction in Insanity, Public Health, and Diseases of the Ear and Larynx and Skin, have all been equally successful, and have formed another important aid to the acquisition of a practical acquaintance with branches of study which are too apt to be forgotten. The number of students matriculated during the present summer session is fifty more than on any previous occasion. The professional examinations commenced on July 28th, and the graduation ceremonial will probably take place on or about the 11th instant. It is not likely that the vacancy in the Medical Jurisprudence Chair will be filled up before September.

PENSIONS OF EMERITUS SCOTTISH PROFESSORS.

FROM a return presented to Parliament on the motion of Mr. Dalrymple, M.P., interesting statistics are furnished as to the retiring allowances of professors in the Scottish universities. In Edinburgh, in the Faculty of Medicine, Professor George James Allman, at the age of 58, retired from the Natural History chair, with an allowance of £385 0s. 6d. *per annum;* Professor J. Hutton Balfour, Botany, retired at the age of 71, with an allowance of £1,144 2s. 5d. *per annum.* In Glasgow, Professor Allen Thomson, Anatomy, retired at the age of 68, with an allowance of £842 *per annum;* Professor John B. Cowan, Materia Medica, retired at the age of 51, with an annual allowance of £153 9s. 4d. In Aberdeen, Professor George Ogilvie Forbes retired from the chair of Institutes of Medicine, aged 56, with an allowance of £151 12s. 3d. *per annum.* Professor Alexander Hawly, Materia Medica, retired, aged 67, with an annual allowance of £219 9s. These pensions are fixed by an average of the incomes derived from the chairs during a period of years, and by the time the retiring professors have occupied the respective chairs.

ANNUAL GRADUATION IN EDINBURGH.

ON Wednesday, August 1st, the annual graduation ceremonial of the University of Edinburgh was held in the large hall of the United Presbyterian Church, Castle Terrace, Edinburgh. Principal Sir Alexander Grant, Bart., presided, and conferred the degrees. Twenty-nine candidates holding the degree of M.B. received the degree of M.D. Of these, there were four who received a gold medal for the excellence of their graduation theses, namely, Drs. J. B. Balfour, A. H. F. Barbour, J. W. Fraser, and John Hassall. One was deemed worthy of competing for a medal, and twelve were commended for their theses. One candidate received the degree of M.D., under the provisions of the old statutes. One hundred and eighty-three candidates received the degrees of M.B. and C.M., and of these, six graduated with first-class honours, and seventeen with second-class honours. The most distinguished graduate of the year, Mr. William Hunter, M.B. and C.M., was awarded the Ettles Scholarship; and, as having passed the best examination in Anatomy, Surgery, and Clinical Surgery, he was also awarded the Beaney Prize. The "Buchanan Scholarship" in Midwifery and Gynæcology was awarded to Mr. John William Ballantyne, M.B. and C.M.; and the "James Scott" Scholarship in the same subjects was awarded to Mr. George Forbes Alexander, M.B. and C.M. The Dobbie Smith Gold Medal was awarded to John R. Henderson, student of medicine. Subsequent to the capping, the students were addressed by Dr. Dickson, Professor of Botany, who took as his subject "Medical Reform," and in it referred especially to the Medical Act Amendment Bill, at present before Parliament.

VALUABLE BEQUEST TO EDINBURGH UNIVERSITY.

THE University of Edinburgh will, in the future, benefit largely by the will of the late Miss Dick, sister of the founder of the Veterinary College in Edinburgh. She directed that her estate should be allowed to increase by interest until it attained the sum of £20,000; then it is to be divided in two portions of £10,000 each; one of these shall be devoted to the furtherance of veterinary science in connection with the Dick Veterinary College, Edinburgh; the other £10,000 is to be used for founding a professorship, either of comparative anatomy or surgical anatomy, in the Edinburgh University, whichever of those chairs her trustees shall consider to be most required in the interests of medical science, "in memory of the late Dr. John Barclay, and the late Professor John Goodsir." The testatrix adds that she "was led to found this professorship in memory of those gentlemen, in respect of the great regard my late brother entertained for them, and that they, I believe, entertained for him.' Of the trustees under the will, Professors Turner, Chiene, and McKendrick, are declared by the testatrix to have been appointed in consequence of their special qualifications to carry out her wishes.

IRELAND.

THE salary of Dr. Allen E. Douglas, medical officer of health for the port of Newry, has been fixed by the guardians at 30s. per day for attendance on cholera-patients.

DOWNPATRICK DISPENSARY DISTRICT.

AT a special meeting of this committee, on August 4th, Dr. Olpherts was elected medical officer of the district, in the room of Dr. Taylor, deceased.

DOWN DISTRICT ASYLUM.

A MEETING of governors was held on the 4th instant for the purpose of electing an assistant medical officer to the institution. Dr. Moore, assistant-surgeon to the county infirmary, was unanimously elected.

ROYAL UNIVERSITY OF IRELAND.

THE senate have arranged that the written examination for the First University Examination in Arts shall be held at local centres, in the same way as has been hitherto done in the case of the Matriculation Examination. The centres at which the First University Examination will be held this year, are, for male candidates: Dublin, Belfast, Carlow, Cork, Galway, Kilkenny, Limerick, Londonderry; and for female candidates, Dublin, and Belfast.

SANITARY CONDITION OF LURGAN.

THE death-rate for some time past has been exceptionally high in this town, due to a great extent to its insanitary condition. Dr. Johnson Scott recently made a house-to-house inspection of the place, accompanied by Dr. Agnew, sanitary officer for the borough, and the results of their investigation have been a surprise to the Town Commissioners. There are, it is stated, 680 houses in the urban sanitary district in an imperfect sanitary condition; and of these, 100 have no back door, and a similar number have no sanitary conveniences whatever.

ZYMOTIC DISEASES IN TOWN DISTRICTS: JUNE QUARTER.

THE deaths from the principal zymotic diseases in the sixteen districts were equal to an annual rate of 2.8 per 1,000; the rates ranging from 0.3 in Drogheda, to 6.3 in Lisburn. Measles caused 44 deaths, 17 of which took place in Newry; scarlet fever, 117, of which 85 were registered in Belfast, and 10 in Lisburn. The deaths from fever amounted to 267, viz., typhus, 140; enteric, 77, and simple continued fever, 50. Whooping-cough was very prevalent, and 265 deaths were ascribed to this disease, of which 60 occurred in Belfast. To diphtheria, 19 deaths were ascribed; and to diarrhœa and dysentery combined, 118.

THE PROPOSED MEDICAL PROVIDENT SOCIETY.

A MEETING of a number of gentlemen interested in the formation of a Medical Benefit Society was held in the College, Shaw Street, Liverpool, on Thursday, August 2nd. Mr. ERNEST HART was moved into the chair.

The CHAIRMAN said he thought no preliminary speech was necessary as to the general advantage or necessity of some provision being made for medical men incapacitated by sickness. He started by assuming that they were all satisfied on that point. Eight hundred gentlemen had sent in their names, and announced their adhesion to a scheme, without knowing what its details would be, taking it for granted that it would in some way meet their views; that of itself indicated a very strong feeling in favour of the movement. He had acquired from his practical experience the means of gauging the strength of opinion on any given point in connection with the profession. He had been concerned in many questions which had been supposed to attract great attention and excite great interest, but he had never known anything like the amount of correspondence which had followed upon the announcement which he had made in the JOURNAL in response to the appeal of Dr. Clibborn, that he would, each week, give all the assistance in his power by receiving names, by facilitating correspondence, and by taking preliminary steps to put the matter into a business-like form. The preliminary statement which he had made in the JOURNAL of defining the lines on which the proposed association would move, and indicating the kind of organisation which might be successful, had been received with much enthusiasm. The announcement had been accepted by the great body of the profession as something which was extremely satisfactory, and had elicited an amount of support which was the best augury of success. He had already printed in the JOURNAL the report of Mr. Humphreys, who was at the head of the Statistical Department of Somerset House, and had been constantly engaged with Dr. Farr in his life-assurance calculations. He was a gentleman of great ability, judgment and disinterestedness, in whom they might repose with great confidence. He was not a professional actuary who was bound to make heavy actuarial charges, and he had a strong personal interest in the profession. Mr. Hart stated that he had received, in small sums of ten shillings, £85, and nothing had been spent. He had been happy to bear the preliminary expenses, and would continue to do so in order to avoid complication. He wished to start with the principle of not wasting money in management expenses. That brought him to the scheme itself, and to the way in which it seemed to him possible to carry it out. Three kinds of suggestions had been made: first, a sick-allowance, together with various forms of assurance; superannuation-allowance for persons permanently incapacitated—what might be called deferred annuities; and payment to widows and orphans in the nature of ordinary life-assurance. In regard to the latter point, Mr. Humphreys' advice, and facts appeared to be overwhelmingly in favour of the advice, was that it was not within the range of their power to touch ordinary insurance business of that kind. Any kind of ordinary insurance must be conducted upon ordinary life-insurance principles. They would be required to deposit £20,000 to start with; they must have an office and go through many costly formalities, and the business would have to be done on a very large scale before it had any chance of succeeding. They would then come into competition with a number of well-established offices which had a large connection, and the means of doing the business better than they could hope to do it. The provision of the sick-fund was, in Mr. Humphreys' opinion, extremely possible. That was a provision that no other society made, and no other society could well make, but which, for very apparent reasons, they could especially make, and for which they had special facilities. Every insurance company had refused to entertain the proposition of making payments during sickness to medical men or others, because, if they undertook it, they must first have a paid office and paid officers for the purpose; they would require paid inspectors before the person was insured, paid visitors during the time of sickness, paid certificates of sickness and certificates of convalescence, all of which would involve considerable expense and would swamp any insurance company that undertook the work. None of these expenses would fall on them. They were a body of medical men willing to work for each other without payment. They would have in every town a medical examiner, who would give them the benefit of his examination of a medical man without charge. They would also have a medical visitor, who would give his certificate without charge. In sickness, a medical man would be willing to attend his professional brother without charge, so that none of those expenses would fall upon them. Further, by availing themselves of the facilities he could offer in connection with his editorial office, and of the other facilities which he could offer through the JOURNAL, which the Association was willing he should place at their disposal for their purposes, they would have the means of publicity and of accommodation, which would cost any insurance company a very large sum of money. They would, therefore, see how it was that he had arrived at the conclusion that they could, on the basis of a friendly association, carry out the proposal he had referred to, with great promise of success, provided that the enthusiasm shown at the outset was steadily maintained; but they would not be wise in undertaking life-assurance business, which any ordinary insurance company could conduct with greater advantage.

Mr. MALCOLM MORRIS said he had had some experience of the troubles that came upon medical men in his capacity as secretary for five years of the British Medical Benevolent Fund; and he believed that the formation of such a society as had been proposed would be the greatest boon to the great bulk of the medical men in the country. The only feeling he had was one of doubt, whether the men whose families were likely to be benefited by such a fund would be likely to join the society. He would ask those who were really interested in the movement, and those who were provident, to try by every possible argument to induce their brethren in the neighbourhood, who might not see their way to insuring their lives, to join the proposed benefit society. The success of the society would, of course, depend much upon the members joining it. It was almost an axiom that medical men thought more of others than of themselves, and it was well known that it was an exceedingly unusual thing for a medical man to retire on a fortune. The incomes of the bulk of the profession were exceedingly small, and it was an extremely important matter that some provision should be made for them in case of sickness. The fund to which he had alluded had relieved men of the highest professional qualifications, who had been struggling to the best of their abilities, and without the causes of intemperance had, from the simple force of circumstances, come to the state of abject poverty. The present opportunity would afford the members of the profession the means of saving themselves during sickness; and he hoped they would largely avail themselves of it. He concluded by moving:

"That, in view of the evident desire of a large number of members of the medical profession to take part in the formation of a medical benefit association, it is desirable to establish such an association; and that the following gentlemen be appointed a provisional committee, for the purpose of elaborating the details of the scheme for the provision of temporary allowances in case of incapacitating sickness, and that they be requested to take the necessary steps for bringing such a scheme under the further notice of the profession, either by publication or by convoking further meetings from time to time as may be judged necessary."

Mr. WOLFENDEN seconded the motion.

Dr. BRIERLEY said that they owed a deep debt of gratitude to the Chairman for the trouble he had taken in bringing the matter before the profession, and also for bearing the expenses that had been already incurred. In response to the invitation which Mr. Hart had issued in the JOURNAL, a meeting had been held in Manchester. Owing to the shortness of the notice, they were only able to ask a few persons to attend, but the meeting was a comprehensive one, and the following resolutions were passed: "That, in the opinion of the meeting, there is need of a Medical Provident Society, provided that one can be founded on a sound basis." "That, in order to insure the success of such a society, it will be necessary to establish a reserve fund." They had been told that the movement would not be a success. They must discard from their vocabulary the word "impossible," or it would never be a success. On the other hand, they were told that they were too poor to form such an association amongst themselves, but that, he thought, would hardly be the fact. The payment to orphans and widows would be, for a young society, utterly impossible, and the provision of a sick-fund could not be properly accomplished without a substantial amount of money in hand. Mr. Humphreys had told them that, without a membership of at least 1,000, it would be unwise to begin. He (Dr. Brierley) did not think that so small a number would be sufficient; he thought that it would be premature to undertake the work at present, because they had not enough men to carry it out. The better plan would be to form a committee wherever a Branch of the British Medical Association existed. Eight hundred names had been sent in, but he had no doubt that five or six times that number would be forthcoming with a little exertion. When they had 4,000 or 5,000

members willing to go thoroughly into the matter, it might be made a complete success. They should first obtain promises of donations to establish a fund, and annual subscriptions, and he would suggest that the society be not formed until there was a membership of at least 5,000.

Mr. DONOVAN (Whitwick) did not agree with the suggestion that the society should not be started without a membership of 5,000. He did not see why such a society could not be conducted even with only 100 members, because only a proportionate sum would be required for the relief of sick members. There were many friendly societies the members of which paid 2s. a month into the fund, and received a weekly allowance during illness; but they did not allow a man to receive that benefit until he had been a member for a certain time. If the same rule were adopted in the proposed society, there would be a substantial fund in hand before any claims could be made upon it. He objected to committees scattered all over the country, and should prefer a central committee managing all the affairs of the society. He saw no difficulty in carrying out the proposal laid before the meeting; and he thought it unwise, after so decided an expression of opinion, to throw cold water upon the scheme. They were greatly indebted to the Chairman for the part he had taken, and he hoped that nothing would prevent that gentleman from continuing to give his aid and assistance to the carrying out of the scheme. He agreed with the previous speaker that it was desirable to throw overboard the widows and orphans' fund. There were few of them who were not insured in some of the recognised insurance-offices, or who had not made some provision for their widows and orphans. The pressing need which it was desirable to meet was that which arose when they were thrown out of practice by illness, and had nothing to draw on. If they could only get enough to pay some one to do their work while they were ill, it would be a great relief.

Mr. JAMES agreed that the society might be started with 100 members; but 800 names had been received, and he had no doubt that they would soon be increased to 1,000, so that the sooner the association was started the better. There was no doubt that it could be established on a firm basis, since they had an able chairman at its head, for whatever he took the lead in was sure to succeed. He thought they might reasonably invite the great leaders in medicine and surgery to join as honorary members, and to subscribe at least £20 a year. Men of standing ought to support their younger and less fortunate brethren, and if they all sought to help one another there could be no doubt of the ultimate success of the movement. As a large club-practitioner, he had had great experience in such matters. For himself, he was never able to save one penny of his income, and he should be one of the first to join the society.

Dr. BAGSHAWE said that there was a small society of a similar character in Sussex, the Sussex Medical Provident Society, of which he had been a subscriber for twelve years. It was started twenty years ago by the late Dr. Ormerod and others, and had ever since gone on quietly, modestly and usefully. It only numbered about thirty members, but they had been able largely to help one another in time of need. It was surprising how many men of leading position had been willing to accept privately the assistance of the Society. One of the important features of the Society was that the names of recipients were kept secret, being known only to a small managing body. Persons needing assistance would gratefully accept it in that way who would not do so if their names were known.

Dr. RAVENHILL moved as an amendment:

"That no provident society which does not make some provision for cases of prolonged or permanent disablement by sickness, will fulfil the requirements of the medical profession."

He moved the amendment, he said, in consequence of the report of Mr. Humphreys' in the last number of the JOURNAL. If they started a society with the proviso that no man who was disabled for a long time, or who claimed permanent assistance, should be relieved, it would be altogether useless, and would not meet with general sympathy and support. What was the use of paying a man for ten weeks and then stopping the allowance? A mere temporary illness of that kind would not make any great difference to any of them; a short withdrawal from practice would not permanently deteriorate it, because when the practitioner returned, he could continue as before. It was different when sickness became permanent. Cold water had been thrown upon his proposal, but no sufficient reason had been assigned. The statistics of friendly societies showed that provision could be made for permanent disablement; he referred especially to the Cannon Street Male Adult Provident Institution, which was started in 1844 without any guarantee-fund. During the first year, the society numbered thirty members, and the only thing in the way of guarantee-fund was that no one was entitled to pay until after he had been a member six months. At the end of three years the society numbered 271 members, and the amount of the fund was £278; in 1882 there were 9,427 members, and the funds amounted to £84,000. If that could be done by working men whose incomes were small, why could it not be done amongst the medical profession? It was suggested that the number would be insufficient, but the society would not begin with its full strength; it would gradually increase; cautious ones would hold back at first until they saw the society fairly afloat, and then they would join in large numbers. The society to which he referred, gave relief to all its members in sickness, no matter how prolonged. Members paying £2 a year received £1 a week for six months, and after that time half pay for life, if incapacitated. The scale was higher than that given by Mr. Humphreys, but he did not suppose it was possible to start a society upon a firm basis for anything like the small payment which Mr. Humphreys had suggested. It was impossible to suppose that a payment of 10s. would be sufficient, because that would only afford the means of giving a small payment for about ten weeks. He agreed that annuities to wives and children did not fall within the reach of such a society. If they decided to have permanent pay, let them go to an actuary and tell him what they wanted, and ascertain from him the conditions under which they could establish the society with success. When they knew those conditions, they could decide whether it was possible for them to fulfil them.

The CHAIRMAN said he had received a memorandum on the subject from Mr. Ravenhill, which he had forwarded to Mr. Humphreys, who had made the following note upon it: "There is no real difficulty in undertaking what Dr. Ravenhill wishes, except the necessity of providing considerable capital to undertake comparatively unknown risks." If they wished to add permanent sick-pay to temporary sick-pay, they must be prepared to make much larger annual payments. It was competent to the meeting to decide that no system would be considered satisfactory which did not include permanent sick-pay, but he should be disposed to recommend that, if the meeting was in favour of that view, it should allow the Committee to establish a double scale, one for temporary and the other for permanent pay.

Mr. GEORGE BROWN said he did not wish to offer any opposition to the resolution, but he confessed that he was not particularly favourable to the scheme, and he had certainly no intention of joining it. In the abstract, everything seemed to commend itself to their good-feeling and support; but might not their benevolence be misplaced? When they had got a fund together, there was danger of its being given away in driblets, and administered to those who were really not suffering at all—mere malingerers. Medical men were not better than any other class of people, and there was always an obnoxious minority in the profession who would resort to a great many discreditable schemes to obtain money, instead of putting their own shoulders to the wheel, and assisting themselves. How were such men to be kept out? He did not speak with any want of sympathy, but rather because he believed the scheme to be impracticable, and such as might lead to gross abuses.

Mr. STANSFIELD said that the class of men referred to by Mr. Brown already appealed to their fellow members through the columns of the JOURNAL by personal application, and it was idle to suggest that no society should be formed because a few such men existed. He did not think the resolution passed at Manchester was necessary. Great encouragement might be received from the experience of many Oddfellows' and Druid Societies; some of the local lodges were in a very excellent position, and one, of which he was surgeon, was worth £50 per member, and was getting richer every year. He had no doubt it would be the same with the Medical Benefit Society if it adopted the safeguard of not paying anyone for the first twelve months. His own opinion was that even at the end of five or six years there would be sufficient money in hand to give permanent pay when required. Of course it could not be done at first, and such provision would only be made according to the state of the fund. It might be stated in the rules or articles that the committee of management, when they saw that it could be safely done, might give permanent pay to the members.

Dr. BRIERLEY said that many Manchester men would go heartily into the scheme, but they were anxious that it should be commenced with caution. They never did anything half-heartedly in Manchester, and when money and members were wanted they would be forthcoming in that city.

Mr. RAVENHILL said that he knew the case of a medical provident society of this kind that came to grief from not adopting the principle of permanent pay.

Mr. NOBLE SMITH protested against the remarks of Mr. Brown, which he thought were entirely beside the mark.

The CHAIRMAN suggested that Dr. Ravenhill should bring forward a proposition, as an instruction to the Committee to consider the best means by which the desired object could be attained.

Mr. RAVENHILL said he would gladly adopt that course.

The resolution was then agreed to.

Mr. RAVENHILL proposed "That it be an instruction to the Provisional Committee to consider by what means permanent sick-pay can best be provided in connection with the proposed Association."

The motion was seconded and agreed to. The following gentlemen were appointed the Provisional Committee, with power to add to their number:—Mr. Ernest Hart, Chairman *pro tem.;* Dr. Walker (Manchester), Dr. Brierley, Dr. Hamill (Manchester), Dr. Clibborn, Mr. Sincock, Dr. Barfoot, Dr. W. Frazer (Bournemouth), Dr. Bampton (Plymouth), Mr. Taylor (Chester), Mr. Bates (Worcester), Mr Godfrey (Islington). [The following names have since been added: Mr. Malcolm Morris; Mr. F. Wallace; Mr. Brindley James; Dr. Bagshawe; Surgeon-Major Evatt; Mr. Ravenhill; Mr. Lloyd Roberts; Dr. Emrys-Jones; Dr. Bridgwater; Dr. Bowers; Mr. Major Greenwood; Mr. W. Donovan; Dr. J. J. Gorham; Mr. D. H. Hadden; Dr. P. A. Young; Mr. W. Carr; Mr. Noble Smith; Mr. T. Brierley; Mr. R. Clayton; Mr. J. Kirkland; Mr. C. M. Jessop; Mr. T. H. Ravenhill; Mr. M. R. J. Behrendt; Mr. S. Woodcock; Mr. W. Bartlett.]

In reply to questions, the CHAIRMAN said he presumed there would be central meetings in London, but he should be happy to go to Birmingham, or anywhere else, from time to time, as might be required. He hoped that a number of local committees would be formed, and then it could be arranged by correspondence with the local secretaries, where the meeting should be held. He would act upon the suggestion that a letter be addressed to each Branch, informing it of the progress that had been made in forming a central committee, and asking to be favoured by its assistance in the formation of a provisional local committee.

The proposal was agreed to.

A vote of thanks was then proposed to the Chairman in cordial terms, and supported by several speakers, and carried by acclamation.

The CHAIRMAN acknowledged the vote, and the proceedings terminated.

MEETING OF VOLUNTEER MEDICAL OFFICERS.

A MEETING of volunteer medical officers, convened by Surgeon Dolan (Halifax), was held on August 1st in the Section Room of Public Medicine, during the meeting of the British Medical Association in Liverpool. Amongst those present were: Surgeon Lowe (Burton-on-Trent), Surgeon C. Richardson (Leeds), Surgeon-Major Wrench (Derby), Acting-Surgeon Mears (Newcastle-on-Tyne), Surgeon-Major Barnes (London), Surgeon Prichard (Flint), Surgeon Low (Helmsley), Surgeon Broadbent (Sunderland), Surgeon-Major Partridge (Gloucester), Surgeon Fleetwood (Liverpool), Surgeon-Major Parsons (Liverpool), Surgeon Long (Dorset), Surgeon-Major Bailey (Liverpool), Surgeon Monckton (Stafford), Surgeon Lloyd (Carnarvon), Surgeon Roberts (Carnarvon), Surgeon P. A. Young (Midlothian), Surgeon Stainthorpe (Hexham), Surgeon Manby (Staffordshire), Surgeon Reston (Manchester), Surgeon Morgan (Lichfield), Surgeon Sherburn, Surgeon Trend (Hampshire), Surgeon Latham (Lancashire), Surgeon-Major Kealy (Hampshire), Acting-Surgeon West (Somerset), Acting-Surgeon Watkins (Lancashire), Surgeon Manson (Liverpool), Surgeon Hatton (Barnsley).

Letters approving of the movement had been received from Surgeons Wilkinson (Rotherham), Paton, Robinson (Ulveston), Whitson (Glasgow), Grove (Hunts), Taylor (Scarborough), Ellison (Windsor), Thomson (Beds), Turnbull (Kelso), Anningson (Cambridgeshire), etc.

Surgeon-Major PARSONS (Liverpool), as the oldest volunteer officer in the city, was called upon to preside.

Surgeon-Major EVATT addressed the meeting on "Volunteer Medical Organisation." He first explained how army medical organisation stood, and afterwards said the Army Estimates were at present heavy, and there was a growing feeling that they could not very largely exceed their present amount; and our medical service, both in officers and men, was quite too small to deal with a foreign war. He believed that it was to the volunteer organisation they must look for the future development of our military system, and those in the medical service must draw closer and closer to the developed volunteer medical service. With great possibilities, up to the present the result had not been great, there being no distinct medical corps, and no defined unit, either as a bearer-company or field-hospital, organised. If the volunteer medical service was to become really efficient, it must stand on its own legs, wear its own uniform, and do its own work. There was ample room in the battalions of volunteers for the existing volunteer regimental surgeons, and there was still a great work to be done in carrying out the regimental stretchers-bearers' trainings. But what was needed was a body of fully 1,000 volunteer medical staff-surgeons, and probably 10,000 volunteer medical rank and file, the whole body, officers and men, organised into bearer-companies and field-hospitals by counties and cities, and serving, quite free from the regimental organisation, as organised units under medical control. Until this was done, it was quite in vain to say the volunteer army was efficient. If the medical profession was to claim independence, and to demand control, it must fit itself for the work, and to do that it needed training and organisation, which must begin in the medical schools, where volunteer medical corps or companies should be formed; and in this event, the War Minister would be asked to give the capitation-grant as for combatants. In conclusion, Surgeon-Major Evatt summed up with a number of suggestions for the furtherance of the object in view.

The CHAIRMAN moved the following resolution:

"That the existing condition of the volunteer medical service is unsatisfactory, inasmuch as it consists solely of regimental medical officers, and that the organisation of a regular medical corps of officers of volunteer rank and file into volunteer medical battalions and companies is needed in addition to the existing regimental service; that it is desirable to draw the attention of the War Minister to this state of affairs, and to request that he will initiate such a corps."

Mr. RICHARDSON (Leeds) seconded the resolution, which was carried unanimously.

On the motion of Dr. MEARS, seconded by Mr. HALTON, the following resolution was next approved of:

"That the opportunities for training the volunteer surgeon in ambulance and field-hospital duties should be afforded at Aldershot, Woolwich, or some northern centre."

It was moved by Surgeon-Major WRENCH, seconded by Surgeon YOUNG, and agreed to:

"That if the Army Medical Department and the Army Hospital Corps be united into a Royal Medical Corps, as recommended by Lord Morley's Commission, the medical service now proposed to be organised be designated the 1st, 2nd (and so on), Volunteer Battalions Royal Medical Corps."

Surgeon DOLAN proposed the next resolution:

"That there be an annual meeting of Volunteer medical officers, and an annual mess, during the meeting of the British Medical Association, and that a Committee be appointed to make arrangements for the same."

He pointed out the advantages of union, and the value of combination. The annual gathering of the British Medical Association was the most suitable time for such a meeting. It was desirable that, during the same week, as many associations as possible should meet, so as to offer attractions. The parent Association was the great centre for all interests connected with medicine.

This was seconded by Surgeon PRICHARD.

An amendment was moved by Surgeon TREND, and seconded by Surgeon-Major KEALY:

"That the Committee should fix the time and place of meeting, not necessarily during the annual gathering of the British Medical Association."

The original resolution was carried.

Though not formally proposed, a general expression of opinion was given to the effect: "That in all appointments of civil practitioners to the regular service, preference should be given to volunteer surgeons, according to seniority, and that it is desirable to draw the attention of the authorities to this point." This and many other questions affecting the interests of the volunter medical officers will be discussed at next meeting.

The question of funds was spoken of. It was suggested that a small subscription of 2s. 6d. or 5s. should be paid by all who join in this movement, to defray expenses of printing, postage, etc. Acting-Surgeon Mears subscribed five shillings to the expenses. We are informed that the formation of the Committee will be considered when Mr. Cantlie returns from Egypt. Meantime, all who wish to subscribe, or who have suggestions to offer, can write to Surgeon Dolan (Halifax), acting secretary *pro tempore.*

Votes of thanks to Surgeon-Major Evatt, Surgeon-Major Parsons, and Surgeon Dolan, brought a very interesting meeting to a close.

COLLECTIVE INVESTIGATION COMMITTEE.

At a meeting of the General Committee, held at Liverpool, in the room of the Medicine Section, on Wednesday, August 1st, at 12.15 P.M., there were present—

Professor Humphry (in the chair), Dr. Bury (Manchester), Dr. Carpenter (Croydon), Dr. Dempsey (Belfast), Dr. J. Galton (Norwood), Dr. O. Grant (Inverness), Mr. Vincent Jackson (Wolverhampton), Mr. Macnamara (London), Mr. Page (London), Dr. Sheen (Cardiff), Dr. Saundby (Birmingham), Dr. E. S. Scott (Shrewsbury), Dr. Ransome (Manchester), Dr. C. Turner (London), Dr. Wade (Birmingham), Dr. Mahomed (secretary), and several visitors.

Letters containing suggestions were read from Dr. Coupland, Mr. Francis Galton, F.R.S., and Dr. E. T. Wilson; and letters regretting inability to attend from Dr. Burton (Norwich) and Mr. Eastes (London).

In view of the possible appearance of cholera in the United Kingdom, it was proposed by Dr. A. Carpenter, and seconded by Mr. C. Macnamara, that "a subcommittee be formed to prepare a schedule of inquiries relating to cholera, and to submit it to the next general meeting." After some discussion, this was adopted.

Dr. Saundby called attention to the proposal made by Dr. Stephen Mackenzie and himself for an inquiry concerning intermittent hæmoglobinuria, and on the motion of Dr. Wade it was resolved "that hæmoglobinuria is a suitable subject for inquiry, and that Dr. Saundby and Dr. Stephen Mackenzie be requested to prepare a card and memorandum on this subject, to be submitted in journal type to the Committee at its next meeting."

A letter was read from Mr. Francis Galton, giving the outlines of a scheme about to appear in the *Fortnightly Review*, in which he proposed to offer prizes to the amount of £500 for the best Family Medical Histories, concerning which he invited the opinion and advice of any member of the Committee. It was resolved "that the Committee desires to express its thanks to Mr. Galton for his liberal suggestion, and recommends that he be asked to submit his proposal to the Life Histories Subcommittee."

COLLECTIVE INVESTIGATION.

IT is quite impossible to over-estimate in its own sphere the importance of the subject to which the first volume of the *Collective Investigation Record* now before us relates. The idea of collective investigation is not entirely new, having been suggested and attempted from time to time by members of the profession. But it is evident that for the effectual combination of a large number of medical men (working generally amid constant interruptions and harassed by the cases of practice) for the purpose of collective inquiry, some sort of organisation is required, stronger than can be effected by simple enthusiasm, however eager, or zeal however strenuous or well sustained. This is the reason, no doubt, why various praiseworthy efforts in this direction have more or less broken down. Of more recent attempts to awaken general professional interest in the subject one of the most important was that made by Dr. Ransome in 1864. Dr. Ransome suggested that combined observations should be made, having the following objects: 1. The registration of disease. 2. The duration of contagion. 3. Some points in the natural history of disease. 4. The action of remedies. But even this important effort somewhat failed of its purpose, and it was reserved for Dr. Mahomed to recall attention to the question, which he did in an important communication to this JOURNAL, published in January 1880. Although Dr. Mahomed asked some very important questions in that communication, much of it was occupied with a discussion on the existence of diathesis and temperament, on which it is unnecessary here to say anything; since, if the recommendations made by him are carried out, the questions bearing on these subjects will be settled as a matter of course. Even his communication, however, might have fallen flat, had not Professor Humphry brought the matter forward in the presidential address at Cambridge in the same year. His remarks were promptly followed by the appointment of a subcommittee on collective investigation, and our readers know the rest, since some thousands of them have actually answered questions printed on the investigation cards sent round to the members of the Association. The importance of collective inquiry being thus established by the active co-operation of so many members of the profession, it does not seem requisite to say anything as to its necessity. And yet it may not be undesirable to point out some of the advantages possessed by collective inquiry over the best individual investigation into the causes, phenomena, sequelæ, and relationship of disease. Perhaps the most general form in which these advantages can be summed up, would be in the statement that collective inquiry eliminates the personal equation in observation. Questions being asked only as to matters of fact, and opinions being entirely, or, almost entirely, excluded, it is evident that the bias of observers, so difficult to escape from when the same observer deals with the results of a large number of his own observations, is wholly eliminated, only the substratum of fact being left for further treatment. Another advantage, no less important, is the obvious one that there are many questions in medicine which can be solved only by the accumulated observations of many inquirers, and which no one man can, unaided, hope to settle. Many of these will readily occur to our readers. Some of them have been somewhat advanced to their solution by this first report, and will, no doubt, be completely solved by further inquiry. For instance, under the inquiry concerning acute pneumonia, we find that of one hundred and eighty-six cases among temperate patients, 18.4 per cent. died, while out of twenty-two intemperate, no less than 40.5 per cent. succumbed, and among seventy-one total abstainers, only 11.2 per cent. died. We do not offer these statements as completely settling questions bearing on the mortality after disease among the respective classes, but the figures certainly point to conclusions which no doubt will be established or qualified by an appeal to a much larger collection of cases. Then as to such questions as relate to the effects of climate, either in the incidence of disease or its treatment; plainly a comparison must be instituted between diseases occurring in different climates and under different modes of treatment, and this can only be effected by the help of many observers. Again, questions relating to family history, temperament, and diathesis (supposing we had first determined in what sense we use these terms) can manifestly be solved only after comparison on the wide scale of the life-histories of various families, variously situated; and this can only be done by co-operation on the part of many observers. And this brings out the truth that, fundamentally, these are practitioners' questions, to be stated, indeed, by scientific men who may never have seen a case, but to be answered only by practitioners who have actually passed the cases through their hands, and had them under observation. It is here that the enormous power of the British Medical Association has been felt; for never before, in the history of the profession, has there been such a combination of its best intellect, and never before, therefore, has there been the possibility of so much co-operation. The greater our power, the greater the responsibility, as was well remarked by Professor Humphry; and we cannot refrain from congratulating our members on having so numerously responded to the appeal made to them to further this great work.

To attempt to review the actual work of which an account is given in this first volume, would be impossible, since this would involve an abstract of the book; but one or two striking points may be referred to. The returns on the Communicability of Phthisis are much more numerous than those on any other disease yet inquired into, and it certainly appears striking that so large a proportion of the replies show evidence for the opinion that phthisis is a contagious disease. Thus, eliminating 673 simply negative replies—to the effect, that is, that no cases of contagion had been observed, and bearing in mind the difficulty of proving a negative, we find that no fewer than 261 observers state that in one or more cases in which it appeared phthisis was communicated by contagion. Of these, 158 were cases in which the disease was passed from husband to wife, or wife to husband; and 81 were cases observed between members of the same family. Very few cases, on the other hand, are reported in which persons unrelated infected one another; but, when this is so, a close intimacy has existed between the parties. Thus, sailors in the same ship, sufferers nursed by intimate friends, mistresses by servants sleeping in the room, or fellow-workmen in the same shop, have all seemed to infect one another. The intimacy must be somewhat close, apparently. Thus we have not noticed a case where the medical attendant of a consumptive has been infected, though nurses seem frequently to be. One opinion is well worth consideration. The observer of Case XVIII says: "I believe phthisis to be contagious when a mucous membrane is wounded, unhealthy, or even ill-nourished, but is not easily communicated to a healthy subject in whom none of these conditions are found." It is very probable that this view may prove to be that in whose favour the largest amount of evidence can be adduced.

The report on Acute Pneumonia brings out several interesting points as to the influence of sex, sanitary and meteorological conditions, and so on; perhaps the most striking being the evidence adduced that this also is sometimes a communicated disease. In

favour of this view, we find it stated that a husband seemed to be infected by his wife, a wife by her husband, and four members of a household attacked, one after another, without known exposure. The facts relating to epidemic pneumonia are also very peculiar.

If we do not go in detail into the reports on Chorea, Acute Rheumatism, and Diphtheria, it is partly bacause space forbids, and partly because the conclusions reached in these diseases are, up to the present, only tentative. We can only repeat that the interest excited by a perusal of the returns is very great, and express our confidence that very great and important results will be reached by the further prosecution of the inquiry which is promised, and our gratification that so many members of the Association have already taken part in it.

CHOLERA IN EGYPT.

[FROM OUR SPECIAL MEDICAL CORRESPONDENT.]

We have received, through the kindness of Dr. Mackie, the following interesting letter addressed to him by Dr. Haddad, a very reliable physician.

Mansourah, 23rd July, 1883.

Sir,—I beg to acknowledge receipt of your letter of the 18th inst. I note your remarks about the washing of dead bodies in the slaughter-house. The place was not objected to by the Moslems, it being newly built and not yet used, but they will not allow their dead to be taken unwashed out of their houses. The slaughter-house was selected by the Moudir; and if they could be induced to wash the bodies outside, tents or a shade barrack could soon be erected for the purpose.

As this very important measure was so strongly objected to, it was decided to receive the water used in washing the bodies in suitable barrels, which are taken out of town and emptied in a deep hole, filled up afterwards with earth and disinfectants, and the barrels are then themselves disinfected.

This measure, as well as the removal of the cemetery out of town, and the increased care that is being taken in burying the bodies, has no doubt contributed somewhat to the decrease of this terrible epidemic; but the state of the town is still simply horrible with dirt, filth, and infection. The great diminution in the mortality I attribute to the fact, that the majority of people predisposed to cholera have already died.

All our endeavours to clean and disinfect the houses of Moslems were absolutely vain, and to remove the miserable inhabitants of the most infected houses to the tents erected in a healthy locality proved an unsuccessful effort. One day, accompanied by the Prefect of Police, an officer, and a number of soldiers, and by Subhy Effendi, doctor of the quarter, I went to "Roob-el-Naggar," the most infected quarter of the town. After six hours of urging, persuading, and forcing the people, we succeeded in sending to the tents fifteen families, who lived in a single room each, and who had already lost two, three, or five of their number. The Prefect took the keys of their houses, and next day we were to come to disinfect them; but to our surprise we found them all back again on the following morning, and settled in their old quarters. The Prefect and the officer declared themselves utterly unable to do anything. Thus all our time was lost, and our worry and fatigue were fruitless, and we despaired of being able to disinfect those putrid boxes, which must remain a lasting source of pestilence and infection. I should not be surprised if cholera finds these places a suitable "foyer" and becomes endemic here, or any other epidemic, such as typhus or plague, which may sooner or later succeed cholera.

Regarding what you read in the sanitary reports of disinfecting the infected places, here is an account of it, as seen with my own eyes, an account that can be attested by every European here—doctors and others.

Enter an Arab or a black man, with a fire containing some sulphur; he makes a round of the rooms as fast as he can walk, puts in them a handful of chloride of lime, and then, exit.

The old cemetery is emanating fearful stinks. In the new cemetery, burial is still going on, nearly in the old way: the tombs not exceeding one metre in depth, made of a cave of bricks, most of them filled with corpses to the level of the ground, and not covered with earth. Some of them contain as many as fourteen dead bodies, and some are re-opened after several days to receive more.

The Government Hospital is the most curious part to report. On entering the rooms, one is struck by the smells coming from the patients and the bedding, and by the sight of the beds covered with the dejections of previous patients, and ready in this state to receive new sufferers. The patients one may see lying on the ground covered with blankets, soaked with the dejections of previous patients as well as their own. Cholera and typhoid cases, which require soup and milk every hour, are dying for want of nourishment; and the *gardes malades*, on being asked what food they gave to those patients, replied, "*shurba* every morning and evening *shurba*," meaning rice boiled in water. There is no kitchen in this hospital, the *shurba* being conveyed from the old hospital. A few drugs in a box is the extent of the "pharmacie portative," which wants everything. Dr. Dutrieux applied for some citric acid. After thirty-six hours' delay there was none forthcoming, and the chemist there told him "Mafeesh lusoom el cholera halass," (there is no necessity, the cholera is all over). Tawfik Effendi, the doctor appointed to the hospital, being asked about this state of matters, replied that he was going to give in his resignation, as nothing he asked for was attended to. Here I must say that the Sanitary Inspector, Sidky Bey, has shown great willingness to do everything in his power, and gave good rules to be followed—and this is what has been done.

Mr. Spitzy has been sent to Samanoud; neither Dr. Sappayannopoulos nor Dr. Caravokyros would accept the mission, but we agreed that every one of us will ultimately go to see the patients there.

As for the disease itself, all its symptoms are absolutely those of Asiatic cholera; but whether it was imported from India or has been engendered here, it is impossible, unless by tracing the disease back to the first case, for any person to decide. Who can say if what created cholera in India has not created it here? The thousands of dead cattle floating in the Nile, the consumption of diseased animals as human food, and the incredible amount of dirt and filth in these villages, strongly incline one to believe in the probability of a local origin.

Treatment in mild cases and at the beginning of severe cases is very successful; but the people often seek medical advice when they are already in a state of collapse, and then, as a rule, they die. Speaking generally, I can affirm, that unless the patient has a weak constitution, or is labouring under some other malady, at the time of attack, a great deal can be done if the doctor is summoned at the beginning of the attack. Many cases end in cholera, typhoid, or in nephritis, which may lead some doctors to suppose that this disease is a kind of fever quite distinct from cholera.

Having been busy, day and night, in the treatment of patients, and in promoting hygienic measures, I have as yet been unable to spare time for *post mortem* examinations, but I hope to be able in a few days to do so,—I am, dear sir, yours truly, A. HADDAD.

PRECAUTIONS AGAINST CHOLERA.

A VERY important circular on the threatened approach of cholera has recently been issued by the King and Queen's College of Physicians in Ireland. The College observes with satisfaction that, as a precautionary measure against the introduction of cholera into the port of Dublin, arrangements are being made for the inspection of all vessels arriving in the Liffey, and at Kingstown and Howth, if known to come from a port infected by cholera. They are of opinion that the existing port hospital-ship, except as a temporary measure, is an inadequate and unsuitable provision against a possible invasion of cholera through the port. They think that an isolated intercepting hospital, containing at least twenty beds, should be prepared within a convenient distance of the river, to which patients suffering from suspicious diarrhœa, cholerine, or cholera on board vessels arriving in the port, should be instantly removed. Abundant air-space, free ventilation, an efficient system of warning, and sanitary appliances of the most approved kind, should be provided in the intercepting hospital. Should cholera become epidemic in Dublin, the general hospitals should be invited to co-operate in coping with the outbreak; and, in case of need, Section 155 of the Public Health (Ireland) Act, 1878, should be enforced, so as to enable the sanitary authorities, with the sanction of the Local Government Board, to provide for the use of the inhabitants of their several districts, hospitals, or temporary places for the reception of the sick or convalescent, situated within reasonable distances of each other, and in open airy spaces. The College consider that it would be undesirable to admit cholera patients to the wards of general hospitals in which those sick of other diseases were under treatment at the time; but they see no objection to the reception of cholera cases into detached wards specially erected on the grounds of such institutions. It is essential that patients in the stage of reaction, and convalescents, should be removed as early as possible from the wards into which those lately attacked by the disease are being admitted; and, with a view of preventing delay in the admission of patients, all hospitals should be in communica-

tion with each other by telephone. The College suggest that the sanitary authorities should institute a systematic house-to-house inspection of all tenement and lodging-houses, and enforce (*a*) the providing of proper sanitary appliances and water-supply for the urinals; (*b*) the cleansing and construction of proper drains and communications with street sewers, the removal of pools of stagnant water, and closing of wells; (*c*) the repairing and cleansing of the houses themselves, so as to make them dry and tenantable; (*d*) the removal of the healthy members of infected families to suitable refuges; (*e*) inspection of the markets and food-supply; (*f*) as experience has shown that milk is a fruitful carrier of contagion, the careful inspection of dairies; (*g*) the speedy interment of the dead.

The authorities should further develop the existing system of domestic scavenging, and cause ash-pits, privies, or water-closets to be thoroughly cleansed and disinfected. They should also devote special attention to keeping the street gully-traps and ventilators, the public sewers, and the house communications thereto, in the best order. They should also provide ample facilities for affording medical aid for the poor, and for the efficient carrying out of a medical house-to-house visitation, in conformity with the provisions of Section 149 of the Public Health Act; and in case of the outbreak of an epidemic, physicians for special day and night duty should be appointed for different areas or districts in the city and its suburbs. In each of these districts, storehouses should be established for the sale of suitable medicines and disinfectants at moderate rates.

After giving some general directions as to the treatment of persons attacked with diarrhœa, vomiting, pains in the stomach or bowels, and cramp or pains in the legs, the memorandum suggests that the discharges from the bowels in cholera cases should be disinfected, and disposed of as quickly as possible, and that a wineglassful of the following disinfectant mixture should be poured into the vessels used by the patient, viz.—sulphate of iron, one ounce; carbolic acid, a quarter of an ounce, water one pint; while infected bedding, and all articles of clothing worn by the sick, should be destroyed by fire.

At a recent meeting of the St. Pancras Sanitary Authorities a resolution was passed calling the attention of the Local Government Board to the need of a constant water-supply for St. Pancras. It was agreed that inquiries should be addressed to that board as to the risk of contamination of the water supplied to St. Pancras by communication between the mains from Highgate ponds, and those containing pure water. The vestry was also asked to appoint a temporary sanitary inspector. The Kidderminster Town Council have agreed to request the borough member to ask the Government what steps are to be taken to disinfect imported eastern carpets, rugs, and wools, before allowing their distribution in this country, since half-worn carpets from Oriental houses are often saturated with filth.

At a recent meeting of the City Commissioners of Sewers, a letter was read from the Home Secretary calling the attention of the Commission, as the sanitary authority for the city of London, to the especial expediency of putting into early operation, wherever it might be necessary, the provisions of the Artisans' and Labourers' Dwellings Act, 1875-82. He suggested that the Commissioners should give directions to their medical officer of health to examine, at his earliest convenience, the district under his charge, and to make official representation to the Commission of all such areas as he should consider to be unhealthy, with a view that the Commission, if they should be of opinion that the areas ought to be dealt with under the Acts, might be able to make them the subject of improvement schemes, to be confirmed by Parliament in the course of next session. He (the Home Secretary) would be much obliged by being furnished with a copy of all such representations, in order that he might lay them before Parliament. The letter was referred to a committee, the medical officer having already the matter before him. The Sanitary Committee brought up a report in regard to the suggestions made by the medical officer of health at the last meeting in reference to various sanitary arrangements necessary to guard against cholera. They recommended that most of the suggestions should be adopted, especially in regard to the flushing and deodorising of sewers and catchpits, the removal of refuse, the cleansing of the various alleys and courts, the disinfection of stables, the examinations of the cisterns and the water-supply, the prosecution of offenders under the Smoke Nuisances Act, the increased vigilance in detecting and seizing unsound food, and, lastly, in the event of an outbreak, a house-to-house visitation by medical men. Dr. Sedgwick Saunders, the medical officer of health, reported that several cases of choleraic diarrhœa, of which one had proved fatal, had been treated in the City, and most of them were directly traced to the eating of unsound food. The fatal case was said to have been caused by eating bad pork, while a whole family had been dangerously ill through eating tainted fish. These facts only serve to demonstrate the great necessity for the careful inspection of food to which we adverted last week. The sale of unsound food should be carefully watched; but it would seem that here the inspectors themselves are sometimes in fault, as in the case of a man who bought several cases of apples, of which the top layer was sound, while underneath all was rottenness and corruption. The purchaser pleaded, with justice, that he had no means of ascertaining the condition of the lower layers of fruit, whilst the market inspectors, in the exercise of their duty, could easily ascertain the true state of the packages by testing some of the lower layers of fruit.

The Board of Supervision has very properly drawn the attention of the local authorities in Scotland to the fact that the United Kingdom is at present exposed to the danger of the introduction of Asiatic cholera, and it has issued a circular containing instructions as to necessary precautions they should see enforced. They are enjoined to remove all nuisances from their districts; to disinfect and deodorise all places from which any nuisance has been removed; to enter and inspect, by themselves or their officers, any premises where they have ground for believing that nuisances may exist; to regulate the numbers of people residing in a house; to analyse drinking-water, and shut up unwholesome wells; and to secure, at harbours and sea-ports, hospital accommodation to which persons suffering from cholera, if such cases should occur, can immediately be removed for care and treatment. Already we observe that several sea-ports are bestirring themselves in the matter, and at such places as Leith and Glasgow special precautions have been taken. Thus, at the latter port, all vessels arriving in the Clyde from the districts in which cases of cholera are reported to exist, have a part of the river, defined by the sanitary authorities of the city, specially allocated to them, where they are anchored, so that no other vessel can come near them. Notice of the detention of any vessel is to be given at once to the sanitary authorities, who have full power to deal with suspected ships, in accordance with the recent Privy Council regulations of July 12th, and which are applicable to every part of the United Kingdom. It may not be uninteresting to point out that in 1832, when cholera became epidemic in Glasgow, the deaths amounted to 2,842; while in 1849, they numbered 3,772; and in 1854, 3,886; but in 1866, when the disease once more made its appearance, the mortality was reduced to 68. In the three former outbreaks, the city was supplied with Clyde water; but in 1866, the Loch Katrine water had been introduced. Facts such as this seem to point to the value of good and efficient sanitation as a preventive against the spread of the disease; and the Board of Supervision has acted wisely in drawing the early attention of local authorities to the points mentioned in their circular.

Nature regrets to announce the death, at the early age of 37 years, of Mrs. Chaplin Ayrton, the wife of Professor W. E. Ayrton. Mrs. Ayrton was in many ways a remarkable woman. As Miss Chaplin she was one of the first to take up the practical question of women's professional education, and it was largely due to her exertions that the medical career is now opened to women. Her long struggle, from 1869 to 1873, to obtain the necessary permission to present herself for examination, told seriously on her health. In addition to attending all the medical classes open to women in Edinburgh, and gaining honours at all the examinations held in connexion with them, Mrs. Chaplin Ayrton studied at the hospitals and the Medical School of Paris, and there took her degree of M.D. in 1879. Her graduation thesis, "Researches on the General Dimensions and on the Development of the Body among the Japanese," is full of valuable scientific experiments. At the examination of King and Queen's College of Physicians, Ireland, she was the only woman among a large number of candidates, but she came out first in the examination. Mrs. Ayrton had, moreover, considerable skill as an artist, as is evident, among other instances, in her interesting book on "Child Life in Japan." Her contributions to periodicals of various classes showed her wide knowledge apart from her own special subject, and her many-sided sympathies.

ASSOCIATION INTELLIGENCE.

NOTICE OF EXTRAORDINARY GENERAL MEETING.

NOTICE is hereby given, that an Extraordinary General Meeting will be held at Exeter Hall, London, on Friday, the 17th instant, at two o'clock in the afternoon, at which special resolutions, adopted by an extraordinary general meeting, held in Liverpool, on Thursday August 2nd, will be proposed for confirmation.

FRANCIS FOWKE, *General Secretary.*

August 2nd, 1883.

The following are the special resolutions passed at Liverpool:—

"That Articles 2, 9, 13, 15, 16, and 26, be altered by striking out the words 'Committee of' in the places where those words occur."

"That Article 7 be struck out, and the following Article be substituted therefor."

"7. Any member whose subscriptions shall not have been paid on or before the 31st of December of the current year shall, without prejudice to his liability to the Association, be suspended from all privileges of membership: and at the end of the succeeding year, if the arrears be still unpaid, he shall cease to be a member, and shall be ineligible for re-admission until he shall have paid all arrears due at the period of his suspension. No member shall (except in case of his death or expulsion, or his ceasing to be a member under the previous provisions of this article) cease to be a member without having given previous notice in writing of his intention in that behalf on or before the 1st day of December in the current year to the Secretary hereinafter mentioned, and paid all arrears of subscriptions (if any) due from him."

"That Article 11 be struck out, and the following Article substituted therefor."

"11. Subsequent general meetings shall be held once in every year, commencing with the year 1875, at such time as shall be fixed by the Council, and at such place as may be prescribed by the Association in general meeting; and if no time is so fixed, a general meeting shall be held on the 20th day of August in every year, commencing as aforesaid, and shall, if no place is so prescribed, be held at such place as may be determined by the Council."

"That Article 17 be altered by striking out the words 'and the Committee of Council."

"That the words 'and Committee of Council' in the heading before Article 25 be struck out."

"That Article 25 be struck out, and the following article substituted therefor."

"25. The business of the Association shall be managed by the Council; and the constitution, duties, powers, and mode of procedure of the Council shall be determined on from time to time by the Association in general meeting."

"That Article 28 be struck out, and the following Article substituted therefor."

"28. There shall be the following officers of the Association, viz., a President of the Association, a President-elect, Vice-Presidents, a President of the Council, a Treasurer, an Editor of the JOURNAL, and a Secretary. The officers (other than the Editor of the JOURNAL and the Secretary) shall respectively be designated or elected, and hold office for such period, and have and enjoy such duties, powers, and privileges, as shall be determined from time to time by the Association in general meeting. The Editor of the JOURNAL and Secretary shall respectively be designated or elected, and hold office for such period, and have and enjoy such duties, powers and privileges, and receive such emoluments, as shall be determined from time to time by the Council."

"That Article 30 be amended by adding the following words after the word abode, 'or by publication of such notice in the JOURNAL, and forwarding a copy of the JOURNAL containing such notice to such member prepaid and addressed as above mentioned."

"That Article 31 be altered by adding the words 'or a copy of the JOURNAL in the second and fifth lines of that Article after the word 'letter.'"

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee,
161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at Hayward's Heath, on Wednesday, September 19th. Dr. Newth will preside. The chairman proposes to invite a discussion on "The Relation between Consulting Physicians and General Practitioners, with special reference to seeing Patients, Payment of Fees, and Abuse of Prescriptions." Any member desirous of reading a paper should communicate with the Honorary Secretary.—T. JENNER VERRALL, 95, Western Road, Brighton.—August 1st, 1883

CORRESPONDENCE.

THE ACCIDENT AT CONWAY.

SIR,—It has been reported that the sum of £40 was received from the members of the Association who visited Conway on Saturday last, in aid of the poor men who were injured on that occasion; but this report is incorrect, as the sum collected amounted to only £17 19s. 6d.—a sum, although sufficient to meet their immediate necessities, quite inadequate to provide for their future wants. As their injuries, although the result of their own want of care and judgment, were received when engaged in a proceeding intended to do honour to the Association, the wretched subjects of the mishap have a claim upon our members for help.

I would, therefore, suggest that an appeal on their behalf be made in the columns of the JOURNAL; and I hope, sir, that you will consent to act as treasurer to the fund, towards which I have pleasure in sending a guinea herewith.

I have just received a letter from a friend at Conway, in which the writer states that the sufferers are doing fairly well, although there is much reason to fear that both have lost their sight, and will be permanently incapacitated from earning their livelihood.—Yours faithfully,

GEORGE BROWN.

2, Gibson Square, Islington, N., August 8th, 1883.

THE SECTIONAL MEETINGS: A GRIEVANCE.

SIR,—Kindly allow me to call attention to a grievance to which many gentlemen besides myself have been subjected.

When one has, on special invitation, spent much time in collecting material for a paper, and has written and rewritten that paper many times in the endeavour to condense, so as not to trespass unduly on the time of the meeting, the arrangement which will allow that paper to be announced for reading at the first sectional meeting, to be crowded out and announced for the next day, to be again crowded out and announced for the final meeting on Friday morning, only to be ultimately crowded out again, must be faulty indeed.

If the subject be not considered of such importance or general interest as others, or if the writer be not of sufficiently recognised standing compared with other gentlemen, surely the kinder thing to him would be, instead of keeping him constantly hanging about one section, to arrange for the reading of his paper towards the end, after others of greater importance, or from writers of more acknowledged standing, have had their due attention. By this means, instead of the meeting becoming a burden to him, he would be able to devote the early part of the time to his profit in other sections, not to mention the various amusements which are provided for the members; and, should his paper ultimately be crowded out, he would probably not complain.

It appears to me that two rules ought to be observed in conducting the proceedings of the sections. Firstly, when the list of papers to be read in any section is complete, let the officers of that section arrange the order in which they are to be read, bearing in mind, first, the grouping of subjects; and, secondly, the interest of the subject of each paper, and the claims of its author to attention, putting the more important papers first; and that having been done, let them be read in the order so laid down. But, above all things, when at any given sectional meeting time is not sufficient to get through all the papers announced for that meeting, let the next begin where the last left off, and deal first with the papers omitted from the last meeting.

And, secondly, let the ten minutes' rule for speakers—and, where there is a profusion of papers or speakers, a five minutes' rule—be rigidly enforced, save by special consent of the section; and do not let a speaker wander from the subject, and occupy the time of the meeting with irrelevant matter, only to be called to order after twenty-three minutes, as took place this year in the Public Medicine Section.

Finally, that my paper should have been crowded out may not be much loss to the section; but that I should have been put to the trouble of writing and rewriting it unnecessarily; should have been kept the whole of the time about one section; should have lost all opportunity of hearing many subjects of interest in other sections; and should have been prevented from enjoying the various amusements arranged for the members, and this for want of two principles, both of which, I think, equity demands, is certainly a hardship to myself, and one of which I conceive I have a clear right to complain. And this I most emphatically do.—I am, yours faithfully,

KENNETH W. MILLICAN.

Kineton, August 3rd, 1883.

REVACCINATION IN FOREIGN ARMIES.

SIR,—Your previous courtesies induce me to offer a few words upon the above subject, in consequence of your criticism of my remarks upon Dr. Colin's *La Variole*. My reference to the Gardes Mobiles was coupled with a reference to the *regular army* of the Parisian garrison in the war. The small-pox cases in Colin are as follows: regular army, 3,092 cases, 481 deaths; Gardes Mobiles, 4,486 cases, 593 deaths. There is no doubt about the revaccination of the soldiers of the regular army, and I therefore said that the revaccinated in *this* army "suffered heavily." I think, if we search authors for their facts, and not for their opinions, a similar acknowledgment must be made from the pages of M. Briquet and M. Ernest Besnier. M. Briquet (*La Variole*, p. 3, *et suite*) had 44 revaccinated soldiers of the line under his care in small-pox. Of his 504 military small-pox patients, he writes: "As nine-tenths of these were vaccinated, and as they were furnished in great part from the departments of the west and south, which one would not have supposed so well disposed towards this salutary practice, one may conclude that vaccination is much more generalised in France than one would be disposed to believe, and that this is an old habit." Ernest Besnier gives 3,563 cases of small-pox in the French army (*Maladies Regnantes*, 1870-71, p. 28) in the year 1868. Of these, 2,432 had been vaccinated in their infancy, and 1,131 revaccinated. If we ask why the revaccinated are but a portion of these totals, the reason is not far to seek. Successes only are reckoned; and M. Léon Colin gives the successes in the French army revaccinations as 35 per cent.; Bavaria, 34 per cent.; English recruits, 34 per cent.; Prussian, 45 per cent. (p. 108). Lotz I do not know; but the figures of Colin give no such success as 70 per cent.

One word as to the success in Bicêtre. The number who would not be revaccinated cannot be small, because twice over Dr. Colin says it was large. He speaks (p. 85) of the negligence of the greatest number of them, and (on p. 114) of the refusal of a great number of them. It is, therefore, gratuitous to suppose that the immunity of nurses is other than that described by Rees before vaccination.

I trust I may be permitted to refer to one other matter. In the BRITISH MEDICAL JOURNAL of June 23rd, p. 1217, are given, in foot-note 32, 263 German small-pox deaths, and 23,469 French, both army-deaths, on the authority of Colin's *La Variole*. The book in question, *La Variole*, contains neither of these statistics. Colin only gives the German, and puts it at 261. The French he does not give at all. I was so struck with the use of these figures by those who might be supposed to be sure of their accuracy, that I wrote to the War Minister at Paris for the confirmation of them. In reply, he tells me, under date the 2nd of this month, that they do not possess the exact figures, as they were not capable of collection during the war. Will you kindly correct this, therefore, for the benefit of your readers?—I am, yours truly,

Darlington, July 15th, 1883. ALEXANDER WHEELER.

Note.—Dr. Besnier is astonished at the following facts which he gives (p. 67). "The twenty non-revaccinated patients of Dr. Caudet only furnished one death; the ninety-three non-revaccinated patients of Val-de-Grace only yield three deaths; and, infinitely more extraordinary yet, in the midst of a murderous epidemic, seven non-vaccinated soldiers at Val-de-Grace furnished but one death," etc.

*** Our correspondent seems to have missed the point of our criticism. What we objected to was his drawing conclusions from insufficient premises. It is no doubt true that "there is no doubt about the revaccination of the soldiers of the regular army;" but, as we pointed out, only 35 per cent of these were successfully revaccinated, and therefore, of course, there were 65 per cent. unprotected by revaccination. It is true also that there was a considerable mortality among the soldiers, but there are no data to show how the mortality was distributed among these two classes—the 35 per cent. revaccinated, and the 65 per cent. un-revaccinated. There is, therefore, obviously no ground for the conclusion that "the revaccinated suffered heavily."

As to the immunity enjoyed by small-pox attendants, the experience of metropolitan hospitals proves that, with a very few exceptions (which are, moreover, doubtful), those who are revaccinated successfully before exposure do not contract the disease, while all those who are not thus protected, and who have not already had the disease, do contract small-pox, just as in the case of the other infectious fevers. All (or nearly all) the unprotected attendants contract these. The conclusion is obvious; and even if the attendants in the Bicêtre, to whom our correspondent refers, were wholly unprotected by primary vaccination (as a matter of fact, for all that appears to the contrary, they may even have been revaccinated on some previous occasion), or by a previous attack of small-pox, it would not invalidate this conclusion, inasmuch as it is not held that all unprotected persons contract the disease when exposed to it.

With regard to the 1,131 revaccinated cases of small-pox (supposing our correspondent is correct in his assumption that they had been successfully revaccinated), it may be pointed out (1) that revaccination is not to be held an absolute safeguard against small-pox; and (2) that judging from the unequalled experience of the metropolitan hospitals, the primary vaccination and the revaccination of these cases must have been of very poor quality. By the way, why did not our correspondent give also the deaths?

The facts quoted in our correspondent's letter do not appear very extraordinary when put in this form:—

113 cases, unrevaccinated (but presumably vaccinated)	4 deaths; mortality 3½ p.c.
7 ,, unvaccinated,	1 death; mortality, 14 p.c.

The reference "Cf. Colin" in the foot-note, to which our correspondent directs our attention, was intended as a reference to Colin for detailed information regarding the imperfect vaccination in the French army, and not as giving Colin as the authority for the figures. As it stands, however, it is open to misconstruction, and it will be amended in the copies of the memorandum preparing for separate publication. The figures given were those generally accepted and quoted, but as they do not, we find, rest on official statement, a correction will also be made in regard to them.

CARDIAC MURMURS.

SIR,—The JOURNAL of June 23rd contains an excellent lecture by Dr. Byrom Bramwell, "On the Functional Cardiac Murmurs of Anæmia." It is therein stated that there are three theories extant as to the cause of the murmur heard in the second left interspace in some cases of mitral regurgitation: 1. That the murmur is pulmonary; 2. That it is due to mitral regurgitation; 3. That the murmur is produced in the pulmonary artery as the result of constriction of that vessel, the constriction being caused by the pressure of the dilated left auricle (Dr. Russell's theory).

I may perhaps be permitted to state (without prejudice to the view of Dr. Russell, for the same idea may strike various observers quite independently) that for very many years I have taught that overdistension of the auricle may occasionally, in cases of mitral regurgitation, press upon the origin of the artery, and thus generate a murmur in the area indicated, an occurrence specially alluded to at p. 18 of my *Contributions to Cardiac Pathology*. There is, however, nothing new in the fact of overdistension of the auricles pressing, at times, upon the origin of the great arteries, encroaching upon their lumen, and more or less impeding the onward passage of the blood. It was noted, long prior to the era of auscultation, and commented upon both by Morgagni and Burserius.—I am, sir, yours obediently,

JOHN COCKLE, M.D.

London, June 24th, 1883.

POLITICAL POWERLESSNESS OF THE PROFESSION: A PROPOSAL.

SIR,—Seldom have your readers had put before them, so clearly and so simply, a subject which must have been a matter of reflection at some time to all, as in the address delivered by Dr. Balthazar Foster.

To be unconscious of the utter political powerlessness of the profession is to be insensible to its existence, and to continue to wait passively till political power is thrust upon it by an admiring public, is to bide the consequences of a doubtful evolution. For medical men to suppose that they will achieve political power without paying for it, is as a child crying for the moon.

The legal profession have doubtless attained great political in-

fluence at the expense of individual members, inasmuch as to every barrister, to whom the routine practice of his profession is tedious or distasteful, it is open to speculate a portion of his capital in contesting a parliamentary seat with the almost certain result, if successful, of being repaid, sooner or later, by an attorney-generalship, judgeship, or other good appointment, of which so many fall to the lot of the legal politician, and for the attainment of which the medical votes in the different universities have always largely contributed, with what return to the profession it is needless now to inquire.

There is no doubt, put it how one may, that for a medical man to become a member of parliament is to reduce his professional practice. Such service can, therefore, be rendered to the profession only be those who have already made an independence, or possess private means; and, even in the case of these, it is not common sense to suppose that men will expend much to possess, when it can lead to no pecuniary or professional emolument, a title, the social value of which has of late become very doubtful.

If, then, medical men can be found who will give their time, abilities, and experience, it is assuredly not much to expect that the bulk of the profession should provide the means.

I would, therefore, suggest that the members of the British Medical Association be invited to express their views as to the desirability of the present subscription being increased to a guinea and a half, the additional half guinea going into a fund to form a nucleus for the medical parliamentary association, out of which a committee could defray the expenses of a contested election, and refund the actual outlay caused by his duties to a medical member, should the members joining the medical parliamentary association be willing to pay an entrance subscription of one guinea, the association would be in a position to enter the lists at the next general election.

Should the profession be unwilling to submit to this small tax, I think the less said about political powerlessness in the future the better.—I am, etc., NATHANIEL ALCOCK, Surgeon-Major, A.M.D.

RECOGNITION OF PROFESSIONAL SERVICES.

SIR,—Permit me space for the following paragraphs, one from Mr. Milward's letter in your last issue, headed "The Politics and Finance of the Profession," the other I quote from memory; it recently appeared in the columns of a morning paper.

1. "Men who would go to hospital rather than pay a few pounds to a medical man, will pay heavy bills to a lawyer or an engineer."

2. "It is stated on good authority that, with the view of tempting an eminent counsel from his retirement (mentioning the name of a Q.C. who has recently withdrawn from practice), a sum of two thousand guineas was attached to the brief."

In one case, it is presumed, health or even life is at stake, whilst in the other, it is money, or its equivalent. How dreadfully outraged society would feel if they heard of any one paying a physician two thousand guineas for saving his life, not to say anything of preserving his health; and yet I did not see any indignant letters follow the appearance of the second paragraph I have quoted.

Who is responsible for this strange anomaly? Is it the profession, or the public, or both?

Is it not about time to do more than discuss this matter in the columns of our journals? Could not the heads of the profession—metropolitan and provincial—in the form of a committee of the profession, be induced to take up the subject and endeavour to give it a practical form? Is there anything undignified in trying to obtain a juster recognition of professional services? Can there be any hope of doing good unless action spreads, not towards, but from the direction I have ventured to indicate?—I am, sir, yours, etc.,

July 14th, 1883. REGINALD HARRISON.

CHOLERA AMONG COOLIE EMIGRANTS.

SIR,—With reference to the extract from the Report of the Sanitary Commissioner with the Government of India given in your issue of July 14th, under the heading "Cholera amongst Coolie Emigrants," will you allow me to point out that Dr. Cunningham bases his conclusions on the results obtained on only four of the vessels that conveyed coolies, out of *probably* ninety (I am unable, as yet, to give the number exactly); and this too in only one of the four years during which the experiment has been in progress? Obviously, this is not a proper method of treating statistics. This fact is not stated: that, since the improved water-supply came into operation, the mortality-rate of the coolies has fallen to one-fourth of what it used to be; that cholera-epidemics, which were formerly of constant occurrence, are now rather rare exceptions; and this, notwithstanding that cholera prevailed with great virulence in two out of the four years of the experiment. In the first year of the experiment, the epidemic in Assam was the most destructive in living memory. Another important fact omitted is, that only two of the sources of danger in connection with the water-supply have been removed; the third still remains unchanged. As soon as I receive the statistics of the past season, I hope to lay all the facts connected with this most interesting case before the profession.—Your obedient servant, J. N. DE RENZY, Surgeon-General.

Bray, Ireland, July 14th, 1883.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Royal Infirmary.

THE Board of Management issued their annual report at the annual meeting on Thursday, July 26th. It states that, during the twelve months, the board have endeavoured to conduct the affairs of the Infirmary and allied institutions with efficiency and economy. The total income of the Infirmary, the Convalescent Hospital at Cheadle, and the Fever Hospital at Monsall, has been £27,425, as compared with £27,557 in the preceding year. The principal falling off has been in the amount received from the Hospital Saturday and Sunday Fund. The legacies received during the year, including £13,500 from the late J. Pendlebury, amounted to £14,461 1s. 6d. The expenditure at the Infirmary has been £18,000, showing a reduction of £69 upon the previous year, although there has been an increase of 133 in-patients and 1,700 home and out-patients. The house-expenses during the year have been reduced £403, which has been due to the careful supervision of the dietary by the resident medical officer (Dr. Steell), and to the good management of the housekeeper. The expenditure at the Convalescent Hospital has been £4,793, as compared with £4,976 in the previous year, notwithstanding an increase in the number of patients. The expenditure at the Monsall Hospital has been £3,546, or £47 more than during the previous year. There has been an increase of 108 in the number of patients. The board express their debt of gratitude to Mr. Lund and Dr. Wm. Roberts, who resigned during the year, and who were placed on the consulting staff; they also recognise the value of the great services rendered by Dr. Steell as resident medical officer for a period of five years.

Dr. Mould read the report of the Lunatic Hospital, Cheadle, and said the number of admissions had been larger than in the previous year; and, considering the utterly hopeless nature of many of the cases admitted, the recoveries have been satisfactory.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Friday, August 3rd.

Dangerous Performances by Children.—Lord SHAFTESBURY called attention to the operation of the "Children's Dangerous Performances Act" of 1879. He pointed out that, under that Act, magistrates could only interfere to prevent children under fourteen performing acrobatic feats which were "dangerous to life or limb." It happened in very many instances that the public performance was not dangerous to life or limb, but that, in the training of the children for it, the most horrible cruelty was practised on them. He believed that boards of guardians sometimes apprenticed children to acrobats. If this were put an end to, and if School Boards did their duty in seeing that children attended school up to thirteen, much might thereby be effected towards putting an end to this cruelty.—Lord DALHOUSIE expressed the hope of the Home Office that the words spoken by Lord Shaftesbury would have their effect out of doors.—Lord CARRINGTON, for the Local Government Board, promised that inquiry should be made as to whether boards of guardians really did apprentice children to acrobats.

HOUSE OF COMMONS.—Thursday, August 2nd.

Disinfection of Goods.—Mr. BRINTON asked the President of the Board of Trade what steps, if any, had been taken to disinfect wools and also carpets, rugs, and such like textile fabrics arriving in this country from the East before allowing them to be distributed to the

public.—Sir Charles Dilke: We have issued orders with regard to rags, which, from past experience are known to be capable of conveying infection, though even they have not been known to have conveyed cholera. Steps for the disinfection of wools, carpets, rugs, etc., are not, in the opinion of the medical authority of the Local Government Board, necessary, and any proposed disinfection would interfere, in a disproportionate degree, with the trade in these commodities.

Workhouse Dietary.—Mr. Caine asked the President of the Local Government Board whether his attention had been called to the substitution of a fish diet once a week in the Bristol workhouse, at a cost of twopence per pound; and whether he would issue an instruction authorising boards of guardians to substitute not less than two pounds of fish for one pound of meat in their scale of dietary.—Mr. G. Russell: The Board have not yet received any communications from the guardians of the Bristol incorporation as to the substitution, in their scale of dietary, for the workhouse inmates of fish for meat once in the week. A proposal was, however, a few days since, submitted by the Bath guardians to substitute fish for meat on one day in each fortnight, by way of trial, and it is now under the consideration of the Board. It does not appear to the Board that they can properly issue any general instructions to boards of guardians on this subject, but they will be quite prepared to consider any proposal which they may receive from guardians, with a view to such a substitution as that suggested by the hon. member.

Vaccination.—Mr. Hopwood asked the Secretary of the Local Government Board whether the Vestry or Guardians of St. Pancras had applied to the Local Government Board for advice as to the propriety of vaccinating women within a few hours after childbirth; and what, if any, answer had been given.—Mr. G. Russell said that the Guardians of St. Pancras had approved a report of a committee in which they stated, with reference to the case of the late Herbert Walsh, which had been the subject of several questions in this House, that they did not see, in the reported proceedings of the coroner's inquest, any evidence connecting the vaccination of the mother (Rosina Walsh) with the subsequent drying up of her milk. The committee, however, regarded this question, as well as that raised by Mr. Dunlop, the medical officer, whether the possibility of small-pox ravaging a lying-in ward would, under the circumstances existing at the time, justify vaccination at so early a period as one day after confinement, as questions solvable by medical men only, and suggested that the matter be referred to the Local Government Board. The Board had replied that they have nothing to add to the expression of their views contained in their circular letter to metropolitan boards of guardians of January 27th, 1881, and in the letter addressed to Mr. Dunlop in June last, a copy of which has been sent to the guardians. In the last-mentioned letter, the Board stated that they were advised that, while providing for the inmates of the workhouse, in its several departments, such revaccination as is proper in order to guard each department from danger of small-pox, it was undesirable to allow the accidents of the lying-in room to become confused in the minds of patients with the results of vaccination, and that the medical officer would do well to hold this consideration in view, as affecting the question of revaccinating women within a short period after labour.

Police Medical Officers, Ireland.—In reply to some questions from Mr. Healy, Mr. Trevelyan said: The medical attendant of the constabulary at Emly is Dr. Nadin, who resides at Tipperary. There is railway communication between the two places, and several trains run daily each way, so that it could not take twenty-four hours to secure his services. The subinspector reports that Dr. Nadin attends most regularly when required, and that he is not aware of any dissatisfaction with the present arrangement. As Dr. Nadin has held the appointment for the last twenty-six years, it would be difficult to ascertain who recommended him, or why any other gentleman was not selected; but I do not think it probable that the local doctor at Emly, to whom the hon. member refers, and who, as I am informed, is now a young man, could have been a candidate for the post twenty-six years ago. It is not the case that, if a constable were known to have communicated with a member of Parliament on the subject, he would be dismissed.

Cholera Hospitals.—Colonel Nolan asked the Chief Secretary to the Lord Lieutenant of Ireland whether the Local Government Board were provided with a temporary portable hospital fit to be erected in any union in which an outbreak of cholera might render it advisable to have an additional or detached, or portable hospital; and whether the Local Government Board would have legal powers to occupy any site which they might consider suitable for a special cholera hospital.—Mr. Trevelyan replied that it rested with the several sanitary authorities, and not with the Local Government Board, to provide temporary hospitals for cholera patients, and the Local Government Board had not portable hospitals at their disposal, nor had they power to take land compulsorily for the purpose of obtaining sites. The sanitary authorities had the subject at present before them, it having been brought under their notice by a recent order of the Local Government Board.

Friday, August 3rd.

Scotch and Irish Pauper Lunatics.—Mr. O'Sullivan asked the Financial Secretary to the Treasury whether it was a fact that a capitation grant was paid for every lunatic pauper in Scotland, whereas, in Ireland, a similar grant was only paid for paupers who were inmates of lunatic aylums, while, for the great bulk of the lunatic poor in Ireland, who were inmates of poorhouses, no grant whatever was paid by the Treasury; and, if so, would the Government take any steps to redress this inequality.—Mr. Courtney: The grant is only made on account of such Scotch pauper lunatics as are under the charge of the Scotch Lunacy Board. But the methods of dealing with them in Scotland differ from those in force in England and Ireland, the boarding-out system being largely favoured in the former country, and the right hon. gentleman opposite recognised this distinction when he fixed the rules governing the grants in the three countries. I can hold out no hope that this grant will be extended; and the hon. member will probably cease to desire the adoption in Ireland, and, in that case, in England also, of the Scotch system, when he learns that, in the opinion of those best qualified to judge, so far from having relieved the rates, the Imperial grant has led, in Scotland, to an absolute increase in the local burdens.

Naval and Military Hospitals.—Mr. Hopwood asked the Secretary of State for War what was the comparative strength of the military and marine forces at Plymouth and Devonport in the ten weeks of last year and the same period of this year, referred to in his answer on Monday last. Was the difference in number sufficient to account for an increase of the number of patients in the naval and military hospitals at Stoke and Stonehouse, and did the increase apply to contagious diseases only, or disease generally?—The Marquis of Hartington: It is not easy to fix the naval population, on which hospital ratios at Plymouth have to be formed, as it fluctuates from day to day by the arrival and departure of vessels. The reply I gave to the hon. member for Plymouth on July 30th, was to the effect that his figures were substantially accurate; but I could not answer exactly. I will now state the actual returns on which my reply was based. As regards the military force, the admissions to hospital for venereal diseases, in the ten weeks ended on July 20th this year, were 183 on a force of 2,859, while, for the corresponding ten weeks of last year, the admissions from the same causes were 116 on a force of 2,457 men. With reference to the navy, the return could not be procured at once by weeks, but it was found that on July 21st, 1883, there were 121 venereal cases in hospital on a force of 7,309; while, on the corresponding day of 1882, the number of patients was 47 on a force of 7,334. The total admissions to hospital for military patients for the ten weeks was larger in 1883 than 1882, the number rising from 312 to 460, the venereal patients accounting for 67 out of the increase of 148. The total number in hospital as regards the Navy, similarly increased from 263 to 357, the venereal patients increasing by 74 out of a total increment of 94.

The Southwark Water Company.—Mr. T. Egerton asked the Secretary of the Local Government Board whether he was aware that, immediately adjoining the open filter-beds of the Southwark Water Company, a dust and ashes contractor sifted the contents of dust-bins; and whether he would take steps to prevent a practice so dangerous to the health of the population.—Mr. G. Russell said that, so long ago as 1872, the Board became aware of the nuisance, and directed one of their inspectors to inquire and report to them on the subject, and his report was brought under the attention of Parliament by its presentation as a Parliamentary return. The Board, however, had no power vested in them which would enable them to require the company to discontinue the use of their filter-beds at Battersea, or the dust contractor to discontinue the use of his dust-yard. The Board would, however, bring the subject again under the attention of the company.—Mr. Labouchere asked the President of the Local Government Board whether it would be possible to see that the dust-contractors did their duty. At present, most of the contracts required the contractors to call every day; but they certainly did not do so, and some of them never called till they were

sent for.—Sir C. DILKE said the matter was absolutely in the control of the local sanitary authorities, and all that the Local Government Board could do was to remind those authorities of their duty. The Board had recently issued a circular calling the attention of local authorities to the subject.

Saturday, August 4th.

Honours in the Medical Profession.—Colonel KING-HARMAN asked the First Lord of the Treasury whether he had any objection to state whether it was true that he had advised Her Majesty graciously to confer the honour of baronetcy upon two distinguished English gentlemen of great medical and surgical skill; and, whether he had also advised Her Majesty to reward the services of an Irish gentleman, who had also attained to great and deserved eminence in the surgical profession, with the simple honour of a knighthood.—Mr. GLADSTONE: There are three medical bodies in this country; one in England, one in Scotland, and one in Ireland. It is true that in England baronetcies have been conferred upon two distinguished gentlemen of the medical profession, and on one gentleman of distinguished position the honour of knighthood; in Ireland one distinguished gentleman has received the honour of knighthood; and in Scotland there has been no honour at all. But great efforts have been made, and further efforts are in progress by means of a Bill in this House to make the medical profession of the three countries one in standard, and one in authority. We attach great importance to the views embodied in that Bill. We regard the medical profession as one, and the question of the nationality of the person selected for the honour is a secondary consideration, to which we can give nothing but secondary importance. Of course I am aware that in advising the Crown with respect to honours of this kind I am liable to err; and I need not tell the hon. member that I do not proceed upon my authority alone, but I endeavour to inform myself by very full consultation with those who are known and regarded as the heads of both the medical and surgical branches of the profession—heads not in a formal sense, but as probably being the most eminent persons in those branches. It was upon full consultation with them that I advised the Crown on the recent occasion. I am quite sure the hon. gentleman had no intention to disparage the honour of knighthood, which is a very considerable honour, being held by the Judges of the land and by the law officers of the Crown.—Colonel KING-HARMAN asked the right hon. gentleman whether he was not aware that a feeling of dissatisfaction had been aroused owing to a lower honour having been bestowed on an Irish medical man, while a greater honour had been conferred on an English member of the profession.—Mr. GLADSTONE said two gentlemen of very high position in the Irish profession had written to him, stating that they very much regretted that so much notice had been taken of the discontent on this subject.

The Medical Act Amendment Bill.—Sir T. LAWRENCE inquired whether it was the intention of the Government to proceed with the Medical Act Amendment Bill.—Mr. GLADSTONE replied that it was undoubtedly the intention of the Government to proceed with it. It was a measure that had come down from the House of Lords, and precedence was given to other Bills; hence the delay.

Monday, August 6th.

Brain-Disease among School-Children.—Mr. MUNDELLA, answering Mr. S. LEIGHTON, who asked whether it was a fact that, while there had not been any material increase of brain-disease and lunacy in proportion to the population generally during the last ten years, there had been a material increase of such diseases amongst the children of school-age and the teachers in schools, said that he had applied to the Lunacy Commissioners for light upon the subject. So far as the children were concerned, the majority of those in lunatic asylums were idiots, and the number of those who had become insane had materially decreased. As to the teachers, the proportion of insanity was not so large as it was in the bar, the army, and the clergy. The percentage of barristers who became insane was three times as great as that of the teachers.

Tuesday, August 7th.

Medical Officer of Oldcastle Union (Meath).—Mr. HEALY asked the Chief Secretary for Ireland whether it was the fact that the medical officer of the Oldcastle Union, county Meath, was suspended by a majority of 17 to 6, because of a number of serious charges; whether a sworn inquiry was held, and the doctor admitted on oath the existence of a number of the abuses complained of; whether the Local Government Board, notwithstanding, removed the suspension, and confirmed the doctor in office; whether the guardians thereupon, by a majority of 17 to 6, declared that they had no confidence whatever in the medical officer, and that he should be called upon to resign by the Local Government Board; and whether it was intended to allow that gentleman to retain his post in the face of the protest of the guardians.—Mr. TREVELYAN: The medical officer was suspended upon grounds which, in the opinion of the Local Government Board, did not justify that step. A sworn inquiry has been held into the charges made against him, the two first of which were trivial. The third was that he acted disrespectfully to the guardians in employing as an infirmary attendant a woman whom they had directed to be placed in the ward for women of bad character. It appears that this woman had been specially trained to attend midwifery cases, and it was in this way the medical officer employed her. He swore that he meant no disrespect to the guardians, and the inspector is of opinion that he was actuated by motives of humanity. The Local Government Board consider that in employing this woman in the infirmary he committed an error of judgment, but they think that the case is sufficiently met by an expression of their opinion that he had done wrong, and that the facts elicited did not afford sufficient grounds for the dismissal of an officer who had served efficiently for over thirty-three years. The Local Government Board consider that in this case there was a misuse of the power of suspension which is given to guardians to enable them to deal with cases of emergency or gross misconduct, pending inquiry and action by the Local Government Board. It is true that the guardians had, since the inquiry, requested the Local Government Board to call on the medical officer to resign, but the Board are not prepared to do so merely in consequence of the facts elicited at the recent inquiry, although they are willing to give due weight to any further complaint which may be made with respect to transactions not already investigated and disposed of.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE POOR-LAW MEDICAL SERVICE.

SIR,—For many years past, I have taken a considerable interest in the condition of the most important and numerous body of medical officials in England—the Poor-law medical officers. During the last couple of years, while I have been stationed in the metropolitan district, I have been so fortunate as to be permitted to attend as a visitor at the monthly meetings of the Poor-law Medical Officers' Association. I have thus had the advantage of hearing much concerning the condition of this branch of the public service, and I may say it has borne out very fully my preconceived ideas as to the many disabilities and drawbacks under which this important branch of the medical profession labours. I will further say that, although it is true that in the past the Naval and Military Medical Services have had grievances, and have laboured under drawbacks, there can be no comparison of any kind whatever between the sufferings they underwent, by comparison with the wretchedly depressed, bullied, and crushed-out condition of the Poor-law Medical Service. We, at any rate, have to deal with gentlemen, and with the central authorities; but the oppression of the Poor-law service seems to come from a class of the narrowest culture, and it has to deal ever with local authorities of but little breadth of view.

If I am right in my views, I consider that there is an immense future before the existing or fully developed Poor-law Medical Service. I consider they are the germs of a civil medical service combining sanitary and medical duties, which will one day cover the three kingdoms with a network of public servants paid by the State and the central authorities to watch over the health of the people; and the future lies in the fact that, with their stated salary and independent position, they will be able to carry out sanitary reforms in a thorough and independent manner; which is now impossible.

The future does not lie in the State-supported hospital, nor in the provident dispensary, for both those institutions do but treat the man when sick; it is the noble aim of the Poor-law and Sanitary Service to put men in such good sanitary surroundings as will kill out disease and keep men in health instead of letting them get sick and then curing them. That the Poor-law Service should occupy the wretchedly bad position it does to-day from a financial point of view seems to me most lamentable, and shows more than anything else the defective organisation we have as a profession, and how weak we are in combining for our self-defence.

I think it would be perfectly possible by proper organisation and combination to place the Poor-law service in as good an average position as regards income and leisure as is enjoyed by the Established Church in England, and that until such a position is achieved it would be impossible to be in any way content.

But so far as I can see no corporation considers it its duty to make itself a rallying centre for those weak and scattered units of the Poor-law service, or ever endeavours to urge upon Parliament the absolute need of its improvement in pay and allowances.

But it has always surprised me that the British Medical Association, that great organisation in which our hopes of the future of medicine are entirely bound up, should not take a more definite line of action towards [the Poor-law service. While it is using great efforts to remedy the grievances of army and navy doctors, of ship-surgeons, endeavouring to reform habitual drunkards, and carrying out varied schemes for progress, it seems to me to have neglected the largest, the most important, and I will say, the most oppressed class of all, the oppressed sections of medical men.

When I think how month after month Dr. Rogers, Dr. Barnes, Mr. Baldock, and others of that gallant band, meet together to discuss the most painful cases of bullying, of harsh treatment, of petty meanness, of absence of sympathy, and often of real cruelty, I am compelled to say that I do not know any group of men in our profession who are, single handed, without funds, without support from without, doing a more honourable nor a more self-sacrificing work. Carrying on a large correspondence, often aiding in law expenses, constantly making journeys to give evidence in case of great oppression, advising some lonely and single-handed doctor, who in a remote district is fighting an uphill battle against oppression, I will say that I know no man in the profession who is doing so much for it as Dr. Rogers of Soho Square.

But it is very lamentable that it should be so, for if the full strength of the powerful British Medical Association were brought to bear on many of these questions, a real progress would be made, and reforms urgently needed would be carried out. But to achieve such reforms, it seems to me that the British Medical Association should formulate certain principles and educate its members to achieve them.

It seems to me an absolute combination, or trades union, in the larger and better sense, is needed to bring the Poor-law medical service into its proper position. Once certain defined principles were formulated which should be absolutely just to the profession and country. It should be perfectly legitimate and moral to use the whole force of the Association to carry the points. Any medical man who would, from selfish motives, break down the rules so formulated, should not remain in the Association, as he would be an absolute enemy to the profession and the public.

I would suggest the following for consideration.

1. A distinct and separate committee of the British Medical Association Board should be formed in London as a Poor-law, or Local Government Committee, to watch the progress of all subjects connected with these important matters. This committee should receive all complaints or demands for advice from Poor-law Medical Officers. It should consist of a certain number of medical men trained in Poor-law work, some sanitary and medical specialists, and a certain number of retired officials of the medical services of the Army and Navy, men trained to official method, and to the working of official systems. These latter officials would be able for many years to come to give advice, and to quote precedents for progressive action. Such a committee, speaking in the name of your most powerful organisation, would have great weight, would free the Poor-law Medical Officers from supporting a separate association of their own, and eventually draw into the British Medical Association a very large contingent of Poor-law doctors.

Why this has not been done long ago I cannot understand.

2. *Legal Advice.*—This committee which I propose would employ a legal adviser, of special knowledge in all points concerning local government rules. He would give legal advice; frame new drafts of law; attend, if necessary, to defend in trials where Poor-law questions were raised; and thus save the pockets and anxieties of our weaker brothers, who have often, out of their narrow pay, to fight corporations and boards with money and legal advice at their back. It is absolutely pitiful to consider the sufferings these badly-paid and overworked Poor-law medical officers have to undergo in endeavouring, in courts of law, to obtain their just rights.

3. *Pay.*—A minimum pay should be laid down, and that it should be progressive, and increase by regular increments, as in all branches of the public service.

4. *Districts.*—The enormous districts now existing should be split up into smaller and more manageable ones.

5. *Medicines.*—As far as practicable, medicines should be supplied by the State, and not by the individual; and a paid dispenser should be sanctioned, when needed.

6. *Pension.*—A definite pension at fifty-five years of age, or stated time, be compulsory.

7. *Pensions to Widows.*—When a medical man dies of disease contracted on duty, his widow should have a claim for pension, like an officer's widow in the army.

8. *Leave.*—A regular annual leave, without providing a substitute, should be granted to all Poor-law officers.

9. The relations between masters of workhouses and the medical officers should be placed on an entirely different basis; and the medical officer should be absolutely free from interference in his duties.

To achieve such results, it is necessary to explain fully to the students of medicine and young practitioners the evils of the present system; and to show them that reform cannot come without combination, and a distinct refusal to accept Poor-law work. The students know nothing of the drawbacks of the present system; but they must be educated about it, if any progress is to come.

With such rules in force, the Poor-law service would become a good service, and would retain its men for years, and with such a service much of the work now done without fees, as charity, would be paid for by the State, which is only right and just to the profession.

There must be tens of thousands of pounds of bad debts owing to the medical profession in England; but if a man had a fair salary and a small district the loss would not be so serious as it now is, and a man would make an income by his State-paid salary in combination with his fees as a clergyman does. A clergyman has a settled income, and receives a fee for marriages, burials, etc., and this will probably be the future of the medical profession.

Medical men not holding these appointments could then send any patients who were not able to pay to the District Medical Officer, and in this way the leisure of the profession would be increased, and its income not diminished.

Of the need of leisure for medical men, one might write volumes. The want of it to me seems to be the killing evil of civil practice, and it reacts most injuriously on the culture and status of the whole profession.

G. J. H. EVATT, M.D.,
Surgeon-Major, A.M.D.

Woolwich, July, 1883.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SCHOOL.

THE summer session of the Army Medical School terminated on Monday, the 6th inst., when the prizes at the disposal of the Senate of the School were handed to the successful competitors, before a large assembly of distinguished officers and other visitors, by Sir Galbraith Logan, K.C.B., who was Director-General of the Army Medical Department between the years 1867 and 1874. During the period Sir Galbraith Logan occupied this high position, he always exhibited a strong personal interest in the school, and took an active part in its administration; and, as he mentioned in commencing his address, in acceding to the request of the Senate to distribute the prizes, and to deliver some remarks on the present occasion, he had been chiefly prompted by the strong desire he felt to show publicly the great value he still attached to the establishment.

In commencing the proceedings, the lists of the surgeons on probation, who had passed successfully through the courses of special instruction for the medical departments of Her Majesty's British and Indian armies, were read by Surgeon-General Longmore, C.B., together with various reports on the results of the examinations, intended for the information of the Secretaries of State for War and India.

A notable feature of the present session has been that all the prizes, with a single exception, have been carried off by one of the surgeons on probation, Mr. J. M. Young, of the Indian Medical Service. This gentleman, we are informed, acquired his professional education at Glasgow and Vienna. In handing to Mr. Young, in succession, the Herbert, Martin, Parkes, and Montefiore medals and prizes, Sir Galbraith Logan made many happy references to the advantages that might be hoped for to the public service, from the superior ability which Mr. Young had manifested in the several branches of professional knowledge which the rewards represented; and he dwelt also, with much feeling, on the high characters and

distinguished services of Dr. Parkes and Sir Ranald Martin, with both of whom he had been on terms of intimate friendship, and to perpetuate whose memories the medals bearing their names had been founded. He said he could not imagine two nobler patterns of life to set before the young surgeons for imitation than the lives and careers of those eminent members of the medical profession in the two branches of the military service, the British and the Indian, to which Dr. Parkes and Sir Ranald Martin had respectively belonged. We cannot reproduce the whole of Sir Galbraith Logan's address, which extended over a wide range, and was listened to with marked attention; but one fact that he mentioned, in the course of his remarks, has not, so far as we are aware, been hitherto brought to notice in the manner which it seems to deserve, and we therefore repeat it. In speaking of the excellent manner in which the medical service was conducted during the recent campaign in Egypt, as shown by the professional results, and when particularly alluding to the changes that had taken place in the manner of treating Egyptian ophthalmia, Sir Galbraith stated that while, as now well known, not a single case of blindness had resulted from the late campaign, on the other hand, in the earlier campaign under Sir Ralph Abercrombie, not only was an enormous expense entailed on the State in pensioning the very large number of soldiers who became deprived of sight from the disease, but, beyond that, the ophthalmia acquired such an obstinate character, and proved so infectious among the men who escaped from the extreme result of blindness, that, as regarded some of the regiments which served in that war, the disease was not eradicated from them for five and twenty years afterwards. Thus a great additional cost was entailed, both in the disability for service and necessary hospital treatment which the persistence of the disease led to, as well as the invaliding and discharge from the army, which its consequences, in numerous instances, rendered unavoidable.

After the proceedings in the lecture-hall were concluded, the company was entertained at luncheon by the officers of the Army Medical Staff, in their spacious messroom.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. July 26th, 1883.—Admitted Members:

Coxwell, Charles Fillingham, M.B.Camb., London Hospital, E.
Fox, Thomas Colcott, M.B.Lond., 14, Harley Street, W.
Griffith, Walter Spencer Anderson, L.R.C.P., 66, Guildford Street, W.C.
Jenkins, Edward Johnstone, M.B.Oxon., St. Bartholomew's Hospital, E.C.
Kilner, Walter John, M.B.Camb., 104, Ladbroke Grove Road, W.
Krauss, Adolph, M.D.Munich, German Hospital, Dalston, E.
Nias, Joseph Baldwin, M.B.Oxon., 56, Montagu Square, W.
Paget, William Smith, M.D.Lond., Great Crosby, Liverpool.
Syers, Henry Walter, M.D.Camb., Pokesdown, Bournemouth.

Admitted Fellow:

Osler, William, M.D.McGill, Montreal.

Admitted Licentiates:

Audland, William Edward, 22, Merrick Square, S.E.
Barefoot, John Richard, 121, Chesterton Road, W.
Barron, Hunter Jackson, M.B.Edin., 10, Endsleigh Street, W.C.
Bassett-Smith, Percy William, 62, Alexandra Road, N.W.
Beales, Thomas William Lewis, 190, Holland Road, W.
Blagg, Arthur Frederick, Infirmary, Rochdale.
Cardozo, Samuel Nunez, 68, Guildford Street, W.C.
Carlyon, Edward Tresiddy, 12, River Street, E.C.
Cleaver, William Fidler, M.D.Kingston, 18, Easy Row, Birmingham.
Collins, Edward Treacher, 1, Albert Terrace, N.W.
Collins, Octavius Augustus Glasier, St. Bartholomew's Hospital, E.C.
D'Aguiar, João Gomes, 18, Edward Street, N.W.
Dalton, Arthur John, 2, Roslin Villas, South Norwood, S.E.
Davies, A. Cluneglas, Portfaen, Lampeter.
Dowson, John, Guy's Hospital, S.E.
Edwards, Arthur Rea, King's College Hospital, W.C.
Embleton, Dennis Cawood, 25, Park Crescent, N.W.
Gandevia, Naoroji Baranji, 3, Whitehall Gardens, S.W.
Gardner, Thomas Frederick, University Hospital, W.C.
Green, Charles David, 73, Shardeloes Road, S.E.
Gunn, Donald Stilwell, 51, Park Village East, N.W.
Hodges, Herbert Chamney, Watton, Hertford.
Howard, Heaton Clark, 102, Lansdowne Road, S.W.
Hubbard, Arthur John, 1, Ladbroke Terrace, W.
Jennings, Robert, Haslingden, Manchester.
Johnston, George David, St. Thomas's Hospital, S.E.
Knill, Edwin Gilmore, 55, Torrington Square, W.C.
Lathern, John Simpson, M.D.McGill, 2, Cornwall Road, Stroud Green, N.
Littlewood, John Oscroft, Guy's Hospital, S.E.
Llewellyn, David William Henry, St. Thomas's Hospital, S.E.
Mason, Arthur Henry, 15, Granby Street, N.W.
Maughan, James, 111, Bedford Street, Liverpool.
Payne, Frank Cobham, Plaistow, E.
Pinching, Horace Henderson, 14, Milner Street, S.W.
Polson, James Ronald, Stoke Prior, Bromsgrove.
Pomfret, Henry Waytes, Hollingworth, Manchester.
Roberts, Arthur Henry, Greenhill Road, N.W.
Robinson, Clement Sumner, St. George's Hospital S.W.
Rogers, Frederick Arthur, Grange Road, Ealing, W.
Salter, Stephen Thomas, 28, Woburn Place, W.C.
Schofield, Alfred Taylor, 28, Cambridge Gardens, W.
Shone, William Vernon, 15, Granby Street, N.W.
Square, James Elliot, 22, Eastbourne Terrace, W.
Stroyan, Frederick, 8, Milman Street, W.C.
Tresidder, Harry Innis, Dulwich, S.E.
Waldy, John, 62, Stafford Place, S.W.
Walker, Charles Rotherham, Gainsborough House, Leytonstone, E.
Walker, John William, 9, Lidlington Place, N.W.
Walsh, John Henry Tull, Cancer Hospital, Brompton, S.W.
Ward, Anthony Arthur, 33, Walpole Street, W.
Williams, John Worthy, 58, Acre Lane, S.W.
Wilson, Alexander, Royal Infirmary, Manchester.
Withers, Oliver, New Basford, Nottingham.
Wood, Edward Archer, 17, St. Mary's Square, W.
Wright, Gaskoin Richard Morden, 128, Walworth Road, S.E.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on July 18th. [This list has been accidentally omitted.]

Messrs. Arthur Overton, Horncastle, and W. O. Travis, Liverpool, of the Liverpool School of Medicine; A. M. Jackson, Great Grimsby, and A. G. Southcombe, Bath, of St. Bartholomew's Hospital; W. A. Gostling, Diss of University College; G. F. Stericker, Pickering, of the Leeds School of Medicine; R. D. Pedley, Stockwell, of St. Thomas's Hospital.

Six candidates who passed in Surgery at previous meetings of the Court, having subsequently obtained medical qualifications, were admitted Members, viz.:

Messrs. J. W. Papillon, L.S.A., Reading, L. A. Morgan, M.B.Durh., Myddelton Square, J. E. Dunn, L.R.C.P.Ed., Preston, and J. L. W. Kitching, L.S.A., Derby, of St. Thomas's Hospital; A. H. Gordon, L.R.C.P.Ed., Belsize Park, of King's College; A. H. Roberts, L.R.C.P.L., Hampstead, of St. Bartholomew's Hospital.

One candidate, who had previously qualified in Surgery and Midwifery, having passed in Medicine, was admitted a Member, viz,:

Mr. A. E. Foster, Bradford, of the Leeds School of Medicine.

Seven candidates passed in Surgery, and, when qualified in Medicine and Midwifery, will be admitted members. Five candidates were referred to their professional studies for six months, four for three months, and one candidate for twelve months.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 26th ultimo, viz.:

Messrs. J. J. Faraker, L.S.A., Cheshunt, and A. L. Tiremans, L.S.A., Howden, Yorkshire, students of Guy's Hospital; S. N. R. P. Griffin, L.S.A., Padstow, Cornwall, of St. Mary's Hospital; F. J. Stevens, L.S.A., King Street, Kensington, of St. Bartholomew's Hospital; C. T. Street, Barnetby, Lincolnshire, of St. George's Hospital; S. S. Merrifield, L.S.A., Plymouth, of King's College; William Dudley, L.S.A., Kidderminster, of the Birmingham School of Medicine; and W. V. Shone, L.R.C.P.Lond., Great Marlow, of University College.

Four gentlemen passed in Surgery, and, when qualified in Medicine, will be admitted Members of the College. Nine candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, three for three months, and two for nine months.

The following gentlemen passed on the 27th ultimo, viz.:

Messrs. W. J. Parkinson, Bradford, Yorkshire, W. H. Brenton, L.S.A., Plymouth, and J. S. Jago, L.S.A., Torpoint, Cornwall, of Guy's Hospital; S. S. Short, L.S.A., Edgbaston, James Hodges, L.S.A., Henley-on-Thames, and W. F. Lace, L.S.A., Pill, near Bristol, of King's College; A. W. Ogle, L.S.A., Sevenoaks, and J. G. D'Aquiar, L.S.A., British Guiana, of the Middlesex Hospital; N. S. Wood, Knightsbridge, of St. George's Hospital; H. R. Spencer, L.S.A., Atherstone, Warwickshire, and D. S. Gunn, L.R.C.P.L., Park Village East, N.W., of University College.

Three gentlemen passed in Surgery, and, when qualified in Medicine, will be admitted members of the College. Nine candidates were referred for six months, one for three months, one for nine months, and one for twelve months.

The following gentlemen passed on the 30th ultimo, viz.:

Messrs. E. H. Myddelton-Gavey, L.S.A., Hilldrop Crescent, N., of St. Bartholomew's Hospital; E. H. Tenison, L.S.A., Uxbridge Road, of University College.

Nine candidates were referred.

UNIVERSITY OF DUBLIN.—*Summer Commencements*, 1883.—On day and Saturday, June 29th and 30th, the following were among t the degrees conferred in the presence of the Senate in the Examin tion Hall of Trinity College by the University "Caput," consisting of the Right Hon. J. T. Ball, LL.D., Vice-Chancellor, the Very Rev. the Provost of Trinity College, and the Rev. J. W. Barlow, M.A., Senior Master *non-regent*:

Bachelors in Surgery.—Edmund F. Beveridge, Monckton O'Dell Braddell, George Cowen, Cecil A. Digby, Francis J. Drury, Frederick C. Dwyer, Charles J. Fagan, Charles W. Hamilton, Thomas W. Haughton, Hugh F. Oldham, Charles T. Poland, John H. Scott, Henry N. Thompson, Almroth E. Wright.

Bachelors in Medicine.—Edmund F. Beveridge, Henry E. Blandford, Charles H. Blood, Monckton O'D. Braddell, John J. Cochrane, George Cowen, Cecil A. Digby, George M. Dobson, Francis J. Drury, Frederick C. Dwyer, Charles J. Fagan, William W. Fenton, Thomas W. Haughton, Henry M'Quade, Hugh F. Oldham, Charles T. Poland, John H. Scott, Robert E. Sproule, Henry N. Thompson, Almroth E. Wright, Frederick J. Driver (*Cantab. ad eundem gradum*).

Masters in Surgery.—Isidore M'W. Bourke, Ephraim Mac Dowell Cosgrave (*stip. cond.*), James Gloster.

Doctors in Medicine.—Isidore M'W. Bourke, Robert N. Denning, Frederick J. Driver, Edward Fawcett, John R. Kirkpatrick, Samuel R. Mason, Travers R. M. Smith, Montgomery A. Ward, Bertram C. A. Windle.

Licentiate in Medicine.—Green J. Sullivan.

The Honorary Degree of Magister in Arte Obstetriciâ was conferred on Dr. George Hugh Kidd.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 2nd, 1883.

Beard, Thomas, Bath Street, Birmingham.
Hardy, Walter Mitchell, Buttershaw, Bradford.
Hendley, Harold, West London Hospital.
Ley, Herbert, Westbourne Terrace, W.
Miller, Thomas Hugh, Woburn, Bedfordshire.
Pring, Arthur, Barnes, S.W.
Pullin, Bingley Gibbes, Holford Square, W.C.
Rây, Dwarkâ Nâth, Bengal.
Stace, Arthur Frank, Bayswater, W.
Steedman, John Francis, St. Bartholomew's Hospital.

The following gentleman also on the same day passed the Primary Professional Examination.

Burns, Alfred Hugh, St. Thomas's Hospital.
Kelson, William Henry, St. Thomas's Road, S.E.
Cropley, Alfred, London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

ABERDEEN ROYAL INFIRMARY.—Superintendent. Salary, £250 per annum. Applications by August 14th.

BARNWOOD HOUSE, Gloucester.—Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Needham, Medical Superintendent.

CANE HILL ASYLUM, Surrey.—Senior Assistant Medical Officer. Salary, £150 per annum. Applications by August 16th.

CANE HILL ASYLUM, Surrey.—Junior Assistant Medical Officer. Salary, £100 per annum. Applications by August 16th.

CHESTER GENERAL INFIRMARY.—House Surgeon. Salary, £80 per annum Applications by August 27th.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Saiary, £80 per annum. Applications to Mr. Edwin W. Marshall, secretary, 38, Barton Arcade, Manchester, by August 28th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by August 18th.

GENERAL INFIRMARY at Gloucester and GLOUCESTERSHIRE EYE INSTITUTION.—House-Surgeon. Salary, £100 per annum. Applications by September 1st.

GLOUCESTER COUNTY ASYLUM.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 20th.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Junior Resident Medical Officer.—No salary. Applications to the Honorary Secretary, Medical Committee of the Great Northern Hospital, 23, Upper Berkeley Street, Portman Square, W., by August 20th.

HARTLEPOOLS HOSPITAL AND DISPENSARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications to J. Rawlings, Esq., 12, Cliff Terrace, Hartlepool, by August 18th.

LONDON HOSPITAL.—Demonstrator of Practical Chemistry. Salary, £100 per annum. Applications to the Warden by September 1st.

METROPOLITAN ASYLUMS BOARD.—Second Assistant Medical Officer for the Leavesden Asylum for Imbeciles, near Watford, Herts. Salary £120 per annum. Applications by August 14th.

NETHERFIELD INSTITUTION FOR INFECTIOUS DISEASES, Liverpool.—Resident Medical Officer. Salary, £80 per annum. Applications to Robert Calder, Secretary, 4, Commercial Court, 17, Water Street, Liverpool, by August 15th.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary, £150 per annum. Applications by August 16th.

NEWCASTLE-ON-TYNE INFIRMARY.—Junior House-Surgeon. Salary, £50 per annum. Applications by August 22nd.

NORTH WALES COUNTIES LUNATIC ASYLUM, Denbigh.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 16th.

QUEEN'S COLLEGE, CORK.—Professorship of Midwifery. Applications to be sent to the Under Secretary, Dublin Castle, not later than August 25th.

QUEEN'S COLLEGE, Ireland.—Professor of Midwifery. Applications to the Under Secretary, Dublin Castle, by August 25th.

QUEEN'S HOSPITAL, Birmingham.—Casualty Surgeon. Applications by August 15th.

SHEFFIELD UNION.—Medical Officer. Salary, £60 per annum. Applications by August 15th.

STRABANE UNION.—Medical Officer, Dispensary District. Salary, £145 per annum, and fees. Election on August 15th.

ULVERSTONE UNION.—Medical Officer of Health for the Rural Sanitary Authority. Salary, £133 per annum. Applications endorsed, "Application of Medical Officer of Health," by August 22nd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant-Physician. Applications by August 27th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon. Applications by September 1st.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £70 per annum. Applications by August 15th.

WORKSOP DISPENSARY, Notts.—House-Surgeon. Salary, £120 per annum. Applications to the Honorary Surgeon, Mr. C. A. Whall, Worksop.

MEDICAL APPOINTMENTS.

BEEVOR, C. E., M.D., appointed Assistant Physician to the National Hospital for the Paralysed and Epileptic, Queen Square, Bloomsbury, *vice* P. Horrocks, M.D., resigned.

BEVAN, W. L. P., M.B., appointed Junior House-Surgeon to the Huddersfield Infirmary, *vice* A. W. Loveridge, M.R.C.S., resigned.

CURRIE, O. J., M.R.C.S., appointed Senior House-Surgeon to the Huddersfield Infirmary, *vice* J. M. Richardson, M.R.C.S., resigned.

HARRISON, Edward, M.B., appointed Junior House-Surgeon to the Huddersfield Infirmary, *vice* Z. Prentice, M.R.C.S., resigned.

MONTEITH, E., L.D.S., appointed Dental Surgeon to the Royal Alexandra Hospital for Sick Children, Brighton.

MOORE, Edward Erskine, M.B. B.Ch.Dub., Lic. Mid. K.Q., C.P.I., appointed Resident Medical Assistant in Down District Lunatic Asylum, Downpatrick, *vice* J. B. Dunlop, L.R.C.S.I., resigned.

NALL, S., M.B., appointed Demonstrator of Physiology and Histology to the St. Mary's Hospital Medical School, Paddington.

NISBETT, Robert Innes, M.R.C.S.E., and L.S.A.Lond., appointed Consulting Surgeon to the Gravesend and Milton Infirmary and Dispensary, after holding the office of Honorary Surgeon to that Institution for upwards of sixteen years.

PRANGLEY, H. J., M.R.C.S., appointed Medical Officer to the Board of Management of the North Surrey School District, Anerley, *vice* A. A. Duke, M.D., resigned.

PRATT, R., M.B., appointed Resident Physician to the Queen's Hospital, Birmingham, *vice* F. L. Phillips, M.D., resigned.

RANGER, W. G., M.R.C.S.E., appointed Dental Surgeon to St. Thomas's Hospital, *vice* J. W. Elliott, M.R.C.S.E., L.D.S., resigned.

RITCHIE, J., M.B., appointed Outdoor Accoucheur to the Glasgow Maternity Hospital, *vice* A. Sloan, M.B., resigned.

SMITH, J. E., M.D., appointed Medical Officer of Health to the Great Grimsby School Board.

SQUIRE, J. E., M.D., appointed Joint Physician to the St. George's and St. James's Dispensary, *vice* A. W. Oxley, M.R.C.P., resigned.

STEAVENSON, W. E., M.B., appointed Casualty Physician to St. Bartholomew's Hospital, *vice* H. Z. Tooth, M.B.

SUTTON, Francis William. M.R.C.S., appointed Assistant-Surgeon to the Royal Berkshire Hospital, *vice* Francis Workman, resigned.

THOMSON, St. Clair, M.R.C.S.E. (late House-Physician), appointed House-Surgeon to King's College Hospital, *vice* B. H. L. Stevens, M.R.C.S.E., resigned.

TREVES, Edward, M.R.C.S., appointed Assistant-Surgeon to the Brighton, Hove and Sussex Throat and Ear Dispensary, Brighton.

WILLEY, Charles Henry, M.B., C.M.Edin., C.Sc., M.R.C.S., appointed Resident Medical Officer to the Borough Hospital for Infectious Diseases, Sheffield.

WILLIS, G. O., L.R.C.S., appointed Medical Officer to the Greys District of the Henley Union, *vice* A. D'O. Brooks, deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

RICHARDSON.—On the 7th instant, at Norwich, the wife of T. W. Richardson, M.R.C.S., of a son.

WILKINS.—At Newport, Isle of Wight, on the 3rd instant, the wife of Robert Bird Wilkins, of a daughter.

MARRIAGES.

ABBOTT—SHORT.—On August 4th, at St. Mary's, Roxby, Lincolnshire, by the Rev. W. A. Taylor, assisted by the Rev. A. H. Powell, Charles E. Abbott, M.R.C.S,Eng., L.K.Q.C.P., of Bocking, Essex, to Ada Mary, eldest daughter of the late Stephen Canim Short.

DEATHS.

MCCLELLAND.—On July 31st, at 29, Marina, St. Leonard's-on-Sea, John McClelland, Esq., F.L.S.Gs., L.S., F.R.S.London, F.R.S.Ratisbon, Corresp. Memb. R.A. Turin-S. Nat. Hist. Boston, of 6, Lancaster Terrace, Regent's Park, N., late Principal Inspector-General of Her Majesty's Indian Forces.

READ.—On the 4th instant, after a few days' illness, Decilia Mary, the dearly beloved wife of Thomas Lawrence Read, of 11, Petersham Terrace, South Kensington. Aged 45. R.I.P.

Mr. CHARLES ROBINSON, late medical officer for the Goldington district of the Bedford Union, has obtained a superannuation allowance of £15 *per annum.*

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY......King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL ETIQUETTE.

C. G. writes: "When a medical man (a stranger in a district) commences practice, is it the rule for him to call upon the resident practitioner, or for them to call first?"

*** As the question is continually cropping up, so to speak, we think it best, in the interest of our younger brethren, not to limit our reply to a brief "Yes" or "No," but to quote *in extenso* (with the permission of the author) the following rules on the subject from the *Code of Medical Ethics* published by Messrs. Churchill. *Medical Etiquette, or the Rule of the Profession on Commencing Practice, etc.*—1. In the absence of any published rule, or collegiate instruction, on such and kindred matters, it is not to be wondered at that young practitioners should be so generally ignorant of the "unwritten" custom or etiquette (diverse as it is from that pursued in ordinary social life, in relation to new residents) expected from members of the profession on commencing or changing the locality of practice, in town or country, and which entails on each new-comer, young or old, an obligation to call, with as little delay as may be, upon every duly qualified, legitimate medical practitioner resident within a reasonable distance of his own selected place or abode, and courteously announce his intention to practise in the locality. 2. In towns of not exceeding 35,000 inhabitants, and containing some thirty, more or less, medical men, a preliminary visit of courtesy should be paid to each several practitioner; but in those in which the preceding numbers are exceeded, the call or visit may very fairly be limited to such practitioners as live within a radius of (say) half a mile, or less, according to the nature and population of the locality; while in London and other large and densely populated cities, the area of call must necessarily be very circumscribed, and, in a great measure left to the judgment and discretion of the intending practitioner himself; or of a local professional friend. As a safe and simple guide, however, in either or any case, the extreme area of call for such initiatory visits may, perhaps, be sufficiently defined by a circle, comprising within its space some thirty practising members of the faculty. N.B.—It may be prudent to note, by the way, that practitioners in the position of "assistants" are, as such, exempt from making and receiving the call, and, in either case, it should be omitted. 3. In rural districts, it will be well to extend the radius of call to four miles, or more, according to local circumstances, and the prospect of friendly social intercourse with the neighbouring practitioners—and which, in the interest of self, the profession, and the public, it is scarcely necessary to add, cannot be too carefully cultivated by the faculty at large."

SIR,—I have given as concise a relation of facts as I can, of a situation in which I was placed a few days ago, and should be glad to hear from some authority (for my future guidance) whether I behaved rightly or wrongly. I undertook the treatment of the child, but not of the servant. Of course, in giving an answer, I should not wish my name to appear, I should perhaps add that there is not at present, nor is there likely to be, any ill-feeling between T. and W. W. and T. are practitioners in the same town. H. is W.'s patient. C., a married daughter of H., brings her baby on a visit to H. The child, while there, is taken ill, and C. sends for T., being recommended to do so by her own doctor, before leaving home, should need arise. Neither T. nor W. have ever attended C., either before or after marriage. T. undertakes the treatment of the child. While in attendance, C.'s sister (unmarried and living at home) is taken ill, and consults W. at his own house. The next day H.'s servant is ailing, and whilst paying the usual visit, T. is requested to prescribe for her. An opinion is requested. 1. Did T. act rightly in attending the infant? 2. Ought T. to have prescribed for the servant? AGRICOLA.

*** 1. Yes. 2. Assuming that the servant was not at the time, and had not recently been under the professional care of W. for the same ailment, T. was fully justified in prescribing for her.

SIR,—Will you kindly state your opinion upon this point in the next issue of the BRITISH MEDICAL JOURNAL, to which I am an old subscriber?

A. goes to see a patient for B., in B.'s district. He is called in to see one that would have employed B., if B. had been able to go himself to the case which A. had gone to attend for him. B., a few days ago, went a long journey for A., and B. declined to take the fee.—Yours truly,

Uffculme, Devon. RICHARD BRYDEN.

*** We are somewhat in doubt as to the particular "point" on which our opinion is sought. If, as we will assume, in the absence of a specific question, our correspondent is wishful to know which of the two practitioners referred to is entitled, so to speak, to the new patient, we are clearly of opinion that, under the special circumstances, A. should decline to attend the patient otherwise than as the temporary *locum tenens* of B. B., in declining to take the fee, acted in the true spirit of the profession.

SEA-SICKNESS.

SIR,—After twenty-five years' experience at sea, I feel confident that the cause of sea-sickness is irregular action of the sympathetic. I have found in several cases that the effect of the motion of a vessel at sea was to enormously increase the secretion of the kidneys. I was led to make inquiries of others, as, although never sea-sick, I was thus affected myself. I have had to empty my bladder three or four times an hour, it being on each occasion fully distended. The cause, I take it, is the sudden and unusual motion of the larger viscera, causing repeated slight shocks, similar in character to, but very much slighter than, that caused by a blow in the epigastrium. A tight belt has considerable effect, in many cases, in moderating the nausea, by keeping the viscera in their natural position, and keeping up the natural pressure on the sympathetic nerves and ganglia, instead of the constantly alternating absence of, and then sudden increase of pressure, from the alternate upward and downward motion of the stomach and liver. The irregular nerve-action generally affects the stomach; but, as I have stated, in some cases the kidneys are the organ through which the discharge of nerve-force takes place, causing them to secrete enormously.—I am, etc., E. C.

Appeal.

Sir,—I thank you, in the name of the widow of the late Dr. Stewart, of Cunisbay, Caithness, for your kindness in inserting the appeal I forwarded to you two weeks ago. As I then stated, this is really a most distressing case. Dr. Stewart, labouring as he did in a large but very poor parish, "the most northern parish in the island of Great Britain," had not an opportunity of putting away anything for the inevitable rainy day. While in harness, he was seized with double pneumonia, and died, after a three days' illness, at the early age of forty-four, leaving a wife and six children totally unprovided for; in fact, almost destitute.

Subscriptions will be received by the editor of the British Medical Journal and by the Rev. James McPherson, the Manse, Cunisbay, by Wick, N.B. The following is a list of subscriptions received up to date.

	£	s.	d.
Raised amongst the people of his parish, principally small crofters and fishermen	30	0	0
Miscellaneous subscriptions received by the Rev. Mr. McPherson	33	11	0
Anonymous	2	4	0
Do.	2	2	0
John McKinlay, M.D.	1	1	0
Alexander Mitchell, M.D.	2	2	0
Mrs. Mitchell	1	1	0

—Yours faithfully, Alexander Mitchell, M.D.

Burton House, Great Yarmouth, July 25th, 1883.

Erratum.—In Dr. Moritz's analysis of the Manbre beer (Journal, July 21st, page 121, col. 2), *for* "mineral water," *read* "mineral matter."

An Uncomfortable Position.

Sir,—In answer to the letter from Mr. Arthur, contained in your issue for July 21st, I wish to contradict most emphatically the statements he has made, by which he attacks my professional character.—I am, yours etc.,

Castle Eden, August 1st, 1883. M. Duggan.

*** This correspondence must now cease.

Oro-nasal Respirators.

Sir,—I notice in the Journal of May 5th, a new "Oro-Nasal Respirator" advertised. I have been hoping that some one would protest against the too frequent use of these respirators as highly injurious, and even dangerous, in many cases. I would go even further, and say that only exceptionally are they of any use whatever. Even at our health-resorts I have noticed them worn by men, women, and children, who have gone to considerable expense and trouble to obtain better air. In clear sunny weather at Ventnor, I have seen them quite commonly worn. It seems cruel to fasten such a contrivance on anyone; but when it serves to exclude the fresh pure air for which the invalid is, or ought to be, seeking, and of which he cannot get enough, it seems high time that some one should draw attention to the evident injury these respirators are doing to hundreds. In the apothecary's shop they are strung up in formidable array, and freely recommended and sold.—Yours very truly,

A Medical Man.

Vaccination after Confinement.

Sir,—A report in the Journal of June 16th, of an inquiry in the House of Commons relating to the revaccination of a woman the day after her confinement, and the vaccination of her infant a week afterwards, reminds me of an event which occurred under my own observation some years ago, having some bearing upon the subject, and, I think, interesting in relation to the question of vaccination itself, and its protective influence. I will quote the case from a letter of my own, forming part of a correspondence with some antivaccinationists, which appeared in the *Cambrian* newspaper in 1872.

A gentleman was taken ill with small-pox, which proved to be of a dangerous type. His wife, who was near her confinement, had, contrary to advice, visited his room on various occasions. She was vaccinated. It became a race in point of time between the two forms of disease—variola and vaccinia. As the period of incubation of small-pox is about twelve days, and that of vaccinia three days, the hope and probability was that the vaccine disease would, as it were, steal a march upon the small-pox, though having had a later start, and, by appearing earlier in the field, disarm the latter of much of its virulence and danger. The result turned out as anticipated. The vaccination was successful A child was born. Varioloid disease appeared in the mother soon afterwards in its mildest form, a few vesicles only appearing over the face and body. It pursued its course quickly, and terminated without a serious symptom. I verily believe that the vaccination saved this lady's life. The infant was successfully vaccinated when eight days old, and escaped the more formidable disease. My impression is that the milk was not interfered with by the maternal vaccination.—Yours obediently, George Padley.

Swansea.

Mr. Fearnley will find the information which he desires in the *Medical Directory*.

Albuminuria.

Sir,—For the past three months, I have under treatment a case of scarlatinal albuminuria, in which the amount of albumen passed is enormous, if not unprecedented. Three months ago, the urine, on boiling, became a jelly, and was diminished. There was general anasarca, headache, retinitis, etc. At the time, my patient, a lady aged 36, was passing through the attack of scarlatina (mild), her house was painted with oxide of zinc paint, containing a large quantity of turpentine. Her urine smelt characteristically of violets, and she was purged also by the turpentine. By removing my patient from this house, putting her on a milk diet, with iron and tannin, and rest in bed, the anasarca disappeared, the urine increased, and the albumen diminished to one-eighth inch deposit in a two-inch column of urine. Without going into particulars now, I will state that nothing amiss can be found but a little œdema of the feet and legs, and a daily excretion now of twenty-nine grains of albumen to the fluid-ounce of urine. Tinct. ferri perchlor., tannic, gallic, prussic acids, and nitro-glycerine have all failed. There is not, and was not at any time, any tension of the circulation. Details of this interesting case will appear as soon as it is concluded. Meantime, who will kindly offer some practical suggestions as to treatment?—I am, etc., P. O'Connell, M.D., M. B. M. Assoc.

Sioux City, Iowa, U.S.A., July 16th, 1883.

Royal College of Surgeons of England.

The following were the questions on anatomy and physiology submitted to the candidates for the diploma of membership of the Royal College of Surgeons on the 29th ultimo, when 222 presented themselves. They were required to answer four questions out of the six. *Anatomy:* 1. Enumerate, in their relative position, the muscles attached to the temporal bone; give their nerve-supply. 2. Describe the cartilages of the larynx. 3. Mention, in their relative position, the structures exposed upon removal of the pectoralis major muscle. 4. Describe the diaphragm; its attachments, relations on both surfaces, structure, and openings. 5. Describe, in the order in which they occur, the anastomoses of the arteries on the walls of the alimentary canal from the cardiac orifice of the stomach to the anus. 6. Describe the fascia lata.—*Physiology:* 1. Describe the act of vomiting. By what nervous channels may this act be excited? 2. What varieties of cartilage are found in the adult? Where are they found? Describe their structure and functions. 3. What are the more important constituents of urine? State and explain how they are affected by starvation, digestion, exercise, and temperature. 4. Describe the structure of the olfactory mucous membrane. Explain the manner in which the sense of smell is exercised. 5. State the functions of the pneumogastric nerve. Give the experimental and other evidence on which your statements rest. 6. What is the chemical constitution of the neutral fats? How are they prepared for absorption in the alimentary canal?

Ωμεγα.—We should advise our correspondent to lay the facts in detail before the medical officer of the Local Government Board.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. E. Drummond, Hastings; Dr. Drinkwater, Sunderland; Mr. R. Innes Nisbett, Gravesend; Mr. G. S. Wilson Hope, Petworth; The Secretary of the College of Surgeons, Edinburgh; Dr. T. Bushby, Liverpool; Dr. Saundby, Birmingham; Mr. Claremont, Southsea; Mr. Benjamin Clarke, Clapton; Mr. L. Bayley, Stourbridge; Mr. G. Parker; Dr. Beales, Congleton; Mr. W. M. Coates, Salisbury; Dr. E. T. Wilson, Cheltenham; Dr. Burdon Sanderson, Oxford; Mr. H. Terry, Northampton; Mr. Kenneth Millican, Kineton; Secretary of the Royal College of Surgeons, London; Dr. A. Vulpian, Paris; Mr. John Holden, Preston; Dr. Smith, Grimsby; Mr. T. Payton, Birmingham; Dr. W. Ziegler, Edinburgh; Mr. F. Shearer, Paisley; Mr. J. H. L. Macintire, Bristol; Dr. W. H. Taylor, Anerley; Mr. Thomas Darby, Liverpool; Britannia Rubber Company, London; Mr. A. T. Stewart, Waterford; Mr. E. J. Jenkin, London; Mr. T. J. Ekin, London; Dr. Sawyer, Birmingham; Mr. Vacher, Birkenhead; Mr. E. G. Griffith, London; Dr. Keep, Cupar; Miss Howe, London; Mr. John Furley, Sevenoaks; Dr. Carter, Liverpool; Mr. Dolan, Halifax; Mr. C. Challes, Brighton; "A. M. D.," India; Secretary Apothecaries' Hall; Mr. J. R. White, Dublin; Dr. Alexander, Liverpool; Mr. J. M. Shield, London; Mr. F. Wallace, London; Dr. St. George, Lisburn; Mr. H. R. Ruckley, High Wycombe; Dr. Carroll, Glasgow; Mr. W. H. Parker, Newport, U.S.; Dr. Waters, Chester; Mr. H. T. Butlin; Mr. George Brown, London; John Reid, Rochdale; A Member; Dr. A. D. Leith Napier, Dunbar; Mr. W. Bain, Heaton Chapel, near Stockport; Mr. L. H. Ormsby, Dublin; Dr. R. Mansell-Jones, Scarborough; Dr. W. B. Dalby, Torquay; Dr. Manson Fraser; Dr. Yate, Godalming; Dr. Rawdon, Liverpool; Mr. R. J. Pye-Smith, Sheffield; Professor de Chaumont, Southampton; Mr. W. Boyd Mushet, New Brighton; Dr. J. M. Moore, Dublin; Mr. J. C. P. Muir, London; Mr. J. M. Richards, London; Mr. W. Walter, Manchester; Mr. F. Boreham, Tunbridge Wells; Mr. F. W. Lowndes, Liverpool; "Country Practitioner."

BOOKS, ETC., RECEIVED.

The Filaria Sanguinis Hominis, and Certain New Forms of Parasitic Disease in India, China, and Warm Countries. By Patrick Manson, M.D., C.M., Amoy, China. London: H. K. Lewis. 1883.

Medical Guide to the Mineral Waters of France and Its Wintering Stations. By A. Vintras, M.D. London: J. and A. Churchill. 1883.

Enteric Fever; Its Prevalence and Modifications, Etiology, Pathology, and Treatment. By Francis H. Welch, F.R.C.S., Surgeon-Major A.M.D. London: H. K. Lewis. 1883.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

REMARKS ON APHASIA.

Being an Introduction to a Discussion in the Section of Medicine at the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

By W. T. GAIRDNER, M.D., LL.D.Edin.,

Physician in Ordinary to the Queen in Scotland; Professor of Medicine in the University of Glasgow.

I HAVE been requested to appear here to-day in a position, not of my own choice, but assigned to me by the office-bearers of this Section. I am to introduce a discussion on aphasia; and I shall be followed by some who have not only given to this subject, as I have, much attention, but whose names are associated with it wherever medical science is cultivated. I shall, therefore, rather aim at presenting the subject in a form suitable for their remarks, than at attempting anything novel on my own account.

The first thing to be determined is, what are we to include under the name "aphasia?" Speechlessness, according to the common understanding of it, has reference only to articulate speech, the characteristic attribute of humanity as distinguished from the lower animals; but if we take the spoken word as the basis of our definition, we can hardly refuse to consider also the written word, in which the symbol showing forth the thought is essentially the same, though the channel of expression is different. Aphasia and agraphia, therefore, must be regarded as necessarily within the limits of the same discussion, and as throwing light upon each other; in both of these, whether observed apart, or together in the same case, the lesion is one of utterance of words, although the utterance is in the one case by the voice and organs of articulation, and in the other by an art of later origin, dealing with the verbal symbol in quite a different way. You might, in this sense, correctly speak of aphasia as a special form of lesion even in a deaf and dumb person, if his brain were so affected as to make it impossible for him to give effect to his own peculiar method of utterance by the fingers. I see no advantage, however, in the proposal by Steinthal, favourably mentioned by Kussmaul in his elaborate article in Ziemssen's *Cyclopædia*, to recognise as a general term "asemia" (*i.e.*, deficiency as regards symbols), subdividing this general expression into the varieties of A. verbalis, graphica, mimica, etc. Both the first and the second of these varieties are really verbal; the deficiency of pantomime may be, no doubt, combined with these, but it is often not so, and it differs from them altogether in their most essential character, and is, therefore, in a quite subordinate position in this discussion.

To save time, I think it well to start with the assumption that there is a distinct pathological condition to which the name of aphasia may be rightly applied, and that it is quite distinct, on the one hand, from all the well known paralytic or other disorders of mere articulation; and, on the other hand, from coma, dementia, and other states in which utterance is impossible owing to the general disturbance of the mental functions. At this time of day, it cannot be necessary to prove, in a medical assembly, by detailed facts, that this so. And I think we may further assume, without detailed evidence of the fact, that the progress of science has definitely associated this functional state with a lesion of structure in the third inferior left frontal convolution, and the parts of the brain immediately in contact with the island of Reil. Whatever doubts may have existed on this subject, have been finally dispelled.

(Dr. Gairdner here alluded briefly to an instance in a young girl with Bright's disease, in which very complete hemiplegia on the right side existed, but absolutely without aphasia; and Dr. Coats had found the middle cerebral artery plugged by an embolus or thrombus; but the branch going to Broca's convolution, being given off before the seat of obstruction, was exempt, and the convolution itself normal.)

We may regard it as being as well ascertained as anything in medical science, that right hemiplegia, when associated with aphasia, involves, and probably depends upon, a lesion in that part of the brain on the left side. And, in some cases of convulsive disease, where aphasia accompanies or follows the convulsion, especially when the latter is of such a character as to allow the observation that it originates in the facial muscles, or in some of those concerned in articulation, a similar conclusion follows irresistibly as to the probable seat of the lesion.

(Two cases of this kind were alluded to; in both of them temporary aphasia succeeded at each one of many convulsive attacks; and, in one, a case of Jacksonian epilepsy, when the attacks ceased to begin in the face and upper extremity, the tendency to aphasic phenomena disappeared. Two cases were also alluded to as recorded in the BRITISH MEDICAL JOURNAL for October, 1881, in which similar symptoms followed an injury to the head.)

I have no doubt that, if any facts of exceptional interest of this kind deserve to be placed before us, we shall have them from the speakers who are to follow me. I do not think it necessary to dwell on this subject, nor yet on one about which a great deal might be said—the theories that have been proposed as to the origin and development of language as a specially human faculty. One short passage, however, from the writings of Max Müller, may be allowed, as containing within a brief space much matter for consideration.

"We must concede to animals sensation, perception, memory, will, and judgment; but we cannot allow to them a trace of what the Greek called *logos*, *i.e.*, reason—literally, gathering: a word which most rightly and naturally expresses in Greek both speech and reason. *Logos* is derived from *légein*, which, like the Latin *legere*, means originally to gather.....*Logos*, used in the sense of reason, meant originally.....nothing more or less than the gathering up of the single by means of the general.....But *logos*, used in the sense of word, means likewise a gathering; for every word, or at least every name, is based on the same process; it represents the gathering of the single under the general. As we cannot tell or count things without numbers, so we cannot tell or recount things without words."

According to these statements, it appears that simple naming is a process of generalisation; and therefore all nouns, and also all word-roots of every kind, imply a mental process of reasoning, as well as mere perception of impressions, before they can be invented in the first instance, or in the first instance fully apprehended—*e. g.*, by an infant.

The human infant, therefore, has already ceased to resemble other animals in the development of its mental processes from the first moment when a vocabulary begins to be formed, for every word added to its little store of vocables is, more or less, "a gathering of the single under the general;" and ere long the comparatively simple and elementary symbols thus slowly acquired will be used by it, like the symbols in an algebraical formula, for making new advances and more profound generalisations in the inner world of thought. But, while this is so, and while words, in their first initiation and combination into sentences and connected speech, always imply thought, and thought of a higher order than is possible to any other animal than man, it is by no means equally true that words in their actual use correspond always with the mental processes involved in their origin. On the contrary, a large proportion of the words and phrases in most common use are, in a very real sense, thoughtless and mindless—*i.e.*, almost purely automatic as regards the individual—corresponding rather with the inarticulate gestures and cries of man and other animals alike, though modified by habit into the form of articulate speech. Of this kind are (as Dr. Hughlings Jackson was the first to point out) almost all conventional and habitual oaths; *e.g.*, the use of "the big, big D.," which has ceased to have even a swearing value, and therefore has been rightly eliminated from all rational, not to say moral or religious, conversation. A man who can damn his own or another's eyes cannot be said to have the faintest glimpse of a meaning in doing so; and even the comparatively innocent-looking but equally conventional phrases of emphasis, such as "Bless me!" "A-dear-a-day!" "My goodness!" or simply "My!" are to be placed in the same category. You remember the Frenchman's idea, or caricature, of John Bull, as represented some years ago in *Punch*, with the following elegant *morceau* as the supposed typical utterance: "Godam! Rosbif. I shall sell my vife at Smitfeeld. Dam!"—in which the emphasis thus insisted on in the *language* is the precise counterpart of the grimaces and contortions of *gesture* typically ascribed by the vulgar to Jean Crapaud on this side the Channel. In both cases, there is a measure of truth underlying the caricature; and it is noticeable that both these really automatic, and therefore largely false, methods of conveying emphasis tend to disappear in proportion as really articulate expressions of thought reach higher development; in proportion, that is, as words are put to their right use, and become instruments of genuine and really human intercourse.

This is the common principle of what is best and worthiest both in the Christian and in the aristocratic types of conversation. In

the former, the communication must be "Yea, yea—nay, nay; for whatsoever is more than these cometh of evil." In the latter, "the repose that marks the caste of Vere de Vere" will not condescend to a merely false and conventional emphasis—it regards words as too valuable to be thrown away in vulgar and meaningless formulæ, although, it may be, allowing them freely to be used according to Talleyrand's method, deliberately to conceal or disguise the thought. The highest type of conversation, undoubtedly, is that which makes the word most perfectly correspond with the thought, makes it the legitimate and immediate outcome of the idea or emotion as it springs up in the consciousness, and is organised into thought in the brain, to be clothed at the same time with a fitting, and therefore not too exuberant, verbal expression. But this again involves, what would be hard measure for some of us, that we should be absolutely condemned to think, even while we speak; which also involves as a necessary sequence the still harder, and to most people impossible task, "When you have nothing to say—say it!"

But in the great difficulty which we all of us feel in reducing this ideal to practice, one may recognise another law as entering deeply into the whole of our nervous organisation, and all the functions that depend upon it. The degradation of intelligent speech into automatic and almost mindless expressions is only a part of a much larger and more important series of phenomena, in which the same word, *degradation*, may be used in its literal etymological sense, and without any moral significance whatever, to denote an all but universal and indispensable part of such complex activities as are modified by habit, either in the individual or in the race. In all such instances, there is a constant and inevitable degradation of acts originally springing from volitions, *i.e.*, impulses from the higher brain, into acts more and more dominated by the lower planes, so to speak, of nervous communication, *i.e.*, the reflexes. So constant and so absolute is this law, that it operates over the whole sum of those activities which form part of our daily life; operates apart from voluntary determination, apart in many instances even from consciousness, upon all complex forms of motor activity, speech among the rest, which require co-ordination, and in which such co-ordination is a part of our education. In learning both to walk and to talk, the infant acquires slowly, painfully, it may almost be said thoughtfully, what is to each new individual an entirely new art. In the first instance each separate movement, or group of movements, is slowly and imperfectly directed by the will, at a large expenditure of conscious effort; by-and-by the combinations become easier, more perfectly performed, and at the same time more and more automatic; so that we may affirm with the strictest accuracy, that, before either speech or progression has become even moderately easy or comfortable for any one of us much the greater part of what has been acquired at such an expenditure of brain-force, has been permanently degraded into an automatism, and is conducted mainly under the direction and influence of reflex centres below the highest. The higher brain rules, indeed, and continues to the last its control (in all normal states) over these reflexes; but it rules on the principle of a constitutional monarchy, wherein the supreme officer "*regne, et ne gouverne pas.*" Every kind of skill in every manual art depends largely upon the education of the so-called voluntary movements, having been conducted to the point at which combined and co-ordinated actions, at first only possible with thought and deliberate purpose (and therefore done with effort and at the risk of failure), are at last done mechanically or automatically, so as at once to be much more perfectly done, and done so as to leave the higher brain free for new acquisitions, or for more extended general superintendence. And the difference between an intelligent talker, or walker, or worker, and the opposite, is not so much, perhaps not at all, in the greater amount of conscious effort expended, but in the greater amount of control exercised over a much more extended group of automatisms, and the greater freedom acquired in rendering all of these subservient to the expression of the higher human nature. The task-work, or mere routine, is degraded towards a reflex, in order that the free intelligence may emerge into conscious supremacy, in guiding these acquired automatisms towards higher ends. The music-lesson, which at first is painfully and slowly mastered, note by note, with a separate voluntary and conscious effort in the production of each separate phrase, becomes so easy at last that it "plays itself," as if on a barrel-organ; whereby the whole attention and the true soul of the player is allowed to be given to those more delicate requirements which we recognise as the soul of the music, and of which any tolerable expression is absolutely denied to the beginner. A Rubinstein or a Joachim is thus composed of two parts—a mechanical part which plays almost as automatically as a barrel-organ (only with an infinite variety of tunes, and a power of acquiring more at will), and a soul which inspires the dead playing and makes it at once human, and what we sometimes think almost superhuman, in its beauty and impressiveness.

All this bears on the doctrine of aphasia, as follows. Movements that are purely and absolutely, in all circumstances, automatic, are reflexes, mostly detached from consciousness, and therefore from brain. But language never can be so detached; it belongs to the class of mixed motor activities, partly cerebral and related to all that is most exalted and distinctive in brain-function, partly reflex and connected with innumerable other reflexes, conscious and unconscious.

Dr. Broadbent has pointed out that it is a law of nervous activity that, under such conditions, hemiplegic paralysis extends only or chiefly to those actions that are normally practised unilaterally, and in proportion as they are so practised. Now, in relation to aphasia, the curious fact, which has been placed on a basis of observation practically secure, is that, in many cases, speech seems to be so affected. It is presumed, therefore, that the habit of executing highly specialised digital movements with the right hand chiefly, determines the superior volitional activity of the left brain, not only for the work of the hands, but for all intricate and complex combinations of the same type, *i.e.*, intimately related to consciousness and to the manifestations of the higher brain; therefore, in a peculiar degree, for language.

But, as we have seen that language is in reality twofold, viz., partly related to the higher brain and mind, and partly degraded conventionally towards a reflex or automatic act, it might resonably be expected that the latter kind of language would, under certain circumstances, escape in unilateral paralysis, while the former suffers severely, as is found to be in fact the case.

Dr. Hughlings Jackson has borrowed (with almost too much acknowledgment) a casual expression of mine in a paper on Aphasia, published in 1866, and has generalised into a common form of description those emotional and meaningless detached phrases remaining to the aphasic—oaths, etc.—which he holds to be words,[1] but not speech, calling them "barrel-organ-isms."

The facts are probably more or less familiar to all of you; the explanation which I understand Dr. Jackson to have given of the facts is, that the domination of the left brain extends only, or chiefly, to true intellectual language, which is directly the product of present ideas, and of a need for their special and volitional expression; and not to emotional language, which is the residuum of ideas, it may be, but of ideas which have passed through the brain over and over again in the state of health, so as to have become by habit degraded into mere automatisms, or almost pure verbal reflexes.

The exemption of these from paralysis, when Broca's lobe is injured, is due to their being so "degraded," *i.e.*, brought within the compass of those acts which, like the breathing, the balancing of the trunk, and partly the walking, are normally effected by the joint action of the two brains, and therefore (according to Broadbent's law) not so much liable to be utterly paralysed when only one brain is disabled.

Articulate sounds are, under these circumstances, no more determined necessarily by brain-power of a high order, or even by conscious volition, than is the "cri hydrocéphalique," which I have heard perfectly conscious and adult patients go on uttering for hours together, explaining to me at the same time that it was not from pain, and that they could not tell what made them cry out—a purely automatic cry, therefore, coincident in this case with consciousness, but quite detached from volition.

I should like to conclude this branch of the subject by the quotation of a single paragraph from the paper above referred to, which will not, indeed, convey the whole argument, or the illustrations given in detail, but will at least give an idea of the use made of that particular illustration singled out by Dr. Hughlings Jackson.

"The explanation that seems to me, amid the confessedly great difficulties of the subject, to come as near as any to a satisfactory one, of these and other eccentricities of utterance in the aphasic, is that the words which are most readily spoken are always those which are prompted, not by external observation and deliberate volition, but by some internal association of ideas; the words being not so much deliberately spoken as set free (so to speak) by the waves of emotion or of memory, which may be conceived to act upon the old established habits and latent capacities of the brain, very much as one wholly unskilled in music, or deprived for a time of his musical faculty, might let loose the tunes of a barrel-organ,

[1] "A man may be speechless, but not wordless." Hughlings Jackson.

without any direct cognisance of the music he is playing, or the precise combinations of movement he is calling into action. In other words, the aphasic is able to pronounce those words, and those only, that are called out of him, as it were, by trains of association of which he is only partially conscious at the time, acting upon forms and modes of expression which he may have learned to blurt out in the presence of similar associations long before his disease; while, on the other hand, he is utterly unable to select deliberately an appropriate term from among many inappropriate, and to apply it to the expression of a predetermined idea then and there accurately defined in the consciousness.[2] And hence he stumbles most of all at names, which are at once the simplest, the most primeval, and the most determinate of all utterances, while he is comparatively expert at phrases, which are the mechanical slaves of habit, the vague expressions of the inner consciousness or of old associations..... Without being quite assured that the peculiarities of the aphasic will submit to be tested by this criterion, I think it helps to explain the most obvious, and at the same time some of the most surprising facts of his condition, *e.g.*, his absolute inability to pronounce some phrases voluntarily, while the same phrases are readily and even profusely poured out under mental excitement; the utterance of phrases *en masse* which he is incompetent to utter in detail; the confusion, misplacement, and often blank incapacity of utterance which specially bar the application of a noun or proper name to its object, even when that very noun or proper name can sometimes be elicited improperly by some roundabout process, in the midst of a phrase not so accurately determined by voluntary effort."[3]

I have next to ask your attention to some of the varieties which have been set forth in definite terms by Kussmaul and others, as related to the general condition, or pathological state, of aphasia. The first distinction made which I shall remark upon is between *aphasia* and *paraphasia*—between the want of verbal utterance altogether and the confusion of words and phrases, or the habitual misuse of them. This distinction requires to be made, inasmuch as there are aphasics with every variety and degree of defect of utterance; but I am not sure that I can suggest any special conclusions from this distinction that would aid us in the discussion to-day. Paraphasia implies confusion or mistake rather than absolute disability. It is worth while to remark that slight degrees, both of aphasia and of paraphasia, are almost normal to many persons, at all ages; but especially, perhaps, to those advancing in years. I would also like to put it to you, as a point of personal experience, whether, under the circumstances of being liable, as I dare say many of us are, to occasional forgetfulness, or inability to utter names when most wanted, you have not observed that some names, much more than others, seem to gêt lost, as it were, in the pigeon-holes of the memory; so that one dreads the occasions when one is required to recall them, well knowing beforehand that there will probably be a difficulty about it. One such instance occurs to me at this moment. A preparation of digitalis, called Nativelle's digitaline, came to my knowledge perhaps ten or a dozen years ago; but, during all that time, I have scarcely ever been able to prescribe it without taking down a book and looking out the word. What makes this particularly odd and absurd is, that I was always sure it began with N, and usually could remember several of the individual letters, but could rarely collocate them, and this after many efforts to do so by mnemonic stratagems, as by connecting the word with natives, oysters, etc. This fact is of importance, because it forms the nearest approximation that a moderately healthy man is likely to find, in his own experience, to the ever-recurring and insuperable difficulty of the true aphasic—viz., to bring the mechanism of association within the brain into such working order, that the name will infallibly suggest the thing named, and *vice versâ*. The perfectly constituted man, whose memory and utterance of words are always under control, has an apparatus of suggestion at work in his mind and brain, by which trains of thought, or outward objects observed in any way—whether through the eye, ear, or any other sense—naturally and almost automatically tend to bring up the word that is wanted. Somehow or other, the "barrel-organ-ism" involved in this process, a large part of which is through habit almost apart from voluntary effort, and thus purely automatic, is apt to get out of order at points; and then there is a hitch, precisely corresponding to what happens when a certain number of the levers have been removed from the revolving barrel—the corresponding notes (or words) disappear when wanted, even although all the rest of the mechanism is working perfectly well. A friend and patient of mine, who was partially aphasic, but perfectly intelligent, expressed it thus, when he missed a word in this way: "Ah! its gone—gone into the waste-paper basket!" I believe that almost all persons are subject, more or less, to this infirmity.

The peculiarity of the case here is that, familiarity with the word and with its meaning makes no difference, or, if anything, tends to place it rather more beyond reach of recovery than if it had been an utterly new and unfamiliar expression. It cannot be had just when wanted, and no amount of pondering will recall it; but, ten minutes or half an hour afterwards, it will flash upon you suddenly in the midst of quite another set of ideas, and when you do not want it at all. The organ-barrel has, no doubt, been under repair in the interval somehow, and takes up the interrupted melody just at the point it left off, and *à propos* of nothing at all.

[Dr. Gairdner here alluded to the case of Sir Wm. Lawrence, as recorded by Sir Thomas Watson in the last edition of his well-known lectures. It was an almost inconceivable narrative—resting, however, on excellent authority—of an aphasic who, being unable to find a word, was yet able to pun upon it, practically: a true paranomasia, and by no means a mere practical joke. "The psychology of this," said Dr. Gairdner, "is very involved. I am unable to speculate about it profitably, but the instance must not be left out of account."]

Another distinction which has been observed among aphasic cases is that to which Kussmaul has adapted the rather convenient and expressive terms, word-blindness and word-deafness. Most aphasics, I believe, are both word-blind and word-deaf in a degree more or less proportionate to their defective power of recalling or of uttering words; but the differences in this respect are, perhaps, sufficiently striking to call for a clinical subdivision of the cases in accordance with these expressions.

The aphasic can occasionally be assisted towards a missing word, in some cases by pronouncing it in his hearing. He can then follow and imitate the mere utterance of the word, but has no power of initiation, and very soon loses the word again. In other cases, the opposite is the fact; the spoken word excites no idea, and cannot be followed or imitated. Again, the aphasic can sometimes be assisted or re-educated through the eye into words lost, when he cannot at all be led by ear. He may learn to follow the movement of the lips of another person (Finlayson[4]), and so get back some of his individual vocables, when he cannot make them out at all, or very imperfectly, through the mere impressions of sound. This is "word-deafness" in a most striking form, and it is partially to be met by the same process of education as in the deaf-mute. Cases of this kind, however, have rarely been observed with accuracy sufficient for scientific purposes of definition.

But the aphasic who is unable to utter words may not be at all "word-deaf;" on the contrary, he may perfectly understand what is said to him, and may give the most clear evidence by signs that he does so. He may even like to be read to, though perhaps this is very exceptional. Usually there is a degree—and more commonly than not a very great degree—of word-deafness in the aphasic.

Another way of putting this distinction is to regard the person who is aphasic, but not word-deaf, as having "ataxic aphasia" or "incapacity for the motor co-ordination of words" (Kussmaul); while the man who is both word-deaf and aphasic is said to have

[2] An interesting example of the disability here referred to, occurring in connection with expressions which contained a suggestion of something more than mere "barrel-organ-isms," in an aphasic, was brought under my notice in the Royal Infirmary of Glasgow, some time after these words were written and published. A woman, who was so completely aphasic, that she could at first make no use even of "Yes" and "No" in conversation, and who could not identify, much less pronounce, her own Christian name, while having a considerable command of gesture-language, was constantly in the habit of uttering the phrase "up a stair," with such animation, and such varieties of tone and gesture, that it seemed at times as if she intended it to do duty for all rational and intelligent speech; more especially when she associated this phrase, as she very commonly did, with the word "God," thus—"God—God up a stair," etc. It seemed not altogether improbable for a time that some more or less clear idea of heaven as the residence of the Divinity might underlie this strange utterance; and various attempts were made to appeal to whatever of religious aspiration might have survived the wreck of the function of articulate speech. But after a while, as a result of education in the ward, she acquired a few more sublunary and perhaps more really rational phrases and names, such as "Doctor! Doctor!" or, at a later period still, "Dr. Gairdner;" and these she substituted at once for the other and more solemn utterance, as follows: "Doctor up a stair—Doctor—Doctor—Dr. Gairdner up a stair," etc., for a quarter of an hour together, or as long as one would listen to her: and always with the same animated expression and gesture, as if she were "propositionising" something of supreme importance to all of us. This woman ultimately died under the care of Dr. Robertson, of the Town Hospital, and was found to be the subject of an immense softening in the middle cerebral region, involving Broca's lobe.

[3] "On the Function of Articulate Speech, in its connection with the Mind and the Bodily Organs; illustrated by a reference to recent observations on certain diseased states of the brain." Read before the Philosophical Society of Glasgow, March 7th, 1866. Glasgow: Bell and Bain; and in the *Transactions* of the Society for 1866.

[4] See a case carefully recorded in the *Obstetrical Journal*, vol. iv, p. 353. London. 1875.

"amnesic aphasia," or "incapacity for the recollection of words as acoustic aggregates of sound." But this comparatively old and well-known demarcation presumes too much, I think, upon our knowledge of the psychological state of the aphasic to be adopted without a *caveat*. All true aphasia is, probably, more or less amnesic; but of the precise degree in which loss of memory co-operates with other conditions in respect of deficient word-faculty we know, and can know, little that is exact, and therefore capable of definition.

But, on considering the facts of different cases with respect to what has been called agraphia, a further distinction becomes apparent. The educated aphasic, more commonly than not, loses the faculty of writing words and sentences in a like proportion with his loss of the power to speak them, or to recognise them when spoken to him. As I put it in 1866 (when this branch of the subject had been very imperfectly opened up), "the aphasic writes at least as badly as he speaks; and when he speaks not at all, he also writes not at all." But sometimes, unquestionably, it is not so. The power of writing words, and even sentences, may be retained when the power of speaking them is almost wholly lost. Of course, if the power of writing words is in any considerable degree retained, it is clear that the aphasia is not amnesic. There is a difficulty of co-ordination (ataxia), insuparable in the case of articulation of words, but not so insuparable in the case of writing them. And sometimes this absence of amnesia is even more clearly and definitely set forth by the preservation of the power of reading words, sentences, and even whole paragraphs, with apparently perfect intelligence. This is a most marvellous fact, but it is perfectly well authenticated.

No case of this kind on record is more striking than that of the first Lord Denman, one of the ablest of the judges and statesmen of his time, the facts of which, though not medically recorded, may be read in an apparently trustworthy narrative of details in the second volume of his published life. Lord Denman had a stroke of paralysis some time before his death, which left him perfectly aphasic as regards utterance; but so far from his power of recognising and using words being correspondingly impaired, it is said that he was in the habit of reading a great deal in several languages, and indicating most pointedly his approval and disapproval of what he read. He was as unable to write as he was to speak, and thus could not express himself in any way whatever except by gestures; but he lighted upon the plan (apparently spontaneously) of causing his daughters to copy out passages which, in reading, he had strongly approved, in the newspapers and elsewhere, and sending them in a letter to his friends to show that he was still conversant with affairs, and able to take decided views of them.

The usual fact is otherwise. In the great majority of aphasics, the reading faculty is abolished, or lost, in proportion to the speaking and writing faculty; it is hardly necessary, therefore, to devise a new term for this (alexia) as Kussmaul does. But this makes it the more necessary to preserve a scientific distinction in theory and in practice between these different classes of cases.

Dr. Fraser of Paisley has communicated to me a very remarkable case from his experience of the asylum at Riccartsbar, which is still under observation; and I had thought at one time of presenting the man to you here, along with a typical aphasic of the ordinary kind, for purposes of contrast, but it was found better to give up the idea, as this man is rather violent and uncertain in his mental condition. This case originated in an attack, probably of right hemiplegia, in 1870; and there is a profusion of these automatic or quasi-automatic utterances to which I have already referred, with a great difficulty, not to say always impossibility, of referring to things and persons by name. It is difficult, for want of time, to give many details; but the point that is of greatest interest at present is that, when he is utterly at a loss about a name, and can neither speak it spontaneously, nor apprehend it when spoken in his hearing, he is able almost invariably from the written symbol to reproduce something like the word in speaking, and then loses it again as completely as ever when the written word is withdrawn from view. Thus, when shown a pen, and when the word was repeated to him again and again, he could not get nearer it than "petste," but when shown the word *written*, he at once called it "pin." So he called a purse "poke" and "foke," and, when pronounced to him, attempted something like "pats," but when the written symbol was shown him, said at once and forcibly "purse." These facts have been repeatedly ascertained, and you might conclude from them that this man is "word-deaf," but not "word-blind." But that he is not word-deaf entirely, is shown by the fact that he can pick out on a table a number of objects named to him, while he cannot name any of them except after seeing the written symbol. These anomalies in the state of aphasics evidently require more study than has yet been given to them, before we can classify them in a thoroughly satisfactory manner.

Now the knowledge that a perfect aphasic like Lord Denman may be able to read well and easily in several languages, that other aphasics may be able to write intelligibly, even with a maimed right hand, or with the left, and that (as in Dr. Fraser's case) the education through the read letters may be made, to a certain extent, a means of education of the lost faculty, while the education of it through the ear is impossible, has, no doubt, suggested the distinction, just mentioned, of aphasics into those who are, and who are not, "word-blind." But here, I think, we are upon insecure ground, as regards the latter condition. We cannot tell absolutely whether the word-blind aphasic is so from amnesia or not; but we may be quite sure that the aphasic, who can read as well as Lord Denman, is not amnesic as regards the verbal symbol, although he may be quite incapable of uttering it.

A patient whom I had desired to introduce to you at this meeting, but who is, unfortunately, not present, owing to some misunderstanding, forms an interesting object and point of comparison with these others. This man has been aphasic, with right hemiplegia, for some years; and he is so far intelligent as to have no disposition to misuse words, or to indulge in unmeaning phrases. He has been partially re-educated, although now and for some time in a stationary condition. He is perfectly good-humoured, and a very fit subject for experiment in every way. We are sure that he knows the meaning and use of objects, even when he cannot name them; and in particular, we are sure from his playing at dominoes, working with coins, etc., that he perfectly understands the real significance of numbers. This being so, it is to be observed that he is utterly helpless when asked to name the numbers on a domino, and equally so when a number is named to him, and he is asked to single it out from a lot of dominoes spread out before him. But he has no difficulty at all in counting on his fingers the number of any domino, or of showing a domino corresponding to any number so displayed to him. In this respect, he resembles perhaps the majority of aphasics; but the peculiarity in his case is that, while he cannot realise the number for the spoken word, nor yet from the written symbol, so long as the symbol is a word, he can easily, and apparently with perfect accuracy and intelligence, translate the Arabic symbol into the corresponding number on the domino, and *vice versâ*. The word, and the word only, representing a number, is a nearly absolute barrier to him in both directions; he is equally word-blind, word-deaf, and aphasic. But he is not in the least in a difficulty about reading or writing a number, provided only the Arabic symbol, and not the word, is made the medium of communication.[4]

I am very far from supposing that anything I could say at present would throw much light on the state of mind of the aphasic; and I have always regarded this as a nearly inscrutable mystery. But I think we ought to be able to give an opinion, in some cases, as to whether an aphasic is to be considered as technically insane, or, if otherwise, in what sense sound in mind. My own opinion has been that, in a case of recent aphasia, or even one of some standing, in an adult, who has grown to the full development of his powers through the ordinary use of language, there need not necessarily be any presumption against sanity, although there may be great difficulty in getting valid evidence as to the actual state and legal capacity of the mind for particular acts (as making a will, etc.). But when we come to the case of aphasia in very early life, or of congenital aphasia (if such cases exist), I fear it must be admitted that a marked deficiency in the power of acquiring language would be almost a fatal bar to any considerable intellectual development, and that such individuals, stunted in growth as regards this one faculty, even if no other were primarily involved, must necessarily grow up deficient in most of those higher elements of mind that are distinctive of humanity—in other words, more or less imbecile or idiotic. But my object at present is to raise these questions for discussion, not to answer them; and with these remarks, therefore, I will leave them in the hands of the meeting.

Dr. HUGHLINGS JACKSON (London) said that one thing which interested him very much in cases of aphasia was that they exemplified Dissolution, using this term as the opposite of Evolution. In a case of complete ordinary aphasia, dissolution was seen in the loss of intellectual language, with the persistence of emotional language. It was seen in the frequent retention of the words "yes" and "no"

[4] This patient was afterwards produced being placed in Dr. Davidson's ward in the Liverpool Royal Infirmary, during the meeting, and intimation of the fact made in the Daily Journal.

only, propositions of the deepest generality, standing on the borderground of intellectual and emotional language. Adverting to the retention of such complex and particular utterances as "Come on to me"—seemingly exceptional to the principle of dissolution—he had no explanation to offer of them, but suggested the hypothesis that they were owing to the circumstances of the patient when taken ill. He mentioned four cases in illustration. A man who had the recurring utterance, "Come on to me," was a signalman, and was taken ill when on the line in front of his box. Other cases were mentioned, in which there was no evidence as to circumstances likely to give rise to the particular recurring utterances which the patients had. Referring to cases of incomplete aphasia, he mentioned that Dr. Gairdner had pointed out that a patient might get out a proper reply to a question, and then go on uttering it in irrelevant rejoinder to several further questions. Using the term which Dr. Gairdner had used for the phenomenon mentioned, the recurring utterances of the completely and permanently aphasic were examples of persisting "barrel-organism." They might be called examples of "verbal monomania." Allied phenomena were found in connection with some cases of coma (Abercrombie); in some cases of dreamy states at the onset of certain epileptic seizures (Falret); a man who began to count after every one of his epileptic fits, had his first fit when a soldier, and whilst "numbering off." The hypothesis might be applied, not to the explanation, but as a means of investigating ordinary cases of monomania. Returning to cases of complete aphasia, he urged that a still more important exemplification of dissolution was the retention of the more automatic service of words, by which (except in the rare cases of word-deafness described by Dr. Broadbent) the speechless man understood what was said to him. Dr. Hughlings Jackson held that the right half of the brain was that for the most automatic nervous arrangements for words, and the left for the least automatic; the term least automatic being, he considered, rigidly equivalent to what is called most voluntary. He further illustrated the subject by cases of incomplete aphasia, expressing the opinion that the disease was not answerable for the wrong utterances, but that these occurred during activity of the speech-nervous arrangements left intact. The disease caused the dissolution, and was answerable for what the patient did not say; whilst the wrong utterances, however bad they were, were the "survival of the fittest" on the lower, but *then* highest, level of evolution remaining; just as normal speech was such a survival on the normal highest level in healthy people. He believed that, when the aphasic uttered a wrong word, the so-called right word was revived also—that there was "verbal diplopia," giving rise to "mental diplopia," as in the case of a pun in healthy people. One advantage in studying cases of aphasia as examples of dissolution was, that we could, by so doing, trace their relations to other superficially very different cases of diseases of the nervous system. He believed that dissolution was seen in ordinary cases of progressive muscular atrophy, in cases of hemiplegia, of aphasia, and insanity, there being in each a reduction from the special towards the general. To see this fundamental community, we had to distinguish the mental loss, in cases of aphasia and insanity, from the correlative physical loss. He believed that, correlative with the loss of speech, there was loss of highly special and complex articulatory movements, although there was no, or very little, paralysis of articulatory muscles. The seeming discrepancy was accounted for by Dr. Broadbent's hypothesis, one of inestimable value in the investigation of many different nervous diseases. This hypothesis was to be judged of not only from the effects of unilateral destructive lesions, causing no notable paralysis of the articulatory muscles of either side, but also from the effects of unilateral discharges causing convulsion of the articulatory muscles of both sides, and further, from the effects of bilateral destructive lesions causing some paralysis of the articulatory muscles of both sides. Dr. Hughlings Jackson believed that hemiopia was often overlooked in cases of aphasia; in all the cases he had seen thus complicated, the blind half-fields were on the right. Hemiopia of this kind in itself, even when owing to central disease, did not prevent a patient from reading. In cases of "word-blindness," such as had been described by Dr. Broadbent, to whom Dr. Hughlings Jackson was indebted for his knowledge of that symptomatic condition, hemiopia had been found (Westphal and Charcot). Dr. Hughlings Jackson mentioned three such cases. It was to be observed that optic neuritis might add nothing to a hemiopic defect of sight, and when the two things coexisted, any inability to read was not to be hastily ascribed to either of them, or to both of them; there might be the very different thing, "word-blindness," without any defect of sight in the left field. He mentioned one case in which there was hemiopia (right field) and double optic neuritis. In this case, the optic neuritis had caused no defect of sight; the visual acuteness in the left field was perfect, but the patient had great difficulty in reading, on account of "word-blindness."

Dr. BROADBENT (London) began by considering a question of Professor Gairdner's, as to the condition of a patient in whom the third left frontal convolution was missing. He had had no *post mortem* evidence, but he had seen a boy who was perfectly aphasic from birth, and in whom there was a deficient development of the left frontal region. He was not an idiot, however; he understood language, could be sent errands, and would bring the proper object and the right change, but could not say a single word. His appearance and behaviour reminded him of an extremely intelligent dog. He then referred to the analysis of language in Professor Gairdner's preliminary remarks, as leading up to what he wished to say on the subject. There was a further analysis than that which divided language into rational and degraded or automatic. There was an entire difference between nouns and all other parts of speech, which was recognised by the old grammarians, and was brought out by disease. Nouns or names were the subject of thought; all other parts of speech were the mere setting in which nouns were placed. Now, these were examples of affection of speech in which the only defect was the impossibility of saying a noun. One asked such a patient, "How are you to-day?" and he would answer generally, "I am very well indeed, thank you;" but if he were asked where he had pain, he would perhaps say, "Yes, in the——." He failed entirely to name the part, and, in the course of a long conversation, would be unable to utter a single noun. Coming, now, to what he specially wished to say, he thought that the term aphasia had begun to do harm. Observers looked upon aphasia as a type, and studied its varieties, instead of fixing their attention on the cell and fibre mechanism of speech and thought. The term paraphasia, which had been employed, meant confusion in more senses than one. In speech, as in all motor processes, there was a sensory as well as a motor side; and here, as in movements generally, the sensory was the more important of the two. It was by grouping of cells on the sensory side of the nervous apparatus that automatic movements were organised, and when this regulating group was damaged, the motor expression suffered. Dr. Broadbent's own idea of the cerebral mechanism by which words were formed was, that there was a perception-centre for each sense, in which the perception or recognition of the external cause of sensations was elaborated. "Naming" was a further intellectual elaboration; it was, to quote Professor Gairdner, "a process of generalisation;" his interpretation of which was, that perceptions from each perception-centre converged to a common centre, in which the perceptions were combined to form a complete idea of the object, the auditory perception associated with it being the name. This might be called the naming centre. Now, by reference to this mechanism, the cases of so-called word-blindness and word-deafness could be understood. But he objected to the terms word-blindness and word-deafness as both inexact and imperfect. He would relate the case which had been alluded to. This was that of a man who could converse fluently and intelligently without mistakes of any kind; but, if an object were held up, and he were asked to name it, he failed absolutely. He could not name such familiar objects as a coat and hat; but if it were said of a hat "That is a coat, is it not?" he would answer at once, "No, but that is," pointing out the hat. He could write either out of his own head or from dictation, but when he had written it he could not read it. It was clear that the word-blindness was only a part of a general loss of the power of naming objects at sight. The explanation of such a case was, that the part from the visual perception-centre to the naming centre was destroyed; and it was interesting to remark that the lesion found after death implicated the left angular gyrus, insulating it from all other parts. The same thing might happen to the conducting fibres between the auditory perception-centre and the naming centre, giving rise to so-called word-deafness; and Dr. Ross had brought to the meeting an extremely interesting case, in which there was partial breach of communication of both visual and auditory perception-centres with the naming centre. The naming centre, however, might itself be damaged or destroyed; and he had published a case in which he believed this to have occurred. The patient did not understand a single word said to him, and his speech was perfect gibberish. Here, also, a *post mortem* examination had been obtained, and the lesion was entirely behind the fissure of Rolando. The third left frontal convolution was untouched, and its communications with the central ganglion unaffected. It was interesting to remark that, both in this case and in the case in which the patient was unable to name anything at sight, the lesion was in the left hemisphere; so that the exclusive employment of the left

half of the brain in intellectual expression involved the special education of this hemisphere in the process of naming. In the cases, again, in which there was loss of nouns only, the evidences of lesion were in the left hemisphere only. Now, in most cases of loss of speech in the common forms of aphasia, the lesion was on the motor side of the cell and fibre apparatus concerned in speech and thought; it was the way out for words—to employ a phrase of Dr. Hughlings Jackson—which was damaged. But the amount of damage varied in different cases, and with this varied the affection of speech and of the mental faculties. He had been greatly interested in the evidence which Dr. Gairdner had mentioned on two points in which he differed from Dr. Hughlings Jackson. One was as to the possibility of a mental rehearsal of a phrase by a patient who was utterly unable to speak; the possibility of actual words being present to the mind when they could not be uttered. He believed that such mental rehearsal existed in some cases. The other was as to the power of speechless persons to understand what they read. It seemed to him that the cases of Sir W. Lawrence and Lord Denman were conclusive on both these questions as regarded themselves; of course, there were other cases to which these conclusions would not apply. Besides, however, these cases in which the way out was broken up, there were others in which the lesion was on the sensory side of the apparatus; and these afforded some of the most interesting examples of affections of speech by disease of the brain. He would not further refer to these, however, but would conclude by reminding Dr. Gairdner of cases which they had discussed, in which, with complete loss of speech for all other purposes, there was associated remarkable power of saying numbers. The patient could count up to twenty or more, and would at once give accurately the number of shillings shown to him, either by speech or writing, and in some cases the number would drag after it the word shillings. A man who could, under no other circumstances, say the word shillings, would say it after the number two or three.

Dr. CLIFFORD ALLBUTT (Leeds) urged the danger of approaching aphasia from the mental or spiritual side, *i.e.*, *incertum per incertius*. He thought it more fruitful to approach it from the physical side, and to realise the degree in which speech was a reflex act. A noun was a conventional movement, which, partly by heredity and partly by habit, was aroused by impact of an object upon the periphery. The relation between contemplative intelligence and speech was far from direct; on the contrary, speech was no doubt largely automatic, and might, like walking, be carried on without the intervention of centres higher than the speech-centre. To talk of amnesic aphasia was, therefore, like talking of amnesic paraplegia in cases where the paralytic had also lost the mental powers which should direct his steps if he could walk. Dr. Clifford Allbutt had, like Dr. Broadbent, seen cases of voluble gibberish in which the speech-centre, to use Dr. Gairdner's words, ran down like a clock from which the escapement had been removed or injured. Dr. Broadbent's patient who could not remember the word shilling, but who uttered "three shillings" when three were shown to him, showed the automatic nature of speech. By looking at speech as a conventional muscular act largely automatic, and originally called forth as a reflex of peripheric impressions, we could understand how in health the afferent impressions might enter by all channels, and that efferent movements might issue by any channel, such as gesture, pen or voice, or how in disease some of these channels might be closed, inward and outward, or all of them. Or finally the speech-centre might be severed from the rest of the cerebrum. Dr. Clifford Allbutt had often seen aphasics in full possession of the rest of their faculties, but thought that in aphasia there was a special tendency to loss of emotional control.

Dr. W. W. IRELAND (Prestonpans) thought that the faculty of speech was of such importance in mental operations, that any damage to its exercise had a tendency to weaken the mind. Words supported thought; and where the words failed, or could not be recalled, thought, in the end, lost its exactness. He was inclined to believe that almost all aphasics were weakened in mind. Dr. Gairdner had put the case of a child, born without the third frontal convolution, or other parts necessary to articulate speech. A being so deprived, living alone and unaided, might evolve its faculties in a way showing a high intellect; but this was a mere speculation. It was not man alone, but men working together, that did great things; and this was accomplished by means of speech. The child of whom Dr. Broadbent spoke, who could not speak, might not be a pure idiot; but he must have been imbecile. Dr. Broadbent said that he had the intelligence of a clever dog; well, this degree in a human being was no higher than imbecility. He (Dr. Ireland) had seen many aphasic children. They were all more or less imbecile. Some imbeciles could speak with a small stock of ideas; others, who had a great many more ideas, and could understand a great deal of what was said to them, nevertheless could not speak. If we were to have "naming centres," we must have two centres; one for receiving heard words, the other for imitating the motor process of articulation. He found that in effect it was not enough to have a few ideas, such as the recognition of a common quality to ink, black dress, and a black coat, for a child, normal or imbecile, to commence to speak. There must be a considerable accumulation of thoughts. Speech was an endowment peculiar to a high intellect. This was the reason why animals could not speak or use similar means of communication. Their intellect, though the same in kind as ours, was so inferior in degree that they never arrived at such maturity of thought as to fit them to begin language.

Dr. DRUMMOND (Newcastle-on-Tyne) would make a few remarks upon the subject under discussion. Much had been written upon the subject; and the physician-philosophers had, apparently as with the hands of an iconoclast, swept away the sweetly simple image which in his student days bore the name of aphasia. Some writers had endeavoured to divorce amnesia from aphasia; and he trusted it would be decided, to-day, whether or not such a separation was scientific. He thought it was not. He preferred yet to consider that aphasia included amnesia. It used to be held that there were two types of aphasia; the ataxic and the amnesic. The first might be said to be more physiological and mechanical than psychological, and was evidenced by an inability on the part of the patient to speak, because he could not translate mental into physical speech. In other words, in this impairment, the incitations to the muscular acts engaged in articulate language, emanating from those mental receptive and reproductive centres, were blocked in another centre (Broca's convolution), whose function was to co-ordinate these complex mental actions involved in the intelligent expression of words or propositions. In amnesic aphasia, on the other hand, the defect was more intellectual than physical, and it precluded the patient from receiving and reproducing the verbal equivalents of things or ideas on account of damage to those centres which were purely mnemonic in relation to speech. In his opinion, patients whose impairment was purely ataxic, were scarcely ever met with. They nearly all displayed some mnemonic defect, and were therefore more or less amnesic; in fact, it was almost impossible from the nature of things to affirm that a patient who could not speak, who was aphasic, was not amnesic. With reference to the mental state of the aphasic, in Dr. Drummond's opinion, it could not be said to be intellectually intact. A patient with aphasia came to him recently, whose defect consisted principally in forgetting names of places, and who was considered by his friends as mentally intact; nor could he detect any impairment in this direction; but in his business-relations he was considered unreliable.

Dr. JAMES ROSS (Manchester) thought it was much better to retain the old division of ataxic aphasia and amnesic aphasia, but would prefer to call them motor aphasia and sensory aphasia. Motor aphasia was really of a paralytic nature, the special movements of articulation and vocalisation being paralysed and the general retained. This opinion was proved by the fact recorded by Dr. Barlow, in which a bilateral lesion of the third frontal convolution had produced paralysis of the muscles of the general movements of the mouth, tongue, and jaws, as well as of the special movements of them which were alone engaged in speech. Correlative facts with regard to sensory aphasia had been recorded recently by Wernicke and Dr. Shaw of Brooklyn with regard to sensory aphasia. In Wernicke's case, the patient became the subject of word-deafness after a slight apoplectic seizure, and completely deaf after a second seizure; and at the necropsy, the first and second temporo-sphenoidal convolutions were found softened on both sides. In Dr. Shaw's case, the patient became blind, deaf, and aphasic, and at the necropsy the angular gyri and superior temporal sphenoidal convolutions were found atrophied in both hemispheres.

Mr. G. A. WOODS (Southport) said that the definitions of aphasia were numerous; for instance, *(a)* the loss of intelligent expression; *(b)* the loss of speech, but not of words; *(c)* impairment or loss of speech. He had endeavoured, with some difficulty, to define aphasia as loss of ideal perception, but not of utterance; or, better, loss of faculty of generating, or, after generating, mentally assimilating words to correctly represent intelligent expression. He divided aphasia into two classes for practical purposes: 1, aphasia permanent, more or less—disease; 2, aphasia temporary—disorder. In the first class, viz., that from disease, the patient had in some way suffered the loss of the nervous arrangement which had been

trained in the production of intelligent expression, but retained his will to speak. He had usually the power of utterance, but his utterances were either mistakes in words or ataxy of articulation. In the second class, viz., that from disorder, the patient retained the nervous arrangement necessary for the production of speech, but from certain causes had lost the will to put this arrangement into action, and so long as this condition lasted there was a total non-utterance of words—disorder. For instance, in migraine aphasia was sometimes noted. This he believed to be caused through vaso-motor influence causing contraction of cerebral vessels, and so rendering certain portions of the cerebral cortex anæmic. In epilepsy it was sometimes seen, and it was usually preceded by twitchings about the mouth, face, and hands; and he believed it questionable which of the two factors caused the inhibition, whether epilepsy or contraction of vessels from vaso-motor supremacy. These two states, disease or disorder, might be formulated thus. One could will to but could not speak from breach of continuity of nervous tissue when, in the majority of cases, the paralysis was on the right side. The other could not will, therefore could not speak, from loss of will when the paralysis or paresis was on the left side. To condense further: one had tissue-loss of either in-coming or out-going currents; the other loss of will. Subjective speech, or thought, and objective speech, or intellectual expression, must both be the resultants of cerebral molecular change. Taking into consideration both cerebral hemispheres, one might be led to believe, and, he thought, with some truth, that the portion of the right hemisphere, viz., the third frontal convolution in the island of Reil, through an impression transmitted through the auditory centre to the kinæsthetic word-centre, would arouse in the centre certain nerve-cells, the result being the formation of words, but only in "embryo." To be perfectly developed, these words were transmitted by commissural fibres to the left third frontal convolution, where they were further developed or intellectualised into subjective speech, or thought, whence they were transmitted by outgoing fibres to the lower ganglion, viz., the left corpus striatum, and ultimately became, by the aid of the muscular force of articulation, transformed into objective speech, or intelligent expression. There thus was a cycle of change: through the auditory centre, beginning by sound, ending by speech or sound; through the visual centre, beginning by sight, ending by writing—noiseless. A practical point was that, in paralysis with aphasia, if the leg were more paralysed than the arm, the aphasia was always less; and Dr. Bastian pointed out that the intellectual impairment was usually increased if the lesion of the left hemisphere receded in site from the third frontal convolution and approached the occipital lobes. He had especially noted this in a case of his own.

Mr. ARCHIBALD CAMERON (Liverpool) commented on the tendency of aphasia to appear in near relations, and on the fact which, he thought, would be shown, that aphasia might be, and often was, present without any tendency to agraphia; and, on the other hand, that agraphia might be present without aphasia. He brought forward some cases in support of these points. The first had been under his observation for some years. A C., a man aged 67, thirty years ago had an attack of fever, called by the medical man typhus, but he believed it was of a rheumatic character. After recovery from this, paralysis of the lower limbs came on. He had repeated attacks for three years, and was in the Liverpool Royal Infirmary twenty-six years ago. Two years afterwards the speech was affected, first for four days, then for nine days. He entirely lost his speech during these attacks, but could write, and his intellect was clear. He had not had loss of speech for some years, but had had repeated attacks of paraplegia. His own description was that the attacks came on when he was recovering from cold. The first symptom was a nervous feeling in the hands, and afterwards the legs became affected, and there was a difficulty of passing urine. When the urine was free, he was less likely to have paralytic symptoms. Trouble and anxiety might bring on paraplegia. The man stated that he never had any venereal affection. The urine was healthy and, when Mr. Cameron examined it, of specific gravity 1009. This was when he was recovering from an attack. Mr. Cameron was inclined to think that the paraplegic attacks were of a rheumatic character. The man had a daughter aged 32, of somewhat weak intellect and feeble bodily health. She had, on several occasions, lost her speech for varying intervals. On one occasion, after her mother's death, for nearly ten months she was troubled with round worms, which she occasionally vomited. There was always a hesitancy about her speech, and she had a dull stupid expression of countenance. As further showing the tendency to aphasia in near relations, he mentioned the following case, where several members of the same family were affected. The parents were apparently healthy, and in no way related. The two eldest children were not defective, but the third, now aged ten, would only speak odd words at times, and seemed as if she could not connect her sentences, or put words properly into sentences. She had whooping-cough at the age of from five to seven months, and afterwards, at intervals, suffered from fits. She was undersized, but could read and write. Her sister, aged 9, could read and write, but spoke much as the elder one. Another child, aged 7, had bow-legs and was undersized; she spoke much as the others, but her mother thought it was due to shyness, and her habit of emulating the others. The mistress of the school in which they had all been for some years, was not of this opinion. They had all been carefully trained in a board-school, and could read, write, and do sums, a striking illustration of the fact that agraphia and aphasia were in no way necessarily connected. The parents had lost several children in infancy; and it was worthy of note, that the three children affected with aphasia had rather a vacant look, with large development of the lower part of the face. In further confirmation of the fact that agraphia and aphasia were not necessarily connected, Mr. Cameron referred to the case of a lady about 40 years of age, who suffered from a complication of anomalous nervous symptoms, one of the most prominent of which was a loss of the power of writing; but here there was never, in her case, any tendency to aphasia. Facility in speaking and in writing seldom co-existed in the same individual, and fatigue was usually much sooner shown in one faculty than in the other.

Mr. T. MARK HOVELL (London) called attention to the following case. W. S. G., a telegraph-clerk, employed at the General Post-office, London, left his home at the usual time on Monday morning, April 2nd, 1883, but did not return until past midnight on Tuesday, when he came in appearing much exhausted, and so weak that he could hardly eat a thin slice of bread and butter that was given to him. He related in a weak voice what had occurred to him. There were marks on his temples and wrists, such as would be produced by their being tightly tied. The next morning (April 4th), he was unable to speak, and appeared upset at the loss of his voice, which did not return until Saturday, April 14th, when, whilst eating an orange, some of it went the wrong way, and caused him to cough violently for some minutes, immediately after which his voice returned. During the time that he was unable to speak, he readily wrote the answers to questions that were put to him. He stated that, as he was leaving the Broad Street Station on the Monday morning, a man came up to him and inquired if he was W. G., and, on his replying in the affirmative, said that a friend of his had just come from America and brought some news from his (G.'s) brother, but as his friend had experienced a rough passage he was unable to leave the house, and therefore wanted G. to go to him. As G. was walking along a court with the man on his way to the house, his eyes were suddenly bandaged from behind, he attempted to snatch the bandage off, and then found that it was covered with a shade similar to that worn by people with weak eyes. On his remonstrating with them, for there were now two men; something, which he thought was the muzzle of a pistol, was put against his forehead, and he was told that he was only wanted to answer a few questions, and would soon be released, but if he made the least outcry or attempted to escape they would not answer for his life. He was taken to a house and questioned by men as to the number of police on duty at the Post-office, the position of the engine-room, etc. He was then bound, with his hands behind him, and one of the men remained in the room until the evening, when he was taken to a cart, and made to lie down on the bottom, and then driven a considerable distance. He was taken to another house, and again questioned by more men, after which he was again threatened, and then thrust into another room, where he remained until Tuesday evening. He was then taken to a cart and made to lie down as before, and after being driven some distance, he was put over the back of the cart, and, as his knuckles were knocked, he was obliged to let go his hold of the cart, and in consequence fell in the road. When he recovered himself and removed the bandage, which had been tied very tightly, from his eyes, the men were out of sight. He walked home, a distance of about ten miles, and reached there in the condition before mentioned. He had nothing to eat or drink between the time of leaving home on Monday and reaching it again on Tuesday night. On April 11th, Mr. Hovell examined him with a laryngoscope; the vocal cords moved evenly and met in the middle line, but they appeared to lack proper tension. His pulse was feeble. The sudden death of his father, a few months before, had materially altered his prospects in life, and the state of his health had in consequence been depressed. Although W. G.'s statement was an unusual

one, it must not be forgotten that he had always borne a good character, and his landlady stated that during the time he had lodged with her, nearly four years, she had always found him to be steady and particular as to his time of coming home. Treatment such as he described was sufficient to produce emotional aphasia; and Mr. Hovell considered that his speaking, although in a feeble voice, on his return home, and the complete loss of voice not appearing until the following morning was in favour of the condition being real, and the restoration of his speech after a violent fit of coughing supported the view that it was not wilfully suppressed. A severe fit of coughing brought on by a foreign body in the larynx would stimulate the muscles to violent exertion, and produce an effect similar to that caused by the application of a current of electricity. Even if W. G.'s statement had been disproved, it would not follow that the dumbness was feigned; the cause was one thing, the effect another. W. G. had been dismissed from the Post-office service, and informed that the authorities had come to the conclusion that his statement was a wilful concoction to cover absence from duty, and that it was the opinion of the medical officer to the Post-office that his dumbness was feigned. Not only, therefore, had his employment been taken away, but he had been branded with falsehood and deceit.

Dr. ALTHAUS, Dr. WAHLTUCH, Dr. DRYSDALE, and Dr. GLYNN also made remarks.

Dr. GAIRDNER, in reply, said that perhaps it would be best for him to allude first to the points last brought up in discussion, and on which a special appeal had been made to him. The case of Lord Denman, and not a few other cases, appeared to show that aphasics might retain all the affections, emotions, and intellectual activities of the state of health, in so far at least as their limited faculties of expression allowed us to judge of what was passing within. But this judgment was necessarily difficult and uncertain; and we were not in a position to declare, as to any individual aphasic, that he was or was not in possession of all his faculties, except the one most obviously lost. Dr. Broadbent's idea, that a congenital aphasic, otherwise sound, would grow up much like a highly intelligent dog, was not very far from his (Dr. Gairdner's); but it was difficult to be sure that one had witnessed such a case. On the whole, the position he would be inclined to take in a court of law, with reference to aphasics, would be to avoid, as much as possible, being drawn into general discussions, but to entertain the question as one of evidence, whether in the particular case there were available facts, amounting to a presumption of so much mental capacity as to carry the legal inference required. There could be no doubt, for instance, that aphasics would for the most part be responsible in cases of crime. Whether they would be able, in law, to assent to or emit a deed, would depend altogether on the amount of proof that could be obtained as to their being capable of understanding its contents; and this would be difficult, though perhaps not altogether impossible, to obtain in most cases. Dr. Gairdner agreed with some of the speakers, that the division into amnesic and ataxic aphasia was not a satisfactory one; but, in the meantime, all classifications must be taken as provisional, and, in this sense, as mere indications of clinical facts. He by no means objected to the terms "word-deafness," or "word-blindness," but thought them very inconvenient. He was afraid it was impossible to give an opinion with any confidence on the intricate questions of evidence involved in the case narrated by Mr. Hovell.

ON SOME POSTEPILEPTIC PHENOMENA.

Read in the Section of Medicine at the Annual Meeting of the British Medical Association at Liverpool, August, 1883.

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IN this communication, I wish to draw attention to certain either acute or chronic alterations of the mental faculties which have fallen under my notice, as direct consequences of epileptic attacks. I shall purposely exclude, in discussing this matter, any cases in which epileptiform seizures took place in consequence of gross organic lesions, such as tumour of the brain, chronic inflammation of the membranes and the grey surface of that organ, blood-poisoning of various kinds, and other diseases in which the convulsive paroxysms were only one symptom amongst many others; and I shall confine myself strictly to the consideration of those cases in which epilepsy occurred as a true neurosis, that still mysterious and unexplained functional disease of the grey matter of the brain, which is possibly owing to some kind of imperfect nutrition, but certainly not to any such structural alterations as would reveal themselves to our present means of research.

The paper is based on an analysis of the cases of 250 epileptic patients which have been under my care, in private and hospital practice, during a period of six years. Amongst these cases there were 89, or 35.6 per cent., in which no perceptible temporary or permanent alteration in the mental condition, which could be ascribed to the epilepsy, was to be ascertained; while in 161 cases, or 64.4 per cent., such alterations did occur. Of the 89 cases which escaped mental deterioration, 61, or 68.5 per cent., were instances of nocturnal epilepsy, while in 28, or 31.4 per cent., attacks took place in the daytime. All, however, which escaped were cases of typical convulsive attacks; while, in all cases of loss of consciousness without convulsion, or *petit mal*, and epileptic vertigo or automatism, a more or less permanent mental alteration was induced. Amongst the 161 cases which were followed by mind-affection, there were:

123 cases (or 76.5 per cent.) of typical convulsive attacks;
26 ,, (or 16.1 per cent.) of *petit mal;* and
12 ,, (or 7.4 per cent.) of epileptic automatism.

Amongst these patients there were 91 males, or 56.5 per cent., and 70 females, or 43.5 per cent. The ages of the whole series varied from 5 to 62; and when these were distributed over decades, it appeared that the decade from 5 to 15 was at the bottom of the list with 10.5 per cent.; while that between 15 and 25 headed the list with 24 per cent., the other decades being very nearly even, with a medium of about 16 per cent. The hereditary influence was marked in 66 cases, or 40.9 per cent. The nature of other predisposing or exciting causes, as far as they could be ascertained, did not appear to have exerted any special influence, since they were much of the same kind as in those cases in which the mind was not affected. I will, in passing, remark, that I have excluded from the present considerations those cases which were apparently owing to injury to the head, syphilis, and masturbation, as these are of a complex character, and will be subsequently considered.

The cases, therefore, which form the groundwork of this paper, are only such where epilepsy was the primary event, and where some mental disturbance was observed subsequently to, and as a direct consequence of, the attacks. There are two forms of this disturbance; viz., an acute one, where mental symptoms occur soon after attacks, and disappear again after a certain time; and a chronic form, in which there is a gradual and permanent loss of mental power consequent upon attacks.

The characteristic feature of the acute form of postepileptic mental affection is its periodicity. Identical, or at least highly similar, symptoms are seen to occur year after year, and gradually become intensified, unless they be checked by active treatment. They do not always occur immediately after attacks, but occasionally a day or two afterwards, and last a variable time, but rarely longer than a week. After such an attack is over, the patient has mostly no recollection whatever of what has occurred.

I will now relate as briefly as possible the particulars of a case which was some time ago under my care, and which I consider well suited to illustrate this pathological condition.

An unmarried lady, aged 57, had for three years suffered from epileptic seizures when she came under my care. No cause could be assigned for this illness. There was no neurotic tendency in her family; she had lost her catamenia ten years before, without any trouble; her general health had been good, and her life comparatively uneventful, although well employed. She had had no anxiety, and her habits had always been regular and temperate. From the first, the disease had followed such a regular course that it was possible to predict, with a great degree of accuracy, the time when attacks would take place, and what would be their consequences; and this course had not been influenced by the treatment which the patient had undergone.

The usual sequence of events was as follows. Having gone to bed as usual, and slept the first part of the night, she has, generally between 3 and 5 A.M., a sort of convulsive munching and swallowing in the mouth and throat, which lasts one or two minutes, and which is accompanied by a rolling or rumbling noise in the stomach. There is rhythmic action of the muscles of mastication and deglutition, as one sees it in the ruminating of sheep. After this munching and swallowing is over, she relapses into a quiet sleep, from which she awakes in half an hour or so, in a bewildered state of mind, asking what day it is, what o'clock it is, over and over again, and being quite incapable of collecting her thoughts. Her attendants then give her some medicine, which she swallows, and then goes to sleep again, awakes in a few hours for good, quite herself again, and has not the slightest recollection of anything that has occurred. Such attacks are followed by a slight but perceptible loss of memory, and occur generally at intervals of from ten to twelve days.

Sometimes, however, there are two or three such attacks in one night.

More severe attacks take place every four to six weeks. These also begin with munching and swallowing; but then she does not awake at all, but lies, with her eyes wide open, quite unconscious for hours. After a time, a tremulous motion of the whole body is observed, and a half-suppressed noise in the throat. The tremor soon becomes intensified into convulsion; the head turns round to the left side; a moaning sound is produced, the eyes are turned upwards; and this convulsion, which is at first tonic and afterwards clonic, lasts from three to ten, twenty, and even twenty-five minutes. The head then gradually turns back, and the eyes close; and a sort of heavy puffing comes on, with a slight flow of saliva from the mouth, the face being a good deal flushed. The tongue is not bitten, which is perhaps accounted for by the patient having lost all her teeth, and wearing a set of artificial ones, which is habitually removed at bedtime. The excretions are not passed into bed.

Sometimes there is only one such great convulsive attack, but she has had two, three, and even five, in succession, in the same night. After the convulsion she falls into a deep sleep of some hours, then awakes for an instant, opens her eyes, complains of violent headache, and again becomes comatose. She awakes again after a few hours, complains of her head, and sometimes recognises those about her, while at other times she takes no notice whatever. Towards evening of such a day, however, she becomes wakeful, conscious, and collected, and then falls into a sound natural sleep, which generally lasts till morning.

The second day she complains of pains all over, and, although remaining in bed, gets no sleep all that day, nor the following night, and she then becomes very restless, feverish, and delirious; the pulse is 120, and sometimes 140; the temperature is 102°; she hears voices and sounds; the screaming and screeching which is going on all around her is, she says, dreadful; she sees terrible visions, and talks incessantly and quite incoherently, in a highly pitched voice, repeating constantly religious hymns, which is the only thing that gives her comfort. This goes on for two or three or more days and nights, until sleep ensues, and the mind then gradually recovers its tone; and in a few days she appears as well as ever, until another great convulsive attack comes on, when the same phenomena are repeated.

Since the commencement of her illness the patient has been subject to the delusion that a cock, in a yard adjoining her house, was speaking to her, repeating constantly the name of her medical attendant, Dr. A. The bird was ultimately removed, at the particular request of the patient's friends; and on returning home from a journey, she immediately missed it, and said she thought it must have died. This cock was an only one, in one yard; in another yard close by, there were others, but they did not affect her at all. The patient's friends were quite unconscious of any difference of sound between the crowing of any of them. After some months had passed, the offending bird was, unknown to the patient and her friends, brought back, and was immediately detected by the patient as always calling out Dr. A.'s name and other things. Soon after this, they came to London to place the patient under my care; and although they occasionally heard cocks crowing there, she did not mind them at all. When she returned home, the offender had again been removed; there were, however, others which were very noisy, and disturbed the patient's friends a good deal; but she slept so well herself that she did not notice them. As her sleep, however, lessened, she began to notice them, about the same time complaining of her head. She said that these cocks were all saying: "just going away by the railway, away, away;" wondered that her friends did not hear them distinctly say so, and felt sure that they were taught by the school-children as they passed by, for their amusement.

The patient never had any recollection, after recovering from the attacks, that anything unusual had taken place. She sometimes refused to take medicine, insisting that there was nothing the matter with her. When a medical man was consulted, she said that her friends were deceiving him, that she was quite well, and it was extraordinary that they should always think her ill.

Another peculiar symptom in this patient, which, however, occurred only off and on, was a dream of some horrible smell, three or four nights before a great convulsive attack would come on. On waking in the morning, she would ask her attendants why they had put such a horribly smelling ointment into her hair; she had dreamt the whole night of it; she was smelling it now; and for the next few hours was constantly sniffing, and complaining of other bad smells in the house, which did not exist; then she would cease to mention the subject, and three or four days afterwards a great attack would come on.

This patient remained for a considerable time under my care, and eventually recovered to a very great extent from her illness. I found that the postepileptic delirium, which constituted the most alarming feature of the case, more especially as it was gradually becoming more severe and prolonged, was quite, or very nearly, uninfluenced by sedatives, of which I used morphia, atropia, henbane, cannabis Indica, and hydrocyanic acid; but that it yielded almost at once, and like a charm, to full doses of quinine. When I first used this latter drug, the delirium had lasted for five days, and showed symptoms of aggravation rather than abatement as time went on. The first dose of four grains of quinine, dissolved in hydrochloric acid, diminished the "screeching," of which she had chiefly complained, very considerably; after a second dose, she heard some voices quite at a distance, but not so as to alarm her; after a third dose, all delusions had vanished, and she was perfectly quiet and rational. Having ascertained this, I ordered quinine, during the further progress of the case, to be taken the first day after a great attack, so as to prevent the occurrence of delirium; and the drug proved equally efficacious as a preventive as it had done as a curative. The patient is still alive, and has never since had further attacks of postepileptic delirium.

The epilepsy itself proved more troublesome, but yielded ultimately almost entirely to treatment, in which hyoscyamus, atropia, and bromide of potassium played the principal part. The patient has for years been free from munching and swallowing, as well as from great attacks; but, when discontinuing certain medicines altogether, has had occasional relapses, which have again yielded when the treatment was resumed.

An interesting symptom in this case was the character of the smaller attacks. It has lately been asserted that the epileptic discharge never, or hardly ever, originates in the medulla oblongata, but always in the grey matter of the hemispheres. The case which I have just related shows that it may commence in the medulla oblongata as well as in any other portion of the brain; for the convulsive munching and swallowing which I have described point clearly to the grey nuclei of the minor portion of the fifth nerve and the pneumogastric, which are situated on the floor of the fourth ventricle, as the principal portion affected. No doubt the higher centres did not escape the pathological influence, as shown by the loss of consciousness, the olfactory aura, and other unmistakable signs; yet it would be pushing a theory to unjustifiable extremes to deny, in the present case, that the grey nuclei in the medulla oblongata were particularly and primarily affected.

Similar attacks of delusions, hallucinations, and religious excitement, with subsequent utter forgetfulness of what had occurred, took place in twenty-two out of the 161 patients, or 13.6 per cent. Mania, with ideas of persecution, was observed in twelve patients, or 7.4 per cent. In them, the prevailing notion was, that secret poisoning was intended, or that murderers were hidden under the bed or behind a door, or prowling about the house. A quiet happy delirium, in which everything was delightful, and the patient had actually entered paradise, occurred in three cases, or 1.8 per cent.

The remaining 124 patients, or 77 per cent., suffered from chronic loss of mental power, and the degrees of this varied from simple deficiency of memory and slight faultiness of judgment, to complete imbecility. The number and severity of fits which took place, appeared to have had no determining influence on this condition. In the most severe case of this malady which has ever been under my care, and in which more than 10,000 well marked epileptic fits had taken place when the patient came under treatment, the mind was, even at the worst stage of the disease, hardly at all affected. The patient made a good recovery, and has now been perfectly well for eighteen years. She is now a lively clever woman, a great conversationalist, with an excellent memory, of whom no one, who was to meet her in society, would imagine that she had successfully stood the ordeal of such an awful complaint.

The chronic form of postepileptic mind-affection, is, in general, equally characteristic and peculiar as the acute form. Sometimes sooner, sometimes later, there is a kind of dulness, stupidity and hebetude, which is betrayed to the observer at the first glance by the vacant and silly facial expression of the patient. He often does not know that he has had an attack; when questioned, he gives no answer, or an inappropriate one. His articulation is generally affected; his memory, for recent events, is impaired, while he still remembers very well things which happened long ago. His temper becomes sullen and morose; and this appears sometimes to come

on spontaneously, while, in other cases, it is evidently the consequence of being at complete variance with his surroundings, and, so to speak, at war with society. The epileptic finds all the avenues of life closed to him. When he has had a fit in an office or a workshop, he is generally discharged from his situation, and finds it difficult, or impossible, to procure another one; he is shut out from most hospitals and convalescent institutions by special regulations, and is a source of terror to his family. The younger members of the family are often withdrawn from intercourse with him, for fear of their becoming infected with the epileptic habit. He therefore considers himself ill-used and unjustly treated, and gives vent to his indignation at the slightest provocation. Feeling himself, as it were, alone in the world, he becomes in turn utterly selfish, and loses all regard for his friends and relations.

This feeling of isolation often makes him turn towards Heaven as the only consolation left to him. The only book which he reads is the Bible, and he seeks, by constant prayer and devotional exercises, to induce Providence to work a miracle in his favour and cure him. There is a deep inner consciousness that he is the subject of a dreadful malady; and this distinguishes postepileptic imbecility from other forms of mental disease, where the patient is quite unaware that there is something the matter with him. Yet he does not like to be considered a fool; and, like the cad who insists that he is a gentleman, or like the inebriated who swears that he is perfectly sober, the epileptic endeavours to impress upon people that his mental faculties are as good as theirs, and he therefore launches out into those endless arguments about trifles, more especially relating to himself, his habits, his diet, etc., which constitute him, even at best, an intolerable companion, and try the patience of his friends and medical attendants to the utmost.

Some time ago I had such a patient under my care who would, if I let him, discourse by the hour on the virtues of Ind, Coope, and Co.'s ale and its superiority, in his case, to porter. This man, although generally stupid, had a good head for figures; and he was improving, not only as far as fits were concerned, but also in his mental peculiarity, when one day he went to take a warm bath in a public establishment, and was soon afterwards found drowned by the bath-attendant, having evidently had a fit while in the water.

Treatment has much influence on this condition. Large doses of the bromides often increase the mental hebetude, indeed, sometimes seem first to produce it. On the other hand, quinine, phosphorus, strychnia, and arsenic, act as tonics to the mental faculties; and, as to the degree of efficiency of these latter remedies, I consider that they rank in the order in which I have just named them.

In many cases, however, more especially in out-patients of hospitals, whose attendance is often irregular, where the treatment cannot therefore be systematically persevered with, and the circumstances at home are unfavourable, things often go from bad to worse. The memory becomes more thoroughly impaired, even for events of the far past; there is an apparent impossibility of receiving new impressions; conversation with the patient is difficult, although he may still write an intelligible letter. Almost to the end, the consciousness of being an outcast, of bodily illness, and of mental deficiency, survives, and poisons the last hours of the unhappy sufferer.

It has been asserted by some observers that the same deterioration of cerebral nutrition which gives rise to the epilepsy, also causes the various mental affections from which so many of these persons suffer. I hope I may have succeeded in the foregoing remarks in showing that such is certainly not the case for a large number of epileptics, in whom the mental affection is truly postparoxysmal. We meet, however, with cases in practice where it is difficult, and sometimes impossible, to speak decisively on this point; and these are chiefly cases where the illness is owing to injury to the head, masturbation, or syphilis.

Injury to the head is not unfrequently mentioned as a cause of epilepsy, although often no trace of such an injury remains. In such cases, it has appeared to me in general most probable that both the epilepsy and the mental affection were owing to a common cause, although attacks are seen to increase mental dulness. Injury to the head often leaves a distinct mark on the intellect from the first, even if not severe enough to break bones or to lead to actual surgical concussion of the brain. There can be little doubt that it impairs the nutrition of the nerve-cells of the grey matter, perverting their energy and diminishing their resistance; and it thus eventually conduces to intellectual decay or perversion, and also to epileptiform seizures. Cases of this kind have purposely been omitted from the present consideration.

I have also excluded cases of epilepsy which were apparently owing to masturbation. With regard to the causative relationship of the two conditions, I can quite corroborate an observation of Dr. Gowers that, in some of these cases, the attacks are more of a hysteroid description, or intermediate between hysteroid and epileptic; but there are also cases of perfectly typical epilepsy, in which no other cause, more especially no inherited neurotic tendency, could be discovered, and where the manner of evolution of the disease left no doubt on my mind that masturbation was the real cause of the complaint. In some of them, there was complete imbecility, but the history of the cases showed that the mind had been greatly clouded before any epileptic seizures took place. The imbecility however, appeared in general deepened after attacks.

I feel convinced that such cases are often treated for years, without either the friends of the patient or the medical attendant being aware of the cause of the complaint. Inquiry is often difficult, and always painful, more especially in girls; and only an accident will sometimes lead us on the right track. Some years ago, I was consulted in the case of a young lady who suffered from several kinds of fits, the slighter ones of which occurred about twenty or twenty-two times a day. It was impossible to discover any cause by the strictest inquiries. Treatment was instituted, but did not prove successful. About a twelvemonth afterwards, I received information from the sister of the patient, who had gone with her on a visit to friends, and on that occasion shared her bed, that the girl was in the habit of masturbating violently every night. The sister then suddenly remembered that, some years ago, she found the patient scores of times shut up in her room, and violently agitating herself, and that she did this even out of doors, as soon as she thought herself unobserved; and that the first epileptic attacks took place about fifteen months after the first such observation had been made. In this case, symptoms of mental hebetude and perverseness certainly preceded the outbreak of the epilepsy. In my male in-patients in the hospital, the nurses have many times drawn my attention to this habit. Circumcision, blistering, and in some instances deep and frequently repeated cauterisation of the glans penis, and in women cauterisation of the clitoris with the solid stick of nitrate of silver, often produce the greatest benefit under these circumstances.

Patients who have had constitutional syphilis, and afterwards epilepsy and mental alteration, have likewise been excluded from the cases which form the groundwork of this paper for similar reasons. The relations of syphilis and epilepsy are not yet well ascertained. It is well known that gummatous tumours and meningitis on a specific base will give rise to epileptiform seizures; but in such cases there are generally so many other symptoms, that they are not likely to be mistaken for idiopathic epilepsy. A short time ago, I was consulted in a case which was believed to be epilepsy, but where I found, besides a history of unilateral epileptiform convulsions, also loss of power in the left side of the body, extreme tenderness on cranial percussion in an area corresponding to the right central convolutions, severe paroxysmal headaches, and optic neuritis. The patient, who had taken bromide ineffectually, recovered almost completely under mercury and iodide of potassium. There are, however, cases in which typical epileptic seizures occur in undoubtedly syphilitic subjects, and may be preceded or followed by mental deterioration. It seems to me rational to assume that, in these cases, both the epilepsy and the mental decay are caused by the effects of the syphilitic poison on the brain; anyhow, I have not been able to satisfy myself that the loss of mental power in them was purely postparoxysmal.

THE TREATMENT OF NÆVI.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

BY WM. MARTIN COATES, F.R.C.S.Eng.,
Senior Surgeon to the Salisbury Infirmary.

HAD I not seen in the agenda of this Section the notice of a paper by Mr. Edmund Owen, on the treatment of large nævi, this communication might not have been presented to your notice to-day.

Having, for many years, given some attention to the cure of the different kinds of nævus, I thought it a good opportunity of making known to you my experience, especially as I think that I have something new to say.

The treatment of superficial venous nævi, found by me to be painless, safe, scarless, and certain, but little known, or, to speak more correctly, almost forgotten, was worked out by the late Dr. Marshall Hall. His object was to excite just so much increased action in the

growth as to cause deposition of lymph and occlusion of its vessels. He, for this purpose, introduced a cataract-needle at about a line from the circumference of the nævus, and passed it from the point of its entrance to the opposite extreme edge of the growth, keeping it in all its course as near as possible to the surface. The needle was then withdrawn almost to its point of entrance, and pushed again through the nævus at about the sixteenth of an inch from the line of the first puncture, and so on until the lines of puncture took a fan-like shape. It is desirable to keep the needle as close as possible to the surface, though, should it penetrate the thin covering of the growth, a piece of adhesive plaister arrests the bleeding immediately.

There is no need of breaking up the structure of the nævus, as has been recommended. The way in which Nature perfects the cure is very beautiful. A small white spot soon makes its appearance in the centre of the growth; this gradually spreads, and there is left in a few months a spot perfectly smooth, and whiter than the surrounding skin. A few months should be allowed to pass before following Dr. Marshall Hall's advice to puncture again, as I have never found it necessary. One operation has invariably succeeded in the superficial venous nævus. My first case was a boy aged two years, an out-patient at the Salisbury Infirmary. He had a superficial blue nævus, of the size of half a crown, on the left side of his chest. I operated as above described. He did not come again. A year afterwards, I got his address, and paid him a visit. The nævus had entirely disappeared, leaving in its stead a spot smooth and whiter than the surrounding skin.

Now that we have safe anæsthesia, there need be no pain in the treatment of such cases.

To Dr. Marshall Hall belongs undoubtedly the merit of the discovery and perfecting of this philosophical and successful treatment. It is, it seems to me, a beautiful instance in which, as in congenital cataract and talipes, Nature awaits the beneficent interference of the surgeon, and then does her part perfectly.

The bright scarlet or arterial nævus, whether it appears as a small bright spot, or as a patch measuring one or two inches in diameter, or, again, as one or two minute arterial branches, requires a more pronounced treatment, based, however, on the same principle—stimulation, not destruction of tissue.

My first case of minute arterial nævus occurred in a young bride. It was on the left side of her nose. It was, she said, increasing. Nitric acid would have left a pit. I made a puncture into the bright spot with a bleeding-lancet, and then passed into the small incision a point of nitrate of silver, holding it there for a few seconds; this we all know is a stimulant, not a caustic. This cured the nævus, leaving no scar. The needle would have been useless in such a case. When there are several minute arteries radiating just beneath the cuticle, nothing but destruction by nitric acid, or tying the part, both of which leave scars, or the following little operation—which, as the next case will illustrate, was discovered by a lucky accident—has succeeded in my hands.

A young lady, aged 15, was anxious to be present at her sister's wedding, which was to take place in three weeks. She had observed a red spot on her left cheek. On examination, there were at this part several minute vessels, which divided into several branches. I had in other cases tried to deal with them by cutting through subcutaneously each trunk and branch by a cataract-needle having sharp edges, but failed.

Nitric acid was undesirable, as was tying, from the attendant pain and inevitable cicatrix. I determined to try the needle again, as, at the worst, it could do no harm. On taking it out from its case, I was momentarily annoyed to find its point broken off; but, after a moments' reflection, I saw how this might be turned to good account. I determined to proceed. I entered the broken needle at a line from the nearest branch, but with the flat of the needle at right angles to the skin, and, pushing it steadily forward, tore through each vessel and branch in several directions. The next morning, a bluish spot had taken the place of the red one, produced evidently by an ecchymosis. This was absorbed in a week, and the case was cured. The cure was permanent, as five years have elapsed, and no sign of the deformity exists.

I have applied this treatment in one similar case since. The spot of enlarged vessels appeared behind the left ear of a little boy, aged two years. It was growing. For this case I had had made, by Weiss and Son, a large needle with a blunt flat end. Under anæsthesia, I, with this instrument, passed, as in the last described case, with the flat end at right angles to the skin, tore through the vessels. Again an ecchymosis took place. This was soon absorbed, and the red spot disappeared, and is now not to be seen.

I have since then applied this treatment in the broad superficial arterial nævi, with invariable success; but they require the proceeding to be repeated two, three, or four times, at intervals of three or six months. In these cases, numerous white spots occur over the whole nævus after a few weeks. These, spreading slowly, join together; and, in a space of time varying from six months to two years, the nævus has disappeared, leaving in its place a portion of white skin, but neither scar nor depression. Large nævi claimed my attention more than twenty years ago, excited by a desire to save little children especially from the agony felt by them for many hours after strangulation or ligature, or destroying the growth by nitric acid, and from the danger of the injection of perchloride of iron.

When a nævus, venous or arterial, exceeds a thickness of one-sixteenth part of an inch, the needle-operation is not applicable. Having failed with it in one or two cases, I looked out for a more effective treatment for what I shall call thick nævus.

During my investigation of the treatment of bronchocele, cold abscess, and hypertrophied glands, I was struck by the power of hardening, contraction, and subsequent absorption possessed by hypodermic injections of undiluted tincture of iodine, and made up my mind to try it in the first case of thick nævus that presented itself. The following case gave me the opportunity.

A. E., aged one year, became an in-patient at the Salisbury Infirmary in the year 1861. This little girl had a venous nævus, of the size of a large walnut, situated on the left eyebrow, from which it hung down, completely obstructing vision in the corresponding eye. When admitted, there was a thread seton which had been passed through the centre of the tumour. The patient's mother stated that there had been no improvement. I was induced to try a treatment recommended at that time by some surgeons. It consisted in making several punctures by a small hot iron. These produced little pits in the skin, but no improvement followed. I then threw into the midst of the nævus, hypodermically, half a drachm of undiluted tincture of iodine. Hardening was the immediate result. This was repeated every month. The nævus soon began to lose its colour and to slowly shrink. In twelve months it no longer obstructed vision. I then lost sight of the patient. As she lived only seven miles from Salisbury, I visited her in 1869, and found that the nævus had entirely disappeared; but the seton and hot iron had left pits which will, of course, last during her life.

Since 1861 I have treated all nævi projecting more than a sixteenth part of an inch from the surface in this manner.

The little operation is very simple. Wood's syringe, with a very fine needle, is the only instrument required. Sufficient tincture of iodine having been drawn into the syringe to fill the nævus, the needle is introduced through the skin at about a line from the circumference of the nævus, and passed to its centre. The piston is propelled slowly home, so as to force the tincture into every part of the growth. This is facilitated by moving the point of the needle into every part of the nævus. On withdrawing the instrument, pressure is made on the small puncture for a few seconds, and the proceeding is complete.

I have practised this treatment many times since the year 1861, with complete success. One injection generally succeeds, sometimes several are required. Usually a slight vesication occurs on the surface of the nævus, then a white spot or spots appear, which spread in all directions until the vessels are obliterated; a slight depression of the surface alone remains.

In two cases the action was more violent and more rapidly curative.

In a little boy who had a small thick nævus in the inside of the upper lip, five minims induced sloughing of the growth, which shelled out, leaving a fine cicatrix. In a little girl, a nævus of the size of a filbert, situated in the left labium, sloughed and shelled out in a similar manner. In these two cases, the abnormal structures could not bear even the gentle stimulus of the tincture of iodine, and so lost their vitality.

I am quite aware that the treatments of nævus that I have ventured to bring before you are not heroic. This, by some, might be thought an objection, but to you accomplished medical practitioners, whose lives are spent in the relief of pain and the saving of life, the bloodlessness, painlessness, and freedom from danger of these proceedings will be an additional recommendation. If by this paper some sensitive patients be saved from the torture of the ligature, the pain and scars of nitric acid, and the danger of the injection of the perchloride of iron, my object will have been attained, and I shall be amply rewarded. This is my ambition, and it is not a trifling one; for it aims at no less an object than the

abolishing several time-honoured proceedings in favour of a system by which they will be rendered unnecessary, and much pain and some danger of life avoided.

ON THE TREATMENT OF LARGE NÆVI.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

By EDMUND OWEN, F.R.C.S.,

Surgeon to St. Mary's Hospital; and to the Out-Patient Department at the Children's Hospital, Great Ormond Street.

THE nævi which form the subject of this communication are not of that variety which may be readily or effectually obliterated by the use of ethylate of sodium or nitric acid; they are vascular tumours, varying in size from a dried raisin to a ripe fig, and which, situated in and beneath the skin or mucous membrane, are growing steadily, usually to the alarm of the parents, and sometimes to the embarrassment of the medical attendant.

Marvellous in their ingenuity are some of the snares and ligatures which have been devised for a subcutaneous attack upon them; but, even if the surgeon should have happily succeeded in tightly knotting together the right ends of the ligatures, certain portions of the vascular mass were almost certain to have escaped effectual obliteration, and to have been apparently stimulated by the surgical interference into renewed and vigorous growth; so that the poor child had to be again subjected to a long course of irritation and exhausting suppuration. A great uncertainty, too, attended the treatment by setons of silk or worsted, which had been saturated with a solution of perchloride of iron. Their mode of action was by setting up an active suppurative inflammation; but it happened from time to time that, when the operator had been induced, by the auspicious intensity of the local disturbance, to withdraw some or all of the threads, he experienced the inefficiency of the treatment. The disfigurement, also, which followed on the seton-treatment, was apt to be a serious matter.

Oftentimes, large nævi may be removed by the aid of the scalpel and forceps; but there are certain situations in which such a line of attack is impracticable; as when the whole thickness of the lip is implicated, or when the inside of the cheek, or vulva, or eyelid, is the seat of the growth. The many sittings, and the length of time required, are a serious objection to the employment of electrolysis in all these cases.

When a nævus is large and growing, some prompt and effectual treatment is demanded—one on which thorough reliance may be placed. It is a great point if the surgeon can almost promise that a single operation—and that not of a cutting nature—will be all that will be necessary.

In my experience, all the demands are supplied, and most of the objections avoided, by the treatment of large nævi by that useful instrument, the thermo-cautery of Paquelin. I show you the two blades which I employ; the larger the nævus, the larger the heated point. This small needle-blade is very efficient in dealing with small nævi, or nævoid stainings. The vapour of benzine, pumped through the hollow stem with the India-rubber hand-ball, is ignited at a low temperature, and keeps the point of the blade at any desirable heat throughout the whole operation.

Having been heated to a dull redness, the blade is thrust through the skin in as many places as may be considered necessary, and the point directed to all the regions of the vascular mass: central, deep, and peripheral; each district must be searched out and invaded. The skin-punctures should be made well within the limits of the tumour, as the effects of the cautery necessarily extend beyond the limit of the tissues actually traversed. By the slow and cautious withdrawal of the blade, the small eschars are permitted to remain, sealing the wounded vessels, and thus not a drop of blood need be lost. A few black sinuses, surrounded by a ring of skin which has been reddened by the scorching, remain after the operation, and the tumour is found smaller and firm from coagulation having taken place throughout the entire mass. Oiled lint may be used as a dressing.

For the next few days the part looks angry and swollen, and is evidently painful. Then a slight amount of sloughing takes place, and, in a few days more, some small clean ulcers mark the dwindling mass. The ulcers heal, and cicatricial contraction, taking place throughout the entire mass, determines the process of shrivelling. The integument does not perish, except where wounded; but it loses its old purple staining, from the obliteration of the vessels which formerly brought to it the unsightly injection.

It is unnecessary here to particularise the various situations in which one has thus destroyed nævi; but I may perhaps remark that the most unequivocal successes have been obtained with those tumours which occupied the entire substance of the lip (of which there were several examples); in these, by attacking the tissues deeply from the dental surfaces, one was enabled to reach their dermal limit without implicating the skin in the least. And, whereas the lip had previously protruded greatly, the subsequent cicatrisation of the mucous membrane brought it into the natural position.

A flat bleeding nævus, which occupied almost the entire extent of the mucous lining of the cheek of a grown girl, was treated in much the same manner, and was obliterated in a single operation; indeed, I am at a loss to know by what other means such a nævus could have been effectually dealt with.

Mr. FOLKER (Hanley) related a case of extensive facial nævus treated in the manner suggested by Mr. Owen, excepting that it was done by many applications instead of a single one.

Mr. THOMAS DARBY (Bray) said that, of course, it was understood that different kinds of nævus required very different treatment. A process which would succeed in one case would quite fail if applied to another. The small star-like superficial kind he had removed by passing a cataract-needle at a short distance on the sound skin, and pushing it subcutaneously through the nævus, moving the needle so as to break up the vessels, then applying pressure for a short time to allow the blood to coagulate, and lymph to be shed into the wound. A cure had been effected without leaving a mark. With regard to those larger nævi occurring on the face, which mothers called "raspberry-marks," he had seen them successfully treated by hypodermic injections of absolute alcohol, without leaving a mark.

Mr. SILCOCK (London) often practised an old, now almost obsolete, method of treatment in the case of capillary nævi frequently met with, namely, that of painting them with collodion. These nævi had a natural tendency to atrophy, and the collodion, by compressing the nævoid tissue and driving the blood from it, aided that tendency, and often brought about an actual cure.

Mr. F. J. BAILEY (Liverpool) said that the smaller nævi had been very successfully treated by vaccination; very many on the top of the head, and some on the face, leaving very little mark; and if this were done when the patient was young, the mark wore away with the growth. Since the introduction of the ethylate of sodium, he had used that rather extensively in the smaller nævi with great success; in some of the larger nævi, he had seen very good results follow the use of perchloride of iron.

Mr. COATES said that Mr. Edmund Owen had objected to the injection of fluids into nævi, because the injection of tincture of perchloride of iron had produced death in some cases; but it was well known that the tincture of iron produced coagulation of blood, the cause of danger, whereas tincture of iodine did nothing of the kind; and, as he had for twenty years used this remedy, in the way described, without the least evidence of danger, he pleaded for his treatment the irrefutable logic of facts. The treatment of Mr. Edmund Owen, by what was really the external cautery, produced sloughs and subsequent ulceration. This must be followed by scars, which were not desirable on the face, neck, or upper or lower arm of a girl, especially of the wealthier classes. Mr. Coates had only seen once the result of vaccination, done by a very eminent London surgeon on a child of high rank; and that left scars, but did not cure the nævus.

THE SUBCUTANEOUS LIGATURE OF VARICOSE VEINS.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

By W. H. FOLKER, F.R.C.S.,

Senior Surgeon to the North Staffordshire Infirmary.

VARICOSE veins so very commonly come under the notice of every surgeon, and at times give rise to so many troublesome affections, that any improvement or simplification in their treatment is a matter of interest.

Formerly, I generally adopted the method of treatment by a potassa fusa and lime eschar, strongly advocated by the late Mr. Skey, and found it always both effectual and safe, though I must also admit that it was troublesome. This method, however, together with the subcutaneous division of the vein suggested by Sir Benja-

min Brodie, are now things of the past; the only treatment now adopted being ligature or suture.

Either of these, which are applied merely till a clot is produced in the vein, and then removed without completely dividing it, I consider not only unreliable, but dangerous, as clot might subsequently become loose, and be carried up the vein.

Whatever method is adopted, it is absolutely necessary that a complete division of the vein should be effected; but, that accomplished, I think the more formidable operations of slitting up or dissecting out portions of the vein are then quite unnecessary.

A hare-lip pin passed under the vein, with silk twisted over it, is effective if allowed to cut its way through; but it is clumsy, and also very uncomfortable to the patient to have three or four needles in his legs, with the cut ends projecting, however carefully they may be dressed.

The brooch with pad and screw only serves to stop circulation in the vein till a clot is formed; but it does not sever the vein completely, and is, therefore, not to be depended upon.

The plan I now venture to bring before the meeting is that of subcutaneous ligature of the vein; and, I trust, it will be found safe, efficacious, and very simple and easy to apply. It is safe; for the ligature is applied with the slightest possible disturbance of the surrounding parts. It is efficacious, as it completely stops all circulation in the vein for ever afterwards; and I think you will admit that the operation is extremely simple and easy to be performed.

A very small incision is made on each side of the vein, of the width of a tenotomy-knife. The ligature is then passed under the vein with a curved needle, which is made to enter at one incision, and is brought out at the other and withdrawn, leaving the ligature *under* the vein. The straight instrument, which is just sharp enough to go through fat and cellular tissue, but not sharp enough to endanger a vessel, is passed from one incision to the other between the skin and the vein; it is then threaded with the ligature, and withdrawn. The ligature now encircles the vein, with both its ends through the first incision. It is tied as tightly as possible, and the ends cut off closely. If a spot of blood remain, it is to be sponged away, the skin dried, and the incisions pencilled over with collodion, and the operation is complete.

Of course I do not pretend to say there is anything new in tying a varicose vein subcutaneously, though I wish to suggest its more general adoption, as being thoroughly effectual; and I believe that by using the little instrument now shown, the operation may be performed in the easiest manner possible, even by anyone not much accustomed to operating. There is nothing unsightly for the patient to see; and the part may be easily and comfortably dressed.

This last may be considered by some a trivial matter, but many of the patients will be induced to submit to this, who would be frightened at the idea of a cutting operation.

[The instruments were made by Messrs. Weiss and Son.]

Mr. J. R. HUMPHREYS (Shrewsbury) said that he had applied the various methods for the relief of varicose veins, and amongst them the method of subcutaneous ligature; but of late he had cut down on the vein, and tied it below and above, about an inch apart, and cut the intermediate portions. He had had some troublesome cases of varicocele which he had readily cured by this means, and had no bad result.

A CASE OF FEMORAL ANEURYSM TREATED BY INJECTION OF FIBRIN-FERMENT, AND SUBSEQUENTLY BY LIGATURE OF THE EXTERNAL ILIAC ARTERY.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

BY F. A. SOUTHAM, M.B. Oxon, F.R.C.S.,

Assistant-Surgeon to the Manchester Royal Infirmary, and Surgeon to the Clinical Hospital for Women and Children.

THOS. H., a strong, healthy-looking man, aged 38, a striker by occupation, was admitted into the Manchester Infirmary on November 2nd, 1882, suffering from aneurysm in the upper part of the right thigh.

He had always enjoyed good health, and there was no history of syphilis, but he had for some time been in the habit of taking large quantities of drink.

Twelve months previously he noticed a small lump in the upper part of the thigh; this had continued of small size until about a fortnight previous to admission, when it suddenly began to enlarge and feel extremely painful. On examination, a pulsatile swelling about the size of an orange could be felt in the upper part of Scarpa's triangle, corresponding in position with the commencement of the superficial femoral artery.

The symptoms characteristic of aneurysm were well marked; the pulsation, which was of an expansile nature, could be readily stopped on compressing the artery against the brim of the pelvis, at which point the vessel could be felt to be considerably dilated. A *bruit* could be heard over the tumour, and a distinct thrill could be detected on laying the hand upon it. Pulsation could be felt in the posterior tibial artery, though not so strong as on the opposite side. The patient was confined to bed, and intermittent pressure was kept up by means of weights and tourniquets for about a fortnight, but without any apparent benefit.

On November 18th, I determined to try the effect of a plan of treatment which has been suggested by Dr. Arthur Gamgee in cases of aneurysm—viz., the injection of a solution of fibrin-ferment into the interior of the sac.

A solution was kindly prepared by Dr. Gamgee, and, with his assistance, one drachm was injected in the following manner. The patient having been anæsthetised, the flow of blood through the tumour was completely arrested, digital pressure being made on the artery above the aneurysm, and an Esmarch's elastic tourniquet being tied tightly round the middle of the thigh below. The solution of fibrin-ferment was then injected into the aneurysm, and the circulation through it was arrested for thirty minutes. At the end of this period all pressure was gradually taken off the vessel above and below, and the blood was allowed to slowly re-enter the limb.

On examining the tumour, it was found that no appreciable change had taken place in the aneurysm itself, though pulsation had entirely disappeared in the vessels below—viz., in the popliteal and both tibial arteries. The following morning the condition was exactly the same, but towards evening (*i.e.*, thirty hours after the operation) the pulsation returned, and could be distinctly felt in both vessels.

I have no doubt, therefore, that the effect of the injection was to cause partial coagulation of the blood in the tumour, but, on the re-establishment of the circulation, the clot, which was not sufficiently firm, was carried on by the blood-stream, and became temporarily arrested in the distal portion of the vessel, where it was afterwards broken up and washed away by the blood.

The patient was then left alone for some days. On November 26th, as the tumour appeared to be increasing in size, and was becoming more painful, it was determined to ligature the external iliac artery without further delay; and preparations were made for performing the operation the following day; but the same night, about 2 A.M., the patient was suddenly seized with excruciating pain in the upper part of the thigh, and the house-surgeon, on examining the tumour, found that the sac had given way, and the aneurysm had become diffused. I was accordingly sent for; and, meantime, digital pressure was kept up on the vessel above the aneurysm. On arriving at 3 A.M., I found that the swelling had lost its defined shape and become diffused over the upper part of the thigh, which was very much increased in size; pulsation, though very much less distinct than before, could still be detected, extending over the whole of the swelling. The limb was slightly colder than the other; no pulsation could be felt in the popliteal or tibial arteries; the patient was extremely collapsed, and complained of severe pain through the limb.

My colleague, Mr. Wright, who had kindly accompanied me, agreed that the best plan of treatment would be to ligature the external iliac artery, and this we at once proceeded to do. The operation was performed in the usual way, with antiseptic precautions; and not the slightest difficulty was experienced in exposing the vessel, which was secured with two chromicised catgut ligatures, placed close together, about an inch and a half above Poupart's ligament. Contrary to what we expected, the vessel was apparently quite healthy at this point. The ligatures were cut short, a drainage-tube inserted, and the wound closed and dressed according to the Listerian method.

As regards the after-course of the case, recovery took place without a single bad symptom. The temperature never rose above 101.4°; and the wound readily healed, with very little suppuration. The effused blood rapidly became absorbed, and there was never the slightest indication of any tendency to gangrene, though, for a time, the limb remained considerably colder than the other.

The patient was allowed to leave his bed on February 1st; and on February 26th was discharged to the Convalescent Hospital at Cheadle, being then able to get about on crutches. At the time of discharge, the greater part of the effused blood had become absorbed.

and there was very little difference in the size of the two thighs; no pulsation could be detected in either the popliteal or tibial arteries.

When last seen, at the end of May, the patient had recovered complete power over the limb, and was going about, following his usual occupation.

REMARKS.—The treatment of ruptured aneurysm is always one of considerable difficulty; various plans may be adopted.

1. *Compression of the vessel above the aneurysm.*—This method has proved successful in certain cases of ruptured popliteal aneurysm (Poland, *Guy's Hospital Reports*, third series, vol. vi); but in the present instance it was inapplicable, as it could only have been applied by digital pressure, and means for obtaining this were not at hand.

2. *Cutting down on the aneurysm, turning out the clots, and ligaturing the vessel above and below the sac* ("the old operation.")—This plan of treatment is recommended by Mr. Holmes (Lectures on the Surgical Treatment of Aneurysm, BRITISH MEDICAL JOURNAL, 1874, vol. i., p. 828) in the case of ruptured aneurysm in the thigh; but it would, I think, have been an extremely difficult operation in the present instance, when we consider the condition of the surrounding soft tissues, viz., extensively infiltrated with blood. Moreover, the artery would probably have been found diseased in such close proximity to the aneurysm, and therefore incapable of holding a ligature.

3. *Amputation of the limb.*—Amputation of the thigh below the hip would, I think, have been unsuccessful, for the patient was extremely collapsed, and the additional shock of a serious operation would, under these circumstances, have probably proved fatal.

4. *Ligature of the main artery at a distance above the aneurysm.*—This was the only method which appeared to offer any chance of success; and, at first sight, this was apparently slight; for the probability was that gangrene of the limb would ensue, owing to the extravasated blood pressing upon the femoral vein, as well as on the anastomotic vessels, and in this way preventing the establishment of the collateral circulation.

The result, however, proves that, even under these unfavourable circumstances, viz., rupture of an aneurysm with extensive extravasation of blood and ligature of the main vessel above the tumour, the collateral circulation may be sufficiently powerful to maintain the vitality of the limb.

The treatment of aneurysm by injection of fibrin-ferment is well worthy of a further trial; but in another case it would no doubt be advisable to inject a larger quantity of the solution, and, at the same time, to keep the flow of blood through the tumour completely arrested for a longer period, in the hope that a coagulum might be formed, sufficiently firm to resist the force of the blood-stream on the re-establishment of the circulation through the limb.

THE COMPARATIVE ADVANTAGES OF SCRAPING AND SCARIFICATION IN THE TREATMENT OF LUPUS VULGARIS.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

BY MALCOLM MORRIS, F.R.C.S.Ed.,
Surgeon to the Skin Department of St. Mary's Hospital.

"IN the more rapidly spreading and worst forms of lupus exedens, that horrible disease termed by the older surgeons *Noli me tangere*, nothing can be done beyond the relief that is afforded by the administration of opiates, and a general sedative plan of treatment." (Erichsen, *Science and Art of Surgery*, vol. i, page 624. 1869.) Such was the opinion expressed only fourteen years ago by one of the most eminent London surgeons, whose work is a text-book of more than European celebrity. Another quotation from a pamphlet recently published by one of the distinguished physicians at the St. Louis Hospital, will show the revolution that has since taken place. He says (Vidal, *Traitement Chirurgical de quelques Maladies de la Peau*. Paris, 1882), "when we remember that the red-hot iron and the most powerful chemical caustics could not always overcome this variety, formerly so much dreaded, we are surprised that it is the one which yields the most easily and rapidly to (surgical) treatment."

Scraping, or erosion, and scarification are the two surgical methods which have so completely changed the prognosis of this disease.

Constitutional remedies, after many years of trial, had failed to do more than palliate the symptoms, and had never succeeded in removing the disease when once established. As regards local treatment, the scalpel, the actual cautery, and chemical caustics, were of real value, though there were objections to each of them. The knife was used to extirpate the entire diseased mass. If successful, the deformity from the scar was often as hideous as if the disease had been allowed to run its course untreated. The actual cautery and strong mineral acids, when thoroughly applied, were open to the same objection of removing far more tissue than was necessary; or, if sparingly used, as also in the case of the knife, they did not attack all the lupus-nodules, and, from the irritation they excited, often caused a more rapid spread of the disease. Arsenic, as used by Hebra, was perhaps the most effectual of the caustics, because it destroyed only the lupus and not the sound tissue, but from the fear of its toxic effects never gained any real ground in this country. This serious objection was met by Volkmann's process of free scraping or erosion by means of a blunt spoon. This simple and easy method of treatment was a marked step in advance, and has received the support of many British surgeons. Several cases have been reported in which complete cure was obtained. I have myself treated a considerable number of cases in this way. The plan I adopted was, with a few minor modifications, identical with that originated by Volkmann in 1870. With a large spoon, all scabs are thoroughly removed, and with them the great bulk of the superficial deposit; and after drying the surface, the minute nodules which are deeply lodged in pockets of the corium, are dug out with smaller and pointed scoops. The margins are also vigorously scraped. The spoon should be applied till the whole of the soft friable lupus-tissue has been removed, and only the firm resistance of the sound parts is met with. Though the greater portion of the disease may be removed at one operation, some of the smaller deep-seated nodules which have escaped will reappear in the scar, and require subsequent treatment. After the healing of the wound produced by the operation, a scar with more or less loss of substance is left.

The great advantage of this treatment is the rapidity with which a cure can be obtained; and if a large surface be affected, in a position in which a scar is of no consequence from its appearance, it is, on the whole, the best that can be recommended. On the face and other exposed parts the appearance of the cicatrix is a matter of some importance, and it is here that the other mode of operation, scarification, yields better results. I would here mention, that in lupus of the mucous membrane I have had the most satisfactory results from scraping.

The method of multiple punctures, as suggested by Veiel of Cannstatt in 1871, is effective but tedious in application, and I have preferred to practise linear scarification with a narrow triangular-pointed knife, as used by Professor Vidal of St. Louis Hospital, Paris. The little operation is performed by pressing the sharp point of the knife, which should be held like a pen, on the sound skin at the edge of the lupus-growth, and quickly drawing it across the mass to the healthy skin on the opposite side. In its course it should penetrate the entire thickness of the morbid nodule, dividing at its base the fibrous bundles of the corium. Other incisions, parallel to this, should be made as close as possible, and these should be crossed by others at right angles. The bleeding, which is slight, is easily checked by a compress of cotton-wool, and the little cuts heal rapidly. After a week's interval, the operation should be repeated. Occasionally two or three operations are all that is needed, but more often it is necessary to repeat them several times. The scar left is smooth, supple, and usually distinguishable from the healthy skin only by its paler colour, being little if at all depressed.

In the severer ulcerating forms of lupus, especially in lupus exedens, the one alluded to in the opening of the paper, scarification, to be of service, must be used more boldly. We have sometimes to plunge the whole blade of the knife into the mass for a depth of one-half to three-quarters of an inch, to incise it in all directions, leaving the part in a condition literally of mincemeat, but without removing any portion of the tissue. This plan, I can state from my own personal experience, is most effective, and fully merits the favourable recommendation of Vidal.

In comparing scraping and scarification, the former, though it has the advantage of rapidity, in the character of its scar is much inferior to the latter. Scraping is, after all, a destructive method, similar to, though milder than, the older forms of treatment, as it mechanically removes the diseased material, whereas scarification is essentially conservative in its action. The incisions, by cutting off the blood-supply, modify the nutrition of the new growth, and lead to its atrophy with a minimum loss of substance. In addition, in the severe forms of lupus exedens, in which scraping fails, or even aggravates, scarification acts most rapidly and completely. A further though minor advantage is, that scraping, on account of the pain, requires an anæsthetic, which can be dispensed with in scarification.

Dr. WHITFORD (Liverpool), in the absence of Mr. G. E. Walker, showed a case of lupus that had been under treatment by him for twelve months. The patient suffered from the disease for twelve years before coming under treatment, and, when first seen, the greater part of the face and the mucous membranes of the mouth and nose, were deeply infiltrated and extensively ulcerated. The treatment employed had been entirely local; it consisted in the complete destruction of the lupus-tissue by solid caustic potash, dealing with a small patch at a time; and, when a healthy granulating surface formed, skin-grafting was employed. The case was not represented as a complete cure, as the patient was still under treatment, but the progress made was considered highly satisfactory.

Dr. THIN (London) agreed with Mr. Morris that, in lupus of the face, scarification yielded the best results as regards the cicatrix. The objection to it was the great length of time that, in some cases, was required before it was effective. He related a case of a boy, with a patch of lupus on the cheek about the size of a shilling, whom he had treated for a year. During that time, he had thoroughly scarified the whole surface of the patch once a week. There was considerable improvement, but the case was not yet complete. This was an extreme case as regards the time required; but, in most of the cases, the treatment was more or less protracted. This led him to consider the older methods as still preferable in parts of the body which were habitually covered; but on the face, in spite of its disadvantages as regards protracted treatment, scarification was to be preferred.

Mr. BICKERSTETH (Liverpool) had formerly used scarifications, scrapings, and caustics; whereas latterly he had employed antiseptic dressings in the form of liquor calcis bisulphatis on lint covered with waterproof tissue (a strong solution, which was also painless); with the addition, in scrofulous cases, of cod-liver oil and iron, in syphilitic cases, of antisyphilitic remedies, with the effect of speedy improvement in a few weeks, and a cure in a few months at the most.

Mr. MORRIS replied.

MELANOTIC ROUND AND FUSIFORM CELLED SARCOMA OF ANTRUM; EXCISION OF SUPERIOR MAXILLA: RECOVERY.

Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Liverpool, August, 1883.

BY ARTHUR TREHERN NORTON, F.R.C.S.,
Surgeon to St. Mary's Hospital, London.

THE patient came under my care for polypus of the nose, which, he said, he had recognised only three weeks. It presented itself to him as polypus of the nose usually does, a slight obstruction to respiration on one side of the nose gradually increasing, or rather rapidly increasing in his case, for, as I have said, he had only discovered it three weeks before entering the hospital. I found a black mass plainly visible by looking up the right nostril, and, on passing my finger behind the soft palate, I could feel the posterior extremity of the growth, not projecting into the pharynx, but terminating in the nose a short distance from the posterior nares. On withdrawing my finger, it was stained with blood, and the patient said that he frequently spat blood from the back of the throat. On examining it with the probe, I found it unattached on the inner side, and I could limit it above; but, on the outside, part of the inferior turbinated bone was absorbed, and it was attached by a broad base in the region of that bone and above it. The right ala nasi was very prominent, from the pressure of the tumour within. I concluded, from the position of the tumour and knowing the nature of such growths, that it had arisen in the antrum, and grown inwards into the nose. I had no hesitation in stating it to be melanotic sarcoma; but, as one of the staff suggested that there might be an effusion of blood in an ordinary fibromyxoma, I caught a small particle with artery-forceps and excised it with curved scissors. Under the microscope it presented cells, some round, and a few fusiform, all pigmented; there was no loose pigment such as would have been seen from the effusion of blood, but all the pigment was in cells.

I decided upon the immediate removal of the growth with all its attachments; and, as it was not yet certain whether or not it had arisen in the antrum, or only in the outer wall of the nose, I determined to investigate this point during the operation, and to be directed in the proceeding accordingly. I made an incision from the inner angle of the eye downwards along the side of the nose, then turned inwards below ala, and down the central line of the upper lip; with the scissors, I next cut through the mucous membrane which joins the lips and the cheek to the upper jaw, and, using a lever instead of a knife, separated all the soft tissues from the upper maxilla as far upwards as the malar bone, so that up to this stage of the operation there was absolutely no bleeding, except from the first incision, which had been arrested by ligaturing the angular branch of the facial artery, and by the aid of cotton-wool. I now ascertained that the antrum was full of the growth, so that nothing short of the complete removal of the maxilla would have been of any use. With the bone-forceps I then severed the nasal process of the superior maxilla, together with the chief portion of the inner wall of the orbit; then, with one blade of the forceps in the orbit, and the other beneath the zygomatic process of the malar bone, the maxilla was separated from the outer wall of the orbit; next an incisor tooth was drawn, and the hard palate cut through immediately along the side of the septum nasi. The bone being now separated with the exception of the palatine attachment to the pterygoid process, the mass was seized with lion-forceps, and twisted from this attachment and drawn forwards and outwards, in order to separate with the scissors all the soft tissue-attachments at the back of the mouth and palate, and thus completely freed. The skin was re-adapted in the line of incision, and attached by small sutures, and united in such a manner that it was quite impossible to see where the incision was in its chief part. A subcutaneous injection of morphia was administered, and the diet was milk and small pieces of ice, etc. The temperature never rose above 99°, nor the pulse above 80. The wound was syringed with Condy's fluid, and as the wound was naturally drained of all secretions, none could be retained, and none absorbed, hence the complete absence of all symptomatic fever and constitutional symptoms. On the Wednesday following, that is one week from the date of operation, the patient was walking about the ward, and in twelve days after the operation he left the hospital.

THERAPEUTIC MEMORANDA.

PTOSIS AND DIPLOPIA FROM ADMINISTRATION OF LIQUOR GELSEMII (*U.S.P.*)

R. T., a man, aged 30, consulted me on July 16th for severe neuralgia of the face. I gave him a quinine-mixture, with three-minim doses of liquor gelsemii fluid, *U.S.P.* (Ferris and Co.), every four hours. He came again the following day with his neuralgia cured, but suffering from the diplopia and dimness of sight of gelsemium-poisoning. Moreover, there was almost complete loss of the power over the left eyelid, and in a lesser degree of the right eyelid also. I gave him a simple quinine-mixture, and the next day he was quite well. Gelsemium, in my experience, to be useful, must be pushed until the physiological effects are produced; but I have never before seen or heard of dropped lids being produced by its administration. In this case only six three-minim doses had been taken.

C. H. WATTS PARKINSON, M.R.C.S., Wimborne.

MORPHIA FOR SEA-SICKNESS.

WITH reference to Dr. H. Bennet's article on sea-sickness, published in last week's JOURNAL, it may be of interest to many to know that the hypodermic injection of morphia is almost invariably attended with much benefit to the sufferer. I have given it in a great many cases, and found it give, at any rate, some relief for several hours always; and in a few cases the sickness has even ceased altogether from that time. In two or three instances in which I gave it as soon as the vomiting had commenced, the passengers remained well throughout the rest of the voyage, and that a rough one. I have not yet tried the use of strong coffee in the way Dr. Bennet mentions, but hope to do so soon. I have often found passengers able to retain dried toast soaked in strong tea without sugar or milk, when their stomachs have rejected everything else. Nitrite of amyl, which has been much recommended, I have found to be useless, and the taking of bromide of potassium for some days before embarking almost equally so. Dry biscuit and lemon-juice will often stay down when nothing else will. In conclusion, I may say that, after trying nearly, if not quite, all the usual remedies for sickness, I have found the hypodermic injection of from one-third to half a grain of acetate of morphia to be by far the most useful of all drugs or remedies.

PHILIP VINCENT, M.R.C.S., L.R.C.P., L.M.,
Surgeon, Cunard Royal Mail Service.

FIFTY-FIRST ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in LIVERPOOL, July 31st, August 1st, 2nd and 3rd, 1883.

EXHIBITION OF PATIENTS.

THE exhibition of cases illustrating rare diseases having proved so great a success at the International Medical Congress, a department was organised by the Museum Committee, and placed under the charge of Dr. F. W. Mott. Each day from 12 till 2 P.M., on Wednesday, Thursday, and Friday, a series of interesting and rare medical and surgical cases were exhibited, in many instances serving as a practical illustration of papers or discussions which had taken place in the various Sections. Each patient was provided with a card, on which was stated the nature and history of the case.

The first day, Wednesday, was devoted to medical cases; and a number of patients suffering with rare nervous diseases were shown.

Dr. ROSS (Manchester) showed two cases of hæmatomyelia with atrophic paralysis of the muscles supplied by the eighth cervical and first dorsal nerves, from injury of the anterior grey horn, accompanied by oculo-papillary phenomena of the eye of the same side, from injury of the sympathetic fibres in the cilio-spinal region of the cord; also a case of rupture of the brachial plexus and affection of the pupil of the same side, owing to injury of the rami communicantes. These three cases were especially interesting, as illustrating the position of the cilio-spinal ganglion and the course of the fibres through the rami communicantes.

An interesting case of amnesia was also shown by Dr. Ross.

Dr. DRESCHFELD exhibited a most striking case of progressive facial hemiatrophy in a little girl, aged 11. The disease was of seven years' standing. Wasting of the skin, subcutaneous tissue, and bone, was marked, and the temperature was lower on the affected side, but the muscles were perfectly normal.

An interesting case in connection with cerebral localisation was exhibited by Dr. GEORGE THOMPSON, of Oldham. The patient was a boy who had depressed fracture of the posterior inferior part of the left parietal bone, causing conjugate deviation of the eyes. Trephining was performed, and this condition disappeared. The optic nerve on the side of the injury is atrophied.

Three patients were shown by Dr. GLYNN: 1. A girl in whom partial recovery had taken place after complete paraplegia of twelve months' duration, the result of caries of the upper dorsal vertebræ. 2. Spastic paralysis in a young man, aged 23. 3. A case of almost complete recovery after all the symptoms of cerebral tumour.

A case of a young man with congenital heart-disease, viz., perforate auricular and ventricular septa, was exhibited by Dr. CATON.

Mr. D. HARRISSON showed a case of recovery after traumatic pyopneumothorax.

On Thursday, a great number of surgical cases were exhibited by various surgeons, a particular feature being a large number of successful radical cures for hernia.

Mr. BANKS exhibited twelve highly successful cases of radical cure for hernia, many having been operated upon for strangulation. He also showed the following very interesting cases: 1. Popliteal aneurysm, cured by ligature of the femoral. 2. Necrosis of tibial shaft with successful bone-planting. 3. Nephrotomy; renal abscess; incision into the kidney nearly a year ago; partial recovery with a sinus. 4. Macroglossia; removal of protruding part 5. Cancer of the lip; great secondary affection of glands of the neck; removal, and immunity from return for nine years. 6. Division of the median nerve by a cut from glass; paralysis of the hand; resection and union of the cut ends of the nerve with great restoration of power and sensation.

Mr. RUSHTON PARKER exhibited the following cases: 1. Several herniæ. 2. A patient three years after amputation of the thigh for recurrent myxosarcoma of the leg, and no reappearance of disease. 3. Two cases of extroversion of the bladder covered in by plastic operation. 4. Multiple adenoma of the scalp.

Mr. SPANTON (Hanley) exhibited three patients upon whom he had operated by his method for the cure of hernia: 1. A child, three years old, operated upon eighteen months ago for large congenital scrotal hernia. The screw was removed on the eighth day. 2. A boy, aged ten, operated upon in 1880 for large uncontrollable congenital scrotal rupture with complete success. 3. A man, aged 21, operated on for large oblique inguinal hernia of two years' duration in April 1881. No impulse could be felt in any of the above cases, nor has there been any tendency to return of the hernia.

Cases exhibited by Dr. ALEXANDER were as follow: 1. A case of epilepsy cured for fifteen months by ligature of both vertebral arteries. In this case the round ligament also had been pulled up. 2. A second round ligament operation. 3. Excision of the knee. 4. A very bad case of pronounced talipes varus, cured by removal of a wedge-shaped piece of the tarsus. 5. Excision of the scapula. 6. Epileptic cured for two years by ligature of the vertebrals. 7. Necrosis of the femur, and reproduction of three inches of new bone after the removal of the old.

Mr. PUZEY exhibited several very successful cases of radical cure for hernia, also excisions of the knee treated on Howse's splint.

Mr. HARDIE (Manchester) exhibited three patients upon whom amputation had been performed according to his method.

Friday was devoted to diseases of children and diseases of the eye. A particular feature in this day's exhibition was a series of five cases of pseudo-hypertrophic paralysis, illustrating the disease in its various stages, exhibited by Dr. P. DAVIDSON and by Dr. CHAFFEY of Pendlebury.

Mr. SHADFORD WALKER exhibited: 1. A case of epicanthus with congenital ptosis in a child of eighteen months old. 2. A case of buphthalmos in a child, aged eighteen months.

Mr. EDGAR BROWNE showed: A child, aged two and three-quarter years, with a cystic tumour of the orbit; this had already been removed three times. 2. A case of buphthalmos and detachment of the retina. 3. A case of exophthalmic goître; an interesting case, because the patient recovered slowly and apparently became quite well. A year ago the prominence of the eyeballs returned, but without any integument of thyroid gland.

Dr. BELL TAYLOR (Nottingham) exhibited two patients upon whom successful operation for cataract had been performed by his method.

Three cases of pseudo-hypertrophic paralysis, patients of Dr. HUTTON and Dr. ASHBY, of the Pendlebury Hospital, Manchester, were shown.

Several cases from the Children's Infirmary were shown by the house-surgeon.

Two cases of pseudo-hypertrophic paralysis. In both, the calves and buttocks were considerably enlarged, while in one there was wasting of the muscles in other parts. The peculiar gait and efforts made in rising from a sitting to a standing posture, the absence of the knee-jerks, and other characteristics of the disease, were exhibited.

Some cases of empyema treated by incision and drainage, with antiseptic precautions, were shown, to demonstrate how completely the lung on the affected side had expanded, and how little contraction of the chest-wall had resulted.

A number of cases of operation about the ankle-joint, including one in which the astragalus, os calcis, and lower ends of the tibia and fibula had been removed, and a very useful foot had resulted. Also some cases in which a wedge-shaped piece of the tarsus had been removed for talipes varus.

A number of cases of radical cure for hernia in young children by ligature of the neck of the hernial sac.

This department of the Museum Section was especially well attended on the second and third days, and doubtless the very interesting nervous cases would have attracted a great many members, had it been more generally known that there was such an exhibition. However, on the second and third days, the exhibition of patients was announced after the various sectional meetings, and great numbers of members embraced the opportunity of examining the cases shown. In fact, it was a sufficient success to lead to the hope that in future meetings it may form part of the official programme.

MR. THOMAS'S DEMONSTRATION.—One of the most interesting demonstrations of the Liverpool meeting was given by Mr. H. O. Thomas on Friday afternoon (at his private residence), upon the application of his hip and knee splints. "Thomas's splints" are extensively known; but, to see them used to their greatest advantage, one should watch the skilled hands of the inventor adjusting them in a large series of cases. Mr. Thomas showed about thirty different cases of hip-joint disease, in all stages of the affection. In each case, the limb had been brought down straight, and the children looked well and happy. Some of the children had been in as bad a condition as could well be conceived, and bore marked signs of long-continued and extensive suppuration. Some, it was said, had been

albuminuric, from lardaceous disease, though they were now convalescent. One case in particular attracted the attention and interest of those present; it was that of a grown child who had been seven years in one of Mr. Thomas's hip-splints, and who showed scars of many abscesses in his groin and thigh. On removing the splint on Friday for the first time, it was found that there was a free range of movement in the articulation. Another child, who had been wearing the splint for four years, also showed excellent power of movement in the joint after lengthy suppuration. Mr. Thomas treats every advancing joint-abscess by means of the aspirator; and, if the case subsequently run a more acute course, he employs the scalpel freely. Some of his patients had been aspirated six or seven times. The demonstrator spoke most modestly of his cases, and was evidently much less surprised with the extraordinarily good results which he was obtaining than were his hearers. Whilst the demonstrator was proceeding, a man came in with a recent dislocation of the humerus; but the bone was slipped into its proper place so quickly, that the surgeon who writes these remarks had not the chance of witnessing and describing the *modus operandi* of the reduction. The arm had been, however, passed through a large stationary and well-padded ring, which fixed the scapula. As regards old-standing dislocations of that joint, Mr. Thomas remarked that, if one minute were allowed him for every month that the bone had been out of its place, he could almost certainly depend upon succeeding in reducing the deformity. Twelve or more cases of knee-disease walked or were carried into the room. In many of them, the disease had been of the most serious nature, abscess-scars disfiguring the skin of the thigh and leg. By Mr. Thomas's ingenious apparatus, these children had been enabled to walk about during the whole course of the treatment. A man with fractured patella, who had been walking about during the whole time of treatment, also came in wearing the knee-splint. Mr. Thomas pays little heed to the position of the fragments of the patella, but insists on the splints being worn for six or seven months. The results of Mr. Thomas's treatment in these various cases of joint-disease were considered highly interesting.

ANNUAL MUSEUM.

THE museum, which has, since its institution sixteen years ago, taken a recognised and important place among the arrangements of the annual meetings of the Association, was this year of an interesting and varied character, and great credit is due to the Museum Committee, by whom the arrangements were so admirably carried out.

The room in which the exhibition of drugs, instruments, etc., took place, was a handsome gallery 300 feet in length, situated in the upper part of the College building, and well suited for the purpose for which it was selected.

On the second floor, adjoining the rooms where some of the sectional meetings were being held, were three rooms set apart for the exhibition of pathological drawings and specimens and microscopes.

The Sanitary Museum was conveniently held in a large hall on the ground floor, while, in the sheds outside the building, was an admirable collection of ambulance-wagons for town and hospital use, of which an extended notice will be given.

There were shown, in what is known as the Long Gallery, in the upper floor of the College, the latest inventions in medical and surgical instruments and appliances of all kinds, including new chemicals and apparatus; new drugs and their preparations; and articles of diet for invalids. Most of the best known firms from London, Liverpool, Leeds, Manchester, Birmingham, and York were in attendance; while some of the best known of American firms were likewise represented. Among the exhibitors of drugs, and medical and chemical preparations, were the well known firms of Allen and Hanburys, Burroughes, Wellcome and Co., Clay and Abraham, Corbyn, Stacey and Co., Evans, Sons and Co., Liverpool Apothecaries' Company, Loeflund and Co, Mackey, Mackey and Co., Newbery and Co., Parke Davis and Co. (Detroit), Richardson and Co. (Leicester), Savory and Moore, Sumner and Co. (Liverpool), Symes and Co. (Liverpool), Woolley and Co.

Among the exhibitors of articles of diet, etc., were the Aylesbury Dairy Company, Brand and Co., Feltoe and Co., Lloyd's Food Company, Maltine Company, Mellin, etc.

The exhibition of Surgical Instruments and Appliances was in every way a highly creditable display. Among the exhibitors from the provinces were Aitken (York), Critchley, Reynolds, Wood, White and Wright (Liverpool), and Wood (Manchester). Among the other exhibitors were Arnold and Sons, Darton and Co., Evans and Wormull, Krohne and Sesemann, Marr, Mayer and Meltzer, Pratt, Pickard and Curry, Rea, Robinson and Sons, and Weiss.

Besides these instrument-makers, several medical men exhibited special appliances Beaufort's Artificial Limb was shown by Dr. Thompson. Mr. Spencer Watson showed instruments for operating on the nasal passages. Dr. J. Walton Browne showed an ingenious splint for use after Syme's amputation; and Mr. Lund showed a prone couch.

The following are notices of some of the principal exhibits, arranged in alphabetical order.

The ambulances, which were under the direction of Mr. John Furley, as Honorary Director of the Stores Department of the St. John Ambulance Association, formed an interesting collection of two-wheeled litters, stretchers, invalid-chairs, and appliances for the removal of sick and injured persons. Mr. Furley himself exhibited a horse ambulance-carriage for the conveyance of infectious cases, which had been specially built for this meeting. The under-carriage is of picked English oak and ash, and the body is of varnished ash and American birch. It will carry three patients on stretchers, and two or three seated, and there is space on the box-seat for two attendants besides the driver. Next to the comfort of the patients, simplicity and lightness have been the principal points aimed at in its construction; and, on ordinary roads, it is well within the capacity of one horse. A great novelty in this carriage is, that the whole of the interior is lined with white metal, and the stretchers are of elastic wire in frames of galvanised iron, with small rollers and telescopic handles. The windows are of thick engraved plate-glass, and cannot be opened, thus rendering the carriage less objectionable than it otherwise would be in crowded thoroughfares. Sliding blinds of perforated zinc exclude the sun when necessary. Ventilation is obtained through the upper part of the sides and roof, and these can also be closed during the disinfecting process. Mr. Furley is indebted to the celebrated Austrian surgeon, Baron Mundy, for the suggestion which induced him to adopt a metal lining for this vehicle.

On the last day of the meeting, the Committee of the Northern Hospital lent for inspection a carriage, which was also designed by Mr. Furley, and built under his direction. It will carry two (and with a very slight alteration, three) patients in a recumbent position, and two persons seated inside, as well as two outside with the driver. This carriage is being worked on the American system, and those in charge of it are in telephonic communication with all the police-stations in Liverpool. Under the active direction of Captain William Joynson, Chairman of the Northern Hospital Committee, to whom Liverpool is chiefly indebted for this new addition to its philanthropic institutions, this carriage has already done good work. These two carriages attracted a great deal of attention and critical examination, and the opinions expressed were unanimously in their favour.

The articles shown by Messrs. Allen and Hanburys were, as usual, of a high order, including specially their well known "A. and H." Tasteless Castor-Oil, without smell, and as free from taste as almond-oil. This attracted a large share of attention. They also exhibited their new set of Oleates of the metals, prepared after the method of Dr. Shoemaker, of Philadelphia. It is alleged of these oleates, as distinct from the so-called oleates (which are only solutions of oxides of the metals in oleic acid), that they are true chemical compounds; that they are free from disagreeable odour, rancidity, and irritating action. In addition to the pure oleate, obtainable in some cases in powder, the oleates are prepared in two forms, viz.: 1. Dusting Powder, containing 10 per cent. and 20 per cent. of the oleate, in combination with an inert powder; 2. Ointment, containing 20 per cent. (or any percentage) of oleate with chrisma. Allen and Hanburys exhibited their preparations of Abrus Precatorius (wild Jamaica liquorice, Jequirity), Cascara Sagrada (*Rhamnus Purshiana*), Coca Leaves (*Erythroxylon Coca*), Coto Bark, Damiana (*Turnera Aphrodisiaca*), Eucalyptus Globulus (leaves), Euonymus (yielding Euonymin), the Chian Turpentine, Convallaria Majalis; and displayed a large collection of new drugs and preparations. We also had our attention especially drawn to Chrisma Sulphuris, a solution of sulphur in chrisma, as a valuable skin-application, being not irritating, offensive, or unsightly, while at the same time it is an effective parasiticide. Among the other articles exhibited by this firm were their Antiseptic Dusting-powder and Antiseptic Toilet-powder, Gardner's Unalterable Syrup of Hydriodic Acid, Page's Vaporiser, and Cresolene, etc.; nor must we omit to mention the A. and H. "Malt Extract," and their "Malted Farinaceous Food"

Messrs. Arnold and Sons, of West Smithfield, showed, amongst other novelties, an Operation-Case fitted with arrangements for holding instruments, and trays for immersing them in antiseptic fluid, the remainder of the case containing drawers and bottles; a new Catheter composed of a silk web coated with elastic gum, forming a very durable and extremely flexible instrument; a new Pessary of Celluloid on a wire frame, capable of being moulded by the hand to any form without causing the slightest roughness to the material; a new Midwifery Forceps, demonstrated by Mr. Le Page; a new form of Needle, demonstrated by Dr. Ward Cousins; a Convertible Stethoscope, by Dr. Ward Cousins, which can be used as a long or a short binaural or differential stethoscope.

Messrs. Aronsberg, opticians, of Castle Street, Liverpool, exhibited among their other specialties their new Medical Coil and Battery, for which they claim the great advantage that it will keep in working order for three years without requiring any recharging during that time, after which it can be renewed at a small cost. It is fitted with primary and secondary currents, with medical appliances in strong case; price complete, 78s. Messrs. Aronsberg also had a display of optical instruments, clinical thermometers, medical coils, artificial eyes, microscopes, etc.

The Aylesbury Dairy Company, St. Petersburgh Place, Bayswater, exhibited samples of their Koumiss and their well known Milk Foods, including their Artificial Human Milk, Whey, Sparkling Brand, etc. Koumiss is well known as being a real and most easily digestible nourishment, which is absorbed by the body rapidly and directly from the stomach, and which enables a patient to live exclusively upon it, and for a considerable time, if necessary, until other food becomes admissible. A large quantity of very assimilable food can thus be taken by the feeblest stomach, especially as the casein of the milk is so finely divided as to form, with the carbonic acid, a rich attenuated foam, and to predispose the other constituents to rapid transformation into lymph and blood. It is said to be valuable in sleeplessness and restlessness (insomnia); nervousness, with its attendant forebodings of evil and other distressing symptoms, is wholly relieved by its use; it is also much employed in the treatment of typhoid and scarlet fevers, erysipelas, dropsy, albuminuria, lung and heart diseases. The Aylesbury Dairy Company are also prepared to supply Koumiss prepared according to Dr. Jagielski's formula, whose business they have acquired. The artificial human milk made according to formulæ supplied by Professor Frankland, and Dr. Playfair, of King's College Hospital, is extensively adopted as a peculiarly perfect form of normal food for infants who are deprived of the breast. A silver medal was awarded for the excellence of this food at the recent National Health Society Exhibition.

Messrs. Ayrton and Saunders (Liverpool) showed, among their other exhibits, Saunders's superior finished unchangeable Inhaler Respirator, manufactured from pure vulcanite, with adjustable plate. It is claimed for this respirator, that it is so contrived that, in the simplest and most convenient manner, any volatile drug that may be recommended by medical advice can be inhaled with less trouble than would be incurred in the use of an ordinary inhaler. The principal advantages are said to be, that the material is non-absorbent, and can easily be kept clean and pleasant. It has no metallic substance in its composition, so cannot corrode or rust. The parts separate readily, and can be cleaned with a damp sponge. It can be worn as an ordinary respirator, or for inhalation. Being black, it is not so unsightly as the metal ones. If part be broken, it can be renewed without going to the expense of a new instrument. The price at which these respirators are sold is 7s. 6d. retail.

Messrs. Brand and Co. were conspicuous by the very handsome show of their well-known specialties. Preserved Provisions, Concentrated Beef-Tea, Meat-Essences, Portable Soups, etc., were shown here in great abundance; while their value as articles of invalid diet is well known to the profession, and very largely to the general public. Messrs. Brand and Co. have also an Essence of Malt (prepared under Druce and Mason's patent process), which has much to recommend it. The patent process by which it is prepared preserves the diastase and protein elements, as well as the aroma of the malt. It is more fluid than malt-extracts generally, possesses an agreeable aromatic saccharine flavour, and can be administered either alone or as a beverage diluted with water.

Messrs. Burroughs, Wellcome, and Co. had a most elegant display of their many special preparations. Attention was especially drawn to their Elixoids of Bromide of Potassium; Bromide of Sodium; Calisaya Bark; Ferro-Phosphorised Calisaya Bark; Iodide of Potassium; Iodide of Potassium and Biniodide of Mercury; Pepsin; Phosphorus; Phosphates of Iron, Quinine, and Strychnia; Quinine; Valerianate of Ammonia. The following are now to be found among the Wyeth compressed tablets, of which it may be mentioned that they are of a much improved form, and more convenient for the pocket: Bismuth Subnitrate; Lithium Carbonate; Potash Permanganate; Potassium Iodide; Soda Chlorate with Borax; Sodium Bromide; Sodium Iodide. Messrs. Burroughs, Wellcome, and Co. exhibited their well-known Beef and Iron Wine, Kepler Extract of Malt, with other preparations; also the new Tincture Press manufactured by the Enterprise Manufacturing Company of Philadelphia, which seems to possess the advantages of combined simplicity with efficiency of working and most perfect manipulation; the "McK. and R." (ovoid) Capsuled Pills, and some admirably devised Medical Pocket-Cases with wire springs.

Messrs. Clay and Abraham (Liverpool) exhibited specimens of their Granular Preparations; Mistura Cinchonæ Flavæ; Syrupus Sennæ (concentrated) prepared in vacuo; and Mr. Shadford Walker's Eye and Nose Douches.

As in former years, the well known firm of Corbyn, Stacey and Co., were amongst the exhibitors. They show a large number of specimens of Drugs and Preparations, new, and of recent introduction, amongst these we noticed the bright red seeds of jequirity, convallaria-preparations, caroba-leaves, a fine specimen of cascara sagrada bark, eserine salicylate—a stable salt, ichthyol, paraldehyde, and a specimen of genuine oil of the *Eucalyptus globulus*. This oil is much more fragrant than that ordinarily found in commerce, and appears to be of greater value as an antiseptic than that obtained from other species. The liquor opii dialysatus as shown by this firm was much appreciated, being free from the heavy nauseous odour and taste of the drug. The strength is the same as the tinctura opii *P.B.* Valentin's Meat-Juice also attracted much attention, and is now highly valued as a nutritive in this country.

Mr. J. Critchley (Liverpool) showed an Apparatus used for Extension in cases of Pott's disease of the spine, in connection with the application of the plaster-of-Paris bandage of Dr. Sayre. This apparatus has some important alterations, which the manufacturer believes to be improvements on the American appliance.

Messrs. Evans, Sons, and Co. (Liverpool and London) had a large and interesting series of exhibits, which attracted the attention of all visitors to the museum. In the lobby, before entering the museum itself, was a tastefully arranged case, showing complete specimens of the *Canadian Pharmacopœia*, as also samples of the Montserrat Lime-juice, in its crude and prepared states. This firm also showed their White Fossiline, a bland, odourless, and perfectly pure hydrocarbon-jelly, which does not become rancid, and consequently forms the most suitable basis for all kinds of ointments and medicinal preparations requiring such a vehicle. They also exhibited specimens of Conroy's Malted Coffee, and their Concentrated Liquors for the extemporaneous preparation of medicated syrup.

Messrs. Evans and Wormull, of Stamford Street, London, had a good exhibition of new and special appliances for the treatment of wounds and fractures, which should be seen by any one interested in the establishment of ambulances. One article was a Portable Folding Splint, which appeared to answer half-a-dozen purposes, and, when not in use, could be closed up flat, as a book, and could be carried in an overcoat pocket; also a box of Moulded Splints, as used in the Continental ambulances, which, from their extreme simplicity, could be adjusted by a person who had never before seen a splint; they require no skilled application, or padding, and we shall, no doubt, soon see them in use in our English ambulances.

Messrs. Feltoe and Sons exhibited samples of their Spécialité Lime-juice, which is already largely recognised by the medical profession as a wholesome and agreeable non-alcoholic beverage, free from chemical compounds and injurious ingredients. A silver medal was awarded to Messrs. Feltoe by the National Health Society, at their recent exhibition.

[*To be continued.*]

EXCURSIONS.

VISIT TO LANCASTER.—A representative party, including members of the Association from England, Scotland, Ireland, and Wales, visited Lancaster on Saturday, August 4th. They were met at the railway-station by Messrs. Hall, Christopher Johnson, and other members of the profession in Lancaster; and at once proceeded in wagonettes to the Royal Albert Asylum for Idiots and Imbeciles of the Northern Counties. Here they were received by the Medical

Superintendent, Dr. Shuttleworth, and were conducted through the schools, workshops, day-rooms, dormitories, and infirmary, of this magnificent establishment. Returning to Lancaster, the party (consisting of thirty gentlemen and three ladies) partook of the luncheon which had been provided by the local medical men at the King's Arms Hotel; the thanks of the visitors being suitably expressed by Dr. Macmillan of Hull, and Dr. Yellowlees of Glasgow. Thereafter, the County Lunatic Asylum was visited; Dr. Cassidy, the Medical Superintendent, first conducting the party through the new buildings of the annexe, the noble recreation-hall of which was much admired; and, afterwards, taking them to the older part of the asylum, where was displayed an unique collection of apparatus, formerly used for the restraint of patients. From the asylum, the party drove through the beautiful Williamson Park to Lancaster Castle, which they minutely inspected under the guidance of Dr. Robert Clark (in the unavoidable absence of his partner, Dr. W. Wingate Saul, surgeon to H. M. Prison). Subsequently, the visitors were entertained at the private houses of several members of the profession; and the majority returned to Liverpool by the 8.17 train, having completed a programme at once pleasant and interesting.

EXCURSION TO CHESTER AND EATON HALL.—About 200 members and their friends left Lime Street Station on Saturday morning to pay a visit to the ancient city of Chester. They were conveyed by special train, leaving at 9.35 A.M., but it was signalled at Mossley Hill to pick up Sir Spencer Wells, who, accompanied by his son and daughter, joined the party to Eaton Hall. It was past 11 o'clock before the members alighted on the Chester platform, where they were met by Dr. Edward Waters, Ex-President, and Dr. Taylor, the Local Secretary. Omnibuses were at the station to convey those who preferred to drive; but, the day being beautifully fine, all chose to go by river, and they hurried across the Grosvenor Park—small, but prettily laid out—to the Groves, where the steamer *Gipsy*, with several barges, lay in readiness to convey the members. After proceeding a short distance, and leaving Chester behind, they entered on the Dee proper, winding its way in irregular semicircles. At every turn the spectator is constantly surprised with the picturesque. On before, as far as the eye can reach, was seen a panorama of beautifully wooded country, studded here and there with stately mansions and ivy-covered churches. The Iron Bridge, the nearest landing-place, was reached about half-past 12, when an excellent repast in the shape of light refreshments was served up, and heartily enjoyed after the sail up the river. Soon the members began to disperse and wend their way to the magnificent mansion of the Duke of Westminster, who kindly threw it open, together with the grounds, conservatories, etc., and also the stables, where members had an opportunity of seeing the famous race-horse "Bend Or." At a quarter to three they began to muster for the return journey, and by four o'clock were safely steaming towards Chester, reaching it at 4.10. Here all hastened to the Grosvenor Hotel, where a sumptuous dinner was provided. After dinner, Dr. Ward Cousins (Southsea) proposed, and Dr. Lush (Weymouth) seconded, a vote of thanks to the Excursion Committee for the efficient manner in which the programme of the day had been carried out, and for the great success of the excursion, coupling with it the name of Dr. Cregeen, the chairman, who, in responding, thanked them, in the name of Dr. Warburton and himself, for their kind expressions, and referred to the invaluable assistance rendered by Dr. Taylor, the Local Secretary. By the kindness of the Dean of Chester, the Cathedral remained open to a later hour than usual on Saturdays, to allow members an opportunity to visit it. Many were obliged to leave Chester immediately after dinner to meet trains for the midland counties; nevertheless about seventy embraced the opportunity. The Dean met them at the west door, and kindly conducted them through. After pointing out the several objects of interest, he described the various renovations during the past few years, on which about £80,000 had already been expended, and mentioned that £30,000 more would be required to complete the restoration, which he hoped soon to see accomplished. Dr. Waters proposed a cordial vote of thanks to the Dean for his kindness, and the members then dispersed to survey the ancient city, especially its walls, Chester being one of the few places which has maintained in a tolerably complete state its walls, which are said to have been built for its defence by Marcius, King of the British. They now serve as a public promenade for the inhabitants, are about two miles in length, and afford pleasant views of the surrounding country. The quaint, old-fashioned Rows also attracted much attention, and are very striking objects to the stranger. Among the noticeable antiquities of the city which were also visited were Stanley Palace, an edifice of timber elaborately carved, formerly the dwelling of the Stanleys of Alderley, and now occupied by the Chester Archæological Society; Bishop Lloyd's House in Watergate Street, with its wooden front sculptured over with groups of Bible history; and God's Providence House, with its pious motto, "God's Providence is mine inheritance," carved in front as a memorial of the only house that escaped the plague in 1662. The Castle, Water Tower, which bore the brunt of the battle in the great siege of Chester in 1645, and the Rhoddee, all received attention. Thus ended the excursion to Chester, which will have many pleasing reminiscences with members who had chosen this for the finale of their visit to Liverpool during the Association meeting.

The excursion to Conway and Llandudno, described on page 283 of last week's JOURNAL, was under the guidance of Dr. Arthur Samuels, Mr. Richard Williams, Mr. R. Hughes Jones, and Mr. Chauncy Puzey, honorary secretary to the Excursions Subcommittee. The chair at the luncheon was taken by Dr. Eyton Jones, at the request of Mr. Roger Hughes, of Bala, President of the North Wales Branch, who was unable to be present. Dr. R. Hughes, of Penmaenmawr, also rendered special service in connection with this excursion.

The party which visited Southport and Blackpool was conducted by Mr. George Walker, of Liverpool. The details of Mr. Bickersteth's river excursion were mainly arranged by Mr. A. R. Hopper, of Liverpool.

MEMBERS PRESENT AT THE ANNUAL MEETING.

THE following list includes the names of members and visitors present at the annual meeting in Liverpool, which were entered in the books provided for the purpose in the reception-room.

Abbott, C. E., Esq., Braintree; Abbott, George, Esq., London; Adam, Edward, M.K.Q.C.P., Liverpool; Agar, Samuel H., Esq., Henley-in-Arden; Aitchison, Henry, M.B., Wallsend-on-Tyne; Aitchison, James, M.B., Newcastle-on-Tyne; Alderson, F. H., M.D., Hammersmith; Alderton, H. C., Esq., Bootle; Aldred, H. A., M.D., London; Alexander, Wm., M.D., Halifax; Alford, F. S., Esq., London; Alford, G. E., Esq., Weston-super-Mare; Alford, Henry James, M.D., Taunton; Allan, D., M.D., London; Allan, H., M.B., Whaley Bridge, Stockport; Allbutt, T. Clifford, M.D., F.R.S., Leeds; Althaus, Julius, M.D., London; Anderson, E. C., M.D., Southport; Anderson, Mrs. E. Garrett, M.D., London; Anderson, James, M.B., Poulton-le-Fylde; Anderson, R. J., M.D., Belfast; Anderson, W. S., M.D., Chapel-en-le-Frith; Anderton, W., M.R.C.P.Ed., Ormskirk; Andrew, Edwyn, M.D., Shrewsbury; Andrews, Henry Charles, M.D., London; Anningson, B., M.D., Cambridge; Arbuckle, H. W., M.D., Thorne; Archer, Arthur M., Esq., Chester; Archer, R. S., M.B., Liverpool; Archer, William G., M.B., Birmingham; Armistead, J. W., Esq., Leeds; Armstrong, J., M.B., Liverpool; Ashby, Henry, M.D., Manchester; Ashton, James T., M.B., Southport; Ashworth, H., Esq., Bury; Atkinson, Robert, Esq., Ripponden.

Bagshawe, F., M.D., St. Leonard's-on-Sea; Bailey, F. J., Esq., Liverpool; Baker, Alfred, Esq., Birmingham; Baker, J. Wright, Esq., Derby; Baker, Robert L., M.D., Leamington; Baker, W. Morrant, Esq., London; Balding, D. B., Esq., Royston; Ball, Alfred, Esq., York; Ball, John A., M.B., Stockport; Ballard, Edward, M.D., London; Bampton, A. H., M.D., Plymouth; Banks, W. M., M.D., Liverpool; Barfoot, G. H., M.D., Birkenhead; Barlow, Thomas, M.D., London; Barnard, C. E., M.D., Geelong, New South Wales; Barnes, Fancourt, M.D., London; Barnes, J. G., Esq., Liverpool; Barnes, J. Wickham, Esq., London; Barnish, W. C., Esq., Wigan; Barr, James, M.D., Liverpool; Barr, John, M.B., Rishton, Blackburn; Barr, Thomas, M.D., Glasgow; Barron, A., M.B., Liverpool; Barron, G. B., M.D., Southport; Barrow, R. W., Esq., Liverpool; Bartolomé, M. M. de, M.D., Sheffield; Bartleet, T. H., M.B., Birmingham; Bartlett, William, Esq., Deal; Baxter, James C., Esq., Everton; Baxter, P. C., M.B., Dublin; Beach, Fletcher, M.B., Darenth, Dartford; Beales, Robert, M.D., Congleton; Beaman, E. H., Esq., Haydock Lodge, Newton-le-Willows; Beck, F. E., Esq., Belfast; Behrendt, M. R. J., Esq., Burringham; Bell, John A., Esq., Bradford; Bell, W., M.D., Liverpool; Bellamy, Edward, Esq., London; Benfield, Thomas W., Esq., Leicester; Bennet, James, M.B., Leith; Bennett, A. Hughes, M.D., London; Bennett, E. A., Esq., Nelson-in-Marsden; Bernard, A., M.B., Liverpool; Bernard, Walter, F.K.Q.C.P., Londonderry; Bernstein, M. J., M.B., Birkenhead; Berry, William, Esq., Wigan; Bevan, W. Ll.P., M.B., Egremont; Beverley, Michael, M.D., Norwich; Bickerton, Thomas H., Esq., Liverpool; Birch, E. A., Esq., Manchester; Birt, George, M.B., Stourbridge; Bishop, G. H., Esq., London; Bishop, G. Stanmore, Esq., Manchester; Black, James, Esq., London; Black, W. J., Esq., Pendleton, Manchester; Blake, W. H., Esq., Harpenden; Bligh, A. M., Esq., Liverpool; Bligh, John, M.D., Liverpool; Blore, I., Esq., Liverpool; Bodington, G. F., M.D., Kingswinford; Booth, J. B., Esq., Farnmouth, Widnes; Booth, Lionel, M.D., Durham; Booth, T. Carter, Esq., Manchester; Borchardt, Louis, M.D., Manchester; Boutflower, Andrew, Esq., Manchester; Bowen, E., M.D., Birkenhead; Bowen, O., Esq., Liverpool; Bower, D., M.D., Bedford; Bowes, Richard, Esq., Richmond, Yorkshire; Bowkett, T. E., Esq., London; Bowman, George, M.D., Old Trafford; Brabazon, W. P., M.D., Lymm; Bradbury, John B., M.D., Cambridge; Bradley, John P., Esq., Birmingham; Bradshaw, T. R., M.D., Liverpool; Brady, Charles M., Esq., Wigan; Braidwood, P. M., M.D., Birkenhead; Brailey, W. A., M.D., London; Bramwell, Byrom, M.D., Edinburgh; Brannigan, Robert A., Liverpool; Brass, J. T. W., M.D., Liverpool; Bride, John, Esq., Wilmslow; Bride, John G., Esq., Warrington; Bridgman, Isaac T., Esq., Berkeley; Bridgwater, Thomas, M.B., Harrow; Brierley, J. B., Esq., Manchester; Brierley, T. B., Esq., Tattenhall; Briggs, Henry, M.B., Liverpool; Broadbent, S. W., Esq., Dalton-le-Dale; Broadbent, W. H., M.D.,

London; Brodie, David, M.D., Canterbury; Brook, Henry, Esq., Bridgwater; Brooke, H. G. Esq., Manchester; Brookhouse, J. O., M.D., Nottingham; Broom, John, M.D., Clifton; Broomfield, H. J., Esq., Dublin; Brown, C. F., Esq., Leamington; Brown, E., Esq., Birmingham; Brown, George, Esq., London; Brown, G. A., Esq., Tredegar; Brown, Henry J., Esq., Worcester; Brown, John, Esq., Bacup; Browne, J. W., M.D., Belfast; Browne, Lennox, Esq., London; Brownfield, M., Esq., London; Buchan, W. A., M.B., Manchester; Buck, Charles W., Esq., Settle; Buck, J. R., Esq., Worcester; Buck, W. E., M.D., Leicester; Buckley, Henry C., M.D., Llanelly; Burlingham, Daniel C., M.D., Hawarden; Burr, W. T., M.B., Templemore; Burton, J. E., Esq., Liverpool; Bury, Judson S., M.D., Pendleton, Manchester; Bushby, T., M.B., Liverpool; Byers, John W., M.D., Belfast.

Caird, Francis M., M.B., Edinburgh; Caldwell, R. A., M.D., New York; Cameron, A. H. F., Esq., Liverpool; Campbell, Colin G., Esq., Saddleworth; Campbell, W. McF., M.D., Liverpool; Canavan, P., Esq., Bootle; Cant, W. J., Esq., Lincoln; Carline, W. A., M.D., Lincoln; Carmichael, A. H. Esq., Liverpool; Carmichael, James, M.D., Edinburgh; Carpenter, Alfred, M.D., Croydon; Carr, Wm., M.B., Glasgow; Carrington, Robert E., M.D., London; Carroll, A. L., M.D., New York; Carruthers, W. Hodson, M.D, Halton, near Runcorn; Carter, Godfrey, Esq., Plymouth; Carter, J. B., Esq., Leeds; Carter, Richard, M.D., Bath; Carter, W., M.D., Liverpool; Cassidy, D. M., M.D., Lancaster; Castle, Hutton, M.B., Newport, Isle of Wight; Cathcart, Charles W., M.B., Edinburgh; Caton, R., M.D., Liverpool; Cauty, H. E., Esq., Liverpool; Cavanagh, J. W., Esq., Liverpool; Cayzer, Thos., Esq., Aigburth, Liverpool; Chadwick, C., M.D., Tunbridge Wells; Chadwick, William F., Esq., Royston; Chaffey, W. C., Esq., Pendlebury; Chain, A., Esq., Liverpool; Chambers, T. S., Esq., Fakenham; Chapman, Edward, Esq., Oxford; Charles, T. E., Esq., Isleworth; Cheatle, T. H., Esq., Burford; Chisholm, J. W., M.D., Woolton, Liverpool; Christie, James, M.D., Glasgow; Churton, Thos., M.D., Leeds; Clarke, W. B., M.B., London; Clarke, Walter J., Esq., Birmingham; Clarkson, J., Esq., Bootle; Clayton, R., Esq., Accrington; Clegg, W. T., Esq., Liverpool; Clunn, T. R. H., Esq., Prestwich; Coates, W. M., Esq., Salisbury; Coats, Joseph, M.D., Glasgow; Coghill, J. Sinclair, M.D., Ventnor; Collier, P. B., M.D., Albany, New York; Collier, W. H., Esq., Southport; Cooper, Wm., Esq., Widnes; Corke, Cecil A., Esq., Prescott, Baschurch; Cormack, J. C., M.K.Q.C.P., Liverpool; Corns, J., M.D., Oldham; Cornwall, James, Esq., Fairford; Cornwall, W. C., Esq., Birkenhead; Corte, Arthur A., Esq., Blackburn; Cosgrave, Alexander, Esq., Bolton; Cossar, Thos., M.D., Edinburgh; Courtenay, E. M., M.B., Limerick; Courtenay, G. T., Esq., Birkenhead; Cousins, J. W., M.D., Portsmouth; Coutts, Jas. A., M.D., Waterfoot, Manchester; Craigmile, A., M.D., Egremont; Crawford, Cooper H., M.D., Stafford; Crawford, J. D., Esq., Liverpool; Crawford, Director-General T., M.D., London; Crean, Richard, M.D., Manchester; Cregeen, J. N., Esq., Liverpool; Creighton, C., M.D., London; Crickmay, Edward, Esq., Laxfield; Crocker, H. Radcliffe, M.D., London; Croft, John, Esq., London; Cross, F. R., M.B., Clifton, Bristol; Crutchley, Henry, M.D., Alsager; Cullen, David, Esq., Cheltenham; Cullingworth, C. J., M.D., Manchester; Cuming, J., M.D., Belfast; Cutts, W. H., M.D., Melbourne, Australia.

Dale, Thomas, Esq., Liverpool; Darby, Thos., Esq., Bray; Davidson, A., M.D., Liverpool; Davidson, P., M.B., Liverpool; Davies, A., M.D., Cardiff; Davies, D. Arthur, M.B., Swansea; Davies, E., Esq., Swansea; Davies, E. T., M.B., Liverpool; Davies, H. N., Esq., Pontypridd; Davies, Thomas, Esq., Colwyn Bay; Davies-Colley, T., M.D., Chester; Davies-Dambrill, W. R., Esq., Sandbach; Davis, Thomas, M.D., Londonderry; Davison, J. T. R., M.D., Liverpool; Dawson, T., Esq, Liverpool; Day, William H., M.D., London; Dempsey, Alexander, M.D., Belfast; Denson, J. L., Esq., Tarporley; Dewar, James, M.D., South Queensferry, Edinburgh; Dewar, John, Esq., London; Dewes, Edward, M.D., Coventry; Diamond, J., M.D., Marsh, Huddersfield; Dickinson, E. H., M.D., Liverpool; Dickson, Walter, M.D., London; Dill, R. F., M.D., Belfast; Dillon, J. T., M.D., Listowel; Dix, John, Esq., Hull; Dixon, E. L., M.D., Preston; Dixon, W. H., M.D., Sunderland; Dobie, Wm. M., M.D., Chester; Dodsworth, Frederick C., Esq., Gunnersbury, London; Dolan, Thomas M., Esq., Halifax; Dolman, A. H., Esq., Derby; Donnelly, T., M.B., Dunboyne; Donovan, William, Esq., Whitwick, Leicester; Douglas, A. L., Esq., Liverpool; Dreschfeld, Julius, M.D., Manchester; Dresser, W., Esq., Coventry; Drew, Samuel, M.D. late of Chapeltown, Sheffield; Drummond, D., M.D., Newcastle; Drummond, Edward, M.D., Rome; Drysdale, C. R., M.D., London; Duckworth, Dyce, M.D., London; Dutton, Thomas, M.D., Sidlesham, Chichester; Dyer, S. S., M.D., Ringwood.

Eames, Thos. B., Esq., Stoneclough, near Manchester; Eaton, J. C., Esq., Ancaster; Eccles, R., M.D., Liverpool; Eddison, John Edwin, M.D., Leeds; Eddowes, Alfred, Esq., Market-Drayton; Edge, A. M., M.D., Manchester; Edis, A. W., M.D, London; Edwards, D., Esq., Mold; Edwards, James, Esq., Liverpool; Edwards, J. H., Esq., Manchester; Edwards, J. P., Esq., Tunstall; Edwards, W. T., M.D., Swansea; Elliot, Norman B., Esq., London; Ellis, J. W., Esq., Liverpool; Ellis, Richard, Esq., Newcastle-on-Tyne; Elliston, William, M.D., Ipswich; Esler, Robert, M.D., Belfast; Evans, Charles, Esq., Bakewell; Evans, John, Esq., Swansea; Evans, John Henry, M.R.C.P.Ed., Seaforth; Evans, R. W. J., Esq., Wrexham; Evatt, Surgeon-Major G. J. H., M.D., Woolwich; Ewart, Joseph, M.D., Brighton.

Fagan, John, Esq., Belfast; Farquhar, James, M.D., Harrogate; Fawsitt, Thos., Esq., Oldham; Farrar, J., Esq., Morecambe; Fay, T. W., Esq., Liverpool; Fayrer, Sir Joseph, F.R.S., London; Fenwick, G. E., M.D., Montreal; Ferguson, John, Esq., Manchester; Fergusson, J., Esq., Richmond, Surrey; Fernie, H. M., Esq., Macclesfield; Ferris, John S., Esq., Uxbridge; Fiddes, T. M.B., Urmston; Field, George P., Esq., London; Findley, W. M., M.D., Pennsylvania; Finlayson, Alex., M.D., British Guiana; Fisher, Thos., Esq., Wigan; Fitzgerald, C. E., M.D., Dublin; FitzGibbon, Henry, M.D., Dublin; Fitzpatrick, A. Esq., Liverpool; FitzPatrick, W. H., M.D., Stoneycroft, Liverpool; Fleetwood, W. J., Esq., Aintree; Flinn, David, Esq., Kingstown, Dublin; Flint, Austin, M.D., New York; Floyd, T. S., M.D., Birkenhead; Folker, W. H., Esq., Hanley; Forbes, D., M.B., Bootle; Forbes, Litton, Esq., London; Fort, Thos, Esq., Oldham; Foss, R. W., M.D., Stockton-on-Tees; Foster, B., M.D., Birmingham; Fothergill, J. M., M.D., London; Fox, Edward Long, M.D., Clifton, Bristol; Fox, R. Dacre, Esq., Manchester; Frazer, William M.D., Bournemouth; Freeman, A. J., M.D., San Remo; Frew, William, M.B., Galston; Fuller, L. Esq., Hull; Fuller, W., Esq., Cardiff; Furber, G. H., Esq., Maidstone; Furley, John, Esq., Sevenoaks.

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Packer, W. H., Esq., Shrewsbury; Padley, George, Esq., Swansea; Page, Herbert W., Esq., London; Paget, W. S., M.D., Great Crosby, Liverpool; Palmer, J. Foster, Esq., London; Palmer, J. Mansergh, Esq., Armagh; Parke, R. C., M.R.C.P.Ed., Newtonwards; Parker, Robert W., Esq., London; Parker, Roger, Esq., Liverpool; Parker, Rushton, Esq., Liverpool; Parr, Alfred, M.D., Betchworth; Parkington, C. H. W., Esq., Wimborne; Parry, Robert, Esq., Carnarvon; Parry, T. S., M.B., Chester; Parry, Thos. W., Esq., Ferndale; Parsons, Charles, M.D., Dover; Parsons, D. W., Esq., Liverpool; Parsons, F. H., M.D., Hastings; Partridge, Thomas, M.K.Q.C.P., Stroud; Paterson, Wm., M.D., Chorley; Patton, Alexander, M.B., Finglas, Dublin; Paul, F. T., Esq., Liverpool; Paul, J. H., M.D., Camberwell; Pearse, William, Esq., St. Tudye, Bodmin; Peart, Robert S. M.D., North Shields; Pemberton, Oliver, Esq., Birmingham; Philipps, S. Rees, M.D., Exeter; Philipson, G. H., M.D., Newcastle-on-Tyne; Pierce, F. M., M.D., Manchester; Pilcher, W. J., Esq., Boston; Pilkington, George, A., Esq., Southport; Pointon, James, Esq., Liverpool; Pollard, F., M.D., Liverpool; Pope, Edward, Esq., Tring; Pope, H. Campbell, M.D., London; Powell, R. Douglas, M.D., London; Power, R. E., Esq., Portsmouth; Pratt, Walter, Esq., Billesdon; Price, J. L., Esq., Standish; Price, R. G., Esq., Treorky; Prichard, Augustin, Esq., Clifton, Bristol; Prichard, R. Arthur, Esq., Conway; Pringle, H. T., M.D., Bridgend; Pritchard, H., Esq., Fairfield, Liverpool; Pritchett, Henry, Esq., Brighouse, Yorkshire; Prosser, R. Esq., Bromsgrove; Prytherch, H., Esq., Liverpool; Pughe, R. N., M.B., Liverpool; Purves, W. L., M.D., London; Puzey, C., Esq., Liverpool.

Rand, R. F., M.B., Liverpool; Rankin, A., M.B., Glasgow; Ransford, T. D., Esq., Bath; Ransome, A., M.D., Bowdon, Manchester; Ravenhill, T. H. Esq., Bordesley, Birmingham; Raverty, G. B., Esq., Bootle; Raverty, James, Esq., Bray; Rayner, A. C., Esq., Preston; Rayner, E., M.D., Stockport; Reid, James, Esq., Canterbury; Reid, James, M.B., St. Helen's; Reid, W. L., M.D., Glasgow; Renshaw, W. A., Esq., Altringham; Reston, H., Esq., Manchester; Rhodes, F., M.D., Withington, Manchester; Rhodes, G. S., Esq., Saltburn-by-the-Sea; Rhodes, G. W., Esq., Huddersfield; Rhodes, J., Esq., Glossop; Rhodes, John Wilson, M.D., Didsbury; Rhodes, T. W., M.D., Manchester; Rice, George, Esq., Derby; Rich, A. Cresswell, M.B., Liverpool; Richards, John, Esq., Bangor; Richards, Thomas, M.B., Birmingham; Richardson, Charles, Esq., Leeds; Richardson, R. L., M.B., Liverpool; Richmond, C. E., Esq., Warrington; Rickards, E., M.B., Birmingham; Ricketts, C., M.D., Birkenhead; Ricketts, James, Esq., St. Helen's; Rigby, W. B., Esq., Shrewsbury; Riley, Joseph, Esq., Salford; Ritchie, J. J., Esq., Leek; Rivington, Walter, Esq., London; Roberts, D. L., M.D., Manchester; Roberts, Frederick J., M.D., London; Roberts, G., Esq., Vronhaul, Festiniog; Roberts, John, M.D., Chester; Roberts, J. Lloyd, M.B., Denbigh; Roberts, N. E., M.B., Liverpool; Roberts, Robert, Esq., Festiniog; Roberts, Robert, Esq., Portmadoc; Roberts, W., M.D., F.R.S., Manchester; Robertson, R., M.D., Liverpool; Robinson, E., M.B., Welshpool; Robinson, H. E., Chesterfield; Robinson, John, Esq., Frodsham; Robson, A. W. M., Esq., Leeds; Robson, E. Sheddon, Esq. Durham; Robson, John, M.D., Rock Ferry: Roden, S. S., M.D., Droitwich; Roe, Edwin H. Esq., Patricroft; Rogers, Joseph, M.D., London; Rogers, T. L., M.D., Rainhill; Rogers, W. R., M.D., London; Rose, J., Esq., Liverpool; Ross, James, M.D., Manchester; Roth, Bernard, Esq., London; Rothwell, C., Esq., Bolton; Royle, Peter, M.D., Manchester; Rugg, George P., M.D., London; Russell, D. M.D., Neston; Russell, William, M.B., Carlisle.

St. George, G., Esq., Lisburn; Samuel, William, Esq., Swansea; Samuels, A., M.D., Liverpool; Sanderson, A. M., Esq., Musselburgh; Sandford, F. J., M.D., Market Drayton; Sankey, W. H. O., M.D., Shrewsbury; Sansom, A. E., M.D., London; Saundby, R., M.D., Birmingham; Savage, G. H., M.D., London; Sawdon, F. G., M.D., Hull; Schäfer, E. A., Esq., London; Schofield, G. T., Esq., Mossley, Manchester; Scott, E. S., M.B., Shrewsbury; Seaton, Joseph, M.D., Sunbury; Sellers, W., Esq., Liverpool; Sephton, Robert, Esq., Atherton; Sergeant, E., Esq., Bolton; Shadwell; St. Clair, B., Esq., Wolverhampton; Shapter, Lewis, M.D., Exeter; Sharples, Thomas, Esq., Farrington; Shaw, James, M.D., Newton-le-Willows; Shearer, G. M.D., Liverpool; Shearman, W. M., Esq., Swinton; Sheen, A., M.D., Cardiff; Sherburn, John, M.B., Hull; Shimmin, James, M.D., Philadelphia; Shuttleworth, G. E., M.D., Lancaster; Sibley, Septimus W., Esq., London; Silcock, A. Q., Esq., London; Simmons, G. H., Esq., Lincoln; Simpson, H., M.D., Manchester; Skinner, Edward, Esq., Sheffield; Smith, E., M.B., Bolton; Smith, E. Noble, Esq., London; Smith, H., Esq., Chorley; Smith, J. C., Esq., Great Yarmouth; Smith, J. Kellett, Esq., Liverpool; Smith, R. Shingleton, M.D., Clifton; Smith, Solomon, M.D., Halifax; Smith, Thomas, M.D., Woodley, Stockport; Smith, T. Gilbart, M.D., London; Smith, T. Starkey, M.B., Warrington; Smith, William, Esq., Eccles; Smith, William J., Esq., Rotherham; Snell, John, Esq., Bacup; Snell, Simeon, Esq., Sheffield; Snellen, Professor, Utrecht; Snow, W. V., M.D., Bournemouth; Solomon, J. Vose, Esq., Birmingham; Somer, James, Esq., Broadclyst; Southam, F. A., Esq., Manchester; Spanton, M.D., Esq., Hanley; Sparrow, Robert L., Esq., Hollinwood; Speirs, William, Esq., Cleaton; Sprakeling, R. J., Esq., Bootle; Spratly, S., M.D., Birkenhead; Stainthorpe, T., M.D., Hexham; Stamp, W. D., Esq., Plympton; Stansfield, G. S., Esq., Birkenhead; Stear, Henry, Esq., Saffron-Walden; Steele, A. J., M.D., St. Louis; Steele, C. E., Esq., Liverpool; Steele, H. F., Esq., Stoke Ferry; Stephens, Charles, Esq., Jedburgh; Stevens, Frederick G., Esq., Bristol; Stevenson, George, M.D., Stratford, Manchester; Stewart, A., Esq., Birkenhead; Stewart, J., M.R.C.P.Ed., Clifton; Stewart, W., Esq., Barnsley; Stocks, Alfred W., Esq., Salford; Stocks, Frederick, Esq., London; Stokes, William, M.D., Dublin; Stolterfoth, H., M.D., Chester; Stothard, W. J., Esq., Didsbury; Strange, A., M.D., Shrewsbury; Strange, William, M.D., Worcester; Street, A. F., Esq., Oxford; Street, A. W. T., Esq., Barnetby; Stuart, James, M.D., Dallymena; Stuart, J. B., Esq., Wigan; Stuart, S., M.D., Liverpool; Sturge, W. Allen, M.D., Nice; Sunderland, Edward, Esq., Bolton; Sutherland, J., M.D., Manchester; Symonds, Horatio P., Esq., Oxford; Sympson, Thomas, Esq., Lincoln.

Tait, Lawson, Esq., Birmingham; Tatham, G. G., M.D., Wigan; Taylor, E. G. S., Esq., Liverpool; Taylor, G. S., Esq., Sheffield; Taylor, H. C., M.D., Todmorden; Taylor, James, Esq., Chester; Taylor, R. H., M.D., Liverpool; Taylor, William, M.D., Cardiff; Taylor, W., M.D., Edinburgh; Teale, T. P., Esq., Leeds; Telford, S., M.D., Liverpool; Terry, Henry, Esq., Northampton; Thimbleby, J., Esq., Spilsby; Thin, George, M.D., London; Thomas, Gerard, M.D., Newport, Monmouth; Thomas, Hugh, Esq., Birmingham; Thomas, H. O., Esq., Liverpool; Thomas, Jabez, Esq., Swansea; Thompson, James, M.D., London; Thompson, John, M.D., Bideford; Thompson, R., Esq., Melrose; Thompson, J. A. M., Esq., Newport, Salop; Thomson, W. A., Esq., Ampthill; Thornton, H. W., Esq., New Richmond, Canada; Thornton, J. Knowsley, M.B., London; Thorp, Brook, Esq., Holmfirth; Thorp, C. W., Esq., Todmorden; Thudichum, J. S. W., M.D., London; Thursfield, T. W., M.D., Leamington; Tibbits, E. T., M.D., Bradford; Tidswell, H. H., Esq., Southport; Tiffen, Robert, M.D., Wigton; Tilanus, Professor, Amsterdam; Tilley, Samuel, Esq., Crawford; Tisdall, J., Esq., Liverpool; Tomkins, H., M.D., Manchester; Townson, B., Esq., Liverpool; Trimble, Robert, M.D., Walton-le-Dale; Trumbull, J., M.D., Valparaiso; Turner, F. C., M.D., London; Twyford, E. P., M.D., St. Helen's.

Underhill, F., Esq., Balsall Heath, Birmingham; Underhill, W. L., Esq., Tipton.

Vacher, Francis, Esq., Birkenhead; Vale, John T., Esq., Bidford, Warwickshire; Veale, Henry, M.D., Southampton; Veale, Richard S., M.D., Harrogate; Vesey, Thomas A. G., M.B., Rostrevor.

Wade, W. F., F.R.C.P., Birmingham; Wahltuch, A., M.D., Manchester; Walker, A., M.D., Manchester; Walker, A. C., Esq., Liverpool; Walker, G.

M.D., Birkenhead; Walker, George C., M.D., Bootle; Walker, G. E., Esq., Liverpool; Walker, J. B., M.D., Golcar; Walker, J. P., M.D., London; Walker, John S., M.D., Hanley; Walker, T. Shadford, Esq., Liverpool; Wallace, Frederick, Esq., London; Wallace, John, M.D., Liverpool; Wallis, G., Esq., Cambridge; Walsh, John, M.K.Q.C.P., Stonyhurst; Walter, William, M.D., Manchester; Warburton, J. W., Esq., Liverpool; Ward, J. L. W., Esq., Merthyr Tydfil; Warden, Charles, M.D., Birmingham; Warner, F., M.D., London; Warren, Samuel, M.D., Hoylake; Waters, A. T. H., M.D., Liverpool: Waters, Edward, M.D., Chester; Watkins, John W., M.D., Newton-le-Willows; Watkins, R. W., Esq., Towcester; Watson, W. Spencer, Esq., London; Weaver, J. P., M.D., Frodsham; Webb, Vere G., Esq., Coleshill; Webb, William, M.D., Wirksworth; Webster, Thomas, Esq., Bristol; Weir, A., M.D., Great Malvern; Wells, Sir Spencer, London; Welsh, Henry, Esq., Blackpool; Westby, G., M.K.Q.C.P., Liverpool; Weston, E. F., Esq., Stafford; Wheelhouse, C. G., Esq., Leeds; White, C., Esq., Warrington; White, Charles D., M.D., Snodland, Rochester; White, H. H., M.B., Corwen; White, James, Esq., Wigan; Whitehead, W., Esq., Manchester; Whitford, W., M.D., Liverpool; Whitla, W., M.D., Belfast; Whittle, Ewing, M.D., Liverpool; Wickham, Henry, Esq., Rufford, Ormskirk; Wigg, T. Carter, M.D., Derby; Wiglesworth, A., Esq., Liverpool; Wiglesworth, J., M.D., Rainhill; Wilcox, W., Esq., North Walsham; Wilkinson, A. T., M.D., Manchester; Wilkinson, T. M., Lincoln; Willacy, C., Esq., Stockport; Williams, A. Wynn, M.D., London; Williams, David, M., Esq., Liverpool; Williams, E., M.D., Wrexham; Williams, Evan, Esq., Llangefui; Williams, Hugh, Esq., Liverpool; Williams, James, Esq., Holywell; Williams, John, Esq., Carnarvon; Williams, John, M.D., Swinton; Williams, Josiah, Esq., Sheffield; Williams, J. Llewellyn, M.B., Wrexham; Williams, William, M.D., Mold; Williams, William, M.D., Liverpool; Willmore, F. W., Esq., Walsall; Wills, Charles, Esq., Mansfield; Wills, Thomas M., Esq., Bootle; Wilson, A. H., Esq., Liverpool; Wilson, Charles B., Esq., Liverpool; Wilson, Henry, Esq., Wavertree; Wilson, J. H., M.K.Q.C.P., Liverpool; Wilson, Robert A., M.D., Hornby; Wilson, T. D., M.B., Birkenhead; Winn, H. A., Esq., Crewe; Wise, A. T., M.D., Wiesen, Switzerland; Wise, R. S., M.D., Banbury; Woakes, Edward, M.D., London; Wolstenholme, J. H., Esq., Llandulas; Wolfenden, John W., Esq., Tutbury; Wood, T. A., M.D., Wootton; Woodcock, R. F., Esq., Wigan; Woodcock, Samuel, M.D., Manchester; Woodhead, G. S., M.D., Edinburgh; Woods, G. A., Esq., Southport; Woods, O. T., M.D., Killarney; Worrall, R., M.D., Liverpool; Worswick, F. H., M.D., Manchester; Wrench, E. M., Esq., Baslow; Wright, Charles J., Esq., Leeds; Wright, G. A., M.B., Manchester; Wright, J. H., Esq., Halifax; Wright, W. H., Esq., Liverpool; Wylie, H., Esq., Liverpool; Wynne, J. K., M.D., Eccleshall.

Yates, George, Esq., Birmingham; Yellowlees, D., M.D., Gartnavel, Glasgow; Yeo, Gerald F., M.D., London; Young, A. H., Esq., Manchester; Young, G. E., M.D., Leeds; Young, J., Esq., Narborough; Young, P. A., M.D., Edinburgh; Young, T. F., Esq., Bootle; Young, William B., Esq., Reading.

SUMMARY OF PROCEEDINGS OF SECTIONS.

THE subjoined brief summary of the proceedings of the Sections is published here in order to indicate briefly the nature and extent of the work done. The papers read, with the discussions thereon, will appear from week to week in the JOURNAL.

SECTION A.—MEDICINE.

President: John Cameron, M.D. *Vice-Presidents:* Thomas R. Glynn, M.D.; Frederick T. Roberts, M.D.; Dyce Duckworth, M.D. *Secretaries:* Richard Caton, M.D.; Byrom Bramwell, M.D.

Wednesday, August 1st.

The first day of meeting of this Section was devoted to the consideration of papers on Diseases of the Nervous System.

At 9.30 A.M., Dr. BYROM BRAMWELL (Edinburgh) gave a preliminary description of a series of Microscopical Sections illustrative of Diseases of the Spinal Cord, which he had placed on view under seventy microscopes in two rooms adjoining the Section Room. His description was illustrated by sixty large diagrams. The specimens remained on view until Friday.

The Section met at 1.30 P.M. In the unavoidable absence, through illness, of Dr. CAMERON, the President, Dr. GLYNN, one of the Vice-Presidents, took the chair, and addressed the Section as follows. Gentlemen,—In taking the chair as a Vice-President of this Section, allow me to express the regret we all must feel at the absence of our President, Dr. Cameron, from sickness. Dr. Cameron's friends will fully recognise how seriously this Section suffers in being deprived of his services. He took the warmest interest in the arrangements for this meeting; and it is, I am sure, a very great disappointment to him not to be present to preside here to welcome his friends and the members of our Association. In Dr. Cameron's unexpected absence, I have not felt justified in presenting you with what must necessarily have been a hurriedly prepared address. This departure from usage is perhaps of advantage rather than otherwise, as we have a very large amount of work to get through; indeed, it will be hardly possible for us, in the time at our command, to dispose of anything like all the papers before us. Besides the three discussions, which will occupy a considerable portion of our time each successive day, we have ten papers on nervous diseases, and half a dozen papers on consumption in connection with the development of bacilli, and its treatment by antiseptics. We have also papers on the treatment of ascites and empyema; on cardiac murmurs in anæmia; on purpura, and many others. Such a programme not only advertises the order of our business here, and the nature of the work to be submitted to us, but chronicles the year's progress, and suggests future lines of advance. It may be that at this meeting no startling discoveries nor revolutionising deductions will be announced. Questions will be raised and new ideas suggested, and an opportunity afforded for reviewing our knowledge. We must all hope that the work produced here will worthily summarise and record the year's progress, advance our knowledge, and increase our resources.

The chair was then taken by Dr. FREDERICK T. ROBERTS, another of the Vice-Presidents.

Professor GAIRDNER (Glasgow) opened a discussion on Aphasia, and was followed by Dr. Hughlings Jackson, Dr. W. H. Broadbent, Dr. Clifford Allbutt, Dr. W. W. Ireland, Dr. D. Drummond, Dr. James Ross, Dr. Althaus, Dr. G. A. Woods, Mr. Archibald Cameron, Dr. Wahltuch, Mr. T. M. Howell, Dr. C. R. Drysdale, and Dr. Glynn. (*See* page 309.)

Dr. ALTHAUS (London) read a paper on some Postepileptic Phenomena. (*See* page 316.)

Thursday, August 2nd.

Dr. GLYNN, Vice-President, took the chair at 10 A.M.

Dr. BYROM BRAMWELL (Edinburgh) read Notes on the Mechanism of Cheyne-Stokes Respiration. Dr. Milner Fothergill and Dr. D. Drummond made remarks on the paper; and Dr. Bramwell replied.

Dr. DRUMMOND (Newcastle-on-Tyne) read a Note on the so-called Perforating Tumour of the Dura Mater. A cast and specimens were exhibited.

Dr. A. WAHLTUCH (Manchester) read a paper on Electro-Therapeutics.

Dr. A. HUGHES BENNETT (London) read a paper on Hysterical Malingering.

Dr. GLYNN (Liverpool) read a description of a Case of Complete Paraplegia with Rigidity, terminating in Recovery. Dr. Dyer, Dr. Hughes Bennett, Dr. Drummond, and Dr. Ross, made a few remarks, to which Dr. Glynn replied.

At 2 P.M., Dr. BROADBENT (London) opened a discussion on the Causes and Consequence of Abnormal Tension in the Arteries. The speakers who followed him were Dr. Milner Fothergill, Dr. J. E. Eddison, Dr. S. C. Smith, Dr. Saundby, Dr. Mahomed, Dr. McVail, Dr. S. S. Dyer, Dr. Sansom, Dr. Glynn, and Dr. Byrom Bramwell. Dr. Broadbent replied to their remarks.

Dr. AUSTIN FLINT (New York) read a paper on Early Tapping in Cases of Ascites. Remarks were made by Dr. Eddowes, Dr. Mahomed, Dr. Leech, Mr. Padley, Dr. Eddison, Mr. Yates, and Dr. Gowans; after which Dr. Flint replied.

Friday, August 3rd.

Dr. DYCE DUCKWORTH, one of the Vice-Presidents, took the chair this day.

A discussion on Purpura was opened by Dr. STEPHEN MACKENZIE (London), who was followed by Mr. Malcolm Morris, Dr. B. Foster, Mr. Stainthorpe, Dr. Russell, Dr. Radcliffe Crocker, Dr. Mahomed, Mr. Padley, Dr. Caton, Dr. Glynn, and Dr. Duckworth. Afterwards, Dr. Mackenzie replied to the observations of the various speakers.

Dr. DRYSDALE (London) read a paper on Recent Innovations in the Doctrines of Phthisis Pulmonalis. Dr. Dyce Duckworth and Dr. Byrom Bramwell made some remarks; and Dr. Drysdale replied.

The three discussions on Aphasia, Arterial Tension, and Purpura, attracted full meetings, and occupied most of the time of the Section. A large number of papers were placed on the programme, but had to be taken as read, for want of time. They were as follows.

GABBETT, H. S., M.D. The Diagnostic Value of the Discovery of Koch's Bacilli in Sputum.

THOMAS, W. R., M.D. On the Varieties of Phthisis, and the Curability of some in certain stages.

EDDISON, J. E., M.D. A Series of Forty consecutive Cases of Empyema, treated by the Physicians of the Leeds Infirmary (Drs. Allbutt, Eddison, and Churton).

LEECH, D. J., M.D. Duration of Action of Medicine.

SANSOM, A. E., M.D. Note on Percussion as a means of Diagnosis.

CROS, A., M.D. (Paris). Sur la Pleximetrie.

GRANT, Ogilvie, M.D. Notes on two cases of Rupture of the Heart.

HARRISSON, Damer, Esq. Case of Traumatic Pyo-pneumothorax.

HASSALL, A. H., M.D. 1. Further Observations and Experiments on Inhalation in Affections of the Lungs.

SMITH, Solomon C., M.D. Antiseptic Inhalations.

MACKENZIE, J. A., M.D. Rupture of the Heart.

WISE, Alfred, M.D. Climatological Studies at High Altitudes.
BURKE, Deputy Inspector-General. On a New Treatment of Cholera.
LITTLE, J. F., Esq. Rheumatic Arthritis, or Neurotic Arthritis.
MOORE, W. W., M.D. Source of Heat in Fever.
MORRIS, Malcolm, Esq. The Use of Antimony in certain Skin-Diseases.
MYRTLE, A. S., M.D. Sweating to Death.
OXLEY, M. G. B., M.D. The Position of Syphilis as regards Classification and Treatment in this Country.
RANSOME, A., M.D. On the Influence of Iodoform on the Body-weight in Phthisis.
RIDGE, J. J., M.D. The Use of Non-alcoholic Tinctures as Remedies.
ROBERTSON, R., M.D. Modern Uses of Blood-letting.
RUSSELL, W., M.B. Three Fatal Cases of Purpura Hæmorrhagica.
STRANGE, William, M.D. Sporadic Septicæmia, chiefly Puerperal, especially as to its relations with the Infectious Zymotic Diseases.
THUDICHUM, J. L. W., M.D. On Hay-fever, or Hay-asthma, and its Frequent Connection with Structural Disease of the Nasal Cavity.
CAUTY, H. E., Esq. On Roseola.
GREVES, Hyla, M.B. Notes on Cases Illustrating Nerve-Diseases.
ROSS, James, M.D. Rupture of the Brachial Plexus.
THOMSON, G., M.D. Rupture of the Brachial Plexus.
WOODS, G. A., Esq. Cerebellar Tumour.

SECTION B.—SURGERY.

President: Edward R. Bickersteth, F.R.C.S. *Vice-Presidents:* W. Hargreaves Manifold, M.R.C.S.; W. Mitchell Banks, F.R.C.S. *Secretaries:* Rushton Parker, M.B., F.R.C.S.; Edmund Owen, M.B., F.R.C.S.

Wednesday, August 1st.

Mr. BICKERSTETH, President of the Section, took the chair at 1.30, and gave a short opening address.

A discussion on Intestinal Obstruction was opened by Mr. RUSHTON PARKER (Liverpool). Dr. EDWARD WATERS (Chester) read an account of five cases, and a paper on the subject was read by Mr. J. H. MORGAN (London). Remarks were made by Sir Spencer Wells, Mr. Oliver Pemberton, Dr. T. Wood, Mr. A. P. Gould, Mr. Lawson Tait, Mr. Bennett May, Mr. Edmund Owen, Mr. B. Roth, and Mr. Symonds; and Mr. Parker replied.

Dr. J. W. BROWNE (Belfast) read a paper on Some Cases of Hernia.

Mr. E. STANMORE BISHOP (Manchester) read a paper, in which he explained the use of a New Clamp for Enterectomy.

Dr. WARD COUSINS (Southsea) made some remarks on a Knife for Hernia.

Mr. Darby and Mr. Martin Coates made some remarks on the preceding communications.

Dr. WARD COUSINS showed a Photograph of a large Dorsal Tumour, removed to relieve pulmonary and cardiac distress, and gave an account of the case. He also showed specimens of Sharp-pointed Wire, to avoid the necessity of using Needles in the Treatment of Wounds.

Thursday, August 2nd.

The Section met at 10 A.M.

Mr. CHRISTOPHER HEATH (London) read a paper on the Use of Plaster-of-Paris Bandages in the Treatment of Recent Fractures. Mr. John Croft (London) made some remarks on the subject, and demonstrated his method of practice. A discussion followed, in which Dr. G. W. Gay, Dr. McCall (Michigan), and Mr. Rushton Parker took part; and Mr. C. Heath replied.

Mr. W. STOKES (Dublin) read a paper on Excision of the Shoulder-joint.

Dr. MARCH (Rochdale) read a Case of Resection of the Ankle-joint by an Artificial Pott's Fracture. Remarks were made by Mr. Martin Coates, Mr. Henry Morris, and Mr. C. B. Keetley.

Mr. HARDIE (Manchester) read a paper on Amputation by Oblique Circular Incision; on which remarks were made by Mr. Morrant Baker.

Mr. RICHARDSON CROSS (Clifton) read a paper on the Treatment of Arthritis by Incision.

Mr. JOHN FAGAN (Belfast) read a paper on Hæmarthrosis of the Knee-joint.

Mr. C. B. KEETLEY (London) read a paper on Eight Cases of Osteotomy.

At 2 P.M., Mr. CLEMENT LUCAS (London) opened a discussion on Surgical Diseases of the Kidney and the Operations for their Relief. Mr. Bennett May, Mr. Knowsley Thornton, Dr. W. Walter (who described a case of Nephrectomy for Cystic Tumour of a Floating Kidney), Mr. Lawson Tait, Sir Spencer Wells, Mr. James Black, Mr. Rushton Parker, and Mr. Wheelhouse, took part in the discussion which followed, and Mr. Clement Lucas replied.

Mr. MALCOLM MORRIS (London) read a paper on the Comparative Advantages of Scarification and Scraping in the Treatment of Lupus. Dr. Whitford, Dr. G. Thin, Mr. Clement Lucas, and Mr. Bickersteth made some remarks, after which Mr. Morris replied. (See page 322.)

Mr. MARTIN COATES (Salisbury) read a paper on the Treatment of Nævi. (See page 318.)

Mr. EDMUND OWEN (London) read a paper on the Treatment of Large Nævi by the Thermo-cautery. (See page 320.)

The two papers were discussed by Mr. Folker, Mr. Darby, Mr. A. Q. Silcock, and Mr. F. J. Bailey; after which Mr. Coates replied.

Mr. FOLKER (Hanley) read a paper on the Treatment of Varicose Veins by Subcutaneous Ligature. Remarks were made by Mr. J. R. Humphreys, and Mr. Folker replied. (See page 320.)

Mr. SILCOCK read, for Mr. A. T. Norton (London), a Case of Excision of the Superior Maxilla for Melanotic Polypus of the Nose. (See page 323.)

Friday, August 3rd.

Mr. MORRANT BAKER (London) read a paper on Removal of the Tongue by Median Division.

Mr. MARTIN COATES (Salisbury) read a paper on a Case of Removal of the Tongue.

A discussion followed the reading of these papers, in which Mr. W. Stokes, Dr. Fenwick (Montreal), Mr. Mitchell Banks, and Mr. Clement Lucas took part; and Mr. Baker replied.

Dr. FENWICK (Montreal) described a Case of Ruptured Axillary Artery successfully treated by ligature. A discussion followed, in which the President, Mr. E. Owen, Mr. Tidswell, and Dr. J. W. Brown took part; and Dr. Fenwick replied.

Dr. C. WARDEN (Birmingham) read a paper on Genua Vara and Valga; on which remarks were made by Mr. Noble Smith, Mr. B. Roth, and Mr. M. Coates.

Papers on Torticollis were read by Mr. BERNARD ROTH (London), Mr. NOBLE SMITH (London), and Mr. E. OWEN (London).

Mr. NOBLE SMITH read a paper on Lateral Curvature of the Spine.

Dr. JAMES THOMPSON (London) gave a Demonstration on Artificial Limbs.

The following papers were also on the programme, but were not read for want of time.

ATKINS, T. GELSTON, M.D. Tracheotomy for a Coat-button in the Larynx.
BANKS, W. MITCHELL, Esq. A Case in which the Innominate artery was tied.
BERNARD, ARMAND, Esq. Primary Venereal Sores.
BERRY, W., Esq. Strangulated Hernia.
BROWNE, H. LANGLEY, Esq. The Treatment of Enlarged Prostate by Continuous Elastic Pressure.
DRYSDALE, C. R., M.D. The Treatment of Syphilis.
LE PAGE, J. F., Esq. On the Evacuation of Deep Abscesses.
LOWNDES, F. W., Esq. Venereal and Sexual Hypochondriasis.
SOUTHAM, F. A., Esq. A Case of Femoral Aneurysm.

SECTION C.—OBSTETRIC MEDICINE.

President: W. M. Graily Hewitt, M.D. *Vice-Presidents:* John Wallace, M.D.; David Lloyd Roberts, M.D. *Secretaries:* John E. Burton, L.R.C.P.; W. C. Grigg, M.D.

Wednesday, August 1st.

The President, Dr. GRAILY HEWITT, opened the proceedings with an address, which was published at page 224 of the JOURNAL for August 4th.

A discussion on Total or Partial Extirpation of the Uterus for Malignant Disease, was introduced by Dr. SCHROEDER (Berlin), and Dr. WALLACE (Liverpool), and was continued by Sir Spencer Wells, Dr. W. R. Rogers, and Mr. Knowsley Thornton.

Dr. WYNN WILLIAMS (London) read a paper on Cancer of the Neck of the Uterus, and its Treatment.

Mr. J. E. BURTON (Liverpool) read a paper on the more Persevering Treatment of Uterine Cancer in cases in which Removal by

Operation is impracticable. Remarks were made on the paper by Mr. Cameron, Dr. W. R. Rogers, and Dr. James Murphy.

Dr. HALLIDAY CROOM (Edinburgh) read a paper on a Case of Basilysis, on which some remarks were made by Dr. Fancourt Barnes.

Dr. A. DUKE (Dublin) read a paper on Additional Traction in Forceps Cases as an Alternative to Craniotomy.

Mr. J. F. LE PAGE read a paper on Axis-Traction in Delivery with Obstetric Forceps. Remarks were made by Mr. V. G. Webb, Mr. A. Macdonald, Dr. Wallace, Dr. McMillan, Dr. Croom, Dr. Murphy, Mr. Stansfield, Dr. Walter, Mr. A. H. Cameron, Dr. Alderson, and the President.

Thursday, August 2nd.

The subject for discussion at the morning meeting was the Treatment of Uterine Fibromata. The following papers on the subject were read.

The Operative Treatment of Uterine Fibro-myomata: by Mr. KNOWSLEY THORNTON (London).

On Myomotomy: by Professor SCHROEDER (Berlin).

The Differential Diagnosis of the Various Forms of Fibroid Tumours of the Uterus: by Dr. ALFRED MEADOWS (London).

A Case of Hysterectomy for Fibromata: by Dr. W. WALTER (Manchester).

A discussion followed, in which Sir Spencer Wells, Dr. Wallace, Dr. More Madden, Dr. Edis, the President, Dr. Lloyd Roberts, and Dr. W. R. Rogers took part.

Dr. EDIS (London) read a paper on the Treatment of Chronic Metritis associated with Retroflexion; on which remarks were made by Dr. Wallace and Mr. Donovan.

In the afternoon a discussion on Metria was opened by Dr. THORBURN (Manchester) and was continued by Dr. More Madden, Mr. F. J. Bailey, Dr. Fancourt Barnes, Dr. F. H. Alderson, Mr. J. E. Burton, Mr. Donovan, Dr. Grigg, Dr. Alexander, Dr. Wynn Williams, Dr. A. D. Macdonald, Dr. Edis, Dr. Nesfield, Dr. Wallace, Dr. Graily Hewitt, and Mr. Wilson. (*See* JOURNAL for August 11th, p. 260.)

Dr. WYNN WILLIAMS (London) read a paper on Displacements of the Uterus and their Treatment.

Friday, August 3rd.

A discussion on Porro's Operation was commenced by Dr. CLEMENT GODSON (London), and Dr. HEYWOOD SMITH (London); and was continued by Mr. Lawson Tait, Dr. Grigg, Dr. Ward Cousins, Dr. W. Walter, Dr. Ogilvie Grant, and Dr. Lloyd Roberts; after which Dr. Godson replied.

Dr. ALEXANDER (Liverpool) read a paper on Shortening the Round Ligaments for the Cure of some Forms of Uterine Displacement; and Dr. LEDIARD (Carlisle) one on Alexander's and Adam's Operation on the Round Ligaments, with cases and remarks.

Dr. MURPHY (Sunderland) read a paper on the Treatment of Placenta Prævia.

Mr. DOLAN (Halifax) read a paper on Defective Lactation in Modern Times; its Causes and Consequences.

Dr. F. H. ALDERSON (Hammersmith) described a Case of Extra-Uterine Pregnancy.

Dr. MORE MADDEN (Dublin) read a paper on Cerebro-Nervous Disorders Peculiar to Women; on which remarks were made by Dr. Edis, Dr. Fancourt Barnes, and Dr. W. R. Rogers; after which Dr. More Madden replied.

SECTION D.—PUBLIC MEDICINE.

President: T. P. Teale, M.B., F.R.C.S. *Vice-Presidents:* William Carter, M.D.; W. Honner FitzPatrick, M.D. *Secretaries:* F. Pollard, M.D.; George Goldie, M.D.

Wednesday, August 1.

The President, Mr. T. PRIDGIN TEALE, made a few introductory remarks.

Dr. H. J. ALFORD (Taunton) read a paper on the Etiology of Diphtheria.

Dr. A CARPENTER (Croydon) read a paper on the same subject.

Dr. E. F. WILLOUGHBY (London) read a paper on the same subject.

A discussion followed, in which Mr. Teale, Dr. Goldie, Dr. Bruce Low, Dr. Hall, and Dr. Fitzpatrick took part, and Dr. Alford replied.

Mr. M. D. MAKUNA (London) read a paper on the Etiology of Autumnal Diarrhœa.

Mr. T. M. DOLAN (Halifax) read a paper on a Scheme for the more Comprehensive Study and Prevention of so-called Zymotic Diseases.

Mr. JOHNSON MARTIN (Bolton) read a paper on Injuries to Health from the present System of Elementary Education.

Professor SNELLEN (Utrecht) read a paper on the same subject, especially with regard to Ill-effects arising from the Faulty Construction of Seats and Desks for Scholars.

A discussion followed, which was shared in by Mr. Teale, Mr. T. M. Dolan, Dr. Glazebrook, Mr. K. W. Millican, Dr. Eddison, Dr. Martin, Dr. Cameron, Mr. Vacher, Mr. M'Hardy, and Dr. Goldie. Professor Snellen and Mr. Johnson Martin replied.

Thursday, August 2nd.

The Section met at 11 A.M.

Mr. ERNEST HART (London) read a paper on the Regulation and Registration of Plumbers.

Dr. W. CARTER (Liverpool) read a paper on the Directions in which Sanitary Law might be advantageously Amended or Extended.

Mr. F. W. LOWNDES (Liverpool) read a paper on "How to make our Houses Sanitary."

Dr. Carroll (New York), Mr. Nunn, Dr. Thudichum, Dr. Jacob, and Dr. Goldie took part in the discussion which followed.

At 2 P.M. Captain DOUGLAS GALTON, C.B., read a paper on Hospital Construction, which was discussed by the President, Dr. C. R. Drysdale, Dr. Beverley, and Mr. Vacher. Captain Galton replied.

Dr. F. IMLACH (Liverpool) read a paper on Quarantine.

A discussion followed, in which Dr. F. R. Stocker, Dr. C. R. Drysdale, Dr. J. A. Irwin, Dr. Fitzpatrick, Surgeon-Major Evatt, Dr. Robertson, and Dr. E. W. Hope took part, and Dr. Imlach replied.

Friday, August 3rd.

Dr. Carter, Vice-President, took the chair at 11 A.M.

Dr. GEORGE GOLDIE (Leeds) and Dr. EWING WHITTLE (Liverpool) read papers on the Disposal of Town Refuse and Sewage. The subject was further discussed by Dr. Carter, Mr. J. Barkely Smith (Chairman of the Liverpool Health Committee), Dr. C. R. Drysdale, Dr. Eyton Jones, Dr. Glazebrook, Dr. W. W. Ireland, Dr. Thudichum, Mr. Ebenezer Davies, Mr. Lloyd Roberts, Mr. Nunn, and Dr. Fitzpatrick; after which Dr. Goldie and Dr. Whittle replied.

The following papers were also on the programme, but were not read from want of time:—

DRUMMOND, EDWARD, M.D. On the Climate of Rome.

DRYSDALE, C. R., M.D. The Mortality of the Rich and the Poor.

FOX, R. DACRE, Esq. An Enquiry into the Rate of Mortality among Railway Servants.

GRIFFITH, G. DE GORREQUER, Esq. Unity of Poison in Diseases.

JAMES, J BRINDLEY, Esq. On Cremation.

KERR, NORMAN, M.D. The Present Position of the Habitual Drunkards Movement.

MAKUNA, M. D., Esq. Small-pox and Vaccination Statistics; Diseases and Injuries to Health Attributed to Vaccination.

MILLICAN, K. W., Esq. Evolution in Disease.

POLLARD, FREDERICK, M.D. Jail-Fever; an Historical Sketch.

SHEARER, GEORGE, M.D. On the Opium-habit.

SECTION E.—ANATOMY AND PHYSIOLOGY.

President: Professor E. A. Schäfer, F.R.S. *Vice-Presidents:* William Stirling, M.D.; Richard Norris, M.D. *Secretaries:* James Barr, M.D.; A. W. Mayo Robson, Esq.

Wednesday, August 1st.

Professor SCHÄFER, President, opened the proceedings by an address, which was published at page 226 of the JOURNAL for August 4th.

Dr. THUDICHUM (London) read a paper on the Chemical Constitution of the Brain. The President made some remarks, and Dr. Thudichum replied.

Dr. R. J. ANDERSON (Belfast) read a paper on Human Ribs. Dr. Norris and Dr. Thudichum made some remarks, and Dr. Anderson replied.

Dr. HARKER (Lancaster) described a case of Abnormal Hands and Feet. Dr. Anderson, Mr. Mayo Robson, Dr. Barr, and Professor Schäfer, took part in the discussion which followed; and Dr. Harker replied.

Dr. JAMES BARR (Liverpool) read a paper on the Causes and Mechanism of the Cardiac Impulse. Remarks were made by the President, Dr. Cathcart, Dr. Foster, and Mr. Mayo Robson.

Mr. LENNOX BROWNE (London) gave a demonstration on Photography of the Larynx and Soft Palate, during the production of various Musical Tones. For reasons stated, the photographs of the larynx were taken only in exercise of the voice in "upper thick" or "upper chest" register and in falsetto, since the laryngoscopic appearance of the glottic chink, or space between the vocal ligaments

in the "mixed" or "upper thin" register, does not materially vary from that of the thick; and it is only by means of transmitted light that the observer is able to ascertain that there is a variation of volume of vocal cord thrown into vibration in the different registers. Nor could the appearance in the "head" or small register be taken, because that voice is peculiar to boys and females, and is only exceptionally attainable by men. These photographs were the result of numerous and repeated experiments at the Society of Arts, and had been taken by means of the electric-light from Mr. Behnke, with whom Mr. Browne was collaborating a practical manual on the singing voice. They illustrated most perfectly every part of the larynx; and their superiority to other pictures was shown by comparison with the photographs taken by Czermak, and also a more recent one by Dr. French of Brooklyn, U.S.A. The results of these investigators being also exhibited on the screen, many points of interest, chiefly physiological and musical, were elucidated by means of these photographs; perhaps the two principal results were, first, to demonstrate how very conventional is the usually depicted laryngoscopic image; and, secondly, as illustrating how appropriate and exact are the terms thick, thin, and small, applied by scientific musicians to the various registers of the human voice; and how valueless, from a musical point of view, is the falsetto. In addition to these laryngeal pictures, four photographs of Mr. Behnke's soft-palate, in the production of various notes, were then shown. These demonstrated clearly what has long been taught by both Mr. Browne and Mr. Behnke, as to the powerful influence of the soft-palate on pitch, as well as on the quality of the singing voice. One very striking picture was that of the soft palate singing C when a nasal quality was given to the voice, and another when a pure tone of the same note was sung. These photographs were all exhibited by means of about twenty transparencies on a magic-lantern screen, with oxy-hydrogen illumination, and by means of a dissolving-view apparatus; so that every point of similarity and contrast could be rapidly illustrated. They had all been taken by the instantaneous process, and were absolutely untouched. The interest of the exhibition was greatly heightened by Mr. Behnke singing the musical tone represented in each photograph, as it was exhibited; and, afterwards, by the exhibition of his own larynx to the members present, so as to demonstrate the truth of the pictures.

Thursday, August 2nd.

Mr. R. S. ARCHER (Liverpool) read a note on Congenital Aortic Bands. In the discussion which followed, the President, Mr. Knott, Dr. Barr, Dr. Anderson, and Dr. Hoggan took part, and Mr. Archer replied.

Mr. PADLEY (Swansea) showed a Dissection of an Abnormal Distribution of Arteries. Mr. Knott made some remarks.

Mr. KNOTT (Dublin) read a paper on the Anatomy and Physiology of the Spinal Accessory Nerve.

Mr. SIBLEY HICKS (Liverpool) exhibited a series of Embryos to illustrate the Development of the Chick.

Friday, August 3rd.

Dr. GEORGE HOGGAN (London) showed Microscopic Preparations illustrating the Genesis and Comparative Anatomy of the Nerve-Terminations in the Skin and Hairs.

Dr. JACOB (London) showed some Photographs of Chick Embryos, photographed by Mr. Branson, Leeds, from specimens prepared by himself.

Mr. B. C. A. WINDLE (Birmingham) showed Preparations illustrating the Embryology of the Short Muscles of the Human Hand.

Dr. FRANCIS WARNER (London) gave a Demonstration of an Apparatus for obtaining Graphic Records of the Movements of the Fingers, Hands, Head, etc., and enumerating them and their combinations.

Dr. JACOB (Leeds) exhibited a portable form of Polygraph, including a drum, clock, and two tambours, with Sphygmograph, Cardiograph, and Bag for registering movements by respiration. The apparatus was sold by Rölthe, of Prague, and was recommended for portability and cheapness.

Dr. C. W. CATHCART showed a new form of Ether-Freezing Microtome.

Dr. E. C. ANDERSON read a paper on Koumiss.

SECTION F.—PATHOLOGY.

President: T. H. Green, M.D. *Vice-Presidents:* E. H. Dickinson, M.D.; Joseph Coats, M.D. *Secretaries:* Frank T. Paul, M.R.S.S.; James F. Goodhart, M.D.

Wednesday, August 1st.

The President, Dr. T. H. GREEN (London), delivered an address, which was published at p. 229 of the JOURNAL for August 4th.

A discussion on Micro-organisms was opened by Dr. DRESCHFELD (Manchester). His paper was illustrated by numerous tables, and by a diagram of pathogenic organisms (a copy of which was presented to each member) prepared by Drs. Barron and Mott of the Liverpool School of Medicine. The figures were accurately drawn to scale by Mr. J. R. S. Dixon, a pupil of the school.

A paper by Mr. F. W. MOTT (Liverpool) and Mr. BLORE (Liverpool), on Micro-organisms in Typhus, was also read. The discussion which followed was shared in by Mr. Victor Horsley, Dr. Thin, Dr. Shingleton Smith, Mr. Niven, and Dr. Barron; after which Dr. Dreschfeld replied.

Thursday, August 2nd.

At the morning sitting, Mr. CHARTERS J. SYMONDS (London) read a paper on Chronic Inflammation of Bone, including Rickets, Syphilis, and Osteitis Deformans. The paper was illustrated by specimens from the Museum of Guy's Hospital. Mr. R. W. Parker, Dr. Joseph Coats, Dr. G. Sims Woodhead, Mr. F. T. Paul, Dr. Goodhart, and Dr F. C. Turner took part in the discussion which followed; and Mr. Symonds replied.

In the afternoon, Mr. F. T. PAUL (Liverpool) opened a discussion on Primary Growths of the Kidney, Bladder, and Prostate. The paper detailed the results of the work of a committee including Dr. Davidson, Dr. Dickinson, Mr. Rushton Parker, and Dr. Paul. The subject was discussed by Dr. Goodhart, Dr. G. S. Woodhead, and Mr. Symonds. It was agreed that the above-named committee should be requested to continue their labours for another year, and that the Scientific Grants Committee should be asked to make a grant towards their expenses.

Mr. A. Q. SILCOCK (London) read a paper on some points in connection with the Repair of Fractures. Dr. Joseph Coats and Mr. C. J. Symonds made some remarks, and Mr. Silcock replied.

The following papers were also placed on the programme, but, in the absence of their authors and from the want of time, were not read.

BARKING, H. G., M.B., and WINDLE, B. C. A., M.B. The Pathology and Relations of Lupus.

BRADSHAW, T. R., M.D. The Pathology of Three Cases of Disease of the Suprarenal Capsules.

GOODHART, J. F., M.D. Cirrhosis of the Liver.

HADDEN, W. B., M.D. Lardaceous Disease of the Suprarenal Capsules.

LE PAGE, J. F., Esq. Neuropathic Plica.

MANSELL MOULLIN, C., M.B. Some Forms of Osteitis in Hereditary Syphilis.

ROECKEL, W. J., M.B. The Pathology of Internal Hæmorrhoids.

SMITH, R. SHINGLETON, M.D. Cirrhosis simulating Acute Yellow Atrophy of the Liver.

No meeting of the Section was held on Friday, August 3rd, in view of the delivery of the Address in Pathology by Dr. Creighton.

SECTION G.—PSYCHOLOGY.

President: T. L. Rogers, M.D. *Vice-Presidents:* G. H. Savage, M.D.; D. Yellowlees, M.D. *Secretaries:* G. E. Shuttleworth, M.D.; W. Julius Mickle, M.D.

Wednesday, August 1st.

The President, Dr. T. L. ROGERS (Rainhill) delivered an address, which was published at page 232 of the JOURNAL for August 4th.

Dr. YELLOWLEES (Glasgow) introduced a discussion on the Employment of the Insane, which was continued by Dr. Caundy, Dr. Sankey, Dr. Paul, Dr. Murray Lindsay, Dr. Savage, Dr. Shuttleworth, Dr. Bowse, Dr. F. A. Jelly, Mr. Mould, Dr. Ireland, and the President; after which Dr. Yellowlees replied.

Dr. F. A. JELLY read a paper on Lunacy in Spain, on which remarks were made by Dr. Rogers, Dr. W. Jelly, and Dr. Yellowlees.

Thursday, August 2nd.

Dr. WIGLESWORTH (Rainhill) introduced a discussion on Bone-Degeneration in the Insane. Remarks were made by Dr. W. J. Mickle, Dr. Rogers, Dr. Yellowlees, and Mr. Rooke Ley, after which Dr. Wiglesworth replied.

Dr. WIGLESWORTH also read a paper on the Pathology of Mania, on which Dr. Mickle and Mr. Bevan Lewis made some remarks; after which Dr. Wiglesworth replied.

Dr. HIGGARD (London) read a paper on Definitions of Insanity.

Dr. MICKLE (Bow) read a paper on Visceral and other Syphilitic Lesions in Insane Patients without Cerebral Syphilitic Lesions Dr. Sankey and Dr. Rogers made some remarks on the subject.

At the afternoon meeting, a discussion on Cerebral Localisations in Relation to Psychological Medicine was commenced by Mr. BEVAN LEWIS (Wakefield), who was followed by Dr. Ross, Dr. Mickle, Dr. Wiglesworth, Dr. Shuttleworth, and Mr. Victor Horsley.

Dr. SHUTTLEWORTH (Lancaster) read a paper on the question, Is Legal Responsibility acquired by Educated Imbeciles? Dr. Ireland and Dr. Yellowlees made some remarks, and Dr. Shuttleworth replied.

Friday, August 3rd.

A discussion on General Paralysis was introduced by Dr. MICKLE.

Dr. W. H. O. SANKEY (Shrewsbury) read a paper on the question, What Phenomena are included in the name of General Paralysis of the Insane?

Dr. SAVAGE (Bethlem Hospital) read a paper on Some Cases of General Paralysis with Lateral Sclerosis of the Spinal Cord.

A paper by Mr. J. H. BAKER and Dr. MICKLE, on Some Acts during Temporary Epileptic Mental Disorder, was taken as read; as was also a paper by Dr. C. A. MERCIER on an Epidemic of Delirium.

SECTION H.—OPHTHALMOLOGY.

President: T. Shadford Walker, M.R.C.S. *Vice-Presidents:* E. Nettleship, F.R.C.S.; C. E. Fitzgerald, M.D. *Secretaries:* E. A. Browne, M.R.C.S.; C. E. Glascott, M.D.

Wednesday, August 1st.

The meeting was opened with a few words of welcome from the President, Mr. T. SHADFORD WALKER.

Dr. BRAILEY (London) opened a discussion on the Tests for Colour-Sense and Acuteness of Vision among Sailors. Professor SNELLEN (Utrecht) read a paper on the same subject. The discussion was continued by Dr. C. E. Fitzgerald, Mr. G. E. Walker, Dr. McMillan, Mr. McHardy, Mr. Edgar Browne, Dr. McKeown, Dr. K. Grossmann, and the President. The following resolutions were passed.

1. That, in the opinion of this Section, it is of international importance that a proper system of testing the sight of seamen be adopted.

2. That the system comprise an examination, by competent persons, of the sharpness of sight of both officers and able seamen; this being at present entirely neglected.

3. That the imperfect examination for colour-blindness, to which the Board of Trade at present submit candidates for officers' certificates, be revised, and be extended also to able seamen.

4. That pilots be subjected to the same tests, under some central authority, in place of the present varying and ineffective system of examination.

5. That any one failing to pass such examination, be excluded for the future from the responsible navigation of a vessel.

6. That, in case of all accidents at sea which may be due to defective sight, the vision of all concerned should be made the subject of inquiry by competent persons.

These resolutions were subsequently reported to the General Meeting of the Association, on Friday, August 3rd, by Mr. Shadford Walker, the President of the Section.

Some desultory conversation took place as to the advisability of deciding on a standard of acuity of vision to be recommended to the Board of Trade. Mr. NETTLESHIP (London) proposed, Mr. BICKERTON (Liverpool) seconded, and it was resolved: "That, if information be required by the Board of Trade with respect to the resolutions, the matter be referred to a committee, consisting of the officers of the Section, with power to add to their number."

Mr. SPENCER WATSON (London) read a paper on a Shot-Silk Appearance of the Retina; on which remarks were made by Mr. Griffiths, Dr. Glascott, Mr. Nettleship, Dr. Fitzgerald, and Mr. G. E. Walker.

Thursday, August 2nd.

A discussion on the Use of the Electro-Magnet in Ophthalmic Surgery was opened by Mr. SIMEON SNELL (Sheffield), who was followed by Dr. McKEOWN (Belfast). Mr. C. Higgens, Mr. Lloyd Owen, Dr. Emrys-Jones, and Mr. McHardy took part in the discussion.

A paper by Dr. C. BELL TAYLOR (Nottingham) on Sympathetic Ophthalmia was read by Mr. EDGAR BROWNE; and Mr. GEORGE E. WALKER (Liverpool) showed two cases of the affection.

Mr. G. E. WALKER showed a case of Acute Glaucoma treated by Hyposcleral Cyclotomy, on which Mr. Spencer Watson, Dr. Fitzgerald, and Mr. McHardy made remarks.

Mr. CHARLES G. LEE (Liverpool) read a paper on the Optical Conditions in Deaf Mutes.

Dr. EMRYS-JONES (Manchester) read papers on a case of Orbital Abscess communicating with the Brain; and a case of Embolism of the Central Artery of the Retina.

Friday, August 3rd.

A discussion on the Treatment of Ulcers of the Cornea was opened with papers by Mr. HIGGENS (London), and Mr. T. P. TEALE (Leeds); the former on the Treatment of Painful Corneal Ulcers by Warmth and Eserine. Remarks were made on the subject by Mr. Spencer Watson, Dr. Little, Mr. Vose Solomon, Dr. E. Andrew, Mr. Granger, Mr. McHardy, Dr. Grossman, Mr. Hartley, Dr. Emrys-Jones, Professor Snellen, Dr. C. E. Fitzgerald, and Dr. MacMillan; after which Mr. Higgens and Mr. Teale replied.

A paper on Tobacco Amblyopia was read by Mr. C. SHEARS (Liverpool). Mr. A. H. Griffith, Mr. Spencer Watson, Mr. Nettleship, Mr. Edgar Browne, Mr. McHardy, Mr. Vose Solomon, and Mr. R. Williams took part in the discussion.

Dr. EDWYN ANDREW (Shrewsbury) read a paper on the Treatment of Lachrymal Obstructions.

Mr. RICHARD WILLIAMS (Liverpool) described a case of Neuro-retinitis occurring in Anæmia.

SECTION I.—DISEASES OF CHILDREN.

President: Samuel Jones Gee, M.D. *Vice-Presidents:* M. G. B. Oxley, M.D.; T. R. Jessop, F.R.C.S. *Secretaries:* H. G. Rawdon, M.D.; H. Ashby, M.D.

Wednesday, August 1st.

The President, Dr. GEE, opened the proceedings of the Section with an address, which was published at page 236 of the JOURNAL for August 4th.

Dr. T. BARLOW (London) opened a discussion on Rheumatism and its Allies in Children.

Dr. OXLEY (Liverpool) read a paper on a Fatal Case of Chorea in a child.

Dr. ASHBY (Manchester) read a paper on the Nature of the so-called Scarlatinal Rheumatism.

These papers were discussed by Dr Rickards, Dr. Sansom, Dr. Mahomed, Dr. Judson Bury, Dr Byers, Dr. S. Mackenzie, Dr. Stewart, and Dr. Haddon; after which, Dr. Ashby and Dr. Barlow replied.

Dr. W. H. DAY (London) read a paper on a case of Croupous Pneumonia in a Child, treated successfully by the Cold Bath.

Thursday, August 2nd.

The Section met at 11 A.M., when Dr. BALLARD (London) opened a discussion on the Etiology and Pathology of Summer Diarrhœa.

Dr. B. G. MORISON (London) read a paper on Infantile Diarrhœa and its Treatment.

The subject was discussed by Dr. Bruce Low, Dr. Strange, Dr. Buck, Dr. Kealy, Dr. Howie, Dr. Oxley, Dr MacMillan, Dr. Radcliffe Crockes; and Dr. Ballard replied.

At 2 P.M., Mr. MORRANT BAKER (London) opened a discussion on Acute Epiphysal Necrosis and its Treatment.

Mr. J. H. MORGAN (London) read a paper on a Case of Epiphysal Necrosis of the Humerus, followed by considerable Shortening of the Arm.

Mr. G. A. WRIGHT (Manchester) read a paper on the Value of Localising the Primary Lesion in Joint-Disease as an Indication of Treatment.

Mr. R. W. Parker, Mr. Jessop, Mr. Thomas Jones, Mr. Richardson Cross, and Mr. R. Pughe, took part in the discussion which followed; and Mr. Wright, Mr. Morgan, and Mr. Morrant Baker replied.

Dr. H. G. RAWDON (Liverpool) read a paper on the Operation for Hare-lip, on which Mr. J. H. Morgan and Mr R. W. Parker made some remarks.

Friday, August 3rd.

The President, Dr. GEE (London), read a paper on Some Kinds of Albuminous and Purulent Urine in Children; on which remarks were made by Dr. Campbell Pope, Mr. R. W. Parker, and Dr. Ashby.

Dr. J. S. BURY (Manchester) read a paper on a Case of Osteomalacia in a Child. Dr. Gee and Mr. R. W. Parker made some remarks; and Dr. Bury replied.

Dr. H. TOMKINS (Manchester) read a paper on the Clinical Features of Typhus Fever in Children.

Dr. W. R. THOMAS (Sheffield) read a paper on Intermittent Fever among Children in Low-lying Districts; on which Dr. Gee made a few remarks.

Mr. R. N. PUGHE Liverpool) read a paper on Operations for the

Radical Cure of Hernia in Children. Mr. W. D. Spanton made some remarks; and Mr. Pughe replied.

SECTION J.—OTOLOGY.

President: G. P. Field, M.R.C.S. *Vice-Presidents:* Edward Woakes, M.D.; C. Warden, M.D. *Secretaries:* Thos. Barr, M.D.; R. Williams, L.R.C.P.

Wednesday, August 1st.

The President, Mr. G. P. FIELD (London) delivered an address, which was published at page 238 of the JOURNAL for August 4th.

Dr. LAIDLAW PURVES (London) opened a discussion on the more serious aspects of Middle-Ear Disease. Mr. Richard Ellis, Dr. F. M. Pierce, Dr. Woakes, Dr. T. Barr, Mr. Meacham, Dr. Nelson, Mr. C. G. Lee, and Dr. C. Warden, spoke on this subject.

Mr. LENNOX BROWNE (London) read a paper on the Local Treatment of Discharges from the Middle Ear.

Mr. FIELD read a paper on a case of Ivory Exostosis of the External Auditory Meatus, following Suppuration in the Middle Ear, successfully removed by means of the American Dental Engine.

Thursday, August 2nd.

Dr. F. M. PIERCE (Manchester) opened a discussion on the Various Forms of Artificial Tympanic Membrane and their Comparative Value.

Dr. T. BARR (Glasgow) read some Practical Observations on the Value of the Cotton-Pellet as an Aid to Hearing. Dr. J. Nelson, Dr. T. Barr, Mr. Litton Forbes, Dr. J. W. Browne, Dr. C. Warden, Dr. Johnston Macfie, Dr. Ward Cousins, Mr. T. H. Pindle, Mr. T. M. Howell, and the President, made some remarks on the subject.

Mr. LITTON FORBES (London) read a paper on the Indications for the Therapeutic Value of Myringectomy.

Dr. P. MCBRIDE (Edinburgh) read a paper on the Progress of Non-Suppurative Inflammation of the Middle Ear.

Mr. E. C. BABER (Brighton) showed and discussed an Inflating Collar for Siegle's Pneumatic Speculum.

Dr. WARD COUSINS (Southsea) showed a new Ear-Protector against Sound or Noise.

Dr. J. P. CASSELLS (Glasgow) contributed an Analysis of Ten Years' Aural Surgery.

POOR LAW MEDICAL OFFICERS ASSOCIATION.

THE annual meeting of this Association was held at the College, Shaw Street, Liverpool, on Thursday, the 2nd of August, 1883, during the sittings of the British Medical Association. Dr. Joseph Rogers, medical officer of the Westminster Workhouse, presided, and there was a very numerous attendance.

The CHAIRMAN, in opening the proceedings, said the Association was formed seventeen years ago, and during its existence had succeeded in promoting the interests of its members in numerous ways. They had succeeded in having all medicines found by the guardians in London, and in procuring a partial supply of medicines in most of the provincial unions. They had also secured a permissive superannuation Act, and their efforts had been devoted towards making it absolute. They had repeatedly urged the adoption of certain modifications in medical relief, and in several instances had succeeded in their efforts. Latterly their efforts had been directed towards the redressal of individual grievances, and to advise their members in matters relating to their duties. The Chairman proceeded to read the following statement with reference to communications referred to him from the Editor of this JOURNAL, and to other matters.

Poor-Law Medical Columns of the British Medical Journal.—"On page 447 of the BRITISH MEDICAL JOURNAL, dated September 2nd, I drew attention to the cruel case of Mr. R. Axford, Workhouse and District Medical Officer, Bridgwater, who, after an incumbency of thirty-eight years, resigned on the grounds of ill-health. Under the Superannuation Act, he would have been entitled to £79 yearly—two-thirds of his salary and extras. Such proposal was made, but was met by a direct negative. Ultimately the paltry grant of £25 was awarded him.

"On the same page I drew attention in a letter to the question of extra medical fees, and pointed out how they came to be introduced, and what resulted. I refer to this subject, as in my speech last year at Worcester I advocated their abolition, save those for midwifery and lunacy, and their commutation in an advance of salary, calculated on an average of the preceding five years.

"In the issue of September 30th, page 655, I called attention to the refusal of the Board of Guardians of a Cambridge union to grant an order to attend a boy who had fractured his femur, on the ground that the father was in full work. The board refused to give an order, which would have carried a fee; but gave one for 2s. 6d. a week and a loaf of bread, which the parents had not asked for. Here they pauperised the whole family, but they did the medical officer out of the fee. I recommended a County Court summons, but whether one was taken out I know not.

"At the same date I drew attention to the Stourbridge Workhouse, which I visited last August—without exception, one of the most horrid dens I ever saw. My description gave rise to much local excitement, but has led, as I learn, to no alteration, at least up to the present.

"On the same page I called attention to the case of Dr. O'Connor, of the North Witchford Union, Cambridgeshire. He had been called to attend a mother and boy (one twenty-nine, the other nine years old), but without an order. The mother was ill, the boy had broken his leg. The relieving officer undertook to bring the case before the board. He did so, the result being that an order was given for the mother, but refused for the boy. I got a question asked in Parliament about this, and the correspondence was published. Dr. O'Connor never got a sou; he was too timid to summon the guardians. If he had, I am sure he would have won.

"On page 815, October 21st, I drew attention to the action of Mr. Fenn, workhouse medical officer, Dover Union, who wrote asking that he should be relieved from the necessity of initialling orders for stimulants, notably beer, for other than the sick. A lengthened discussion took place, some advocating that the doctor's wish should be complied with. Ultimately, matters remained as they had been, and the inmates had their beer. This is an important subject, and one on which the views of this Association will be fully and definitely expressed this day.

"On page 970, November 11th, I drew attention to the case of Mr. J. Hatton, Monmouth Union, medical officer for thirty-six years. His retiring allowance should have been £54 a-year. He was only awarded £26. I pointed out that this grant was better than in the case of a medical officer in Somersetshire, who, on applying for a superannuation grant, was offered an order to the house instead, and than the case of old Mr. Pink, of Eastmeon, Hants, who, after a service of forty years, was left, at eighty years of age, in absolute pauperism. While commenting on the shabby conduct of certain boards of guardians, I cannot refrain from calling attention to the handsome recognition of the services rendered by Mr. Richards, medical officer to the Workhouse and Schools at Brighton. The recognition came not from the guardians he had served so well, but from the master, matron, and subordinate officers, who subscribed and made him a present of plate.

"On the same page will be found a letter from Mr. Grubb, of Waterbeach, Cambridge, thanking me for my attendance at the County Court, Cambridge, when I gave evidence in support of his claim for a fee of £3 for attending an old woman, on the permanent pauper list, who had fractured her leg. The guardians resisted payment on the grounds that a special order should have been given. I showed that, as she was on the permanent pauper list, and Mr. Grubb was bound to attend her without any order; no order was necessary for the special attendance. The Judge agreed with my view, gave judgment against the guardians, and awarded full costs, myself included. I never received a professional honorarium with more pleasure. Our Council thought this case one of so much professional interest that they paid Mr. Grubb's legal charges, leaving him with his fee intact. This case will be a precedent, and, although the Central Department may decline to intervene in such cases, yet the District Medical Officer may yet recover his fee, if he possesses the necessary pluck to fight for it.

"On the same page I answered a question as to the transfer of residence of a medical officer, and pointed out that residing out of a district did not invalidate an appointment. All that it could affect would be possibly the permanence of such appointment.

"On page 866, October 28th, I drew attention to the treatment which Mr. Harvey, district medical officer, of St. Just's, had received at the instance of one Mr. Searle, a medical guardian, who made formal complaint that Mr. Harvey had employed an unqualified assistant, and that he had made charges for fractures which had never occurred. The statements made by this member of our profession met with the sternest reprobation of the guardians generally. For the information of country and other members, I made an extract from Lumley's *Manual*, as to when and where it was competent to employ unqualified assistants."

The Chairman went on to make a statement in regard to the dis

putes between the Westminster Board of Guardians and himself; and read the following letter which, he said, had been received by the guardians from the Local Government Board, and suppressed by them.

"Local Government Board, Whitehall, July 18th, 1883.

"SIR,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 25th ultimo, submitting the observations of the guardians of the Westminster Union upon the evidence taken at the recent inquiry held by the board's inspectors, Mr. Robert Hedley and Mr. George Taylor, into the charges preferred against Mr. J. D. Bliss, the master of the workhouse.

"The board having carefully considered the report of their inspectors, and the depositions of the several witnesses who were examined at the inquiry, are of opinion that several of the charges which have been brought against the master have been established against him.

"As regards these charges, the board cannot concur in the views expressed by the guardians, and the board but regret that the guardians should appear to regard so lightly the serious irregularities of which Mr. Bliss has been guilty.

"The board have entertained very great doubt whether consistently with their public duty they could properly allow Mr. Bliss to continue to hold the responsible position of master of the workhouse, and in determining to refrain from adopting, on the present occasion, the extreme course of requiring his resignation, they have been mainly influenced by the fact that he still retains the confidence of the guardians whose officer he is.

"The board wish it, however, to be clearly understood that, in the event of any further complaints against Mr. Bliss being substantiated, they will have no alternative but to require him to relinquish the office he holds.

"I am directed to request that the guardians will be good enough to communicate to Mr. Bliss the view entertained by the board with regard to his proceedings, and to seriously caution him as to his future conduct.—I am, sir, your obedient servant,

"C. N. DALTON, Assistant Secretary."

This letter, he thought, was a very powerful indication that the feeling of the Local Government Board was in support of the position he had taken, and he regarded with composure the proceedings which the guardians were taking in the direction of a complaint as to his actions. [*Hear, hear.*]

Mr. T. DAVIES (Colwyn Bay) looked upon the treatment which the Chairman had received at the hands of his board of guardians as persecution, and moved the following resolution:

"That this meeting earnestly desires to express its sincere sympathy with Dr. Joseph Rogers under the trying circumstances in which he is now placed by the Board of Guardians of the Westminster Union; and this meeting trusts that the President of the Local Government Board, Sir Charles Dilke, will continue to use his authority in the interests of the sick poor of this union and of their medical attendant, Dr. Rogers."

Mr. DONOVAN (Whitwick) seconded the resolution, and said there was no man connected with the profession who would have a greater amount of sympathy at the hands of his professional brethren than Dr. Joseph Rogers. That gentleman had for very many years sustained the cause of Poor-law medical officers when they had been "sat upon" by boards of guardians, which the guardians were not at all averse to doing when any medical officer trod upon their corns. He himself had had trouble with one of his guardians; and if one guardian was able to make things unpleasant for the medical officer, what must it be when all were against him. [*Hear, hear.*] If there was one thing more than another they ought to work for, it was to prevent themselves being persecuted by guardians. They had, unfortunately, on most boards, men who went there simply for the purpose of airing their eloquence, and were only too willing and happy if they could find a poor doctor to spend their wrath upon. If the doctors combined, they would very soon put a stop to all sorts of snarling and backbiting. Some boards of guardians were like Star Chambers—they thought they had perfect liberty to say what they liked against the doctors; and this had been his experience some time ago, when a reverend member of a board of guardians was good enough to make a statement about him which he should never have heard of had it not been for a friend. He took the bull by the horns, however, and served the reverend gentleman with a writ, which would, in due time, come before the courts. He regretted to see so large a number of medical officers hanging back from the Association; for, if they had not such an organisation, medical officers would have to go to the wall, and would be put down and crushed and insulted by every pettifogging guardian who chose to do so. He begged, with all his heart, to tender to Dr. Rogers his sincerest sympathy in the trying position he occupied.

Dr. DRYSDALE, as a near neighbour of the Chairman, said he should like to say how much he sympathised with him.

The resolution was then put, and carried unanimously.

The CHAIRMAN, in acknowledging the vote, said he was conscious of doing his duty as well as any medical officer could do it.

Annual Business.—The SECRETARY then submitted the report and the balance-sheet.

Surgeon-Major EVATT, in moving their adoption, said he looked upon the Poor-law service of England as a most important service, and he had been utterly astonished at the unjust and unfair treatment which medical officers had received. He could bear testimony to the excellent work performed by Dr. Rogers; and he took it that Dr. Rogers was doing work which the whole body should do. The subscriptions which were paid should place members directly under the protection of the Association; they should have their paid solicitor or barrister to take up all cases affecting their interests, and be backed up by the great central parliament of the profession, whose voice was so strong as to penetrate into every corner of the land.

Mr. DONOVAN seconded the motion, which was carried unanimously.

The CHAIRMAN said the next business was the election of officers He did not think they would be likely to make any change with advantage, though he should be quite ready to resign his seat to anyone who wished it, provided he would do the work. He suggested, therefore, that the officers should remain as before. This was seconded and carried.

The Use of Stimulants in Workhouses.—The meeting proceeded to consider this subject.

Dr. NORMAN KERR (London) proposed the following resolution:

"That, in view of the very large proportion of pauperism produced by intemperance, and the disturbance and impairment of discipline where intoxicants are in use, this meeting notes with pleasure the greatly diminished consumption of intoxicating drinks in workhouses; and strongly urges on all Poor-law medical officers the propriety of prescribing as little intoxicating liquor as may be found compatible with the safety of the sick.

"That this meeting also is of opinion that no pauper should receive payment in intoxicating drink for work done, and that all parochial officials should have the option of a money equivalent in lieu of an allowance of beer or other intoxicating beverage.

"That this meeting instructs the Chairman to forward a copy of the above resolution to Sir Charles Dilke, the President of the Local Government Board, and to the medical and general press."

Dr. Kerr pointed out the anomaly of a sick pauper in one locality being ordered intoxicating stimulants at the rate of £2 14s. per case; and, in another locality, being treated without such remedies at all. In 1881 the cost for alcohol in metropolitan workhouses varied from 2¼d. to 32s. per head. In the "Atlas" hospital-ship, the average was £4 7s. 6d. The cost for alcohol was 50 per cent. higher in the metropolis than in the provinces. The prescription of alcoholic drinks to the sick poor was surrounded by peculiar difficulties, inasmuch as, as he himself had seen, everybody but the patient might consume the liquor. Then the poor generally descended into pauperism through strong drink; and a free or routine administration of this pleasant and powerful drug, only tended to confirm their prejudice in favour of, and their previous desire for, intoxicants. It was gratifying to find that there had been a marked decrease in the cost of beers, wines, and spirits, during the past few years. There would have been a still greater decrease; but, in cases within his knowledge, the efforts of the medical officer had been thwarted by his being subjected to endless worry, annoyance, and even injury to reputation and practice, by guardians and others who were strongly in favour of a large expenditure on drink. In some cases, he was bound to confess, the difficulty lay with the medical officer. A recent return showed that in 1881 £22,000 less had been expended on intoxicants in workhouses in England and Wales than in 1871, a decrease of over 25 per cent., though there had been an increase of over 8 per cent. in the average daily number of pauper inmates.[1] In this last return, it was noted that there had

[1] Lord Derwent's return shows that in the year ending Michaelmas 1871, the cost in England and Wales for indoor paupers was £82,555. In the year ending Lady Day, 1871, the average daily number of inmates was 156,430. Mr. Whitworth's return shows that the cost for England and Wales for indoor paupers lor the year ending December 31st, 1881, was £60,303, and the average daily number, 170,566.

been no consumption of strong drink in 1881 in the following workhouses: Shoreditch, Greenwich, and Leeds. Had the period embraced in this return extended a little later, the extensive workhouse of St. Marylebone, with a daily average of 1,577 inmates, would have been reported as having consumed no intoxicating drink in 1882. From this return for 1881, it would appear that in 17 unions no liquor had been used, 8 of these being Welsh. Owing to the change from infirmary and workhouse under one roof to seperate infirmaries, it is impracticable yet to make out the actual decrease in the amount ordered to the sick; but in several infirmaries, such as St. George's-in-the-West, Wandsworth, and St. Marylebone, there had been a very decided reduction. All this showed that Poor-law medical offcers did not now place so much reliance on the alleged therapeutic virtues of intoxicating remedies as they used to do. He (Dr. Norman Kerr) ordered them very rarely and very sparingly; and he had never seen reason to be dissatisfied with the results of this almost non-alcoholic treatment. It was impossible, for the present, to say what effect this diminished stimulation had on the mortality, all the factors not being within their reach. He had, for example, found a very high mortality where no liquor had been given; but there was evidence enough to show that, other conditions being equal, the withdrawal of alcoholic drink did, to say the least, neither injure the health nor increase the death-rate of the sick. This subject had attracted much popular attention, and he regretted to read denunciations of medical officers who continued to prescribe intoxicating drink freely. The medical officer, and the medical officer alone, was the judge of what medicine his patients should have. He was responsible for the treatment, and any outside interference with that treatment from non-professional quarters, was as unjustifiable as it was mischievous. The more reason, therefore, that medical officers should study the precise value of alcohol as a medicinal remedy, in the interests of their own reputation, of the dignity and usefulness of their profession, and of the patients confided to their care. Intoxicating drinks were always a disturbing element. Where they were, disorder and breaches of discipline were apt to abound. For these reasons, he (Dr. Kerr) felt convinced they would all be agreed that every Poor-law official, with a beer or other ration should, in common fairness, have the option of an equivalent in money; and that there should be a total discontinuance of all payment to paupers, for work done, in an intoxicating drink.

The excellent effect of the rejection of intoxicating drink from the ordinary dietary had been seen in the country lunatic asylums of Abergavenny, Derby, Barming Heath, Carlisle, and other places. At Abergavenny it had been found that the substitution of milk for beer, although adopted solely for medical reasons, had resulted in a saving of £223 a year on 650 patients. Though Dr. Kerr mentioned the saving in cost, he did so simply as the record of a fact. Though a lessened consumption, or total abolition of intoxicating drink, was accompanied by a diminished expenditure, the unmistakable benefit arising from such a course would, in his opinion, be well worth a considerable increase of expenditure.

The exclusion of all intoxicating liquors, except for strictly therapeutic purposes, from all public institutions, would secure more vigour, efficiency, and care in their management; would greatly improve the health, comfort and happiness of the inmates, and would be a practical reform of the very highest importance. He was sure that the proceedings of that meeting would exercise a wide and lasting influence in official, philanthropic, and professional circles.

Dr. DRYSDALE, in seconding the resolution, said there were few subjects of more importance to medical officers of health, because it affects the whole system of workhouse diet. It was wrong for doctors to prescribe alcohol, because it was plain, from the whole statistics on this subject, that those who drank intoxicants lived a shorter time than those who did not. He had read a paper in another section, in which he showed that a number of insurance companies would give ten per cent. off their insurances to persons who would undertake not to drink alcohol. Taking another view of the question, he maintained that it was exceedingly immoral in any community in the present day to take drink into a workhouse, and allow paupers a supply of that which inevitably produced a great amount of immorality.

The CHAIRMAN remarked that, in the Westminster Workhouse, there were sixty-four pints of beer allowed daily for "labour done" in the house, and it was distributed among ninety-two people. The names of those people were entered in his stimulants-book; but, of four-fifths of that number, he had no official knowledge whether they were actually in the house or not. He was bound to initial the supply to those people, however, although he did it against his will, and he had protested against it before the guardians.

Mr. EDWARD JONES (Chairman of the Toxteth Board of Guardians) said one view of the subject, in his experience as a guardian, had pressed itself very strongly upon him; and that was the extreme danger of prescribing alcoholic stimulants to the class of people who were found in workhouses. Those poor people had such unbounded faith in the opinions of medical men when they prescribed palatable medicines that, if they were given an inch, they took an ell. They came to regard spirits as a panacea for all "the ills that flesh is heir to," and as a kind of elixir of life. They flew to the "bottle" on every occasion of feeling ill—more frequently than the medical officer intended. As to the discipline of workhouses, he was perfectly satisfied it would be very much improved if stimulants were kept out. He strongly approved of the suggestion that, instead of allowing stimulants to officers of workhouses, they should receive the money value.

Mr. E. LAWRENCE, in support of a statement by the last speaker, as to the cost per head for stimulants consumed in the Brownlow Hill Workhouse, gave the following statistics. In 1877, the average number of inmates in the house was 2,413; amount spent in stimulants, £833 6s. 10d.; average per head, 6s. 11d. In 1878, the average cost per head was 7s. 3d.; in 1879, 6s. 7½d.; in 1880, 5s. 5d.; and in 1881 and 1882, the average cost in each year was 4s. 7d. The Brownlow Hill Workhouse not only included a large fever-hospital, but there was a large number of operations performed in the house by Dr. Alexander, which necessitated an extra consumption of stimulants. All their officers took beer-money instead of stimulants, and he had no doubt it was to their benefit, and the benefit of the institution as a whole. [*Applause.*]

Dr. PARR (Reigate), speaking as "a poor guardian," said he was a martyr to the views he entertained on this subject. [*Laughter.*] He was burnt in effigy last 5th of November [*loud laughter*] on the village green in his neighbourhood, because he was the means, on the Reigate Board of Guardians, of bringing about the disuse of beer in the workhouse. Since this change was effected, the master reported that the discipline of the house was much better, and the medical officer of health had reported that the health of the house had been much improved. With regard to medical officers being interfered with in their duty, he might mention a case within his own experience. A medical officer had ordered some extras to one of his patients, when the relieving officer took it upon himself to stop the extras. The medical officer appealed to the Local Government Board, with a view of ascertaining who had the authority in this matter; and the reply was, that the relieving officer was the only authority with power to give or keep back those extras. The medical officer, in consequence, resigned. If this meeting took some steps to put the medical officer in his proper position, that he alone should have the authority to order these extras, and he alone was the judge of what his patients required, he thought a very useful step would be taken.

Dr. RODEN (Droitwich) opposed the resolution. He thought that, if they deprived many old people of stimulants, there would be an amount of mental depression which they would feel very greatly indeed, and some of them would lie down in their beds and die in three or four weeks of broken hearts. Such cases he had seen over and over again. It should be in the power of the medical officer to afford these poor old people such comforts as were desirable, so as to maintain their health in a fair and proper condition. The workhouse was not a place of punishment. It was an asylum, or ought to be, for the poor people who were sent there, often through no fault of their own. To remove from them the benefit of a little stimulant would be, in many cases, to condemn them to death.

The CHAIRMAN thought these remarks applied to a class of cases which ought to be under the control of the medical officers, who ought to have perfect freedom of action. The class of people to whom Dr. Kerr referred had no right to receive beer on the ground of sickness. [*Hear, hear.*] These were the class of persons they wished to reach.

Dr. RODEN: You have given a definition to the question for discussion which was not given before.

The CHAIRMAN: You see the point I make now?

Dr. RODEN: Yes, I do; but I would make a suggestion to our friends not to talk too readily and condemn too hastily.

Dr. NORMAN KERR pointed out that his resolution did not altogether prohibit the use of stimulants; and, for his own part, he did prescribe them where they were necessary, and would continue to do so, in spite of all the guardians.

The SECRETARY suggested that the form of resolution to meet the case was one declaring that the question of stimulants be left entirely in the hands of the medical officers.

Dr. CARMICHAEL (Liverpool) said he was chairman of the West Derby guardians at the time the question of stimulants arose; and the point in that case was not as to the power or absence of power on the part of the medical man to prescribe for the patients, but simply as to the medical officer's prescribing stimulants generally to paupers who were not ill, but merely beyond the age at which they were required to work. He held that the beer, given in the small quantities used at West Derby Workhouse, had tended very much to the happiness and contentment of their minds. [*Hear, hear.*] He personally, for one, as an ex-chairman of that large union, would be very sorry to deprive the medical officer of the power of prescribing small quantities of beer to men who were otherwise physically unable to work, and who would not work at all without that quantity of beer. [*Hear, hear.*] Twenty-nine of those poor people were between sixty and seventy years of age, twenty-four were between seventy and eighty, one was eighty-one, and two were eighty-two; and he asked those present, as medical men, whether they could keep these poor people—with the restricted diet which they had, except in cases of extreme illness—in a healthy state, if they were to deprive them of what was really, after all, nothing. He earnestly hoped the meeting would gravely consider before sending up to the President of the Local Government Board such a resolution as had been moved. He could not consent to it. [*Hear, hear.*]

Dr. DUTTON said that he was medical officer of a very large parish, and in about two years he had only ordered about half a pint of port wine and half a pint of brandy. But for this reason: the relieving officer gave the patients a ticket, which they took where they liked, and got the brandy or whatever stimulant it might be. And of course they got poison. If he had a proper place where it could be got, he should order it in a medical way; and he was of opinion that in every workhouse there should be a proper supply of stimulants. They should be bonded, and the doctor on writing his prescription ought to be able to make sure that his patients got what was ordered. The present system of letting patients get their stimulants where they liked, was absolutely wrong. [*Hear, hear.*]

Dr. ROBERTSON (Liverpool) said, as physician for the largest workhouse in the kingdom, Liverpool, he had had considerable experience in the use of stimulants. With one or two of the speakers he could not agree. One gentleman said that old people, when they came into the workhouse, began to fret, and in a short time died of a broken heart. Well, an immense number came into the Liverpool Workhouse, and did not have any stimulants—or very little indeed—but they did not die. And if his hearers went round the infirmary wards of the Liverpool Workhouse they would find plenty of people who had been there, and in bed, for twelve or fourteen years, and yet they had had no stimulants.

Mr. CORNWALL: Have they extra diet when they are confined to bed?

Dr. ROBERTSON: No; they have No. 7 diet.

Mr. CORNWALL: But we don't know what that is.

Dr. ROBERTSON said it was a very little improvement on the house-diet; in the medical and surgical wards they got an extra allowance. If any gentlemen would come round the wards with him he would show them numbers of cases of persons who had had no stimulants in the workhouse hospital, and these were people who as a rule had been indulging in stimulants to a great degree before coming into hospital. It only showed how great a fallacy it was to suppose that people could not be cut off at once from stimulants and yet not suffer harm. It was the greatest fallacy in the world. They had numbers of persons suffering from delirium tremens, and when they came into hospital the stimulants were cut off at once, and yet they were in no worse condition. A large number of them recovered, and much more rapidly than they would have done if they had had the stimulants. He did not believe there was any nutritious property in beer. He thought giving a little beer to people in workhouses was a very great mistake; and as for it leading to contentment and happiness, and all that sort of thing, he was perfectly convinced its effect was the very opposite. For, notwithstanding the greatest care, they could not prevent patients from selling their stimulants. If they gave able-bodied paupers beer they would not drink it, but would find people in the house to buy it, and thus the door was opened to fraudulent practices within the house. They had no difficulty in getting people in the house to work, and they gave no extras even in the fever hospitals. The poor women who did the cleaning in the fever-rooms got the ordinary diet, and some of them had been there twenty years; and if they could live that time in a fever hospital without stimulants, surely able-bodied paupers might do without. [*Hear, hear.*] For the last twelve months they had had nearly 1,500 fever cases in the hospital, and this had been the great source of the expenditure on stimulants in the hospital, but he was sure from the number of patients both in the fever hospital and elsewhere the stimulants supplied were about the smallest in the kingdom, and the statistics of recoveries would compare most satisfactorily. He should be very pleased if any gentlemen who were interested in the question of stimulants in workhouse hospitals would go round with him the following morning. [*Hear, hear.*]

Dr. CARMICHAEL said he only referred to giving stimulants to persons over sixty. No able-bodied pauper in the West Derby Union got them.

Dr. NORMAN KERR then replied very briefly to the discussion, pointing out that the resolution only rejoiced at the diminished amount of the disturbing agent now used in workhouses. He was entirely in accordance with the Local Government Board, who were particularly desirous of getting all stimulants banished from the workhouses of the kingdom, as centres of disturbance and breach of conduct and discipline, except purely in the treatment of the sick, with which they did not wish to interfere, and with which the medical officers were determined no persons should interfere. He would simply further remark that the experiment had been tried in Marylebone and St. George's-in-the-East Unions of cutting off the liquor of all persons who were not sick—persons of all ages—and the result had been shown in the increased comfort and happiness of the people.

The resolution was then put to the vote, when it was carried by a very large majority, only three hands being held up against it.

The meeting then concluded.

MILITIA SURGEONS' SOCIETY.

A MEETING of this Society was held on Wednesday, August 1st, at the College, Shaw Street, Liverpool.

Surgeon-Major SMITH, 4th Battalion Norfolk Regiment, was voted to the chair, and amongst those present were Surgeon-Major Williams, 6th Battalion R. Rifle Corps, Mold; Surgeon-Major H. Wright, 4th Battalion West Riding Regiment; Surgeon J. B. Waddy, 3rd Battalion Royal Irish; Surgeon Manifold, late 2nd Royal Lancashire; Surgeon Richards, 4th Battalion Royal Welsh Fusiliers; Surgeon-Major Cavanagh, 3rd Battalion the King's Liverpool Regiment; Surgeon-Major Eyton Jones (retired), Denbighshire Hussars; Sir Wm. Miller, surgeon-major 9th Battery Irish Royal Artillery Militia; Surgeon-Major Crawford, 3rd Battalion Prince of Wales' North Stafford Regiment; Surgeon-Major Evatt, A.M.D.; Surgeon-Major Moore, 4th Battalion Royal Enniskillen Fusiliers; Ernest Hart, Esq., Chairman Parliamentary Bills Committee; Dr. Jacob, President Irish Association, Dublin: Surgeon-Major MacCormack, 7th Battalion Royal Rifle Corps; Surgeon-Major Orton (retired), Staffordshire Regiment.

The CHAIRMAN, in opening the proceedings, said it would be remembered that ten years ago, at the meeting of the British Medical Association in London, the Society was established at a meeting called together principally by himself, and he supposed it was as a reward for his exertions that he had been appointed President of the Society. From that time up to the present the Society had not been asleep. It had done good service in promoting the interest of militia-surgeons in various ways; but now came a matter of more serious importance than many others with which they had dealt. By Mr. Childers' dictum militia-surgeons were, after a certain time of life, to be cashiered altogether. In 1880 a paragraph appeared in the militia regulation stating that militia-surgeons would retain their posts until vacancies occurred. They naturally thought they were safe as long as they were capable of doing their duty; but in 1881 there was a further order to the effect that all who had attained the age of sixty-five were disqualified from further service. Questions were asked in the House as to compensation for those losses which were experienced in consequence of Mr. Cardwell's Bill; and the replies were, that every case would be taken on its own merits, until Mr. Childers was pressed, and then he decided that nothing was to be done. Since 1881 Dr. MacCormack and himself had met members of the House of Commons at the House, and had communicated with Mr. Childers, who said he would listen to every statement made to him, and that he would give replies to them. In consequence of that, he (the chairman), or rather, he

should say, Mr. Hart, had prepared a statement of their case, and, in the course of time, they had replies that their case had been submitted to the law-officers of the Crown, and that their opinion was the militia-surgeons were not entitled, either by law or equity, to any compensation. Sir Eardley Wilmot very ably and energetically took up their case, aided by Dr. Farquharson, M.P., and asked that a committee might be appointed to take the matter into consideration. They received, however, great opposition from the Government, and many members who had promised Dr. MacCormack and himself that they would vote for the committee's appointment, were absent when the matter was brought up in the House; and the consequence was, the motion was lost by a very small majority—a majority of 13. They were encouraged to believe, however, that a great point had been gained, inasmuch as the Financial Secretary stated that all cases should again receive consideration. This was a point conceded; and another was that a member of the Government stated that if he were aware of any fund out of which the militia-surgeons could receive the money they claimed, he would support them. Dr. MacCormack would lay the case more fully before the meeting. He could only say, for his own part, that the militia-surgeons were most grateful to Mr. Hart for the great assistance he had afforded. He hoped something would come of this meeting, and that the militia-surgeons would be more energetic than they had been up to the present, in formulating their case and pressing it upon the attention of the House and the Government. [*Hear, hear.*]

Surgeon-Major MACCORMACK asked to be allowed to read an article in one of the medical papers which, he said, would be found to put the case concisely and forcibly, and the reading of which would really save time.

Permission having been accorded, Dr. MacCormack read the article.

Mr. ERNEST HART said that, since the paper had been printed, he went to Sir Eardley Wilmot, and suggested that some further question should be put in the House of Commons, pressing upon the Government that, in view of the very large majority which supported Sir Eardley Wilmot and Dr. Farquharson, the Government should reconsider the question. Sir Eardley said, in reply, that any question which might be drawn up by the Society, or anyone representing the Society, he would put himself, and he would bring such interest to bear as he could, to induce the Government to appoint a committee. [*Hear, hear.*] Hence, really the best thing to do would be to consider how the question should be worded.

A MEMBER asked when the matter could be brought on.

Surgeon-Major MACCORMACK said it could be introduced during the Army Estimates.

The CHAIRMAN: No further motion can be brought on this session, but the question can be asked.

Surgeon-Major MACCORMACK suggested that the wording of the question should be left to their good friend Mr. Hart.

The CHAIRMAN concurred.

Surgeon-Major ORTON said he should like to give a few particulars of his own case, with a view to showing how he had been squeezed out of the service. He had served for fifteen years in a rifle regiment in Staffordshire, when an order came to change the uniform from green to scarlet. Boys fresh from school, who had just got their uniform, were allowed £25 to cover the expense of the change, but the doctor, who had been fifteen years with the regiment, and had exerted himself to bring it up to as high a standard as any in England, was passed over in regard to such an allowance. He had written to the authorities upon the matter, but the allowance was withheld; and thus, when the regiment changed its uniform and went into training, what was he to do? He maintained there was nothing but to resign, and that he had been practically squeezed out.

Some conversation followed upon the circumstances detailed by Surgeon-Major Orton, in the course of which several gentlemen pointed out that that officer had acted precipitately in resigning, since it was not incumbent upon the medical officer of the regiment to change his uniform if he became a departmental officer, as Dr. Orton had become, while the £25 allowance was made to those who were not departmental officers.

Reverting to the purposes of the present meeting,

Surgeon-Major MACCORMACK said the object for which it had been called was, first, to have a fair gathering of militia-surgeons, past and present; for he had felt all along that the difficulty they had, in bringing any pressure to bear upon the Government, was the smallness of their numbers. They were only units amongst the large number of professional men. He had thought, if they could get an expression of opinion from the outside members of the profession, it would be an important assistance in furthering their aims. It should be shown that an injustice was being imposed upon a body of men who were part and parcel of a liberal profession; and, if they could secure the support of heads of colleges in London, Dublin, and elsewhere, and the different Branches of the Association, he was sure their end would be more effectively attained.

Surgeon-Major CRAWFORD asked if it would not be desirable to ask the great body of medical men, present at the meetings of the Association, to pass a resolution, saying that the militia-surgeons had been badly treated?

Surgeon-Major MACCORMACK: That is my object.

Surgeon-Major EYTON JONES said he would propose, that a request be made to the Committee of Council to allow the matter to be brought forward at the general meeting on the Friday morning following, [*Hear, hear.*]

Dr. JACOB said he thought he could venture to speak on behalf of two bodies on the Irish side of the channel, and to promise their support. He was president of the Irish Medical Association, and intimately connected with its executive, and was also a councillor of the Irish College of Surgeons; and, as far as he knew, both those bodies would be entirely willing to throw their influence in the scale to support the object of that meeting. [*Hear, hear.*] The matter had, indeed, been submitted to the Irish College of Surgeons on a former occasion, but owing to a variety of circumstances, but principally insufficient information, the College did not take action as it might have done. He would undertake, if a further representation were made, that it should be dealt with in a proper way. He thought they would be able to contribute a useful contingent towards the agitation. As to the proceedings there, if the matter came up before any of the general meetings of the Association, he would have a great deal of pleasure in attending and supporting it. [*Hear hear.*]

Mr. HART thought the proposal to bring the matter before the Committee of Council, on Friday, was a very good one; and with reference to bringing the grievances before public attention, said that it was very important that the Association should first settle which test-cases they should submit. Those cases should be settled in conference with the Secretary of the Association, and they should be stated accurately and without exaggeration, so as to admit of no answer. This would furnish material for the next session of Parliament.

Surgeon-Major WILLIAMS seconded Dr. Eyton Jones's proposition, which was put to the vote and unanimously passed.

Surgeon-Major MACCORMACK said it was the duty of the Society to thank Sir Eardley Wilmot, Dr. Farquharson, and the members of the minority on the motion in the House, for their great exertions in endeavouring to secure oompensation for militia-surgeons. [*Hear, hear.*]

Surgeon-Major Sir WILLIAM MILLER seconded the motion, which was carried unanimously.

The CHAIRMAN then moved a vote of thanks to Mr. Hart and the Parliamentary Committee for their very great assistance.

Surgeon-Major MACCORMACK seconded the resolution, saying he supposed no member of the Society had had more intimate relations with Mr. Hart, who had never spared either tongue or pen in working for the Society.

The resolution was passed by acclamation.

Mr. HART, in briefly thanking those present for the vote, said he had great pleasure in working for them, and he was quite sure, if they went on, they would succeed. He would suggest that the meeting should now draft the form of resolution to be proposed at the meeting of the Council of the British Medical Association on Friday.

At the request of the meeting, Mr. Hart sketched out the following resolution: "That this Association views with regret the long delay which has occurred in the redressal of the grievances of the militia-surgeons of the United Kingdom; and expresses the hope that, in view of the recent strong expression of opinion, in the House of Commons, in support of a favourable consideration of their case by the Government, the Secretary of State for War will grant the request of the militia-surgeons, recently submitted to him by the memorial."

This was unanimously approved, and the proceedings closed.

Dr. J. W. H. Trail, Professor of Botany in the University of Aberdeen, has undertaken the editorship of the *Scottish Naturalist vice* Dr. Buchanan White, resigned.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 18th, 1883.

RECENT RESEARCHES ON BACILLI AND TUBERCULOSIS.

M. VIGNAL, Repetiteur at the Paris Collège de France, has recently been conducting a laborious series of researches on the bacillus of tubercle. One of the questions investigated was the destiny of bacilli in sputa, which was carried out by MM. Malassez and Vignal, in a series of experiments on the presence of bacilli in the sputa of phthisical patients, which realised the actual conditions to which sputa are subjected. They fall to the ground and are ground to dust under the feet of passers by, then moistened by the rain, and afterwards dried in the sun. M. Vignal dried in a flat receptacle some sputum presenting bacilli; this he afterwards pulverised, then moistened, and subsequently dried; the sputum was in this way moistened and dried eight times, and the bacilli were as abundant as in fresh sputum. M. Vignal inoculated a guinea-pig, in order to determine the pathogenic activity of the sputum, but the experiment is too recent for its results to be known. They will at a later period be communicated to the Société de Biologie.

Another research, intended to show the influence of decomposition on the presence of tubercle-bacilli in pathological specimens (*Bulletin de la Société de Biologie*, 5 Mai, 1883), was conducted by M. Vignal, who inoculated a guinea-pig two months previous to death. Immediately after death, he removed its liver and glands; some of the latter exhibited cheesy degeneration, and bacilli were present in all the organs. Every twenty-four hours, fresh fragments removed from these organs, or pus taken from the glands, were examined. On the eighteenth day after death, decomposition was too far advanced to allow the examination to be continued. A piece of lung removed from the body of a child, which had died from tuberculous meningitis, was examined on the twelfth day, when decomposition was so far advanced that the miliary tubercles, though abundant, were scarcely evident. Tubercle-bacilli were easily observed up to the last day of observation. They were surrounded by a number of bacteria peculiar to decomposition; however, judging from a cursory examination, their number seemed equal to that observed in prior examinations. Müller's fluid and alcohol, or Müller's fluid alone, does not prevent bacilli from being observed, but M. Vignal found picric acid useless. He treated several specimens presenting bacilli with alcohol, picric acid, and gum; in some the bacilli were faintly stained, and in others not at all.

M. Vignal used Ehrlich's method of staining, modified by Weigert. He concludes his communication by stating that bacilli are easily detected in pathological specimens in an advanced stage of decomposition. They are also as easily detected in specimens that have been preserved a long time in absolute alcohol, or in Müller's fluid, as in those which have been submitted but for a short time to the action of these reagents.

As Koch has observed, there are forms of tuberculosis in which bacilli are not present, and others in which their presence is not in proportion with the extent of the lesion. MM. Malassez and Vignal, in their recent researches on tuberculosis (Sur une forme de Tuberculose sans Bacilles: Tuberculose Zoogloeique, *Bulletins de la Société de Biologie*, Mai 19, 1883), have especially studied such cases.

A nodule from which bacilli were absent was taken from the skin of a child's arm, the child having died from tuberculous meningitis. A series of guinea-pigs, reaching as far as the fifth generation, were inoculated from the nodule, and a succession of tuberculous lesions was the result. A small quantity of pus from the same nodule was artificially cultivated on gelatinised serum, and the presence of a micro-organism was observed, which by inoculation produced lesions similar to tuberculosis; the lesions resulting from these inoculations were all identically the same. A few days after inoculation, small hard nodules appeared where the needle had entered the skin. They gradually increased, exhibited cheesy degeneration, eventually softened, and were transformed into abscesses, with or without a core. Sometimes these abscesses healed quickly, when opened and emptied of their contents. Whilst the inoculation-nodule follows its course, secondary nodules of an infectious character appear in its neighbourhood, also in some of the organs, and tuberculosis becomes generalised. The organs most frequently attacked are the abdominal and inguinal glands, the omentum, liver, spleen, and lungs. The lesion consists of small semi-transparent granulations, frequently isolated; sometimes they are agglomerated, opaque, caseous, and large. The important characteristic is the benign nature of the nodules, considered as a local lesion, coupled with the phenomena of infection and rapidity of generalisation. On a microscopic examination, it is observed that, where the granulations do not exhibit cheesy degeneration, they show an accumulation of small round cells and epithelioid cells. Giant-cells are rarely present, and are never observed in newly formed granulations. The tissue is identical with the tuberculous granulations known as lymphoids. Thus, structure, origin, progress, and external aspect indicate tuberculosis; nevertheless, the bacilli are not observed in the preparations. They exhibit another kind of micro-organism, zoogloeic masses, varying in shape and size, consisting of small motionless micrococci or spherobacteria, closely packed and nearly all of the same size. The staining method, successful in colouring Koch's bacilli, has no effect on these organisms, which are observed in tubercle-granulations and in their neighbourhood. In good sections of matured but not caseous tubercle-granulations, the zoogloeic masses present the aspect of round granular masses with small eminences. These zoogloeic masses occupy the centre of the granulations; they are sometimes isolated, sometimes present in considerable numbers, and confluent. When cheesy degeneration is more advanced, the zoogloeic masses are not so easily detected, and are only present in the peripheral inflammatory zone, where they are but slightly developed. The zoogloeic masses present in the centre of tubercles, before they have undergone cheesy degeneration, are not easily observed afterwards, when the cells become granular. Whether their presence is not detected, or whether they have undergone transformation, is a question the authors hope to elucidate at a future time. The caseous substance used for inoculation always produces fresh zoogloeic masses, which induces MM. Malassez and Vignal to ask if there be any relation between the zoogloeic masses they have observed, and the micro-organisms previously described as tubercle-parasites. They answer as follows.

1. The absence of Koch's and Baumgarten's bacilli both in the early and advanced stages of the lesion, induces them to think it probable that the zoogloeic masses do not represent a stage of development.

2. The micrococci of the zoogloeic masses are not analogous to the tubercle monads of Klebs, observed also by Reinstadter and Schüller. These micrococci present the aspect of fine spherical granulations, either isolated or joined together in twos. They also

appear as fine rods; both granulations and rods exhibit movement independent of Brownian movement. They have observed Klebs's monads in some of their preparations which exhibit bacilli; but in these, zooglœic masses are invariably absent; also, as Deutschmann's experiments are apparently to be depended on, tuberculous monads cannot produce tuberculosis.

3. The same remarks as above are applicable to the micrococci of Eklund, which exhibit motion; also to the micro-organisms described by Aufrecht, which are small micrococci isolated or united in twos or threes, or refractile bacilli twice as broad as they are long.

4. Toussaint is the only investigator who appears to have observed organisms analogous to the zooglœic masses above described. In tubes of slightly alkaline fluid made with rabbit's broth, and caseous glands removed from pigs made tuberculous by injecting into them lungs removed from phthisical cows, he saw appear, the next morning, small isolated granulations, some joined together in twos, and others grouped together in larger numbers, all exhibiting movement. After a few days had elapsed, a viscous substance appeared containing fine motionless microphytes, isolated, or joined together in twos or irregular masses. Possibly, the movable granulations floating in the fluid are analogous to Klebs's monads; and MM. Vignal and Malassez think that the viscous matter deposited is probably similar to the zooglœic masses described by them; but nothing certain can be said. Toussaint does not say anything about the microscopical examination of the granulations resulting from inoculation; and the artificial cultivations made by MM. Malassez and Vignal were not similar to his. This question is of secondary importance. The important fact demonstrated by these authors' researches is that, besides a species of tubercle exhibiting bacilli, there is another in which they are absent, but in granulations of recent formation zooglœic masses are observed presenting the aspect of agglomerated micrococci, some larger than others, This form of tuberculosis, MM. Malassez and Vignal term zooglœic tuberculosis.

M. Vignal has also made a comparative study of fourteen different methods of staining bacilli, and has come to the following conclusions concerning them, which have been communicated to the Biological Society of Paris (*Bulletins de la Société de Biologie*, May 19th and 26th, 1883). Koch's method, the first that revealed the presence of bacilli, does not always succeed, and requires most minute care. Ehrlich's method is excellent; the formula he gives for the staining solution is not clear, but this is remedied by using the one recommended by Weigert, which may be called the Ehrlich-Weigert solution, and is as follows: Saturated solution of aniline water, 100 cubic centimètres, and 11 cubic centimètres of saturated solution of fuchsine or gentian-violet, or any other aniline colour. Rindfleisch has observed that a temperature of 40° Cent. (104° Fahr.) facilitates the staining of bacilli, and that the specimens of tissue ought to be examined in a mixture composed of equal parts of gum and glycerine, to which is added a little arsenious acid to prevent the development of fungi. This solution is more easily used than Canada balsam; it renders the preparation as transparent, and the cloudy appearance resulting from the use of the balsam is absent.

Baumgarten's method reveals the presence of bacilli, but they are with difficulty distinguished from the vacuoles of the preparation. It brings under observation every other kind of micro-organism present in the preparation. Aufrecht's method stains the numerous micro-organisms present in the sputa of phthisical patients, and a few of the tubercle-bacilli. The solution recommended by Franz Ziehl stains the bacilli present in sputa as successfully as the Ehrlich-Weigert solution, but not so quickly.

As Ziehl has not made known to the scientific world what are the proportions of the substance used, M. Vignal has endeavoured to determine the exact formula, which is as follows: water 100, phenic acid (crystal) 1, saturated alcoholic solution of violet of gentian, or methylene, 5 to 10. Discoloration is effected by nitric acid.

Von Ermenzen's method stains the bacilli only faintly, and is not satisfactory, either for sputa or for sections. Gibbes's method is excellent for staining sputa-bacilli, but totally useless for sections of tubercle. Brun's method for staining bacilli is useless for sections, and not very successful in treating sputa, but his discolouring solution is excellent. Balmer and Fräntzel's method stains tubercle-bacilli very deeply. Their discolouring mixture is much stronger than any other; it takes effect in thirty or sixty seconds. The only defect in this method is the necessity of preparing the solution at the very moment it is wanted. Babes's method is an inferior modification of the Ehrlich and Weigert's method. Zenkevitch asserts that his method is very rapid, also certain, but Gibbes's method stains with equal rapidity, and is more certain, although less delicate. Cheyne's method operates very successfully, but the red bacilli are not very evident on the blue ground.

M. Vignal's conclusions may be summed up as follows. He recommends Gibbes's method for studying tubercle-bacilli in sputa and pus, because it operates rapidly and is especially adapted to all clinical study, and Ehrlich and Weigert's method for colouring sections.

Balmer and Fräntzel's mixture should always be used for discolouring, excepting sections which exhibit an abundance of connective tissue, when Bruns's method is preferable. For preserving specimens, Farrant's solution is preferable to Canada balsam.

THE CLOSING OF SCHOOLS AS A SANITARY MEASURE.

A LITTLE more than a year ago (vol. i, 1882, p. 395), we drew attention to the practical admission by the Education Department that it was not true economy to sow the seeds of learning and of infectious disease at the same time. The instruction in the Education Code of 1882, that managers of elementary schools throughout the country should conform to any notice they might receive from the local sanitary authority requiring them to close the school, or to exclude any scholars from attendance, was a step, if a tardy one, in the right direction; and its extension by the Code of 1883 to all schools receiving Government grants will be welcomed as a promising sign of the times. There can be no question that the powers thus conferred on sanitary authorities will, in certain localities and during particular epidemics, be of great advantage in preventing the dissemination of infectious disease. But the sanitary authorities and their medical advisers will need to have an accompanying sense of responsibility in their dealings with schools. It has been heretofore not uncommon, when measles or scarlatina has appeared in a district, to propose the closure of schools as a mere matter of course. Now that the representations of sanitary authorities will be, in a measure, binding upon the managers of a school, the sanitary authority must, in the words of Dr. Buchanan of the Local Government Board, "ask to be shown a clear prospect of sanitary gain before interfering with the educational requirements of their district. They will need to feel the reasons why closure of any particular school is to be desired, and why the object of hindering infection is not to be attained by the less comprehensive measure of prohibiting the attendance of children from houses or streets that are known to be infected."

Whilst there may be doubt whether this latter suggestion of Dr. Buchanan would work in practice, there can be none as to the wisdom of his caution as to the exercise of the powers of school-closure now practically conferred on sanitary officials. The whole question is, indeed, not so easy as it seems to be. To shut up a school when an epidemic is raging seems wise enough; but what about the increased and unrestricted opportunities of commingling of the infective and the healthy at play and in crowded courts?

The medical officer of health must weigh carefully and thoughtfully the probable results of school-closure in each particular instance brought to his notice; and must not be content to look upon the shutting-up of schools as an easy measure of sanitary police which he may clap on when an epidemic gets to be troublesome.

As to the enormous influence of school-congregation in the spread of epidemics, there can be no two opinions, however much difference may be manifested as to the proper remedies to apply. We cull the following examples from a number of recent reports now before us, not so much to emphasise this statement, as to show the varying conditions under which such epidemics happen, and the consequent impossibility of treating them all alike. We have already (page 265 of the last volume) commented on the epidemic of measles at Dover, where 41 per cent. of the total deaths from zymotics last year occurred from that disease alone. The epidemic in question was confined chiefly to the families of scholars attending one of the elementary schools in the borough, which the health-officer unsuccessfully endeavoured to close. From the number of cases traced to connection with this school, Dr. Robinson considers that it was "a fertile source of propagating the disease." Inquiry made during the epidemic, revealed that whilst some of the children of a family attended one school, others in the same household attended another. It was in this way that an establishment in a different part of the borough became infected.

From Lancaster comes a similar experience. After about four years of almost complete immunity from the disease, several cases of measles appeared in the earlier part of the year. Certain of the children were allowed to attend a public school, and the disease became disseminated throughout the town, some 700 cases occurring between February and April. The disorder proved of an exceedingly mild character, and in forty-five cases only, all of which were children under 5 years of age, did it prove fatal. At Tickhill there was an outbreak of measles which developed so rapidly as to lessen the attendance of children at the schools one half, before it came to the knowledge of Dr. Mitchell Wilson, the health-officer. He found several children actually in attendance, and others had all along been known to be at school, while brothers or sisters were at home ill with measles. The cases were at first mild, and were looked upon as ordinary cases of illness, but in March, in three households, school-children being first attacked, there were three deaths.

Goole was also visited by a widespread outbreak of measles, of such a nature as to seriously interfere with the school attendance; but here Dr. Wilson was able to meet the difficulty of obtaining early information of infectious cases, by making an arrangement with the medical practitioners in the town for the early notification of such cases upon payment of a small fee. On the receipt of the certificate by the Local Board, the information was forwarded to the school authorities, and thus became useful for both purposes. During this and a similar outbreak of scarlet fever, the early knowledge of infectious cases proved, as might be expected, of the utmost value.

Dr. Ash contributes another and typical instance of the influence of the attendance of infected children. A school in his district, Holsworthy, was reopened after a month's holiday, in September last. For the first week the average attendance of scholars was 52, and for the second, 62. On Thursday, in the middle of the third week, the attendance suddenly fell to 24, when the school was closed. One of the boys, it was learnt, had been visiting, for a week, a relation in whose house there had been measles. This boy attended school during the first week; in the second, he was absent, sick with measles. On the Monday of the third week he returned, and, without doubt, infected the whole community of scholars, about fifty of whom were struck down with the disease, almost at once. The disorder was directly carried into all parts of the school district, and also into an adjoining parish. The epidemic was severe and widespread, but proved fatal in one case only.

Instances of this kind might be multiplied indefinitely; but enough has been said to show that, whilst a vast amount of preventable suffering is indubitably caused through infection caught at school, the mere shutting up of the school will not be sufficient to prevent it, but must be accompanied and supplemented by other hygienic precautions and investigations.

THE DISEASES PREVENTION (METROPOLIS) BILL.

ALTHOUGH no details are yet forthcoming as to the decision at which the Metropolitan Asylums Board have arrived with regard to the provision of hospital accommodation for cholera-patients, it appears from Lord Carrington's statement in the House of Lords, on the second reading of Sir Charles Dilke's Diseases Prevention Bill, that they have expressed themselves "willing to do all in their power, and would constitute themselves the first line of defence.' This must apparently be taken to mean that the managers will provide accommodation up to a certain point, after which the responsibility for further provision will rest with the vestries and district boards. This is an unsatisfactory expedient, but probably the only one possible whilst the local government of the metropolis remains in its present chaotic state. It is worthy of note that the Bill, though professedly designed with the object of checking the spread of cholera, has other and very important objects, which will not be practically affected by the limitation of the operation of the Act to September 1st, 1884. It has been found that the success of the hospital-ships provided by the managers has been hampered by a difficulty as to wharf-accommodation. Section 6 of the Bill, after reciting that "it is necessary, in order to facilitate the conveyance by water to hospital-ships and hospitals on or near the Thames, of persons suffering from infectious disease, that the managers should provide wharves or landing-places for that purpose," enacts, therefore, that "it shall be the duty of the managers, and they are hereby required, to provide, on the banks of the said river, wharves or landing-places, not exceeding three in number, within the metropolis, and one wharf or landing-place beyond the metropolis."

Power to acquire the needful sites compulsorily is also given; and "when such wharves or landing-places and approaches have been provided, on sites approved by order of the Local Government Board, the same shall be deemed to be expressly authorised by this Act." The managers will, of course, take care to put this Section in force at once, so that when the Act expires, the wharves for infectious cases will be accomplished facts. Another clause, expressly excluded from the limitation of the Act, gives power to the Local Government Board to assign to the Sanitary Authority of the port of London the powers and duties of an urban sanitary authority. The independent poor are tempted to make use of the hospitals to be provided under the Act by the declaration in Clause 7, that admission to hospital is not to be considered as parochial relief, alms, or charitable allowance, so as to deprive the patient, or his parent, of any right or privilege, or be subject to any disability or disqualification. On the whole, the Act may be regarded with approval, as a temporary measure under an emergency; but it does not dispose of the grave and important question of the proper isolation-provision for infectious cases in the metropolis. Probably this will be another of the administrative problems with which our new municipality will be called upon to grapple at an early stage of its career.

AMONG the members of the Association present at the recent annual meeting in Liverpool were Dr. T. L. M'Millan of Melbourne, the President, and Dr. W. H. Cutts, the Treasurer, of the Victoria Branch of the British Medical Association. This is, we believe, the first occasion on which gentlemen holding office in colonial Branches have been present at an annual meeting of the Association.

SIR SPENCER WELLS has been elected an Honorary Fellow of the Physico-Medical Society of Erlangen.

THE Bradshawe Lecture at the Royal College of Physicians will be delivered on Saturday, the 18th instant, at four o'clock, by Dr. J. Wickham Legg, who has chosen as his subject Cardiac Aneurysms.

THE Library and Museum of the Royal College of Surgeons will be closed on Friday, the 31st instant, for the usual cleaning and rearrangement of their respective contents, and will be reopened on Monday, October 1st.

M. VERNEUIL will represent the Society of Surgery at Paris at the next International Medical Congress. M. Depres has been invited to accept a commission, but he replied that he made it a rule never to attend "scientific fairs."

THE Sanitary Committee of the Hull Corporation have resolved to provide extra hospital accommodation, at an estimated cost of £950, with the view of meeting any case of cholera that may happen in the town.

SCARLET fever is becoming seriously fatal at Sheffield. In the four weeks ended June 30th last, there were as many as 61 deaths in the borough from this one disease, and in the thirteen weeks ended on the same date, no less than 151, as against 31 in the corresponding period last year.

THE daily papers publish the report of the terrible catastrophe at the private lunatic asylum of Dr. Boyd at Southall, near Ealing. Dr. Boyd had displayed great presence of mind, and returned into the building during the progress of the fire, to help in saving the lives of the inmates and servants. Both he and his son perished in the flames, and the circumstances of this tragic occurrence reflect honour upon his memory. A fire at a lunatic asylum impresses the imagination more than almost any other occurrence; and it always adds terrors to the fearful incidents attending such an outbreak, that the doors of many of the wards are locked, and the communication and means of exit are impeded. This was so in the present case.

EPIDEMIC RELIGIOUS EXCITEMENT.

THE *Journal de Ploërmel* reports a curious example of one of those outbreaks of epidemic nervous disorder which were characteristic of the middle ages, but are now rarely heard of. Of fifty pupils of the Girls' Congregational School of Saint Marlo des Trois Fontaines, upwards of thirty-five have been attacked by a nervous disorder having all the symptoms of St. Vitus's dance. The school has been closed by order of the local authorities.

THE REGULATION OF DAIRIES.

THE Public Health (Dairies) Bill, of the Lord President, has passed the Lords, substantially as introduced, and is now before the Commons. An agitation has been commenced, at the instance of the Kensington Vestry, against the Metropolitan Board of Works being declared the "Local Authority," in London, as proposed by the Bill. It is argued that the Board of Works has no staff of sanitary officials such as local authorities have, and that it is undesirable to impose further duties upon the Board, who already have ample work on hand. The Bill is a highly important, though very simple one, and we trust that no difficulties may arise to prevent its passing into law this session..

A SCANDALOUS UNCERTAINTY.

WE cordially agree with the opinions expressed by Mr. Bridge, the magistrate at Southwark Police-court, when he condemned the action of the parochial authorities of the two parishes contiguous to Guy's Hospital, whose dispute as to their liability to bury the body of a poor man who had died in that institution had led to the unfortunate daughter being exposed to much trouble and considerable indignity, when, to use the language of Mr. Bridge, "she had been literally driven from pillar to post." Surely Guy's Hospital has been established long enough for the point to have been determined ages ago, as to which parish is liable to bury the bodies of indigent persons dying therein. We hope that the attention of the Local Government Board will be drawn thereto, and that they will inquire into this scandal, and sternly rebuke those parties who have caused it.

SERIOUS EPIDEMIC OF FEVER AT TORPOINT.

THE St. German's Rural Sanitary Authority seem to be unfortunate in their experience of typhoid fever. Another place in their district—Torpoint—is now suffering under an epidemic which, a week ago, was reported to have already attacked 110 people, and to show no signs of abatement. The medical officer of health described many of the wells in the town as polluted, and apparently traces a considerable number of cases to the drinking of the water from a well in the square, found on analysis to be organically impure. Moreover, the water-supply is very inadequate for the requirements of the place, and the provision of a pure supply by water-carts is recommended as a temporary measure. The drainage is also reported as in a "very unsatisfactory state." "The old drains are seemingly nothing more than a harbour for rats, and the new ones useless from want of means of flushing." This is obviously a case for the adoption of the promptest measures of sanitary precaution and reform.

CONVICTION UNDER THE APOTHECARIES' ACT.

AT the Southwark County Court on the 3rd instant, the Medical Defence Association brought an action under the Apothecaries' Act of 1815 against Charles Pearson, druggist, of 104, Stamford Street, S.E., to recover a penalty of £20 for acting as an apothecary without legal qualification. Mr. H. R. Hodson, barrister, instructed by Mr. C. J. C. Pridham, solicitor to the Medical Defence Association, conducted the prosecution, and Mr. Washington defended. Evidence was produced to prove that the defendant had been in the habit of making daily rounds as a medical man, that he attended the sick at their homes, sounded the chest, etc., and, after his visits, sent medicines of his own selection for their cure or relief. For the defence, it was contended that the defendant had done nothing which exceeded the rights and privileges of druggists, as reserved to them under Sec. 28 of the Apothecaries' Act. The defendant also relied on the fact that he was "a perpetual student" of Westminster Hospital, and stated that he had attended the cases of which complaint was made for the sake of gaining experience. The learned judge, however, considered the evidence proved that the defendant had acted as an apothecary and not as a druggist, and gave judgment for the full penalty, £20, together with costs on the higher scale.

THE APPOINTMENT OF MEDICAL OFFICER TO THE CHARTERHOUSE.

WE understand that Mr. Yate of Godalming, who has been medica attendant of Charterhouse School for the last ten years, has received an intimation that his services will no longer be required; and the head-master's son, who has recently passed the College of Surgeons, has been appointed resident medical officer in his place. As Mr. Yate and his son, Mr. Edward Yate, have, we believe, given perfect satisfaction in the way in which they have looked after the health of the school, it certainly seems strange that a change should be made at this particular time. And as Mr. Yate was paid at the rate of £1 *per annum* for each boy, ought he not to have received at least six months' notice? We believe Charterhouse School is under the

direction of a governing body. We trust this matter will be brought under their notice, for at present it appears that an injustice has been done to one who has served the school long and faithfully. Moreover, a step such as this injuriously affects the position of all those who are the professional attendants of our great schools and colleges.

BATHING INFANTS IN THE SEA.

AT the present season, a mistaken and mischievous practice is much in vogue. Daily torture is inflicted on thousands of tender and helpless infants by forcibly plunging their bodies, in spite of shrieks and struggles, into the open sea. This cruel and time-honoured process may now be seen in full operation at any sea-side resort. Affectionate mothers hand over their infants to stalwart and impassive bathing-women, to be plunged head foremost into the sea, under the absurd notion that the procedure vastly benefits the little ones. Day after day, with relentless regularity, very young children and babies are borne out amidst the waves and subjected to their dreaded ducking, in the firm belief that their trembling bodies, often writhing to the verge of convulsions, are thus made healthy and hardy. All experience on the subject, and the teachings of all medical authorities on sea-bathing, agree in support of the two following rules; namely, that a child under two years of age ought never, under any circumstances, to be bathed in the open sea, and that no one, child or adult, can enter the sea without danger while under the influence of emotional excitement. Under two years of age, a child's body is too weak to gain any benefit from the shock of immersion in the open sea. Its nervous and circulating forces are too feeble for the development of that vigorous reaction, without which sea-bathing is either useless or hurtful. In the absence of strength for such reaction, a sea-bath tends to chill an infant's body, and predispose to internal congestions. At any age, the shock of immersion in the sea brings risk of danger, and even of death, when the emotions are powerfully excited, and especially when the mind and body are dominated by that most depressing of human emotions, fear. Infants are not always bathed in the sea merely with the intention of making them strong. There is an old sea-side tradition that babies diligently bathed become fearless in the water when they grow up. This notion is also false. Than that infants gain courage by being plunged in the sea, it is more probable that many a nervous child has acquired a dread of bathing which no after-experience could remove, because it was compelled in fear and trembling to plunge under water. If a child be sufficiently robust to develop a good reaction, if it be over two years of age, and, above all, if it be not afraid, it may be bathed in the sea with advantage. If any of these conditions be wanting, sea-bathing for children is likely to be positively injurious.

THAMES WATER.

SIR EDMUND BECKETT, in the trenchant style which he affects, asserts in the *Times* his preference, as a man of common sense and legal acumen, for Dr. Tidy's over Dr. Frankland's conclusions as to the chemical impurities of the Thames water, which Londoners are condemned to drink. Dr. Tidy employs a process of chemical testing which helps to clear the character of that most doubtful and polluted fluid. Sir E. Beckett, however, leaves out of view the evidence adduced by Mr. Kingzett and Mr. Charles Ekin, two highly competent and independent water-analysts, who indicate the process employed by Dr. Tidy to be valueless for the purpose for which it was used. "My experiments," says Mr. Kingzett—and he has not yet been answered—"showed that it is possible to introduce 50 fluid grains of a putrid extract into a gallon of chemically pure water, without taking it out of Dr. Tidy's class of 'waters of great organic purity.' Similarly, 170 fluid grains could be introduced with the result of obtaining a water of 'medium purity,' and 255 fluid grains would only make the water of 'doubtful purity.' The putrid extract here referred to was swarming with organisms, and doubtless contained sepsin, which Dr. Burdon Sanderson has proved to be a blood-poison. In the face of these facts, what reliance can be placed upon the oxygen process of water-analysis? Having asked the question, I will also answer it by saying, None." So much as to the chemical objections to the reports of Dr. Tidy and his colleagues. Physiologically, the facts brought out by the inspectors of the Local Government Board, notably by Dr. Thorne Thorne, in his inquiry at Caterham, demonstrate irrefutably that a relatively minute pollution of enormous bulks of water with specific organisms—such as no chemical analysis, however delicate, could pretend even qualitatively to detect—is capable of imparting deadly qualities to the water-supply of a large district, and of diffusing enteric disease throughout a whole population. Dr. Percy Frankland, in a very able article in the *Nineteenth Century*, puts the whole question clearly enough. We join with him in the hope that another cholera-epidemic may not be needed decisively to impress upon the public mind the danger of permitting "grievous sewage-contamination" of our drinking-water, with the vain hope that the chapter of accidents may deliver us from the evil consequences of this filthy practice.

CHOLERA, COMMON SENSE, AND CLEANLINESS.

THE official text we have before us of the report of Dr. Chaffey Bey and Dr. Ferrari on the origin and development of the outbreak of cholera at Damietta, confirms the statement which we have published from Drs. Grant Bey and Mackie, and our other correspondents in Egypt, in effectually disproving the alleged importation of cholera into Damietta during the present year. At the same time, this report testifies to the utter inefficiency of the local sanitary arrangements, the horrible filthiness which makes Damietta, in the words of the report, "the type of filthy towns," and the endemic seat of dysenteric and choleraic diseases. The question of spontaneous origin cannot, of course, be settled by any report of the kind, since it is one which has eluded all investigation, however carefully carried on by the eminent experts employed in the investigation from time to time, for many years, by the British Government in India. It is, further, impossible to say that, at some previous time, choleraic germs may not have been laid down in Damietta, which have been brought into activity by the specially favouring conditions of the fouling of the drinking-water by means of the putrefying animal bodies, and by the filthy dietetic habits of the people. Here, as elsewhere, the effete system of cordons and quarantine utterly failed to prevent the extension of the disease; and the fact is, that there is no reason to suppose but that the importation of choleraic germs may and does go on at any time into Egypt and Syria as into Russia. Only M. Fauvel clings to the ancient superstition in favour of useless, unscientific, and immoral efforts to exclude cholera-germs by measures calculated to injure the healthy as much as the sick, and to disregard all considerations of humanity and justice in the panic fear of importing the germ, which only becomes fertilised in virtue of the neglect and filth of the localities so conditioned as to encourage its extension. Germany, England, and indeed all enlightened scientific countries, are unanimous in recognising the importance of meeting the danger of the importation of cholera as of all other zymotic diseases by a carefully regulated system of port medical inspection, of isolation of the sick, of disinfection of all persons and things which could convey the contagion, and, above all, by habits of efficient sanitation and cleanliness in the localities into which such germs may at any moment be introduced. In other words, the doctrine of Cleanliness and Common Sense, recently proclaimed by the chairman of the National Health Society, in his address on the "Prevention of Cholera," which is now being adopted as a watchword by the daily press and by the public generally in England, ought to equally recommend itself to our Continental neighbours, who would then at once feel less alarm

and more efficient courage in warding off the real dangers and protecting themselves from an enemy, which is only more alarming because less often faced than the daily destroyers of life, the zymotic diseases, such as enteric fever and diphtheria, which are always present amongst us, and which no less owe their mortal influence to sanitary neglect.

AN INTERNATIONAL SANITARY COMMISSION.

It is announced that the German Government have nominated a Commission, under the presidency of the distinguished Dr. Koch, to study the nature of the cholera outbreak in Egypt. This commission started for Alexandria on the 16th instant; and unless it get to work with unusual rapidity, it stands an excellent chance of arriving on the spot too late to be of any use for the purpose of its creation. The scientific failure of the various medical commissions on plague, that were sent out by European Governments on the outbreak of plague at Vetlianka four years ago, ought to have taught the lesson of promptitude in a matter of this kind. Most of the commissioners arrived on the banks of the Volga in 1879 too late to see any cases of plague, and too late to do more than pick up hearsay evidence about the epidemic. The same thing appears likely to happen now. The circumstances of the prevalence of cholera in Egypt have become by this time so confused, that there is little chance of a scientific commission desirous of penetrating its etiology attaining any satisfactory results. The epidemic brings, indeed, to the surface a suggestion originally made by Count Andrassy to the Governments represented at the Vienna Conference in 1874, that there should be an International Sanitary Commission charged with the discussion and investigation of diseases of common European danger. Somewhat strenuous efforts were made in the comparatively uneventful years which followed that Conference, to procure the adhesion of the powers represented at it to the conclusions of their delegates; but, since the Eastern political difficulty has come to the fore, the matter appears to have dropped out of sight. When the present cholera-trouble is over, it would seem quite worth consideration whether further attempts should not be internationally made to organise such a commission. The recent spectacle of foreign Governments re-imposing, under scare of cholera, vexatious and useless quarantine regulations which their own representatives in 1874 joined in denouncing, and the widely prevalent misunderstanding of our English system of medical inspection, alike strengthen the conviction as to the advantage of an International Sanitary Commission. We trust that this matter will be vigorously prosecuted by our Government as soon as opportunity offers.

THE HEALTH OF ENGLISH WATERING-PLACES.

According to the recently published return of the Registrar-General for the quarter ending June 30th, the mortality in the forty-six localities in England and Wales which are included under the description of watering-places and summer-resorts was low. As the report points out, the area of a watering-place rarely corresponds exactly with the area of a whole registration district or subdistrict; the death-rate of the former being usually slightly higher than that of either of the latter, as the watering-place is generally more urban in character than the surrounding country. This is not, however, always the case. The holiday visitor, too, does not confine himself within the arbitrary boundary of the place where he sleeps. The mean annual death-rate in the forty-six health-resorts during last quarter was 17.9, and the zymotic rate 1.28, per 1,000. These rates contrast favourably not only with those for all England and Wales, which were 20.1 and 18.9 respectively, but also with those of the rural districts generally. The rates last quarter in England and Wales, exclusive of the seventy-eight chief towns or urban districts, were 19.2 from all causes, and 1.7 from the principal zymotic diseases. Besides, as the Registrar-General points out, the mere fact of invalids flocking to the health-resorts is calculated somewhat to increase the death-rate, though it affects the general rate more than the rate from zymotic diseases. The zymotic death-rate was 0.00 in Deal and Walmer, Littlehampton, Bognor, Tenby, and Harrogate. It was under 1.00 per 1,000 in Whitby, Yarmouth, Southend, Herne Bay, Margate, Dover, Hastings and St. Leonards, Eastbourne and Seaford, Brighton, Exmouth, Teignmouth and Dawlish, Torquay, Ilfracombe, Beaumaris, Llandudno, Rhyl, Southport, Blackpool and Fleetwood, Clifton, Malvern, Leamington, and Buxton. In Lowestoft, it was 2.23, mainly owing to measles; in Ramsgate, 2.24, "fever;" in Folkestone, 4.95; Aberystwith, 3.11; and Bangor, 8.48, in each case chiefly from whooping-cough. In the remainder of the forty-six places, the zymotic death-rate was over 1.00 and under 2.00.

NURSING SISTERHOODS.

A correspondent writes:—The intimation which you gave a fortnight since of the unfortunate occurrences at King's College, have since been verified and discussed in a number of journals. It is interesting to read the various comments, attributing the misfortune at one time to the temper of individuals, at another to ecclesiastical influences, or again to undue assumption of power by the lady nurses. Impartial observers will, I think, have no difficulty in arriving at the conclusion which has now been enforced by much painful experience at more than one establishment: that conclusion is, that, while the influence of lady nurses is in every sense valuable for the good conduct of the nursing in the sick-wards, that consideration cannot safely be allowed to override the dictates of common sense, which require that every man shall be master of his own house, and that no independent authority shall be introduced, in reference to subordinate officers, which shall have the power at any moment of withdrawing from the control of the masters the whole of the accessory department, and thus throwing out of gear the whole working of the establishment. The very existence of such a power is a daily evil, inasmuch as it undermines and threatens the authority necessary for the control of any large establishment in all the minor arrangements. Extreme prudence and conciliatory subordination of the secondary authority may make such a state of things tolerable for a time, but it gives no assurances of permanent good government. As well might a colonel of a cavalry regiment farm out the supply and management of the horses in the stable to an independent contractor, who could at any moment unhorse the regiment. That lady-nurses are centres and sources of gentle influences, of tender devotions, and of skilled attention to the sick, is a fact which should never be lost sight of, and every effort should be made to secure their services, or rather, I should say, their co-operation, in the nursing of hospital-patients; but the arrant folly of handing over the whole nursing of any public institution to an independent sisterhood or brotherhood, which shall have the power of prescribing conditions of service, and at one stroke of withdrawing the whole staff, is apparent the moment the conditions of such an arrangement are considered in the light of common sense. Nor has this method of filling the wards with lady-nurses any plea of necessity or special expediency to recommend it; it is only a small minority of the hospitals which have submitted to this foolish condition; and striking examples of the evils of such submission are neither new nor rare. The whole history of the connection of King's College Hospital with this system of nursing is replete with examples of the inconvenience, the annoyance, the strife and humiliation to which it gives rise. To the masters of any hospital the lay governors and their delegates, and technical officers of the medical staff, and independent power, it is a continual source of heart-burning and annoyance. Nor is this mitigated, although the evils of it may be partially palliated, when the sister-nursing *imperium* is partially recruited from individuals directly connected with the hospital. Sometimes this is an advantage, but it is easy to say that at others it may increase the apparent defects of a system suffi-

ciently defective in itself to be the inevitable cause of frequent dissension and consequent unavoidable deficiency.

THE CLEANSING OF CISTERNS.

IT is satisfactory to note that sanitary authorities and water-companies are becoming alive to the importance of providing clean receptacles for the supply provided by the latter. In furtherance of this important object, the vestry of St. Pancras have appointed a temporary sanitary inspector, in view of the possible outbreak of cholera in the metropolis. His term of office will be three months, and the chief duty assigned to this new officer of the vestry will be the constant inspection of the water-cisterns of the parish, as it is known by the authorities that many of them are in a most unsanitary condition, due, in a great many instances, to the neglect of the landlords of houses which, in the poorer localities, are let out in tenements. The court of directors of the East London Waterworks Company have also, upon the representation of the sanitary authorities of the district, directed their engineer, who is now engaged upon the work, to erect temporary standpipes in the numerous courts and alleys in the neighbourhood of Poplar, this precaution being necessary to enable the numerous families who live respectively in one house to properly attend to the sanitary conditions indispensable to the prevention of disease. The court of directors have also issued and extensively circulated a notice calling the attention of the consumers and the sanitary authorities to the facts contained in the recently published report of Colonel Bolton, water-examiner under the Metropolis Water Act (1871), in which he stated that "many of the cisterns, tanks, and butts, for containing water, in small tenements, are in a disgusting and filthy state," and enforced the necessity of regularly cleansing out all cisterns and other receptacles of water. A proposal has been made to convene a conference of the medical officers and sanitary staffs of all the metropolitan vestries, with the view of so arranging a house-to-house inspection of cisterns and other receptacles of water that it may in the smallest degree create alarm among the householders and lodgers; and, at the same time, to adopt measures for the erection, in all the crowded lanes, courts, and alleys of the metropolis, of standpipes, in order that the very poorest tenements may have a constant supply for cleansing and sanitary purposes.

SMALL-POX IN BIRMINGHAM.

THE Health Committee of the borough report a serious spread of small-pox in Birmingham. The leading local journal states that "the disease has been hovering round the outskirts of the town, on and off, for some twelve or eighteen months past; but within the last fortnight it appears to have secured a footing in the town itself, where, in spite of all precautions, it is making rapid way, and has altogether escaped the control of the sanitary authorities." It appears that fifty-six cases of variola have been reported within the borough during the last fortnight, and that there are at present about eighty cases under treatment in the Fever Hospital. These numbers are larger than any that have been recorded since the small-pox epidemic of 1875. The Corporation have voted an immediate outlay of £4,000 for the erection of two additional wards, each to contain thirty beds, at the borough small-pox hospital. Until the notification of infectious diseases shall have become compulsory throughout the kingdom, sanitary authorities will be seriously hampered and hindered in checking the spread of zymotic disorders, and we shall probably often hear of outbreaks of such maladies "escaping control." But official house-to-house visitation thoroughly carried out, is a very efficient substitute, even if a tedious and expensive one, for notification. By this means, the sanitary authorities in Birmingham can have no difficulty in speedily ascertaining the extent of the evil with which they have to cope. When once the extent of an outbreak of variola has been clearly defined, the remedies for its extinction—namely, the isolation of the sick, the complete disinfection of their surroundings, and the vaccination and revaccination of the healthy—are all-sufficient. When fairly and freely used, these measures have never failed. It must not be forgotten that it is as much to the neglect of revaccination by the adult population, from pure carelessness, as to any other cause, that small-pox epidemics of the present day owe their mortality. Infants and children of tender age are largely protected by the efficient operation of the Vaccination Act, and the whole character of our mortality has changed. Small-pox no longer rages among children of tender years; but it finds its victims among adults who have neglected the precaution of revaccination after reaching adult age. Vaccination, it should always be remembered, however efficiently performed in early life, needs to be efficiently repeated at least once after the age of adolescence, in order to afford protection to the grown person, and to relieve him from the spectre of small-pox which still haunts our great seats of population, to the disgrace and injury of those who neglect the precaution which lies easily within their reach.

SCOTLAND.

WE observe that the latest intelligence from the Island of Skye is to the effect that the outbreak of fever reported from there has not spread beyond the parish of Elgoll, and that those attacked are now convalescent. Intending tourists will be reassured to hear that there is no prevalence of fever in the island.

COTTAGE HOSPITAL FOR DUNOON.

DUNOON is well known through the West of Scotland as the possessor of splendid convalescent homes, founded through the exertions of Miss Clugston. There has, however, been very much felt the want of a small cottage hospital, to meet the requirements of the place and surrounding district. Accordingly, it was resolved to establish such a building; and, to defray the cost, an artistic fair and bazaar has just been held. It is gratifying to find that £1,075 has been realised, which, it is thought, will be sufficient to cover the expenses of erecting a small hospital; and, as the cost of some of the beds has been guaranteed for five years, the undertaking starts under every promise of success.

GLASGOW WESTERN INFIRMARY.

WE recently noted in the JOURNAL the intention of the managers of this institution to pass some resolutions in reference to the administration of anæsthetics, which, it was thought, might eliminate any sources of risk, and be a guarantee to the public that every care was taken in the matter. The rules that have been passed with this object are the following. 1 All resident assistants are to be legally qualified, before entering on office. 2. All applicants for the post of resident assistant must produce certificates of having served as dressers or clinical clerks in an infirmary for a period of not less than six months. 3. Anæsthetics are only to be administered in the presence of two medical men, legally qualified. This latter rule applies to the out-patient department of the infirmary, as well as to the practice within the hospital. These resolutions come into force in November, with the commencement of the next winter session of medical study.

ABERDEEN UNIVERSITY.

THE graduation ceremonial of the University of Aberdeen was held in Marischal College on Friday, August 10th. Principal Pirie presided, and conferred the degrees. Mr. David Prain, M.A., and Mr. Arthur Greatorex Smith, passed their examinations for the degrees in medicine and surgery with highest academical honours. A list of the graduates will be shortly published in this JOURNAL. The

Privy Council has approved of the acceptance of the resignation of Professor Ogston. A Professor of Medical Jurisprudence will, it is believed, be elected as soon as the University Court meets, which will take place, in all probability, within two weeks. The winter medical session will commence somewhat earlier this year than usual, viz., on October 24th.

THE INCREASED HOSPITAL ACCOMMODATION FOR GLASGOW.

IN last week's JOURNAL, we stated that it was in contemplation to increase the amount of hospital accommodation in Glasgow for infectious cases of disease, and we are glad to see that no time has been lost in coming to a decision in the matter. Dr. Russell's opinion, as embodied in a memorandum just issued, is, that the minimum requirements for a city like Glasgow cannot be less than 550 to 600 beds for fever, and 150 for small-pox. At present, the latter have been provided, but there are only 340 for fever. The additional number, he thinks, might be more advantageously obtained by the erection of another hospital in another locality, as it is doubtful whether all the epidemic bed-accommodation should be concentrated in one place; but, as the city has already a large extent of ground at Belvidere, he would advise seven extra pavilions being erected there, so as to give them the means of dealing with 540 patients, and the remaining accommodation to be provided in some other part of the city. It has now been decided to follow this course, and to proceed with the work without delay. We are also pleased to see that there was an unanimous decision to increase the salary of Dr. Allan, the resident superintendent and physician at Belvidere Hospital. Dr. Allan has for nearly eight years managed, with great skill and success, a hospital that is one of the largest of its kind in the kingdom; and it is only right that the authorities should recognise, in the only way they have in their power, the high value they place on his services.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General for the week ending August 4th, state that the death-rate in the eight principal towns was 21.6 per thousand of estimated population. This rate is 0.3 above that for the corresponding week of last year, and 3.1 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 13.3 per thousand; and the highest in Glasgow—viz., 24.8 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.9 per thousand, or 0.7 above the rate for the previous week. Diarrhœa, whooping-cough, and measles were the most fatal miasmatic diseases. Acute diseases of the chest caused 76 deaths, or 11 more than in the previous week. The mean temperature was 57.8°, being 2.4° above that of the week immediately preceding, but 0.8° below that of the corresponding week of last year

IRELAND.

THE APOTHECARIES' HALL OF IRELAND.

AT the annual meeting of the General Council of the Apothecaries' Hall of Ireland, convened by authority of the Statute of Incorporation, on August 1st, 1883, the following members were elected office-bearers for the ensuing year. *Governor:* Thomas Collins, Esq. *Deputy-Governor:* Robert Montgomery, Esq. *Court of Directors and Examiners:* Edward H. Bolland, John Evans, Arthur Harvey, Charles Holmes, Charles H. Leet, Charles F. Moore, Henry P. Nolan, Richard G. O'Flaherty, Edward J. O'Neill, Sir George B. Owens, John Ryan, James Shaw, George Wyse, Esqs. *Representative on the General Medical Council:* Thomas Collins, Esq.

PRECAUTIONS AGAINST CHOLERA.

AT a recent meeting of the Cork guardians, Dr. Brodie, Local Government Board Inspector, urged on the board the advisability of providing a disinfecting chamber, as it was much needed. The intercepting hospital at Queenstown, he stated, was in a satisfactory condition, should an outbreak of cholera arise; but Drs. Downing and Townsend, Poor-law medical officers there, had refused to be appointed officers of health on the condition that they were not to receive any remuneration unless their services were required. The Belfast authorities have arranged that any vessel suspected of being infected with cholera, entering Belfast Lough, shall be anchored in Folly and Whitehouse Roads, when the fact will immediately be communicated to Dr. Clements, sanitary officer, and to Dr. Browne, sanitary inspector. Besides this, all foreign vessels approaching the harbour will not be permitted to come nearer the town than the north-east end of the Twin Islands, opposite the temporary hospital, until the medical officer has inspected them. The intercepting hospital on the Twin Islands is undergoing the necessary repairs, and can be made ready for the reception of patients, with all necessary appliances, in a few hours.

EPIDEMIC AND OTHER DISEASES' PREVENTION BILL.

THE following are the principal clauses of the Bill to make provision for the prevention of outbreaks of formidable epidemic, endemic, or infectious diseases, and to amend the English Public Health Act of 1875, and the Irish Act of 1878.

"2. Whenever any part of England or of Ireland appears to be threatened with or affected by any formidable epidemic, endemic, or infectious disease, and the Local Government Board, England, under the provisions of the Public Health Act, England, 1875, or the Local Government Board, Ireland, under the provisions of the Public Health Act, Ireland, 1878, make regulations for all or any of the following purposes, namely, (1) for the speedy interment of the dead; (2) for house-to-house visitation; (3) for the provision of medical aid and hospital accommodation; and (4) for the promotion of cleansing, ventilation, and disinfection, and for guarding against the spread of disease, the purposes named in the said regulations shall be deemed to be purposes for which sanitary authorities may borrow money, and the local authorities in England and the sanitary authorities in Ireland charged with the carrying out of such regulations may borrow, and the Public Works Loan Commissioners in England and the Board of Public Works in Ireland may lend money to such authorities, as if such purposes were works for which loans may be granted under the Public Health Act, England, 1875, and the Public Health Act, Ireland, 1878. Such loans may be made forthwith, and without any preliminary public notice or inquiry, if it appear to the Local Government Board desirable in order to the prompt and effective execution of such regulations.

"3. Whereas, by the one hundred and fiftieth section of the Public Health Ireland Act, 1878, the board of guardians of any union in which regulations for the prevention of the spread of formidable epidemic, endemic, or infectious diseases made by the Local Government Board are declared to be in force, are the authority appointed to superintend and see to the execution of such regulations, to the exclusion of all other sanitary authorities,

"And whereas, in the event of the outbreak of any formidable epidemic, such exclusion of the urban sanitary authority in cities and large towns might lead to delay and inconvenience,

"Be it enacted that whenever the Local Government Board, Ireland, shall make any such regulations, the Board may direct the urban sanitary authority within any district in which such regulations shall be declared to be in force, to superintend and to see to the execution of such regulations, or any of them, either independently or jointly with the board of guardians of any union within which or within part of which regulations so issued by the Local Government Board are declared to be in force, and thereupon every urban sanitary authority so directed by the Local Government Board shall have the like powers and authority in every respect as the board of guardians of any union within such district."

A HINT TO THE INDIA OFFICE.

THE last mail from India brings the information that two Junior Medical Officers of the Bengal Medical Service have resigned their commissions in disgust.

CHOLERA IN EGYPT.

[From Our Special Correspondent.]

Alexandria, August 6th, 1883.

The epidemic of cholera, which is the topic of the day with both the medical and the non-medical part of the population, seems to be now fairly on the decline, after having invaded fully three-fourths of the country. All will be thankful when it has ceased, and much-needed repose and tranquility are restored to Egypt. The disease has made several attempts to plant itself in Alexandria, but as yet there seems something wanting for it to take root here as it has done in Cairo. On July 15th, the first cases were declared in Cairo, in the suburb of Gizeh; on the 16th two cases were reported in Boulac; and same day at 2 A.M. four cases were reported in hospital, *coming from different quarters of Cairo, situated at a considerable distance from each other.* On the 18th, or third day after declaration of the first cases, the daily mortality already amounted to a total of 68, from seven different quarters, and those who know Cairo are aware that its area is immense. It is now thirty-five days since the first case occurred in Alexandria, and up to that date there have been in all about forty-five cases, twenty-seven of which have occurred within the last five days. Up to that time most of the cases had occurred in people arrived from Cairo, or other infected districts; but within the last few days cases have been more numerous among residents. The part of the town supplying most cases at present is a dirty native quarter situated on the Mahmoudieh canal, near its opening into the sea—the quarter on which the epidemic of 1865 first laid serious hold; so that, before this reaches you, we may be in the midst of a serious outbreak, notwithstanding the good work that has been done to outwardly cleanse the town and remove filth. Cleanse it outwardly as they may, whitewash covers, but does not remove, filth; disinfectants cover bad smells, but do not remove them; sweepings and filth removed from the streets give them an appearance of cleanliness, but the soil is impregnated; corners unseen, unknown and unheard of, remain full of dirt and disease, every house is poisoned by cesspools and sewers, and disease and death fill the network of sewers and unventilated cesspools under the town. The inhabitants, even Europeans, do not appreciate the danger, and will not stir a step, nor spend a dollar to set their houses in order.

In the epidemic of 1865, Alexandria lost, according to published statements, 22¾ per thousand inhabitants; while Cairo lost 21¾; Damietta, a total of 1,128 in an estimated population of 57,000, or 41¾ per thousand.

As yet, the province of Behera, lying between Alexandria and the Rosetta branch of the Nile, has been comparatively free, as also the part adjoining the province of Garbiyeh. The fullest force of the epidemic seems to have expended itself on the eastern half of the Delta, chiefly on both sides of the Damietta branch, and the large adjoining canals of Bahr Shibin and Bahr Mihalla, branches of the Damietta branch. Keereh, in Upper Egypt, the extreme point reached by the epidemic in 1865, near the 26th degree of latitude, has already been reached, cases having been reported some days ago.

A few of the cases which have happened here may be of interest.

1. James ——, a strong healthy man, engine-driver on the railway, left Alexandria in perfect health; took the train to Cairo, where he arrived on Thursday (cholera prevailing there). He passed Friday in Cairo, left on Saturday, and arrived in Alexandria on Saturday night, still feeling well. Four hours after arrival, he began to feel ill, and soon presented symptoms of cholera; he was brought to hospital with extremities cold, fingers clenched, pulse imperceptible, eyes sunk, voice a whisper, rice-water dejections, but vomiting and purging not frequent. The cramps had been severe, but did not last long. The secretion of urine was suppressed, and the temperature under normal.

2. An Armenian, a healthy man-servant of the Khedive, had accompanied his Highness on his visit to Cairo, and, soon after returning to Alexandria, was taken ill. The symptoms were as in the first case, but less severe, and collapse was less marked. Both these cases were treated with half-grain doses of calomel, every half-hour; the tongue in both cases was very foul, and covered with thick, yellow fur. The day after they entered hospital, reaction took place, and a small quantity of urine was obtained for examination. The urine of the first case, which was the more severe one, contained about a sixth of albumen. He recovered, and left hospital on the ninth day. The urine of the Armenian contained two-thirds albumen. He passed into cholera-typhoid, and is under treatment, doing well.

3. A young lady, aged 20, living in Alexandria, was taken ill with severe symptoms, and died in twelve hours. An aunt had arrived from an infected village two days before, and slept in the same room with her niece, but had presented no symptoms of cholera. The aunt, in this case, is considered to have been the carrier of the disease by those who believe that infection can be conveyed in this way. The sanitary state of the house was very bad. There were open latrines under the windows, belonging to some ruined houses.

4. Three cases have happened in the Ramleh dépôt of the Duke of Cornwall's Regiment. 1. A serjeant attached to the staff, and living in Alexandria, had been ill of diarrhœa for some time, and went to live at Ramleh barracks for change of air, no cholera existing there or elsewhere in Ramleh. He was taken ill, and sent to the military hospital; and remained there for about half-an-hour, when it was found that he was showing symptoms of cholera. He was immediately removed to the cholera-hospital, where he died in twelve hours. 2. Next day, a soldier who had taken an interest in the serjeant, and went out and in to see him, was taken ill and died. 3. A man who was in hospital for diarrhœa, occupying the room into which Case No. 1 was first brought, and remaining there half-an-hour only, was taken ill the day after Case No. 2, and died in twelve hours. The chief symptom in these cases was sudden and complete collapse; neither vomiting, purging, nor cramps were very pronounced. The secretion of urine was completely suppressed.

Three cases have happened in the Mex Lazaretto, where arrivals from the interior are still obliged to perform seven days' quarantine before being admitted into Alexandria, but though the Lazaretto was full, the disease has not spread among the inmates.

The origin of the epidemic is still exciting great interest here, and is the *questio vexata.* Dr. Chaffey Bey, in a recently printed report to the Maritime and Quarantine Board, gives a description of the unsanitary state of Damietta, which seems so bad as to beggar all description. With regard to Mohamed Halifa, fireman of the s.s. *Timor*, to whom M. Fauvel has now given extensive celebrity, by making him one of the heroes of his discourse before the Paris Academy of Medicine, I may mention a fact which I have not seen noticed, namely, the date of Mohamed's imprisonment at Port Said. The s.s. *Timor* arrived at Port Said at 4 P.M. of June 19, Mohamed Halifa was discharged, and *on the 21st was put in prison* at that port. He was liberated on the 23rd, and proceeded to Damietta. The rest of the history is already known in England. I mention this as Dr. Flood, Sanitary Physician at Port Said, in a second attempt to immortalise Mohamed Halifa, stated that he might have gone to Damietta, given them the cholera there, and returned to Port Said before he was imprisoned. Anyone who is acquainted with the means of transport between Port Said and Damietta, and the time it occupies, knows that this is impossible, even if there were not ample proof that he never left Port Said till the 23rd. M. Fauvel's dogmatic statement, that Mohamed Halifa was the means of importing cholera from Bombay to Egypt, must thus yield to facts and be dismissed. With regard to the charge brought by M. Fauvel against the British delegate at the Maritime and Quarantine Sanitary Board, it is exceedingly to be regretted that a man in M. Fauvel's position should not cull his information from reliable sources, instead of using anonymous newspaper-correspondence. It is absolutely untrue that the British delegate left any meeting of the Board, taking with him all the Egyptian delegates. I have been allowed to examine the *procès verbaux* of the meetings, signed by the members of the Board, and refer to them as my authority. With regard to the particular meeting to which M. Fauvel refers in his discourse, stating that the British delegate left the meeting, thus leaving an insufficient number of members to take a legal decision, this is incorrect. The British delegate did leave that meeting before it was finished, as stated in the *procès verbal*, but there was still a legal quorum remaining, and business was continued. It was only when another delegate quitted the assembly a little later that the members were left without a legal quorum. All the Egyptian delegates in this case, with two exceptions (and these two had left some time before), remained to the end, and were not carried off by the British delegate. I refer M. Fauvel to the minutes of the meetings of the Board, where he will find more authentic information than in the pages of *Le Temps.* It will be a bad day for science —and a day, let us hope, which will never arrive—when its workers allow political jealousies to divert their search after truth for truth's sake.

Alexandria, August 7th, 1883.

Sickness from general diseases has increased very much within the last week or two. Dr. Mackie reports an increase of fevers of various kinds: hyperpyrexias, enteric fevers, simple remittent, and bilious remittent—the latter often accompanied by such an amount of prostration, when the temperature falls, as to amount almost to

collapse, lasting for several days. Vomiting has, in some cases, been so persistent a symptom as to necessitate nourishment *per rectum*. Dysentery and diarrhœa have also increased; and amongst the out-patients at the Deaconesses' Hospital, a large number of cases amongst natives and poor Europeans of very severe and rebellious remittent fever are under treatment.

Dr. Haddad's Experience.

Dr. Haddad has written to Dr. Mackie a letter, dated from Mahalla Kebira, August 2nd, 1883. In this communication he makes the following statements.

"I have treated, up to the present, over 200 cases, so I am enabled to give you a more decided opinion than I could before.

"The shortest duration I saw was twelve hours; this was only in two cases; all the rest lasted longer, usually from twenty hours to three days. I never saw a person attacked and dropping down in the street as a 'foudroyant' case, but I have heard of some of these, as well as of others of very short duration. Of these I visited all of whom I was informed in time (and there were several), and I have always found that these persons had severe watery diarrhœa for six, ten, or twelve hours before, and of which they had taken no notice, because it is almost always accompanied by no pain whatever; and add to this that these cases occur always amongst the poor, overwrought, and fasting people, I now do not believe in 'foudroyant' attacks, or what are so called, ending in two or three hours' time, or in cases without diarrhœa and vomiting.

"I have seen no extraordinary cases whatever, and I have not been informed of any by the doctors, excepting those of Dutrieux and a few others which I mentioned to you, every one of which was proved to be a state subsequent to the cholera. I have been examining the skin of every patient, and have met with no petechiæ at all, except those roseolar spots which sometimes follow cholera in a stage of reaction.

"In the first stages the thermometer always indicates a normal temperature; and in a state of collapse the temperature in the axilla is always under the normal to a varying extent—35.5° C. and above—and in the mouth normal. In the stage of reaction it is always above normal, 38° and over, sometimes reaching 40°, especially after a warm bath. I have seen here, in Mahalla, only one case of typhoid fever independent of cholera, going on regularly, and I hope favourably, towards recovery.

"In the way of treatment, the most efficacious and successful I experienced was cold or iced compresses over the whole of the abdomen, changed every minute; combined with other means, according to circumstances. Should the tongue be foul, I give one grain of calomel every hour. Vomiting usually ceases immediately after cold compresses are applied, but the diarrhœa sometimes remains severe; in this case an injection of laudanum into the rectum stops it. Should the pulse become weak, stimulants are required. No water to be given to the patient, but a piece of ice, repeated from time to time.

"Warm baths increase perspiration and, consequently, loss of water, and so favour collapse and asphyxia.

"Hypodermic injection of ether has been useful in cramps, but I found your liniment of chloroform most useful for these pains. I tried the inhalation of amyl nitrite, but only in the last moments; in this stage it momentarily increases the beating of the heart, and death follows. I was afraid to use it before that period, while other means could yet be tried.

"I had another necropsy before leaving Mansourah. The appearances were the same as in the first case which I telegraphed to you, only in the last the kidneys were much congested. The state of the large intestine is curious, differing from what we see mentioned in books on cholera. Usually it is said that they undergo a very slight change or none at all, whilst in these two cases they were the chief seat of the disease, being dark green, almost black and carbonised, and in very large spots; the mucous membrane was denuded. This is the only difference I have seen in this epidemic from what is described for cholera. I am sorry there is no chance at Mahalla for me to have any more necropsies. I wish you could examine a case *post mortem*, you would see and certify this appearance."

We are informed by our Alexandria correspondent that the medical officers sent to Egypt from England arrived at Alexandria on August 2nd, all well and in good spirits, and, headed by Mr. Cantlie, they spent the evening with Dr. Mackie, whom they consulted as to their future work. We deeply regret to learn that the non-English press expresses very unkind opinions concerning these gentlemen, the French local papers describing them as a party of inexperienced lads sent out from their medical classes, not one of them knowing a word of French nor Arabic; our correspondent, on the other hand, declares that not a single French doctor in the town can speak Arabic intelligibly.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A meeting of the Committee of Council will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

Francis Fowke, *General Secretary.*

November 9th, 1882.

COLLECTIVE INVESTIGATION OF DISEASE.

Cards and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee,
161A, Strand, W.C.

PROCEEDINGS OF COUNCIL.

Tuesday, July 31st, 1883.

At a meeting of the Council of 1882-3, held in the Large Hall of the College, Shaw Street, Liverpool, the following gentlemen were present: Mr. C. G. Wheelhouse, President of the Council, in the Chair; Dr. W. F. Wade, Treasurer; Dr. W. Strange, President; Dr. T. Clifford Allbutt, Dr. Bushell Anningson, Mr. F. J. Bailey, Mr. J. Wright Baker, Dr. James Barr, Mr. J. P. Barrow, Mr. T. W. Benfield, Dr. M. Beverley, Mr. G. F. Bodington, Dr. Thomas Bridgwater, Dr. M. M. De Bartolomé, Mr. G. A. Brown, Dr. C. Chadwick, Dr. J. Christie, Dr. J. Ward Cousins, Mr. E. Crickmay, Mr. M. Coates, Dr. J. Cuming, Dr. W. Macfie Campbell, Dr. W. Dickson, Dr. A. Dempsey, Mr. J. Dix, Mr. H. N. Davies, Dr. W. H. Dixon, Dr. A. Davidson, Dr. S. S. Dyer, Mr. T. Darby, Dr. A. W. Edis, Dr. W. T. Edwards, Dr. W. A. Elliston, Dr. B. Foster, Dr. E. Long Fox, Mr. Joseph Farrar, Mr. Wm. Frew, Mr. L. Fuller, Dr. R. W. Foss, Dr. W. H. FitzPatrick, Dr. W. C. Grigg, Dr. C. E. Glascott, Dr. T. R. Glynn, Dr. J. H. Galton, Mr. Ernest Hart, Dr. Alex. Henry, Mr. W. D. Husband, Mr. H. Nelson Hardy, Mr. Arthur Jackson, Mr. Vincent Jackson, Dr. Leslie H. Jones, Dr. T. Eyton Jones, Mr. Evan Jones, Dr. Arthur Jamison, Mr. S. Knaggs, Mr. H. R. Ker, Dr. J. Lambert, Dr. H. T. Lanchester, Mr. H. R. Ley, Mr. R. G. Long, Dr. W. J. Lunn, Dr. D. C. McVail, Mr. W. H. Morgan, Dr. H. Marshall, Sir W. Miller, Dr. A. S. Myrtle, Mr. C. Macnamara, Dr. H. C. March, Mr. F. Mason, Dr. M'Keown, Dr. S. H. Monckton, Mr. G. W. Mould, Mr. R. H. B. Nicholson, Mr. A. Oakes, Dr. C. Parsons, Mr. Chauncy Puzey, Dr. S. Rees Philipps, Mr. A. Prichard, Dr. T. L. Rogers, Mr. J. Lloyd Roberts, Dr. Jos. Rogers, Mr. W. Rivington, Dr. E. Rickards, Dr. G. H. Savage, Dr. A. Strange, Mr. S. W. Sibley,

Dr. H. Simpson, Mr. E. Noble Smith, Dr. L. Shapter, Mr. A. W. Stocks, Dr. James Stewart, Dr. S. Spratly, Mr. W. D. Spanton, Mr. James Somer, Mr. T. Sympson, Dr. W. Taylor, Mr. Jabez Thomas, Mr. C. W. Thorp, Mr. J. Hodgson Wright, Dr. F. P. Weaver, Mr. Fredk. Wallace, Dr. E. Waters, Mr. J. L. W. Ward, Dr. John W. Watkins, Dr. W. Webb.

Read letters of apology for non-attendance from Mr. Sampson Gamgee, Mr. Edward Lund, and Dr. J. H. Stowers.

The minutes of the last meeting and special meeting, having been printed and circulated, were taken as read, and ordered to be signed.

Resolved: That the order of business for the first general meeting be altered by placing the discussion of payment of expenses of representatives after the discussion of the change of by-laws; and that, after the payment of expenses of representatives was passed at the meeting of the Council at Birmingham, in the event of the by-laws being accepted, the report should be amended by the insertion of this fact.

The Annual Report was, after consideration, adopted, and ordered to be placed before the Council meeting of to-day.

Resolved: That it be recommended to the Committee of Council that an addition of £100 be made to Dr. Henry's salary.

Wednesday, August 1st, 1883.

At a meeting of the Council of 1883-4, held on Wednesday, August 1st, 1883, in the large hall of the College, Shaw Street, Liverpool, the following gentlemen were present:—Mr. C. G. Wheelhouse, President of the Council; Dr. W. Strange, Vice-President; Dr. W. F. Wade, Treasurer; Dr. M. Beverley, Dr. T. Barr, Mr. D. B. Balding, Mr. F. J. Bailey, Mr. J. A. Ball, Dr. G. B. Barron, Dr. L. Borchardt, Dr. T. Bridgwater, Dr. Bernard, Dr. J. W. Byers, Dr. F. Bagshawe, Dr. A. H. Bampton, Dr. Alfred Carpenter, Mr. F. R. Cross, Dr. C. Chadwick, Mr. E. Crickmay. Dr. J. Ward Cousins, Dr. W. Carter. Dr. J. Corns, Dr. C. J. Cullingworth, Dr. M. M. De Bartolomé, Dr. E. Dewes, Dr. A. Davies, Mr. J. Dix, Dr. W. Dickson, Mr. E. Davies, Mr. H. N. Davies, Dr. W. A. Elliston, Dr. J. E. Eddison, Dr. E. Long Fox, Dr. B. Foster, Dr. W. Frew, Mr. J. Farrar, Dr. W. H. Fitz-Patrick, Dr. R. W. Foss, Mr. W. H. Folker, Mr. John Garner, Dr. James F. Goodhart, Dr. S. Gee, Dr. S. Griffith, Mr. B. C. Gowing, Dr. J. H. Galton, Dr. C. E. Glascott, Mr. H. Greenway, Dr. W. C. Grigg, Dr. O. Grant, Dr. A. Henry, Dr. Graily Hewitt, Mr. H. Nelson Hardy, Mr. Ernest Hart, Mr. Evan Jones, Mr. A. Jackson, Mr. T. V. Jackson, Mr. S. Knaggs, Mr. H. R. Ker, Dr. J. R. Kealy, Dr. J. C. Leach, Dr. H. T. Lanchester, Dr. W. G. V. Lush, Sir W. Mac Cormac, Dr. W. J. Mickle, Dr. A. S. Myrtle, Mr. C. Macnamara, Mr. F. Mason, Mr. H. N. Morgan, Dr. D. C. McVail, Mr. W. E. Musson, Mr. R. H. B. Nicholson, Mr. A. Oakes, Mr. A. Prichard, Dr. G. H. Philipson, Mr. J. M. Palmer, Dr. E. Rickards, Mr. J. Richards, Dr. G. Russell, Mr. J. Reid, Dr. S. Rees Philipps, Dr. C. Parsons, Professor E. A. Schäfer, Mr. S. W. Sibley, Dr. R. Saundby, Dr. A. Sheen, Mr. H. Stear, Dr. W. Stokes, Dr. S. Spratly, Dr. A. Strange, Mr. E. Noble Smith, Mr. H. Terry, Dr. T. W. Thursfield, Dr. R. Tiffen, Dr. W. Taylor, Mr. Jabez Thomas, Dr. J. W. Watkins, Dr. F. P. Weaver, Mr. F. Wallace.

The election of twenty members of the Committee of Council was considered. There were twenty-one nominations. A ballot was taken. Mr. Hugh Ker and Mr. J. Hodgson Wright were appointed scrutineers; and the gentlemen whose names are as follows, having the greatest number of votes, were declared to be elected in accordance with By-law 30:—T. Clifford Allbutt, M.D., F.R.S., Leeds; G. B. Barron, M.D., Southport; T. H. Bartleet, M.B., Birmingham; L. Borchardt, M.D., Manchester; T. Bridgwater, M.B., Harrow; A. Davidson, M.D., Liverpool; B. Foster, M.D., Birmingham; E. Long Fox, M.D., Clifton; A. J. Harrison, M.B., Clifton; C. Holman, M.D., Reigate; Evan Jones, Esq., Aberdare; H. T. Lanchester, M.D., Croydon; C. Macnamara, Esq., London; D. C. McVail, M.B., Glasgow; F. A. Mahomed, M.D., London; Frederick Mason, Esq., Bath; W. W. Moore, M.D., Brighton; R. H. B. Nicholson, Esq., Hull; S. W. Sibley, Esq., London; T. Sympson, Esq., Lincoln.

Dr. Alexander Dempsey, honorary secretary, North of Ireland Branch, together with Sir William Miller and Dr. Cuming, attended as a deputation from the Belfast Branch, and presented a cordial invitation to hold the fifty-second annual meeting in that town in 1884. The invitation was as follows.

"To the Council of the British Medical Association. We, the undersigned, have much pleasure in requesting that you will arrange to hold the annual meeting of the British Medical Association for the year 1884 in Belfast; and, should you so honour us, we undertake to use our best endeavours to ensure a successful meeting." Here followed 200 signatures.

Resolved: That it be recommended to the general meeting of to-day, that the cordial invitation to hold the annual meeting of the Association at Belfast in 1884 be accepted.

Resolved: That Dr. Cuming be nominated president-elect.

The president of the South Wales Branch presented a cordial invitation on the part of the profession and corporation of Cardiff, to hold the annual meeting of 1885 at Cardiff.

Dr. Bagshawe, on behalf of the profession of Hastings and St. Leonards, also presented an invitation to hold the annual meeting of 1885 or 1886 in those towns.

Resolved: That it be an instruction to the Committee of Council to take steps to ascertain the opinion of the Association with regard to the admission and retention of homœopaths as members of the Association.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

Tuesday, July 31st, 1883.

At a meeting of the Committee of Council, held at the College, Shaw Street, Liverpool, on July 31st, 1883; present—Mr. C. G. Wheelhouse (President of Council); Dr. W. Strange (President); Dr. W. F. Wade (Treasurer); Dr. B. Anningson; Dr. J. T. Arlidge; Dr. M. M. De Bartolomé; Dr. L. Borchardt; Dr. A. Carpenter; Dr. C. Chadwick; Dr. James Christie; Dr. J. Ward Cousins; Dr. A. Davidson; Dr. A. Dempsey; Dr. J. Dix; Dr. W. A. Elliston; Dr. B. Foster; Dr. E. Long Fox; Dr. C. E. Glascott; Dr. W. C. Grigg; Mr. W. D. Husband; Mr. A. Jackson; Mr. T. V. Jackson; Dr. Eyton Jones; Dr. Leslie H. Jones; Dr. H. T. Lanchester; Dr. W. G. Vawdrey Lush; Mr. C. Macnamara; Mr. F. Mason; Mr. R. H. B. Nicholson; Dr. C. Parsons; Dr. S. Rees Philipps; Dr. E. Rickards; Mr. J. Lloyd Roberts; Mr. S. W. Sibley; Dr. A. Strange; Mr. T. Sympson; Dr. E. Waters;

The President of Council reported that he had received a notice of correction of the printed minutes of the last meeting from Dr. C. Holman, who complained of his name having been omitted from the list of attendances.

Resolved: That the omission of Dr. Holman's name from the list of attendances be corrected. Dr. Holman's name was accordingly inserted in the minutes as having attended five meetings of the Committee of Council.

The President of Council reported in reference to Minutes 794 and 795, that copies of the resolution on Homœopathy had been sent to all the Branches.

In reference to Continued Minute 797, read letter from Dr. Fothergill, of which the following is a copy:

110, Park Street, Park Lane, W.

Gentlemen,—I am willing to accept the proposed new by-laws as regards the Editor's tenure of office; so shall not proceed with my motion to amend the old By-law 12.—I remain, yours most respectfully,

July 25th, 1883. J. MILNER FOTHERGILL.

In reference to Minute 798, the President of Council reported that a meeting of those interested in the formation of a Sick Benefit Society was arranged to be held in the Great Hall of the College, Shaw Street, Liverpool, on Thursday, the 2nd day of August, at 12 o'clock noon.

Read letter from Drs. FitzPatrick and Whittle.

Resolved: That the President of the Council, Mr. Macnamara, and Dr. Grigg, be appointed a Subcommittee to consider the matter, and to confer with Drs. FitzPatrick and Whittle, and report to the meeting of the 2nd prox.

Resolved: That the eighty-eight candidates whose names appear on the circular convening the meeting, together with the two gentlemen whose forms were handed in by Mr. Vincent Jackson at the last meeting of the Committee of Council, be elected members of the Association.

Resolved: That a record of the proposed appointment of an Assistant-Secretary be added to the Annual Report.

A resolution of regret at the loss of Dr. A. P. Stewart was appended to the Annual Report of Council.

The Annual Report was then considered, and, after some amendment, was ordered to be placed before the Council of to-day.

Thursday, August 2nd, 1883.

At a meeting of the Committee of Council, held in the Board Room of the College, Shaw Street, Liverpool, on August 2nd, 1883; present—Mr. C. G. Wheelhouse (President of Council, in the chair)

Dr. W. F. Wade (Treasurer); Dr. T. Bridgwater; Dr. Alfred Carpenter; Dr. J. Ward Cousins; Mr. J. Dix; Dr. A. Davidson; Dr. D. Drummond; Dr. B. Foster; Dr. E. Long Fox; Dr. W. C. Grigg; Mr. W. C. Husband; Mr. Evan Jones; Dr. T. Eyton Jones; Dr. H. T. Lanchester; Dr. W. V. Lush; Mr. C. Macnamara; Mr. F. Mason; Dr. D. C. McVail; Mr. R. H. B. Nicholson; Dr. C. Parsons; Mr. S. W. Sibley; Dr. A. Strange; Dr. W. Strange; Mr. T. Sympson;

The minutes of the last meeting were read and found correct.

Mr. Macnamara reported, on behalf of the Subcommittee, the action taken by the Subcommittee with regard to the letter of Drs. FitzPatrick and Whittle.

Read, Resolution of the Militia-Surgeons Association, of which the following is a copy, viz.:

That this meeting requests the Committee of Council to allow the grievances of Militia Surgeons to be discussed at the General Meeting on Friday next.

Resolved: That the request be acceded to, and the resolution accompanying the above be placed on the agenda of the General Meeting of to-morrow, at two o'clock in the afternoon.

Resolved: That the gentlemen whose names are as follows be appointed the Journal and Finance Committee for the ensuing twelve months, viz.: The President of Council, the Treasurer, Dr. Strange, Mr. Alfred Baker, Dr. L. Borchardt, Dr. Alfred Carpenter, Dr. Chadwick, Dr. B. Foster, Dr. Holman, Mr. Husband, Mr. Macnamara, Mr. F. Mason, Mr. Nicholson, Dr. Edward Waters.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at Hayward's Heath, on Wednesday, September 19th. Dr. Newth will preside. The chairman proposes to invite a discussion on "The Relation between Consulting Physicians and General Practitioners, with special reference to seeing Patients, Payment of Fees, and Abuse of Prescriptions." Any member desirous of reading a paper should communicate with the Honorary Secretary.—T. JENNER VERRALL, 95, Western Road, Brighton.—August 1st, 1883

SOUTH EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of this district will be held at St. Bartholomew's Hospital, Chatham, on Friday, September 7th, at 2.30 P.M. Agenda: 1. To fix the next meeting. 2. To elect a new honorary secretary for the West Kent District.—A. HALLOWES, Honorary Sec.

SOUTH EASTERN BRANCH: EAST AND WEST KENT DISTRICTS: CONJOINT MEETING.—A conjoint meeting of the above districts will be held at St. Bartholomew's Hospital, Chatham, on Friday, September 7th, 3 P.M. Brigade-Surgeon Watts will take the chair. Dinner will take place at the Bull Inn, Rochester, at 5 P.M. Charge, 6s. 6d., exclusive of wine. Members wishing to read papers at this meeting are requested to communicate, at once, with the honorary secretaries.—A. H. B. HALLOWES and T. WHITEHEAD REID, Honorary Secretaries.

CORRESPONDENCE.

THE MEDICAL REFORM COMMITTEE.

SIR,—The Daily Journal of August 3rd, issued at the Liverpool meeting, contained the agenda of business for the general meeting to be held at 2 o'clock on that day. Finding my name among those proposed for the Medical Reform Committee, I at once wrote to the General Secretary desiring its withdrawal, and placed my letter in the hands of his clerk about 11 o'clock.

I did not attend the general meeting, and am extremely annoyed to find, from the report of it in this day's JOURNAL, not only that my wish has been ignored, but that I am libelled as a "partisan," and my nomination is made the excuse for the appointment of another gentleman, who is supposed to be a partisan on the opposite side.

No one can have either reason or excuse for applying this epithet to me. Partisans have been, and are, the great obstructors of medical reform. It is because I am no partisan, and decline to be regarded as one, that I object to be a member of the Medical Reform Committee.—Your obedient servant,

D. YELLOWLEES, M.D.

Royal Asylum, Gartnavel, Glasgow, August 11th, 1883.

SCOTCH DEPUTATION TO MR. MUNDELLA.

SIR,—Last week a deputation of London doctors holding Scotch degrees waited on Mr. Mundella and urged him to maintain the great preponderance of University representation on the Scotch Board that the Medical Bill, as it at present stands, provides. We do not usually find that Scotchmen living in London know very much about Scotch affairs, and certainly that deputation was not well informed. Dr. Duckworth says of the Scotch Universities that "they had always been in the past in the van of every movement for the increase of knowledge." Now, as regards medical knowledge, this is most emphatically not correct of the University of this city. Medical examining and teaching in Glasgow began not with the University, but with the Faculty of Physicians and Surgeons; and the University followed the example of that venerable corporation only at about the distance of a century and a half. And not only was the Faculty by this long period of time the first in the West of Scotland to institute the teaching of medicine, but it has all along been the first to inaugurate the more important improvements in teaching; it enjoined attendance on chemical lectures prior to the University by about a quarter of a century. It does not, like the University, at the present time compel attendance at the classes of Botany and Zoology, where, according to Professor Huxley, a mere smattering of these subjects is picked up, but it does require a six months' course of surgery over and above what the University demands.

Dr. Duckworth further speaks disparagingly of the examinations of the Scotch corporations. With regard to this, let me state that the recent report of the visitors of the General Medical Council does not bear him out; the examination of the Faculty of Physicians and Surgeons being spoken of in very commendatory terms. Of more consequence, however, than any report of a single examination, is the experience of the Army Medical Department, covering a large series of years; and from 1864 until 1880, of the diplomates of the Faculty of Glasgow, only one in seventeen failed, while of the graduates of Edinburgh one in eleven was rejected, and of Glasgow graduates, one in seven.

He further says that some of the weakest men of his hospital have passed at Scottish corporations after failing in London. The converse is equally true. I know of men who were plucked at the Faculty getting a diploma in London. But this statement has no bearing whatever on the question between the Scotch corporations and universities; for, as the latter examine their own students only, and as Dr. Duckworth's men are thus inadmissible, he is not in a position to draw any comparison or contrast between them. But on this matter let me give the evidence of a leading opponent of the corporations at the present time—Dr. Struthers, a professor at Aberdeen. He said, when examined before Mr. Forster's committee: "I do not believe that you will get a better examination anywhere than that for the Edinburgh joint qualification by my old college, the College of Surgeons and the College of Physicians. You will not get a better examination, or better examiners, or better men anywhere, whatever Bill you pass."

Mr. Mundella speaks of the Bill as being framed on the lines of the Report of the Royal Commission; but he is quite aware that, with regard to the Irish Board, a profound change in its constitution has been made since the Bill was first introduced into Parliament; and, if he desires to get rid of the Scotch opposition, he must make considerable concession to the corporations, who, while willing to let the universities have a preponderance of members on the Board, will not consent to the overwhelming majority of eight to three. Let him make it eight to six, and all will go well.—I am, etc.,

D. C. MCVAIL.

Western Medical School, Glasgow, August 8th, 1883.

AUTONOMOUS LIFE OF THE SPECIFIC INFECTIONS.

SIR,—I have read with very great interest Dr. Creighton's most suggestive address. He asks his metaphysical friends to give him a solution of the question, "how a being can have two bodies at the same time, enclosed one in the other, and yet be one being." As these gentlemen have not yet succeeded in giving any clear explanation of how every being is made up of many parts, and yet is *one*, we may leave them alone for the present, and try a little metaphysics for ourselves. When the corm of a crocus forms the bud which is to be the bulb of next year, is there not the gradual differentiation of the being until it becomes first an *imperium in imperio*, and finally an *imperium* in itself? Is not the new bulb a *cancer* in reference to the old, eating out its life and substance, and leaving it a dried-up husk? Again, has not the bud of this year within it the germ of the bud of next year? How many potential existences are thus wrapped up inside of one another? And yet, properly speaking, there is no germ or sperm here. Again, the contact of the spermatic fluid will set an action a-going in the female of some animals, which results in the production of myriads of proliferating cells. If these were retained in the body, instead of being extruded as eggs, would it not be a case of "exogenous contagion?" To carry out the parallel between this and yellow fever: the male which produces the infective germ is incapable of producing the proliferating cells which are the analogue of the bacilli of yellow fever. Again, some plants grow either by spores or by fission. May not a disease take its

origin as yellow fever is supposed to do, and thus be propagated by the distribution of the germs which have been formed? May not this explain the origin of typhoid, scarlatina, etc., out of the same foul drain? May not the "resting spore," as one may call it, originate a different kind of proliferating cells, according to the reaction with which it comes into contact, as the same semen may produce either a horse or a mule?—Yours, etc.,

Parsonstown, August 9th, 1883. A. W. WALLACE, M.D.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, August 13th.

The Contagious Diseases Acts.—The Earl of MILLTOWN said that the recent resolution passed in the House of Commons was due to opposition raised by fanatics of both sexes to the compulsory examination of women. The noble lord, having quoted evidence to show how beneficial the operation of the Contagious Diseases Acts had been at Portsmouth, concluded by asking Her Majesty's Government whether, having regard to the fearful increase of juvenile prostitution, the strong feeling of the country on the subject, and the fact that Mr. Gladstone had announced his intention to abandon the Bill which had recently passed that House, which had for its alleged object the mitigation of this crying evil, they would reconsider their policy of practically repealing the Contagious Diseases Act, which had been proved by the evidence given before the Select Committee of that House to be doing an immensity of good work in this very direction.—The Earl of NORTHBROOK, who spoke in a very low tone of voice, was understood to reply that, after what had happened in the other House on that subject, the Government had adopted the only course in regard to it which, under the circumstances, was left open to them.

Diseases Prevention (Metropolis) Bill.—Lord CARRINGTON, in moving the second reading of this Bill, said that its object was the isolation and treatment in suitable hospitals of persons suffering from cholera, and that the introduction of the Bill had been considered absolutely necessary for the public safety of the metropolis in the event of a cholera epidemic. England would not be free from this danger for another month, and to avoid, if possible, any opposition to the Bill, it was proposed to limit its duration to September 1, 1884. In 1855 the main Bill for the prevention of cholera was passed, called "The Diseases Prevention Act," which gave power to certain local authorities amply sufficient for preventing the disease. There had been, however, some difficulty in putting these powers into force, on account of the number of vestries, and with this difficulty the present Bill proposed to deal by falling back on the managers of the Metropolitan Asylums district, whom it was proposed also to make a local authority under the Diseases Prevention Act, and subject to the authority of the Local Government Board. This, the object of the Bill, was contained in the second clause. The next most important clause was the fourth, which related to expense. At the present moment the thirty-eight different vestries, or district boards, would act for thirty-eight different areas, and their expenses would be a local charge. So that, if the epidemic broke out very badly in any particular parish, the whole cost of dealing with it would be thrown on that parish. This clause provided "that the amount expended by any local authority, under the Act of 1855, in providing any building for the reception of patients, together with two-thirds of the salaries of officers and servants, should be repaid from the Metropolitan Poor Fund." A deputation of the managers met the President on Thursday last, and expressed themselves willing to do all in their power. They would constitute themselves the first line of defence, and trusted to work in harmony with the vestries and boards of works. Under these circumstances, he moved that the Bill be now read a second time.—The MARQUIS of SALISBURY pointed out that the Bill gave very large powers with reference to other diseases than that of cholera. Though it was very right to take special powers to deal with the cholera, it was scarcely necessary to include other diseases within the scope of the Bill. Such a Bill ought to be subjected to more complete discussion, and some schedule or list of infectious diseases should be furnished, in order that it might be seen for what particular objects the authorities were to spend their rates. Then it appeared that the managers were to provide wharves or landing-places on the banks of the Thames not exceeding three in number. This was likely to be a very expensive amusement, whether they purchased wharves or made them. Though he thought it necessary to make these observations on the Bill, he had no intention of opposing the second reading. The Bill was read a second time.

HOUSE OF COMMONS.—Friday, August 10th.

Cholera Hospitals (Ireland) Bill.—Colonel NOLAN moved the second reading of this Bill, the object of which was, he explained, to secure sites in Ireland for hospitals in case of an outbreak of cholera. The Bill was read a second time.

Monday, August 13th.

The Medical Bill.—Sir LYON PLAYFAIR asked the First Lord of the Treasury whether, considering the important interests involved in the Medical Bill, he could arrange for the second reading of that Bill early in the week.—Mr. GLADSTONE: Owing to the important interests involved in the Medical Bill, we are most anxious to take the discussion, and obtain the judgment of the House upon it, on the earliest day we can, but the progress made with certain other Bills is not sufficient to allow me to name a day at the present moment. I hope, in the course of three or four days, to be able to do so.

The Cholera—Egypt.—Sir W. BARTTELOT asked the noble lord the Under-Secretary for Foreign Affairs whether he could inform the House that, as was stated in the newspapers, the cholera was abating in Egypt.—Lord E. FITZMAURICE said that it was certainly abating in Egypt, except at Alexandria.

Tuesday, August 14th.

Typhus in the Island of Skye.—In reply to Dr. CAMERON, the LORD ADVOCATE said that there had been twenty-five cases of typhus fever in Skye in about five months, three cases proving fatal. Dr. Mackenzie was lying dangerously ill of the disease. The nature of the disease was not at first properly understood.

Vaccination in the Army.—Mr. BIGGAR asked the Secretary of State for War whether it had come to his knowledge that sixty-eight recruits were vaccinated at Dortrecht, in Holland, on May 25th last, of whom eight were found to be seriously injured, three having subsequently died; whether the fact of those injuries and fatalities was subsequently brought to the attention of the Netherlands Parliament, and a circular issued by Mr. Weitzel, the Minister of War, notifying recruits that vaccination was not to be considered obligatory, but optional; whether it was his intention to abolish or modify the military regulation enjoining the vaccination of recruits and the periodical re-vaccination of soldiers in the English army; and whether he would state by what authority the Secretary of State was empowered to compel recruits to submit to vaccination against their will.—The Marquis of HARTINGTON said that the alleged occurrences in Holland had not been brought to the notice of the War Office, but he would cause inquiry to be made. There was no intention of abolishing or modifying the system of vaccinating or re-vaccinating recruits, which had acted most successfully in protecting soldiers from small-pox, and against which system the recruits, so far as was known, had offered no objection. The regulation for the vaccination or re-vaccination of recruits was contained in the medical regulations of the Army, issued under the authority of the Secretary of State.

The Army Hospital Services.—Mr. DAWNAY asked the Secretary of State for War whether, in view of the fact that it was impossible for the House at this period of the session to be afforded an adequate opportunity of expressing its opinion with regard to the report of the Committee of Inquiry into the Army Hospital Services, it was intended before next session to act on the recommendation of that Committee with regard to the proposed change in the position of the medical officers with the Household troops, a recommendation dissented from by two members of the Committee, and opposed to the opinions of all the military authorities who gave evidence on the subject.—The Marquis of HARTINGTON proposed, as soon after the end of the session as possible, to examine carefully all the recommendations of Lord Morley's Committee, and to consider how far they should be adopted and given effect to in next year's estimates. He could not undertake, with reference to the particular recommendation adverted to in the question, that no steps should be taken towards its adoption before the House had had an opportuity of discussing it, because, like all other decisions, it must be taken on the responsibility of the Government, and not of the House of Commons. But the House would, on the Army Estimates next year, have a full opportunity of discussing the question, and of expressing its opinion on any action which might be taken by the Government.—Mr. DAWNAY gave notice that he intended, on the first opportunity, to call attention to the evidence given before the Committee of Inquiry into the Army Hospital Services with regard to the working of those services during the Egyptian campaign, and to the change recommended in the report of the Committee with regard to the position of the medical officers of the Household troops, and to move a resolution.

OBITUARY.

ROBERT BOYD, M.D.Edin., F.R.C.P.Lond., M.R.C.S.Eng.

WE regret to record the death of Dr. Robert Boyd, under exceptionally painful circumstances. Before these lines have reached our readers, the public as well as the profession will have been made acquainted with the terrible catastrophe which occurred at Southall Park private lunatic asylum early on the morning of the 14th of this month, by which not fewer than five lives were lost by fire. These were Dr. Boyd himself, aged 70; his second son, Captain W. Boyd, of the Canadian Militia; Mrs. Cullimore and Captain Williams, two patients of the asylum; and Mrs. O'Loghlen, the cook. Hutton, the gardener, who sustained terrible injuries from leaping from a third-story window, is yet in great danger; and others, servants and relatives of the deceased, have been also severely injured.

By the death of Dr. Boyd, psychological medicine loses one of its brightest ornaments. Whether we think of his indefatigable industry in collecting and classifying statistics, or his versatility in treating almost all subjects connected with mental disease; whether we turn with admiration from his most original researches in the pathology of insanity to his careful regard for the pauper lunatic, we must ever look back upon him as one who has in his time raised the standard of that branch of the profession to which he was so much attached, in the eyes of the specialty, the profession, and the public.

To give even a short account of the work of Dr. Boyd would occupy considerable time and space; but it is fitting, when so able a physician passes from amongst us, more especially under the circumstances alluded to, that some record should be presented of his professional life and works.

As instances of his untiring energy in research may be mentioned his papers on the "Weight of the Brain at Different Ages and in Various Diseases," read before the British Medical Association in 1875; "Cases of a Thousand Female Patients," and "Results of Two Thousand Cases at the Somerset Asylum," published in the *Journal of Medical Science*.

Then again, Dr. Boyd must have been at least present at, if he did not actually perform, a larger number of *post mortem* examinations than, perhaps, any practitioner in the kingdom. In his paper on "Tumours of the Brain," he said:—"During my residence in the Marylebone Infirmary, in three years and a half there were, in 1,039 *post mortem* examinations, 22 cases of tumours of the brain. At the Somerset County Lunatic Asylum, in 875 *post mortem* examinations, there were 14 cases of tumours of the brain." In a continuation of this same paper he remarked:—"In 206 cases of pulmonary phthisis, I found scrofulous tumours in the brain in four cases." In another article, on General Paralysis, he recounted that not fewer than 155 *post mortem* examinations had been made on general paralytics, who died in the Somerset Asylum. In all of these, the condition of the spinal cord had been ascertained. This last statement is, in our opinion, more typical of the painstaking industry of our lamented *confrère* than are the other statistics previously mentioned.

As examples of Dr. Boyd's versatility might be named his writings upon the Causes of Death in Insanity, on Cholera, on Convulsions, on Cretinism, on Epilepsy, on the Necessity of the Study of Insanity, on Puerperal Insanity, and his Tables of the Weights of the Human Body and Internal Organs. Perhaps he will best be remembered by his original researches concerning the condition of the Spinal Cord in General Paralysis, his comparisons between the condition of the brains of the sane and the insane, more especially by the discovery of certain apertures in the cerebral substance, to which he was, as we believe, the first to draw attention, as a pathological fact of importance.

His address, when President of the Medico-Psychological Association in 1870, is full of interesting facts, testifying to his sympathy with the pauper lunatic, and insisting most forcibly upon the more careful teaching of psychological medicine as a part of the student's curriculum. His "Statistics of Pauper Insanity," partly derived from the annual reports of the Poor-law Board, also contain varied shrewd remarks suggesting an improved state of things both for the lunatic and the ratepayer. From his statistical researches in this paper, he concluded that there had been a progressive increase of pauper insanity, especially in the metropolitan division.

The appointments held by Dr. Boyd fully testify that he was not only an able writer and a sound man of science, but also a practical worker for the public good. Superintendent of the Somerse County Asylum, resident physician at the Marylebone Infirmary, and finally proprietor of that asylum where he met his death, Dr. Boyd showed in his life-time an amount of indefatigable energy for useful labour seldom met with in the same individual. Of robust and powerful physique, he might well have worked for many years more in the specialty he so eminently adorned, but fate had willed it otherwise, to the great grief of friends, patients, and colleagues. Of the mode of his death we are all too well aware. He might have saved himself from the flames. There is evidence that he had descended from the burning house, and had talked to one of his daughters on the lawn, when it is supposed he again mounted the ladder in the hope of saving other lives. No more was seen or heard of him. The house fell in, and he was buried beneath the ruins. He died at his post, in full harness, *sans peur et sans reproche*. May his untimely death be an example to others more selfishly constituted than he was!

Dr. Boyd was an especially popular man amongst all classes. Of a naturally reserved and somewhat taciturn disposition, he was, nevertheless, kindness exemplified when asked to do a favour to others less happily situated than himself. His speech, as well as his writings, was steady and sure; every word was well weighed before it was uttered, and his manner invariably inspired confidence in his patients. He leaves a son, who is also in the medical profession, and four daughters to mourn his irreparable loss.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DISMISSAL OF POOR-LAW MEDICAL OFFICERS.

SIR,—Will you furnish, in the next number of the JOURNAL, an answer to the following query?

Can a Poor-law board dispense with the services of its medical officer, that is, the medical officer to the parish which it represents, against the wishes of a large majority of the ratepayers, without furnishing any reason for their proceeding? What should the ratepayers do, in order to reverse the decision of the board, whose action is altogether unaccountable to them and against their wishes?—I am, etc., A MEMBER.

*** Our correspondent is very reticent as to where he writes from; and therefore we cannot divine under what rule he is; if in England or Ireland, he could not be called on to resign without the guardians showing cause, and then not without the sanction of the respective Local Government Boards. If our correspondent reside in Scotland, we fear that the resolution of the parochial board would be final, and no action of the ratepayers would have any effect in annulling it. Under any circumstances, a board's decision would be binding if the assent of the central authority were secured.

DRUGS SUPPLIED TO PAUPERS.

SIR,—I am in a district where there is no druggist, and have in consequence supplied medicines to the paupers for the parishes for which I am medical officer. I, of course, supply my own private patients.

My half-yearly account was sent in lately to one of the parochial boards, and they raised an objection about the price of a diuretic mixture supplied to a pauper, and passed a resolution, without giving me at first the opportunity of explaining, that I was no longer to supply the medicines to the poor, because my price was much too high.

The following is the prescription for which I charged 3s., and I should like if some of your numerous readers would tell me if this price is exorbitant. ℞ tinct. scillæ ʒv, liq. ammon. acet. ʒvi, infus. scoparii ℥xxiv. Lig. Two tablespoonfuls three times a day. I have to give in the meantime prescriptions for medicines the paupers require, and the inspector of poor has to send to another parochial district for the medicines. What I want to know is, is this legal?—Answers will much oblige, yours truly, COUNTY PRACTITIONER.

*** Our correspondent's charge for the medicine appears to us to be very moderate, and probably much below that at which a respectable druggist would have supplied it. As regards the legality of the parochial board's action, in sending the prescriptions to some other district to be dispensed, we are not in a position to express an opinion, for the reason that everything Poor-law medical in Scotland is in such a chaotic condition, that what would be clearly illegal in England or Ireland, may pass muster there. The Scotch Poor-law medical officers have been so absolutely quiescent, that we incline to the view that they rather like being trod upon.

UNIVERSITY INTELLIGENCE.

THE ROLLESTON MEMORIAL FUND.—Mr. Edward Chapman, the Treasurer of the Rolleston Memorial, announces that the total sum subscribed is £1,183 5s., to which is added £59 7s. 5d., dividends paid on sums invested from time to time in Consols before the list was closed. From this total have been deducted Secretaries' expenses, charges for printing, advertising, etc., £36 16s. 9d., leaving a

capital sum of £1,205 15s. 8d. invested in £1,200 Three per Cent. Consols. This sum has been transferred to the Chancellor, Masters, and Scholars of the University of Oxford, and accepted by them as the Rolleston Memorial Fund.

The conditions under which this fund has been accepted by Convocation are as follows. 1. That the fund be expended in the institution of a prize to be awarded every two years, and that the prize be given for original research in any subject comprised under the following heads: Animal and Vegetable Morphology, Physiology and Pathology, and Anthropology, to be selected by the candidates themselves; 2. That the period during which this prize may be obtained by a candidate be limited to ten years after the date of matriculation; and that, with a view to render the prize as widely associated with Professor Rolleston's name as possible, it be open to the members of the Universities of Oxford and Cambridge. 3. That the amount collected, after payment of all expenses, be made over as a trust-fund to the University of Oxford, which should appoint the necessary trustees, carry out all other arrangements, and make regulations. 4. That if no memoir be considered of sufficient merit, the value of the prize for that year be added to the capital of the fund. These conditions having been accepted by Convocation, the following regulations have been made. 1. The sum of £1,200, being the amount offered to the University as aforesaid, shall be invested in the name of the Chancellor, Masters, and Scholars of the University of Oxford. 2. The prize shall be called "The Rolleston Memorial Prize," and shall consist of so much of two years' income of the fund as shall remain after payment of all expenses incidental to the trust. 3. The Vice-Chancellor, the Regius Professor of Medicine, the Linacre Professor of Human and Comparative Anatomy, the Waynflete Professor of Physiology, and the Sherardian Professor of Botany, shall be trustees of the prize. They shall fix and give due notice of the time for sending in the competing memoirs to the Registrar, and shall appoint judges, who may be either trustees, or members of one of the two Universities of Oxford and Cambridge not below the degree of M.A. or B.M. 4. The trustees shall have power to make subordinate rules or by-laws, for the purpose of carrying these regulations into effect; and Convocation shall always be at liberty to alter the conditions and regulations, provided that the main object of the prize, namely, the encouragement of original research in the above-mentioned subjects, be kept in view.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 9th, 1883.

Howard, Albert Bredin, St. Edmond's Road, Bootle, Liverpool.
Child, Herbert, Headingley, Leeds.
Lankester, Herbert Henry, High Street, Leicester.
Leeming, Robert Whinerey, Holly Lodge, Buckhurst Hill, Essex.

The following gentleman also on the same day passed the Primary Professional Examination.

Soden, Thomas Armand Bourne, Charing Cross Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

ANDERSON'S COLLEGE.—Chair of Institutes of Medicine. Applications by September 5th.

CASHEL UNION, CASHEL DISPENSARY.—Medical Officer. Salary, £120 per annum, and £20 as Medical Officer of Health. Election September 1st.

CAVAN COUNTY INFIRMARY.—Surgeon. Salary, £94 per annum. Applications by September 18th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by September 8th.

CHESTER GENERAL INFIRMARY.—House Surgeon. Salary, £80 per annum. Applications by August 27th.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Salary, £80 per annum. Applications to Mr. Edwin W. Marshall, secretary, 38, Barton Arcade, Manchester, by August 28th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

HARTLEPOOLS HOSPITAL AND DISPENSARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications to J. Rawlings, Esq., 12, Cliff Terrace, Hartlepool, by August 18th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by September 1st.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by August 18th.

GENERAL INFIRMARY at Gloucester and GLOUCESTERSHIRE EYE INSTITUTION.—House-Surgeon. Salary, £100 per annum. Applications by September 1st.

GENERAL LYING-IN HOSPITAL, York Road. Lambeth.—House-Physician. Salary, £50 per annum. Applications by October 3rd.

GLOUCESTER COUNTY ASYLUM.—Assistant Medical Officer. Salary, £100 per annum. Applications by August 20th.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—Junior Resident Medical Officer.—No salary. Applications to the Honorary Secretary, Medical Committee of the Great Northern Hospital, 23, Upper Berkeley Street, Portman Square, W., by August 20th.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Senior House-Surgeon. Salary, 100 guineas per annum. Applications by August 27th.

LONDON HOSPITAL.—Demonstrator of Practical Chemistry. Salary, £100 per annum. Applications to the Warden by September 1st.

NEWCASTLE-ON-TYNE INFIRMARY.—Junior House-Surgeon. Salary, £50 per annum. Applications by August 22nd.

QUEEN'S COLLEGE, CORK.—Professorship of Midwifery. Applications to be sent to the Under Secretary, Dublin Castle, not later than August 25th.

QUEEN'S COLLEGE, Ireland.—Professor of Midwifery. Applications to the Under Secretary, Dublin Castle, by August 25th.

RICCARTSBAR ASYLUM, Paisley.—Assistant Resident Medical Officer. Salary, £60per annum. Applications to Robert Rowand, Inspector of Poor, Paisley, by August 21st.

ST. BARTHOLOMEW'S HOSPITAL,—Assistant Physician. Applications by September 10th.

THOMASTOWN UNION.—Medical Officer, Graigne Dispensary. Salary, £100 per annum and fees. Election on the 23rd inst.

ULVERSTONE UNION.—Medical Officer of Health for the Rural Sanitary Authority. Salary, £133 per annum. Applications endorsed, "Application for Medical Officer of Health," by August 22nd.

WALLASEY DISPENSARY.—House-Surgeon. Salary, £140 per annum. Applications by September 8th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant-Physician. Applications by August 27th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon. Applications by September 1st.

MEDICAL APPOINTMENTS.

BARFOOT, George H., M.D.Lond., appointed Acting Medical Officer to the Wirral Childrens' Hospital, Birkenhead, *vice* Dr. J. Bell Miller, resigned.

CHALMERS, W., L.F.P.S., appointed Assistant Surgeon to the Derby Amalgamated Friendly Societies Medical Association.

DOWSON, Walter, M.A., M.B.Cantab., appointed House-Surgeon to the Salop Infirmary.

EWART, Joseph, M.D., appointed Physician to the Royal Alexandra Hospital for Sick Children, Brighton.

FENWICK, E. H., F.R.C.S., appointed Junior Assistant-Surgeon to the London Hospital.

FLETCHER, H. J., M.B., appointed Medical Officer to the Leeds Public Dispensary, *vice* H. Kershaw, M.R.C.S., resigned.

FORREST, J. R., M.R.C.S., appointed Medical Officer to the Brandes Burton District of the Skirlaugh Union, *vice* F. Calvert, M.R.C.S., resigned.

GRAHAM, Arthur, L.R.C.P.E., L.R.C.S.E., L.S.A., appointed Surgeon and Accoucheur to the Pimlico Medical Institute and Lying-in Charity.

KEMPE, Arthur, M.R.C.P., appointed Medical Officer of Health to the Port of Exeter.

MACKEY, Edward, M.D., appointed Physician to the Royal Alexandra Hospital for Sick Children, Brighton.

NUGENT, T. C., M.R.C.S., appointed Assistant Surgeon to the Derby Amalgamated Friendly Societies Medical Association, *vice* J. J. Lewis, M.R.C.S., resigned.

PEDLEY, F. Newland, M.R.C.S., L.D.S., appointed Dental Surgeon to the Evelina Hospital, Southwark Bridge Road.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

GREEN.—On Wednesday, the 8th inst., at 116, Strickland Gate, Kendal, the wife of T. Beaufoy Green, M.R.C.S.Eng., of a son.

SMITH.—On the 9th inst., at 1, Bertie Terrace, Leamington, the wife of Francis William Smith, M.D., of a daughter.

MARRIAGES.

BARLOW.—SCHÖNE.—On August 14th, at St. Thomas's, Leipzig, by the Rev. Dr. von Griegern, Thomas Carey Barlow, L.R.C.P.Edin., of Dalston. London, to Liddi, only daughter of the Königl. Brandersicherungs-Inspector. Von Schöne of Leipzig.

CHEESEWRIGHT,—SNELLING.—On August 15th, at St. John's, Lewisham High Road, by the Rev. R. W. Stoddart, B.D., uncle of the bride, assisted by the Rev. J. A. Aston, the Vicar; John Francis Cheesewright, M.R.C.S.Eng., of Rawmarsh, Yorkshire, to Louisa Georgiana, second daughter of the late Joseph Snelling, of St. Mary's Cray, Kent.

WAGSTAFFE.—TETLEY.—On August 8th, at All Saints, Branksome Park, Bournemouth, by the Rev. C. G. Doyne, M.A., Vicar, William Warwick Wagstaffe, B.A., F.R.C.S., late of St. Thomas's Hospital, to Helen Mary, daughter of the late Francis William Tetley, Esq., of Foxhill, Westwood, Leeds.

DEATHS.

DUTTON.—On August 4th, at Reine Barnes, Dursley, Gloucestershire, Anne Elizabeth, the wife of Douglas J. Dutton, Surgeon to the 1st Gloucestershire Engineer Volunteers.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M. —Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M. —Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL ETHICS.

SIR,—Practitioner A. receives a hint that one of his best patients is disposed to exchange his services for those of B., a neighbouring practitioner, between whom and A. there are friendly relations. Being a long-headed man, A. asks B. to call in his stead upon the patient; and, if B. accedes, prevents the exchange, it being a rule that no medical man can take a patient thus introduced. But supposing B. has also heard of the patient's inclination, can he decline to attend for A.?—Yours faithfully, D. BIDDLE.

Gough House, Kingston-on-Thames, July 17th, 1883.

*** We would fain hope that B. is labouring under an erroneous impression as to the suspected intention of A., for any practitioner having recourse to so disingenuous a manœuvre as that implied, would not only richly deserve to lose the patient, and more than justify the intended dupe in declining to attend for him, but rightly disentitle him to the respect of his professional brethren.

STEWART OF CANISBAY FUND.

IN addition to the list published last week, we have to announce a further sum of one guinea from Dr. Fairlie Clarke, Southborough.

A QUESTION OF DIAGNOSIS AND TREATMENT.

SIR,—I should consider it a personal favour if you or some one among your many readers could assist me in forming a diagnosis, and in unravelling the mysterious etiology of the following attacks, of which I have been the victim on three or four different occasions during the last decade. I may at once state that my temperament is sanguine and very active, and that my constitution is strong and vigorous, without any hereditary taint whatever. I have been periodically exposed of late years to prolonged mental worries, which tend to lower the nervous system some degrees below par, and to keep it at such a low ebb. I never once, I am thankful to say, gave way in the least degree to stimulants. My appetite and digestion have, therefore, been excellent throughout. The seizure is ushered in by nervous depression, and that which more frequently than not accompanies such a condition, nervous irritability. I suffer from weariness and incapacity for mental and physical exertion, which as a rule are quite foreign to my nature. My bowels are slightly constipated, the urine sometimes alkaline, sometimes acid, but rarely shows the presence of lithates. The mucous membrane of my mouth often at these times becomes tender, and bleeds in the morning, and small gumboils form by the side of, or under the teeth. The tongue is moist and pink, deeply indented by the impressions of each individual tooth. The skin in certain parts of the body, without any known cause, especially in the region of the neck and face, becomes intensely irritable, and rapidly goes on to swelling and redness, in fact, to acute cellulitis. All my features participate in the swelling, so that my eyes are nearly closed. Upon the following day, the skin has become hard, yellow and brawny. The irritation is so intense that I can hardly keep my fingers off it; even talking about it, or thinking of it, instantly fans the flame, and if my fingers happen to touch the red and inflamed surface, so highly sensitive are the tensely stretched nerve-filaments, that I feel little nerve-storms like summer lightning flickering and flashing all over my body. After forty-eight hours the vesicated surface plentifully discharges, and continues to do so for about three days. The skin, where highly irritable and not discharging, has the feeling, I may say, when the finger is passed over it, of the rind of Stilton cheese, from the number of vesicles accumulated on the hardened surface. The other parts of my body which I am obliged to touch, sympathise in a measure with the part primarily affected, becoming very irritable and red. My strength rapidly fails, the temperature of my body keeps below rather than above the natural standard. There is no delirium; appetite keeps good; there is no thirst. I can trace the attacks to nothing whatever except nerve-depression, I know of no other primary or exciting cause. All applications to the parts must be bland, such as sweet oil; for flour and medicated wool, tincture of iodine, liquor ferri perchloridi, tincture of arnica, sulphate of iron, and flexible collodion, make matters ten times worse. In my last attack I have found that liquor ferri perchloridi fort. *P.B.*, not ordinary tincture of iron, in doses of five drops in a desertspoonful of glycerine diluted with water, with a pilule of morphia, three or four times within the twenty-four hours, certainly tended to shorten the seizure. Milk and beef-tea, and soda-water and milk, in liberal quantities, is the diet which most suits me.

I have described a typical attack. Would you consider it erysipelas of a phlegmonous character? In one of my attacks, I had a consultation of four physicians and surgeons, but they did not come to any satisfactory solution of this case, and gout was suggested; but this is a business-card played usually when we are in doubt. Blood-poisoning is quite out of the question, because I am not exposed to impure air, or poisonous secretions of any kind. Hoping that you will be able to give me a little assistance in this matter.—I remain, yours obediently, AN ASSOCIATE.

THE ACCIDENT AT CONWAY.

WE have received from Dr. Macfie Campbell (Liverpool) the sum of 10s. 6d. towards the fund opened on behalf of the sufferers by the accident at the Conway excursion. Dr. Eyton-Jones, of Wrexham, writes that he has received £1 1s. for the same purpose from Mr. Wheelhouse, the President of the Council; and that he will be happy to acknowledge the receipt of any sums remitted to him.

HYDROCYANIC ACID AS AN ANTIDOTE TO STRYCHNINE POISONING.

SIR,—Mr. Parkinson may be interested in reading the account of some experiments on the antagonism of strychnia and prussic acid published in vol. xii, *St. Bartholomew's Hospital Reports*. Dr. Lauder Brunton kindly allowed me to carry on those experiments in his laboratory at the hospital, and their success is entirely due to his kindly assistance and advice.

About two years afterwards, I had an opportunity of trying the prussic acid antidote in actual practice; but as I did not feel myself justified in trusting to that alone, I cannot say how much the emetics and chloroform inhalation, which latter I kept up for four hours, had to do with the successful result.

I believe that in prussic acid we have an antidote to strychnia; but the danger of the remedy will make medical men very chary of employing it, as to be of any use it must be given in doses which would be fatal under any other circumstances.—Believe me, yours faithfully,

27, Canonbury Road, N., July 28th, 1883. W. J. SIMPSON LADELL

Health-Ships.

SIR,—Is there not such an institution as a "health-ship," by means of which invalids and convalescents may take short voyages with a view to the benefit to health which may result therefrom? Perhaps some readers can tell me.—Yours faithfully,

HUGH NORRIS.

South Petherton, Somersetshire, July 15th, 1883.

*** Such an institution as a "health-ship," we believe, does not exist, but invalids find every convenience and attention on board the steamers of several of the chief ocean lines. Unfortunately, the shorter the voyage the less fitted is the ship for convalescents and invalids. Perhaps the best short voyage for patients who require a change of this kind is a trip to Gibraltar and back on board one of the P. and O. steamers, or to Malta on one of the steamers of the British India Line, or to Madeira by one of the Union Company's fine steamships.

Sir Benjamin Brodie's Prescription for Gout.

SIR,—"Hirsutus," in the JOURNAL for June 23rd, inquires for the late Sir Benjamin Brodie's prescription for gout. I send you a copy of a prescription of his, answering, I think, the inquiry of your correspondent. I kept it made up, but I did not always use three pills, oftener only two; and I am inclined to think that one, three times a day, with one-eighth of a drachm of the bicarbonate of potash, before meals, would often be found very useful. The pathology of Sir Benjamin, as indicated by the prescription, harmonises with the pathology of the late Sir Charles Scudamore, in which I have believed all my life, and feel a pleasure in being able to send a copy.—"℞ Pil. hydrargyri; ext. rhei; ext. coloc. co. āā ℈j; ext. colchici acet. gr. xv.; Ft. pil. xv; sumantur tres horæ somni pro re natâ. July 30th, 1852."—Yours obediently,

Reading, July 4th, 1883. T. L. WALFORD, M.R.C.S., etc.

Medical Service of British Guiana.

SIR,—Could you kindly refer me to the number of the JOURNAL (not July 7th) in which mention is made of the medical service in British Guiana? I am also desirous of obtaining the London address of Dr. J. P. Watt, of Georgetown, Demerara, who is, I believe, now in England.—Yours faithfully,

A MEMBER.

Cramp.

SIR,—I have a patient who suffers very severely at night from "cramp," having to rise often as many as three or four times to have the limb rubbed. I have tried several plans of treatment; but, as they have failed, may I ask for a hint or two from one or two of my fellow members.—Yours very truly,

ENQUIRENS.

Gouty Dyspepsia.

SIR,—In reply to "L.R.C.P., M.R.C.S.," in the JOURNAL of July 14th, I beg to say that, if he will recommend his patient to take half a teaspoonful of effervescent citrate of lithia, in half a tumbler of cold water, two or three times a day (and no other drugs), he will soon find a marked improvement in his symptoms. Wine and beer should be forbidden; but, as a stimulant appears to be necessary, the best old Highland whisky may be prescribed in moderate quantities, but it must be the best, and it must be old. Sugar and acids should be carefully avoided. The fall of temperature and other symptoms in the evening are probably due to a weak circulation, caused by want of cardiac power and general debility. A diet consisting largely of boiled fish is very beneficial in cases of "gouty dyspepsia."—Yours faithfully, ARCHIMEDES.

A Channel for the Spreading of the Cholera.

SIR,—The water-closets of houses in the poor districts of the East of London, so far as my experience goes, have no other means of flushing except such as the caprice of the inhabitants may supply, and this would be chiefly the waste house-water. They are always more or less in a filthy state, and frequently blocked up. Here is a most inviting opportunity for the easy spread of cholera, when unwittingly imported from the docks or elsewhere. I frequently find these houses let each to several families, and whole streets of them belonging to one landlord. I think it would be a real economy to introduce in such cases the "trough-closet," as used in Liverpool.—I am, yours truly,

Shoreditch, July 25th, 1883. WILLIAM J. V. HARLE.

On the Division of Arteries between Two Ligatures.

SIR,—Mr. Walsham has made a most important statement in our JOURNAL, and it is to be regretted that Mr. Holmes entertains a different opinion. If a wounded artery requires ligature, it must be tied at both ends. I am also quite sure that, whether "antiquated" or not, it is the proper surgical treatment, as I have proved in many an accident in colliery districts and elsewhere. I do not understand how a properly made aneurysm-needle could or should "transfix" the vein, or that the artery need be deprived of its covering for more than half an inch, if, as Mr. Walsham says, "it is neatly done." There may be something in that.—I am, etc., C. H. SPOONER, M.R.C.S.Eng.

X. Y. Z.—British titles are not registrable in France. To practise in France, it is necessary to pass an examination in France either as *officier de santé* or as M.D. of the University of Paris.

Carbolic Acid in Diarrhœa.

SIR,—I have found carbolic acid of such immense value in cases of diarrhœa that I think its praises should be sounded through the medium of the JOURNAL. Combined with bismuth and aromatic confection, it very soon cures the worst cases of vomiting and diarrhœa in children. Half-minim doses are sufficient. In similar cases occurring in adults, I combine it in minim doses with the usual astringents and sedatives.

Its action in relieving vomiting is, of course, well known to be due to a direct sedative action upon the filaments of the pneumogastric nerves in the stomach. In the cure of diarrhœa, I ascribe its action to the correction of fermentation.

In those cases so common amongst children, for instance, of vomiting and diarrhœa with febrile symptoms, it is reasonable to suppose that the vitality of the stomach and bowels may have become impaired by exposure to cold or wet, and that fermentation has been set up by the consequent imperfect digestion, the fermented contents of the stomach and bowels then causing vomiting and diarrhœa by irritation.

In cases of over-indulgence in fruit, and other errors in diet, the cause is not so far to seek.—I am, sir, yours truly,

OMEGA.

The Nurses at King's College Hospital.

SIR,—You are incorrect regarding your statements concerning the lady nurses at King's College Hospital, as they were discharged in the most unjust and peremptory manner, and at great inconvenience to themselves, by the members of the Council, merely because a little since the matron, Sister Aimée, reported a case of supposed irregularity by a doctor towards one of the patients. I speak as a parent of one of the lady nurses.—Very truly yours,

M.D.

Marriage of Cousins.

SIR,—Will any of your correspondents kindly inform me what is the title of a book written three or four years since, showing that no evil results arise from the intermarriage of first cousins, or render me any other information on this subject?—I am, etc.,

A FIRST COUSIN.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Stevenson, London; Mr. J. L. Stretton, Kidderminster; Mr. E. H. Denison, London; Dr. F. Pollard, Liverpool; Dr. H. G. Rawdon, Liverpool; Phillis; Mr. D. J. Dutton, Dursley; Mr. F. Boreham, Tunbridge Wells; Mr. G. E. Walker, Liverpool; Dr. R. T. Hales, Holt, Norfolk; Dr. A. W. Wallace, Parsonstown; Dr. Goodhart, London; Dr. A. Davidson, Liverpool; Inspector-General Maclean, Southampton; Dr. D. C. McVail, Glasgow; Dr. Broadbent, London; Mr. A. Graham, London; Mr. James Greenwood, London; Dr. Mackey, Brighton; Messrs. P. Blakiston and Co., Philadelphia; Mr. K. W. Millican, Kineton, Warwickshire; Dr. W. Kebbell, Hove; Dr. Oxley, Liverpool; Dr. Gairdner, London; Dr. Mackie, Alexandria; Dr. J. Lalor, Dublin; Mr. C. H. Southwell, Boston; Mr. W. H. Allden, Southampton; Dr. Joseph Rogers, London; Captain Douglas Galton, London; Mr. J. Bate, London; Dr. Fairlie Clarke, Southborough; Dr. T. W. Hime, Sheffield; Dr. J. Milward, Cardiff; Mr. William Bain, Heaton Chapel; Mr. W. Brydon, Hawick; Mr. J. W. Mason, Hull; Dr. T. Eyton-Jones, Wrexham; Mr. F. J. Pollock, Dublin; Dr. S. Spratly, Birkenhead; Dr. Imlach, Liverpool; Mr. C. Puzey, Liverpool; Dr. J. Spottiswoode Cameron, Huddersfield; Dr. L. Connor, Detroit, Michigan, U.S.A.; Dr. Davidson, Liverpool; Mr. R. Parry, Carnarvon; Mr. F. W. Jordan, Heaton Chapel; The Secretary of the University of Aberdeen; Dr. Yellowlees, Glasgow; Mr. E. J. Adams, Sheffield; Dr. T. M. Watt, Hovingham; Dr. Fernie, Barnstaple; Messrs. C. H. Burnham and Co., London; Mr. W. J. Mackie, Turvey; Dr. Sawyer, Birmingham; Dr. Eddowes, Shrewsbury; Dr. Shuttleworth, Lancaster; Mr. H. C. Stewart, London; Mr. P. Vincent, Taunton; Mr. Hallowes, Maidstone; Mr. F. N. Pedley, London; Mr. B. G. Morison, London; Dr. Goullet, London; Our Aberdeen Correspondent; Mr. Alfred Teevan, London; Mr. T. Cooke, London; Dr. Gairdner, Glasgow; Mr. J. Brindley James, London; Dr. Spedding, Belfast; Mr. J. W. Cregeen, Liverpool; Mr. F. Wallace, London; The Editor of *Nature*; The Secretary of the Sanitary Insurance Association; Mr. C. H. Southwell, Boston; Dr. Warren, Boston, U.S.A.; Mr. G. Eastes, London; Dr. Cossham, Cirencester; Dr. Muir, Selkirk; Dr. Wagstaffe, Bournemouth; The Secretary of the Wirral Children's Hospital, Birkenhead; Dr. Richardson, Oughtibridge, Sheffield; Mr. R. S. Anderson, Spennymoor; Mr. P. J. Noake, Halton; Mr. Bennett May, Birmingham; The Secretary of the National Temperance League; Mr. F. W. Lowndes, Liverpool; Mr. M. Hoff, Hamburg; Dr. W. M. Campbell, Liverpool; Mr. T. C. Jones, Corwen; The Principal of the Ceylon Medical College; Mr. C. T. Dent, London, etc.

BOOKS, ETC., RECEIVED.

Æsthetical Sanitation. By William White, F.L.A. London: E. Stanford. 1883.

Cholera; How to Prevent and Resist It. By Dr. Max von Pettenkoffer. From the German. Translated by Thomas Whiteside Hime, A.B., M.B. Revised by Dr. Von Pettenkoffer. London: Baillière, Tindall, and Cox. 1883.

The Book of Prescriptions Containing Upwards of Two Thousand Prescriptions; Collected from the Practice of the Most Eminent Physicians and Surgeons. By H. Beakley. Sixth Edition. London: J. and A. Churchill. 1883.

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE "BRITISH MEDICAL JOURNAL".

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Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office, High Holborn. Small amounts may be sent in postage stamps.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON THE CAUSES AND CONSEQUENCES OF UNDUE ARTERIAL TENSION.

Introduction to a Discussion in the Section of Medicine.

BY W. H. BROADBENT, M.D., F.R.C.P.,
Physician to St. Mary's Hospital, London, etc.

THE subject which I have to bring before the Section—the causes and consequences of undue arterial tension—I believe to be one of great importance; and should this fail to appear in the course of my remarks, it will certainly be my own fault. Undue pressure in the arterial system explains some of those conditions of faltering health met with in middle life, which were mentioned in the opening address of our President; it points out tendencies which, later, result in serious illness or in fatal disease; its recognition directs us to the means by which many ailments may be relieved, and, by enabling us to foresee, sometimes also enables us to avert, disaster and death.

High arterial tension is not to be measured by a certain number of grammes or ounces of pressure employed to elicit a characteristic sphygmographic trace; it is a relative, not an absolute term. Ultimately, the measure of the tension in the arteries is the force of the systole of the heart, but modifying influences of extreme importance are introduced by the peripheral circulation. Under normal conditions, the relation between the force of the heart and the outflow by the capillaries is such, that the artery gradually subsides under the pressure of the fingers in the intervals of the pulse; and the chief characteristic of unduly high tension is, that the vessel remains full between the beats. For our present purpose, then, it may be taken that high tension exists whenever the artery is full between the beats, so that it can be rolled under the fingers like a tendon in the wrist. To appreciate this condition, three fingers should be placed on the vessel, when it will be found to stand out, not only during the wave of the pulse, but in the intervals; and, as has just been said, it can be rolled transversely under the fingers, and can also frequently be followed for some distance up the forearm, feeling almost like the vas deferens. This having been recognised, other points must then be ascertained. The force of the pulse-beat and the degree of actual pressure in the blood-column may vary. This will be approximately estimated by the pressure of the fingers required to flatten the artery and arrest the wave—one, two, and all three fingers being employed, and the pressure being varied several times. Very frequently, the force needed is unexpectedly great, and a pulse which at first seems to be weak may really be extremely powerful. Again, the artery may be either large or small; sometimes, it is distended and dilated to its full capacity; at others, it is firmly contracted upon the contained blood. It is in these last cases that the pulse is apparently weak, its force only being appreciated as the attempt is made to extinguish it. Finally, the pulse-wave may be long or short; usually it is long, and dies away gradually under the finger; but not uncommonly, all other characters of tension being present, it is short, a change of very great importance, as it usually indicates dilatation of the left ventricle and incipient failure of the heart.

I have said nothing about the sphygmograph, because, were I to enter upon a description of the sphygmographic trace, I should have to devote much time to qualification and discussion, which would only be appreciated by the few who work much with this instrument; and, after all, the educated finger can tell us everything revealed by the sphygmograph, and more. When, after the general neglect of the indications furnished by the pulse, terms were required to describe the different conditions again brought out by the sphygmograph, all these terms were found ready-made in the writings of Galen. Fortunately, there is nothing of real importance in the pulse which cannot be readily distinguished by the busy medical man in his daily work.

Causes.—We come now to the causes of undue pressure within the arterial system.

The outflow by the capillaries being normal, the quantity poured into the aorta by the heart may be excessive. The systole may be unduly frequent and forcible, as in exertion, excitement, or palpitation. In order, however, that frequency and violence of the heart's action may really raise the intra-arterial pressure, there must be a fair amount of blood driven out of the left ventricle at each beat, and sometimes in palpitation such is not the case. The diastole is so short and so imperfect, that very little blood enters the ventricle, and there is consequently very little to send into the arterial system.

High tension of cardiac origin, while it may for a time be considerable, is temporary only, and counts for comparatively little in the causation of the serious effects to be described later.

Another cause of increased arterial tension may be, that the volume of the blood, as a whole, may be unduly large, so that arteries, capillaries, and veins may all be too full. This is more or less the condition in plethora, and it is probably present for a time in the early stage of acute albuminuria. It is possible, again, that the arterial system may be unduly full from spasm of the great venous system of the abdomen, or from pressure on the abdominal viscera and veins displacing the contents of the venous reservoirs.

The main cause, however, of unduly high arterial tension is resistance in the peripheral circulation. A preliminary question of great interest and importance is, whether the seat of such resistance is in the arterioles or in the capillaries. It is quite certain that the arterioles are capable of opposing the flow of blood. This is demonstrable in the frog's foot, and other transparent vascular structures, in which the minute arteries can be seen to contract almost to obliteration on the application of irritants. It is by this power in the arterioles that physiological supply and demand are regulated. There are, moreover, certain conditions in which there is a more or less general contraction or spasm of the minute arterioles, giving rise to high tension in the arterial system. In excitement, for instance, and nervousness, there is, with the heightened action of the heart, contraction of the peripheral arterioles, producing a temporary rise of tension, which we see every day in our consulting-rooms, and must allow to subside before we attempt to estimate the actual condition of the circulation. In hysteria, again, there is protracted spasm of the arteries and high tension; and both in hysteria and in nervousness one familiar result is excessive secretion of dilute urine. In the early stage of acute disease of the brain, and throughout some chronic affections of brain or spinal cord, there is great contraction of the minute arteries; occasionally this may be unilateral, furnishing a converse to the unilateral dilatation common in hemiplegia. The prominent phenomenon of rigor is general arterial spasm; and, in the cold stage of malarial fevers, this may be carried to such a degree as to bring the heart to a standstill by the resistance produced. It is from this cause that the cold stage of malignant intermittent, or remittent fevers is attended with danger of fatal syncope or serious nervous complications.

Cases are sometimes met with, independently of malarial poisoning, in which general arterial spasm becomes a source of danger, as in some forms of angina pectoris; and I may relate an illustration of another kind. A lady, the subject of chronic arterial tension, caught a chill, and the arteries, which were usually large, were found to be tightened up, small, and incompressible, while there were severe occipital headache and a sense of oppression in the chest. The urine, previously normal, became temporarily extremely copious and pale, had a specific gravity of only 1006 or 1008, and contained a small proportion of albumen. On another occasion, a similar attack was accompanied by slight left hemiplegia, with marked impairment of articulation; and, in my absence, two distinguished colleagues, not aware of the previous history, came to a diagnosis of advanced Bright's disease, and gave a most unfavourable prognosis. On both occasions, a dose of calomel put an end to the serious symptoms almost at once; the hemiplegia, of course, excepted, which only disappeared very gradually.

While, however, contraction of the arterioles may give rise to very high arterial tension, and no doubt often co-operates with capillary resistance in its production, I have come to the conclusion that the seat of the obstruction from which high pressure within the arterial system usually arises is the capillary network. The phenomena of capillary attraction in the domain of physical science have abundantly shown how affinity between the material of the capillary tubes and the liquid contained in them influences the passage of the liquid; and the circulation of the sap in vegetables is an illustration of continued movement in minute tubes as a consequence of the relation between the vessels and their contents. The normal affinities, then, between the blood and tissues, are such as to

favour the onflow of blood through the capillary network under slight pressure; and disturbance of this normal relation will give rise to obstruction. Now, this normal relation may be disturbed by change either in the tissues or in the blood. An illustration of such disturbance on the side of the tissue is produced by inflammation, in which a local change in the structures leads to resistance, even to the point of arrest of the movement of blood through the part. On the other hand, it would seem that, in acute renal dropsy, the increased resistance is explicable only by change in the blood.

Perhaps the best illustration of the obstruction to the passage of the blood through the capillaries, due to change in the blood, is furnished by the phenomena of asphyxia or apnœa. As soon as the blood, charged with carbonic acid, reaches the systemic capillaries, its passage through them is resisted, and the pressure in the arterial system rises enormously. The resistance can scarcely be in the minute arterioles, as the swollen and purple face shows that the capillaries are themselves turgid and distended with the impure blood. It may be remarked, in passing, that there is no very obvious reason why resistance may not arise in the pulmonary as well as in the systemic capillaries, and I consider it an unfounded assumption to conclude, as has constantly been done in some recent discussions, that accentuation of the pulmonary second sound is indicative of resistance at the mitral orifice.

While, then, it appears, from the considerations just advanced, that the presence in the blood of impurities, such as carbonic acid, may give rise to obstruction to its passage through the capillaries, it would seem that, in the high arterial tension commonly met with, the capillaries are the seat of the resistance to which it is due, from the fact that cerebral hæmorrhage takes place from rupture of the minute arterioles which would be themselves contracted were the obstruction of arteriole origin. Again, the arteries within reach of the finger are sometimes large and sometimes small, when the tension within them is raised; whereas, when the minute arterioles are contracted, the contraction physiologically extends to the larger arteries, of which they are the continuation, and can be felt in them, *i.e.*, they are small.

I have never for a moment been able to accept Sir William Gull and Dr. Sutton's hypothesis of arterio-capillary fibrosis in Bright's disease, still less Dr. Mahomed's extension of this theory to the effect that, in cases of chronic arterial tension without albuminuria or other evidence of renal disease, there is this general arterio-capillary change not affecting the kidneys.

That the cause of the arterial tension, under consideration, is in the blood, appears to be clear, from the rapid modifications which it may undergo; and the most probable source of the impurity giving rise to it is the retention of nitrogenised matters imperfectly oxidised, and on that account not in a condition to be eliminated.

Conditions of Arterial Tension.—We may proceed now to the enumeration of the conditions under which arterial tension arises, most of them being such as are attended with accumulation in the blood of imperfectly oxidised nitrogenised waste.

1. Renal disease of whatever kind, except acute suppurative pyelitis, and nephritis, and perhaps tuberculosis and amyloid degeneration, is attended with high arterial tension, due to the imperfect elimination of urinary constituents. So characteristic of disease of the kidney is the pulse of high tension, that it has been named the renal pulse; but the term is extremely objectionable, for, although such a pulse is often at once suggestive of disease of the kidneys, and may facilitate the diagnosis, it is very common when there is no renal change; and, on the other hand, it may be absent temporarily or permanently when advanced disease of the kidneys exists. If tension be permanently wanting, however, it may be a prognostic sign of the worst augury.

2. Gout, again, is so constantly accompanied by high pulse-tension, that the term gouty pulse has passed into currency. It is, of course, open to the same objections as the name renal pulse. Arterial tension is present in both acute and in chronic gout; and the name suppressed gout, so conveniently vague, and open as it is to abuse, might perhaps serve some useful purpose if it were employed simply to designate such states of impaired health in middle and advanced life, as are characterised by the presence of unduly high arterial tension.

The class would correspond very closely with the conditions described by the late Dr. Murchison, in his work on *Functional Derangements of the Liver*, the symptoms being attributed to lithæmia. In gout, the form of nitrogenised waste is uric acid; in some of the states comprehended under the head of suppressed gout, the oxidation of nitrogenised matter has probably stopped short of the stage at which uric acid is formed, and the compounds are even more injurious in their effects on the system. It is not necessary to describe in detail the modes of life which conduce to the accumulation in the blood of this imperfectly organised nitrogenised waste—they are excessive consumption of animal food and alcoholic drinking, sedentary habits, and the like.

I have been greatly struck with the frequency and degree of high arterial tension met with in Englishmen returning from India and other hot climates. My preconceived idea was that the external heat and free perspiration would produce general vascular relaxation, but observation has shown the exact contrary of this to be the usual result. The explanation, no doubt, is that the Englishman carries his meat-eating habits with him to hot climates, and there being here comparatively little need for combustion in order to maintain the temperature of the body, the nitrogenised food is imperfectly burnt off and eliminated.

3. Lead-poisoning is another cause of high arterial tension, and it is noteworthy that it frequently gives rise to gout and kidney-disease, the conditions already spoken of, attended with excessive intra-arterial pressure. Probably the formation of compounds of organic matter with lead salts, albuminates of lead too stable to undergo readily dissociation and oxidation, is the cause of accumulation of imperfectly oxidised products in the blood.

4. Pregnancy is invariably accompanied by increase of tension in the arteries. Whether this arises from a general augmentation of the volume of the blood, or from the presence in the blood of effete matters derived from the fœtus, is, perhaps, not altogether settled. Drs. Mahomed and Galabin have carefully investigated the rise of pulse-tension in pregnancy. It is worthy of note that Bright's disease may be established by pregnancy as well as by lead-poisoning.

5. Anæmia, and especially chlorotic anæmia, is accompanied by high arterial tension. This, as I have before said, is an unexpected fact, but it is in my experience constant. Probably the explanation is similar to the explanation of the breathlessness attending this condition—the red corpuscles, the carriers of oxygen, are deficient, and just as they are insufficient to convey to the nervous system the increased amount of oxygen required in exertion, so they do not supply sufficient oxygen for the oxidation of the effete matters in the blood and tissues. The occurrence of dilatation of the left ventricle and mitral regurgitation, as an effect of anæmia, is at once understood when the resistance in the peripheral circulation is taken into account. It is not merely the innutrition of the walls of the heart, due to anæmia, which causes them to give way, but the increased pressure thrown upon the left ventricle by this resistance.

6. In cases of emphysema and chronic bronchitis, and sometimes even in phthisis, the systemic arteries present the signs of increased tension; in emphysema they are specially marked. This might be attributed to general fibrotic change in the tissues as well as in the lungs, but this is not the whole explanation; imperfect aëration of the blood has a share in provoking the resistance, as is shown by its varying degree in the early stages of the affection of the lungs. Mitral stenosis may here be mentioned as associated with arterial tension, without discussing the relation between the two. With scarcely an exception, the radial artery is full between the beats in mitral stenosis.

7. Inherited tendency must, in some cases, be assumed to exist as the only explanation of undue tension in the arterial system. I have frequently found it in young students, and sometimes in schoolboys and children of ten or eleven, quite independent of overt gout or gouty family history, and not traceable to habit, climate, or mode of life. Again, I have seen several examples of this kind. All the males of a family die about or before the age of sixty, from consequences of high arterial tension of one kind or another, while the females, or most of them, survive, presenting, however, the signs of extreme pressure within the arterial system. Women, it need scarcely be said, are not exposed in the same way as men to the influences, dietetic and others, which intensify arterial tension, and precipitate its fatal effects.

8. Finally, constipation must be mentioned as a cause of temporary increase of tension, which very frequently proves to be the last straw in bringing on an attack of apoplexy or syncope.

Consequences of Arterial Tension.—We have now reached a point at which the more important consequences of undue arterial tension have to be considered, and I shall pass over with little more than mention some of those which have long been recognised and well understood. The temporary high tension due to increased frequency and violence of the heart's action in excitement or exertion, or to straining at stool, may be a fatal addition to

chronic tension, and precipitate a catastrophe of some sort. With regard to this nothing more need be said. The consequences we have most to consider are those due to the long standing resistance in the peripheral circulation. They must be taken in order, beginning with:

1. *The Effects on the Heart.*—When the blood no longer passes with normal freedom through the arterioles and capillaries, increased work is at once thrown upon the heart. The effects will vary according to the condition of nutrition and vigour of the muscular walls of the heart, and according to the rate of increase of the obstruction. If the obstruction come on gradually, it is met and overcome by hypertrophy; if it be sudden, the walls of the ventricle yield, and there is dilatation. A very common history in undue arterial tension is that hypertrophy takes place *pari passu* with the demand for increased force, and for years there is no inconvenience—the subject of the change is apparently in perfect health. Then, as the vigour of the nutritive processes diminishes with advancing years, fibroid or fatty degeneration affects the enlarged heart, and there is gradual diminution of its efficiency, with or without dilatation. Or at any time dilatation may supervene rapidly as a result of mental depression or shock, or during an acute illness of any kind, or from general impairment of health, or it may be suddenly induced by strain. Acute dilatation of the heart may be primary; but, when any of the usual causes of this condition give rise to it, the predisposition, by means of increased resistance in the peripheral circulation, is usually present, and determines the form which the effect takes. An interesting succession of phases of cardiac consequences of arterial tension may be observed in most cases of acute albuminuria. First, under the influence of sudden and considerable increase of resistance in the peripheral circulation, while the nutrition of the heart is impaired by the febrile condition and want of food, there is marked dilatation, the apex-beat is diffused, and the first sound short. Then, as the constitution reacts against the disease, the dilatation is partially compensated by hypertrophy; the impulse becomes more heaving, and the first sound over the interventricular septum is reduplicated, while the accentuation of the aortic second sound is more pronounced. Finally, as the case proceeds to a favourable termination, the signs of pure hypertrophy predominate, to subside as the occasion for increased force in the ventricular systole ceases.

In acute albuminuria, absence of high tension is a most unfavourable prognostic indication, and, if persistent, is of fatal augury. Sometimes, in cases otherwise apparently favourable, the patient having been apparently strong and healthy, and his constitution unimpaired by excesses or anxiety, and the attack not obviously severe, the failure to develop arterial tension has, from a very early period, foreshadowed a fatal result. It indicates, of course, that the heart does not rise to the occasion; and increased energy on the part of the heart is an essential link in the process of recovery. In chronic Bright's disease, absence of tension may have the same serious significance, but it is very rare.

2. Functional derangements of the heart, such as palpitation, irregular action, a sense of oppression, are very common, as an effect of the increased strain upon it, produced by excessive arterial tension. A not uncommon form of palpitation is apparently caused by sudden cessation of the tension, when the heart seems to be staggered by the absence of the usual resistance, contracts vehemently on nothing, so to speak, for a few times, and then goes off into palpitation.

3. The valves, as well as the walls of the heart, suffer from the increased pressure in the arterial system. The violence of the strain sets up valvulitis, which results in thickening and contraction, with consequent obstruction and leakage. The influence of certain occupations in the production of valvular disease has been much dwelt upon, but it is slight as compared with that of the continued effect of high arterial tension. I have known rupture of an aortic valve to occur as a result of this condition, without any strain by exertion or excitement at the time.

4. The aorta, always on the stretch, frequently undergoes atheromatous change, and becomes dilated and thinned, a condition which has various secondary consequences too numerous to be mentioned here. Aneurysm may be produced as well as general dilatation; but, in this case, there are usually other contributory influences besides general arterial tension.

5. At the other end of the arterial system, the small arteries become thickened and tortuous, and have a leathery feel, and present inequalities when followed longitudinally. They lose, not only their elasticity, but their important physiological power of regulating the flow of blood through them by the varying contractions of their muscular coats. Another form of degeneration, more distinctly senile, is met with in the smaller arteries, in which there is cretaceous deposit in their walls, so that the radial artery feels like a string of beads under the skin. I do not think this is always a more advanced degree of the condition just mentioned, nor can I be confident that it is constantly associated with antecedent arterial tension of long duration; but I have observed it where the condition of the heart and great vessels told of high tension.

6. Secondary effects of the changes in the heart and blood-vessels are among the most serious of the consequences of undue tension in the arterial system. Prominent among them, on account of its great frequency, is cerebral hæmorrhage, the heart retaining more or less vigour and force, while the arteries have undergone degeneration. Its occurrence can often be predicted years beforehand.

7. When, with degeneration of the vessels, the heart has become weak and fatty, we have the conditions which give rise to imperfect supply of blood to the tissues; and the effects of this usually become manifest in the brain. It is under these circumstances that general softening of the brain, for the most part, occurs. Local thrombosis may also take place, and some of the aberrant forms of paralysis or aphasia are so produced. But softening of the brain may be simulated by the effects of excessive arterial tension long before there is any structural change. I have met with several examples of this, the most striking being that of a lady seen with Mr. Woodman, of Ramsgate, which I have already published. She had lost her memory, had become quite childish, scarcely recognising her children, and thought that she had only to walk round the corner to be at her home in Scotland. She recovered her intellect speedily and perfectly under treatment which reduced the arterial tension, which was a conspicuous feature in her condition and history. The hypothesis on which I explain this and similar cases is, that the general arterial resistance so far overpowers the heart that it is incapable of maintaining a due supply of blood to the brain whence the symptoms. By reducing the resistance, the heart, relieved of the excessive strain put upon it, again becomes equal to its work, and thus the brain receives the blood required for the exercise of its functions.

8. Convulsions are among the formidable symptoms which may indirectly result from high arterial tension. I have long been convinced that uræmic convulsions are not directly due to the poisonous influence of urea or its derivatives on the nervous system, but to derangement of the cerebral circulation, produced by the high arterial tension present in those forms of kidney-disease which give rise to convulsions. The good effects of venesection in uræmic convulsions are only explicable by the modification of the cerebral circulation produced. It is found also that high arterial tension may be accompanied by convulsions when there is no renal disease or other traceable cause of convulsions. Such a case I brought before the Clinical Society some years since, which was treated by blood-letting to the amount of thirty ounces; the patient has ever since enjoyed excellent health. I have recently attended a vigorous old lady of over eighty years of age, in possession of all her faculties, who in her child-bearing days was bled fifty-two times. She has now very high tension and a large heart, but the arteries are comparatively soft, and the muscular condition of the heart is good. I am disposed to think that, but for some loss of blood, the heart and arteries might have worn each other out before now. Convulsions are not always the result of high arterial tension. Here, as in other derangements of the brain, the same symptom may be produced by opposite causes. In epilepsy, the convulsive disease *par excellence*, the condition of the pulse is usually the exact reverse of tension, and the existence of high pressure raises a presumption that, in a given case of convulsions, the cause is not epilepsy. Only a fortnight ago a man was brought into St. Mary's Hospital in a state of profound epileptic coma. When seen next day, the pulse was found to present the features characteristic of very high tension, and, before asking him a question, I told the students that we should probably not have the usual history of epilepsy. This was verified on inquiry; the case turned out to be one of alcoholic epilepsy.

9. A great variety of symptoms of less serious and urgent character are found associated with undue arterial tension, some of which afford a clue to, and scope for, the functional treatment brought before the profession, some years ago, by Dr. Wade of Birmingham. Amongst these are sleeplessness, breathlessness, depression; loss of energy, resolution, memory, and nerve; giddiness, fulness of the head, pain and oppression in the chest, and neuralgia.

I am aware that this enumeration is open to the remark, that such symptoms are due, not to the tension, but to conditions underlying

if. I will not argue the point. It is sufficient for my present purpose to point out that the high tension, as a clinical fact, affords an indication for treatment. I would observe, however, that, with regard to many of them, the particular symptom may often be removed by measures directed to the relief of the tension, which in no way remedy the condition on which the symptom finally depends. In contracted granular disease of the kidney, for example, sleeplessness, which has lasted for weeks or months, may at once be relieved for the time being by venesection, or a dose of calomel; and there are many cases of high tension, not due to renal disease, in which the best—and, indeed, the only reliable—hypnotic is blue-pill; so that the question has often been asked: What form of narcotic has been employed? It is worthy of remark that the relief is experienced before the action of the bowels takes place.

Breathlessness, another of these symptoms, may be illustrated by examples. In 1878, and again in 1880, a gentleman still living and in active work, came gasping into my room with a distressed and anxious countenance. He held an official position, was engaged in sedentary work all day, and went into the country at night; and his complaint was that he had to stop and sit down two or three times on account of shortness of breath, in the three or four hundred yards of level ground between his house and the station. There was no explanation of the breathlessness to be discovered, except very high arterial tension, and with the removal of this his shortness of breath disappeared. The heart was overtaxed by the resistance it had to overcome.

In another case, that of a retired captain, R. G., seen recently for the second or third time with Dr. Gardiner, there was not only extreme shortness of breath with lividity of countenance, but œdema of the legs and a large amount of albumen in the urine. The case was complicated also by a certain degree of emphysema. Here, under treatment suggested by the high arterial tension which was a marked feature of the case, the dropsy and albuminuria disappeared at once.

Depression of spirits, irresolution, and loss of nerve, are very common in connection with undue arterial tension. A gentleman, aged about fifty-four, of active habits, and spending much time in the saddle, temperate in meat and drink, came to me complaining of these symptoms. He wept before me while relating his trouble, and said that sometimes he was taken with sudden nervousness and timidity while out riding, and was compelled to make some excuse for returning home. His tongue was clean, his bowels regular, the urine normal, his sleep good; nothing abnormal was discovered about him, except high arterial tension, and the so-called *tache cérébrale*, when the nail was drawn across the chest or abdomen, and he was gradually relieved as the tension was reduced.

In another case, seen many years since, the patient would be seized in the street with sudden faintness and deadly apprehension. These attacks ceased with the disappearance of high tension fromthe pulse.

Headache, a sense of fulness in the head, giddiness, lassitude, difficulty of reading, are common enough. Instances have come under my observation at all periods of life. I have met with these symptoms even in school-boys, and in children of ten or eleven years of age, attended with marked arterial tension; and, as they were pale and weak, extra food and tonics of various kinds had been invariably given, usually with the effect of increasing the headache and lassitude. They have not been mere juvenile book-worms, but have joined actively in games. Under the use of mild aperients and a moderated diet, these boys have not only been able to resume work in school, but have gained in appearance and strength.

I will only speak of one more symptom, neuralgia; and I mention this only because we should not, under ordinary circumstances, think of employing the treatment suggested. I have, however, more than once seen neuralgia cured by a dose of calomel, when all other treatment, including change of air, had failed to give relief. The effect was not due to constipation, for the bowels had been previously acted upon; and the patients were not strong, full-blooded persons, but slight and pale ladies. The treatment at length adopted was suggested by the persistent high arterial tension which had been noted throughout.

In many cases of general ill-health, without definite complaint or obvious functional derangement, the patients being weak, pale, thin, and miserable, who for years are plied with all sorts of tonics and food, there will be found this high pressure in the arterial system; and a preliminary to any real improvement is the removal of this condition.

I may say, in conclusion, that a careful study of pulse-tension, extending over many years—almost, indeed, over my whole independent professional life—has brought me back to some of the old-fashioned modes of treatment, which formed the subject of Dr. Hare's address to the Metropolitan Counties Branch a few weeks since. I was taught that bleeding and mercury were unnecessary and injurious; before I had concluded my term of office as house-physician, I had learnt that venesection might save life, and I have recently endeavoured to formulate, from my experience, the conditions for its employment; while mercury has become one of the remedies from which I expect and obtain therapeutic results of the highest value. In undue arterial tension, the immediate indication is elimination, and especially by aperients. It is not, however, a matter of indifference what aperient we employ; with an equal amount of purgation, the effect on the pulse may be totally different; and observation has taught me that mercury, given in combination with colocynth or rhubarb, etc., is the purgative which is most to be relied upon in the reduction of excessive tension. Even in Bright's disease, in which mercury in any form is considered to be a poison, and in which no doubt a course of mercury is most injurious, we cut ourselves off from the means of relieving some of the most trying and dangerous consequences of the renal affection, if we are afraid of giving an occasional dose of calomel. It must not be forgotten, however, that mercury is a powerful remedy, not to be used indiscriminately or by rule of thumb, but to be employed with an intelligent appreciation of the end to be attained; and, when this end is reduction of arterial tension, it must be by removal of peripheral resistance, and not by reduction of the power of the heart, which would be a distinct injury to the patient.

I have only further to thank you for the kind and patient hearing you have given to this long address.

Dr. MILNER FOTHERGILL (London) had listened to the paper with attention. It was in the changes produced in the heart and arteries that the first trustworthy evidence of a complex morbid condition was found. What these changes, as hypertrophy of the left ventricle and hardening of the arteries by overdistension, were, had been already described. There were one or two matters connected therewith to which he desired to specially draw attention. The first was the relations of high arterial tension to the valvular changes found therewith. High arterial tension not only produced overdistension of the arteries, and with that the hardening known as the atheromatous condition, but it affected the valves of the left side of the heart. The blood was forced into the arteries by the hypertrophied left ventricle; and the arteries, distended under the high pressure, recoiled with proportionate vigour. This closed the aortic valves with such energy that a loud second sound was produced; which was the indication of coming changes in the valve-curtains. Not that valvulitis always followed; but it very commonly did; so commonly, indeed, that this loud aortic second sound was now regarded as the precursor of aortic valvulitis—as the special sign of the premurmuric stage. Many cases could be watched from this point to the development of a distinct murmur, telling of valvulitis being set up. In relation to aortic valvulitis, it was of great diagnostic importance to determine what were the associated relations of arterial and muscular walls to the valvular lesion. All were familiar with the changes which followed valvular lesions; and he wished to point out the associated changes in the heart and arterial walls which might precede. To his mind, the prognosis of aortic valvulitis varied immensely with its causal relations. An aortic lesion was found with an hypertrophied left ventricle; there might be a stenosis, or there might be insufficiency. Even the latter might exist for many years, without noticeable change for the worse. A limited injury was done to the valves but the mischief was static, and had no tendency to progress. Its consequential changes in the muscular walls were well recognised This mischief had lasted for years; in all probability, it would go on for years without much change. But when, on the other hand, there were found a hard artery, a tense pulse, and a distinctly enlarged left ventricle, with the physiological sign of a large bulk of urine, in other words "the gouty heart," then the presence of a murmur at the aortic orifice carried with it a widely different significance. In the one case, there was a primary valvulitis with its consequential changes, often static and going on for years without perceptible progress. In the other, there was a secondary valvulitis coming on in the gouty heart, which would probably progress from bad to worse at a distinctly recognisable rate. It became then in practice a matter of importance, prognostically to determine whether the aortic valvulitis was the starting point, or a later outcome of the condition known as "the gouty heart." It was necessary, indeed, to appraise the changes which had gone on anterior to the valvular lesion, in correctly estimating the significance of an aortic valvulitis,

with pre-existing changes in the arteries and the walls of the left ventricle. When an aortic murmur was found, possibly with a co-existent accentuated second sound (aortic), the valvulitis would probably be found to go on steadily from bad to worse; the high arterial tension which closed the valves so violently would act potently on these valves when chronic inflammation was established in them. The prognosis of primary aortic valvulitis, static, non-progressive, was infinitely better than that of aortic valvulitis coming on secondarily to a long-continued high arterial tension. As regarded mitral valvulitis, associated with long-continued high arterial tension, when the left ventricle was hypertrophied, to overcome increased resistance offered to it in the arterial system, it contracted with an energy proportioned to its hypertrophied wall. The increased energy on systole exposed the mitral valve-curtains to an increased strain. In time, this strain upon them led to valvulitis. Not uncommonly, the valvulitis took the form of regurgitation; and a very serious condition was that of mitral regurgitation in a gouty heart. But at other times a mitral stenosis was the form of lesion taken by the valvulitis. Then there was a condition very liable to mislead the unwary practitioner. The associations of mitral stenosis were a small left ventricle with an unfilled artery; that was, of primary mitral stenosis. But when mitral stenosis followed upon "the gouty heart," then the hard artery and the enlarged left ventricle of the pre-existent condition were found. Here the mitral stenosis told upon the pre-existent state by lowering the arterial tension; so making the recognition of the pre-existing condition all the more difficult. It also seemed to exercise rather a beneficial effect upon the state of high arterial tension, and, with that, its consequential changes. In the case of an elderly person, especially a man, complaining of inability to maintain effort, gradually coming on without any apparent perceptible pathological change to account for it, there would very commonly be heard, on listening carefully over the mitral area, a small, highly localised, obstructive murmur, telling of some stenosis. Then it would be found why the patient was less equal to effort, and why the hard artery was not very tense. It was the implantation of a mitral stenosis upon a pre-existent state of high arterial tension with an enlarged left ventricle. Such a mitral lesion in "the gouty heart" was, Dr. Fothergill believed, often overlooked. Here the changes which preceded the valvular disease must be taken into consideration in the diagnosis and prognosis. As to the latter, he thought it better in mitral stenosis than with mitral insufficiency or aortic valvulitis in "the gouty heart." In all cases of valvular lesions with a high arterial tension, the changes which preceded the valvular mischief, as well as those which followed, must be considered. He would have liked to refer to the value of the hard artery in relation to fatty degeneration of the heart-walls; but time would not permit.

Dr. EDDISON (Leeds) wished that the use of the word "tension" could be given up, and some such phrase as a "sustained pulse" used in place of it; the real evil being in the continuous fulness of the vessel, and not in any really greater distension than might occur in other conditions. He was glad to find that the tendency of opinion now was in favour of the original cause of overloading of the arteries lying in the capillaries, and the difficulty there presented to the normal movement of the blood. This difficulty was brought about by imperfect transference of waste material or used nutritive material. He further pointed out that the degeneration of the arteries as the result of prolonged "tension" appeared to be due to the want of "relief from pressure" on the part of the blood; this leading to want, so to speak, of time for the due nutrition of the wall of the vessels. As to the treatment, that was not the subject of discussion, and he would only add that he agreed with what Dr. Broadbent had said.

Dr. S. C. SMITH (Halifax) said that it was very important to distinctly understand the meaning of the term "increased arterial tension." Some described it as a condition of vessels; others looked at the sphygmographic trace as the most certain symptom of its existence. The presence of increased vascular tension involved, as necessary causes, increased heart-force and increased peripheral resistance. Now, although it was correct that in this condition a certain form of pulse-trace was produced, the converse was not true, for some cases with a typical "high-tension trace" had pulses which were capable of easy obliteration by the finger; the characteristic trace being a symptom only of delayed emptying of vessels, and, therefore, of peripheral obstruction. The symptom of strong heart was incompressibility of pulse; cases, therefore, which showed a so-called "high tension-trace," always had obstructed peripheral circulation, but did not always really have increased tension of arteries. If the heart were good, it was able to keep up the arterial tension, and, by dint of the increased pressure, to overcome the obstruction and feed the tissues; but if it failed to keep this up the patient died, not from increased arterial tension, but from failure of the heart to maintain it. Thus one class of cases could often be as readily saved as the other could be killed by purgatives.

Dr. SAUNDBY (Birmingham) said that previous speakers had dealt rather summarily with the causes of high arterial tension, and the view which appeared to commend itself to them was that of obstruction in the peripheral circulation. Bright explained the hypertrophied heart of renal disease as the consequence of either obstruction to the peripheral circulation, or increased energy of the heart's action. The pulse of high tension could only be explained by a similar alternative. But the views as to the nature of the obstruction had varied between those that required a structural cultivation, and those that merely depended upon functional cultivation. The theories of structural change might be dismissed when it was remembered that high arterial tension might occur suddenly, and be removed readily by a purgative. Of the other theories, Dr. Johnson's vaso-motor theory was by far the most ingenious, but the analogy with carbonic acid poisoning failed in this important particular, that, in carbonic acid poisoning, the urine was almost entirely suppressed, while in high arterial tension, as commonly seen, polyuria was a characteristic symptom. Bright's other alternative was worthy of more attention than it had received in this country. The recent researches of Israel and Grawitz had shown that high arterial tension might be produced in animals by feeding them with urea; and he was of opinion that the stimulus of such poisoned blood on the cardiac ganglia was the true explanation of increased arterial tension. The structural changes were, of course, the secondary results of this increased functional energy.

Dr. MAHOMED (London) dwelt especially on the causation of increased arterial pressure. He stated that, with regard to the increase of pressure due to increased action of the heart, it undoubtedly occurred as a temporary condition, and could be observed by means of the sphygmograph; but he did not accept this as the common cause of increased arterial pressure. He believed that at present the physiologists were misleading guides on the question of variation of blood-pressure; they could only deal with the variations produced by the contraction of the arterial coats, by variations in the rapidity and force of the cardiac contraction, and by blood-letting. Dr. Mahomed believed that increased arterial pressure was chiefly caused by delay of the corpuscles in the capillaries, what he was accustomed to speak of as "capillary delay." The corpuscles were brought to the tissues that both might discharge certain functions; if either failed in its function, the corpuscles would tarry to perform their duty, or, at any rate, to attempt to do so. Dr. Michael Foster indicated the possibility of this in a very important paragraph in his chapter on blood-pressure, in which he pointed out the effect produced by acetic acid or other irritants applied to the frog's web; stasis, taking place in the central area, and around this, caused more or less delay in the circulation, and tendency of the blood-corpuscles to adhere to the walls. Dr. Mahomed believed that such a delay might take place, to a less extent, throughout the whole system. He instanced the engorgement of the right side of the heart and increased pulmonary arterial pressure which occurred in bronchitis, as probably produced by the fact that the blood-corpuscles, coming charged with carbonic acid, found insufficient air in the air-vesicles to receive it, and consequently were delayed during their efforts to unburden themselves and discharge their function. He believed that this would be the next step to be made by the physiologists, and that they would soon be able to demonstrate this capillary delay experimentally. Dr. Mahomed concluded by some remarks on the characteristics of the pulse of high pressure, as demonstrated by the finger, and also by the sphygmograph. He remarked that the *persistent* pulse was not necessarily one of high pressure, though often mistaken for it; and explained in detail the method of recognising the *long* pulse by the finger, or grasping the wrist by the hand.

Dr. MCVAIL (Glasgow) compared the changes that occurred in the elastic elements of the lungs and thoracic walls in empyema, with the changes in the elastic elements of the arterial walls in high tension. He held that emphysematous thorax and lungs occurred quite independently of bronchitis, owing to degenerative changes in the elastic tissue; and he had found that, in such cases, there was always degenerative change in the arterial walls. He, therefore, deprecated the tendency of the previous speaker to regard morbid changes of tension as due wholly to changes in the capillaries and peripheral parts.

Dr. DYER (Ringwood) said that, in the contrast and comparison

of the effect produced by inhalation of carbonic acid gas and kidney-mischief, Dr. Saundby drew attention to the fact, that the one produced suppression of urine, and the other large secretion of low specific gravity; and yet that the effect was similar. This might be explained by the fact that the urine, in these cases, was imperfectly eliminating effete material; that the blood was impure, and irritated the vessels, producing contraction of arterioles and arterial tension.

Dr. SANSOM (London) thought that the word tension best expressed the idea which it was desired to convey as to the relation between an artery and its contents. Whether there were obstruction in the capillary circulation, or whether there were abnormal contraction of the muscles of the arterial core, the condition within the artery was the same, as it was one of strain; and the term high, or abnormally increased tension, was strictly applicable. How to determine this condition, was of great practical importance. The use of the sphygmograph was very valuable, but not indispensable. The finger and the stethoscope for the most part sufficed. He advised that for practical purposes (*a*) low, (*b*) moderate, and (*c*) high tension should be recognised. To do this, he thought it best to lay the forefinger over and parallel to the radial artery, not across it. Pressure was then gradually increased. In low tension the pulse was easily felt at first, and soon extinguished, whilst in high tension the pulse became more developed as pressure was greater. In the latter condition, it was most important to note the accentuated aortic second sound. As regards the subjects of such condition of high tension, he would strongly urge that women were by no means excluded. He would say, as the results of his experience, that it was exceedingly common in women, and that these usually brought with them a story that they suffered from a very weak heart, and required "keeping up" by alcohol and tonics. These were they in whom purgatives, careful dietary, absence of stimulants, and "pick-me-ups," worked great improvements. He recognised, however, the fact that there were instances of habitually abnormal high tension in cases where such treatment as he had just suggested did not apply. He had seen such at very early ages. He had seen them associated with retinal hæmorrhage, and he had found much good result by their treatment with small quantities of nitro-glycerine.

Dr. GLYNN (Liverpool) supported Dr. Broadbent and others in their statements as to the occasional absence of tension in cases of chronic contracted kidney-disease. He had for a considerable time been making observations on the variation in the tension of the pulse in cases of renal cirrhosis. The typical pulse-tracing of this disease retained its character more persistently under different circumstances than the pulse in health; it was less affected by alterations in speech, or by the temperature of the body, but occasionally it did vary. In proof of this, he had brought sphygmographic tracings of the pulse in various cases. One series showed the pulse of a patient with chronic kidney-disease, which, on his admission into the Royal Infirmary, was small and weak; in a day or two, as the patient improved, became very tense. Another series showed a tense pulse becoming dicrotic in an uræmic convulsion. Another showed a tense pulse becoming weak, and losing its characters before death. Another showed the effects of a few fifteen-minim doses of tincture of digitalis, in very decidedly reduced tension.

Dr. BYROM BRAMWELL (Edinburgh) could not see his way to accept the theory advanced by Dr. Broadbent, and accepted by several previous speakers, that the cause of increased arterial tension was to be found in the capillary system of vessels. While admitting that in many diseased conditions the "adhesiveness," as it were, of the blood-corpuscles to the capillary walls was probably increased (in consequence of altered conditions of the blood, or of altered conditions of the tissues), and the facility of the passage of the blood through the capillaries thereby interfered with, he thought that the main cause of increased arterial tension must be ascribed to a contracted condition of the minute arteries. The high tension met with in advanced conditions of anæmia was, he thought, due to two causes; viz., (1) the difficulty with which anæmic blood passes through the capillaries, and (2) a contracted condition of the minute arteries, produced by stimulation of the vaso-motor centre; for physiologists had shown that the vaso-motor centre was stimulated, not so much by an excess of carbonic acid in the blood, as by a deficiency of oxygen. If anæmic blood passed through the lungs with greater difficulty than normal blood, the accentuated pulmonary second sound, which was present in advanced cases of anæmia, would, as Dr. Broadbent had suggested, be satisfactorily explained. In his lecture on the cardiac murmurs of anæmia, recently published in the JOURNAL, he had asked for information on this interesting point, but as yet had not been able to obtain any conclusive evidence on the subject. One eminent authority, whom he had consulted, thought that, in consequence of the fact that there were no vaso-motor nerves in the lungs, anæmic blood would pass through the lungs more easily than normal blood; and, if this were so, some other explanation of the accentuated pulmonary second sound (such as that suggested by Dr. Russell) would have to be accepted. The marked effect which nitrite of amyl had in lowering the high arterial tension of Bright's disease (an effect which made the drug an excellent diuretic in some cases) was, Dr. Bramwell thought, a very strong argument against the view that the seat of the obstruction was in the capillary system. Dr. Bramwell did not think Dr. Saundby's argument conclusive. Carbonic acid poisoning was an acute condition, in which the highest degree of arterial contraction was suddenly produced; while in chronic Bright's disease the arterial contraction was slowly and gradually established, it was not so extreme, and was compensated by hypertrophy of the left ventricle of the heart. For his own part, while admitting that a certain amount of obstruction might take place in the capillary system of vessels, he thought the main cause of increased arterial tension must be placed in the minute arteries. He thought the theory advanced by Dr. George Johnson more satisfactorily accounted for the conditions than any other.

Dr. BROADBENT, in reply, said: I have already occupied the time of the Section at such length, that I shall not do more than select for notice one or two remarks of each speaker. In Dr. Fothergill's interesting speech, the only observation requiring attention is to the effect that high arterial tension is always accompanied by the secretion of a large amount of urine of low specific gravity. It is true that this is usually the case, but I have had under my care for years patients with persistent and considerable tension in the pulse, whose urine has been high-coloured, and of a specific gravity of 1020 or higher. Dr. Eddison's blows at the profession in London strike me so obliquely that I scarcely need to ward them off. As I never accepted the hypothesis of arterio-capillary fibrosis, I have at any rate taken no part in the oscillation of opinion with regard to it, and I might say the same of other swings of the pendulum of which he spoke. Dr. Sansom has saved me the trouble of answering his remarks as to the word tension. I am not responsible for it, if it were open to objection, but I think it expresses well what is meant by it, and at any rate it has been accepted and has become inevitable. Dr. Smith's remarks on the sphygmographic evidence of tension I should be glad to incorporate bodily with my paper. I agree with them, I may say, absolutely, and his entire treatment of the subject has my admiration. Dr. Mahomed has answered Dr. Saundby, and has shown that it is possible to frame a conception of capillary resistance to the circulation. Neither of them, I think, was present during the early part of my communication, in which I considered the causation of undue arterial tension. If I did not speak of Dr. George Johnson's stop-cock theory by that name, as Dr. Saundby says, I at any rate discussed it fully as a fact, and I had already adduced the phenomena of asphyxia as evidence of capillary obstruction much in the same way as Dr. Mahomed. I have not time to enter into the discussion of the important questions opened up by Dr. McVail's far-reaching observations on the changes taking place in the lungs; and, as the points of difference to which Dr. Sansom confined his remarks were not differences with me, I have little to say with regard to them. As to the method of realising the characters of the pulse, I can only repeat that the best appears to me to be that which I recommended at the opening of my address. It is to place three fingers on the artery, and note by separate acts of attention, 1, the fulness of the vessel between the beats of the pulse, the way in which it can be rolled transversely under the fingers and followed up the forearm; 2, the size of the artery; 3, the pressure required to arrest the pulse-wave; and 4, the duration of the wave. And it may again be remarked that the wave is not, as Dr. Mahomed stated, invariably long. At times, with the artery full between the beats, and with all the other features of high tension, the pulse-wave is short, a condition which has great clinical significance. It means that the heart is failing, and is no longer able to complete its systole. Dr. Byrom Bramwell has adduced arguments in support of the view that the resistance to which arterial tension is due has its seat in the arterioles. I may say that I have passed through that phase of opinion, and I venture to hope that he will follow me to what I believe to be a fuller comprehension of the condition. The argument from the effects of nitrite of amyl, I think I was the first to employ. I had observed that, when pyrexia supervened in Bright's disease, tension was replaced by the opposite condition; and, in the discus-

sion between Dr. George Johnson and Sir William Gull before the Clinical Society, I exhibited, in support of Dr. Johnson's views, sphygmographic traces before and after the inhalation of amyl-nitrite in a case of well-marked contracted granular disease of the kidney. Dr. Lauder Brunton has, I think, attributed the relaxation of the arterioles to the direct action of the nitrite upon the muscular fibres in their walls; and if this be so, the capillaries might very well be amenable to the same influence. In any case, the minute arteries being contracted as they are for the purpose of resisting the distending influence of the blood-pressure, sudden paralysis and relaxation of their walls could not fail to lower the pressure for a time. Dr. Glynn's statement that the arterial tension may be temporarily, or in some cases definitively, low in renal disease, entirely coincides with my own observation, and I could give instances from my own experience exactly like the cases related by him.

THE ETIOLOGY AND PATHOLOGY OF SUMMER DIARRHŒA.

Being an Introduction to a Discussion in the Section of Diseases of Children.

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I AM present here to-day rather in the position of a learner than of a teacher, for I am engaged, on behalf of the Government, in a broad investigation into the etiology of summer diarrhœa, and of course mainly into the diarrhœa of infants. That inquiry has now lasted two years; it is now in its third year; and how much longer it will go on before I get definite results, I cannot form a guess. My main object in coming here is to induce other members, who know a great deal more than I do, to state their experience of facts; and, furthermore, I am most anxious to beat up recruits, to get gentlemen who will take the trouble to make observations in the course of their experience and practice, and favour me with the results thereof.

It is as regards the pathology of this diarrhœa that I am most anxious to get information. The last two years have been years in which there has been only a moderate amount of diarrhœa; and the opportunities I have had of getting *post mortem* examinations made upon fatal cases have been very few; so few, that I am most desirous of getting all the assistance I can from my friends in that direction. One thing, however, appears pretty clear, so far as I have gone; and that is, that we must not look, as some do, upon summer diarrhœa of infants as a simple dyspepsia. It is something very much more serious than that. It is unquestionably, to my mind, so far as I have gone, a disease of a general character; so general, that, at the end of sixteen, or certainly under twenty hours of illness, there may be found, after death, changes of a most extensive character in the organs of the body. So rapidly do these changes sometimes take place, that it is almost beyond credibility that they could have taken place as mere secondary results of one primary change. I cannot believe that. In fact, the pathology of diarrhœa appears somewhat analogous to the pathology of cholera. The question is, whether its etiology does not bear some sort of a similar relation.

With regard to the etiology, I shall only have time, according to the regulations which properly govern this Section, to allude briefly to some of the more popular notions held upon the subject. In the first place, a great deal is said about the fatal infantile diarrhœa of this country in the summer being due to the great neglect which infants undergo in all our large manufacturing towns. That is a doctrine which I am very much disposed to throw over, and I will refer to the diarrhœa rates of three towns as affording reasons for so doing—Leicester, Nottingham, and Preston. Now Leicester and Preston have nearly always stood at the top of the list for fatal infant diarrhœa, and Nottingham has come pretty close up to them. Now contrast with those towns three other large manufacturing centres—Oldham, Rochdale, and Halifax. In all of these six towns, we find women very largely employed in factories, and the neglect of children pretty much the same; and yet the death-rate from diarrhœa in the three latter towns is of the lowest; so that, whatever may be said as to neglect being a cause of the mortality, it is not at any rate a *leading* cause. I have investigated every fatal case that has happened in Leicester during the last two years; and the result of that investigation tends to confirm this view.

Another cause of diarrhœa which is very much dwelt upon by some men, is the use of feeding-bottles; but in Leicester, where feeding-bottles are largely used, I am perfectly certain they have had nothing seriously to do with it. They are not a leading cause. Besides, I do not know any town in which more care is taken to keep the feeding-bottles clean; a carefulness partly due, very likely, to the incessant teaching upon the subject that women received from my old friend the former health-officer, Dr. Crane, and also from the medical practitioners at large. At all events, there is no reason to believe that sour feeding-bottles have much to do there with the prevalence of infantile diarrhœa.

Then, as to the use of artificial foods; the common opinion is that children at the breast do not suffer to the same extent as children fed with artificial food. There is a great deal of truth in that. In Leicester, of 341 fatal cases, only 2 per cent. were suckled from the breast alone. The majority of them had some kind of artificial food; and it was found that fresh milk constituted nearly 60 per cent. of the food used. I cannot help believing there is something in the use of cows' milk, though what that something is I cannot say. I have come across some curious things in reference to this matter. In Cardiff, a town with a very low prevalence of diarrhœa, I asked the health-officer how it was that diarrhœa was so slight, and especially amongst the Irish people. He replied that, in the first place, the infants of Cardiff got very little cow's milk, and the Irish infants got no cow's milk. Another friend of mine, Dr. Fowler of Wakefield, with whom I have had a conversation on the same subject, said the whole thing was simple enough. It was a question of milk. In his practice, which was a first-class one, if a child had diarrhœa, the first thing he did was to say, "Change your milk." He had invariably found that the milk supplied to diarrhœal children had been from cows which had been fed upon sour grains; or, if the children had been fed from the breast, the mother had been drinking sour beer. At any rate, the question as to a certain condition of the cow's milk came up. Now, I have had to deal with adult diarrhœa as well as with infant diarrhœa; and Dr. Johnston, the health-officer of Leicester, in his last report, has thrown out a challenge, which I am perfectly ready to accept; that, whatever explanation may be given to infant diarrhœa, it must be an explanation which will apply to adult diarrhœa as well. Cows' milk will not affect the adult diarrhœa, which forms a very large proportion of the diarrhœa, though not the fatal diarrhœa, of summer-time. In Leicester, about 70 per cent. of the cases that occur are in persons over five years of age (mostly adults), and this corresponds very much with my own observations in Islington, where I took the trouble for a number of years to analyse the sickness-returns of the place; and I suppose that every man in his own practice has found the same: the mass of cases were those of adults; or, at any rate, persons over five years of age.

And, speaking of people over that age, there is a popular notion as to the use of fruits. Fruits in a decayed or unsound condition will produce diarrhœa, and are popularly regarded as one of the causes of summer diarrhœa. There are some grounds for believing that that popular notion, like a good many other popular notions, has something at the bottom of it; and I am very much disposed to think that it must not be thrown over altogether as a cause of diarrhœa. But it has nothing to do with infants under one year of age. This is the point upon which I really want information.

Another matter of interest in relation to summer diarrhœa is connected with meteorology—the temperature of the air and drought. A high atmospheric temperature has truly been stated to be one of the most important causes of summer diarrhœa. Mr. Turner of Portsmouth, the late medical officer of that town, published a very interesting paper upon this subject in one of his reports, and I believe it appeared afterwards in the *Sanitary Record*, in which he demonstrated how the diarrhœal temperature of London corresponded, for certain years, with a high temperature; and that he could predicate, by certain formulæ, what the amount of mortality would be in any particular week from the temperature of that week. [Dr. Ballard here referred to diagrams showing the mortality in Leicester.] There is no doubt that in hot summers there is a good deal of diarrhœa, and in cold summers very little, as would be shown by a comparison of the years 1876 and 1880 with 1879. Dr. Taylor, the health-officer of Liverpool, has coupled high temperature with dirt as causes; but diarrhœa occurs elsewhere than in dirty places. I can show families in Leicester, with children as clean and carefully guarded as any children can be, and with surroundings as good as any of our own, where, nevertheless, there was diarrhœa fatal in less than twenty-four hours. Dirt is not an essential condition; nor is high temperature an essential condition. For instance, I have diagrams of public sickness and weather in Islington for twelve years, published twelve or fourteen years ago; and the teaching of

those tables corresponds closely with the teaching of Leicester and of other towns at the present time. Some of the teachings are rather curious. For instance, high temperature, and drought, which is closely connected with high temperature, operated most obviously at the commencement of the diarrhœa season. Another curious thing was that, after the diarrhœa had attained its acme—these are things to show that there is something more in the case than high temperature—it remained prevalent for a long time after the temperature had fallen; and hence it was commonly found that there was more diarrhœa in the fourth quarter of the year than in the second, notwithstanding that the temperature and the moisture were pretty much the same. It was the summer-cause continuing to operate into the fourth quarter.

Then there is another thing. In 1860 and 1879, two cold wet years, there was neither heat nor drought to account for diarrhœa, and yet it came. There was not much of it, but there it was; and this shows that there was something more in the matter than temperature. Then again, there may be a rise of temperature to real summer weather in May, or the beginning of June; and there will be no diarrhœa, or next to none. But wait until July comes, and let there be summer weather then, and you will see what occurs in the large towns. Again, the acme of diarrhœa is not always at the acme of temperature. The acme of diarrhœa is sometimes reached before the highest rise of temperature; and at the time of the highest temperature there is not always the highest diarrhœa, though I do not say this will always be the case. I believe there is something in seasons.

Another cause assigned for diarrhœa is sewer-exhalations; and Dr. Johnston, the health-officer at Leicester, has explained in that way the diarrhœa of that town, Now, I am not at all going to whitewash the sewers of Leicester; there is no doubt they have been bad, though they are better now under the careful improvement which they have recently undergone under the direction of the Town Council. Such, however, is Dr. Johnston's view, and a good many people say the same thing. But if sewer-air be the cause of diarrhœa in our large towns, I should like to know how it is that in the city of Winchester, which never had a sewer in it until the end of 1879, the diarrhœa one year (1876) was so severe, that the Local Government Board actually sent down Mr. Power to report upon it and its cause. This was ordinary summer diarrhœa; and there was not a sewer in the place. Again, in the Black Country, some gentlemen here will probably know what a great objection there is there to sewers; yet, notwithstanding that, there is plenty of fatal diarrhœa; and all who have lived in country villages, where sewers are unknown, will know that it occurs there too, though it may not be as frequent or as fatal as in towns.

Another common theory is that diarrhœa is due to filth, and especially excremental filth. I do not say that excremental filth has nothing to do with it; but in the town of Nottingham there is less excremental filth-nuisance than perhaps in any town in England; there is the most careful removal, twice a week, of excrement, which is received into pails and covered over with ashes. I have been all over Nottingham, and have never smelt anything like an excremental odour in the town; and yet Nottingham is one of the towns with a high death-rate from diarrhœa. I have a difficulty in accepting this kind of filth as a leading cause; and I may say the same of surface-filth. I suppose there is scarcely a town in England in which there is less care taken about pollution of surface than in a certain town in Cornwall—Helston. I do not know any town more filthy in regard to surface at the rear of dwellings; and yet, in Helston, summer diarrhœa is not prevalent, and there are very few fatal cases. If filth would do it, one ought to have it excessively in certain parts of Plymouth; yet certainly it does not occur there in the same degree as in other towns. I may mention other things as not being the leading cause of summer diarrhœa. That they may have more or less to do with it, or with its fatality, I do not deny; but there is something underlying the whole of these, and what that something is, it is my business to find out.

You will now see what I mean, and where I want help. A good many of my friends are helping me in the matter. It would be invidious to mention names, but I thank all most sincerely for all the assistance they have given me. I should be very glad if any one connected with children's hospitals would help me, especially in the pathological department. I want cases of infant diarrhœa well taken, *post mortem* examinations carefully made, and the important organs—the lung, intestines, stomach, liver, kidney, spleen, etc.—sent up for microscopical examination. If I can get any recruits from what I have said, I shall be very thankful to have their names.

INFANTILE DIARRHŒA AND ITS TREATMENT.

Read in the Section of Diseases of Children at the Annual Meeting of the British Medical Association in Liverpool, August 1883.

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For the past few years I have studied the diarrhœa of infants. I do not propose in this paper to consider special diarrhœas, as those connected with typhoid fever or phthisis, but chiefly the form or forms which come under the term "summer diarrhœa." The remarks now to be made are founded mainly on clinical observation. I have restricted the term infancy to the period before the completion of the first dentition. There are two principal causes of looseness of bowels which are peculiar, and probably alone peculiar, to this age. One of these is the imperfect digestion of milk, which results in lactic fermentation in the intestine. This has been, in my experience, the almost invariable apparent cause of diarrhœa under six months of age. The other is the nervous irritation of teething, with the vaso-motor changes, which the analogy of other similar conditions indicates as then present in the abdominal viscera. This cause is intermittently active during the whole period of dentition, from six months up till two years, and often acts along with the fault in digestion alluded to. I have not observed any connection between soil-dampness and diarrhœa, most of my cases having occurred in a comparatively dry part of the north of London; nor between the latter and drainage-impurity; but I have repeatedly noticed an evident relation to a high summer temperature, and to closeness of dwelling-rooms and other states which conduce to fermentation of milk. I will begin with the variety which is associated with indigestion of milk.

1. *Milk Diarrhœa.*—I have noted that, out of twenty-four cases of this disease, three occurred in May, two in June, eleven in July, two in August, two in September, one in October, two in December, and one in March. Thus the summer and autumn months would seem to be the most in fault. Two-thirds of the total number of children were fed on cow's milk diluted with water. Two-thirds of the remainder had the breast, or this and cow's milk diluted. The rest lived on diluted Swiss milk, or cow's milk with farinaceous food. In the first group, souring of milk and insufficient dilution, combined with warm and close weather, appeared to act as causes of the disorder. In the second, irregular or constant feeding, a curdy state of breast-milk or excess of cow's milk, had a similar influence. I have not commonly found that farinaceous diet produces diarrhœa in infants, but rather, as might be expected, constipation. When, therefore, loose evacuations have been noticed, I have attributed them to the milk used in the food, especially as they have typically resembled those of children fed on milk alone.

It is not necessary to detail all the symptoms of this complaint. We are familiar with the frequent loose evacuations, vomiting of curd, aphthous mouth, papular anal eruption, and progressive emaciation. But the character of the stools is important, and, to some extent, diagnostic. They are of the dysenteric type, contain a good deal of mucus, and are usually in part or entirely of a bright green colour, like that of bile which has lain in the stomach (though sometimes they consist mainly of colourless fluid), contain pieces of curd, and have a strongly acid reaction. I have not found this characteristic green colour in the fæces of children who have passed the stage of milk-feeding, nor have I been able to determine what is the precise meaning of it. The tint is brightened on the application of Pettenkofer's nitric acid test, showing the presence of bile. Other acids—lactic, sulphuric, acetic, hydrochloric—do not so affect it. The administration of a bile-secreting agent to the patient quickly replaces this colour by the normal hue. These facts, in the absence of other evidence, incline me to consider the green colour as due to the production of biliverdin in the fæcal bile, and as indicating an insufficiency of that secretion. Dr. Eustace Smith believes that altered blood gives a similar appearance, but does not state on what grounds. (*Wasting Diseases of Children*, page 49.)

I have not noted the presence of blood-corpuscles in microscopic examinations of such fæces. The microscope shows many fat-globules to be present in the stools, also acicular crystals, ringed and radially fissured bodies like leucin or casein, and countless bacteria. These last resemble the organisms of putrefaction or of lactic fermentation. Although their presence in the fæces cannot be regarded as pathognomonic of infantile diarrhœa in the present state of our knowledge, still it shows that fermentative change is active in the intestines even of breast-fed children, and the ingestion of milk adds pabulum for its development.

2. *Teething Diarrhœa.*—Summer and autumn are chiefly accountable for this variety also. Of twenty-six cases, in which dental irritation co-existed with the diarrhœa, not quite two-thirds occurred in May to September inclusive, half of these in July and August. The eruption of several teeth at once, and of the larger teeth, seemed particularly conducive. The bicuspids, in my cases, have a slight priority in this respect (bicuspids alone, nine cases; incisors, seven; canines, four).

This form of diarrhœa, when it comes on during the later stages of dentition, is definite enough in its peculiar characters. There is usually clear evidence of dental irritation, much and frequent watery evacuation; but, perhaps from the change to a largely farinaceous or general diet, there is not the bright green colour so invariable in milk-diarrhœa. Blood is also not unfrequently present in the stools; and fever, sometimes high, is apt to be present also. Both of these characters are unusual in the other form. Again, we do not find the signs of indigestion of milk. But it is otherwise with this disorder in the earlier stages, from six to twelve months of age. Diagnosis of the cause is then rendered difficult by an intermixture of symptoms, attributable, on the one hand, to faulty digestion, on the other, to teething; as if both of these agencies were acting together, or as if the vaso-motor paralysis resulting from the latter had selected, as its seat, the bowel already irritated by the fermentative process, and, therefore, more prone to vascular derangement. This selectiveness has often been observed in inflammatory conditions. So far as my own evidence goes, I am disposed to rely, in diagnosis of a dental cause in such cases when the gum affords little proof, chiefly on the copious wateriness of the fæces. Many children, in this state, send out incessantly gushes of watery fluid, coloured or colourless, till one wonders whence it all comes. I have remarked this feature more commonly in neurotic diarrhœa than in the other form, and am wont to ascribe it to paralytic secretion. But the etiology of such cases is always obscure, and the safest plan, perhaps, is to look upon them as being neurotic.

Whatever may be held to be the primary cause of diarrhœa, its pathology consists in a morbid excess of reflex action, and this is particularly evident in teething cases. There is no want of proof that the fifth nerve has free communication with the vaso-motor ganglia of the sympathetic. This is clear from the suppurative ophthalmia which follows division of the fifth nerve, and the widespread vascular dilatation which results from its irritation, even if we leave out of account the propinquity of its ganglia in the cerebellum, pons Varolii, and medulla oblongata, to the vaso-motor centres in the brain, and say nothing of the results of experiments on the subject. Probably the first effect of such irritation on the blood-vessels is spasmodic contraction, on the analogy of other reflexes; and this is followed, sooner or later, by paresis. Eulenberg and Guttman, while holding the view just stated as to paresis from over-action (*Physiology and Pathology of the Sympathetic System*, p. 90), are disposed to place the vaso-motor centre for the intestine higher than the medulla, the seat of the chief vaso-motor centre. They say (*Ibid.*, p. 37), "The centre for the vaso-motor nerves of the intestine appears to be in the brain. We have frequently noticed the occurrence of hæmorrhagic diarrhœa in dogs after injury to different parts of the cerebellum." I have mentioned the fact that slight hæmorrhage is common in teething diarrhœa.

It is, I believe, in this paretic stage, when the great splanchnic nerve has, for the time, lost control over the intestinal vessels, that transudation from these, combined with over-secretion, results in the copious watery diarrhœa of dentition. By a similar process, due to irritant material acting on the mucous membrane of the bowel, and causing a reflection of nervous energy through the sympathetic or central ganglia, the summer diarrhœa of milk-indigestion is produced.

In the treatment of this disease, I have been guided by the above-mentioned considerations of pathology and etiology. In cases where dentition was in progress, I have accordingly, besides using the gum-lancet, employed nervine tonics and sedatives—arsenic, oxide of zinc, bromide of potassium, or ammonium, and camphorated tincture of opium, especially the two latter; and usually with evident benefit. Where milk-indigestion appeared along with the diarrhœa, and seemed to be its cause, I have commonly treated the disease as a form of dysentery dependent on a removable cause. In the presence of a persistently acting excitant of disease, no medicine can have its full effect. My aim has, therefore, been to render the milk taken easily digestible, and this in two ways:

1. By minimising any hindrance to digestion existing in itself;

2. By using cholagogue remedies, to promote a flow of bile into the intestine, with the object of procuring the digestion of the curd passed by the stomach.

To attain the first object, I have not found it necessary to alter materially the composition of the milk by any process of abstraction, as separating the casein, etc. Where the mother's milk was good and sufficient in quantity, it would have been folly to replace it by a substitute. Where it proved irritating, from the presence of buttery or curdy material, cow's milk, well diluted with water, was used. Dilution with an equal bulk of water is usually recommended; but I have found that infants, especially those under two or three months of age, digest well and thrive well on milk diluted to twice or three times its bulk. Regular feeding, purity and freshness of the milk employed, scrupulous cleanliness of bottles (it is not good to use one, even if cleansed, twice in succession), were matters of course. Milk is very apt to become sour in a close air—for instance, if kept overnight in a bedroom. This was another ground of precaution. While preferring fresh to condensed milk, I must admit that I have found the latter suitable in the proportion of one or two teaspoonfuls in a half-pint of water.

But the benefit derived from the use of cholagogue remedies is a point to which I especially invite attention. Professor Rutherford, of Edinburgh, published, a few years ago, a list of substances which he had found on experiment to excite the biliary secretion (BRITISH MEDICAL JOURNAL, 1879, vol. i, pp. 31, 69, 105, 135, 177, 217). Among these were rhubarb, euonymin, podophyllin, phosphate of soda, and ipecacuanha. Guided by his researches, by the presence of unaltered curd in the fæces, and by the evidence, as I think, that the bile present in them exists in insufficient quantity, I have made use of one or other of the above remedies, commonly rhubarb, with or without an alkali, or euonymin, in this form of diarrhœa—half a grain of rhubarb or one-sixth of a grain of euonymin every fourth hour—a quantity sufficient to secure the digestive, without the purgative, action of bile. In most of the cases so treated, not only have the other signs of fermentation been removed, but the diarrhœa itself has been arrested. The *rationale* on which this method proceeds is the digestive action of bile on milk. To satisfy myself of this, I made one or two experiments in imitation of the process of digestion. Two drachms of fresh milk were added to an ounce of a mixture prepared in imitation of the gastric juice (three grains of pepsine to one ounce of a 0.2 per cent. solution of hydrochloric acid). This was allowed to stand in a dish for four or five hours. To the curdled mixture, half an ounce of bile-solution (fifty grains of extract of ox-bile in an ounce of water) was then added. At the end of two and a half to three and a half hours, the curd had disappeared, and a thin cream, easily miscible, lay on the surface. The bile-solution (acid in reaction) acted as well, or almost as well, so, as when alkalinised. Addition of an excess of the hydrochloric solution (without pepsine) retarded, or even prevented, the action of the bile; so did boiling of the milk-mixture after peptic digestion, or of the milk at the outset.

Whether bile has any preservative action on substances with which it is mixed, I do not know; I have failed to find that it has. It is clear, however, that, by its digestive property, it prevents the accumulation in the intestine of masses of curd, which would otherwise serve as a nidus for lactic fermentation or other putrefactive changes commonly present in, and probably causal to, diarrhœa. It is of interest, in this connection, to remark the similarity of the treatment now commonly adopted in dysentery, a disease kindred in character, and of even greater fatality than the summer diarrhœa of infants. Dr. Aitken, speaking for the majority of Indian medical officers, recommends the use of ipecacuanha in half-drachm doses (*Science and Practice of Medicine*, p. 951). Dr. Hunter (Peru) employs a similar dose of this drug, but adds that he has successfully treated several cases with a pill of the following composition, taken every hour: Podophyllini gr. i; pulveris ipecac. gr. i; extracti hyoscyami gr. viii. And he gives as his reason, that he commonly found that ipecacuanha brought on a bilious diarrhœa as part of its beneficial action (*Practitioner*, July 1882). But every rule has its exceptions; and occasionally one finds that a purely cholagogue treatment is not sufficient, even when a fault of diet seems to have a causal influence on the diarrhœa. I have referred to mixed cases, where such a fault exists along with dental irritation. Here a combined treatment is necessary; or, if the dental trouble appear to be the most pressing, purely sedative measures, as the use of bromides or minute doses of opium, are called for. We have seen that a neurotic principle underlies the diarrhœa which is due to indigestion; and it may very well be that this is illustrated in one case more than in another. Irritation of the mucous surface may have become inflammation (though the free evacuation keeps this in check), or may have caused extensive paralysis of the reflex mechanism. In such an event, the effect surpasses the cause in urgency, and sedative treat-

ment is the first necessity, and allows time for the correction of the error in diet. I have not often had to abandon the use of cholagogues; but still, especially considering the difficulty at times in absolutely diagnosing the cause, I think there are cases in which another method is called for as a part, at least, of the treatment. As a means of prophylaxis, however, I do not know of any drug which so favourably affects the digestion of milk as one of the class of rhubarb, or euonymin, given in small doses repeatedly, with or without an alkali. It is common, under this treatment, to find that stools, which were as green as grass and studded with curd, become normal in appearance in a few hours.

I append a few illustrative cases.

1. *Diarrhœa from Dentition.*—In these cases, the diarrhœa was profuse, as a rule, the discharge being yellow or drab-coloured. This was the first symptom.

CASE I. L., a male, 19 months old, parents middle class, comfortable, October 1880, two upper bicuspids coming through.

CASE II. A., female, 15 months, parents mechanic class, respectable, September, 1880, hot month; all bicuspids just through gum; lower canines coming.

CASE III. S., a female, 16 months, parents respectable, not poor, July; bicuspids, both upper and lower, just through; left lower bicuspids bulging gum.

CASE IV. C., 18 months, parents middle class, respectable, two lower bicuspids coming through; two upper bicuspids came through a week later.

In Cases I, III, and IV, the gums were lanced, and one to two grains of bromide of ammonium given every four hours; the diarrhœa ceased almost at once. In Case II, two and a half minims of compound tincture of camphor were given every fourth hour; the diarrhœa ceased a week after the treatment was begun.

2. *Diarrhœa from Dentition complicated with Milk-Diarrhœa.*—M., a male, aged 9 months, of the middle class, comfortable, had cow's milk, with an equal amount of water; has had milk-diarrhœa before. August 1881. He had had diarrhœa nearly a fortnight, becoming incessant; the stools were watery, usually yellow, but became green when the strength of the milk was increased. There had been signs of dental irritation from the first; the two median lower incisors were just beginning to point a week later. Milk and water were given occasionally strong, half and half. In the treatment, powdered rhubarb and euonymin were first given, without effect; the teeth were then lanced; two grains of bromide of ammonium were given every fourth hour, when the teeth began to show. The child was well three days later.

3. *Diarrhœa from Milk.*—In this class of cases, the stools were green and rather loose, or watery, sometimes pale, with white pieces of curd in them; in one case, like water with pieces of curd. Aphtha was noted in three cases; vomiting in three; a red papular eruption in four. The history of the cases was briefly as follows.

CASE I. O., aged 3 months; Swiss milk, one drachm in half a pint of water, given irregularly; bread food. July; weather close.

CASE II. H., aged six months; Swiss milk, one drachm in half a pint of water; fine oatmeal. July; weather close.

CASE III. H., aged 5 weeks, strumous; vomiting from birth; cow's milk tried in vain; Swiss milk, one drachm in half a pint of water. July; weather close.

CASE IV. M., aged 8 months; boiled milk and water, equal parts. May; weather hot, thundery.

CASE V. W., aged 7 weeks: cow's milk and water, equal parts; breast. July; hot weather.

CASE VI. B., aged 3 weeks; cow's milk and water, one to three; Swiss milk, two drachms in half a pint of water. July; weather hot.

CASE VII. C., aged 7 months; cow's milk and arrowroot, and Ridge's food. September 1880; a hot month.

The treatment was as follows. 1. No food but milk was allowed (but weak beef-tea in one case). 2. If the mother's milk were at fault, cow's milk was used. 3. Cow's milk, one part in two, three, or four of water, or soda-water, was given according to the age of the child. 4. When Swiss was used, half a drachm to one drachm was given in a half pint of water. 5. The milk was ordered to be fresh and the bottles clean, and a change of bottles to be provided. For medicine, a cholagogue was given in small repeated doses: ℞ Pulv. rhei, gr. ½-j; euonymin, gr. ⅙; sodæ bicarb., gr. j-ij.

The result of this treatment was steady improvement; the stools becoming normal in colour, frequency, and consistency. Recovery occurred in all cases but one (Case III), in which the stools became normal; but the child died of persistent vomiting, which had gone on from birth.

The PRESIDENT asked the meeting to give its warmest thanks to Dr. Ballard for his most interesting statement, and also to Dr. Morison. Dr. Ballard's paper was really a fine instance of the work which had been done by the medical department of the Local Government Board. There was no set of men for whom he had a greater respect than those medical officers, and he was happy to say many were friends of his, including their head, Dr. Buchanan. As Dr. Ballard went on, he (the chairman) found he was putting into decided language notions that had long lain latent in his own mind. He was glad to find Dr. Ballard had not confined his attention to children only; for his own part, he had on the previous day protested against specialism. Diseases of children were a branch of a great trunk, and if they were cut off from that great trunk they would die. Without saying anything more, he would call upon gentlemen present to express their views.

Dr. BRUCE LOW (Helmsley) said he came from a rural district where there were no deaths from diarrhœa, but yet diarrhœa was not unfrequent. He did not think it was possible to separate the cases of infantile diarrhœa from adult diarrhœa, because one often found an outbreak commencing in a child, while the next one to suffer was the mother or the nurse. He believed the fermentation and decomposition of filth would give rise to contagious diarrhœa. Heat and seasonal influences affected all forms of diarrhœa, and it would appear that the special organism of summer diarrhœa reached its highest point of activity at a fixed period, much in the same way that an apple or potato became ripe at a certain period, depending on the season. He was inclined to think there was specific contagion inhabiting some parts of the country, and that the greater prevalence of it in summer was due to the effects of heat and other causes.

Dr. STRANGE (Worcester) suggested that, in view of the importance of this subject, Dr. Ballard should use his great interest with the authorities of the British Medical Association to get it discussed by the Collective Investigation Committee. There were such a huge number of points in connection with the matter, that, unless they could get gentlemen throughout the country to tabulate their experience and suggestions, no advance of knowledge would be arrived at. In 1879 he went rather fully into the question of summer diarrhœa, as it affected his own city; and he thought this was the way to get at actual facts. He visited nearly every house in which the diarrhœa occurred. He quite agreed with Dr. Ballard that the heat of summer had something to do with the matter; but then they had this fact, that diarrhœa existed, more or less, throughout the year, and, though it might culminate about the middle of July, and go on over September or October, still there was the fact that they had diarrhœa existing throughout the year. To make the thing more utterly confounded, there was the fact that diarrhœa existed in towns sewered and not sewered; in towns where there were middens and no middens; and, so far as his experience went, of one hundred and fifty cases, there was no locality of the town where it did not exist, although overcrowding of dwellings certainly caused it to be more prevalent. He thought the one great fact to be kept in mind was, that diarrhœa culminated about the middle of July, the hottest period of the year; whether it arose from sewers, from fermentation of milk, or from climatic causes. All interested in this matter should try to bring together what facts they could, so as to bear upon this point of temperature; for it was quite clear, to his mind, that sewers had nothing to do with it, because he knew that diarrhœa prevailed in the best sewered parts of the town almost as much as in the others. He thought that attention should be directed to the way in which children were fed in the families where diarrhœa occurred. He had noticed that a large number of illegitimate children died of diarrhœa; and, as a rule, these were not fed on milk, therefore it could not be to fermentation of milk that the disease was due; but they were fed upon all sorts of improper and indigestible food, so that, after all, the fermentation-theory might bear. The question of feeding was very important; and one reason, to his mind, why diarrhœa prevailed much more in towns than in the country, was that countrywomen knew much better how to feed their children. A determination of what summer diarrhœa really was could never be arrived at, without taking into consideration all the cases.

Dr. BUCK (Leicester) said he had not brought any special facts or figures with him, as he had no idea he should speak on the subject. In the year 1875, the Corporation of Leicester instructed Mr. Frank and himself to make as exhaustive an inquiry as possible into the causes of the extreme prevalence of diarrhœa in the town, which, unfortunately, had a notoriety for this complaint, and stood at the head of the list of towns which suffered from diarrhœa. He

had come to the meeting, hoping he should hear something rather more novel from Dr. Ballard than they had heard. He hoped no more time would be wasted in the future in refuting the erroneous popular notions to which Dr. Ballard adverted. What were the facts found so far? There was no doubt that heat was greatly connected with diarrhœa; for the heat-curves and the diarrhœa-curves were nearly in accord, that he did not think any sensible man could hesitate to say there must be a very strong connection. As to dentition being a cause of diarrhœa, he did not think this cause gave more trouble in Leicester than anywhere else; and, with regard to milk, milk was used all over the kingdom; while, if they looked at the rates in different towns, they would find from nine to ten per cent. in towns like Hull, Preston, and Chester, whereas in other large towns it was as low as one, or even a decimal. He believed children were neglected iu all towns pretty much alike, yet the death-rate was vastly different. He could not help thinking that it was a specific diarrhœa that they had to encounter; and for this reason, that they saw a child perfectly healthy and well, while, on a certain day—the mother could always tell, to an hour, when it was taken ill—violent purging set in, and in a short time, varying from, perhaps, twenty-four hours to a week, the child died. He had even seen a child die in a period of less than twenty-four hours from the outset. He said this looked more like a specific disease than anything else. As to heat, every one admitted this had something to do with it. They would find, from the maps of Leicester exhibited by Dr. Ballard, that the disease was mainly manifested in the lower part of the town. He should have thought nothing of this, if he had not read the very accurate accounts given by Dr. Smith of New York in his book on *Diseases of Children*—a book held in great repute both in America and this country—of infant diarrhœa. Dr. Smith said that, so impressed were the physicians of New York with the importance of this question, that they had gone to very great expense to remove children from the lowest parts of the town in the summer months to the higher parts outside; and they had got a hospital outside where they took children for the summer months. Considering, therefore, that the disease was found in badly drained towns and in low-lying parts of the town, and that it was found in connection also with heat, and believing, as he did, that there must be a physical organism causing disease, he could not help thinking it must be in some way connected with the subsoil-water. Miasma was favourable to the development of organisms; and this was his theory, which corresponded also with the observations of medical men in India, who invariably traced cholera and choleraic diseases and diarrhœa to the deltas of great rivers, where the subsoil-water was near the surface. He had made diagrams to show the subsoil water-level of Leicester, and it was found, practically, that in the highest part of the town diarrhœa was almost absent, while it was found in its greatest intensity in the lowest parts of the town; and this agreed pretty well with the observations in New York. He could not help thinking that officers of health, in writing their reports, would do infinitely better if they put down facts rather than evolve theories. The more facts they could give Dr. Ballard, the more likely he was to arrive at important and decisive results; and he hoped at another meeting they would have the real and true causes of diarrhœa laid before them.

Dr. KEALY (Gosport) said he did not happen to be a medical officer of health, but he was chairman of the sanitary committee of the local board; and therefore, every month, was obliged to examine the returns of the causes of death. The conclusion to which he had come was, that it was utterly impossible in many cases to assign the cause of diarrhœa in a child. The causes were very various, and especially in children who had gone beyond the age of two years. He had found that, in the case of children brought up by hand, and fed on milk from cows fed on grains, diarrhœa was very common; and, over and over again, he had proved diarrhœa to have been caused by the milk of cows fed on mangolds. As to the treatment for diarrhœa, he might mention a case, a little time ago, of a child quite prostrated by the disease, as ill as it could be. He thought he had seen so many cases of death arising from the ordinary treatment, that he would try and hit upon some other means of remedy. He accordingly put the child on a teaspoonful of castor-oil every two hours, watching it most carefully; and the oil was continued for sixteen hours, until a healthy discharge of fæces was induced. In that case, a large quantity of clotted milk was discharged from the bowels. He had no hesitation in saying that, if he had done as he did before—given a sedative—that child would have died. In this case, he had seen the most decided benefit arising from the use of oil; he believed the child's life was saved by it, and he had followed the same plan since. He first of all made a thorough inquiry; and, if he came to the conclusion that the diarrhœa was due to the milk, he withdrew the milk, and put the child on extra oil, watching it most carefully. With regard to drains, there were in his town no drains at all, but cess-pits; and they had a very peculiar soil in the parish—part gravel and part clay. The consequence was that, under some of the houses, there was a large quantity of water all the year round; and there was diarrhœa in the parish all the year round, though much worse at certain times. But the difficulty was to find out the causation of the disease; and one cause he set down to be that children were placed on small seats over the cesspits, and were poisoned by the abominable exhalations. He did not much believe in high temperature, though it might operate sometimes. With respect to Winchester, it was a very remarkable fact that that city had its highest rate of diarrhœa before the sewer system was introduced; and he had used this argument to support his endeavour to have underground drains introduced into his parish. He hoped to go away from that meeting with the determination to forward information and statistics to Dr. Ballard.

Dr. HOWIE (Liverpool) said he had no theory to offer, but he had a few facts, which would take but a few minutes to lay before the Section; and his idea was that, if they limited themselves to telling what they knew to be actual facts in their own practice, they would do a great deal more good than by formulating theories. About nine or ten years ago, he had a very severe case of diarrhœa, which died very rapidly; and this child, as he found out, was being fed on milk from a goat, and the same night that the child died the goat died. This convinced him that the child was poisoned by the food it had received from the goat. Since then, he had always acted upon this principle, that the immediate cause of summer diarrhœa, in the large majority of instances, was to be found in the food. Hence, first of all, he began for a few days by giving no food at all—literally, for twenty-four or forty-eight hours, giving absolutely nothing; and it was wonderful what a remarkably good effect that had. He gave up medicine altogether for summer diarrhœa. He began the first day with abstracting the food entirely, and, after that, the child was fed upon condensed milk, in very small quantities. It was about ten years ago when he commenced this treatment, and condensed milk was just coming into use; and he tried it first with his own children, with such results, that he afterwards had confidence in using the condensed milk, and nothing but condensed milk, for a considerable time during the diarrhœa period. What was the result of that? The months of July and August were the hardest he had in the year; while now, in those months, he had nothing to do. He told his patients, whenever they found diarrhœa beginning in a child, to starve it for twenty-four hours, and afterwards to use condensed milk; and, amongst his own patients, he was now rarely called in for an attack of summer diarrhœa.

Dr. OXLEY (Liverpool) said the etiology of summer diarrhœa was the most difficult question to settle, because it was continually mixed up with the ordinary diarrhœa that went on all the year round. In his experience "summer" diarrhœa in Liverpool arose in the autumn, in August and September. In the Children's Infirmary in Liverpool, there might be ten cases a week during June, and the first two weeks in July. In the second two weeks it would run up to twenty, while in August and September they had the out-patients' rooms full of children suffering from diarrrhœa. Further, this diarrhœa affected not only the children, but the adults in the same house. They were taken suddenly ill, and suffered quite as severely, the only thing being that it did not kill them, though it killed the children in a day or two in an alarming manner. As to the cause of diarrhœa, although he had never been able to get at any cause, he believed something was due to the change which took place—some atmospheric change—in the water or food, particularly food which was liable to decomposition, and nothing was more liable to rapid decomposition than milk. He considered epidemic diarrhœa a disease of itself, and the diarrhœa itself as nothing more than a symptom of the disease. He was one of Dr. Johnston's followers, and had been much struck with his theory as to the expulsion of poisons; and, in his own treatment at the Children's Infirmary, he seldom used anything else than an emulsion of castor-oil. He knew his theory as to poisons had not done Dr. Johnston much good as a practical man, because people did not agree with it, but at the same time the treatment he had mentioned was found practically to do good. Sometimes a medical man was called to a family, all the members of which had diarrhœa, and before they had sent for the medical man they had very often got a cholera-mixture, made up of opium—sometimes in large doses. He could recollect cases where the fatalities had been amongst children who had had that preliminary

dose of constipating medicine, which had not had any effect in checking the diarrhœa, but seemed to take away the little chance the patient had of getting better. He hoped that in time Dr. Ballard's impartial and careful investigations into the origin of summer diarrhœa would be crowned with success, and that they would be able to differentiate between the two descriptions of the disease.

Dr. MACMILLAN (Hull) said in 1868 he made a report of the health and meteorology of Hull, and dotted down all the zymotic diseases; and the result of his experience was that high temperature was accompanied by a high rate of diarrhœa, while high rainfall and low temperature involved, comparatively speaking, little diarrhœa. He also found that the mortality was greater in the lower parts of the town, and also in accordance with the class of people and their mode of living. He found that, if he could get people to remove from the lower part to the upper, it was beneficial. He agreed with a previous speaker that diarrhœa was more autumnal than summer. He said to those who were able, "Get away to the country or seaside;" and he had invariably found persons who had done so had little or no diarrhœa in the family. That bore out what had been suggested in New York; and if the removals could only be general, they would not need the large institutions now required. From his experience, he would say: "Get your patients out of town during those months, particularly if you have indications of a high temperature during that year."

Dr. RADCLIFFE CROCKER (London) said it struck him that, although there was one pathological cause for this disease—probably specific organisms—there might be a very large number of conditions that would favour the development of that cause. He thought the tendency of speakers had been to insist too much upon the particular one that had come under notice. It might be that a number of apparently opposite conditions would favour the cause; but what had struck him as favourable to the development of diarrhœa was acid secretions; milk and fruit in fermentation, for instance. Let them put down each of the factors which were fever-causes, and not suppose they were the only ones, and by-and-bye they might get the list complete, and then in each case they would have to study which was the particular favouring condition. In the treatment of these cases, all founded their method upon a theory, right or wrong; and he had always gone upon the idea of neutralising secretions, and treating summer diarrhœa with alkalies. All he wished to say was that, while there was one pathological cause, they should consider it was most probable that there were a great many favouring conditions of that cause.

Dr. BALLARD, in reply, said the last speaker was perfectly right in saying a large number of causes co-operated in producing this disease. They were all connected with each other, but in a tangled skein it was most difficult to unravel. As regarded the subsoil water to which Dr. Buck alluded, he was perfectly aware of the necessity of inquiring into that; and, in point of fact, he had observations now being made in three different towns—Leicester, Winchester, and Great Yarmouth. With respect to Dr. Strange's remarks as to the Investigation Committee, he might say that before the Investigation Committee was started, he made an appeal to the profession at large to support him in this matter, and he published a letter to that effect in each of the journals, and a considerable number of gentlemen offered him their assistance. He was sorry to say a great many gentlemen did not carry out their promise, and he rather depended now upon gentlemen who would take the thing up *con amore*. A large number were helping him most materially, working actively and earnestly and with a great deal of good. It had been mentioned by some speakers that he had not alluded to this cause or that cause. Of course, he had not, because he had not had the time to do it. He hoped the result of the discussion that day would stimulate to inquiry.

BEQUESTS AND DONATIONS.—General the Hon. Arthur Upton, of Bruton Street, has bequeathed £1,000 to the Middlesex Hospital, and £500 to the Kilburn, Maida Vale, and St. John's Wood Dispensary. —The Rev. John Howard Fisk has given £500 towards the bazaar fund of the Norfolk and Norwich Hospital.—The Hon. Caroline Mary Powys has given £500 to the British Home for Incurables, for founding a pension of £20 to be bestowed upon one of the present candidates.—Miss Ann Daniel, of Eaton Square, has bequeathed £200 to St. George's Hospital, and £200 to the Belgrave Hospital for Children. —Lady Louisa Goldsmid has given £150 to University College Hospital.—Dame Judith Turner, widow of Sir Charles Turner, has bequeathed £50 to the Royal Westminster Ophthalmic Hospital, and £50 to the Royal Hospital for Incurables.—Mr. John Swift has given £50 to the cancer fund of the Middlesex Hospital.

BRITISH MEDICAL ASSOCIATION.

EXTRAORDINARY GENERAL MEETING: ADJOURNED ANNUAL MEETING.

EXTRAORDINARY GENERAL MEETING: ALTERATION OF ARTICLES OF ASSOCIATION.

AN extraordinary general meeting of the British Medical Association was held on Friday, August 17th, at Exeter Hall, for the confirmation of certain special resolutions agreed to at the meeting in Liverpool on Thursday, August 2nd. The chair was taken by Mr. WHEELHOUSE, President of Council, in the absence of Dr. WATERS, President of the Association.

The following members were present at the meeting: Atkinson, R., Esq., Ripponden; Balding, D. B., Esq., Royston; Balfour, G. W., M.D., Edinburgh; Banning, R. J., M.D., London; Barnes, J. Wickham, Esq., London; Barratt, J. G., M.D., London; Barrow, A. B., M.B., London; Bartolomé, M. M. de, M.D., Sheffield; Bodington, G. F., M.D., Kingswinford; Bower, D., M.D., Bedford; Brown, G., Esq., London; Brown, G. D., Esq., Ealing; Bryan, J. M., M.D., Northampton; Burton, J. M., Esq., Lee; Carpenter, R. H. S., Esq., London; Clippingdale, S. D., M.D., London; Cousins, J. Ward, M.D., Southsea; Cross, Robert, M.D., London; Davidson, C., Esq., London; Day, W. H. M.D., London; Dickson, Walter, M.D., London; Doran, Alban, Esq., London; Drage, C., M.D., Hatfield; Ede, C., Esq., Guildford; Edis, A. W., M.D., London; Foster, B., M.D., Birmingham; Fothergill, J. Milner, M.D., London; Godson, Clement, M.D., London; Goldie, R. W., Esq., Bromley; Grant, A., M.D., London; Grigg, W. C., M.D., London; Hardy, H. N., Esq., Dulwich; Hare, C. J., M.D., London; Hart, Ernest, Esq., London; Henry, A., M.D., London; Holderness, W. B., Esq., Windsor; Holman, C., M.D., Reigate; Jackson, Vincent, Esq., Wolverhampton; Jacob, A. H., M.D., Dublin; James, J. Brindley, Esq., London; Jones, Evan, Esq., Aberdare; Kelsey, A., Esq., Redhill; Ker, Hugh R., Esq., Halesowen; Kerr, Norman, M.D., London; Lanchester, H. T., M.D., Croydon; Lloyd, R. H., M.D., Lambeth; Lord, Richard, M.D., London; Mackintosh, D., M.D., London; Macmillan, A., M.D., Hull; Macnamara, C., Esq., London; McVail, D. C., M.B., Glasgow; Mahomed, F. A., M.B., London; Manifold, M. F., Esq., London; Mickle, W. J., M.D., Bow; Moore, W. Withers, M.D., Brighton; Morris, Malcolm, Esq., London; Morton, James, M.D., Glasgow; Napper, Albert, Esq., Guildford; O'Connor, B., M.D., London; Pyle, T. T., M.D., London; Rivington, Walter, Esq., London; Smart, Sir W. R. E., M.D., London; Smith, T. Gilbart, M.D., London; Strange, W., M.D., Worcester; Terry, Henry, Esq., Northampton; Thudichum, J. L. W., M.D., London; Vinen, E. H., M.D., London; Wallace, F., Esq., London; Watson, P. H., M.D., Edinburgh.

The CHAIRMAN said that letters of apology had been received from Dr. Waters (the President), Dr. Wade, Mr. Husband, Dr. A. Carpenter, and other gentlemen, who were unable to attend. Dr. Waters had requested him to say that, long before it was known that the present meeting would be required, he had made arrangements for going abroad; and he was abroad at the present time. The present meeting was an extraordinary one required by law to confirm that which had been done on Thursday, August 2nd, at Liverpool, by way of altering the Articles of Association. It would be remembered that at that meeting they were informed by the solicitor that, in order to bring the new by-laws, if passed, into conformity with the Articles of Association, it would be necessary to hold two extraordinary general meetings. The meeting on August 2nd was the first of those extraordinary meetings; and a second meeting to confirm what was done at the first was to be held not less than fourteen, and not more than twenty-eight days afterwards. The present was the second of the two meetings, and the business was to consider the alteration, not in the by-laws, but in the Articles of Association. At the Liverpool meeting, each of the articles was read and voted upon, a three-fourths vote being required in each case. He proposed "That the Articles of Association as proposed and passed at the extraordinary general meeting of members held at the College, Liverpool, on Thursday, August 2nd last, be approved, and that they are hereby confirmed."

Dr. B. FOSTER (Birmingham) said he had much pleasure in seconding the resolution; and, in doing so, he congratulated the members present on taking part in the concluding scene of a movement that had been going on for a considerable time. At the meeting at Liverpool, they carried unanimously the changes in the Articles of Association that were necessary to give the Association the representative government which many members had desired. To-day they would, he hoped, conclude that process by adopting the changes which the Liverpool meeting had approved. They were now practically bringing to a logical conclusion the series of meetings which had been held—meetings of the Committee of Council, meetings of subcommittees, and the meetings at Liverpool—sometimes, perhaps, rather stormy and noisy, and at others quiet and orderly, and their only business now was to confirm the resolutions previously passed.

The motion was then put and unanimously agreed to.

ADJOURNED GENERAL MEETING.

The meeting then resolved itself into an adjourned general meeting, for the consideration of the proposed new by-laws.

Mr. FOWKE, the General Secretary, read resolution of adjournment of the annual meeting.

The CHAIRMAN said that the meeting was held pursuant to a resolution passed at Liverpool, on Friday, August 3rd, for the consideration of the alterations made in the by-laws and of certain amendments, of which notice had been given. Members would find on the agenda paper the alterations that were made at the Liverpool meeting. He thought it would be desirable not to take the by-laws *en bloc*, but to go through them in groups, as on the previous occasion. The first group related to the election of members.

"Any qualified medical practitioner not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may (subject as hereinafter mentioned) be elected a member by the Council, or by any recognised Branch Council, provided that the power of such Branch Council shall only extend to the election of male persons.

"No person shall be elected a member unless he has the votes of not less than three-fourths of the members present at the meeting of the Council or Branch Council at which he is proposed for election, and has agreed in writing to become a member, and to pay his subscription for the current year.

"Any member may be expelled from the Association by a resolution of the Council, if carried by three-fourths of the members present, subject to confirmation by the next annual meeting; and he shall thereupon cease to be a member, and shall not be eligible for re-election. One month's notice of the intention to propose such resolution shall be given to any member affected thereby."

Mr. G. BROWN (London) said he had an amendment to move upon the third paragraph, with reference to the expulsion of members; and he thought it would commend itself to the members of the Association. There were different classes of offences, and there ought therefore to be different degrees of punishment. It was a hard thing to say that, whatever the offence might be which led to an adverse vote by the Council, the member should be expelled for all time, and not allowed to submit himself for re-election. Such a rule ought not to be agreed to without very full consideration. It was giving away the privileges of the Association, and resigning them to a meeting of Council, which might be a very small one, and without any means of appeal. What he wished was, to give the Council a power to suspend or to expel a member for a period not exceeding three years, at the end of which time the member might be at liberty to submit himself again for re-election. He hoped the Council would see that that was a very fair and reasonable course to adopt.

Dr. B. O'CONNOR (London) said he had an amendment to propose with reference to the first paragraph.

The CHAIRMAN said it would be better to take Dr. O'Connor's amendment before Mr. Brown's, as it related to an earlier paragraph in the by-laws.

Dr. O'CONNOR said his proposal was to omit all the words after the words "Branch Council," and to insert after the word "any" the word "legally," and after the word "qualified" the word "male," so that the by-law would read "Any legally qualified male medical practitioner, not disqualified by any by-law of the Association, who shall be recommended as eligible by any three members, may (subject as hereinafter mentioned) be elected a member by the Council, or by any recognised Branch Council." In the proposed by-law there was, no doubt, a distinction drawn between the powers of the Council and of the Branch Councils in regard to the election of male persons.

Mr. NELSON HARDY (Dulwich) seconded the amendment.

Mr. ERNEST HART could not help thinking that it was a great pity to make merely verbal alterations in by-laws which had been carefully worded by their legal adviser. The law had been framed, whether rightly or wrongly, to exclude certain persons; and it was doubtful whether, by making the proposed verbal alteration, they would not be taking away the power of excluding such persons. The assumption might be that, as the last words of the paragraph were struck out, it was not intended to exclude them. Personally, he should not have been in favour of the exclusion; but, as the words were intended expressly to exclude certain persons, he did not think it would be wise to change the words for a merely literary reason.

Dr. FOSTER (Birmingham) said the law, as it stood, only gave power to the Branch Councils to exclude; and the object was to give the power of exclusion to the Council. He agreed with Mr. Hart as to the advisability of not making any simple verbal alteration; but the proposed alteration related to the distribution of powers.

Mr. HART said that object would be met by making the last words of the first paragraph read "Provided that the power of such Council or Branch Council shall only extend to the election of male persons."

Mr. NELSON HARDY said he should be quite willing to accept Mr. Hart's proposal and withdraw his own.

Mr. Hart's proposal was put and agreed to.

Paragraphs I (as amended) and II were put and agreed to.

Mr. BROWN proposed his amendment on Paragraph III, namely: "Paragraph III, third line, to read, 'and he shall not be re-admitted as a member for the period of three years; and then only after forwarding a petition to the Council, signed by five members, testifying to his social and professional status, and by three-fourths of the votes of the members present.'"

Dr. BODINGTON (Kingswinford) seconded the amendment. He thought there ought to be a *locus pœnitentiæ* for every offending member, and that the time of his expulsion ought to be limited.

Dr. GILBART SMITH (London) said he thought Mr. Brown's proposal was founded on common sense. They ought not to expel a man without retaining the power to re-admit him; but he thought the by-law might be better expressed thus: "That any member, during the pleasure of the Council, may be suspended, or expelled, from the Association by a resolution of the Council, to be carried by three-fourths of the members present, subject to the confirmation of the next annual meeting; and he shall thereupon be debarred from the privileges of membership during such period of suspension, or shall cease to be a member." He would leave out the words "and shall not be eligible for re-election." It should be left to the Council to say whether the member should be suspended or expelled. That, he thought, would meet Mr. Brown's views.

Mr. BROWN said he was willing to accept Dr. Gilbart Smith's suggestion, which would give more freedom to the Council.

Mr. B. JAMES (London) said that every offending member ought to have the opportunity of being present to vindicate his character.

The CHAIRMAN said that that was already provided for. Any member whom it was proposed to expel would have a month's notice given to him, that he might be present to defend himself.

Dr. O'CONNOR said that nothing was said in the rule as to the class of offences for which a member was to be expelled. He thought that some words should be introduced with a view of confining the offences to infringements of the by-laws. Again, the rule said nothing as to how the month's notice was to be given to the member concerned.

The CHAIRMAN said it was the duty of the Secretary to write to the member, giving him a month's notice, and stating that on a certain day he would be expelled, unless he was able to vindicate his conduct.

Dr. O'CONNOR said it was possible, if the member had been guilty of felony, that he could not be got at, and the thing might be done behind his back.

The CHAIRMAN: If he have been guilty of felony, do not you think he had better be expelled?

Dr. O'CONNOR thought that some provision should be made confining expulsion to an infringement of the by-laws. He, therefore, proposed to add the words, "provided that no member shall be expelled in the absence of an infringement by him of a by-law of the Association."

Dr. HOLMAN (Reigate) thought it would not be wise to tie the hands of the Association in the manner proposed by Dr. O'Connor. No member had ever been expelled from the Association except for a very grave offence, or without having the fullest opportunity to defend himself.

Dr. GILBART SMITH seconded the amendment, which was lost.

Dr. GILBART SMITH thought there ought to be two clauses, one for suspension and one for expulsion, with a power of re-election. The suspension clause should read: "Any member may, during the pleasure of the Council, be suspended from the privileges of the Association by a resolution of the Council, if carried by three-fourths of the members present, for such period as the Council may resolve; and such suspension shall be published in the JOURNAL."

Mr. E. HART said he hoped the members would be careful before making sudden alterations, without any opportunity of carefully considering them. It was evident that Dr. Gilbart Smith's proposal might have some serious consequences, and it would certainly require re-wording, as it was very incomplete. Moreover, a publication of the suspension in the JOURNAL would be a dangerous proceeding, and might render them liable to serious consequences.

The CHAIRMAN: There would be many actions for libel.

Dr. GILBART SMITH said he would withdraw the last clause of his proposal.

Mr. ERNEST HART wished to remind the meeting that the proposed by-laws had been repeatedly published in the JOURNAL, and no notice had been given of any such amendments as those now proposed. Without expressing any opinion as to their desirability, he would suggest whether it would not be well to allow the by-law to be passed as proposed, and to bring forward any proposed alteration at the next annual meeting. To make a serious change and fresh penal propositions on the spur of the moment, without careful consideration, might be fraught with future difficulties. The question was not a vital one, and no harm would arise from its standing over another year.

Dr. GRIGG (London) said that the minutes of the Committee of Council were always published in the JOURNAL.

Mr. FOWKE said that the names of expelled members were not published with the minutes. Such publication would probably lead to actions for libel.

Dr. HARE (London) said that Dr. Gilbart Smith had not even made any provision for giving an offending member a month's notice.

Dr. BODINGTON said he had seconded Mr. Brown's original amendment, but he could not agree to the alteration subsequently made. He agreed with Mr. Hart as to the inexpediency of bringing forward amendments of this kind without an opportunity of full consideration.

Dr. WARD COUSINS (Southsea) said that, according to the proposed rule, a vote of expulsion would have to be confirmed at the next annual meeting.

Dr. NORMAN KERR (London) said that, without full consideration, they might run the risk of adopting amendments which would defeat the objects of the movers and seconders themselves.

Mr. G. BROWN said, if it was the sense of the meeting, Dr. Gilbart Smith would withdraw his last proposition, and he would revert to his original amendment.

Dr. WITHERS MOORE (Brighton) said that Mr. Brown's proposal would practically put the Committee of Council over the Association. According to the original proposal, it was necessary that the suspension of a member should be confirmed at the next annual meeting; but Mr. Brown proposed that, notwithstanding that confirmation, the Committee of Council should have the power of re-admitting the expelled member. If a member wished to be re-elected, he ought certainly to appeal to the annual meeting after giving due notice, and not to the Committee of Council.

Dr. FOSTER said that members were always elected by the Council, and not by the Association.

Dr. GILBART SMITH suggested that Mr. Brown should withdraw his amendment, and move that instructions be given to the Council for an amendment of the by-law at the next annual meeting.

Mr. BROWN said he wished to have a vote taken upon his original amendment.

Mr. Brown's amendment was then put and negatived.

Dr. O'CONNOR then proposed to omit the words "and shall not be eligible for re-election."

Dr. GRIGG seconded the proposal.

Mr. ERNEST HART pointed out that to adopt Dr. O'Connor's new proposal in the form in which he put it, would be to introduce a fresh danger. If the words in question were left out, would it not be open to any Branch, not knowing that a member had been expelled, to re-elect him, and the re-election be perfectly legal and binding?

Dr. O'Connor's amendment was put and negatived; and the third paragraph of the by-law was adopted.

The CHAIRMAN said the next by-law related to subscription, and was as follows:

"The subscription to the Association shall be one guinea *per annum*, which shall entitle each member to the privileges of membership, and to receive the JOURNAL of the Association for the current year. The subscription shall date, and be considered due in advance, on the 1st January in each year, except in the case of a member admitted on or after the 1st July, when the subscription for such part of a year shall be half a guinea in advance. Any member whose subscription shall not have been paid on or before the 31st December of the current year shall be suspended from all privileges of membership; and, at the end of the succeeding year, if the arrears be still unpaid, he shall cease to be a member, and shall be ineligible for readmission until he shall have paid all arrears due at the period of his suspension. Any member wishing to withdraw from the Association, shall give written notice of his intention to the General Secretary on or before the 1st December of the current year."

Dr. WARD COUSINS (Southsea) proposed as an addition—

"On the 31st day of October in each year, the Honorary Secretary of each Branch shall close the Branch account for the current year, and shall give notice that all unpaid subscriptions must be forwarded direct to the General Secretary of the Association. A notice of the annual closing of the Branch accounts shall be inserted in the JOURNAL during the month of October."

The object of the addition, he said, was to assist in the collection of money. At present, a good deal of time was lost in writing to members for the payment of subscriptions. After the Honorary Secretary had closed his accounts, application was made by the General Secretary, and a good deal of confusion and heartburning occasionally resulted. It would greatly assist financial operations if there were a certain fixed day when the Secretaries of the Branches would be required to close their accounts, and when all the financial arrangements would pass into the hands of the General Secretary.

Dr. NORMAN KERR asked the General Secretary if he thought the proposed alteration would be of advantage to him.

Mr. FOWKE said he thought it would be a decided advantage.

The additional clause was agreed to, and the by-law, as amended, was adopted.

The following by-laws were agreed to without discussion:

"Any person of professional or scientific eminence, and recommended by the Council, may be elected an honorary member at the annual meeting of the Association."

"The date of the annual meeting shall be fixed by the Council; the place of meeting being determined prospectively in each year by the vote of the Association."

The CHAIRMAN said the next by-law related to officers, and, as amended at Liverpool, was as follows:

"The President of the Association shall be elected annually, at the annual meeting, and shall enter upon the duties of his office at the next annual meeting, and until then shall bear the title of President-elect. Each retiring President shall be eligible for election by the Association in general meeting assembled, as a Vice-President for life, provided that he continue to be a member of the Association. The President and President-elect shall be *ex officio* members of all committees and subcommittees of the Association.

"The Treasurer shall be elected at the annual meeting. He shall hold office for three years, and shall be *ex officio* a member of the Council, and every member who has served the office of Treasurer shall be eligible for election as a Vice-President of the Association for life, provided that he continue to be a member of the Association.

"The Treasurer of the Association shall receive the subscriptions and other moneys payable to the Association, and discharge all accounts which have been ordered by the Council to be paid.

"The Editor of the JOURNAL shall be elected by the Council, and be remunerated in such manner as the Council shall think fit.

"The Secretary of the Association shall be elected by the Council. He shall reside in London, and devote his whole time to the business and affairs of the Association and the office of the JOURNAL.

"The duties of the Secretary shall include being present at the meetings of the Association and Council, the recording their respective minutes, the conducting of the correspondence of the Association; the superintending the collection of subscriptions; the enforcement of the regulations as regards those in arrear, and acting in general obedience to the directions of the Council.

"The Secretary shall be remunerated in such manner as the Council think fit. The Editor and Secretary shall hold their re-

spective offices during the pleasure of the Council, subject to receiving or giving (as the case may be) three months' notice to determine their respective appointments.

"The offices of Secretary and Editor of the JOURNAL shall not be held by the same person."

This by-law was agreed to.

The CHAIRMAN said the next by-law related to the Council; as amended at Liverpool, it was as follows.

"The Council shall consist of the President, the President-elect, the President of Council, the Vice-Presidents of the Association, and the Treasurer (who shall all be *ex officio* members of the Council), and of members representing the Branches, who shall be elected as follows:

"(*a*) Every Branch shall be entitled to elect one representative member, and every Branch consisting of more than 200 members shall be entitled to elect an additional representative member for every complete 200 members of which it shall consist.

"(*b*) The election of such member or members shall be annual, and he or they shall hold office from the second day of the annual meeting of the Association next after his or their election until the second day of the next following annual meeting.

"(*c*) The return of the election of the representative member or members of each Branch shall be communicated in writing to the Secretary of the Association, by the President or Secretary of such Branch, not less than one month prior to the annual meeting of the Association.

"(*d*) No person shall be eligible as a representative member unless, at the time of his election, he shall be resident within the area of the Branch nominating him as their member.

"(*e*) In default of and until election by any Branch of a representative member, or of representative members, or so far as such election shall not be complete, all the powers conferred on the Council shall belong to and be exercised by the *ex officio* members thereof alone, or by the *ex officio* members and such representative members of the Council as may have been duly elected by any Branch or Branches, and of whose election return shall have been duly made as before mentioned.

"(*f*) By-law *e* shall not take effect until the annual meeting in 1884; and, in the meantime, the Committee of Council in office at the time of passing these By-laws shall be the Council, and shall have all the powers conferred on the Council by the Articles of Association or the By-laws.

"Notice shall be given forthwith to the Secretary of the Association, by a Branch, of a representative having ceased to belong thereto; but until such notice shall have been received by the Council, no resolution or vote shall be deemed invalid by reason of a disqualified member taking part in its proceedings.

"The Council shall annually prepare a report of the general state and proceedings of the Association for the past year, to be presented by them at each annual meeting of the Association.

"The Council shall, at each annual meeting, propose the place of meetings for the next annual meeting, and nominate the President-elect.

"A record of the attendance of each member of the Council at its meetings shall be kept, and published annually in the JOURNAL.

"The Council shall meet not less than four times a year, and shall be presided over by the President of the Council, or, in his absence, by a chairman to be appointed by the meeting. Its meetings shall be held at such time and place as the Council shall appoint. Seven members shall form a quorum.

"The President of Council may, if he think right, and upon receiving a requisition, signed by not less than ten members of the Council, and specifying the business for which a special meeting is required, shall, call together a special meeting thereof, but at such meeting no business shall be transacted other than that for which such special meeting was called.

"The Council shall manage the general affairs and business of the Association, except as otherwise provided by the Articles or By-laws. They shall also regulate the order of business, and shall nominate the readers of addresses at each annual meeting. They shall decide what shall constitute a section, and who shall preside over the same; and shall also arrange the division into sections of the matters to be discussed and considered at such meeting.

"The Council shall direct the publications of the Association, and shall take cognisance of any matter which may require immediate decision.

"The Council shall, at each meeting next after the annual meeting of the Association, appoint a public accountant to audit the accounts of the Association, and, if directed by them, to prepare a balance-sheet, financial statement, and report, up to December 31st in each year. A financial statement shall be published in the JOURNAL within the first four months of each year.

"In the event of the incapacity of any officer of the Association, during his term of office, the Council may appoint any member to act for him. In the event of the death or resignation of the holder of any office, the holder of which is required to be elected by the Association at annual meeting, the Council may appoint a successor till the next annual meeting."

Mr. RIVINGTON (London) said he had given notice of an amendment on the first paragraph of the proposed by-law, "That, for the purpose of the election of members of Council, each Branch of the Association shall he held to include all the members of the Association residing within the area of the Branch." Under the present constitution, there were about three thousand members unconnected with the Branches, and those members were entirely unrepresented. The constitution, in fact, created a schism in the Association by cutting off three thousand members, and that appeared to him to be a source of weakness to the Association. It was not a wise or generous policy to pursue, when they were seeking to place their constitution on a representative basis, to cut off so many members from the franchise. It had been said that those gentlemen had not asked for the franchise. That might be very true; but, when members joined the Association, they were not acquainted with its constitution. They received the JOURNAL, but not the Articles of Association and the by-laws, and thus remained in ignorance of what the constitution really was. When he first became acquainted with it he found it was very narrow and unrepresentative, and they were now proposing to perpetuate the same error by cutting off three thousand members. It was further said that those members could have the franchise by joining the Branches and paying 2s. 6d. How much would it cost to give them the franchise? About a penny or twopence for each member; and yet they were asked to pay 2s. 6d. for the privilege. In that way they excited a feeling of antagonism, and led members to say that they would not join the Branches if they were required to pay 2s. 6d. for voting for a member of Council. If the franchise were given to them, an interest in the proceedings of the Association would be excited. The number of members of the Branches would be increased, and the Branches themselves would benefit by having an increased number of representatives. Another advantage would be that the constitution would be placed on the broadest possible basis, which was a matter of infinite importance to the well-being of the Association. They would not then be creating a body of men who were dissatisfied with the present arrangements, and felt themselves cut off from the constitutional privileges which the Association was designed to confer on them.

The CHAIRMAN said the question raised by Mr. Rivington was one which he had no doubt the members thoroughly understood. The Association at present consisted of a certain number of members who were members of the different Branches, and also of a certain number of persons who did not care to belong to the Branches, who only wanted the JOURNAL, and did not care about the political business of the Association. The proposal of Mr. Rivington was to give those persons the privileges of members who joined the Branches.

Mr. FOWKE said it was his duty to call attention to the fact that a stranger was present.

The CHAIRMAN requested any person not a member of the Association to retire.

The stranger then withdrew.

Dr. WARD COUSINS (Southsea), in seconding Mr. Rivington's proposal, said that the franchise did not really depend upon membership of a Branch, but upon membership of the Association. That was the legal opinion expressed by the Solicitor of the Association at Liverpool, viz., that the franchise was undoubtedly in the hands of all the members of the Association, and that they had no power to deprive men residing in the area of certain Branches from voting as they thought proper. Any gentleman who took an interest in the organisation of the Association, and wished to vote, need only apply to the honorary secretary of a Branch, and he would have an opportunity of doing so, because every honorary secretary no doubt kept a roll of medical practitioners in his area. If the system proposed by Mr. Rivington were adopted, he had no doubt it would have the effect of leading many persons to join the Branches who were at present unconnected with them.

Dr. STRANGE (Worcester) said that no one was more interested in the unattached members than himself. Undoubtedly those gentlemen ought to have the same rights as others; but, as there were

many difficulties in the way, he would suggest to Mr. Rivington that it would be better to remit the subject to the new Council to consider the best way in which the desired object could be brought about. If that were done, he would take care, as a member of the Council, that the subject should be taken up.

Mr. RIVINGTON said he would adopt the suggestion of Dr. Strange, if it were understood that the unattached members were to have the franchise, and that the Council would draw up a scheme for the purpose of carrying that principle into effect.

Dr. STRANGE said the Committee of Council could be directed to take the matter into consideration, and to devise a plan by which the unattached members might be enfranchised.

Mr. RIVINGTON: Suppose they say they cannot devise any plan?

Dr. STRANGE: You must depend on their good faith.

Dr. WITHERS MOORE (Brighton) said he was afraid they were getting into legal difficulties. How was the secretary of a Branch to know when a medical man moved from one district to another, so as to be able to give him due notice? If the franchise was worth having, it was surely worth paying half-a-crown for. If a person were not a member of a Branch, he was only excluded from matters connected with the Branch, and could still attend the general meetings of the Association, and vote as at present. The objects of the Association were scientific and social. They all desired to encourage a friendly feeling between members residing in a particular district; and the man must have a very poor spirit indeed who would not pay half-a-crown to join his brethren, and show his good feeling towards them.

Mr. NELSON HARDY said that, as at the meeting in Liverpool he had moved a resolution in the same spirit as Mr. Rivington's, there could be no question that he was entirely in favour of the enfranchisement of the unattached members; but he would put it to Mr. Rivington, whether it would not be better to adopt Dr. Strange's suggestion, and remit the question to the Council for further consideration.

Mr. RIVINGTON said he would be very glad to adopt Dr. Strange's recommendation.

Dr. BODINGTON said he understood from Dr. Ward Cousins that the Solicitor of the Association, at the Liverpool meeting, informed him that the outside members had at present a right to vote. The meeting, in that case, was simply beating the wind, by discussing whether they should give the right of voting to those who already possessed it.

Mr. NELSON HARDY said it was perfectly clear that general meetings had the power to make any laws they liked: they might exclude anyone, just as they excluded females.

Dr. STRANGE moved that the subject of the enfranchisement of unattached members be considered by the Council.

Mr. NELSON HARDY seconded the motion, which was adopted.

Dr. WARD COUSINS said he should be very happy, if the members would allow it, to leave in the hands of the Council the other alterations in the by-laws of which he had given notice. They all referred to the areas and distribution of the Branches.

Mr. G. BROWN (London) proposed an amendment to paragraph (*d*): "Any person shall be eligible as such representative, if he be a member of the Association, though he be not resident within the area of the Branch nominating him as their member." His object was, to get over a very considerable difficulty under which the Association was now labouring—namely, the question of country members, such as those in Scotland and Ireland, attending the meetings of Council, which were mostly held in London. Those who were in good practice in remote parts of the kingdom found it very inconvenient to come to London for a day or two for such a purpose; and the consequence was, that the provincial Branches were practically unrepresented. ["*No, no.*"]

The CHAIRMAN said there were no more regular attendants at the Council meetings than the provincial members.

Mr. BROWN said he referred chiefly to those who lived in remote parts, not to those who were within easy reach of London. He considered that each Branch should be allowed to elect a member, no matter in what part of the kingdom he resided. He hoped that some member of Council would tell them how many Scotch and Irish members had attended the meetings in London during the past year. If his amendment were carried, it would be competent for any Branch to choose a member who resided within easy distance of London, and in that way their interests would be very effectively attended to. It frequently happened that provincial members settled in London, after they had been thoroughly acquainted with the working of their Branch, and they would make most efficient representatives

The CHAIRMAN said this subject was fully discussed at Liverpool, and determinedly opposed by the mass of the Association.

Dr. O'CONNOR seconded the amendment.

Mr. MACNAMARA (London) thought that the proposal would defeat its own ends. If the provincial Branches were allowed to elect London men, the Council would very soon largely consist of such representatives. Nothing could be more detrimental to the working of the Association than such a state of things. He had been a member of Council for nearly four years, and no such difficulty had arisen as Mr. Brown imagined. If members in the west of Ireland or the north of Scotland had any grievance to complain of, they could easily make it known to the Council, who would always be willing to attend to it. He urged the meeting to adhere to the decision arrived at at Liverpool, and not to adopt the amendment.

Dr. FOSTER said the meeting should be extremely careful not to carry any resolution such as the present, which struck at a great principle, and would be contradictory to the action of the large gathering at Liverpool. He had considerable sympathy with what Mr. Brown had said, and no doubt the question would at some future day be considered. It was usually the case that, if an elected member missed one meeting, he went into the ballot for non-election at the succeeding annual meeting, so that residence at a distance was no barrier to the work of the Association being carried on; and he thought Mr. Brown would consult the best interests of the Association if he allowed his proposal to stand over for the present.

Mr. BROWN assented to this suggestion, and the paragraphs under the heading of "Council" were then agreed to.

The CHAIRMAN said the next by-law related to the Journal and Finance Committee.

"The Journal and Finance Committee in office at the time of passing these by-laws shall remain in office until the new Committee is formed, as next hereinafter provided, and shall then retire.

"At the meeting of the Council held next after the annual meeting, 1884, a subcommittee of fifteen members of the Council shall be elected, who, together with the President, the President-elect, the President of the Council, and the Treasurer (who shall be *ex officio* members), shall constitute the Journal and Finance Committee. Three members shall form a quorum. The three elected members who shall have been longest in office shall retire annually; and if, owing to any two or more having been in office for the same period, there shall be any doubt as to which shall retire, the matter shall be decided by ballot amongst such two or more. Members retiring shall be ineligible for re-election for the ensuing twelve months. Members of the Council shall be annually elected by the Council to fill places for the time being vacant by retirement, death, or otherwise.

"The Journal and Finance Committee shall meet not less than four times a year, twice at least at the office of the Association, and shall enter a report of its proceedings in a book which shall be read to the Council for adoption.

"The Journal and Finance Committee shall examine into the general working of the office and JOURNAL, and certify the quarterly accounts, prior to their being presented to the Council."

Mr. NELSON HARDY said he had given notice of some amendments, which he had withdrawn at Liverpool, partly because there was not time to discuss them, and partly because the meeting there seemed to be in such an excited state that it was hardly favourable to the calm consideration of such proposals. His suggestion with regard to the Journal Committee was that, at each annual meeting, seven members should be directly appointed by the Association, while the Finance Committee should continue to be chosen by the Executive Council. The proposal in the new by-laws would render the members of those committees even less removable than at present. He had always understood that the JOURNAL was the property of the Association, and his amendment would make those who had the control of it more directly responsible to the members than they had hitherto been. At the April meeting of the Medical Reform Committee, the chairman produced twenty-five letters, which had been addressed to the JOURNAL by members of the Association, and asked for authority to suppress them, as being contrary to the views advocated in the leading articles on the subject of medical reform. He (Mr. Nelson Hardy) inquired whether the authority to suppress or answer letters did not reside in the editor of the JOURNAL; and he was informed by one of the members of the committee, that that gentleman had instructions from the Journal and Finance Committee to hand over to their chairman all communications relating to reform. He protested on principle against the suppression of those twenty-five letters, holding that every member had a right to

state his views in their own JOURNAL. That being contrary to the opinions of the remainder of the committee, he there and then resigned his seat. On June 2nd, in a leading article, appeared a statement that the Solicitor of the Association had given an opinion about certain matters concerning which there was a difference of opinion. A member, who had given special attention to the subject, wrote to the Solicitor, asking him if his opinion was as stated. The answer was as follows: "June 4th, 1883.—Dear sir, in answer to your letter of the 2nd instant, I have written to the British Medical Association for permission to give a reply to your letter; and, if I receive such permission, I shall be happy to do so. Yours truly, James R. Upton." It had been ascertained that Mr. Upton's note, asking for such permission, reached the office of the Association; but, up to the present time, no further reply had been received from him. The result, of course, was that the permission for which he asked had been withheld. Contradictory answers had also been given to questions addressed to the JOURNAL; and incorrect and misleading reports had been given of what had taken place in the House of Lords and at deputations.

Dr. GRIGG said he would second the amendment, without intending to vote for it, for the purpose of promoting discussion on this very important point. The former editor, Dr. Markham, thought it very essential to have some select body with whom he could discuss important matters before the JOURNAL committed itself to one view or the other. He did not consider it necessary that the Journal and Finance Committee should be one body. A Committee consisting of some of the leading men in London, who could meet together and advise the editor as to the views that should be supported, would be a great acquisition to the Association. He did not wish to detract at all from the ability of the present editor, but "*Humanum est errare*," and, as Solomon said, "In the multitude of counsellors there is safety." It was true that there was great difficulty arising from residence in different parts of the country, but this might be overcome in these days of telegraphs and telephones. As to the constitution of the Committee, he should like to see the resolution withdrawn, and the subject referred to the Committee of Council. No doubt some revision would be necessary in the future, but it was hardly wise to carry it out now.

Mr. VINCENT JACKSON (Wolverhampton) agreed with Dr. Grigg's suggestion.

Mr. NELSON HARDY said he was willing to leave the matter for the consideration of the Council.

Mr. ERNEST HART said he should like to say a few words before the proposal was withdrawn or modified. The speakers who had preceded him had been speaking to three different sets of propositions. The first proposition of Mr. Hardy was a perfectly intelligible one, but his speech did not support it, and bore little relation to it. The proposal was that, instead of having a Journal and Finance Committee, which should be a subcommittee of the Committee of Council, there should be a Journal Committee which should be entirely independent of the Committee of Council. That meant that, having elected by the most elaborate machinery a Council which should be entirely representative of all the Branches, and should have the control of all the finances and of the JOURNAL, there should be taken away from that body the whole expenditure of the Association connected with the JOURNAL, amounting to about £10,000 a year, and the control of the JOURNAL, which gave weekly voice to the policy of the Association. The other question not only affected the existing Journal Committee, but involved an attack upon the Medical Reform Committee. He very much regretted that that attack was not made in the presence of Dr. Edward Waters, who would have known better than himself what answer to give to it. He could, however, say that in the most material respects, Mr. Hardy's statement was entirely incorrect. In regard to the general question of medical reform, the Journal Committee had instructed the editor—and he did not see how they could have instructed him otherwise—that, in all articles referring to medical reform, he should have regard to the resolutions of the annual meeting, and to the proceedings of the Medical Reform Committee in conformity with those resolutions, and that he should consult with the chairman of that Committee, which was a Committee appointed by the whole Association, as to the best means of promoting the objects which the Association had entrusted to him, and the conduct of the JOURNAL in respect to them. That was exactly what the editor had done. With regard to the letters to which reference had been made, when the Bill passed the House of Lords, a great number of letters were received. Many of them asked questions, some of them related to matters of legal interpretation, and others totally objected to the policy of the Association and the action of the Committee. Many of these letters that seemed to him, in the exercise of such judgment as he possessed, to be of general interest to the Association, or to be typical letters, on whatever side of the question, and to add to information, he at once published. Some of the letters requiring answers he forwarded to Dr. Waters, in order that he might communicate with the writers, with many of whom he had carried on a correspondence. Some letters referring to matters of interpretation were sent to the solicitor. A great number of letters on all sides of the question had been published. That appeared to him to be a correct account of the matter. The charge, which, he must say, was a most painful, unsatisfactory, and improper one, that there was any attempt at suppression of opinion, was absolutely contrary to the fact. On the contrary, liberty of expression of opinion as to the proceedings of the Medical Reform Committee had been allowed to be carried beyond ordinary limits, and to the verge of licence. Of course, if a particular letter were not published, a malicious person might call that "suppression;" but if every letter that was received were published, the JOURNAL would be converted into a waste-paper basket. Many gentlemen thought that their opinions upon every subject ought to be expressed, and that 12,000 copies of it should be printed and issued, whether or not their contributions contained anything new or any fact of importance. Discretion was necessary in dealing with this class of correspondents. The Journal Committee was appointed by the Council, and was widely representative, whether for financial or consultative purposes. It was certainly not metropolitan, including only one member from the metropolis; and it contained a great number of experienced persons who were good enough to allow him from time to time to consult them, and whom he met at regular intervals. He could not see the wisdom of the suggestion, that the whole affairs of the Association should be thrown into hotch-potch every year, and that they should trust to a Committee nominated at an annual meeting, at which very few persons might be present, instead of trusting to a carefully selected committee of the representative governing body that had been elaborately created. Such a proposal appeared to him one of the most preposterous ever brought forward.

The CHAIRMAN said that Mr. Hardy was now willing to withdraw his proposition.

Dr. FOSTER said he would move that Mr. Hardy's resolution with reference to the constitution of the Journal and Finance Committee be referred to the Council for consideration.

Mr. BROWN seconded the proposal.

Mr. HARDY: And the statements supplied by me.

Dr. Foster's proposal was put and agreed to.

The following by-law, with reference to Trustees, was agreed to without discussion: "The property of the Association shall, when necessary, be vested in three Trustees chosen by the Council. The Trustees shall be eligible for any other office of the Association."

The following by-law, with reference to Communications, was then proposed and agreed to: "All communications to the Association shall be the property of the Association, unless the Council allow the right of property therein to be specially reserved to the contributors."

The following by-law was proposed in reference to Branches: "Any number of members, not being less than twenty, may form themselves into a Branch of the Association, subject to such Branch being recognised by the Council. Each Branch shall be free to govern itself as its members shall think fit; but no Branch law shall be valid which, in the opinion of the Council, may contravene any fundamental law of the Association. Each Branch shall pay its own expenses; and no Branch shall be deemed, for any purpose, the agent of the Association, or have power to incur any obligation in its behalf."

Dr. WARD COUSINS said he had given notice of the following amendment: "Any number of members, not being less than fifty, residing within, or not less than twenty-five, residing without the limits of the United Kingdom of Great Britain and Ireland, may form themselves into a Branch Association, subject to such Branch being recognised by the Committee of Council." He desired to remind the members that the whole area of England, Scotland, and Ireland was already divided into different Branches, so that, practically, it was impossible to have Branches in other districts. Under present circumstances, twenty was too small a number for the formation of a Branch. One thing was certain, that the formation of a new constituency ought not to depend upon so small a body as twenty members. If the number were raised to fifty for England, it would be far better.

Dr. GRIGG seconded the motion.

Dr. O'CONNOR moved as an amendment that "any number of members, not less than fifty, residing in England and Wales, or not less than twenty-five outside England and Wales, may form themselves into a Branch of the Association, subject to such Branch being recognised by the Committee of Council." His object, he said, was to enable members in Ireland and Scotland to form new Branches.

Dr. WARD COUSINS said he agreed to the proposal, if it were understood that the present Branches of the Association should form the basis of the representative system.

Dr. O'CONNOR said he had referred solely to the formation of new Branches. According to the proposed rule, it was open to any twenty members to form a Branch, whether they belonged to an existing Branch or not. That was not contemplated in his suggestion; he referred especially to the formation of new Branches by members of the Association who at present did not belong to any Branch.

Dr. HOLMAN (Reigate) had no doubt that Dr. O'Connor would prove very valuable to the Association when he had had a little more experience in its working. The points to which he had referred had been all carefully considered. It was desirable to induce everybody to come into the Association, but they did not want too great a subdivision. Virtually the whole country was already occupied, and what more could be wanted? It would be a great pity to interfere, until it was found that the present system of direct representation was not working efficiently. The scheme ought to have a fair trial, and, after such trial, if it were found that there were persons still not represented, the question might be again opened.

Dr. GRIGG said that in the limits of the Branch to which he belonged there were sixteen hundred members, and any twenty of them who felt dissatisfied might form themselves into a separate body, and sign a petition for the creation of a new Branch. Many distinct Branches might in that way be created. That was one reason why he desired to limit the number to fifty in areas where Branches already existed.

Dr O'CONNOR said he thought that Dr. Ward Cousins's amendment and his own were on the same lines. He admitted that he had not been a member of the Association a very long time, but he thought he could take as clear a view of things in general as any member of the Council. He never contemplated introducing any additional facility for breaking up existing Branches. His remarks had reference only to those parts of the country where there were no Branches.

Mr. BROWN wished to ask whether it was possible under the proposed by-law for any twenty members, who might wish to secede from a Branch, to constitute themselves into a new Branch.

The CHAIRMAN said if the members wished to secede and form a new Branch, they had to ask the Committee of Council or the governing body for permission; and, until they had that permission, they could not form themselves into a separate Branch.

Mr. BROWN: Would permission be withheld?

The CHAIRMAN: It has been withheld, and it will be unquestionably if the governing body think it will be detrimental to the interests of the Association.

Dr. HARE (London) said almost the whole of the kingdom was parcelled out into Branches.

The CHAIRMAN said that was the case, with one or two small exceptions.

Dr. HARE said perhaps the difficulty would be met by the addition of a few words, making the by-law read, "Any number of members, not less than twenty, residing in parts of the country not already occupied by a Branch, etc." No doubt portions of the country where Branches did not exist were small and sparsely populated districts, and it might be difficult to get fifty members to sign a petition, but there would be no difficulty in obtaining twenty signatures.

Mr. BROWN thought it would be very undesirable to tie the hands of the Council. He would rather support the motion requiring fifty members for the formation of a new Branch.

Dr. Hare's proposal, which was seconded, was then put to the meeting, and negatived.

Dr. Ward Cousins's amendment was put and agreed to. On being again put as a substantive motion, Dr. O'CONNOR moved, and Dr. B. FOSTER seconded, an amendment similar to that previously proposed: "That any number of members, not less than fifty, within England and Wales, and not less than twenty-five outside England and Wales," etc. This was put, and negatived.

Dr. GRIGG moved another amendment: "That the by-law should read —'Any number of members, not less than twenty, not residing in the present Branches, the areas of which have already been defined, shall'," etc.

Dr. MAHOMED (London) said that any twenty-five members residing in the centre of Scotland, where there was no Branch, could petition the Council to form a Branch. It would be exceedingly difficult, and almost impossible, to get fifty members in such a district to sign a requisition, but it might be quite possible to obtain twenty members. Members in a district of that kind would be practically disfranchised if the resolution were adopted declaring that only fifty members could form a Branch.

Dr. B. FOSTER said he desired to do justice both to Scotland and to Ireland.

Dr. MAHOMED thought that twenty-five persons should be allowed to form themselves into a Branch in any district in which no Branch at present existed. There were plenty of Branches in Scotland and Ireland with more than twenty-five persons, and it was not necessary to give them the power of forming Branches with twenty-five members. He only referred to isolated districts, where it would be difficult to get fifty members to sign a requisition.

Mr. BROWN asked if there were any Branches, in any part of the kingdom, containing less than twenty-five or thirty members, who would be affected by the resolution.

Mr. FOWKE said there was one Branch, at Reading, with thirty members.

Dr. Grigg's amendment was then put and negatived.

Mr. ERNEST HART pointed out that the by-law before them as proposed by the Committee of Council did away with any such restriction as was suggested by Dr. Ward Cousins, and left it open to any number of persons, not less than twenty, to form a Branch, subject to the approval of the Committee of Council. That left the whole thing as elastic as possible. He hoped that Dr. Ward Cousins's motion would be negatived, and that the matter would be left to the discretion of the Committee of Council, who would always know what was the best thing to be done without any strict limitation as to number.

Dr. O'CONNOR: What is there to prevent any series of twenty members, not affiliated with the existing Branches, from forming themselves into separate Branches?

Mr. ERNEST HART: The Council would not recognise them.

Dr. O'CONNOR: On what ground?

The CHAIRMAN: Because they have authority to refuse permission. By the present rule, everything is in the hands of the governing body. They can either permit a certain number to form a Branch, or they can decline to give permission. If, as Mr. Hart says, you now accept the motion of Dr. Ward Cousins, you tie your own hands, and bind yourselves to certain definite things.

Mr. BROWN said he should have been glad if some member of the Council had expressed his opinion upon the subject, because the members were, at present, very much in a fog with regard to it, and scarcely knew whether they were not asked to do something which was prejudicial to the Association. If, as Mr. Hart stated, the Council had it in its own hands to recognise a Branch consisting of twenty members or not, as it thought fit, the evil that some had seen with reference to the subdivision of Branches might be averted. He, therefore, did not see why it should be proposed that the number should be fifty. For himself, he should prefer to leave the matter to the Council.

Dr. FOSTER: The law gives us a discretionary power. Any number not less than twenty can apply; but we may feel that, in certain districts, twenty would be insufficient; while, in other districts, that number would be sufficient. If the law, as it stands, be passed, the Council will be able to do what is right in each case in the interests of the Association. As a member of the Council, I think the rule should be passed as it stands, and that all the suggestions of Dr. Ward Cousins (some of which are valuable), with reference to the definition of area, etc., should be referred to the Council for consideration.

Dr. WARD COUSINS said that, under the circumstances, he would withdraw his proposition; and he would move instead "That the question be referred to the governing body to report at the next annual meeting."

The motion was seconded by Mr. BROWN, and agreed to.

The by-laws with reference to Branches, as proposed by the Committee of Council, were put and agreed to.

Conduct of Business.—Mr. RIVINGTON said he had given notice of a motion to the following effect: "That the rules which govern the conduct of the general meetings of the Association be printed, and that copies be always placed beside the Chairman at meetings of the Association." It was desirable, he said, that the meetings of the Association should be conducted with dignity and decorum, which could hardly be said with regard to the Liverpool meetings.

Many members had come from a long distance in order to discuss the by-laws, thinking there would be free discussion upon them, but suddenly they found that the *clôture* was applied. A good deal of the want of harmony seemed to him to arise from the fact that there was a want of common agreement as to what were the rules governing their proceedings, a want of agreement between the Chairman and the meeting, and between one section of the meeting and another. A good deal of that might be done away with if they had in their hands the ordinary standing orders which governed their proceedings. In all deliberative assemblies, two conditions were usually fulfilled; first, the gentleman presiding over the meeting was usually a person of experience, who was elected for a term of years; and, secondly, the standing orders were in the hands of the members. He could not deal with the subject of the chairmanship of the general meetings, because that was defined by the Articles of Association; but, in reference to the second point, he might mention that, in the case of the Convocation of the University of London, the members were in possession of the standing orders (a copy of which he held in his hand), and it could always be clearly seen whether their proceedings were in order or not. At the meetings of the British Medical Association, a good deal of confusion often arose which might be avoided if the printed rules regulating their proceedings were on the table. He should be glad if the whole subject could be referred to the Committee of Council for consideration.

The CHAIRMAN: The meetings of the British Medical Association are governed by the same laws as all other public meetings. I have in my hand a copy of Mr. Palgrave's book, and any member can buy the book for eighteen-pence. It is on the table at every meeting of the Committee of Council, and surely the fact that at one meeting at Liverpool some gentlemen became a little excited is not a reason why another book should be printed.

Mr. RIVINGTON: There are many different rules with regard to public meetings; as to moving amendments, adjournments, and so on.

Mr. BROWN: The Chairman or the President of the Association should be instructed to make himself acquainted with the contents of that book, and conduct the meetings according to the rules laid down there. It is very probable that if the proceedings were conducted with strictness and firmness, according to those rules, such unpleasant occurrences as took place at Liverpool would be avoided.

The CHAIRMAN: You must remember that every year you get a new president, who has the conduct of the general meetings, and if you knew the trepidation with which he takes the chair, you would have some mercy upon him.

Mr. ERNEST HART: As the President is not here, I may be permitted to say that I believe it is the opinion of the entire meeting that, if all the members present had conducted themselves with as much calmness and courtesy as did the chairman, at the meeting at Liverpool, the disorder referred to would not have occurred. If there were any blame attributable at all, it was not to the chairman, but to other persons.

Vote of Thanks.—Dr. B. FOSTER moved a vote of thanks to the chairman, for the manner in which he presided over the meeting and conducted the business of the day.

The motion was carried by acclamation.

The CHAIRMAN, in acknowledging the vote of thanks, said he had studied Mr. Palgrave's book with great care.

The proceedings then terminated.

FIFTY-FIRST ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.
Held in LIVERPOOL, July 31st, August 1st, 2nd and 3rd, 1883.

THE PATHOLOGICAL MUSEUM.

The Pathological Museum was placed in a room adjoining the Pathology Section, and was quite a feature of the meeting. On the walls was displayed a large collection of original sketches, amongst which were several effective oil-paintings by Dr. Glynn; upwards of sixty water-colours contributed by Mr. Rushton Parker, most of which were illustrations of Surgical Tumours; a group of drawings illustrating the discussion on Urinary Growths, from Drs. Abercrombie and Braidwood, and Messrs. Roger Williams and Paul; photographs, from Dr. Shuttleworth, of Asylum Patients; from Dr. Alexander, of cases of Osteo-Arthritis, Hip-Disease, etc.; from Dr. Playfair, of cases of Hemiasthenia and Hysterical Anorexia, before and after cure; and of the Larynx, from Mr. Lennox Browne. There were also a number of Microphotographs from Dr. Cowley Malley and Mr Paul. The specimens were placed upon three-tier stands in the centre of the room, and consisted of a group of about fifty in illustration of the discussion on Chronic Inflammation of Bones, a number of them having been brought from Guy's Hospital Museum by Dr. Goodhart and Mr. Symonds. Another somewhat larger group was intended to illustrate the New Growths of the Urinary System, and was contributed from several different sources. Mr. Shattock and Mr. Horsley sent a very valuable series from University College Museum; others were sent by Mr. Mayo Robson, Dr. Goodhart, Dr. Abercrombie, Dr. Windle, Mr. Spanton, and Mr. A H. Young; and a number came from the Liverpool Museum. Dr. Silcock brought specimens of Fracture showing Callus, in illustration of his paper. Dr. Hill Griffith showed a number of Eyes beautifully mounted in glycerine-jelly. Mr. Bickersteth sent a Scalp torn off by a machinery-accident; and other specimens were contributed by Drs. Carter, Imlach, Shuttleworth, Wiglesworth, Dambrill Davis, and Hugh Thomas. Altogether, there were about two hundred specimens in the Museum, more than half having been brought from the local school. On the tables in front of the windows about thirty Microscopes were placed, the sections under them having been taken from the mounted specimens. Two opposite rooms were devoted entirely to Microscopes, the slides under them being changed every day. On Tuesday, Mr. Paul showed a series of slides of general interest. On Wednesday, the microscopes were occupied, by Drs. Dreschfeld, Barron, and Mott, with slides of Micro-Organisms; and on Thursday these were replaced by the series illustrating New Growths of the Urinary System. In the three rooms there were one hundred microscopes, sixty having been lent by Dr. Dreschfeld of Owens College. Messrs. R. and J. Beck showed specimens of Bacillus Tuberculosis in the Liver and Human Lung; Bacillus Anthracis in Lung, Liver, Kidney, and Blood; Sarcina Spirillum; Vibrio; and other Micro-Organisms, under a new modification of Beck's "Economic" Microscope, which has a rack and pinion and centring substage, and new wide angle condenser; also Stains for Pathological Work. The arrangement of the Museum was due to Mr. Paul.

ANNUAL MUSEUM.
(Continued from page 326.)

Mr. Huggett, of Liverpool, showed samplesof Eucalyptus (globulus) Firwood Oil (oleum pini sylvestris), Thymol, Creasote, Iodine, Nitrite of Amyl, and other pastilles for fumigating purposes; also his Boracic Toilet Powder, and permanent Solutions for Hypodermic Injection, and his Aerated Waters of the Salicylates.

Messrs. Krohne and Sesemann, of Duke Street, London, exhibited an interesting collection of new and improved instruments, amongst which we noticed Leiter's Pliable Metal Temperature Regulating Tubes, for reducing or raising the temperature of any part of the human body. These "Regulators" are said to be of considerable therapeutic value. They consist of lengths of pliable metal tubing, which are wound in spirals to any required size and form, and, being flexible, can be accurately moulded to the various parts of the body. They are provided with three yards of India-rubber tubing, to which two water-cisterns are attached. The pliable metal tubing being a good conductor, water, at a temperature of 50° to 60° Fahr., produces the same cooling effect as ice or ice-water would in icebags or other India-rubber appliances. This should be useful for hot climates, where no ice can be got. For the continuous application of heat by the same apparatus, in cases of infantile paralysis, for improving the capillary circulation in the affected parts, a lamp containing a series of spirals, through which the water is made to flow, is attached to it. By means of a thermometer, which is placed in a socket on the exit-tube of the lamp, the temperature of the passing water can be seen before it enters the regulator, which is previously applied to the part to be acted upon. The regulators are much lighter than might be supposed, being lighter than India-rubber bags filled with ice, covering the same area, while they do not interfere with the perspiration and exudation from the skin. The apparatus will work of itself for hours, the lumen of the rubber-tubing connecting it with the two water-vessels being very small, so that the passage of water is slow. A new form of Irrigator, made of stout glass, in the shape of a funnel was shown. The advantages claimed for this irrigator are: that it can be kept cleaner than the ordinary metal cans, especially when medicated fluids are used; that, on account of its funnel-form, a greater and more uniform hydraulic pressure is obtained than with irrigators of cylindrical or other shapes; and that the purity of the injecting fluid is easily controlled. They also showed Nussbaum's Bracelet for writer's cramp. We understand

that, since its introduction, this simple contrivance has wrought curative and palliative effects in many cases. Another article shown was Hamilton's Mercurial Fumigator. This apparatus can be used as a mercurial vaporiser or an ordinary steam-spray. Other articles shown by the same firm was a new form of Elastic Wry-neck Collar, as used by Mr. Willett of St. Bartholomew's Hospital; Complete set of Aural Instruments, in a small hand-bag, as arranged for Mr. Field of St. Mary's Hospital; Pierce's set of Aural Instruments; Sir William Mac Cormac's new Expanding Mouth-gag; Sir Spencer Wells's Ovariotomy Instruments; An Aspirator, with unbreakable barrel; Dr. Bantock's Ovariotomy Instruments, and all the instruments as used at the Samaritan Free Hospital; Mr. Bryant's Double Splint; Feeding Apparatus, and set of Artery-Constrictors, also as used by Mr. Bryant; Mr. Reginald Harrison's Stricture Dilator; Trocar for tapping the bladder from the perinæum through the hypertrophied prostate; Metal-ended Gum Bougies; Urethral Irrigator, and Bougie lengths; McEwen's Osteotomy Chisels; Bryant's Colotomy Pad; Lawson Tait's Ovariotomy Clamp; Simpson's Axis-Traction Forceps; Professor Lister's improved Steam-Sprays, tested, and with safety valves; Improved Siegle's Steam-Spray Inhalers; Junker's Anæsthesic Apparatus for administering, economically and in regulated dilution, chloroform, bichloride of methylene, or other anæsthetics, of which we gave an account some time ago; Clover's and Ormsby's Ether Inhalers; Dudgeon's Improved Pocket Sphygmograph; Improved Cyrtometers; Dynamometer for testing the strength of the hand; Kœbere's Serre-Nœud; Mr. Allingham's Hæmorrhoidal Clamp, Fistula Scissors, Elastic Ligature Instruments, and Ointment Introducer; Emmett's Self-retaining Vaginal Speculum; Curved Scissors for paring the edges; and short, strong, round, and trocar-pointed Needles, for operations on the lacerated os uteri; Poroplastic Jackets and Splints; A simple Support for Lateral Curvature of the Spine; a new form of Bandage Roller. They also showed their Specialties, for which they are the sole agents in this country—viz., Dr. Paquelin's Thermo-Cautery, in case; Dr. Martin's Pure Rubber Bandages, for the treatment of ulcers and other diseases of the leg; Dr. Martin's Adhesive Plaster; Ivory lancet-shaped Vaccine Points; and Dr. Isenschmid's Phantom, with coloured images, for teaching laryngoscopy and rhynoscopy to students.

The Liverpool Apothecaries' Company had a large and varied collection of specimens of drugs.

Messrs. J. and C. Lloyd showed samples of their nutritious and digestible Universal Food, of which we have recently spoken in terms of commendation.

Messrs. Loeflund and Co., of 148½, Fenchurch Street, exhibited their Hordeum Diastase Malt Extract, and combinations with Hypophosphite of Lime, Pyrophosphate of Iron, and Pig-Pepsine. These preparations were very favourably received by members of the Association. Their Malt Extract Lozenges are very palatable, and supply a new form of taking malt extract.

Messrs. Macfarlane of Edinburgh exhibited well filled cases of Antiseptic Dressings.

The display of Messrs. Mackey, Mackey, and Co. included many objects of medical interest. Their Morrhuine, or cod-liver oil mixture, is an agreeable and efficacious mode of administering cod-liver oil, rendering it both pleasant to take and easy to digest. By a special process, the cod-liver oil is converted into a perfect emulsion, in which the particles of oil are suspended in such a minute state of subdivision, that it is miscible with water or milk, etc., and is digested with ease by delicate stomachs. Their soluble transparent gelatine coated pills are remarkable for solubility of coating, and for form and finish. Among their other specimens were their preparations of Quinquinine, Mistura Quinquinæ Comp. Concentrata, Mistura Bismuthi Composita. Their well-known fluid extracts are made of such strength, that one fluid part represents the entire activity of the drug. These have been found to be a reliable and convenient means of administering medicines, doing away with the necessity of keeping a large stock of tinctures, infusions, etc. Samples were also shown of the extract of malt prepared by this firm.

The Maltine Manufacturing Company, of Hart Street, Bloomsbury, London, had a very extended exhibit of their various maltine preparations, which are becoming of wide reputation. By the same company was also shown "Carnrick's" Beef-Peptonoids, a concentrated Powdered Extract of Beef partially digested, and combined with an equal portion of glutin, to prevent a tendency to deliquescence, and so prepared as to keep indefinitely, with the nutritive constituents of the beef retained in a concentrated form. This useful and portable preparation claimed a large share of support. This firm also exhibited the "Victoria" Ofner Bitter Water.

Mr. David Marr of 254, High Holborn, who has a specialty for Listerian dressings and appliances, exhibited his specimens of Professor Lister's Steam Antiseptic Spray-Producers, Antiseptic Dressing, Carbolic gauze, etc.; Chromic Catgut Ligature, and also the new Eucalyptus Gauze.

Messrs. Mayer and Meltzer, of 71, Great Portland Street, London, exhibited a Dynamic Machine for the Actual Cautery, the advantages of the use of which must recommend it to the profession; for use in hospitals it must especially recommend itself, being always ready for immediate use, and not liable to get out of order. The machine may be placed in any part of the building, communication being made with the operating room or rooms by conducting wires, and, upon the handle of the machine being simply turned, the operator may proceed. The inconveniences attending the late method of using the cautery are known to all operators: the preparation necessary, the uncertainty of the battery's uniform action, and the further chance of its entire failure during an operation. Messrs. Mayer and Meltzer also exhibited a Dynamic Machine for producing "interrupted" and "continuous" currents for medical application. We further noticed, amongst their specimens, a Saw for Resection of the head of the femur, which, by a very small movement of a lever-handle, is made to work in a very small and deep cavity; an Écraseur for nasal polypus: upon pressing a lever, the wire is wound up; by pressing a button, the wire is loosened. They showed also an instrument for inflation of the bowel in the operation of Left Lumbar Colotomy, by Mr. E. Lund. It consists of an air-syringe and rectum-tube for inflating the colon, rendering it more visible and prominent at the bottom of the wound. A Catheter Staff and Dilator (blunt), by Mr. John Croft, was shown. Its uses are: 1. To avoid the use of a succession of catheters or sounds; 2. To avoid leaving catheters in the urethra and bladder *(en permanence)*. 3. It was adapted for some few cases of organic stricture, in which it is difficult to pass a soft, flexible instrument. The staff is made from No. 4 English to No. 8. The blade is so graduated that it cannot push the stricture before it. They also showed a New Bed-rest for Children, with foot-board, which prevents the patient from slipping, affording great relief.

Mellin's Food for Infants, which has on more than one occasion been favourably reported on in these columns, was exhibited, and samples distributed.

Messrs. Mottershead and Co. of Manchester, exhibited samples of Benger's Peptonised Beef-Jelly, Benger's Self-Digestive Food, Liquor Pancreaticus and Liquor Pepticus, which have received on all hands warm commendation. The peptonised beef-jelly is an easily assimilated, agreeable, and highly nutritious concentrated food, free from all taste of peptone. Benger's Self-Digestive Food has by its excellence established a reputation of its own. Experience has shown that, in many cases, this food can be enjoyed and assimilated when most other foods disagree.

Messrs. Nestlé's Food for Infants was prominently displayed among the dietetic articles.

Messrs. F. Newbery and Sons of London exhibited Scott's Emulsion of Pure Cod-liver Oil with hypophosites of Lime and Soda, which attracted some attention, and a large number of visitors availed themselves of samples which were freely distributed.

Palmer's Painless, Harmless, and Effectual Corn and Wart Remover—a compound of salicylic acid, cannabis Indica, and collodion—has been found to be an useful remedy, securing the effectual removal of these painful and troublesome companions.

The interesting exhibition of Messrs. Parke, Davis and Co., of Detroit, U.S.A., attracted marked attention, especially by their fluid extracts of the newer remedies which are growing rapidly in favour among the medical profession. This firm exhibited, among other specialties, the Bark of Rhamnus, or Cascara Sagrada, which has recently received much attention as a remedy for habitual constipation, the crude barks of Quebracho, Hoangnan, Damiana, Coca, Jamaica Dogwood, and other remedies which have deservedly brought this firm to the front. Parke, Davis and Co. also exhibited their Gelatine Capsules for the administration of tasteless medicines, and their well known Sugar and Gelatine Coated Pills, which have obtained great approval; also their filled Capsules, Cascara Cordial, etc. A large number of the visitors to the exhibition availed themselves of the opportunity offered of taking away samples of these preparations, as also copies of the *Newer Materia Medica*, a volume of 300 pp., containing bulletins for scientific investigation of new therapeutic agents.

Messrs. Pickard and Curry, of Great Portland Street, showed every instrument that may be required for the diagnosis and correction of errors in visual refraction. The latest instrument, and one which appears destined to revolutionise the move-

ment hitherto used in ophthalmoscopes, is the one invented by Mr. John Couper. This instrument can be supplied with any number of lenses, forty, forty-eight, or seventy-two. The increased number of lenses simply means that the instrument is made somewhat longer. Without a diagram, it is almost impossible to describe this very ingenious instrument. Among the other exhibits, we may mention Perimeters after McHardy, Priestley Smith, and Brudenell Carter; Ophthalmoscopes of every description, Oculists' Trial Cases, Medical Microscopes, etc. We must not conclude our notice of this firm's exhibitions without calling attention to the admirable show of Test-Types, both for near and distant vision. These types, we are informed, are sent gratis to any surgeon who may like to have a set.

We noticed among the articles exhibited by Mr. Pratt, of 43, Oxford Street, some very light Spinal Supports and Spinal Stays, also a New Bandage for lateral curvature by Mr. Walsham. Mr. Pratt showed some Toughened Glass Specula, the advantages of which were demonstrated by their being thrown on the ground without breaking.

Messrs. James Rea and Co., of London, had a large display of Splints to suit every variety of case. This firm also showed their Hide's Perforated Plastic Felt for fractures, spinal diseases, etc., of which they are the sole manufacturers.

Messrs. Reynolds and Branson, of Leeds, exhibited samples of their Drugs and Special Preparations, as also their Salicylic Silk, Thermometer and Temperature Charts, and their Eye-Drop Flask, recommended as the most convenient means of placing in the hands of ophthalmic patients solutions of atropia, or other remedies, necessary to their treatment. These flasks have been adopted by some leading oculists, and are successfully in use in several hospitals.

The display of Messrs. Richardson and Co., of Leicester, was, as usual, one of much interest. Our attention was particularly directed to their varieties of superior Pearl-Coated Pills, to which many additions have been made, and which have already secured for this firm seven prize-medals. Among the new formulæ added, is one for the new Permanganate of Potash Pills, for which there is already, we are informed, a large demand. Various formulæ of the Hepatic Stimulants have also been added, containing euonymin and iridin, as also combinations of Phosphorus, Pepsin, Chian Turpentine, etc. This firm also exhibited their Medicated Pessaries, Suppositories, and Bougies, prepared with theobroma oil, which are of superior make and finish, and do not require the use of a suppository-tube. Their Emergency Cases, made in a variety of sizes, are elegant and compact, and, as fitted, contain a carefully selected list of formulæ. Messrs. Richardson also had a handsome display of their many Special Preparations.

Messrs. Robinson and Sons, of Chesterfield, exhibited specimens of their Absorbent Gauze and Cotton-Tissue for surgical and medical uses, introduced by Mr. Sampson Gamgee.

Messrs. Russell, of 18, Church Street, Liverpool, exhibited their Medical Chronographs. These are of decided advantage, inasmuch as the time-keeping part and the centre second part, or chronograph-action, are entirely separate; and for recording measurements of time for surgical operations, scientific experiment, or medical purposes generally, the centre seconds, or chronograph-hand, can, by this improved instrument, be stopped without in any way interfering with the going part of the watch; and the watch does not lose time, as it must do in the ordinary stop-watch, where this separate action does not exist.

The exhibition of Messrs. Savory and Moore maintained their high reputation It contained specimens of their well-known dietetic preparations, containing either the digestive ferments, as in the Succus Pepticus, Pancreaticus, etc., or the results of the action of these digestive agencies on foods, as, for instance, Fluid Meat, Peptones, etc. Succus pepticus and succus pancreaticus are said to be improved preparations, nearly tasteless, for the peptonisation of milk, etc. This firm exhibited also Peptone Enemata and Nutritive Suppositories made with peptones. We noticed also a small box containing a Lamp, Beaker, and Thermometer, and, in fact, all the necessary apparatus for the predigestion of milk and other articles of diet in general use in the sick-room, with full instructions for use. This portable little box of apparatus ought to prove a boon in all cases which require the occasional or continued use of artificially digested foods. We also noticed in this exhibit, besides the Gelatine preparations for which this firm is noted, preparations of Convallaria, coated Pills, and typical specimens illustrative of the new *American Pharmacopœia*, such as Tinct. Ipecac. cum Opio (a fluid representation of Dover's powder), Fluid Extracts, and a complete series of the "abstractions" or powdered alcoholic extracts of Aconite, Belladonna, etc., now officinal for the first time.

A large display of Schiefflin and Co.'s Soluble Pills and Granules in Tasteless Coating was made by Messrs. Allen and Hanburys, who are the London agents for these preparations, and whose name alone may be said to afford a guarantee of their purity and excellence. Since the introduction of these pills into this country by Messrs. Allen and Hanburys, they have met with success second only to that which they have acquired in the United States, and are largely in use by the profession of this country. The number of formulæ is very extensive, embracing most of those pills in common use among the profession.

Messrs. Southall Brothers and Barclay, of Birmingham, exhibited a variety of pharmaceutical preparations and surgical dressings. The Non-Alcoholic Tinctures of this firm were a source of attraction. They are being made at the suggestion of Dr. J. J. Ridge, Physician to the London Temperance Hospital; and, from their appearance, flavour, and taste, they seem to compare favourably with the spirituous tinctures of the *British Pharmacopœia*. The Metallic Oleates were shown in two forms, the ointment and the powder. As the metals in these oleates are chemically combined, they have many advantages over the ointments in general use for skin-diseases. A prominent place was given to a series of samples of the Fluid Extracts of the *United States Pharmacopœia*. The uniformity and concentration of these extracts are very desirable features. Among the new remedies were Kaineir, Paraldehyde, Sodium Nitrate, Chinoline, Naphthol and Menthol, and a large number of new drugs from Africa and North America. Malt Oatmeal, a new dietetic; Southall's Soluble Meat, and Aquarium Sea-Salt, and other leading specialties manufactured by this firm, were also on view. Antiseptic and Absorbent Dressing Pads, Gauze-Tissue, and Millboard have been very favourably referred to in Mr. Sampson Gamgee's new work on the *Treatment of Fractures*, and need no further recommendation. The "Ladies' New Sanitary Towel," and a variety of Pills, Suppositories, Bougies, and Cones, were also in this display.

Messrs. R. Sumner and Co, wholesale druggists, of Liverpool, had a full and handsome exhibition of new drugs and preparations, together with a few of the more familiar specialities of their house. Among these were the scarlet seed of the Jequirity (*Abrus precatorius*), of which great things are hoped by ophthalmists in the cure of chronic granular conjunctivitis; Convallaria Majalis, the newly introduced substitute for digitalis; Cascara Sagrada (*Rhamnus Purshiana*) popular as a remedy for habitual constipation and dyspepsia; Grindelia Robusta, which this firm claims to have been the first to introduce pharmaceutically into this country, for the relief of asthma, bronchitis, and the cough of phthisis; Liquor Santali Flavicum Cubebâ et Buchu, perfectly soluble in water, a valuable preparation and very reasonable in price; Pulvis Anthemidis cum Papavere, to be applied in the form of a poultice, as hot as possible, in lieu of the usual fomentations, (we commend this particularly to the notice of our readers); Jamaica Dogwood Bark-Coated Pills, equal to any we have seen, both for finish and quality; Liquor Hypophosphitis Compositus (Iron, Lime, Soda, and Magnesia), being a carefully studied improvement, in point of permanency, of the preparation introduced by Dr. Churchill.

Messrs. Symes and Co., of Hardman Street, Liverpool, displayed a large and varied selection of new drugs and preparations. In addition to the Brazilian drugs, Arauroba, Caroba, Carnauba, Baycuru, Guaco, Sayuya, etc., imported by themselves, there were Fluid Extracts, Tinctures. etc., prepared from the same. Their well known Lac Bismuthi, Lac Bismuthi et Cerii, Hydrobromic Syrup of the Hypophosphites, and some fine specimens of Crystallised Metallic Bismuth, occupied a prominent position. Chrysophanic Gelatine, for the more cleanly application of the remedy in psoriasis, ring-worm, etc., also Chrysophanic and Iodoform Pencils; Eucalyptus, Terebene, Carbolic, and other Pastilles; Hypodermic Injections of Ergotine, Atropine, Curarine, Caffeine, Apomorphine, Strychnine, etc., mostly put up in tubes of six in each pocket-case, either of one kind or assorted; a series of American fluid extracts; the recent remedies Cusca, Coto, Cheken, Euphorbia, Pilulifera, Jequirity, Gum Augico, Paraldehyde, Convallamarine, Salicylate of Copper, Salicylate of Eserine, and a variety of the more modern antiseptic dressings, were specially noticeable. They also showed Chemical Chests for medical students, as used in the Liverpool School of Medicine, Microscopes and Microscopic Apparatus, and many other articles.

Messrs. Symes and Co., also acted as agents for Messrs. Wilson, and Son, of Harrogate, and exhibited for them Dr. Oliver's Urinary Test Papers. They are extremely sensitive, are put up in a con-

venient form for the pocket, and the practical demonstrations of their usefulness attracted considerable attention.

Messrs. John Weiss and Son showed a very interesting collection of instruments, etc. We noticed, as especially worthy of comment, a series of Lithotrites with bladder-aspirator and cannulæ complete, as used by Sir H. Thompson in performing the operation of lithotrity at one sitting; and also a set of Professor Bigelow's instruments for the same operation; there were also a collection of Electro-Motor "Percuteurs" of various sizes, as used by Dr. Mortimer Granville, in his treatment of nervous affections and neuralgia, by vibration; these were especially noticeable for their ingenious construction. A small Electro-Magnet, with a variety of poles to screw into it for searching for pieces of iron and steel, both in the cornea and in the vitreous chambers, and spoken of by Mr. McHardy, in his paper read in the Ophthalmological Section, would be found very useful to a surgeon practising in the neighbourhood of iron-works; there was also a variety of Galvanic Batteries of the newest construction, with Leclanché elements. A complete set of Aural Instruments and a Cabinet for Eye-Instruments, suitable for an ophthalmic hospital, maintained the reputation of this firm for excellence of workmanship, and were moderate in price. A small Amputation-Case which contains, among other instruments, a ten-inch amputating knife, suitable for the thigh, and a butcher's saw, both of which fold up into half their usual length, would be found especially convenient to a surgeon having to perform an operation at a distance from home. Among the smaller instruments was a set, mentioned by Mr. Folker, of Hanley, for the Subcutaneous Ligaturing of Varicose Veins, and also a very ingenious Needle-Holder for use in obstetric operations, by the same gentleman; we also noticed one or two other needle-holders, which, from their capability of holding a needle firmly in any position, would be very useful, either in any special operation, or in surgery generally. In conclusion, we may mention their ingeniously constructed Hypodermic Syringe, which, by screwing the barrel firmly between two washers, and thus doing away with all cement, reduces the chance of leakage round the mounts (a fruitful source of vexation and annoyance to those who have had any experience of these instruments) to a minimum; the substitution of their patent piston for the ordinary leather one makes these useful little instruments durable. A very portable Stethoscope was shown, in which the stem divides in two and fits into the ear-piece, reducing this usually inconvenient instrument to such a size that it can be easily carried in the waistcoat pocket.

Messrs. White and Wright, of Liverpool, had a large and excellent display of every description of Truss, with or without springs, Artificial Legs, Hands, and Arms, Leg-instruments and Spinal Supports, Magnetic Belts, Bands, and Magneto-electric Machines.

Messrs. Wood and Son, of Manchester, exhibited their patent Axilla-rests or Self-adjusting Spinal Supports, which remove all pressure from the cartilages of the vertebræ, enabling persons suffering from injury, weakness, or deformity, to sit upright with ease and comfort; also Dr. Roberts's Respirator-Inhaler, designed to facilitate the use of topical applications to the respiratory tract, and the administration of remedies by absorption through the pulmonary surfaces.

Messrs. Wood and Abraham (Liverpool) exhibited—1. A complete set of Grinding Tools, illustrating the manner in which Wood's spectacle-lenses are ground to the required curvature for focus. These included every kind of lens—spherical, convex, and concave, and sphero-cylindrical—in every possible combination. 2. Samples of Spectacle-lenses in various stages of their manufacture. 3. Oculists' cases of Trial Lenses. 4. Optical Model of the Eye, illustrating the action of various lenses upon the image falling upon the retina, for demonstration. 5. Snellen's Phakometer, or Lens-measurer. 6. Wood's improved Spectacle-frames, for accurately centering the lenses on each individual face. 7. Wood's Self-recording Aneroids and Thermometers, as used in collieries, etc. 8. Wood's Medical Microscopes.

Messrs. James Woolley, Sons, and Co., of Manchester, showed an elegant case of specimens; among which were Syrupus Hypophosphitum Neutralis, and Syrupus Tonicus—the former a neutral syrup of the hypophosphites, the latter a substitute for the changeable preparation known as Easton's syrup, being of greater stability than the latter. Their Concentrated Mixtures for Dispensing, which only require to be diluted to be ready for use, attracted great attention. Their Ointments, made with the basis minerolin, are elegant, and of a good consistency. Among their more recent and special preparations, we noticed Ammoniated Chloroform, Iodoform, Paraldehyde, Æther Nitrosus, Ferri Phosphas, and Sodæ Phenatis Solutio; also Akolethe, a solution of the sedative principle of opium and the active principle of copaiba. Messrs. Woolley also showed their Coated Pills, and their Sanitary Rose Powder—a preparation of boracic acid, which we recently noticed in these columns.

Messrs. Wyley and Co., of Coventry, showed samples of their special Preparations and new Remedies, including their new Dry Powdered Extract in accordance with the Sixth Decennial Revision of the *Pharmacopœia* of the United States. The following is the mode of preparation: The drugs are in each instance exhausted with alcohol; and the alcoholic percolate is placed upon sugar of milk, and allowed to evaporate spontaneously, in a warm place, in a dish covered with muslin. The product so obtained is mixed with sufficient sugar of milk to make it equal to half the weight of the drug originally taken. Their exhibits further included Belladonna and Capsicine Friction-Cakes, Cascara Sagrada, Convallaria Majalis, Hypodermic Ergotin Tubes, the use of which has been found an economical and reliable way of employing the drug; Galium aparine; attention has been directed to this plant by Dr. Quinlan as a valuable remedy for chronic ulcers, and by Dr. Charles Boyce as a valuable local application for cancer. This firm also exhibited their preparation of Kairin, an artificial alkaloid, suggested as a new febrifuge, prepared after the method of Dr. O. Fischer, of Munich, and being chemically the hydrochloride of oxyethyl-quinolinhydride; Liquor Cerii et Bismuthi Comp.: McDade's Compound for Syphilis; Menthol Cones; Mistura Bismuthi Comp.; Oleates of the more active alkaloids; and Verbascum Thapsus, put forward as a new remedy for pulmonary consumption.

THE SANITARY EXHIBITION.

THE novelty and interest of some of the sanitary articles attracted many visitors. Baby-clothes, that were new, but not greatly to be commended; and a gymnastic costume for girls, highly to be commended, but scarcely a novelty in dress, were shown. Gibbs's Weatherproof Down-cast Ships' Ventilator, which is now used on many steamships, was exhibited; and the firm also showed a ship model, with the apparatus applied. Its object is to maintain thorough ventilation during rough weather. The Exhaust Roof-Ventilator, which has been employed at the Liverpool Children's Infirmary and elsewhere, and methods for the ventilation of houses, were shown by the same firm. Of hospital beds, and invalid chairs and couches, there were a great variety. Amongst them may be noted Groves's ingenious Self-acting Sick-bed, which has been used with advantage for some months in the Bristol Royal Infirmary. The dejecta of a patient are guided by a water-box, through which a current of water flows from a receptacle at the head of the bed, into a vessel or container beneath. Leveson's Invalid Perambulators were admired, rather for their excellent workmanship than for their novelty; but Welton's Invalid Bedstead, by which the sick, injured, or bedridden can be elevated without disturbance, attracted considerable attention. This bedstead is used at Middlesex Hospital, and is to be tried, we are informed, at the Liverpool Royal Infirmary. Armistead and Nelson and Son, of Leeds, exhibited several handsome Stoves and Grates, adapted with the Coal-Economiser which Mr. Pridgin Teale, the President of the Sanitary Section, has invented and perfected. "Sanitas" was, of course, well to the fore. Sanitas holds its ground as a valuable disinfectant, which has been tried and approved. As an effective means of disinfecting a sick-chamber, it leaves nothing to be desired. Sanitas oil acts not only as a powerful antiseptic, like carbolic acid, but also as an oxidant, like permanganate of potash; but it is free from the poisonous properties of the one, and the stain left by the other. It may be sprinkled over linen, carpets, bedding, and furniture, without injury to either; and, at the same time, removing a very possible means for the spread of infectious disease. It has been largely used in hospitals and *post mortem* rooms, with the best results. The sanitas preparations include soaps, furniture-cream, tooth-powder, toilet or nursery powder, toilet-fluid, and antiseptic gauze, with a disinfecting fumigator, which is also beneficial in the treatment of sore-throats, diphtheria, etc. Sanitas has, it is stated, been adopted for use by no fewer than six hundred of the more important local boards of health, besides vestries, hospitals, and workhouses, in this country alone. Pyridine, a new aspirant for antiseptic fame, was exhibited by Overbeck of Liverpool. This disinfecting powder, which apparently consists of a mixture of carbolic acid and cresylic acid with creasote, chalk, and a small proportion of "organic alkaloid," is said to have been ordered in quantity by M. de Lesseps to be used in Egypt.

Mr. Greenway's well-known method of Hospital Construction was exhibited both in model and drawing, and was discussed by Captain Galton in his address. On the walls were a series of ten sketches and diagrams of hospital construction, by Mr. Snell, which were exhibited at the late International Congress. Owing to the excellence

of the design of many of the drawings, and to the fact that the Royal Infirmary of Liverpool is about to be rebuilt, this exhibit proved of special interest. A sketch of the drainage of the Liverpool Hospital for Women, by Dr. Imlach, and a capital drawing of Types of Defective Drainage, by the Northern Sanitary Association, were also much noticed. Outside the building, in the yard of the College, Dr. Scott's valuable Hot-Air Disinfecting Chamber, which can be used either with gas or coal, was exhibited by Messrs. Maguire and Son of Dublin. Every town ought to be supplied with one of these for disinfection of clothes during epidemics of small-pox, scarlatina, etc.

On the last day of the annual meeting, a demonstration was given, in the yard, of the Fleuss apparatus, for breathing in an atmosphere of smoke or under water, concerning the value of which a circular was recently sent to owners of coal-mines by the Secretary of State. An air-tight box, seven feet high, with a window at each of its four sides, was filled with dense smoke. A representative of Messrs. Ihlee and Horne, having put on the face-piece of the apparatus, and with a store of compressed oxygen in a metal knapsack upon his back, entered the box, expressing his readiness to remain there four hours, if necessary. But, in twenty minutes, the curiosity of the spectators, among whom were many medical men from coal-mining districts, to see how he was faring (for the density of the smoke made the windows useless), became so great, that the box was lifted up from the tray of water in which it had been placed to prevent any escape of the smoke, and out from the irrespirable atmosphere stepped the experimenter, none the worse for his sojourn. The apparatus consists of a copper cylinder, in which is sufficient compressed oxygen to serve for about four hours. Fixed above the cylinder is a vulcanite trough, with four communicating partitions, packed lightly with tow and caustic soda. A bag fitting over the chest communicates, by two valved tubes, with the oxygen-cylinder and with the vulcanite trough, and, by a third tube, with a well-fitting mask for the face. The supply of oxygen is regulated by a screw-handle. The breath is exhaled into the trough, where the carbonic acid and moisture are taken up by the caustic soda. The nitrogen passes on to the bag in front of the chest, where it mixes with fresh oxygen and is again inhaled. The rapidity with which the apparatus can be applied, and the ease with which its use can be learned, were remarked by the spectators. But it was generally agreed that, for the saving of life after a coal-mine explosion, it would be necessary for the searcher to carry with him one or two smaller or lighter forms of the Fleuss apparatus, with sufficient oxygen to last perhaps half an hour. One of these would be readily applied to a half-suffocated miner, until further help could be obtained.

The collection of Ambulances was complete in its kind; and the rival merits of the various carriages and litters were discussed by numerous surgeons attached to hospitals where accidents are treated and by members of the committees of those hospitals.

Dr. Howard's Ambulance, which has attracted much attention at the Fisheries Exhibition, was shown by Messrs. Burt and Co.; and another, built upon the same principles, but smaller, lighter, adapted to be drawn either by an attendant, or a pony or donkey, and, we may add, cheaper, was exhibited by the same makers. The body of this ambulance is hung very low, so that the attendants can easily step in with their burden. Both were admirably constructed; and the lighter one would make a convenient invalid-carriage for anyone who must "take the air" in a reclining position.

Messrs. Rea and Co. showed a Hand Ambulance of somewhat peculiar construction, the body of the vehicle being moulded to the figure of a man of average dimensions, and composed of the splint-material for which the firm is eminent. It would, no doubt, be useful in special cases.

The Committee of the Liverpool Northern Hospital exhibited a One-Horse Ambulance Carriage for non-infectious cases. It will carry two patients on stretchers, two seated, and two attendants. Beneath the driving-seat is a large box containing surgical appliances. This ambulance has already proved of great service to the town during the short time it has yet been in use; and it is hoped that the Royal Infirmary will soon be supplied with one.

IRISH GRADUATES' ASSOCIATION.

THE annual meeting was held at the College, Shaw Street, Liverpool, on Wednesday, August 1st; Professor G. F. Yeo, M.D., of London, in the chair. There was a good attendance of members. The principal business was the reception of the annual report, the election of the President-elect (Professor W. Stokes, M.D.), the presentation of the new rules, and a motion approving of the refusal by the Vice-President (J. T. Banks, M.D.) of the offer of knighthood, which had been recently made to him. The usual financial report was presented, and votes of thanks were passed to the late President, E. Waters, M.D, the Committee of Council, and the Honorary Local Secretary. In the evening the members and their friends dined at the Adelphi Hotel (the party included several ladies). The five time-honoured toasts of the Association were given and received with the usual vigour, and the health of the President was proposed by Dr. Strange, and was drunk with musical honours. A pleasant evening was spent, and the party subsequently separated to attend the *soirée* of the British Medical Association.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

STANLEY HOSPITAL, LIVERPOOL.

CASE OF CLONIC SPASMS OF FACIAL MUSCLES OF THE RIGHT SIDE, WITH INTENSE CONCURRENT PAIN: RECOVERY.

[By JOHN BARK, M.R.C.S.E., Honorary Surgeon to the Hospital.]

W. O., aged 30, a Welsh farmer, was admitted into the hospital May 11th, 1883, with spasmodic twitchings of the muscles of the right side of the face, occurring every few minutes, and accompanied by severe neuralgic pain. He described the affection as starting about fifteen years ago. He remembered that, soon after sleeping under a hedge all night, he felt what he described as "sensations of pins and needles" over the right side of the face. This gradually increased in severity; and soon the muscles of that side began to twitch, and pain accompanied the spasms, which occurred about every five minutes. This state of affairs continued for about ten years; it then ceased (with slight intermissions) for about two years, but returned after this period with increased strength, and remained up to the date of his admission, he being under medical treatment the whole of the time.

His appearance, on admission, was very striking; his anxious, haggard countenance gave him the appearance of a man of sixty years. At intervals of about five minutes or less, twitchings over the right side of his face, extending from the right temple to the angle of the mouth, with apparently agonising pain, were plainly visible.

The same day (May 11th), I cut down on the right facial nerve, and removed a portion of the trunk, which I succeeded in reaching as the nerve enters the parotid. The temperature that night went up to 102° Fahr.

May 12th. The temperature had fallen to 100° Fahr. He passed a good night. There was no twitching or pain in the parts supplied by the facial nerve; still some pain over the infra-orbital region.

May 13th. Temperature was normal. The wound was looking well. He still complained of slight infra-orbital pain. He ate and slept well.

May 18th. The infra-orbital pain still continuing, I to-day cut down on the infra-orbital nerve, as it emerged from the foramen, removed a piece, and at the same time divided the vessels.

May 20th. He slept well (twelve hours), The infra-orbital pain was gone, he had no return of twitching. The patient said he "felt better than for many years." The wounds were healing.

May 27th. All pain and twitching were gone. He complained of numbness of the upper gum of the affected side.

June 15th. The wounds were healed. There was no pain nor twitching. He had marked facial paralysis of the right side; he expressed himself as "quite well, having now some comfort in living."

I hope to keep this man under observation for some time. It will be interesting to note whether, after removing a piece of the nerve, union again takes place; and also whether division of the facial, as well as the infra-orbital (which is the nerve usually divided in these cases), will prevent the recurrence of the symptoms.

VACCINATION.—Mr. W. D. Jefferson, of the No. 1 district of the Ripon Union, has been awarded the Government grant of £12 5s. for efficient vaccination.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 25th, 1883.

THE MEDICAL ACT AMENDMENT BILL.

THERE was an ominous gathering of the representatives of the medical corporations of the sister kingdoms in the lobby of the House of Commons on Tuesday evening, when the fate of the Medical Bill, for this session, was to be decided. It is a rule of the House of Commons, that no Bill can be brought on for second reading after half-past twelve, if any member have inscribed his name in opposition to it; and the process of moving that a Bill "be read that day six months or three months," is part of the familiar process of blocking legislation. Such were the tactics adopted by the representatives of these corporations on this occasion.

The Medical Bill was once again set down for its second reading on Tuesday night; and it was well understood that, the session being about to close, this was the last occasion on which it could be so brought forward with any prospect of being subsequently considered in Committee; and it was known that, if the Bill were not brought on for second reading before the prescribed hour, it must go over till next session. On the other hand, it was announced by the Government that it was their earnest intention and desire that the Bill should have its second reading, and be considered in Committee. There were six blocking notices, however, five of which had been put on the paper by honourable members on behalf, it was understood, of medical corporations in Glasgow, Edinburgh, and Dublin, whose claims to representation had not been met in a manner satisfactory to them.

It is useless to indulge now in idle regrets, and it would be still more purposeless to employ recriminatory language in respect to the course pursued by those who considered that the maintenance of the particular interests represented by them, should go to the extent of completely blocking legislation, and should not be confined to efforts in Committee to obtain the amendments which they considered important. By the profession at large, and by the Association as a whole, it will undoubtedly be seen with profound regret, that once more the dissensions of corporations, and their individual eagerness to obtain full satisfaction of their several views respecting the number of representatives due to each of them in the formation of a new Council should have carried them so far as to lead them to obstruct a Bill to the principle of which the profession at large has given its earnest and wide-spread assent and support. The Prime Minister, the President and Vice-President of the Privy Council, were fully in earnest in the matter; and only the lamentable state into which the business of the House of Commons has drifted, over which Mr. Gladstone took occasion, in the early part of the evening, to utter an eloquent and forcible lamentation, prevented this measure from passing through its second reading, and receiving this session that consideration in Committee which was its due, and which the Government intended that it should have. It was agreed, however, on all hands, that it was impossible to hold the House together more than another week; and the Medical Act Amendment Bill has fallen a victim this year to that insatiable loquacity of members over which the Premier uttered his lamentations. The House of Commons is no longer the efficient legislative instrument that it was until recent years for fulfilling the will of the people, and for carrying out the legislation the country demands; and to this unfortunate state of legislative inefficiency the Medical Bill has perforce been sacrificed for the time being. It may, perhaps, be doubted whether the corporations in question have in this instance acted with the most prudent regard even to their own interests; for it is well known that the Government, anxious to pass a measure on which infinite pains and trouble have been bestowed, is often inclined to make much greater concessions in the last days of the session, when time is a matter of great importance, than it is willing to make at an earlier period of the session, when there is no such pressure. This pressure of time was a potent ally to the corporations on this occasion, if they had known how to use it; and parliamentary tacticians will, we are inclined to think, look upon the action of the corporations in blocking the second reading as a tactical error, even if it were not an error in principle of a larger kind.

It is, of course, certain that a Bill on which the Government has bestowed so much labour, and which has been brought forward by a great department as a measure of the first importance, will be revived at an early period of next session, and care will, it is understood, be taken that the time bestowed and the labour expended on it shall not again be wasted, but that it will be carried through its stages at an early part of the session, when the same opportunity of frustrating legislation by measures of obstruction will not again be afforded. Under such circumstances, it is frequently found that the concessions which might have been secured under the influence of pressure of time cannot be again relied on. The tale of the Sibylline Books is one which is frequently repeated in parliamentary history; and it may be thought that those who have secured a temporary victory by blocking the second reading on Tuesday night will not in the end have succeeded in advancing the individual interests which they prize so dearly, although they have succeeded for the time in frustrating the efforts of the profession at large and of the Government in promoting a much needed reform in medical education and registration. Lord Carlingford and Mr. Mundella have, we are told, received upwards of twenty-five deputations on this subject. The measure itself was drafted upon the report of the Royal Commission, which succeeded a laborious inquiry of a Select Committee of the House of Commons, and with the advantage of reference to several previous Bills which had been introduced on the subject, some of them the work of the official draftsmen of previous Governments. Thus, the measure may be considered to be one which had been most minutely and maturely considered, and there is no reason to suppose that, when brought forward next year, it will materially differ from the form in which it left the House of Lords. For the present, however, we need only express the well-founded hope and conviction that the labour bestowed on this measure by the Government, and the attention which has been given to the subject by the Association and the profession at large, will be rewarded, and that an effective act of legislation may be accomplished early in the ensuing session.

THE NEW BY-LAWS.

THE meeting at Exeter Hall, on August 17th, to alter the Articles of Association of the British Medical Association, and to pass the new set of by-laws, had a representative but not very numerous attendance. In all, there were 70 members present, of whom 29 were provincial, and 41 metropolitan members. The meeting was thus representative in its character, although the smallness of the attendance afforded another indication of the fact, that those who take an interest in the question of these changes in the constitution are active rather than numerous. In the absence abroad of Dr. Waters, President of the Association, the chair was taken by Mr. Wheelhouse, Chairman of the Committee of Council. The proceedings were conducted with order and expedition, considering the large

amount of business transacted, and the illimitable field of discussion opened in the course of the passing of a whole body of by-laws, any one of which was open to change on the spot, at the caprice of the moment, and on the impulse of passing suggestion. The danger of hastiness in such a matter, and of introducing considerable changes at the last moment without preliminary notice, or careful thought, after so much previous discussion had been gone through, was obvious; and of this the meeting became very plainly sensible, when that view of the subject was presented to them. Hence, although numerous and varying suggestions were made, changing in their character through many phases, in the end the by-laws were adopted, with little, if any, substantial variation in the form in which they were approved in the preliminary discussions at Birmingham and Liverpool. Opportunity was, however, given to those who had amendments on the paper which were negatived at Liverpool, to rediscuss them; and to those who did not find an opportunity of bringing them forward, the occasion was afforded for presenting their propositions and arguing them at length. Some of these suggestions, after discussion, were withdrawn, and others were referred to the Committee of Council, or its successor, the new Council, for their consideration.

The general result of the new by-laws will be to give to the Committee of Council (now the Council) a constitution more directly and largely representative of the Branches, omitting that element in the Committee of Council, which formerly existed, of representation of the General Council, irrespective of Branches. That also was, in some sense, a Branch representation, since the twenty members so added were elected out of the General Council, which was itself a body elected by the Branches, in proportion to their constituent numbers. The directly representative character of these twenty members was, however, to some extent marred by the fact that they were practically, for the most part, nominated by the Committee of Council itself for election. The General Council, a bulky, intermediate, and not very useful body, which usually met only on the occasion of the annual general meetings, and which had little but formal business to transact, has been swept away. The Committee of Council ceases to exist as such, and becomes itself the Council; and it will be constituted of the President, President of Council, Treasurer, and Vice-Presidents (the latter being the past Presidents of the Association), of one representative from each Branch, and an additional representative for every complete number of two hundred members in a Branch. The total number of the Council will not be considerably increased, nor probably will its individual constitution largely differ from that which has heretofore obtained; but there will be that difference which always arises from directness of electoral mandate. Springing directly from the Branches, without any intermediary, and elected by the Branches for this particular purpose, the new Council will consist of a body of representatives who will be annually responsible to their Branches for the steps taken, and whose mandate will be annually renewed by their constituencies. It was pointed out at the previous meetings by Dr. Strange, the late President of the Association, and others, that the new constitution makes no provision for the representation on the Council of unattached members of the Association, of whom, it is stated, there are three thousand, and by no means the least distinguished. Their claims to representation had been ineffectually urged on former occasions; but the proposition, put forward anew at the meeting last week, by Mr. Rivington, met with a more cordial reception; and, after some discussion, in which the objections urged chiefly related to difficulties of mechanism rather than to questions of principle, the whole matter was referred to the new Council for their consideration. Some of the chief difficulties to be overcome are difficulties of time and place, distance, and, to some extent, expenditure. On some former occasions, the opinion had been expressed that, as it was in the power of these gentlemen to enfranchise themselves by paying the small annual fee involved in registering themselves as Branch members, the omission to pay such registration-fee, and to have themselves elected as members of a local Branch, might be held to imply an indifference to the exercise of this particular function of voting at the election of members of Council; and it was urged, also, that there would be no small difficulty in arranging the machinery by which such gentlemen should vote. If by voting-papers, this would be costly, tedious, and open to troublesome inaccuracies, owing to the difficulty of obtaining an accurate register of the movements of many unattached members; while a further difficulty would be felt should the voting take place at the annual meetings of each Branch, as the unattached members would in that case, for that purpose only, have to attend the meetings of a Branch with which they were otherwise unconnected, and in the other proceedings of which they could take no part and felt no interest. Against this, it was urged that the mere fact of their being invited to attend such meetings might be a means of inducing a proportion of the unattached members, who omitted to join Branches rather by carelessness than of set purpose, to become full members of the Branch. The question is evidently one of some complication, and requires careful consideration, in respect both to its own merits and in relation to whatever mode may presently be adopted for electing the representatives of Branches on the Council in accordance with the new by-laws. Much important work of a technical but fundamental character still remains to be done in arranging some scheme by which an equitable and uniform method may be adopted throughout the Association of electing, at a given date, the members of the new Council which will next year succeed the Committee of Council as the governing body of the Association.

This question, and various matters referred from the meeting on Friday, will give the administrative body of the Association at the outset work of a complicated and delicate character; and it may be hoped that it will prove itself at least as well able to carry on the administration of the Association as the representative body which, after being renewed many years, has now undergone reconstitution. Although changed in name, and, to some extent, in mode of formation, the new body will retain among its members a very large proportion of its older members, and of those who belonged to it under past methods of election. In virtue of this process of development and renewal, with the retention of the elements of its past vigour and success, the new Council of the Association has every prospect of being able to carry on the affairs of the Association with increasing success, and in a manner conducive to the prosperity and welfare of the professional body which it represents and governs.

THE JUNIOR MEDICAL SERVICE OF INDIA.

As in some sense guardians of the interests of the younger members of the profession, we feel bound to invite intending candidates for admission to the Indian Medical Service to look carefully into the conditions offered by the India Office, before they commit themselves to accept service in the medical department of the Government of India. The cry that reaches us by every mail from India is, that the promises under which young medical officers took service have not been fulfilled. It is to no purpose that the representative of the India Office in the House of Commons shows, or thinks he shows, that the misapprehension lies with the young medical officers themselves. Be this as it may, if candidates for the medical service of India at the coming examinations are successfu in obtaining appointments, they cannot, like those who have gone before them, plead ignorance of the terms of their covenant. We are far from advising young medical men against seeking a career in India; but this we do say, that we have been at pains, in common with the whole of the medical press in England, to clear away misapprehensions, and to explain the acts, whatever the words of the Indian Government may be, and that we consider all who after this go to India on the terms offered, do so with their eyes open, and are by so doing, estopped from coming before the public with complaints and lamentations hereafter.

Let no young Indian surgeon suppose for a moment that, when he goes to India, he will, as soon as he has passed the prescribed examination, draw 400 rupees *per mensem*. Nothing of the kind. He must be prepared to live as best he may on 286,10 rupees for probably five or six years. This, with a curious infelicity of language, is called "unemployed pay," as we have again and again explained; but do not let him lay the flattering unction to his soul that, while in the enjoyment of this handsome allowance, he is to be his own master until employment comes with better pay. He will find that a paternal Government has no notion of leaving young medical men to waste their talents on the desert air. Very much the contrary; abundant opportunities for "practice" will be provided. We all know the words put into the mouth of Mr. Cross to minimise as much as possible the facts that were too strong for plain denial. Mr. Cross's answer may or may not have satisfied his questioner; it certainly did not satisfy the recipients of "unemployed pay," or the well-informed independent press of India. Here are some facts, more trustworthy than the specious "explanations" of Mr. Cross. For most of them we are indebted to the *Pioneer*, one of the leading journals of India, confirmed by a mass of evidence from other sources with which our table groans. Mr. Cross with truth said in the House of Commons that the staff-corps pay of a subaltern is 256 rupees; while the "unemployed pay" of a doctor, who ranks as a captain, is 286,10 rupees. But he did not say, what he must very well have known, that not one probationer for the staff-corps, during his years of probation, draws the pay specified without receiving an extra officiating allowance. The Bengal Army List, published on March 31st, shows that 65 per cent. of the Indian medical officers of five years' service were drawing "unemployed pay." The *Pioneer*, drawing its information from the above-named official source, thus shows up the treatment doctors receive at the hands of the State, compared with the more favoured combatant ranks of the staff-corps, although, it is hardly necessary to point out, a very large proportion of them are no more "combatant" than the medical officers. Indeed, such of the staff-corps as are on civil employment are a thousand times less exposed to the risks of service in the field than medical officers, who, although technically termed non-combatants, are, in addition to the grave risks incident to their own profession, exposed to all the dangers of the battle-field. We commend this extract to the careful consideration of intending candidates for the honour of serving the Government of India, once distinguished for the liberal treatment of its medical servants, but now content to rank among the hardest taskmasters of the medical profession.

According to the *Bengal Army List* for March 31st, 1883, there are 264 subalterns in the Bengal Staff Corps; the date of the first commission of some of these officers is as recent as August 1879. There are also 15 probationers admitted provisionally; all the first commissions of these officers date between 1876 and 1879. There are, in addition, 115 probationers, whose first commissions date from 1874 to 1881, and the dates of their appointment on probation from 1880 to March 1883. In the whole of this list of 394 subalterns, not one officer is without some permanent or officiating post, either as squadron officer or wing officer, officiating squadron officer or officiating wing officer, etc., or in civil employ. The last 32 officers on the list all hold officiating appointments only. Turning now to the list of surgeons in the Indian Medical Department, page 258—all of whom, be it remembered, rank as captains, though no captain in the Bengal Staff Corps is drawing less than 374 rupees Staff Corps pay *plus* 100 rupees as wing officer—we find that there are 85 surgeons whose commissions date from, or later than, March 31st, 1877, and 64 from, or later than, March 1878. Of the 21 medical officers who have more than five years' service, five hold full charges, and four officiating charges in the Military Department; eight hold full, and four officiating charges in civil employ. Of the 64 medical officers who have five years' service or less, 30, or 47 per cent. "attached" to regiments—that is, while more or less employed—are drawing unemployed pay, 286,10 rupees. Twelve of these surgeons have three or more years' service. Eleven other medical officers are shown as not even "attached" to regiments, being merely located at stations where they probably have nothing to do while drawing unemployed pay. Thus, out of 64 medical officers, 42, or 65.6 per cent., are shown as having no charges, while one surgeon holds charge of a Transport Corps. Eleven medical officers hold officiating charges of regiments, four have full charges, and seven officiating charges in civil employ; only a little more than one-sixth of the whole number thus being in civil employ. In the face of these facts, what is Mr. Cross's statement worth?

L'UNION MÉDICALE ON QUARANTINE.

THE cholera epidemic of 1817, in Jessorah, took thirteen years to travel to Moscow, a distance of 700 myriamètres, or 4,300 miles. To-day, according to *L'Union Médicale*, but for the sanitary councils of Constantinople and of Egypt, which guard the gates of the East, cholera would go round the world in eighty days, owing to the marvellous development of means of locomotion. Yet England wishes to abolish quarantine, and is much more haunted by the nightmare of the red trousers entering the country by the future submarine tunnel than by the fear of an invasion of cholera.

The recent issue of *L'Union Médicale* contains an interesting account of "the little epidemic of 1882 in the Hedjaz," in which the value of quarantine, as at present carried out, is maintained in opposition to the views expressed in our columns. We willingly quote it in brief, so that both sides may be fairly represented.

It was during the latter half of October that cholera broke out in the Hedjaz, but, owing to interruption of telegraphic communication in Upper Egypt, nothing was known of it until October 31st, when M. Bimsenstein, sanitary delegate at Alexandria, was informed of it by the Austrian and English vessels, the *Memphis* and the *Lungshau*, which had left Jeddah on October 27th and 28th. All pilgrims returning by sea from Arabia were thereupon, or, more exactly, from November 10th, obliged to serve quarantine at El-Wedj.. Other pilgrims returned by the desert and by Damascus. From October 24th to the 26th there were eleven deaths from cholera, and the ceremonies of the pilgrims tended to a rapid extension of the epidemic.

From Mecca the pilgrims journeyed to Mount Arafat, a distance of forty-five kilomètres. There Adam and Eve met after a long separation; and there the faithful, with white linen about their loins, a scarf about their shoulders, sandals on their feet, and head uncovered, were engaged in religious ceremonies until the third day. Then they set out to return to Mecca through the celebrated Valley of Muna, where Satan appeared to Adam and was stoned by him, where the pilgrims halt for two days to throw each sixty-three pebbles, and to add a sacrifical victim to the putrefying heap, and where cholera is always rife. In this valley the mortality from cholera rose to 45. At Mecca they stayed ten days for religious devotions and to visit the Kaaba, and then prepared to return to their homes. The total number of pilgrims last autumn was about 30,000, of whom 2,868 only returned by sea to the Ottoman empire, or the basin of the Mediterranean, and 4,000 by the two caravans of Damascus and Bagdad. Those that returned by sea were obliged to remain in preliminary quarantine at El-Wedj for two weeks after the last case of cholera. El-Wedj is a salubrious little port 350 miles from Jeddah and from Suez. Thence they are sent to Djebel-For, where they submit to a new quarantine of ten days. This locality is less salubrious than that of El-Wedj. Finally, at Suez, the vessels have a sanitary inspection, and traverse the canal in quarantine, no pilot being allowed on board. On arrival at Bayreuth and at Smyrna, the Mussulmans are again subjected to a final quarantine in the lazarets of these two ports.

The sanitary condition of the shores of the Red Sea is satisfactory, but the land routes are not so easily guarded, and the banks of the

Persian gulf are unprotected. At Bassora, the English steam-vessel *Kaietur*, from Jeddah, disembarked 602 Persian pilgrims, among whom, according to Dr. Parnaki, seven deaths occurred during the voyage, and one while they were landing. The local medical men attributed the deaths to small-pox, but the Sanitary Council of Constantinople commissioned Dr. Zitterer to burn the clothes of the sick, probably choleraic patients, and to isolate them in a lazaret by a cordon of troops. Simultaneously, a rigorous quarantine was to be imposed on the land-caravans. These precautions have given satisfactory results, and the efficaciousness of the work of M. Fauvel, of M. Proust, and of the members of the Conference of Constantinople and Vienna, is once more demonstrated.

THE new *Journal* of the American Medical Association has commenced its career, and is well spoken of. We have not, however, yet received a copy of it.

AMONGST the Bills which received the Royal Assent on Monday, was the Diseases Prevention (Metropolis) Bill. So far as necessary, the Bill comes into operation at once.

THE Berlin Academy of Science has granted £300 to Dr. Earning of Breslau for researches on the leprosy epidemic in the Sandwich Islands.

THE French sanitary mission, placed under the direction of Dr. Straus, physician of the Paris Hospital, arrived at Alexandria on August 15th, and at once commenced its work.

THE medical expedition, consisting of four members, which has been appointed by the German Imperial Government to inquire into the causes, prevention, and cure of cholera, left Berlin on August 16th, *viâ* Munich and Trieste, for Alexandria.

THE death-rate of Hove, for the midsummer quarter, was 14 per 1,000, compared with 12 per 1,000 for the previous quarter, and 14 for the corresponding quarter of 1882. There were only 8 deaths (or 10 per cent of the total) of infants under 1 year of age. Two fatal cases of diphtheria were recorded, but none of any of the other zymotic diseases.

THE FIRE AT A LUNATIC ASYLUM.

DR. DIPLOCK, the coroner for West Middlesex, has intimated that he can hold no inquest upon the human remains found amongst the ruins of Southall Park Asylum, as these are too scanty to admit of any identification. A private inquiry into the circumstances of the fire will, however, be held by some of the Lunacy Commissioners.

INTRAPERITONEAL INJECTIONS OF ALBUMINATE OF IRON IN CHRONIC ANÆMIA.

PROFESSOR VACHETTA has injected into the peritoneal cavity of dogs a solution of 2 grammes of citro-ammoniated albuminate of iron in 5 cubic centimètres of water. The fluid was quickly absorbed, and never caused peritonitis. Twenty-four hours after the injection, traces of iron were detected in the urine. The quantity of hæmoglobin and the number of red corpuscles in the blood were soon increased; and Professor Vachetta says that injections of the iron solution into the peritoneal cavity have the same effect in chronic anæmia as those of blood, while they are less difficult and less dangerous.

ELECTRO-DIAGNOSIS.

ELECTRO-DIAGNOSIS is a comparatively new development of medical science and art, and one which demands no small refinement of knowledge and practice. It has been cultivated in this country with much success, especially by some of the younger school of physicians, notably by Ferrier, De Watteville, and Hughes Bennett. It is rapidly becoming indispensable to the correct diagnosis and treatment of many forms of nervous disease. We see with pleasure that Dr. A. Hughes Bennett's treatise on *Electro-Diagnosis in Diseases of the Nervous System* has been translated into German by Dr. W. Dietz of Halle. It is published by the firm of Wilhelm Knapp.

MEDICAL MISSIONS TO EGYPT.

AT the same time that the members of the sanitary mission, charged by the French Government to study cholera in Egypt, embarked on the *Scamandre*, Dr. Mahe, physician-general of the navy, a member of the Sanitary Council of Constantinople, started also with a special mission from the French Government to investigate the relations which, by affiliation, exist between the cholera actually present in Egypt, and Asiatic cholera prevalent in India; that is to say, to endeavour to collect evidence on behalf of the French Government as to whether the outbreak originated in Egypt, or was imported from India.

ST. JOHN'S HOUSE.

THE following statement will be read with interest. On Saturday, the late superior and sisters of St. John's House vacated the house in Norfolk Street, which has been the headquarters of their good work for so many years. As a necessary consequence of this, the nursing of Charing Cross Hospital passes out of their hands, the agreement for nursing having been made with the council of St. John's House, which refused to cancel it and allow the sisters to continue the nursing. The sisterhood has, however, established itself at Gunter Road, Fulham, and the ladies have prospects of good work before them. The authorities of St. John's House seem to be working very energetically, and to anticipate being able to carry on as well as heretofore, notwithstanding the loss of those who made St. John's what it was. They have always extolled the work of the passed-away sisters, and seem to hope that the mantle of the old may fall upon the new sisterhood. The members of the old sisterhood have been requested to leave their crosses and dresses at St. John's House.

THE BRITISH MEDICAL ASSOCIATION IN AMERICA.

THE *New York Medical Record* publishes in its number of August 4th an excellent summary of the proceedings of the recent meeting of the British Medical Association at Liverpool, forwarded by daily dispatch through telegraphic cable. The outlay on this enterprising report must have been considerable, and we may refer to it with satisfaction, not only as an admirable example of journalistic enterprise, but as a striking evidence of the strong and growing feeling of sympathy and international interest which characterises the relations of the profession in Great Britain and America. The *Medical Record* speaks in terms of the most courteous compliment and congratulation of the organisation of the British Medical Association and its results, and refers with special satisfaction, and in eulogistic terms, which we recognise gratefully without reproducing to the words in which the health of our guests was proposed at the annual dinner, and the warm friendship felt and shown towards our American guests. Mr. Reginald Harrison's Address in Surgery is reproduced in full in the pages of our contemporary, and also in the *Boston Surgical and Medical Journal*, from advanced sheets. The President's Address, and Dr. Creighton's Address in Pathology, are printed in full in the *New York Medical Record* of August 11th.

THE NORFOLK AND NORWICH HOSPITAL.

THE new buildings of the Norfolk and Norwich Hospital, the foundation-stone of which was laid by the Prince and Princess of Wales in July 1879, were opened on Monday last by the Duke and

Duchess of Connaught. Their Royal Highnesses were attended by a numerous suite; and there was a large attendance of the gentry and local persons of influence, as well as of the leading members of the medical profession. The Earl of Leicester having offered the thanks of the governors of the hospital to their Royal Highnesses, the Duke of Connaught formally declared the new buildings open. The singing of the Doxology, and the Benediction, which was pronounced by the Bishop of Norwich, concluded the ceremony. Their Royal Highnesses proceeded to inspect the occupied wards, as well as the west portion of the hospital. They next visited the bazaar which is being held in the east portion of the institution with the view of raising £5,000, the sum still required to clear the new buildings from debt, their total cost having been about £57,000.

THE BISHOP OF PETERBOROUGH.

In our issue of the 4th instant, we gave a brief account of the illness of the Bishop of Peterborough up to the twenty-seventh day. At that time, the large peritoneal abscess which had formed deep in the epigastrium, had discharged itself into the bowel, leaving the patient very prostrate, and suffering from delirium, high temperature, and other indications of irritative fever. These symptoms continued for some days; and on the thirty-first day a fresh accession of pain, and an increase in the epigastric tumour, indicated that the abscess was refilling. At the end of twenty-four hours this aggravation of the symptoms again yielded, and there were other indications that the abscess was again discharging into the bowel. From that time, the constitutional condition has steadily improved; and, during the past week, the temperature has never risen more than one degree above normal. The sac of this abscess, and surrounding exudation, has, moreover, diminished, so that it is only perceptible on deep pressure, instead of forming, as it originally showed itself after the disappearance of the effusion and tympanites caused by the general peritonitis, a tumour larger than a full sized cocoa-nut. The Bishop is slowly regaining strength, and is now, on the forty-second day of the illness, able to sit up in bed, supported by pillows, for a few minutes at a time. The digestive functions are also gradually recovering themselves; and the alarming depression of the circulation has almost entirely disappeared. There is now, we trust, every prospect of the Bishop's recovery, although it is obvious that, until the absolute disappearance of the local mischief, an element of danger must still remain.

SANITARY CERTIFICATES OF HOUSES.

Ultra-official caution was perceptible in the answer given by Mr. Russell to a question asked by Mr. Anderson, on Monday afternoon, with regard to certificates by sanitary officials as to the wholesomeness of houses. There is, without doubt, a strong desire on the part of householders and house-hunters to be fortified by an authoritative statement as to the reasonable wholesomeness of the houses they inhabit or propose to inhabit; and a certificate to this effect could be best and most cheaply obtained from the local sanitary officials. It is no answer to say that, if such certificates were granted by the authority, they might subsequently be hampered in their action by the fact of the certificate having been given. What s desired is that there shall be some inexpensive and expeditious manner of assuring oneself that the sanitary arrangements of a house are not elaborately contrived as disease-traps; and the average householder, despite sermons and warnings to the contrary, still declines to master the principles of drainage, and prefers to have his sanitary inspection done for him. This being so, it is clearly worth while to encourage the making of such inspections by an authority fairly free from bias, and not committed to the puffing of some patent appliance, without which the home can in no event be safe from the irruption of sewer-gas. The suggestion of the Local Government Board as to the possibility of the work being done by the sanitary officials out of office-hours, is not a strong or worthy proposition; and we trust that they will, on reconsideration, take a larger view of the matter.

DIPHTHERIA AT CALNE.

The outbreak of diphtheria at Calne, which has not been of such a serious character as was at first supposed, is now virtually at an end. Dr. Campbell, the health-officer of the district, has prepared a special report on the subject, which, however, includes only those cases occurring in his own and another medical man's practice. The first case. which seems to have been imported, was heard of on May 16th, and on the same day another case was discovered in a different part of the district. Between May 16th and June 6th there were several cases of inflammatory sore-throat, which could not properly be called diphtheria; but on June 6th the child of one of those who had a sore-throat was attacked with true diphtheria, and died, followed in a few days by two more cases in the same house, one of which proved fatal. Two other cases appeared on June 6th, in different parts of the town, but Dr. Campbell was unable to find that there had been any communication between them. After that date the disease made its appearance in upwards of twenty families in various parts of the district, and caused four deaths, attacking children and young adults, varying in age from 2 to 20 years. A considerable number of cases occurred among school-children, and the closing of the schools seems to have exercised an important influence in limiting the spread of the infection. Dr. Campbell attributes the outbreak to sewer-emanations from the street-ventilators, and he again urges the necessity of providing further ventilation. This subject has more than once been under the notice of the sanitary authority, who should no longer hesitate to take prompt measures for the abatement of a serious evil.

THE ODOURS OF WESTMINSTER.

It is somewhat surprising that attention has not before been called in the House of Commons to the sewer-emanations which must make themselves unpleasantly perceptible to the olfactory nerves of members on their way to the House. There is one sewer-grating in the middle of the road immediately opposite the gates of St. Stephen's that must offend even the most hardened nose; and yet it was not until Thursday last week that Mr. J. G. Talbot felt emboldened to inquire of the President of the Local Government Board, whether his official virtue was not shocked by the existence of such a state of things. Sir Charles Dilke's reply was studiously obscure. He was careful not to explain, as he might have done, that the sewers in the neighbourhood of Whitehall are laid at such a level that there is practically no chance of any reasonably rapid flow of sewage along them. This has, to some extent, been the cause of the unsanitary state of the new Government offices, to which attention was recently again directed at Liverpool. It does not clearly appear from Sir Charles Dilke's reply who are the "authorities" responsible for looking after these sewers; but it is certainly a remarkable commentary on our London system of Government, that such a state of affairs should exist in the place where beyond all others sanitary perfection might have been expected.

AMBULANCE WORK AT THE ISCHIA DISASTER.

We have just received a report of the ambulance organised for the sufferers at Casamicciola, by the Neapolitan Hospital for Incurables. The corps consisted of six medical men, including Professor Porro, who had the direction of the party, a dispenser, a male nurse, and eight servants. Other relieving parties were of course also sent out, and all did their duty nobly. But the resources of any organisation would be strained to their utmost by so great a catastrophe. The injured and the dying, strewn in every direction, were lying crushed beneath their fallen homes; throughout the day heavy thunderstorms raged; and falling walls added to the difficulty and to the

danger of the task. We are not surprised that Professor de Giacomo, who writes the report, had to lament the inadequacy of the means of succour. This was, no doubt, unavoidable; and might, perhaps, have been the same even if all the relieving parties had been under one administration, instead of several. The report gives few medical details, but it impresses upon us the horrors of the situation, and the bravery and unwearied devotion of all who were able to stretch a helping hand to the unfortunate sufferers.

PREVALENCE OF CHEST-DISEASES AT HUDDERSFIELD.

In his last quarterly report on the health of Huddersfield, Dr. Spottiswoode Cameron draws attention to the large mortality from chest-diseases. There were 198 deaths from consumption and diseases of the breathing organs last quarter, against 134 in the same quarter of last year. This is even an increase upon the number of deaths from the same group of diseases in the first quarter of the present year. Moreover, of 204 cases from the home-patient department of the infirmary, living within a mile of the centre of the town, and attended by the house-surgeons of the institution, 70, or more than a third, were cases of lung-disease; and of these 14 were cases of consumption, and 56 of other diseases of the air-passages. Of these 56, 26 are described as pneumonia, or inflammation of the lung, of which two are classed as bronchopneumonia, though probably more should come under that category. Although pneumonia is sometimes now looked upon as a zymotic disease, it is worthy of remark that no two of those 26 cases occurred in the same house. There can, however, Dr. Cameron thinks, be very little doubt that some common conditions are at the bottom of the great increase in the prevalence of this disease, and some of these conditions will probably be found in the peculiarities of the season. The range between the day and night temperatures of the air was unusually high during the quarter, averaging during the three months 18°. In one week, the average diurnal range of thermometer was as great as 23.8°. This great diathermancy of the atmosphere is probably due to the small quantity of moisture in the air, and implies a rapid radiation of heat. This free radiation of heat from the body, and the sudden change of temperature at night, have probably had much to do with the heavy sick and death-rate from lung-disease during this and the previous quarter. The death-rate from this group of affections, in the whole borough, was 7.41, against 6.27 in the same quarter last year, 6.06 in 1881, 5.67 in 1880, 8.40 in 1879, and 7.63 in 1878, or 0.6 per 1000 higher than the average of the corresponding quarter of the five previous years.

THE HEART'S SYSTOLE.

At the Physiological Society of Berlin, on July 13th, Dr. Martius spoke on the nature of the heart's systole, more particularly as to whether it was a simple or a tetanic contraction of the heart's muscle. For some time, many experiments have been made on this subject with the neuromuscular apparatus, but, no secondary tetanus having been produced by the application of this physiological electroscope, it was concluded that the systole was not tetanic, but a merely simple contraction. It was, however, soon observed that other contractions, unquestionably tetanic, such as the voluntary tetanus, the strychnine tetanus, etc., generated no secondary tetanus, or, at all events, not in every case. The absence of secondary tetanus in the case of the heart's systole was, therefore, no conclusive proof of the simple nature of this contraction. Dr. Martius accordingly sought a more decisive means of settling the question, through the aid, namely, of the capillary electrometer; having first, however, made sure of the capability of the instrument he employed to follow with ease and certainty undulations of current of much greater frequency than occur in the case of the natural tetanus, and reaching as high as forty per second. The capillary electrometer having then, by means of two needles thrust into a normal rabbit's heart *in situ*, been circularly closed, it was found that each systole responded by a merely simple displacement of the meniscus. The systole was consequently determined to be no tetanic, but a purely simple, contraction. Dr. Martius further described the following method towards an exact enumeration of very frequent vibrations of the capillary electrometer, which, to the eye, present merely the vanishing rim of the quicksilver cup. Fasten to the lever of a chronometric electro-magnetic tuning-fork, instead of the pencil, a square piece of paper, performing a known high number of movements per second. The square piece of paper will then appear to stand still, and to have a grey border on its upper and under side. Next place this grey border between the ocular of the microscope and the meniscus. If the meniscus make just as many movements per second as the square piece of paper, the quicksilver cup will appear to stand still. If, however, the number of movements do not tally, the difference between the two will then be apparent, and easily counted; and, the number of movements on the part of the paper being known, the actual number of the movements of the quicksilver is also determined.

THE LONDON WATER-SUPPLY.

Some steps really ought to be taken to put a stop to the offensive danger to the public health from the immense dust-yard at Battersea, which is allowed to remain within a few yards of the filter-beds of the Southwark and Vauxhall Water Company. So long ago as 1872, serious complaints were made of the nuisance caused by the process of dust-sifting there; and Mr. Netten Radcliffe was deputed by the Local Government Board to inquire into the subject. On the first day of his visit, Mr. Radcliffe found from twelve to fourteen women at work, sifting three days' accumulation of dry house-refuse. "The odour given off by the refuse during this process was penetrating and offensive in the extreme, clinging long afterwards to the nostrils, and affecting the palate most unpleasantly. Notwithstanding that a slight southerly wind was blowing, when I approached the dust-heaps from the works of the Southwark and Vauxhall Water Company, the odour was offensively perceptible from the northern portion of the embankment of the nearest filter-bed, about one hundred and thirty feet distant.....With reference to the Water Company's works, the nuisance is peculiarly serious; for, during northerly and north-westerly winds, the pungent dust thrown up in the process of sifting must be scattered widely over the water in the filter-beds." Such are the words of the report; and it seems almost incredible that, although nearly eleven years have elapsed, no steps have been taken to remove a nuisance so obviously dangerous to the purity of a public supply of water. Attention has recently been again directed to the subject in the House of Commons, and the Local Government Board have promised to communicate with the Water Company on the subject—though this does not seem to promise much improvement. The whole affair illustrates very forcibly the helplessness of Londoners in matters intimately concerning their health and happiness, about which Sir William Harcourt was so sarcastic the other day.

JERRY BUILDINGS.

Thomas Barr, a builder, was charged at the Highgate Police Court, a few days since, for erecting some houses with mortar which was chiefly made with garden-mould. At the first hearing of the summons, an adjournment was granted, to allow the defendant to amend the bad work; but, instead of doing so, he had completed the houses and gone into liquidation. The district surveyor said that the houses were so badly built that they ought to be pulled down. Mr. Bodkin, the sitting magistrate, fined the defendant £2 for each house, and ten shillings a day since June 23rd, when the notice was served, making the aggregate penalties nearly £100; and advised that a summons should be taken out against the defendant to compel him to pull the houses down. If penalties such as these were often inflicted, this style of building would soon cease; but, although the

by-laws of the Metropolitan Board of Works are very stringent as to the composition of mortar, which should be made only of washed sand and lime, yet proceedings are rarely taken against builders in the metropolis. There is one advantage to the public as regards penalties ordered at police-courts—viz., that, in the event of their not being paid, or there not being sufficient goods on a distress being levied, the defendant will be sent to prison for a lengthened period, if the case be followed up. It is to be hoped that, although the defendant's affairs are in liquidation, he will not be allowed to get off without making payment of the penalties, or going to prison.

DISINFECTION OF RAGS.

AN agitation, based no doubt on the recent issue of the Government orders regulating the importation of rags from Egypt, has been set on foot for extending the provisions of such orders, or something like them, to rags of all kinds coming from foreign countries. Thus the Hull Sanitary Committee confirmed, at their last meeting, a report signed by the chairman, the town clerk, the medical officer of health, and the borough engineer, which stated that, although few rags from Egypt find their way to Hull, large numbers of bales from other countries, *e.g.*, Denmark, Germany, Belgium, Norway, and France are received there, and that the authorities have no power to prevent this importation. The committee recommended that ample powers should be conferred on local authorities to prevent possible introduction of disease by cargoes capable of conveying infection. Sir Charles Dilke, replying to Sir Stafford Northcote on the 15th instant, said that the question of restricting the importation of rags was under consideration; and, meanwhile, the Local Government Board have issued a memorandum by their medical officer, Dr. Buchanan, expository of the recent orders as to Egyptian rags, and Dr. Buchanan points out the importance of some place being ready for the first deposit of rags which may have to be landed. The health-officer will have to be guided by his own inquiries into the time of collection and characters of the rags, whether any bale shall undergo disinfection or be destroyed. As regards disinfection, the following measures are suggested. 1. The bale should be exposed to heat in such a way, that every article in it shall attain a temperature of 250° Fahr., and be kept at that temperature for two hours. The arrangement which gives greatest penetration of heat is the use of high pressure steam, more especially if the pressure be from time to time relaxed and reapplied so as to displace air. By this means it is possible to avoid so detailed a spreading out of the rags as would be requisite for efficiency with other processes. 2. The bale may be opened out and the whole of its contents be exposed to disinfection by a liquid agent; and this may either be water sustained for a while at boiling heat, or water containing in every four gallons one pint of the common clear solution of chloride of lime. In such chlorinated water, the rags should soak for some hours.

THE LOCAL GOVERNMENT BOARD.

THE announcement of the retirement of Mr. Edward Sutton from the service of the Local Government Board, after an official career of nearly forty-nine years, possesses in some aspects a peculiar interest of its own. Appointed in the very early days of the Poor Law Commissioners to a clerkship in their office, Mr. Sutton passed through a number of branches of the department, and finally settled down as superintendent of general correspondence, until the resignation of the late Sir Hugh (then Mr.) Owen gave him the post of chief clerk. Mr. Sutton's great experience in poor-law business led to his appointment to an assistant secretaryship, on the resignation of Mr. Francis Fletcher; and the exemplary manner in which he has performed his duties in that capacity, has recently led to the addition of a personal allowance of £100 a year to his salary. His retirement breaks one of the few remaining links with the past that the Local Government Board now has. In rapid succession, all those whose names have been chiefly identified with the administration of the Poor Law Board, and more recently of the Local Government Board—Sir John Lambert, Mr. Lumley, Mr. Henry Fleming, Mr. Danby Fry, Mr. Fletcher, Sir Hugh Owen, and now Mr. Sutton—have been removed, either by death or ill-health, from the sphere of active work. Their places have been filled by younger but, fortunately, able men. It is indeed a curious reflection that, when the Local Government Department was first inaugurated, and needed spirited and enlightened administration, it was governed by a set of seniors necessarily not remarkable for the elasticity and vigour needed to make a new department a success, and imbued with all the repressive prejudices of a poor-law career. These prejudices have gradually been broken down as time has gone on, and we have now a department administered wholly by what may be called "young men." The president of the Board is hardly in his prime; the parliamentary secretary had, until his appointment, quite a pleasant reputation for youthful exuberance amongst his compeers; the permanent secretary has indeed had considerable experience, but he began his career at the office at a very early age indeed; the counsel of the Board would still be regarded in barristerial circles as a "junior," though it must be confessed that the limits of age in a "junior counsel," are as indefinable as those of a "post-boy;" and at least two of the three assistant secretaries remaining may be plainly described as "young men." No department of State needs greater devotion and energy on the part of its officials than the Local Government Board; and it is but fair to say that, in the recent appointments at least, the best men have been selected for promotion, irrespective of outside influence. It is greatly to be hoped that the same course will be adopted in the case of the vacancy caused by Mr. Sutton's retirement.

THE CASE OF DR. CORY.

IT became necessary for Sir Lyon Playfair to ask a question in the House of Commons, some time since, concerning the case of Dr. Cory, before it was in a stage in which its circumstances could be fairly judged. But, a highly inaccurate account of the occurrence having been industriously propagated, it became necessary that an authoritative statement of the facts should be put on record in the most formal and public way. The circumstances of Dr. Cory's illness had not, at the time of Sir Lyon Playfair's question, been fully investigated by the Scientific Committee to whom the case was referred. This committee, consisting of Professor Humphry, Mr. Jonathan Hutchinson, and Dr. Bristowe, with Dr. Ballard, of the Local Government Board, as reporter, have now completed their report, which will be shortly published as an appendix to the annual blue-book of the Medical Officer of the Local Government Board. Measures will, we believe, be taken to secure the earliest possible publication of Dr. Buchanan's report. Anxiety on the point can only be allayed by prompt and full information. It may, however, be said, meantime, that Dr. Cory's inoculation of himself differed in essential respects from vaccination, as it customarily is and ought to be practised. His experiment had for its object a better understanding of the conditions under which syphilis could be inoculated by an operation professing to be vaccination. We are very happy to be able to add that Dr. Cory is greatly improved in health, and is now, indeed, nearly well.

ICES AND ICED DRINKS.

THE use of the frozen foods popularly known as ices, and of various beverages which have been reduced in temperature, by means of ice, to a degree of relative coolness nearly approaching their freezing point, is a widespread and fashionable custom in civilised countries. We are often asked, especially in hot weather, whether indulgence in such very cold foods and drinks be injurious or not, and, if injurious, in what directions their dangers are to be found. An off-

hand answer to these inquiries, based only on *a priori* physiological reasoning, is likely to be neither sufficient nor true. While the physiological objections to the use of ices and iced beverages are obvious, experience daily shows that these preparations are freely used by large numbers of persons, without apparent injury. But, while it is true that, for the robust, the physiological objection to the introduction of frozen or almost frozen bodies into the stomach is practically, and under ordinary circumstances, of little moment, it is unquestionable that weakly persons cannot swallow such very cold foods or drinks with impunity. Nor can a robust person, if his body be highly heated by exercise, and especially if he be also much fatigued, suddenly take a large quantity of an iced drink without peril. There is an immediate risk from shock, and a later risk from an excess of reactive hyperæmia in the stomach and its neighbourhood. The immediate peril from shock is probably, under the special circumstances we have indicated, the more imminent of the two forms of danger in question, because of the risk of serious cardiac depression, or even of cardiac failure, which may arise by reason of the contiguity of the stomach and heart, and of the participation of these two vital organs in a common and intimately blended innervation. The rule of practice to be gathered from these considerations is this. No one should drink freely of an iced drink when his body is unduly heated and fatigued; weakly persons should always use iced drinks sparingly, under any circumstances; while those disposed to cardiac failure or internal congestions should eschew such beverages altogether. It cannot be denied that iced beverages, even when taken in small quantities at a time, and ices, as ordinarily served, when consumed during or after a meal, tend to impair or arrest gastric digestion. For the process of digestion in the stomach, the contents of that viscus must be maintained at a temperature of about 100° Fahr.; anything below that temperature which enters the organ not only impedes digestion, *pro tanto*, by proportionately reducing the heat of the gastric contents, but also makes a distinct call upon the heating powers of the organism for the elevation of its own temperature to the point at which digestion normally proceeds. Another and a distinct risk to health in the dietetic use of ice, arises from the frequent employment of impure ice for the preparation of ices and iced beverages. This is a source of danger, the importance of which is very inadequately appreciated. It is still a popular fiction that impurities in some way separate from water as it freezes into ice, and that water-ice, as ice, must of necessity be pure, whatever the impurities of its source. Of course, this is not so. Ice not only includes all the suspended or dissolved impurities of the water from which it is derived, but it also probably perpetuates the vitality and activity of certain organisms which it may contain, by preserving them from decomposition. In hard winters, a great deal of impure ice is collected in this country from many questionable sources, and is sold and used for domestic purposes. None but ice of indisputable purity can be safely swallowed. We are afraid that large quantities of dangerously impure ice are distributed to the public by itinerant vendors of cheap ices, who, in warm weather, seem to drive a thriving trade in our streets.

THE INEBRIATE HOME AT FORT HAMILTON.

THE Fifteenth Annual Report of the Inebriate Home at Fort Hamilton, New York, is before us. This institution has an average of 133 patients—viz., 54 boarders and 79 indigent poor. The report contains much information in a small compass. The average stay of each patient in the asylum was over four months. During the year, 355 had been under treatment, of which it is reported that 131 were engaged in business, and doing well; 49 were unimproved; 104 had been lost sight of; and 71 were readmissions. The number of readmissions proves very clearly that the cases were not retained in the asylum long enough to effect the cure which the asylum has been established to promote. The report states that the apartments reserved for the paying classes have been filled during the whole year, proving that the home provides for a distinct want, and is doing its work very well, although there is no clause in operation as to compulsory residence. We are sorry to see in the list that the number of physicians (thirteen) using the asylum is higher than any other class except merchants, labourers, and salesmen.

TRICHLORIDE OF PHENOL.

THIS substance, which has been experimented upon by Dr. Dianin, and described by him in the *St. Petersburger Medicinische Wochenschrift*, is prepared by mixing carbolic acid and chloride of lime. Its antiseptic properties are said to be more active than those of any other substance used in medicine (twenty-five times more so than carbolic acid), and a small quantity stops fermentation. It is not only an antiseptic, but also a deodoriser, while its own smell may be disguised by oil of lavander. Dissolved in water, it does not cause irritation. Dr. Dianin recommends the use of trichloride of phenol in cases of soft chancre, diphtheria, and other gangrenous affections. Its sodium and calcium salts also exhibit antiseptic properties; the former has no smell, and the latter is cheaper than phenol.

SCOTLAND.

THE Chair of Physiology in Anderson's College, Glasgow, has become vacant by the resignation of Dr. Barlow.

IT is stated that a case of small-pox has occurred at a farm-house four miles from Kelso. The patient is a young lady who arrived a few days before from Birmingham.

THE election of a Professor to the chair of Medical Jurisprudence in the University of Aberdeen will take place on Tuesday, the 28th instant. The patronage is vested in the University Court.

SEVENTEEN applications have been received for the vacant post of Superintendent of the Aberdeen Royal Infirmary. Fifteen of the candidates are medical men. The salary is £250.

THE epidemic of scarlet fever, which, for some months, has been prevalent in the village of Kilbarchan, now shows some signs of abatement, no fatal cases having occurred for some time. The authorities, however, have very properly hesitated to re-open the public schools, and are having attention paid to the local drainage.

THE SANITARY INSTITUTE OF GREAT BRITAIN.

THE autumn congress for 1883 of this association, of which the Duke of Northumberland is president, will be held at Glasgow from September 25th to the 29th, in the St. Andrew's Halls; the exhibition in connection with the meeting being held in the Burnbank Drill Hall from September 25th to October 20th. The congress will be divided into the following sections: 1, Sanitary Science and Preventive Medicine; 2, Engineering and Architecture; and 3, Chemistry, Meteorology, and Geology. The president of the first will be Professor Gairdner, M.D., LL.D.; of the second, Professor T. Roger Smith, F.R.I.B.A.; and of the third, Dr. R. Angus Smith, F.R.S. Professor G. M. Humphry, of Cambridge, has accepted the post of President of the Congress. He will deliver his inaugural address on the evening of the 25th.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General, for the week ending August 11th, show the death-rate in the eight principal towns to have been 19.7 per thousand of estimated population. This rate is 0.4

below that for the corresponding week of last year, and 1.9 below that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 10.2 per thousand; and the highest in Greenock — viz., 28.4 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.6 per thousand, or 0.7 above the rate for the previous week. Diarrhœa and whooping-cough were the most fatal miasmatic cases. Acute diseases of the chest caused 54 deaths, or 22 less than in the previous week. The mean temperature was 56.2°, being 1.6° below that of the week immediately preceding, and 5.2° below that of the corresponding week of last year.

HAWICK COTTAGE HOSPITAL.

A FANCY "fayre" in aid of funds for the erection of a cottage hospital and dispensary in Hawick was held last week. The "fayre," which was opened by the Countess of Dalkeith, has been a most successful one, the receipts amounting to £1,240, the largest sum ever taken at a bazaar at Hawick.

ARBROATH INFIRMARY.

THE annual meeting of the subscribers to the above institution was held this week, the president occupying the chair. In the report submitted by the directors, it is stated that 177 patients had been treated in the house, and 214 in the dispensary department; in both cases there has been an increase of the numbers. Of those treated in the house, 122 were cured, 8 relieved, 4 made out-door patients, 26 died (many of whom were received in a moribund condition), and 17 remained under treatment. The income was stated to be in a satisfactory condition, as, after meeting the expenditure, there remained a balance of over £42. Several additions had been made to the endowment fund by legacies. The report was considered satisfactory.

THE COLQUHOUN BEQUEST FOR INCURABLES.

THE annual meeting of the above charitable trust was held in Glasgow last week. The accounts submitted show that the revenue of the trust for the past year, ending May 31st, 1883, was £911 15s. 11d.; that £857 8s. had been distributed, during the year, among the recipients on the roll; and that there was a balance on hand of £360 1s. 2d. The report stated that at present there were 126 persons on the roll, the average number during the year being 125, these having allowances ranging from £3 5s. to £13 *per annum*, being the minimum and maximum sums mentioned in Mr. Colquhoun's trust-deed. The recipients were visited once a month by ladies who had volunteered their services for this benevolent work. The capital of the trust now stands at £22,779, £75 having been added during the year; and £200 has been allocated to the revenue of the trust by the trustees of the late Mr. Thomas Muirhead, out of a bequest of £10,000 left by that gentleman for charitable purposes.

DUNDEE ROYAL LUNATIC ASYLUM.

A SPECIAL meeting of the directors of the Dundee Royal Lunatic Asylum was held last week, for the purpose of taking into consideration the finances of the Board, which are at present in an unsati factory condition. The chairman, Sir John Ogilvy, Bart., stated that the object of the meeting was for the purpose of laying before the Board a detailed account of the financial condition of the institution, with a view of devising some means of relieving it from its present difficulties. It was stated that a debt of £50,000 was secured over the properties of the old asylum, and over the new asylum; and that, in addition, there were floating debts, unsecured, of fully £10,000. Two propositions were made for meeting the difficulty. On was to promote a land-company for the purpose of utilising the properties of the old asylum, and thereby reducing the debt; the other was to appeal to the generosity of the public to provide funds for paying off the floating debt, thereby leaving the asylum, with only its secured debt, to work out, in a gradual way, ultimate relief. After considerable discussion, the meeting unanimously agreed to an appeal being made to the public.

A POLLUTED SPA.

A CURIOUS instance has just been brought to light of the contamination with sewage-matter of a well that has long enjoyed a high reputation for its salutary virtues. When visiting in the south of Scotland lately, Dr. Crichton Browne, who, like all good Scotchmen, is a devoted admirer of Burns, made a pilgrimage to the Brow Well, a small village on the shores of the Solway Firth, where the great national poet, by the advice of his medical attendant, spent the last fortnight of his life in a despairing effort to repair his shattered health. Struck by the character of the water of the Brow Well, and by the accounts which he received of its beneficial effects in gastric, renal, and nervous affections, Dr. Crichton Browne determined to have it analysed; and, for that purpose, sought the aid of Professor Dewar, at the Royal Institution. Professor Dewar's analysis shows the water to be of an unique description, and suggests that it may have valuable medicinal properties; but, at the same time, it reveals the fact that it is strongly tinctured with sewage. It seems probable that the drainage from the adjoining cottages and pigsties, and from the heavily manured lands in the neighbourhood, finds its way into the well. Professor Dewar thinks that it ought to be closed, in the interests of the community, until means can be taken to insure its purification. As large numbers of invalids resort to it at this season of the year, and drink freely of the water, of which the regulation quantity is six pints *per diem*, notice of its impurity has been given in the local papers; and application will be made to Lord Mansfield, on whose property the well is situated, to refuse access to it in the meantime, as it is feared that the class of people who are in the habit of drinking it would still continue to do so, in spite of its condemnation—trusting to their rustic tradition rather than to scientific experiment—unless forcibly excluded from it.

DR. JAMES ARROTT.

DR. JAMES ARROTT, who, until his withdrawal from the active duties of his profession, about two years ago, had been one of the best known medical practitioners in Dundee for a period of nearly fifty years, died at the residence of a friend at Almondbank, near Perth, in the seventy-sixth year of his age. He was a native of Arbroath, and studied at Edinburgh, settling in Dundee in 1831. Being endowed with great natural ability, besides having acquired a thorough knowledge of the various departments of his profession, he soon gained an extensive practice. Shortly after his settlement in Dundee, he began to devote his attention to the sanitary state of the town; and, along with Sir John Ogilvy and others, he took a leading part in the movement which culminated in the erection of the Royal Infirmary. After the establishment of the Free Library in Dundee, he was elected one of the board, and appointed chairman of the committee which had the selection of the scientific works. The interest he manifested in education was acknowledged by his election as a member of the first and second school boards, where his services were highly esteemed alike by his brethren in office and also by the community at large. The feeling of respect entertained for him assumed a practical form six years ago, when his numerous friends in Dundee presented him with his portrait, and also with a purse of sovereigns, in recognition of his professional talents and of the public services rendered by him over a period of fully forty years. During the whole course of his career, Dr. Arrott occupied a leading position

among his professional brethren, and always enjoyed a large practice. In later years, he devoted himself chiefly to the work of a consulting physician.

THE WORKING OF THE VACCINATION (SCOTLAND) ACT.

DR. RUSSELL, of Glasgow, has just published a memorandum in reference to defaulters under the above Act, which is of interest, as showing clearly that in a large city like Glasgow there is really no systematic opposition to vaccination, and that with a little extra attention on the part of the authorities, the numbers not availing themselves of the benefits of the Act may be very much reduced. Starting on the principle that the defaulters almost wholly belong to the class of the population who require special care and guidance in sanitary as in all social relationships, Dr. Russell has for some time availed himself of the assistance of the registrars of the different city districts, and has obtained from them lists of those children who were unvaccinated. These lists were each week distributed among the sanitary inspectors of the various districts of the city, who, while moving about in the course of their other duties, endeavoured to discover the whereabouts of the defaulters, for in nearly all cases they had left their original residences. Without going into details, it may be said that this plan has been found to work easily, and with very gratifying results; for it appears from the last published reports (1881) of the Registrar-General on the Vaccination Act, that the percentage of unvaccinated children in Glasgow has fallen to two per cent., while previous to the present arrangement it reached from three to four per cent. In other words, out of 19,076 children born in 1881 in Glasgow, only 382 escaped the operation of the Act, instead of from 600 to 750 at the proportion which prevailed previous to any interference. That this improvement is the result of the special effort made in Glasgow is shown by the fact that the proportion of children not accounted for under the Vaccination Act has increased in the rest of Scotland, *pari passu* with the diminution in Glasgow. The object of Dr. Russell in publishing his memorandum has been to obtain the sanction of the city authorities to the permanent establishment of this useful branch of work, by giving a small remuneration to the registrars for their extra labour in furnishing the necessary lists of defaulters. There should be no hesitation on the part of the authorities in granting Dr. Russell's request, and we should like to see his action in this matter followed in other Scotch towns and districts.

THE HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending August 4th, states that there were 453 deaths registered, which gives a death-rate of 23 per 1,000 living. Pulmonary diseases caused 125 deaths; representing a death-rate of 6 per 1,000 living, and constituting 28 per cent. of the total deaths. There were 38 deaths from diarrhœa, which is less than the usual rate of fatal diarrhœa at this season, and the cases were almost wholly confined to children. The number of deaths from fever was 4, viz., 3 from typhus, and 1 from enteric; and from the infectious diseases of children, 53, viz., 24 from whooping-cough, 15 from measles, and 14 from scarlet fever. This is the lowest number of deaths from measles since the outset of the epidemic in the spring. The chief features, however, of the report are the occurrence of 3 cases of small-pox, which were all removed to hospital from one tenement, in the northern district of the city, and a marked increase in the number of cases of typhus fever. It is not uncommon to have a larger number of cases of enteric fever at this season of the year, but it is unusual to have typhus to any great extent. During the past fortnight 29 cases have been registered, a number that has not been equalled for some years, not even in midwinter. The cases have arisen in all the different districts of the town. Dr. Russell seems to think that during the Fair the city is exposed to the collection of all sorts of wanderers in its midst, and that by this means the disease may have been imported by some of the numerous tramps who visit it at that time. Active measures are being taken to limit the spread of the outbreak by the removal of the sick to the hospital and the infected families to the reception-house, while their clothing and homes are being disinfected; but the efforts of the sanitary authorities are being hampered by the insufficiency of the accommodation at the reception-house. This want should be supplied at once, for, as Dr. Russell remarks, the activity of typhus in the city at this season of the year is ominous for the winter months.

IRELAND.

ROYAL UNIVERSITY OF IRELAND.

THE Senate will, at their meeting next October, appoint eight medical Fellows as examiners in anatomy and physiology, surgery, and medicine. The emoluments will be £100 *per annum* for each Fellow. Certain of the undergraduates of the University have forwarded a petition to the House of Commons requesting that the scholarships, exhibitions, and prizes of the Queen's Colleges may be thrown open to the competition of all the students of the Royal University without exception.

CHARGES AGAINST A MEDICAL OFFICER.

THE Lurgan Dispensary Committee recently met in order to investigate certain charges brought against Dr. Agnew, the medical officer of No. 1 Dispensary. It was alleged that he had neglected attending a child when dangerously ill; and, in another case, that he had refused to attend a woman in her confinement, so that the patient had to obtain the services of another medical practitioner. The Committee, having examined Dr. Agnew's accusers, and having heard that gentleman in reply, cautioned him to be more cautious in future, and believed that he was to blame in not attending to the sick girl at once. They also recommended that Dr. Agnew should pay the fee of the medical man who was called in to the woman in her confinement.

CHOLERA HOSPITALS FOR IRELAND.

IT would be difficult to cite a more striking instance of the extraordinary way in which legislation is now conducted, than the history of a Bill introduced by Colonel Nolan, Mr. O'Kelly, Mr. Findlater, Mr. O'Brien, and Mr. Macfarlane, for the ostensible object of enabling "sanitary authorities in Ireland to take possession of land for the erection of temporary cholera hospitals." The Bill in question provides that, "on receiving a certificate from a medical officer that a case of cholera has occurred within the sanitary district, it shall be lawful for the authorities of that sanitary district, having first obtained the consent of the Local Government Board, to take possession for a temporary hospital of any site within that sanitary district." The only notice necessary before taking possession is to post a notice on the walls of the union-house, or of any church or chapel within the district, and to serve a copy on the occupier. The Bill graciously permits compensation for disturbance to be given to the owner or occupier, and sets limits to the size of the site to be taken, and to its nearness to inhabited houses. So crude a specimen of legislation we have not seen for many a day, and yet the Bill has passed through all its stages. So far as we are aware, not a word of discussion has been raised concerning it in either House. It passed the crucial stage of committee in the House of Commons at half-past four in the morning of Wednesday week, and its other stages were got through at equally unseasonable hours. It is beyond comprehension how such a Bill should have escaped the criticism of Mr. Trevelyan; but, possibly, he may have felt that it was wisest not to risk another occasion for obstruction on the

part of the Irreconcilables by opposing a Bill which will, after all, be probably an absolute dead letter, and which the Irish Local Government Board have in any case the power of depriving of its sting.

HEALTH OF BELFAST.

DURING the four weeks ending the 21st July, 50 deaths from zymotic diseases were registered, also 50 from phthisis, and 84 from diseases of the respiratory organs, making 140 deaths from affections of the lungs. There were registered 515 births and 369 deaths, a number equal to a rate of 22.4 per 1,000. The health of the town during the month was satisfactory, and Belfast has seldom been so free as it was last month from any serious form of disease. Dr. Browne, medical superintendent officer of health, in reference to cholera, states that he is not very apprehensive of its introduction, and still less of its spread in this country. From his experience of the last two epidemics, he believes that there is but little danger of an outbreak of that disease occurring at the present time. Still he advises, and rightly, that every precaution should be taken. He adds, that there cannot be a question that the inhabitants of this and of every other locality have much within their own power in the prevention of infectious diseases. Personal and domestic cleanliness, proper clothing, the removal of filth of all kinds from the neighbourhood of human habitations, attention to the state of sewers and drains of houses, strict carefulness in both food and drink, and especially the avoidance of every species of intemperance, are the means by which the people may aid the sanitary authorities and promote their own safety.

QUEEN'S COLLEGE, BELFAST: ANNUAL REPORT.

BY a recent rule of the Royal University, all candidates for degrees in medicine are required, before being enrolled as medical students, to pass the first university examination in "arts." A number of young men who had intended to enter the medical classes of the college at the commencement of the session are thereby prevented from doing so. This is one of those evils which may be expected to arise from a system which converts an university into an examining board; and this evil in the present case was intensified by the regulation of the Senate that the examination shall be conducted in Dublin only. The President was so impressed with the impolicy and injustice of this regulation, that at the last meeting of the Senate he proposed a resolution, which was adopted, to the effect that the first university examination shall in future, so far as the written questions are concerned, be held not only in Dublin, but also at certain local centres, and that such candidates as shall be recommended for honours shall attend subsequently in Dublin for oral examination. Twelve women were last session admitted to the arts classes, being the first instance in which females have been admitted as students to an university college in Ireland. Last year there were enrolled three hundred students in the faculty of medicine, being a slight decrease as compared with the previous return, and accounted for by the new rule of the Royal University, requiring medical students to take the arts course for one year before entering upon their professional studies. The President, in his report, draws attention to the urgent necessity for increased accommodation in the college buildings, more especially in the departments of chemistry, anatomy and histology. A knowledge of practical chemistry, he remarks, is becoming more important every year, not merely to ordinary candidates for university degrees, but to those engaged in mining enterprises, manufactures, and the higher departments of agriculture. The professors of chemistry and medical jurisprudence are most anxious to give instruction, but they are prevented by the want of necessary space and appliances, They have no room for laboratory pupils, and those who desire to perfect their knowledge of chemistry are obliged to go to one or other of the great chemical schools of the Continent.

THE PREVENTION OF FIRE IN LUNATIC ASYLUMS.

IT is an ill wind which blows nobody any good; and the lamentable fire at Southall Park will, at least, have the effect of drawing both official and public attention to the prevention of similar catastrophes in the future in the lunatic asylums of this country.

It is impossible to approach a question of this kind, involving, as it does, so many interests, without a cursory allusion to the ethics of our lunacy system as at present constituted.

We must remember that, in providing means of escape from fire in asylums, we are, as it were, between the horns of a dilemma. Whilst considering the necessity for further means of egress in extraordinary cases, as when the house is attacked by fire, we have, at the same time, to remember that we are obliged to prevent insane patients from escaping from the asylum to the danger of the public, and from precipitating themselves from the windows with suicidal intention.

The modes of treating an outbreak of fire might naturally be supposed, by the public, to be the same in pauper county asylums as in private establishments for the insane. But it must be observed that, in a public lunatic asylum, the superintendent has the county purse at his back; he is responsible for a far larger number of lives; and he has, probably, a much more numerous staff of attendants within call than is the case at a private asylum. The public are under the delusion that the profits derived from such establishments are unusually large; but we have no hesitation in affirming that, considering the great anxiety attached to the treatment of such cases, and the fact that, in most well conducted asylums, the inmates get a great deal better accommodation for their payments than they could obtain were they sane members of society living in a boarding-house, it must be conceded that the profits of keeping a private lunatic asylum are relatively small as compared with those yielded by any similar commercial enterprise.

The question of the prevention of fire in lunatic asylums may be conveniently considered under the special heads of construction, means of escape, water-supply, and extinguishing appliances.

With regard to the construction of any building which it is proposed should be used as a private asylum, the first point is that it should be built of the least inflammable materials, both as regards its outer shell and its partition walls. In the late deplorable occurrence at Southall Park, we read that these party-walls were of wood only, and that in consequence the whole establishment was at once ablaze, from some unknown cause, like tinder. It might be said by the ignorant, that private asylums ought to be constructed especially for the purpose for which they are intended. But this would usually involve an outlay of capital only to be met with amongst millionaires, as, for instance, in the asylum built by Mr. Holloway. The most expensive part of an asylum is the wall surrounding the grounds, and in most metropolitan private asylums this has either been found ready made, or has been erected by the proprietor at an enormous expense. For this reason chiefly, and also for others, connected with outlay of capital, it has been usual to take a house as a private asylum, and, as the establishment became better known and more popular, to add wings to it for the accommodation of a larger number of patients. As long as private asylums exist, and there is at present no chance of their extermination, those who originate them or invest capital in taking them on from other proprietors, will prefer a house which is apparently appropriate to the purpose to building a new establishment possibly better adapted to the purpose for which it is to be utilised. Nevertheless, it is the duty of the Commissioners in Lunacy to both refuse licences to persons who will not provide security of construction, and also to take care that all alterations and additions to asylums should be of such a nature as to insure the perfect safety and comfort of the inmates.

It is true that this has been already done to a certain extent. The Commissioners employ their own architect, who subjects to the severest scrutiny any plans suggested by the proprietors for the improvement of any such building. For instance, he insists upon two windows to each new water-closet, at right angles to each other, a sanitary improvement unknown in the houses of noblemen. And those whose life and energies are expended in providing for the well-being of their patients, only know too well the difficulties and complications which have to be encountered when any new scheme for enlargement is suggested.

We may here say that, in our opinion, the Commissioners in Lunacy are overworked and underpaid. Were there twelve Commissioners in Lunacy, and were their salaries increased one-third

beyond the present remuneration for their services, we have no hesitation in saying that their hands would, even under these circumstances, be amply filled with work, and that they would not receive a farthing more than they deserve for the excessive quantity and high quality of the work performed by them during the year. One or two of these Commissioners should be architects of distinction and position, having a competent knowledge of sanitary matters. And we can see no reason why a qualification in state medicine, as for example, by the possession of a degree in this specialty granted by the University of Cambridge, should not be taken into proper consideration, *cæteris paribus*, in making the selection for these much-coveted appointments.

The modes of escape would come under the skilled eye of such a functionary. No wing should be allowed to be built without an exit separate from the main building. The windows should be so constructed that, whilst providing against the escape of patients by bolts, the keys of which must necessarily in some wards be in the hands of the attendants, they could nevertheless be forced upwards or downwards in an emergency. The sashes of some, if not all, the windows should be constructed of wood, of so light a material as to be easily smashed by the fists of even a woman in times of peril. Tubular fire-escapes would be almost universally useless in an asylum. Those who have daily intercourse with the insane know full well how, in many cases, it is difficult to persuade these peculiar people to dress, to undress, to eat, or to drink. Any slight operation upon them—as, for instance, the extraction of a tooth—is looked upon by them with suspicion and distrust. Ladders, however, should be available as a means of escape in all quarters of the asylum, guarded, under ordinary circumstances, by the vigilance of the attendants. Ladders to the roof, however, would be of no avail in most asylums, as these establishments are usually detached from other buildings, and do not, therefore, afford that mode of escape familiar to those who reside in houses arranged in connected rows.

As to the water-supply, every asylum should have a tank of its own, holding many gallons of water, which is easily filled by a series of pipes conveying the rain-water from the roof. The expense of hydrants would be something enormous, and would, moreover, involve the construction of a new main in the asylum. Besides this, it must be remembered that the supply of water from hydrants can only be obtained by means of heavy hose, which, in many asylums, especially in those only intended for ladies, could not be efficiently worked by female attendants. Fire-plugs might, however, be easily added to every asylum, inside the gates, so that any inmate who had been properly taught might lay on the water on an emergency.

For ordinary fires, hand-pumps might be employed, supplied with the usual complement of buckets and hatchets, according to the size of the asylum. These are far superior to any apparatus for extinguishing fire by means of chemicals, as, it is said, such appliances are apt to dry up, and get out of order; and they, moreover, require a special knowledge of chemistry for their keeping up and renewal.

But hand-pumps would be useless unless the attendants knew how to work them. There should be a regular fire-drill amongst the youngest and most active attendants in every asylum. These should receive an addition to their wages, and be given to understand that their appointment to these posts depended upon their efficiency, and sobriety of conduct. They might be originally trained by a skilled officer from the Metropolitan Fire Brigade, it having come recently to our knowledge that the officials of this useful body are willing to inspect asylums, and offer suggestions for apparatus and drill. The details of this arrangement can be perused at leisure by anyone interested in the matter, in the numerous circulars which are now being very properly sent round by promoters of such appliances. In them, we are told that the hose should always be kept screwed on to the fire-cock, with the branch pipe connected to the other end of the hose; that the water is to be turned on and the fire attacked as soon as possible. If the smoke be dense, a wet handkerchief is to be placed over the mouth and nostrils, and we are to crawl along the floor on the hands and knees, with the hose, to the burning part. The instructions go on to say that, every two months, the fire-cocks are to be tested, the hose to be taken out, thoroughly brushed, and dressed with oil supplied for the purpose; the branch-pipes and other gear to be polished, and care to be taken that all screws have their leather washers. Every six months, the hose is to be connected with the fire-cocks, and tested at the points where there is known to be the greatest pressure of water.

It may be remarked that at the Fisheries' Exhibition there are numerous appliances exhibited for extinguishing fire; and, should the asylum-proprietor desire to see and hear all he can in the matter, before making those improvements which we are confident he, as a conscientious man, will not neglect, he can easily obtain information from the *Fireman* newspaper, and also at the chief offices of the Metropolitan Fire Brigade, where, we are bound to say, our inquiries have received the greatest courtesy and attention.

Should a proper supply of the above mentioned hand-pumps be inadequate for the intended purpose, it appears to be a simple matter to communicate with the nearest fire-station, which, in these days of telegraphy, speaking-tubes, and telephones, ought to be within easy reach.

We doubt not that, from the remarks we have put forward above, immediate steps will be taken both at public and private lunatic asylums to inspect apparatus already existing, to ascertain that it is in a proper working order, and to rectify any deficiencies which may exist in the arrangements for extinguishing fire in such establishments.

THE MEDICAL SERVICE OF INDIA.

THE Secretary of State for India announces, in an official communication to Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee of the British Medical Association, that the general question of the organisation of the Indian Medical Service is, at the present moment, under the immediate consideration of the Government of India, with the view of removing, as far as possible, the inconvenience found to exist under the present system. This communication is in reply to a statement of the grievances of the service laid before the Secretary of State for India in Council on July 19th.

EGYPT AND THE CHOLERA.

[FROM CORRESPONDENTS IN EGYPT.]

Cairo, August 21st.

MANY contradictory statements have occurred in the English papers as to the means taken by the authorities here to meet the cholera epidemic. A little exact information as to the constitution and acts of the sanitary authorities is desirable among the English profession.

The Conseil de Santé et d'Hygiène Publique is the permanent council of health for the whole of Egypt. It consists of a president, H. E. Salim Pasha, M.D. (Berlin); a vice-president, Dacarogna Bey, M.D. (Paris), (these must needs be M.D.s); and the following members: Dr. Grant Bey; Dr. Essa Bey, Director of the General Hospital and Medical School; Dr. Ahmed Bey Hamdy, Sanitary Inspector for Cairo; Dr. Abd'-er-Rahman Bey, Professor of Medicine; Dr. Cassan Bey, Surgeon-in-chief to the Egyptian army; H. E. Rousseau Pasha, Director of Public Works; M. Grand Bey, Director of the Voirie (streets, etc.); and of the chief veterinary surgeon, chief chemist, and the public analyst of Cairo.

This council has jurisdiction over all Egypt, not over Cairo alone, as has been supposed. It is a consultative body, without executive power. It can only get its decisions enforced through the Minister of the Interior, Khairy Pasha; and many of its suggestions are never carried out, and there is no power to enforce them. At present, the council maintains an uninterrupted sitting, some of the members being present at all times of the day. Telegraphic and other communications continually come in from the provinces, and generally immediate action is taken in reference to the supply of extra medical men, chemists, medicines and disinfectants. Here are prepared the daily tables of mortality from cholera, which are printed in the official journal. I have the assurance of the English Vice-Consul that these tables are trustworthy and reliable as far as concerns the large towns. Absurd exaggerations have appeared in the English papers as to the mortality in Cairo.

The other permanent sanitary council for Egypt sits at Alexandria, and is called the Conseil Internationale Maritime et Quarantinaire. It consists of a president named by the Government (H. E. Dr. Hassan Pasha Mahomed); an European doctor, who is inspector-general of the maritime service; the sanitary inspector of Alexandria, the chief physician of the Alexandria General Hospital; a physician chosen by Government from the hospital physicians; the veterinary inspector of Lower Egypt; the Director of

Customs; controller of ports and lighthouses; controller of Alexandrian harbour; and delegates of the European powers entitled to be represented. Dr. Mackie, C.M.G., is the delegate for England. This council regulates all the Egyptian ports with respect to quarantine and other sanitary matters.

At the present time, on account of the cholera, there is an extraordinary sanitary commission, which at first met in Cairo every day, now every other day. The minister of the interior, Dr. Khairy Pasha, is the president, and its members include the Khedive's ministers resident in Cairo, Sir Evelyn Wood, Baker Pasha, Dr. Salim Pasha, and Surgeon-Major Hunter. This commission, by means of a subcommittee, superintends the disinfecting of streets and houses, evicting tenants, burning infected Arab hamlets, and establishing hospitals. There is a similar extraordinary commission at Alexandria.

In company with the Sanitary Council, Mr. Leslie, and Drs. Acland and Gulliver, I lately made the tour of the two principal cholera hospitals, and was convinced that the Conseil de Santé had done something to meet the epidemic. These hospitals afford abundant room and ventilation, and are, for the most part, very clean. The women are, however, less well cared for than the men.

There is some surprise expressed here that the medical men sent by the British Government are, several of them at least, young and inexperienced in cholera. They are, however, doing good work at the hospitals and elsewhere, infusing energy into Egyptian methods of doing business. Mr. Armand Leslie has just been appointed a member of the Conseil de Santé, in order to act as corresponding intermediary between the council and the English envoys.

There has been much uncalled-for blame cast on the commission sent from Cairo to Damietta at the outbreak of the disease. Dr. Mackie has charged the commission with having hastily decided that the disease was Asiatic cholera without thorough examination; and, further, has blamed them for not staying longer to investigate the origin of the outbreak. One of the members of this commission was Dr. Grant Bey, whose experience of cholera far exceeds that of any other English medical man practising in Egypt, he having worked all through the epidemic of 1865. Dr. Grant, though he only stayed twenty-two hours in Damietta, spent more than sixteen hours in visiting the cases of cholera, and walking about the town to see what sanitary measures were needed. He was specially deputed by the Minister of the Interior to find out what the disease was. He and his colleagues, including the members of the Alexandria commission, which met the Cairo commission in Damietta, all agreed unanimously that the cases they had visited were Asiatic cholera. Having settled this point, which was their principal object, they further gave directions for improving the sanitation of the town, and preventing the spread of the disease. They did not stay longer to investigate the origin of the cholera, for most of them had large practices which they could not neglect, and had also to perform more important public duties, in the way of preparing the country to meet the epidemic. I may mention that the English vice-consul, Mr. Borg, has prepared most careful statistics of the present epidemic, classifying the mortality in different districts of Cairo, and separating the sexes. He has added meteorological data, and has compared the weekly mortality with that of the epidemic of 1865. These statistics will, it is to be hoped, be published by the Foreign Office in a separate blue book. They show that Boulak and old Cairo have had far the highest mortality of the various districts of Cairo, and they make it probable that the mortality of the present epidemic will be found much lower than that of 1865.

[From another Correspondent.]

Alexandria, August 11th.

The telegrams in the daily papers keep you informed of the progress of the epidemic. The total number of deaths from cholera up to date, as reported by official bulletins, is 22,146, for the whole country; the proportion for Cairo being 6,282; for Alexandria, 168. The sum total no doubt far exceeds the figures given; not that I believe there is any intention on the part of the authorities to conceal facts—but simply that it is impossible to get returns from small outlying villages, and many deaths are concealed by the people of the villages, in many of which there are no doctors. With regard to treatment, the methods and medicines employed have been many and varied; but I am afraid that when reliable facts as to results come to be collected, the success attending treatment in severe cases will be as disheartening as in all previous epidemics. We hear daily of medical men having had a "great success" with certain treatment; it is at once taken up by another, who tries it in a series of severe cases, and finds it to fail; and the conclusion is forced upon as that perhaps the cases which recovered under it, would, in good constitutions, under favourable circumstances, and with good nursing, have got well without it. The tendency of all cases of intestinal disease to take on a choleraic form is, as usual, well marked.

Case I.—A. M., mechanical engineer, aged about 40, in rather delicate health, lately arrived from England, came under treatment in hospital, about seven days ago, for acute dysentery, but had been under treatment for a few days before. His temperature from the time of admission varied from 101.5° to 102.5°. The stools were very bloody, and often resembled beef-washings. They amounted to from twenty to thirty in twenty-four hours. Yesterday he seemed improved, and slept several hours during last night. Early this morning he suddenly became cold; and when I saw him he presented a distinct facies choleraica. His hands were cold, the skin of the fingers wrinkled; the voice husky; he had great thirst, no pulse; there were cold sweats on parts of the body; he had no vomiting, no cramps; the temperature in the mouth and axilla was still above normal. The collapse increased, and he died at 1.30 P.M.

A *post mortem* examination was made a few hours after death. An exudation, like a false membrane of considerable thickness, covered the whole of the interior of the large gut, was easily scraped off, and revealed a smooth mucous membrane under it, arborescent, dark, and congested, almost black, but no ulceration. The small intestine presented nothing particular, and contained no creamy or whitish secretion. The gall-bladder was full of thick bile: consistence of cream. Rigor mortis was very strongly marked; the fingers were flexed, and the flexors of the forearms contracted into large hard knots. The contraction of the flexor muscles took place after death. The temperature in the axilla, three hours after death, was 99.5°.

Case II.—Captain ——, aged about 60, stout and florid, of very nervous temperament, had arrived from the coast of Syria suffering from great physical and nervous prostration, the result, he said, of "fever" which he had caught at Scanderoon. He had no appetite, but constant thirst, and a feeling of sinking, and was sleepless. He came to a private room in the hospital for a few days' quiet, as he could not bear the noise on board his ship. On admission his temperature was normal, and continued so. The diagnosis was slight gastritis, probably from overstimulation. He had been ordered brandy freely by medical men who had seen him at different ports on the coast. The amount of stimulant was very much diminished; he was put on diet of milk and lime-water; a chloral draught at bed-time. After a few days, he showed great improvement, was able to walk about, was improved in looks and spirits, and intended going on board his ship next day to sail for England. On awaking in the morning, he was taken with slight diarrhœa, and had three stools in all, thin, and of a whitish colour, partly from milk, and suddenly went into collapse. He had no cramps nor vomiting; the body was cold and blue. He had cold sweats, great oppression and anxiety, and great pains across the loins in the region of the kidneys. The urine was suppressed; the temperature in the axilla before death was 95°; in the mouth, normal. The temperature in the axilla an hour after death was 101°.

Cramps, as far as my experience goes, and from information derived from various sources, are very frequently absent—even vomiting and purging are often present only to a very small extent—the predominant feature being collapse from an early stage. The mortality from general diseases here continues very high, the increase lately being chiefly deaths from enteritis, typhoid fever, diarrhœa, dysentery, and convulsions of children; but I find on referring to the register, that every year there is a large increase during the month following Ramadan, the month of fasting. This year, it is slightly more than usual. The Egyptians absolutely refuse to avail themselves of the comfortable cholera hospitals which the "Extraordinary Sanitary Commission" has provided for them. At no time will Egyptians willingly go to hospital, and now that the local authorities wish to force them to go, they absolutely refuse, and war between them and the authorities has been the result. They see their friends enter these hospitals and carried out dead a few hours after, poisoned, as many of them believe, by the doctors. They also object very strongly to having the houses disinfected when a member of the family has died of cholera. There is nothing wonderful in this to any one who has lived in Egypt and knows the Egyptians, though I understand a great deal of importance (political) has been given to it by some correspondents of the daily papers. The facts, briefly stated, are these. An Egyptian dies of cholera, and an *employé* of the Sanitary Commission is sent to disinfect the house. This he does by spraying a little carbolised water about the room with a hand-spray; or he squirts it in with a syringe. The room is not cleansed, but has simply some carbolised water sprayed or syringed about it, and

so is "disinfected." The Egyptians have a firm belief that all bad smelling things, especially drugs, are injurious or poisonous, and resolutely object to being sprayed with carbolic acid. A firm belief of theirs is that bad smells, such as the smell of carbolic acid, will produce a miscarriage in a pregnant woman, and this is an offence, if the fœtus is likely to have been a male, which an Oriental will never forgive; and if a native midwife be called in, she will, to please husband and wife, invariably declare the fœtus to be a male. This belief in strong disagreeable smells producing abortion is not confined to Egyptians. Many educated Syrians and Levantines believe in it; and it is a thing of ordinary occurrence to me in my practice to have to change a medicine, if perchance I have ordered anything with a disagreeable smell for a pregnant woman. Some strong smells also put away milk from a woman who is nursing. A Syrian woman who is nursing, for instance, will not smell camphor. These opinions are not confined to the lower orders, but are in the creed of the higher classes also—men who do not object to disinfection in itself, and would accept it, and help to convince the lower orders to accept it, if done with such a liquid as Condy's fluid or chloride of zinc, which does not smell; and all the better if some balsamic, aromatic, or rose-water were added to it; rose-water being their favourite perfume, in which they have great faith. Something of this sort, I think, might be conceded by the Sanitary Executive Commission, especially as, from the methods employed for disinfecting, it matters little what disinfectant is used. Their religious objection to having the dead bodies covered with quicklime is also a subject of contest which might be got over. All these things they have yet to be taught and to learn; they cannot be taught nor forced into using them in a few weeks. Egyptians are a study of character; they can be led, but not bullied nor forced. If bullied, they become stupid, and more obstinate than mules. I am afraid many of the members of the Sanitary Commission allow their zeal to outrun their knowledge of, and sympathy for, Egyptian character and ignorance.

It is also generally believed amongst them that people are taken and forced into the cholera hospitals, who have had no symptoms of cholera; and this in one or two instances has, I am afraid, been true; while others have paid a backsheesh to be nursed or die at home. These rare cases lose nothing by being told and retold amongst ignorant, panic-stricken people, who see Europeans taking charge, and forcing European sanitation upon them, turning them out of their houses and burning them, forcing their friends into hospital, oftenest to die. A combination of all this led an angry mob to wreck a part of one of the wooden sheds used as an ambulance-hospital. The same thing would have occurred, no doubt, in many towns of Europe. In Naples, the population is said to believe that a white powder is being strewn on the streets to bring cholera to them.

A word now for civilisation in Egypt. It is reported in a daily paper to-night that last night a chief of police, with two of his men and the doctor of the "quartier," went to a shop, where they found the till and drawers open, and most of their contents thrown on the floor; whilst the shopman and his two assistants were lying dead-drunk behind the counter. The shop was locked up, and the three drunken inmates at once conveyed to hospital; whether to a cholera hospital or other, the paper does not say. But that does not affect the moral, or rather the application; which is this, that in civilised England these men would have been carried off to a police-cell, to die, perhaps, during the night, of alcoholic coma; verdict, "Found drunk."

We learn from Cairo that the twelve medical men sent out specially from England during the epidemic have been posted off as follows. Dr. Acland to the Egyptian army; Mr. Cantlie to Kafr-Zayad; Dr. Harry Crookshank, by special request of Baker Pacha, as Medical Inspector to the Gendarmerie; Dr. Gulliver to the Ibrahim Hospital, Cairo; Dr. Herman to Mahallet el Kebir; Mr. Armand Leslie, attached to the Sanitary Council, in reserve; Drs. McNalty and Taylor to Zagazig; Dr. Porter to Rosetta; Dr. Godfrey Thrupp to Damanhour; and Messrs. Wyborn and Wilkins to Alexandria. They were all liberally supplied with whatever medicines and other requisites they chose to apply for, and an interpreter, and are now hard at work at their respective posts. As soon as the epidemic subsides in the towns or districts to which they have been sent, they will be posted to other districts where their services are in most demand.

THE MISSION OF SURGEON-GENERAL HUNTER.

(From Special Correspondents.)

Letters received in London concerning the results thus far attained by the staff sent out under Surgeon-General Hunter, and Surgeon Hunter himself, do not afford a very promising outlook as to the completeness with which sanitary measures can be taken to prevent a recurrence of the outbreak of cholera from which Egypt is suffering. Surgeon-General Hunter, on his return from his tour through the cholera districts, has, we believe, been able to gather additional evidence, of which the official reports will be forwarded to the proper authorities, in support of the view that cholera has been in Egypt since the last epidemic of 1865; a view which appears also to have been subsequently adopted by one of the agents of the Egyptian Government. A fact of great importance has come to light, viz., that cholera existed in certain villages antecedent to the outbreak at Damietta, and it is believed that at Damietta itself a case occurred—a Greek boy at the Greek school—about the end of May. Antecedent to cholera, there had been an epidemic disease among horses, typhus carbunculosis, so called, and next bovine typhus, which killed its thousands. The difficulties of carrying out efficient sanitation are found to be enormous. The habits of men, women and children are such as habitually to defile their habitations and the surrounding ground. As to the Medical Department, it has been found to be in a far worse state than could have been expected. The registers of deaths in the villages are made out by the barber; the cases, in a large proportion, are never seen during life, and the barber enters whatever disease comes first to his imagination and his pen. The Egyptian medical officers are, as a body, found to be wretchedly paid, and very incompetent; cowardice and neglect of duty are very rife among them. They have not the confidence of the fellaheen, who seldom seek their advice, and the Arabs never, without exception. The hospitals are wretched, tumbledown hovels, filthy in the extreme, and the beds not less so. The lunatic asylum at Abbassieh is filthy beyond description, and its management indescribably bad. The restraint system is in full swing as it was in the lunatic asylums of Europe at the beginning of the century; iron bars let into many of the walls and rings into the floors. Lunatics subject to fits of excitement are hurried away, their arms pinioned, fixed to the wall, and their feet placed in the iron rings. The medical staff of the asylums are of opinion that drugs are useless in the treatment of the insane, and they rely chiefly on fetters and the douche. Classification is nominal. Want of medicines, want of disinfectants, want of medical attendance, want of everything needful, is the outcry everywhere. The Government stores are supposed to be kept at two public depôts, the Abdin Palace and the Kasr-el-Am Hospital; the former appears to be generally empty, and the latter often indifferently supplied, the practice being to supplement these deficiences from the shop of an Italian druggist in the head physician's house. On the whole, it is evident that Surgeon-General Hunter has a task before him which will not only tax the best energies of any administrator, however capable, but contains in itself many elements of insuperable difficulty, such as will render it utterly impossible so long as the present *règime* continues, that he should carry out his mission with anything like completeness or stable reform.

THE BRADSHAWE LECTURE.

The Bradshawe Lecture was read before the Royal College of Physicians, on August 18th, 1883, by Dr. J. Wickham Legg, Fellow of the College. The subject of the lecture was Cardiac Aneurysms.

The lecturer pointed out that John Hunter, Galeati, and Walter of Berlin, had all noticed partial dilatations of the wall of the left ventricle within a few months of each other; and that John Hunter and Matthew Baillie had given them the name of aneurysm. The lecturer had collected more than eighty cases of this disease; it was a disease of later life, more than one-half being seen between forty and seventy; and about seventy per cent of the cases were seen in men. Nearly all cases were due to fibrous degeneration of the left ventricle, of which the lecturer described two kinds; one a firm white cartilaginous non-vascular growth, scattered diffusely in islets throughout the muscular wall, and under the microscope seen to be made up of a matrix with large cells and nuclei; the other a fibrous vascular growth, composed chiefly of fibrous tissue. These fibrous degenerations had been thought by Virchow to be expressions of syphilis. Of this the proof was still wanting. Cohnheim had lately

ascribed them to plugging of the coronary arteries from atheroma. But the lecturer referred to six of his own cases, taken from young people, in whom no atheroma of the coronary arteries had been found. The coronary arteries were specially subject to atheroma, and it was no wonder that Hubert had found atheroma in all his cases, when only four of eighteen cases were under 60. If fibrous myocarditis were due to plugging of the arteries, why was it so limited to the left ventricle? The lecturer remarked that Cohnheim no doubt trusted a good deal to his observations that the coronary arteries do not anastomose; but the lecturer referred to his own observations, made last Christmas, in which very free anastomosis of the arteries was demonstrated. The true cause of fibrous degeneration was not yet made out; it was probably allied to the inflammations which in post-uterine life were common on the left side.

Other causes of partial aneurysm than fibrous degeneration were very rare. There seemed good reason for believing that fatty degeneration occasionally caused aneurysm; and that the escape of hydatids might lead to aneurysm; while of the rupture of abscesses or of cysts as a cause of aneurysm there seemed no evidence.

Aneurysms of the undefended space of Peacock were then dealt with. The lecturer maintained that Pelvet had been too absolute in referring all to endocarditis. A large number were certainly due to imperfect development. There were thus two kinds: acute, and congenital aneurysm. In the congenital, the endocardium around was smooth and transparent; in the acute, the endocardium of and below the aortic orifice was covered with vegetations, the aortic valves much diseased, and the aortic orifice filled with vegetations. The congenital aneurysm was empty; the acute was lined with thrombi. The congenital aneurysm was bounded by the lines of the undefended space. The acute burrowed in all directions. The sac of the congenital was smooth and transparent; of the acute, opaque and rough. In the congenital aneurysm, the cause of death was indifferent; in the acute, it was endocarditis or allied diseases.

Valvular aneurysms were always due to the pressure of the blood, and they thus always bulged in the direction of the blood-pressure. Some part of the valve was weakened by endocarditis or friction, and gave way. Dr. Coats held that the endocardium away from the blood-pressure was the endocardium which gave way; *e.g.*, on the aortic valves there was endocarditis of the ventricular surface, and the aortic endocardium was pushed out into the ventricle. This might often be the case in the aortic valves, but in the mitral it was the ventricular, not the auricular endocardium which oftenest gave. Valvular aneurysms were only seen on the left side of the heart, as they were nearly always due to endocarditis. The mitral and aortic valves shared the tendency to this disease equally between them. Of the mitral the large flap, of the aortic the posterior, were the favourite seats of aneurysm.

Aneurysms of the coronary arteries were nearly always seen in men; they were often multiple, even miliary, and showed a marked tendency to rupture.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Council (Committee of Council) will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

November 9th, 1882.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at Hayward's Heath, on Wednesday, September 19th. Dr. Newth will preside. The chairman proposes to invite a discussion on "The Relation between Consulting Physicians and General Practitioners, with special reference to seeing Patients, Payment of Fees, and Abuse of Prescriptions." Any member desirous of reading a paper should communicate with the Honorary Secretary.—T. JENNER VERRALL, 95, Western Road, Brighton. —August 1st, 1883.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of this district will be held at St. Bartholomew's Hospital, Chatham, on Friday, September 7th, at 2.30 P.M. Agenda: 1. To fix the next meeting. 2. To elect a new honorary secretary for the West Kent District.—A. HALLOWES, Honorary Sec.

SOUTH EASTERN BRANCH: EAST AND WEST KENT DISTRICTS: CONJOINT MEETING.—A conjoint meeting of the above districts will be held at St. Bartholomew's Hospital, Chatham, on Friday, September 7th, at 3 P.M. Brigade-Surgeon Watts will take the chair. Dinner will take place at the Bull Inn, Rochester, at 5 P.M. Charge, 6s. 6d., exclusive of wine. Members wishing to read papers at this meeting are requested to communicate, at once, with the honorary secretaries.—A. H. B. HALLOWES and T. WHITEHEAD REID, Honorary Secretaries.

BORDER COUNTIES BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Keswick Hotel, Keswick, on Friday, July 6th, 1883. On the invitation of the local members, a drive round Derwentwater formed the first part of the day's proceedings. The meeting began at 1.30; Dr. KNIGHT, President, in the chair. Twenty members and visitors were present.

New Members.—The following were admitted members of the Branch: Dr. Rutherford, Dumfries; Dr. S. F. Rowan, Annan; Dr. D. C. Cox, Annan; Dr. T. Davidson, Thornhill; Quintin McLennan, M.B., Penpont; W. B. Page, Esq., Carlisle; Dr. Brodie, Ambleside; Dr. T. Rutherford, Kelso.

Report of Council.—The following report of Council was then read, and, after some discussion, was adopted.

The Council have the pleasure of submitting their sixteenth annual report to the members of the Border Counties Branch. The number of members at the beginning of the year was 100. Of these, two have died, and four have left the district, or otherwise withdrawn from the Branch; whilst six new members have been elected, leaving a total of 100. The income of the Branch for the past year, including a balance in hand from last year of £8 7s. 4d., has been £18 18s. 10d.; and the expenditure £7 4s., leaving in hand a balance of £11 14s. 10d.

Before proceeding to a statement of the year's work, the Council desire to record their regret at the loss, by death, of two of the most prominent members of the Branch—Dr. Elliot of Carlisle, and Dr. J. Kendall Burt of Kendal. The Branch has already placed on record its deep feeling in reference to the former, so that there is no reason for the Council to do more than endorse what has been already said; but, in losing Dr. Burt, each of us feels that he has parted with a friend who had endeared himself to everyone by his kindliness and amiability. Keenly interested in the Branch, in the Association, and in all that concerned his profession, he will long be remembered and regretted as an earnest, enthusiastic, and honourable brother.

In addition to the annual meeting at Carlisle, two others have been held, one at Whitehaven in October, 1882, and a second at Carlisle in February 1883. At the last of these, the novel feature was introduced of making the meeting an evening one, with the intention of interfering as little as possible with the daily work of the members. The result was in every respect successful, and probably one such meeting will form a part of each year's programme in future.

The Council has had before it the question of the dual secretaryship of this Branch; and, after consultation with Dr. Smith, has decided to recommend to the annual meeting to take into consideration the expediency of altering Rule III, and for the future having only one secretary instead of two.

On the motion of Dr. BARNES, seconded by Dr. CAMPBELL, it was resolved that the following subcommittee be appointed to consider the rules: Drs. Macdougall, Tiffen, Campbell, Barnes, Lockie, W. Brown, and Russell.

Office-Bearers.—The following were elected. *President-elect:* J. S. Muir, M.B. *Council:* H. Barnes, M.D.; W. Brown, Esq.; D. D. Grange, M.D.; C. S. Hall, Esq.; S. Lockie, M.D.; R. B. Macbean, M.D.; A. D. Macdonald, M.D.; H. Mitchell, M.D.; R. Tiffen, M.D. *Secretaries:* W. Russell, M.B.; John Smith, M.D. *Representatives on the Parliamentary Bills Committee:* M. W. Taylor, M.D.; R. Tiffen, M.D.

Meetings.—It was resolved that the autumn meeting be held at Dumfries, and the spring meeting in Carlisle, in the evening.

The late Dr. J. K. Burt.—On the motion of Dr. BARNES, seconded by Dr. I'ANSON, it was resolved "that the President be requested to convey to Mrs. Burt the sincerest sympathy of the Branch on the

loss of her husband, who for a period of years and to the date of his death had been an able secretary to this Branch of the Association.

On the motion of Dr. BARNES, seconded by Dr. I'ANSON, it was resolved that ten guineas be presented to Mrs. Burt from the funds of the Branch, as recommended by the Council.

Collective Investigation Subcommittee.—Dr. BARNES gave an account of the work of the Subcommittee; and it was re-appointed, with the addition of Drs. Lockie, Macdonald, and Hogg, and with power to add to its numbers.

Vice-President.—Dr. Knight was elected a permanent Vice-President of the Branch.

President's Address.—Dr. TIFFEN, in the unavoidable absence of the President, Dr. Knight, introduced the President-elect, J. H. Macdougall, M.D., who delivered his inaugural address. After referring to the loss the Branch had sustained by the death of Dr. Robert Elliot, a former president, and by that of Dr. Burt, the late secretary, Dr. Macdougall drew attention to the fact that, difficult as it was in such an address to say aught that was new, still the teaching of Sir James Paget, in his Bradshawe Lecture on "Some Rare and New Diseases," suggested a field for original observation; and in it, for the time that lay before them, he hoped that they would find interest. That new diseases do arise, and that old diseases probably disappear, there seems good reason to believe; and further than this, that diseases, which were rare twenty years ago, are now more common and more familiar to us, seems very probable. To diseases of the nervous system this especially applies, but these do not stand alone. Akin to them, in some important respects, are others—such as pernicious anæmia, Graves's disease, and the pseudo-hypertrophic paralysis of Duchesne—cases of which seem more numerous now than they were in the past; and that this should be so is explicable on the ground that, as disease might even have more or less intimate connection with certain social conditions, and, as the social conditions of to-day differ very materially from those existing half a century ago, so it is not matter for wonder that, with change in probable origin, the results should change also. A higher education, an increase in the abuse of alcohol, and a very probable increase in the growth and diffusion of syphilis, are some of the factors which may determine an increased tendency to degeneration and disease in nervous tissue. The difference in the methods of transit also have a part, as witness the experience of the late Professor Syme, who remarked frequently the rarity of popliteal aneurysm in the latter days of his practice as compared with the earlier, the reason he gave being that the decrease came with the disappearance of the post-boys. That other and more refined modes of travelling have associated with them certain diseases is therefore probable. With a belief, then, in the possible origin of heart-disease, and specially of nervous disease, the inquiry becomes an important one. Can preventative medicine or surgery do aught to avert it? In its bearing, in this especial way primary trephining were considered and strongly advocated, The statistics of Sédillot and Walsham, the experience of Ferrier, and the testimony of Dr. Hudson of Redruth, were quoted as evidence of the comparatively slight risk of the operation *per se*—a truth which the speaker's own experience of trephining emphasised. Attention was drawn to the facts that in many cases of head injury treated passively, and which made good recoveries so far as concerned the injury, mental symptoms—it might be epileptic symptoms—made their appearance at later dates; the direct result, in a large proportion, of the irritation induced by depressed bone. The value of the operation in connection with traumatic epilepsy was next considered, and the results tabulated by Echeverria, by Dr. Billings, and by Dr. Russell, of Birmingham, were quoted in evidence of the benefit which, in a very considerable number of cases has followed the use of the trephine. Finally, the feasibility of its application in cases of fracture of the internal plate, o-cerebral abscess, and of cerebral tumour, were discussed, a position which could only be maintained by a reference to our knowledge of cerebral localisation.

It was moved by Dr. TIFFEN, seconded by Dr. I'ANSON, and carried unanimously, "That the best thanks of the meeting be given to the President for his address; and that he be requested to publish it."

Bacillus of Phthisis.—Dr. RUSSELL gave a demonstration of the bacillus of phthisis.

Paralytic Insanity.—Dr. EASTWOOD read a paper on paralytic insanity. He stated that this was a very distinct disease, formerly confounded with other forms of insanity, and now recognised by well marked symptoms. It was important that these should be early distinguished, as the disease was a most fatal one, and the prognosis always unfavourable. Those in general practice should especially learn to distinguish the early symptoms. They were chiefly the want of consentaneousness in the action of various muscles, particularly of the tongue and legs, shown by the inability to talk without a certain thickness of speech, and a tremulousness of the lips, whilst the walking was irregular, and much like that of a drunken man. An outbreak of excitement also frequently occurred in the early stage, attended by exalted notions of wealth; and this attack was often attributed to drinking, but unfairly so. The disease was by far more prevalent amongst males than females, and occurred in men who had lived too fast, in the sense of having done too much work in too little time, without rest of body or mind. The fatality of the disease rendered it highly important to distinguish the early symptoms, which would rarely fail those who had been accustomed to see them a few times.

Excision of Tongue.—Dr. BLACK exhibited for Dr. LEDIARD a case of excision of one half of the tongue.

Dinner.—The members afterwards dined together, Dr. Macdougall in the chair.

CORRESPONDENCE.

HONOURS TO THE PROFESSION.

SIR,—In the course of the very extraordinary statement made by Mr. Gladstone, in reference to honours to the medical profession, he observed that he had been advised by the "heads of the profession" as to the distinctions to be conferred. That being so, we are anxious to know who are the "heads" who helped him in this graceful decision regarding their brethren? Are they the same who, in the present reign, have advised or concurred in the practical ignoring of any professional eminence outside London? Are they the same who sat dumb, and saw such men as Syme and Spence in Edinburgh, and Stokes and Smith in Dublin, wear out their lives in services which were unrequited by the nation which they most benefitted?

It may seem presumption to question the distribution of public honours by the Queen; but every one knows that, in such cases, Her Majesty's selection is very much a fiction, and that the choice really lies in the hands of the Government for the time being. If Mr. Gladstone, in turn, acts upon the advice of the "heads of the profession," we have a right to inquire why they are so ignorant of professional eminence in Scotland and Ireland—Edinburgh and Dublin alike have fallen under the blasting shadow of their neglect. This, at all events, is not deserved. We have no envy for the happy subjects of Mr. Gladstone's gracious approval. They have won their spurs, and we hope they may wear them for a long time to come. But what we venture to suggest is, that London is not the home of all the talents; and that in Scotland and Ireland, as well as in the English provinces, there are, or have been, men just as able, who have received no recognition from the Crown. It seems to be the fate of the Government, in its relation to Ireland, to do nothing generous spontaneously. Statesmen, who are ignorant of the wishes or wants of the profession, call in the aid of guides who appear to be as ignorant as themselves; and the result is, dissatisfaction and discontent. At the present moment, some thousands of educated gentlemen feel that they have been snubbed in the most offensive way. Is it at all wonderful that they should resent a policy of obvious wrong and irritation? Why should it always be necessary to make a struggle for right, in the present case remarkable by the painful exhibition of a great leader trying to wriggle out of a false position by assertions which every one knows to be absurd?

For myself, I may say that I write in the interest of no man; but, as a member of the profession in Ireland, I refuse to submit silently to an act which would stamp it with inferiority, no matter from what source the inspiration of that act may come.—Yours truly,

WILLIAM THOMSON, F.R.C.S.

THE APPOINTMENT OF MEDICAL OFFICER TO THE CHARTERHOUSE.

SIR,—When writing the paragraph under the above heading, which appears in the current number of the JOURNAL, it is evident you must have been made acquainted very imperfectly with the facts of the case; and I feel sure you will give equal publicity to the following statements, the accuracy of which I can vouch for, having received some of them from the best possible authority.

1. With regard to having recently qualified, Mr. C. Haig Brown passed the College of Surgeons in July 1881. Since then, he has taken the degrees of M.B. and C.M. (with honours) at the University of Aberdeen. Subsequently to qualifying, he has acted as clinical assistant in the medical wards of the Newcastle-on-Tyne Infirmary; he has spent eighteen months in St. Thomas's Hospital as house-physician and assistant house-physician, house-surgeon and assistant house-surgeon. He is a former distinguished pupil of this hospital, having taken several prizes, as well as the Cheselden Medal for distinction in Surgery. Besides these, he has gained the annual Gold Medal of the Apothecaries' Society for proficiency in Materia Medica.

2. Mr. Edward Yate has never held any appointment whatever in connection with Charterhouse.

3. Mr. Yate, senr., was appointed medical attendant to the school when there were only 150 boys in it. Since then the number has increased to 500, and it is thought that Mr. Yate, with his large private practice, cannot give sufficient time to the requirements of the school; in addition to which it has been deemed essential (for the welfare of the boys) to have a medical officer who shall reside on the spot and be at hand in cases of emergency.

4. Mr. Yate did receive six months' notice of the proposed alteration, for he was informed of it on March 6th, and the resident medical officer enters on his duties on September 20th.—I am, sir, yours faithfully, W. A. DUNCAN, M.D., F.R.C.S.Eng.

Lambeth Palace Road, S.E., August 20th, 1883.

INDIA MEDICAL SERVICE.

SIR,—With reference to your article in the BRITISH MEDICAL JOURNAL, July 7th, p. 21, I beg to point to the following case of injustice to a junior medical brother at the hands of the Pay Department. He is a young gentleman of about three years' service, and is holding the appointment of officiating medical officer of a native regiment. His claim and right to the officiating allowance of 100 rupees *per mensem* (in addition to his "unemployed pay" of 286 rupees) is objected to by the Pay Department in a very ingenious sort of way, and the line of argument would baffle the acutest logician. There is a book called the "pay code," which is written in some parts in a sort of way by which the sense can be turned and twisted in a variety of ways, but generally against the interests of the retrenched officer. Some portions of this book are plain—*i.e.*, not ambiguous, or fairly so. The cause of objection put forth comes under a paragraph which belongs to the latter category. It runs to the following effect: That the acting or officiating officer gets as his allowance (in addition to unemployed pay) half the difference between the regimental and "unemployed pay" of the permanent incumbent; and that, should this come up to a less sum than 100 rupees, the former officer should get this; or, in other words, his allowance must not be less than 100 rupees *per mensem*. Now, in the case in point, the regimental and "unemployed pay" of the doctor who belongs permanently to that regiment, and is officiating in another regiment, is 800 and 640 odd respectively. According to the Pay Department, the young medical officer who is acting for him is to get 286 odd + $\frac{800-640}{2} = \frac{160}{2} = 80 + 286$ odd, instead of 100 + 286 rupees.

Another cause of grievance to men in military employ is that of being knocked about, and this unnecessarily. Of late, owing partly to disbandments of regiments and partly to the paucity of medical officers at out stations, a sufficient number not being available for duties on medical boards, men are sent about from their own to other stations for this, and this very often in consequence of mere vagaries of small officials, when the regulations clearly and distinctly provide against this. These moves put men to quite unnecessary expenses, some of which they cannot recover.

A third grievance is in regard to "furlough pay" being given at the rate of exchange instead of at two shillings to the rupee. By this means, a medical officer on furlough loses more than twenty-five per cent. of his furlough pay, and this at a time when he most wants money.

Another grievance is that, owing to the paucity of medical officers at stations, the Indian medical officer cannot take his "privilege leave," by which a man must make his own arrangements for the performance of his duties, so that Government is put to no extra expense. A man cannot make arrangements unless he have someone with whom to make them. After three years' continuous service, a man becomes entitled to three months' privilege leave on full pay. Advantage might be taken of that to make a trip to England and back for health's sake, or to pass an examination, when he cannot, owing to the above pecuniary reason, take his furlough when he is entitled to it. I am, etc., MEDICUS.

THE CASE OF SYPHILITIC INOCULATION.

SIR,—In common, doubtless, with many others of your readers, I have been weekly hoping to see a trustworthy account in your columns of the case of reported syphilisation in a medical officer of the Local Government Board, as the result of an experimental inquiry conducted on his own person by the individual affected. As the matter has received full publicity in Parliament, it can serve no useful purpose to attempt to keep it quiet. The reticence which has already existed in regard to it for such an undue period is having a most mischievous effect, by giving the antivaccinationists a handle for their operations, which they are using with great activity. The sooner the whole of the facts are put authoritatively before the profession the better, as we shall then know what is their real value, and to what extent they affect the question of vaccination.—Yours obediently, A MEDICAL OFFICER OF HEALTH.

*** Our correspondent will find a statement in reference to the subject in another page of this week's JOURNAL.

PROSPECTS OF THE LONDON HOSPITALS.

SIR,—In the JOURNAL of July 14th, under the above heading, appears an annotation reproducing certain figures in relation "to the hospitals of London," which "Mr. Ernest Hart had used in speaking at the official inspection of the Chelsea Hospital." As these figures were taken from a paper of mine read at the late Hospital Conference, I desire to point out, that the statement referred to is inaccurate in two respects. 1. The figures quoted refer to sixteen general hospitals only, and not to the hospitals of London. 2. The income of these sixteen general hospitals has increased from £206,000 in 1873, to £220,000 in 1881, not to £230,000 as quoted in the paragraph. It is, further, inaccurate to say, "that the income was summed up as being £5,000 a year in excess of the expenditure," because, as explained in my paper, the above totals are gross totals, and nearly £33,000 of the £220,000 given to the general hospitals in 1812, was given conditionally and for special purposes and could not be devoted to current expenditure. Hence the available income of the sixteen metropolitan general hospitals was nearly £28,000 less than the actual expenditure in 1881, although the whole sum (£66,000) received from legacies is included in the total sum given as available income. This means that if it had been necessary in past years for the metropolitan general hospitals to spend all their legacies as they were received, the majority of them could not have been extended, nor, indeed, could they have continued open. The managers of the metropolitan general hospitals have so much to contend against already, that I am anxious no misapprehension should arise as to the financial difficulties they have to grapple with at the present time. It is no slight responsibility to have to face a deficiency of £28,000 a year, as the metropolitan general hospitals had to do in 1881, and I therefore desire to make the above corrections in the figures quoted.—I am, sir, your obedient servant, HENRY C. BURDETT.

39, Gloucester Road, N.W.

LIGATURE OF LARGE ARTERIES.

SIR,—Mr. Walsham, in his "Remarks on the Deligation of Large Arteries by the Application of Two Ligatures, and the Division of the Vessel between them," gives to Mr. Thomas Smith the credit of reviving the operation.

I think he is in error on this point as, when I was house-surgeon to Messrs. Wormald and Willett in 1866, the latter more than once adopted this method of ligaturing large arteries, and he was the only one of the surgeons then at St. Bartholomew's who did so. During the seventeen years that have elapsed since then, I have always followed Mr. Willett's teaching and practice without any bad results.—I am, sir, yours faithfully, ARTHUR JACKSON, Sheffield.

THE TREATMENT OF FRACTURED CLAVICLE.

SIR,—Will you allow me to add my testimony to that of Dr. Sayre, concerning the efficacy of the treatment of fractured clavicle, described in the lecture published in the *Medical and Surgical Reports of Philadelphia*. The treatment is identical, down to the slit in the plaister for the reception of the olecranon, with that which I introduced at the Manchester Infirmary in 1864. I imagine that some of the gentlemen who were students in 1864-65 and -66,

may remember this; at any rate, my friend, Dr. Carter, can bear witness that I employed this method in the case of a young gentleman, to whom he called me 2½ years ago. I may say that I have just seen my patient, and there is no trace of the fracture. I showed him the engravings in the *London Medical Record*, illustrating Dr. Sayre's lecture, and he recognised the identity of his—Dr. Sayre's—method, and the one by which his own collar-bone was mended.—I am, yours truly, GEO. E. WALKER, F.R.C.S.

43, Rodney Street, Liverpool, July 19th, 1883.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Wednesday, August 15th.

Importation of Disease by Rags.—Sir S. NORTHCOTE asked the President of the Local Government Board whether his attention had been called to some cases of small-pox reported from a place in his constituency, which were supposed to have originated from foreign rags employed in certain paper-mills. There was one death last week, and there had been several other serious cases of illness. He called the attention of the Local Government Board to the subject, in the hope that some restriction or inspection might be devised to check the propagation of infection by rags.—Sir C. DILKE said that the matter was under consideration, and, in case of there being any strong probability of the facts being true, an inquiry would be held to see the exact bearing of those facts. The orders of the Local Government Board at present had sole reference to Egypt. There was no authentic case of cholera being imported in rags, though there had been one case of small-pox.

Saturday, August 18th.

Contagious Diseases Acts.—On the vote of £241,800, salaries and miscellaneous charges for the War Office, Mr. PULESTON asked what course the Government proposed to take with reference to the Contagious Diseases Acts. Statistics had come in showing the vast amount of injury which had been done in the garrison towns both to the Army and Navy by the late action of the Government. It was said that the resolution of the House of Commons could not be reversed, but every one knew that, with a strong Government having a large majority at its back, if a sum for the police were put into the estimates there would have been no difficulty whatever about reversing it. Neither Mr. Stansfeld nor any of his supporters ever dreamt that such a consequence would ensue. The Home Secretary said, in answer to a deputation, that it was shocking to contemplate the proceedings of the Government. The right hon. gentleman said so because it was pointed out that, whereas, before the Acts came into operation, 120 deaths from those diseases in a year were recorded at Portsmouth alone, during the operation of the Acts the deaths were only three a year. The noble lord said that those Acts were not passed to promote the morality of the districts in which they were enforced. But if Devonport, Portsmouth, and Chatham were used as garrison towns in the interest of the nation, this became an Imperial question, and the inhabitants of those towns had a right to the protection which the law gave them. It was no exaggeration to say that they were now practically in a state of panic. He hoped the Committee would get an explicit statement from the noble marquis of the policy of the Government on the question.—Mr. ACLAND was convinced that there was a strong feeling existing among those who had not shared in the agitation for the repeal of the Acts that, if the Government were determined to act upon the resolution passed by the House, some positive precautions ought to be taken for the purpose of securing the towns to which the Acts had applied against the very terrible result of the relaxation of the law.—The MARQUIS of HARTINGTON remarked that it was said that the towns to which the Acts had applied had a right to protection against the consequences resulting from the introduction of large numbers of soldiers and sailors. The Acts gave no power whatever to the police to suppress vice. That they had had an indirect effect in that direction was true; but when the Acts were passed that effect was not contemplated. If the inhabitants of towns concerned had a right to additional police protection, that protection ought to be given openly and directly. He believed that the preservation of public order and decency could be secured independently of the Contagious Diseases Acts. A measure, which had been introduced in another place, but which, unfortunately, could not be persevered with, would have enabled local authorities to preserve order more successfully than those Acts indirectly enabled them to do. He regretted the resolution which the House had arrived at in regard to the Acts; but it was no use exaggerating the consequences of what had taken place. A memorial had recently been presented from a society favouring the continuance of the Acts, in which it was alleged that the consequence of their suspension had been that no women had since entered the hospitals. That statement was not in accordance with facts, for there were 133 women now in hospital, almost all of whom had entered voluntarily. As that was half the number that were in hospital before the Acts were suspended, it could not be said that the suspension had made the Acts inoperative. With regard to the effect of the suspension upon our troops, it had been ascertained that, in the four weeks ending on July 6th, as compared with the four weeks ending on a corresponding date in May, there was an increase in the admission of men into hospital of 5.5 per 1,000; but, as there was an increase in the unprotected districts of 2.8 per 1,000, the number that might be attributed to the suspension of the provisions for compulsory examination was only 2.7 per 1,000. That represented an increase of 109 men monthly out of a force of 40,000 men. With regard to the resolution which the House had passed, he had nothing to add to what was stated by the Home Secretary and himself several months ago. The Government declined to propose the vote formerly passed for the payment of the metropolitan police engaged in carrying the Acts into execution.—Mr. C. BENTINCK maintained that deplorable results had followed the suspension of the Acts, and quoted statements made by Miss Webb and others in support of his contention. He protested against the repeal of the Acts in compliance with the wishes of a small number of people, many of whom did not scruple to put forward false statements in support of their case.—Mr. BULWER said that he was a member of the Committee appointed to consider the operation of the Contagious Diseases Acts. When he joined that Committee, he was strongly prejudiced against the Acts, but he had not served upon it very long before he came to the conclusion that the opposition to the Acts was based upon a mass of falsehoods. About the good effect of the Acts there could be no doubt.—Sir A. GORDON asked the Government to allow the metropolitan police to return to the towns in which they formerly carried the Acts into operation in order that they might patrol the streets and exercise a restraining influence.—Mr. GLADSTONE vindicated the course pursued by the Government.

The Army Medical Service.—On the vote of £311,000 for medical establishments and services, Sir H. FLETCHER called attention to the divergence of opinion as to the medical services in the Egyptian campaign. The present system of army medical officers was not satisfactory. The regimental system had been superseded, although it had worked well. Under the old system, the medical officers, being well acquainted with all the men of the regiment, saw well to the health of the men, and detected all cases of malingering. Such personal supervision was now scarcely possible. General Lysons and other eminent officers considered that medical officers should be permanently attached to their respective regiments. The constant change which now took place was most unsatisfactory. No doubt it was impossible to return to the old system in its entirety, but it ought to be reverted to to the extent of attaching a medical officer to a regiment for at least five years. In the Household troops, the old system was to some extent maintained. Sir W. Mac Cormac had recommended that an uniform system should be carried out; but he trusted that no change would be made in the case of the Household troops. No doubt the medical officers of the Household troops did not come into contact with other medical officers; but they were satisfied with their position. Up to a short time ago, the Household troops had their own hospitals. Owing to arrangements made by the War Office, the three hospitals had been taken away. The hospitals had been kept up by private funds collected and managed by the officers. They were handed over to the Medical Department, and filled by orderlies of the Army Hospital Corps in place of orderlies connected with the Brigade of Guards. The medical officers were medical officers of the Brigade of Guards, but the orderlies were supplied from the Army Hospital Corps. He would urge that at least one medical officer should be appointed for a period of five years to every regiment in the service. Experience in Egypt showed that all field and base hospitals ought to be dieting, and not non-dieting hospitals, so that men arriving from the front should not be told they were rationed in the morning, and could not, therefore, be fed in the evening. The maintenance of discipline in a hospital necessitated a military commandant, the more so as the Army Hospital Corps were not, as formerly, recruited from the army; and the members of the corps should be better trained for the duty of nursing. There was strong evidence that in Egypt the hospital cooking was very unsatisfactory, and that medical

comforts were not to be had, even when the hospital had been located three weeks at Cairo.—The Marquis of HARTINGTON had stated the other day, in answer to the hon. and gallant member for the North Riding, that the Committee had made a variety of important recommendations on a great number of subjects. As soon after the recess as possible, it was proposed to go through these recommendations, and consider to what extent they could be adopted. Whatever was done, the responsibility must ultimately rest with the Government, and not with the House of Commons; but, at the same time, considering that the House had not had an occasion to discuss the recommendations of the Committee, he would undertake that no important changes involving the issue of a Royal Warrant should be made until an opportunity had been afforded the House of discussing the matter.—Mr. ACLAND asked whether there was to be any development of the scheme for the training of the men of the Army Hospital Corps.—Colonel ALEXANDER pointed out that Lord Wolseley had paid a high tribute to the manner in which the Army Hospital Corps had done their work in Egypt; but with regard to the system itself, he contended that Lord Morley's report disclosed some very grave shortcomings. He commented also on the faulty organization of the Army Hospital Corps. Although it was organised about seventeen years ago, it had never been placed on a proper footing, and was below its strength at the time of the outbreak of the war in Egypt. He could not agree with Lord Wolseley that a civilian could be trained to do the work of the Army Hospital Corps in a week. He was glad the noble marquis had given the assurance that he would not attempt to interfere with the regimental medical system at present in force in the Guards.—Dr. LYONS thought they should rely more upon the opposite sex for the nurses. He complained also that the sons of army medical officers were not eligible for Queen's cadetships.—The Marquis of HARTINGTON thought the discussion of Lord Morley's report had better be postponed until the early part of next year. He had looked at all the evidence in the report on the subject of the regimental and departmental system, and he could not ascertain that anything that had taken place in Egypt had furnished the slightest evidence against the system at present in force. He failed to see in any part of the report any proof that the present system had had an evil effect during the campaign in Egypt. The question of the Army Hospital Corps had been referred to, and the Committee would observe that a considerable portion of the report had been devoted to the question of improving that corps. It was impossible in times of peace to keep idle a sufficient force of the Army Hospital Corps to deal with a great war, but he agreed that every effort should be made for increasing as rapidly as possible the reserve of the Army Hospital Corps. Going through the report, he observed that the extremely small percentage of deaths among the cases taken into hospital, and the absence of cases of hospital diseases, such as blood-poisoning, showed that although there might have been some discomfort and inconvenience and some want of care, still the main object—namely, the preservation of life—had been successfully carried out. Never had a campaign been carried out in which these results had been attained with greater success than in the campaign in Egypt. With regard to the question raised by Dr. Lyons as to the exclusion of the sons of medical officers from the Queen's cadetships while the converse prevailed with regard to the sons of officers in the army, he assured the honourable member that that decision, whether right or wrong, had not been come to with any intention of placing the non-combatant officers in an inferior position. The object in the case of combatant officers was that the sons might be trained to the same profession as their fathers; but the same reasons did not hold good in the case of medical officers. There was no intention whatever of casting any stigma on the medical officers.

Monday, August 20th.

The Fire at a Lunatic Asylum.—Mr. HIBBERT, on behalf of the Home Secretary, said, in reply to Mr. FRESHFIELD, that he had drawn the attention of the Lunacy Commissioners to the fire at the lunatic asylum at Southall. He had no power himself to lay down any conditions as to the mode in which licences ought to be granted for these houses, the number of licences being determined by the Commissioners, and in some districts by the magistrates. The Commissioners said that their attention, when visiting these asylums, had been constantly directed to the necessity of precautions against fire and the means of escape, and they had frequently urged the adoption of additional means of protection against outbreaks of that kind. They had not hitherto made licences conditional on the adoption of these precautions; but they examined the houses proposed to be licensed, to see what alterations were necessary to give greater security against fire.

The Manorhamilton Board of Guardians.—Mr. HEALY asked the Chief Secretary to the Lord Lieutenant whether it was the fact that Dr. Nash, J.P., a pensioner of the Manorhamilton Union, acted as an *ex officio* guardian on that Board; whether, under the twenty-second section of the 25 and 26 Vic., chap. 83, it was enacted that no paid officer engaged in the administration of the law for the relief of the poor or under the Medical Charities Act, and no person receiving any fixed salary or emoluments from the poor-rates in any union, should be capable of serving as a guardian in such union; and, if so, whether the Local Government Board would continue to permit Dr. Nash to act as a guardian on a Board from which he drew a pension, and under which he was formerly an official.—Mr. TREVELYAN replied that the facts were as stated; but it had never been held by the Local Government Board that a superannuation allowance was a "fixed salary or emolument." As the usual acceptation of the term "emuluments" was remuneration annexed to the possession of office, such as fees, perquisites, etc., it did not appear to apply to a person when out of office.

Soldiers' Rations.—On the vote of £278,000 for the army reserve force, Dr. FARQUHARSON said that, as soldiers got nothing between half past twelve in the day and breakfast next morning, it was not surprising there was a good deal of intemperance. When he was assistant-surgeon in the Guards, he and his colleagues urged an increase of a quarter of a pound of meat daily in the soldiers' rations. The insufficient rations led to intemperance and frequent cases of consumption in the Guards.

Inoculation by Vaccination.—Mr. HOPWOOD asked whether the Scientific Committee to whom was referred the case of Dr. Cory and his inoculation of himself with syphilis in the course of vaccination had completed their examination; whether the fact that syphilis could be and was inoculated by vaccination was not well known previously; and if any report had been made, would he lay it upon the table of the House.—Mr. G. RUSSELL said that the committee to which was referred the case of Dr. Cory had completed their examination. An operation professing to be vaccination would be the means of conveying syphilis, and this fact was, principally from some foreign experiences, well known before Dr. Cory's experiment. It was not the fact, in general terms, that syphilis is inoculated by vaccination. Dr. Cory's experiment had for its object a better understanding of the conditions under which any such conveyance was possible. The report of the committee had been made and would appear in the annual report of the medical officer of the Local Government Board.

Revaccination in the Army.—In reply to Mr. A. O'CONNOR, the Marquis of HARTINGTON stated that, having made inquiries, he was unable to find a single instance of a recruit having objected to being revaccinated. As to the question whether the Secretary of State had a legal right to issue an order requiring every recruit to be revaccinated, it had never been brought before a court of law. He imagined, however, that it was undoubtedly within the power of the Secretary of State, who was responsible to Parliament, to advise Her Majesty to make any order which would, according to the best medical opinion, tend to promote the health of the Army.

Wednesday, August 22nd.

The Medical Act Amendment Bill.—In reply to Mr. DICK PEDDIE, Mr. BUCHANAN, and Dr. LYONS, each of whom urged the difficulty of proceeding with the Medical Act Amendment Bill, considering the opposition which it had to meet, Mr GLADSTONE said they had hoped to get the second reading last night, and if that had been so, they might have hoped to proceed with the Bill. He had not had an opportunity of consulting the Lord President of the Council, who had conducted the Bill through the House of Lords; but he felt that, this being the 22nd of August, and the close of business being anticipated, he was bound to state that, in the opinion of the Government, the loss of the opportunity last night was fatal to the chances of the Bill. They could not now take the second reading before to-morrow, and it was obvious that they could not get it through this session. It was, therefore, with the deepest regret that he had to announce that it was beyond their power to carry the measure.

Queen's Cadetships.—Dr. LYONS gave notice that he would next session call attention to the subject of Queen's Cadetships, and the disabilities, in regard to them, imposed on the sons of medical officers in the public service of the country, and move a resolution.

MILITARY AND NAVAL MEDICAL SERVICES.

GRIEVANCES OF THE INDIAN MEDICAL SERVICE.

SIR,—I trust you will give me space to remove the very erroneous impression created by Mr. Cross's reply in the House of Commons on Monday, May 28th, in reference to the grievances of the juniors of the Indian Medical Service. It is greatly to be regretted that such a statement, by a minister of the Crown, should remain unanswered by our friends in Parliament or the Medical Journals. The whole tenor of Mr. Cross's reply leads to the conclusion that all the lefters from the juniors of the Indian Medical Service to the Indian papers, as well as the leading articles in those papers, are one long tissue of untruths. Though he admitted that there were an unusually large number of medical officers at present unemployed, he gave the House to understand that the present state of affairs wou'd be only temporary. Now I would ask how can this possibly be, at all events in Bengal? In this Presidency there are eighty regimental appointments, the majority of which are held by young men, and there are at the present moment about seventy surgeons unprovided for, *i.e.*, either officiating or on unemployed pay. Mr. Cross cited the recent reduction of twenty-two regiments as one of the causes for the present unprecedented condition of the Service. In each of these regiments there were as a rule three, often four lieutenants, and only one doctor. On January 1st, 1883, following these reductions, while there were about fifty surgeons on unemployed pay, there was not a single lieutenant. Lest Mr. Cross might find it inconvenient to assign any reasons for this strange anomaly, permit me to place them before the profession. The first is, that the Secretary of State for India will not permit a lieutenant to be placed on the unemployed pay of his rank; there is a letter of his to this effect, to the Government of India. How faithfully this injunction is carried out you may observe from the leaning article in the *Pioneer*, of June 22nd. The second reason is, that terms were offered to the senior combatants of the reduced regiments to induce them to retire, and, the full number not availing themselves of them, they were subsequently made applicable to the entire Staff Corps. No such scheme for retirement was offered to the Medical Service; had there been, the full number of senior officers would have gladly accepted them. All that the medical officers of these regiments got was full pay for six months, while officiating in other regiments, and those of them who are still unprovided for, have, to their great loss, been most unjustly placed on officiating pay, and must so continue until such time as they get permanent charges. Mr. Cross was, to say the least, unfortunate in his comparison between the unemployed pay of surgeons who rank as captains, with lieutenants of the staff corps, the more so, as the latter officers are never placed on this rate of pay. The *Pioneer's* editorial in its issue of June 22nd, completely and most effectually disposes of this portion of the Under Secretary's reply, and verifies in the most unmistakable manner the fact that those of us who are on unemployed pay, are in receipt of less pay than the latest joined lieutenant in the staff corps. This being so, it of necessity follows that we are the worst paid European commissioned officers, combatant or non-combatant, in the Indian army, notwithstanding Mr. Cross's very flat denial of the fact. The leading article in the *Pioneer*, coming as it does from the organ of Government in this country, shows how thoroughly genuine are the grievances of which we complain. In conclusion, Mr. Cross is reported to have stated that the printed conditions are accurately fulfilled. When making this assertion, he surely could not have been aware that a reduced rate of pay, called "officiating," has been substituted in India for the pay laid down in the India Office Memorandum, as that to be received by a medical officer when in charge of a native regiment. A large number of officers in the medical service are only in receipt of this officiating pay, though it is never once mentioned from one end to the other of the printed conditions. Possibly Mr. Cross, like every surgeon who enters the service, was unware of its existence. Up to five years' service an officer on this pay loses rupees 63 per month; from five to six years' service he loses 200 per month, and from six years' service he loses steadily 108 per month, until he gets a permanent appointment. I know a surgeon myself who was ten years before he got a permanent charge.

This officiating pay is so indefensible, and its injustice so great, that only last month an authoritative statement appeared in the *Pioneer* to the effect that the Government of India had sent home a recommendation for its abolition.

Whether or not this recommendation will receive the sanction of the Secretary of State for India remains to be seen. In paragraph 21 of the printed conditions, we read that a surgeon, however employed, will be restricted to the rate of pay laid down in paragraph 15 (*i.e.*, unemployed pay, or Rupees 286 10. 0 per mensem) until he shall have passed the examination in Hindustani known as the lower standard. Whatever construction the India Office may put on this paragraph, that which is adopted by every surgeon who enters the service, as well as disinterested outsiders such as the editors of the *Pioneer* and *Civil and Military Gazette*, is that, on passing the language test, some higher rate of pay will be drawn. If this be not its meaning, why, if we have nothing to gain by it, are we required to pass the language test at all? So much for the printed conditions being accurately fulfilled.

Surely the medical officer who brings to the service of Government an expensive profession, if not more, is entitled to as much consideration and as good pay as a lieutenant, who, as a rule, is five years younger, who has only passed a schoolboy's examination on entering the service, and who learns his duties not only after he enters, but at the expense of Government, and even while in receipt of pay from the State.

A JUNIOR IN THE BENGAL MEDICAL SERVICE.

SIR,—I desire to solicit the powerful advocacy of the BRITISH MEDICAL JOURNAL in behalf of the junior surgeons of the Indian Medical Service. The points which I particularly wish to bring before the readers of the JOURNAL, and of any young medical men who may be preparing for the next Indian examination are the following.

1. Young surgeons are brought out to India by account of the misleading statements set forth in the papers furnished by the India Office to intending candidates, which are so worded as to lead them to infer that they will draw 450 rupees a month immediately after passing the Lower Standard Examination in Hindustani. As a matter of fact, surgeons in the Indian Service are on unemployed pay for the first five years of their service.

2. The anomalous positions occupied by junior surgeons in the Service, who rank as captains, but draw less pay than any other commissioned officer in Her Majesty's Indian Forces, viz., 286 rupees 10 annas per month.

3. The numerous moves to which young medical officers are subjected for the first five years of their service.

No one unacquainted with Indian travelling can possibly understand the annoyance of being constantly moved from station to station, and the great expense which travelling entails.

4. The rules by which travelling allowances are regulated. These rules are framed in such a way that young surgeons are completely excluded from any benefit whatsoever. An example will best explain this.

Suppose a young officer is directed to assume temporary charge of a regiment, or wing of a regiment, for which he draws extra-pay varying from 75 to 100 rupees per month, he is entitled to no travelling allowances, because he is going to a staff appointment, for which he draws extra pay. Then again, when he is returning from his temporary charge, he draws no allowances, because he is returning to his proper appointment from staff-employ. It very seldom happens that any surgeon of less than three years' service gets even an acting appointment of more than three months' duration; and for the reasons which I have given, it is plain that a three months' officiating charge is more of a loss than an advantage to him.

5. The absurdity of the term "unemployed pay." The fact is that, when on unemployed pay, far from having nothing to do, the duty is of the most irksome description. It means being attached to an European Station Hospital; it means being put on all committees, invaliding, sanitary, "*et hoc genus omne;*" it means doing the work of the Army Medical Department on less pay than the officers of that department. The Government of India have not been slow to take advantage of the plethora of junior surgeons in the Indian Service, for this year, as compared with previous ones, there is a great falling off in the number of army medical officers sent out from home.

6. All officers stationed in presidency towns, if not provided with public quarters, are allowed to draw presidency house-rent at rates fixed according to their rank, with the single exception of officers on the unemployed list of the Indian Medical Service. The unfairness of this rule needs no comment.

7. The numerous appointments which formerly belonged by right to the Indian Service are now being given to the officers of the Army Medical Department. These appointments are in the hands of the administrative heads of the Military Department (nearly all of whom belong to the Army Medical Department), who are only too glad to give them to members of their own department, forgetting that the army surgeon goes home after five years in this country at the public expense, whereas his Indian colleague has to pay his own way home, even if he become invalided in the public service.

8. In July 1882, when various regiments in each Presidency were disbanded, all the combatant officers in each regiment got compensation, viz., six months' staff allowances, whether they were immediately employed or not; but the way in which medical officers were provided for was by removing junior surgeons from regiments to which they had been gazetted, and replacing them by their seniors from the disbanded corps.

These are a few of the wrongs which loudly cry for redress; but for which no redress is possible if future Secretaries of State adopt the policy of Lord Hartington, and refuse a hearing to the grievances of one of the oldest and most distinguished of the Indian services.—I remain, etc.,

JUNIOR SURGEON INDIAN MEDICAL SERVICE.

BRITISH MEDICAL SERVICE.—The following candidates were successful for appointments as Surgeons in Her Majesty's British Medical Service at the competitive examination in London on August 13th, 1883.

		Marks.			Marks.
1.	Bradshaw, O. G. D.	2,410	11.	Henston, F. S.	2,100
2.	Kelly, M.	2,375	12.	Durant, R. J. A.	2,055
3.	Pinching, H. H.	2,355	13.	Gubbin, G. F.	2,030
4.	Geddes, R. J.	2,350	14.	Myles, J. P.	1,980
5.	Kelly, W.	2,185	15.	Lesly, R.	1,975
6.	O'Connell, D. V.	2,170	16.	Birch, H. P.	1,975
7.	Dodd, A.	2,140	17.	Braddell, M. O'D.	1,880
8.	Wilson, G.	2,121	18.	Donnett, J. J. C.	1,870
9.	Reid, J. M.	2,105	19.	Sloggett, H. M.	1,845
10.	Winter, T. B.	2,105	20.	Bobinson, C. S.	1,755

BRITISH MEDICAL SERVICE.—The following is a list of the surgeons on probation in the Medical Department of the British Army, who passed the Netley Examination, August 1883. The order of position of these gentlemen is not affected by marks they have gained at the Netley Examination.

		Marks.			Marks.
*1.	Bruce, D.	2975	9.	Moore, R. R. H.	2000
2.	Gordon, H. C.	2320	10.	O'Shaughnessy, P. J. B.	1455
3.	Bell, H. L.	2186	11.	Robertson, J. R. S.	1965
4.	Riordan, J.	2285	12.	Tate, A. E.	2050
5.	De Lom, H. A.	2101	13.	Faunce, C. E.	1792
6.	Firth, R. H.	2460	14.	Lendrum, W. H.	2200
7.	Nelis, G.	1990	15.	Wyatt, H. J.	1613
8.	Gallwey, P. J.	1699			

* Gained the Montefiore Second Prize.

INDIAN MEDICAL SERVICE.—The following surgeons on probation in Her Majesty's Indian Medical Service were successful at both the London and Netley Examinations, August 1883. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows.

		Marks.			Marks.
*1.	Young, J. M.	5680	4.	Quicke, W. H.	4733
2.	Jameson, G.	5257	5.	Evans, A. O.	4691
3.	Collie, M. A. T.	5225			

* Gained the Herbert Prize, the Martin Memorial Gold Medal, the Montefiore Medal, and the Parkes Memorial Bronze Medal.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—Preliminary Scientific (M.B.) Examination, 1883. Pass List.

First Division.

Ashe, Evelyn Oliver, Owens College.
*Ashworth, Percy, Owens College.
Barlow, George, Owens College.
*Black, George, Guy's Hospital.
Calvert, John Telfer, Owens College and St. Thomas's Hospital.
*Campbell, Henry Johnstone, Guy's Hospital and Private Tuition.
Chitty, John Shaw Willes, Charing Cross Hospital.
Cuff, Herbert Edmund, Guy's Hospital.
Fernau, Charles Hermann, University College.
Jordan, Walter Ross, Queen's College and King Edward's High School, Birmingham.
Rennie, George Edward, B.A.Sydney, University College.
Roberts, John Lloyd, Guy's Hospital.
Sadler, Ernest Alfred, Mason College, Birmingham.
Sawyer, Ramon Alexander, Guy's Hospital.
Smith, Thomas Wilson (*Z.*), Guy's Hospital.
Starling, Ernest Henry, Guy's Hospital.
Williams, John Price, Owens College.
Williams, William Griffith, Owens College.
Wood, Frank Lomax, Owens College.

Second Division.

Adamson, Horatio George, St. Bartholomew's Hospital.
Alcock, Richard, Owens College.
Andrews, Launcelot William (*Ch.*), St. Bartholomew's Hospital.
Bahadhurji, Kaikhosro Nasarvanji, University College.
*Baine, Laurence Augustus, Mason College and College of Physical Science, Newcastle-on-Tyne.
Baker, Robert William, University College.
Bannister, Marmaduke, Owens College.
Barclay, Wilfred Martin, Bristol Medical School.
Baxendell, Arthur, Owens College.
Bays, James Thomas, University College and Private Study.
Berry, George Arthur, Owens College.
*Blake, James Edward Huxley, Mason College, Birmingham.
Boyce, Robert William, University College.
Brindley, Albert Edward, Owens College.
Brook, William Frederick, St. Thomas's Hospital and Private Study and Tuition.
Brownlow, George Percy, St. Bartholomew's Hospital.
Bryett, Lewis Thomas Fraser, King's College.
Bueno de Mesquita, Solomon, Guy's Hospital.
Buist, James Joseph (*Z.*), St. Bartholomew's Hospital.
Burt, Cyril Cecil Barrow, Westminster Hospital.
Carter, Robert James, King's College.
Cass, Arthur Morgan, Owens College.
Chaster, George William, University College, Liverpool.
Clark, Francis William, Middlesex Hospital.
Colman, Walter Stacy, University of Edinburgh and Private Study.
Cooke, Cecil Whitehall, St. Thomas's Hospital.
*Cribb, Cecil Howard, University College and Royal School of Mines.
Cunningham, John, Royal Infirmary School of Medicine, Liverpool.
Deanesly, Edward, University College.
De Jong, Edward Meyer, Owens College.
*Duer, Charles, University College.
*Durham, Arthur Ellis, University College.
Dyer, John Edward, University College.
Edmonds, Henry Augustus (*Z.*), Guy's Hospital.
Fawssett, Frank, St. Thomas's Hospital.
*Gardiner, John, Owens College.
Gault, Arthur Henry, Owens College.
Gifford, George Taylor, King's College.
*Gould, John Edwin, University College.
Grayfoot, Blenman Buhot, University of Edinburgh.
Grierson, George Frederick, Owens College.
*Hastings, Edwin Birchall, University College.
Hebblethwaite, Harold, Leeds School of Medicine and Yorkshire College.
Hensley, Philip Henry, King's College.
Holder, Sydney Ernest, University College.
Johnson, Harold, St. Bartholomew's Hospital and Private Study.
Johnston, Charles Saint, Mason College, Birmingham.
Jones, David Thomas (*B.*), University College of Wales.
*Jones, Herbert Saunders Wansbrough, New Kingswood School.
Kelsall, Henry Truman, London Hospital.
Kingsford, Arthur Beresford, University College.
Leche, Arthur, University College, Bristol.
Ledward, Milton Prentice, Owens College.
Lightbody, John Henry, Royal Infirmary School of Medicine and University College, Liverpool.
Mackenzie, William Kenneth, King's College.
Mair, Ludovic William Darra, Epsom College.
Morgan, Morgan John, University College of Wales.
Moss, Enoch, Guy's Hospital.
Oliver, Charles Pye, Charing Cross Hospital.
Ord, William Theophilus, Bristol Medical School and Private Study and Tuition.
Padbury, George John, Guy's Hospital.
Parker, George Dines (*Ph*), University College of Wales.
Parkinson, John Porter, University College.
Posnett, Edward (*Ph.*), Yorkshire College, Leeds.
Powell, Llewelyn William, University College.
Randall, Philip Nicholas, Guy's Hospital.
Rivers, William Halse Rivers, St. Bartholomew's Hospital.
Rossall, Joseph Crofts, St. Mary's Hospital and Private Tuition.
Royce, Mary, University College and Private Study.
Sarjant, Frank Percy, Guy's Hospital.
Savery, Frank, University College.
Smith, Guy Bellingham, University College.
Smyth, Nugent Edward, Mason College, Birmingham.
Snell, Ernest Hugh, Mason College, Birmingham.
Sutherland, G. Whitefield, B.A.Sydney, University of Edinburgh and University College.
Symonds, Henry, St. Bartholomew's Hospital.
Taylor, Frederick Howard, London Hospital and Private Study.
Tidey, Stuart Alexander, St. Mary's Hospital and Private Tuition.
Tonking, John Herbert, St. Thomas's Hospital.
Tresidder, William Elliot, Guy's Hospital.
Tubby, Alfred Herbert, Guy's Hospital.
Tuckett, Edward Hamilton, University College, Bristol, and Private Study.
Upham, Charles Hazlitt, Private Study.
Vaughan, Alfred Ellis, Owens College.
Vincent, Herbert Edmund, Guy's Hospital.
Ward, Ernest (*Ph.*), Bristol Medical School.
Ward, Howard Percy, Felsted School and King's College.
*Whitehead, Henry Edward, St. Bartholomew's Hospital.
Wood, Frank Stanley, Guy's Hospital.
Wood, John Edwin, B.A. (*Ch.*), Yorkshire College, Leeds.

Experimental Physics only.

Aveline, Henry Talbot Sidney, Private Study.
Holloway, Samuel Frederick, Guy's Hospital.
Spreat, Frank Arthur, St. Bartholomew's Hospital and Private Tuition.
Stacy, John Herbert, Private Study.
Stephens, Richard John, King's College.

Botany only.

Brennan, Joseph Richard Mary, Owens College.

Zoology only.

Bidwell, Leonard Arthur, St. Thomas's Hospital.

* These candidates have also passed in the Mathematics of the Intermediate Examination in Science, and have thus become admissible to the B.Sc. Examination.

(*Ch.*) These candidates have postponed their Examination in Chemistry. (*Ph.*) These candidates have postponed their Examination in Physics. (*B.*) This candidate has postponed his Examination in Botany. (*Z.*) These candidates have postponed their Examination in Zoology.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the July sittings of the Examiners.

Denis Hassett, Waterford; William Gibb, Dundee; Richard Crawshaw Holt, Accrington; Charles Oliver Stanwell, Rochdale; Francisco Fernandes, Demerara; William Bernard Thomas Connolly, Dublin; Edward John Thomas, Chester; William Davies, Manchester; Richard Townsend Herbert Bland, Plymouth; Ralph Bennett Sidebottom, Mottram; William Knott, Oldham; Henry Caudwell, London; Herbert Peck, Wigan; Chas. Augustus Thorne, Ireland; Hubert William Burke, county Down; Wm. Booth, Inverleithen; Edwin Joseph Booth, Durham; Frederick Martin, Dublin; Ernest Frederic Eliot, Birmingham; John Hepburn Dudgeon, Birmingham; Thos. Valentine Devey, Wolsingham; Robert Hall, county Down; Arthur Windham Martin, Shropshire; George Lennox Moore, Staffordshire; John Charles French, Durham; Samuel Henry Steele, Staffordshire; Richard Arthur Scott, Yorkshire; Arthur Edward Newbury Browne, London; Benjamin Sidney Browne, West Bromwich; Samuel Horner Craig, county Londonderry; George Todd, Manchester; Richard Griffith, Carnarvon; Edward John Hawkes, Brighton; François Lion Heisler, Mauritius; Charles Farrell, Dublin; George Thomas Hartley, Castleford; Francis Sidley Eagar, county Kildare; Alfred Ernest Weightman, Liverpool; Benjamin Baynham, Dublin.

During July and August, the following gentlemen passed their final examination, and were admitted L.R.C.P.Edinburgh and L.R.C.S. Edinburgh:

William Bradley, Dublin; John Nelms Hawtin, Bristol; James Maher, Ballinasloe; John Edmund Hutchings Stephens, Penryn, Cornwall; Hubert Hartley, Yorkshire; Thomas Williams, Anglesea; Charles Williams, London; Wm. Henry Miller, Canary Islands; John Joseph Butler, Limerick; Thomas Macdonnell Parr, Chatham; Alfred Everley Taylor, Scarborough; Joseph Macnab, county Cork; Edward Joseph Fernandez, Hong Kong; Highett Philip Westbury, Burbage; Charles Walter Hemming, Gloucestershire; William Steuart, Edinburgh; Odoardo Tomaso Achille Villani Van-Vestrant, London; Robert Ashburner, Ulverston; John Hepburn, Rathin; John Walter Burbidge, London; Benjamin Franklin Wright Hurdman, Canada; Jas. Fallon, Athlone; Hubert William Burke, Devon; John Poyntz Rice, county Kerry; Frank Pritchard Month, Chester; David Anderson, Dollar; Alexander Thomas Leonard, county Galway; Laurence John Raymond Louis Quin, Belfast; Frederick Knollys Pigott, Wexford; Charles William Purves, Huntingdon; Edward Morse, Crewkerne; Fitzgerald Uniacke Anderson, Halifax, N.S.; Alfred Thomas, Lancashire; George Blake Masson, Darjeeling; Patrick Kehir, Templemore; John William Walter Poyntz, Bombay; Harry Major Leckenby Williamson, London; Theodore Thomson, Aberdeen; Alexander Sutherland, Dumbarton; Eugene Wilton Anderson, Victoria; Edgar George Bulleid, London.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—During the July sittings of the Examiners, the following gentlemen passed their final examination, and were admitted L.R.C.S.Edinburgh:

Albert Bleckly Clarke, Cambridgeshire; Joseph Harrison, Bradford; Archibald Jas. Alexander Campbell, Perth; William Frederick Walker, Dover; William Houston Low, Ayrshire.

Messrs. James Main Nicol, London, James Johnstone, Nottingham, Alfred Henry Thomas, Chester, and Aitken W. Cormack, Edinburgh, passed their first professional examination for the Licence in Dental

Surgery; and Charles William Glassington, London, passed the final examination, and was admitted L.D.S.

UNIVERSITY OF EDINBURGH.—The following gentlemen received degrees in Medicine and Surgery on Wednesday, August 1st, 1883:

The Degree of Doctor of Medicine, with the Titles of the Theses. (*** denotes those who have obtained prizes for their dissertations; ** those deemed worthy of competing for the dissertation prizes; * those commended for their dissertations.) Francis John Allan, Scotland, M.B. and C.M., 1880: The Etiology of Phthisis Pulmonalis. *George William Wetton Ashdown, England, M.B. and C.M., 1880: Diseases of the Ear. *David Beattie Bain, Scotland, M.B. and C.M., 1872: The Physiological Dynamics of the Skin. ***Isaac Bayley Balfour (D.Sc.Edin.), Scotland, M.B. and C.M. (with Second-Class Honours), 1877: The Phænogamic Flora of the Island of Socotra. ***Alexander Hugh Freeland Barbour (M.A.Edin.), Scotland, B.Sc., M.B. and C.M. (with Second-Class Honours), 1879: Spinal Deformity in Relation to Obstetrics. William Baxter, Scotland, M.B. and C.M., 1877: Burns, followed by certain Complications. *John Bright Berry, England, M.B. and C.M. (with Second-Class Honours) 1880: Chronic Lead-Poisoning. Robert Henry Blaikie (M.A.Edin.), Scotland, M.B. and C.M., 1881: Paracentesis Pericardii. John Cameron, Scotland, M.B. and C.M., 1877: Obstetrics and Gynæcology. *James Craig, M.B. and C.M., 1872: Scarlet Fever. Eustace Firth, England, M.B. and C.M., 1880: On Suicide. **Frederick William Dyce Fraser (M.A.Edin.), Scotland, M.B. and C.M., 1878: On the Etiology of Scarlet Fever. ***James William Fraser, England, M.B. and C.M. (with First-Class Honours), 1880: Action of Infused Beverages on Peptic Digestion. Alfred Hartley, England, M.B. and C.M., 1881: Measles. ***John Hassall, England, M.B. and C.M., 1876: Epididymitis and Orchitis. *John Hern, England, M.B., 1881: Locomotor Ataxia. *Charles Rumney Illingworth, England, M.B. and C.M. (with Second-Class Honours), 1877: On the Physiology of the Larynx. Robert M'Kenzie Johnston, Scotland, M.B. and C.M., 1881: Psoriasis, with special reference to Treatment. Walter Smith Kay, Scotland, M.B. and C.M., 1877: General Paralysis of the Insane. Thomas Preston Lewis, England, M.B. and C.M., 1877: On Etiology. *John Greig M'Dowall, Scotland, M.B. and C.M., 1873: The Use of Sedatives in the Treatment of the Insane. *Petrus Jacobus Retief, Cape of Good Hope, M.B. and C.M., 1880: The Action of Copaiva Balsam. (Received the degree on April 20th, 1883.) *Alexander Milne Robertson, Scotland, M.B. and C.M., 1872: Anthropological Account of the Aborigines of Western Australia, together with the Climate, etc., of the Country. *James George Robertson, Africa, M.B. and C.M., 1876: Jaborandi and Pilocarpin. *Alexander Simpson Rose, Scotland, M.B. and C.M., 1880: Notes on some of the more Prevalent Diseases of the Egyptian Expedition of 1882-83. Thomas Henry Smith, England, M.B. and C.M., 1877: Angina Pectoris. *Arnold Hirst Watkins, England, M.B. and C.M. (with Second-Class Honours), 1875: Tracheotomy for Croup and Diphtheria. *John Waugh (M.A.Edin.), Scotland, M.B. and C.M., 1881: On the Pathogenesis of Croupous Pneumonia. Rowland Hill Weight, England, M.B. and C.M., 1880: Hydrotherapeutics in Febrile Conditions. Henry George Luther Wortabet, Syria, M.B. and C.M., 1878: Calculi of the Urinary System.

The Degree of Doctor of Medicine under the Old Statutes, with the Title of the Thesis.—George More Reid, Scotland: On the Radical Cure of Hernia, with special reference to some of the Methods that have been adopted for that purpose.

The Degrees of Bachelor of Medicine and Master in Surgery. (*a* indicates that the candidate passed the examinations with first-class honours; *b* indicates that the candidate passed the examinations with second-class honours.) Augustus Whitehorn Addinsell, England; Alfred Aikman, Scotland; Charles Aitken, India; *a*George Forbes Alexander, Scotland; Edwin Baily, England; *b*Percy John Baily, England; John William Ballantyne, Scotland; Thomas Lane Bancroft, England; *b*Theodore Hugh Barker, Australia; William Henry Barrett, Gibraltar; Hunter Jackson Barron, England; David George Bennet (B.A. New Brunswick), Canada; Patrick Hunter Bett, Scotland; William Bird, England; John Bowes, Scotland (received the degrees on November 25th, 1882); George Thomas Broatch, Scotland; Charles Brown, Scotland; John Henry Brown, England; Andrew Crichton Buist, Scotland; Thomas Marshall Buncle, Scotland; George Schuyler Cardew, India; James Matthew Caw, Scotland; Edwin Albert Chill, India; Michael Clark, England; Ronald Clark, Scotland; Arthur Henry Weiss Clemow, England; Charles Newberry Cobbett, England; Philip Cockburn, Scotland (received the degrees on November 25th, 1882); Horace Cocks, England; Sidney Alfred Comber, England; Francis Gillies Connor, Australia; William Cotton (M.A.), Scotland; James Craig, Scotland; *b*William Cumming, Scotland; James Dalgleish, Scotland; Thomas Kennedy Dalziel, Scotland; Daniel Rees Davies, England; John Davies, Wales; William Hugo Davies, England; Thomas Harrison Davison, England; *b*Archibald Telford Dochard, Scotland; *b*Archibald Donald (M.A.Edin.), Scotland; Herbert Johnson Dring, England; Alexander Peters Drummond, Scotland; *b*William Duff, Scotland; George Duncan, Scotland; Thomas Edward Dyson, England; David Griffith Evans, Anglesey; Thomas Johnson Fletcher, England; Boston Elphinstone Fordyce, Scotland; William Henry Francis, Chili; Alexander George Fraser (M.A.Aberd.), Scotland; William Duncan Fraser, Wales; *b*Arthur Fuller, England; Matthew Henry Gardiner (M.A.Glasg.), Scotland; Walter Chancellor Garman, England; Robert Ritchie Giddings, England; *b*Frank William Albion Godfrey, Australia; Robert Gordon, England; William Bruce Gowans, Scotland; Vernon John Greenhough, (B.A.Cantab.), England; *b*Francis Walter Grierson, Scotland; Matthew Wilkins Gutteridge, England; Francis James Hall, England; Frederick William George Hall, India; Patrick Brodie Handyside, Scotland; Robert Hardie, Scotland (received the degrees on November 25th, 1882); James Heath, Ireland; Edward Bateman Hector, Scotland; Robert Dundas Helm, Scotland; John Henderson (M.A.Q.U.Ireland), Ireland; *a*George Hewlett, Ireland; John Stonely Hill, England; Thomas Knight Hill, England; John Hoyle, England; James Hunter, Scotland; *a*William Hunter, Scotland; John Hutson (B.A.Durham), Barbadoes; Robert Inch, Scotland; George Irving (M.A.Edin.), Scotland; John Lowthian Jackson, England; Adam Jameson, Scotland; Samuel Johnson, India; Charles Hampson Jones, America; Francis William Brandram Jones, England; John Gregory Jordan, Calcutta; John Edward Harry Kelso, India; John Spence Law, Scotland; Thomas Spencer Lawry, New Zealand; William Murray Leslie, Scotland; Joseph Alexandre Lestrade, St. Lucia; Henry James Ley, England; Charles Louis Lightfoot, England; Henry Sanderson Lloyd, Australia; Robert Thomas Bell Lorraine, Scotland; John Alfred Loudon, England; Thomas Malcolm Murray Lyon, Scotland; Herbert Macandrew, New Zealand; John Cowan M'Clew, Scotland; John Macdonald, Scotland; William Fraser Macdonald, Scotland; Allan Macfadyen, Scotland; Alexander Duncan Macgregor, Scotland (received the degrees on January 27th, 1883); John Archibald M'Intyre, Shetland; Francis Alphonsus Maciver, England; *b*George Mackay, Madras; William Alexander Mackay, Scotland (received the degrees on April, 20th 1883); *a*Archibald Mackenzie, Natal; Robert Mackenzie, Scotland; Frank Irvine Mackinnon, Scotland; John M'Lachlan, Scotland; Charles George Maclagan, Berwick-on-Tweed; James Alexander M'Laren, Scotland; John Shaw M'Laren (M.A.Edin.), Scotland; James Macpherson, New Zealand; William Aberdein Malcolm, Scotland; Augustus Alexander Matheson, Scotland; Farquhar William Matheson, Scotland; Duncan Menzies (M.A.St. And.), Scotland; Alexander Cameron Miller, Scotland; Ralph Smith Miller, Scotland; William Henry Miller, Canary Islands; David Milligan, Scotland; James Milne, Australia; Robert Peter Mitchell, Scotland; Pieter de Villiers Moll, South Africa; Arthur Rowley Moody, England; Robert James Anderson Moore, Isle of Man; Benjamin Michael Moorehouse, New Zealand; Upendra Nath Mukerji, Calcutta; Andrew Watson Munro, Scotland; Alexander Brown Murdoch, Scotland; James Adam Johnston Murray, England; Andrew Scott Myrtle, England; John Headley Neale, England; Andrew Murray Neethling, Cape of Good Hope; Gustavus Paul Nicolet, Belgium; *a*Gerrit Nieuwoudt (B.A.Cape of Good Hope), Cape of Good Hope; John Tawse Nisbet, Scotland; John Orr, India; George Dall Orrock, Scotland; *b*Owen Richard Pughe Owen, Wales; *b*George Park (M.A.St. And.), America; *a*Andrew Melville Paterson, England; Walter Petter, England; William Ernest Porter, England; Alexander William Gordon Price, India; William Locking Price, India; Joseph Priestley (B.A.Lond.), England; James Black Roberts, England; *b*James Stirling Robertson (M.A.Edin.), Scotland; *b*Thomas Murray Robertson, India; *b*Arthur Robinson, England; Chisholm Ross, Australia; Frank Rothera, England; Henry Davis Rowan, India; Mark Anthony Savage, Ireland; Harry Scott, England; Stanley Scott, England; William Duncan Scott (B.A.Oxon.), Scotland; Lloyd Grant Smith, England; Arthur Edward Cecil Spence, India; William Spence, Scotland (received the degrees on November 25th, 1882); Alexander Stables, Scotland; Arthur Cowell Stark, England; John Steell, India; Charles Stein, Scotland; James Robert Stevenson, Scotland (received the degrees on November 25th, 1882); Arthur Jallard Stiles, England; William Malcolm Sturrock, Scotland; Allan Cuthbertson Sym, Scotland; George Peter Taylor, England; Andrew Thomson, Scotland; Daniel Gibson Pearce Thomson, Scotland; George Thomson, Scotland; Richard Vassie, Scotland; John Walther, England; Allan Ogier Ward, England; Edward Henry Warner, England; Alexander Oswald Cowan Watson, India; Walter Frederick Rodolph de Watteville, Switzerland; James Bates Wilkinson, England; Henry Arnot Wilson, Scotland; *b*James Thomas Wilson, Scotland; *b*Theodore Stacey Wilson (B.Sc.Edin.), England; Edin Aubrey Witchell, England; Alexander John Wood, India; George Benington Wood, England; Thomas Wood, Scotland (received the degrees on April 20th, 1883); Peter Yates, England; *b*Arthur Charles Younan, Calcutta.

The Ettles Scholarship for 1883 and the Beaney Prize were awarded to William Hunter, M.B., C.M.; the Buchanan Scholarship was awarded to John William Ballantyne, M.B., C.M.; the James Scott Scholarship was awarded to George Forbes Alexander, M.B., C.M.; and the Dobbie-Smith Gold Medal was awarded to John R. Henderson, Student of Medicine.

SECOND PROFESSIONAL EXAMINATION.—The following candidates passed the second professional examination in July:

A. M. Adams, N. E. Aldridge, J. B. Bawden, David Berry, Alex. Bissett, Reginald Bowman, Herbert Bramwell, D. M. Brown, T. A. Brown, R. F. Burt, E. K. Campbell, J. G. Cassells, L. M. F. Christian, T. G. Churcher, A. H. Croucher, Daniel Davies-Jones, Thomas Easton, Edwin Eckersley, Francisco Fernandes, Thomas Fraser, T. A. W. Fulton (with distinction), C. H. Gage-Brown, W. D. Grieve, W. T. Gubbin, T. M. Hodgson, W. A. Holmes, T. A. F. Hood, Robert Howden (with distinction), E. M. Inglis, Hugh John, David Laing, A. E. Langschmidt, C. N. Lee, C. L. Lempriere, C. J. Lewis (with distinction), W. G. Little, J. S. M'Cracken, A. G. Macdonald, John Macdonald, W. C. M'Ewan, John M'Gibbon, Alistair Macgregor, William Mackay, William B. Mackay, F. L. Mackenzie, J. C. Mackenzie, A. R. Macmillan, Archibald Macqueen, L. G. Mallam, W. H. Vander Merwe, David Morgan, J. H. Neethling, C. E. Paterson, E. F. T. Price, A. C. Purchas, C. W. Purves, T. R. Rait, F. M. Reynolds, John Richards, William Richards, J. B. Ridley, J. C. Robertson, R. M. Robertson, T. H. Robinson, W. L. Ross, A. J. T. Roux, Joseph Rutter (with distinction), Y. S. Sanitwongse, Herbert Shelmerdine, R. D. Shiels, A. H. Smith, George Smith (with distinction), S. H. A. Stephenson, C. H. Stewart (B.Sc.), H. J. Styles (with distinction), J. W. Stirling, J. F. Sturrock, John Sykes, John Tomlinson, J. R. Wallace, J. E. West, F. G. Westenra, R. H. A. Whitelocke, S. T. Williamson, G. E. C. Wood, J. W Wyncoll, J. C. Young.

UNIVERSITY OF GLASGOW.—The following degrees have been conferred in the Faculty of Medicine:

Doctors of Medicine, with the Titles of the Theses. (* denotes those commended for their theses.) George Richard Allan, B.A., M.A., England. Angus Campbell, M.B., Scotland: Certain Dangers to Health which result from the Present System of Elementary Education in Scotland. Wm. Alexander Caskie, M.A., M.B., Scotland: Observations in Midwifery, with Special Reference to the Use of the Forceps. David Couper, M.B., Scotland: Epidemic and Sporadic Diphtheria. Andrew Denholm, M.B., Scotland: The Nature and Causes of Erysipelas. John Highet, M.B., Scotland: Infantile Diarrhœa. Thomas Ballantyne Howie, M.B., Scotland: Some Remarks on the Etiology and Treatment of Diphtheria. *David Wood

Inglis, M.A., M.B., Scotland: On the Prevention of Lead-poisoning among Workers in Whitelead Factories. *David Newman, M.B., Scotland: Displacements of the Kidney. Edward Graham Ochiltree, M.B., Australia: Hydatids of the Lung. Richard Prichard, M.B., Wales: A Clinical Review of nearly Four Hundred Cases of Scarlet Fever. Charles William Stewart, M.A., M.B., Scotland: Recent Researches on Tubercle: their relation to certain points in connection with pulmonary disease; with illustrative cases, etc. James Mitchell Wilson, M.B.Scotland. John M. Yair, M.B., Scotland: A Case of Enlarged Prostate, with Sacculation of the Bladder and Hidden Calculus.

Bachelors of Medicine and Masters in Surgery. William B. Aitken, Scotland; Samuel Alexander, Ireland; Thomas G. Alexander, Scotland; David Arthur, Scotland; Robert E Beveridge, Scotland; Benjamin Blaine, South Africa; James J. Campbell, Scotland; William Campbell, Scotland; John Clerk, Scotland; Francis H. Colvin, M.A., Scotland; John C. Crawford, Scotland; Robert Davidson, Scotland; Makhan Lal Day, India; J. Innes Dunlop, Scotland; William Dunlop, Scotland; William A. Forsyth, Scotland; Geo. C. H. Fulton, Scotland; Herbert M. Gay, England; James F. Gemmel, Scotland; William Gibb, Scotland; William F. Gibb, Scotland; William Gordon, Scotland; Robert Gourlay, Scotland; James Hamilton, Scotland; William T. Hamilton, South Africa; James M. Headrick, Scotland; J. C. Herbertson, M.A., Scotland; Peter Hodge, Scotland; Geo. M. Hogg, England; Thomas Howard, Scotland; Alexander Howie, Scotland; Robert R. Hunter, Scotland; C. Hutchinson, Ireland; Alexander Johnston, Scotland; Francis Johnston, Scotland; Geo. G. Kenny, India; John Kerr, Scotland; James B. Lawson, Scotland; William Little, England; William Martin, Scotland; Alexander Morison, Scotland; Geo. A. Morris, Scotland; James S. Muir, Scotland; Henry D. M'Culloch, India; John M'Donald, Scotland; Neil C. M'Donald, Scotland; John F. Macgregor, Scotland; Daniel M'Kenzie, Scotland; Hugh M. MacKintosh, Scotland; Archibald M'Lean, Scotland; J. R. Macnaughton, Scotland; David Orr, Scotland; John T. Prangnell, Scotland; Francis S. Prosser, Wales; W. F. Quaife, B.A., Sydney; David T. Richard, Wales; R. A. D. Robb, Scotland; John M. Robertson, Scotland; John Russell, Scotland; A. J. F. Skottowe, India; William A. Soga, South Africa; William Stafford, England; Ross S. Steele, Scotland; Andrew Stewart, Scotland; William L. Strain, Scotland; William Vost, Scotland; Alfred Williams, England; John C. Wilson, Scotland; John Young, Scotland; Robert H. Young, Scotland; R. B. Young, M.A., Scotland; William T. Adam, Scotland; Robert M'G. Binnie, Scotland; Alexander Dickson, Scotland; James Gibson, Scotland; James Gledhill, England; John Logan, Scotland; John W. Murray, Scotland; John F. M'Gregor, Scotland; David M. Smith, Scotland; Patrick H. Walker, Scotland.

The following gentlemen were named as entitled to Honours, to High Commendation, and to Commendation, on account of distinguished merit at the various examinations for the degrees of M.B. and C.M. I. *Honours:* John Innes Dunlop; II. *High Commendation:* William A. Forsyth; III. *Commendation:* Benjamin Blaine, Francis H. Colvin, M.A., James F. Gemmel, William Gibb, William F. Gibb, William Little, Alfred Williams, R. Bruce Young, M.A.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—During the April sittings of the Examiners, the following gentlemen were admitted Licentiates of the Faculty:

H. M. Baylis, Southport; William Belcher, Cork; Gilbert H. Coates, Glasgow; J. C. Edmiston, Rutherglen; John F. Harrison, Manchester; Alfred Hill, York; Ralph William Hodges, Queenstown; William H. Holden, Bolton; J. Jenkins, Ancaster; J. H. MacMullan, Belfast; Edward James H. Midwinter, Barnet; Thomas Mowat, Glasgow; E. A. Praeger, Hitchin, G. W. A. Ross, Glasgow; R. Steele, Glasgow; Andrew W. Walker, Edinburgh; Henry Willett, Great Budworth.

The following have passed the final examination for the double qualification, and been admitted Licentiates of the Faculty and of the Royal College of Physicians of Edinburgh:

Alexander Cameron, Glasgow; Thomas E. Flitcroft, Preston; David K. Given, Newtonstewart; Thomas Gray, M.D., Ontario; Archibald S. T. Johnstone, Bridge of Allan; Nannystamby Lappayah, Ceylon; Harold Charles Ling, Glasgow; Thomas B, Macfarlane, Glasgow; Walter Morris, Glasgow; Samuel A. Metherell, Glasgow; Richard Henry Quine, Isle of Man; John C. Urquhart, Glasgow; Henry O. Watson, Leeds.

UNIVERSITY OF ABERDEEN.—During the past year, the following candidates received degrees in Medicine and Surgery:

Degree of M.D.—John Barrett, M.B., C.M., P. and O. Service; Harry A. Benham, M.B., C.M, Dundee Royal Asylum; Algernon A Cohen, M.B., C.M., Burwash, Sussex; Alex. D. Diack, M.B., C.M., Fort Beaufort, Cape Colony; John M. Gibbes, M.B., C.M.; Skene Gordon, M.B., C.M., South Africa; Alex. H. Griffith, M.B., C.M., Royal Eye Hospital, Manchester; Robert Harvey, M.B., C.M., Professor of Midwifery, Medical College of Bengal; Honorary Surgeon to H.E. the Viceroy of India; Frederick M. Hawkins, M.B., C.M., London; Geo. R. MacGregor, M.B., C.M., Bingley; Charles M. Mac Quibban, M.B., C.M., Aberdeen; John Ramage, M.B., C.M., British Seamen's Hospital, Cronstadt; William Reid, M.B., C.M., Kensington, London; Charles B. Richardson, M.B., C.M., Brighton; John Ruxton, M.B., C.M., Blackpool, Lancashire; William D. Steel, M.B., C.M., Abergavenny; David Tulloch, M.B., C.M., Winnipeg, Canada; John M. A. Wallis, M.B., C.M, Whittingham, Preston; Charles L. Wattie, M.B., C.M., Inverkindie; Alexander J. Willcocks, M.B., C.M., Bulandshaler, N.W.P., India.

Degrees of M.B. and C.M.—John Baker, Aberdeen; Robert M. Beaton, Aberdeen; Alfred Brown, M.A., Welshpool; Geo. Buchan, Aberdeen; Sylvester J. Cole, Freetown, Sierra Leone; Henri Cook, Greenock; Alexander Cowley, Dublin; Geo. Forsyth Ashley Da Costa, Kingston, Jamaica; Francis Falconer, M.A., Aberdeen; James T. Fraser, Longsight, Manchester; John Gerard, M.A., Aberdeen; Henry Gibbons, Kurrachee, India; John Gordon, Aberdeen; Geo. Grant, Keith; John Gregory, Bridge of Don; Andrew Hosie, Aberdeen; John Inglis, M.A., Aberdeen; David Ireland, Brechin; Charles Jeffrey, Tarland; Geo. Johnston, Fintray; Thomas M. Johnstone, Ellon; Louis Joseph, Colombo, Ceylon; John B. Kerr, Crawshawbooth, Manchester; Alexander W. Knox, Aberdeen; James Logie, Huntly; James F. Macdonald, Aberfeldy; John N. E. Maclennan, Lumphanan; Cyril J. Mansfield, Ryde, Isle of Wight; John Matheson, M.A., Plockton, Ross-shire; Frederic Maude, Highgate, London; John M'Combie, Oxton, Morayshire; William McKenzie, M.A., Fochabers; Grenville E. Moffett, Calcutta; James Moir, St. Kilda, Victoria; John D. Moir, St. Kilda, Victoria; William Moir, Aberdeen; James Murray, Nairn; Alexander Nicoll, Rhynie; David Petty, Montrose; David Prain, M.A., Fettercairn; James R. Purdy, Morpeth; Richard Rees, Aberdovey; James Robertson Reid, Aberdeen; Alexander Rennie, M.A, Wester Fintray; James Taylor Robb, Keith; James A. Ross, Aberdeen; William Scott, Auchairn, Keith; John G. Scroggie, Aberdeen; William J. H. Sinclair, Dunbeath, Wick; Alexander G. Smith, M.A., Torphins; James L. Smith, Aberdeen; William A. Stewart, Buxburn, Newhills; George C. Still, Aberdeen; James Struthers, Aberdeen; James Taylor, M.A., New Deer; James L. Taylor, M.A., Cullen; Alexander P. Thom, Durris, Kincardineshire; George J. K. Turner, Ellon; John Turner, Portsmouth; George Vincent, Bedfont, Middlesex; Robert Walford, Colchester; Arthur Meredith Whitehead, Nottingham.

Of the above-named candidates, David Prain, M.A., received his degrees in Medicine and Surgery with highest academical honours.

John Gerard, M.A., David Ireland, James F. Macdonald, Alexander Rennie, M.A., and William Scott received their degrees in Medicine and Surgery with honourable distinction.

At the same time, Charles A. Butchart, William Kelty, William B. Livermore, Alexander Reid, William L. Ruxton, and Arthur G. Smith were certified as having passed all the examinations, but did not graduate.

The following candidates have passed the first division of the first professional examination:

James R. Anderson, Henry Angus, Charles A. Arnold, Thomas C. Bennett, John F. Binnie, Peter Cameron, Arthur W. Chapman, Alexander F. C. Clark, Frank L. Collie, Ernest G. Coward, Alexander W. Dalgarno, William A. Deason, Thomas F. Dewar, William Diack, George H. Ede, William B. Evans, George Findlay, Alexander Forbes, Arthur D. Forbes, Charles F. Forbes, Henry F. Forbes, James Fraser, James W. Fraser, Thomas H. Fyfe, George H. Grant, William Greig, Alexander N. Grieve, James Hall, Alexander G. R. Ingram, Alexander Innes, Alexander S. Jameson, Donald G. G. Macdonald, George B. D. Macdonald, Alfred Mackay, Leslie S. Manning, Edmund T. Martin, William Milligan, Alexander Milne, Robert Morrison, Stephen Morison, James Nicol, Patrick J. Nicoll, Alexander A. Philip, Charles Reid, George M. Reid, John Russell, William C. Sheard, Robert Smith, Charles H. J. Souter, John Souter, Robert B. T. Stephenson, Herman B. T. Symons, John Taylor, James Thomson, William D. Urquhart, Frederick W. Walker, Cresswell F. White, George Williamson, George N. Wilson, Adolph Zimpel.

The following candidates have completed the first professional examination:

Alexander de Wet Allan, John Barclay, Alfred T. Brown, William R. Cheves, John Duncan, Frederick A. Foy, Thomas B. Gibson, James W. M. Gunn, Philip J. Lumsden, John Mackenzie, Archibald D. Mackinnon, John Maclean, John Malcolm, George L. H. Milne, Thomas G. Paterson, David Taylor.

The following candidates have passed the second professional examination.

Francis A. Bennet, James W. Bett, John H. Brooks, Gregor Burgess, James F. Craig, Henry M. C. Dalton, Alexander G. Davidson, James S. Dickie, Alexander G. Duguid, John C. D. Irvine, William Leith, Andrew A. Maclennan, Donald McLeod, George Milne, James Mitchell, Irvine K. Reid, Alfred E. Roberts, William Robertson, John Russell, James Savege, William B. Skinner, Leslie F. Walker, James Will, James M. Young.

ROYAL UNIVERSITY OF IRELAND.—At a meeting of the Senate on Thursday, July 12th, 1883, the Right Hon. Lord O'Hagan, K.P., Vice-Chancellor of the University, conferred the following degrees in the Faculty of Medicine:

Doctor of Medicine (M.D.).—John Andrews, John Bolster, George Clarke, Horace Elliott, Thomas Farrelly, S. Forster Freyer, Thomas G. Garry, John B. Graham, James Herron, James C. Hood, A. M. Johnson, Isaac R. Lane, Bartholomew Mangan, C. M. Mitchell, W. J. Mitchell, John A. Nealon, Peter O'Connell, W. C. D. Prendergast, Richard J. Purdon, Stephen Scanlan, Michael J. Sexton, R. G. Thompson, Francis G. Tooker, James Torrens, George W. Weir.

Bachelor of Medicine (M.B.).—Charles W. R. Wynne.

Master of Surgery (M.Ch.).—F. E. Adams, M.D., C. W. Allport, M.D., John Andrews, John Bolster, George Clark, David S. Dunn, M.D., Horace Elliott, Thomas Farrelly, S. F. Freyer, Thomas G. Garry, William Gibson, M.D., John B. Graham, Michael Kelly, M.D., Isaac R. Lane, Beattie M'Farland, M.D., Bartholomew Mangan, W. G. Mitchell, Peter O'Connell, Patrick O'Gorman, M.D., W. C. D. Prendergast, Richard J. Purdon, Stephen Scanlan, Michael J. Sexton, Simson Stuart, M.D., S. A. L. Swan, M.D., Charles W. R. Wynne.

Diploma in Obstetrics.—John Bolster, Thomas G. Garry, William Good, M.D., John B. Graham, Michael Kelly, M.D., Isaac R. Lane, Bartholomew Mangan, W. J. Mitchell, W. C. D. Prendergast, Stephen Scanlan,

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KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual quarterly First Professional Examination, held on Monday, July 9th, and following days, the undermentioned candidates were successful:

Bernard James Dorrian, Cathleen Honoria Graham, James Heffernan, Léonie Van Overbeke.

At the usual quarterly Examination for the certificate in Sanitary

Science, held on Thursday and Friday, July 12th and 13th, the certificate was granted to the following Licentiates in Medicine of the College:

Adela Bosanquet, Elizabeth Lougheed.

At the monthly Examinations for the Licences in Medicine and Midwifery, held on Monday, July 9th and four following days, the undermentioned candidates were successful:

For the Licences in Medicine and Midwifery.—Lætitia Harvey Andrew, Edinburgh; Hugh John Byrne, Dublin; Michael Richard Cleary, Herbertstown, co. Limerick; Lucy Elizabeth Cradock, Lynn, Norfolk; Edwin Thomas Ensor, M.D., New York; Arthur Ormsby FitzGerald, Hospital, co. Limerick; Frederick Samuel Heuston, Ballykisteen, co. Tipperary; James Keenan, Dublin; Arabella Madonna Kenealy, Watford, Herts; William Kenny, Limerick; Joseph Lalor, Dublin; Mark Henry Long, M.D., New York; Bernard Alphonsus McGinity, Dublin; Frederick Josiah McNaught, Dublin; John Neill, Tallaght, co. Dublin; George Francis Roughan, Galway; Albert Wilberforce Shepherd, Dublin.

For the Licence to practise Medicine only.—Anthony Laurence Blake, Clonbur, co. Galway; William Mayne Clayton, Sandycove, co. Dublin; Percy Jas. Drought, Blackrock, co. Dublin; James Vincent FitzPatrick, New Swindon, Wiltshire; Maurice Forde, Fermoy, co. Cork; James Hamilton, Omagh, co. Tyrone; James Lane, Magilligan, Londonderry; John E. McCraith, Smyrna, Asia Minor; William McGee, Dublin; Charles Henry Maher, Sydney, New South Wales, Australia; John Martin, Rathmines, Dublin; Henry Moorhead, Tullamore, King's County; John Robert Nolan, Kilbane House; Peter Joseph O'Reilly, Clones, co. Monaghan; Bartholomew Taylor Russell, Ballinderry Park, co. Tipperary; George Parsons Torney, Dublin.

For the Licence to practise Midwifery only.—Rogers Wetherall Gore Taylor, M.B.Univ.Dub., P. and O. Steampacket Company's Service.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, pursuant to the provisions of the Supplemental Charter of December 12th, 1878, have been duly enrolled as Members of the College:

Albert Augustus Gore, Lic. Med. 1860, Surgeon-Major A.M.D.; Thomas Beamish, Lic. Med. 1863, Passage West, Cork; Edward Aloysius Stephenson, Lic. Med. 1866, Tramore, co. Waterford; Bransby Roberts, Lic. Med. 1867, Eastbourne.

At a special Examination for the Licences of the College, held on Friday, Saturday, and Monday, July 27th, 28th, and 30th, the following candidate was successful:

For the Licences to practise Medicine and Midwifery.—Charles James Egan, M.R.C.S.Eng, 1857, King William's Town, Cape of Good Hope.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the stated Examinations in July 1883, the following candidates, having passed the required examinations for the diploma, and taken the declaration and signed the roll, were admitted Licentiates:

Frederick W. Allwright, Geo. Browning, John J. Buggy, John V. Byrne, Alexander Carte, Robert H. Clement, William Clifford, Arthur Cole, Geo. P. Cope, Richard J. D'Arcy, Samuel R. Deane, William Delahunt, Patrick Donnellan, Patrick Duff, John Foley, Thomas F. Griffin, Thomas G. H. Hall, Frederick S. Heuston, Andrew Hunter, Joseph P. Kelly, John M. P. Kennedy, Daniel Kenny, Nathaniel S. Manning, Jeremiah T. Martin, John Martin, Alfred H. Middleton, Thomas Moyles, Richard Murphy, Andrew J. O'Flanagan, Joseph A. Purdon, William H. B. Robinson, Geo. F. Roughan, Bartholomew Russell, Robert W. Russell, William S. Sprent, Edward C. Stack, William L. Symes, and Charles W. Wynne.

Thirteen were stopped.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 16th, 1883.

Harris, Jno. Wm., Woodhaye, Ivybridge, S. Devon.
Mountain, Jno. Joseph, Hull.
Newton, Rupert Wm., The Square, Kenilworth.
Oram, Percy Sprague, Amhurst Road, N.
Penny, Edmund Jno., The Vicarage, Abbotsbury, Dorset.
Whitfield, Jno. Neil, Moss Street, Heywood.

MEDICAL VACANCIES.

The following vacancies are announced:

ANDERSON'S COLLEGE.—Chair of Institutes of Medicine. Applications by September 5th.

CASHEL UNION, CASHEL DISPENSARY.—Medical Officer. Salary, £120 per annum, and £20 as Medical Officer of Health. Election September 1st.

CAVAN COUNTY INFIRMARY.—Surgeon. Salary, £94 per annum. Applications by September 18th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by September 8th.

CHESTER GENERAL INFIRMARY.—House Surgeon. Salary, £80 per annum. Applications by August 27th.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park Place, Manchester.—House-Surgeon. Salary, £80 per annum. Applications to Mr. Edwin W. Marshall, secretary, 38, Barton Arcade, Manchester, by August 28th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

DURSLEY UNION.—Medical Officer. Salary, £80 per annum. Applications by September 12th.

GENERAL INFIRMARY at Gloucester and GLOUCESTERSHIRE EYE INSTITUTION.—House-Surgeon. Salary, £100 per annum. Applications by September 1st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by September 1st.

GENERAL LYING-IN HOSPITAL, York Road, Lambeth.—House-Physician. Salary, £50 per annum. Applications by September 7th.

LEEDS UNION.—Assistant Medical Officer and Dispenser. Salary, £100 per annum. Applications endorsed "Application for Assistant Medical Officer," by September 1st.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—Senior House-Surgeon. Salary, 100 guineas per annum. Applications by August 27th.

LONDON HOSPITAL.—Demonstrator of Practical Chemistry. Salary, £100 per annum. Applications to the Warden by September 1st.

QUEEN'S COLLEGE, CORK.—Professorship of Midwifery. Applications to be sent to the Under Secretary, Dublin Castle, not later than August 25th.

QUEEN'S COLLEGE, Ireland.—Professor of Midwifery. Applications to the Under Secretary, Dublin Castle, by August 25th.

ROYAL INFIRMARY, Bristol.—Junior Assistant Dispenser. Applications to F. J. Milner by September 1st.

ST. BARTHOLOMEW'S HOSPITAL.—Assistant Physician. Applications by September 10th.

WALLASEY DISPENSARY.—House-Surgeon. Salary, £140 per annum. Applications by September 8th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Assistant-Physician. Applications by August 27th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon. Applications by September 1st.

MEDICAL APPOINTMENTS.

BARFOOT, G. H., M.D., appointed on the Honorary Acting Medical Staff to the Wirrall Children's Hospital, Birkenhead, *vice* J. B. Miller, M.B., resigned.

BRUNTON, C. E., M.B., appointed Assistant Medical Officer to the Middlesex County Lunatic Asylum, Colney Hatch, *vice* M. L. Brown, M.B., resigned.

GIBBON, Wm., L.K.Q.C.P.I., appointed Junior Assistant Medical Officer to the Joint Counties Asylum, Carmarthen.

GUNN, R. M., F.R.C.S., appointed Assistant-Surgeon to the Royal London Ophthalmic Hospital, Moorfields, E.C., *vice* J. C. Wordsworth, F.R.C.S.

IRWIN, A. M., L.R.C.S.I., appointed Resident Medical Officer to the Eastern Dispensary of Bath, *vice* A. J. Damant, L.R.C.P., resigned.

LOVERIDGE, A. W., M.R.C.S., appointed House-Surgeon to the Clayton Hospital and Wakefield General Dispensary, *vice* D'A. B. Carter, M.R.C.S., resigned.

MOORE, E. C., M.B., appointed Assistant Resident Medical Officer to the Downpatrick Lunatic Asylum, *vice* J. B. Dunlop, L.R.C.S., resigned.

OLPHERTS, J. W., L.R.C.P., appointed Medical Officer to the Downpatrick Union, *vice* W. Taylor, L.K.Q.C.P.I., deceased.

OULTON, H. W., M.D., appointed Medical Officer for North City to the North Dublin Union, *vice* J. R. Ferguson, M.B., resigned.

PAYNE, W. A., M.R.C.S., appointed Assistant Resident Medical Officer to the Children's Hospital, Birmingham.

PEDLEY, F. N., M.R.C.S., appointed Dental Surgeon to the Evelina Hospital for Sick Children, Southwark Bridge Road, *vice* J. J. Lyons, L.R.C.P., resigned.

POTTER, John Baptiste, M.D., Obstetric Physician to Westminster Hospital, appointed Consulting Obstetric Physician to the Western Dispensary, *vice* George Fenton, M.R.C.S., resigned.

PROVAN, J., M.D., appointed Physician to a New Department for Skin Diseases to the Glasgow Royal Infirmary.

ROBINSON, J. W., M.D., appointed Honorary District Surgeon to the Royal South London Dispensary.

SANSOM, C. L., M.R.C.S., appointed Junior Resident Medical Officer to the Royal Free Hospital, Gray's Inn Road.

SINHA, N. P., M.R.C.P., appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest.

TRAVIS, W. O., M.R.C.S., appointed Resident Curator to the Leeds School of Medicine, *vice* F. H. Mayo, M.R.C.S., resigned.

TREVES, E., M.R.C.S., appointed Honorary Assistant-Surgeon to the Brighton, Hove, and Sussex Throat and Ear Dispensary, 23, Queen's Road, *vice* G. F. Hodgson, M.R.C.S., resigned.

TRIMBLE, J. M., M.D., appointed Medical Officer to the Strabane Dispensary District, *vice* J. C. Boyd, M.D., resigned.

VERDON, H. W., M.D., appointed Medical Officer of Health to the Vestry of Lambeth.

WILSON, G. B., L.R.C.S., appointed Second Assistant to Resident Medical Superintendent to the Cork District Lunatic Asylum.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

MARTIN.—On August 21st, at "Arnheim," Blackburn, the wife of John M. H. Martin, M.D., of a son.

MARRIAGE.

BURTONSHAW—NICHOLLS.—On August 18th, at All Saints, Dalston, by the Rev. J. Pitkin, uncle of the bride, assisted by the Rev. W. St. Hill Bourne, vicar, Thomas Burtonshaw, M.R.C.S.Eng., Brooke Lodge, De Beauvoir Road, N., to Emily, second daughter of Thos. Nicholls, Esq., of 258, Kingsland Road, N.E.

DEATH.

ATKINSON.—At West House, Wylam-upon-Tyne, in the 68th year of his age, John Ismay Atkinson, Surgeon.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S. 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

UNQUALIFIED ASSISTANTS.

SIR,—Some time ago, there was a letter in the JOURNAL from a Mr. Durham, showing the hardships that would result from preventing the employment of unqualified assistants by medical men. The main objection he brings forward is, that while he is going his round he cannot be earning money by proxy through an unqualified assistant. Practically, it resolves itself into the fact that he desires more than his share of pay for work done. Not content with being occupied all, or nearly all, day, he must take a portion of that which might support another. Certainly, he says the fees may be very low, to which I would say that if a medical man, busy nearly all day, cannot earn a decent livelihood, the sooner he quits the profession the better. And what cases may be safely left to an unqualified assistant? And if they can manage them, why not send them to a druggist, who would no doubt have as much and more experience than the assistant?

Mr. Durham strangely prefers unqualified to qualified assistants, apparently for their greater amiability (necessary in default of other qualification). He intimates that they have more knowledge of ordinary work, but does not say at whose expense, or when they got it. How have they obtained this superiority over qualified men?

The great reason why unqualified assistants are employed is to obtain money easily, and without earning it; and its result is to enrich the greedy and unscrupulous, and to keep poor the younger and more honest members of the profession. I hope Parliament will make it illegal to employ unqualified assistants, so that men may be obliged to live on what they earn themselves. The country pays for medical advice for the poor who are unable to pay for themselves, which is better than permitting them to be treated by unqualified men or by druggists.—I am, etc.,

RICHMOND LEIGH.

SIR,—Permit me to emphatically protest against "J. B. D.'s" standard of professional ability. Minute anatomy, and a knowledge of the microscope in medicine are all well enough, but not to be able to diagnose a six-ounce from an eight-ounce bottle shows astounding ignorance. If an additional argument against unqualified assistants were needed, "J. B. D." has supplied one. This bottle-practice, amongst qualified men, does more to lower the profession than any amount of interference by unqualified quacks.

The fact of this matter is, that at the bottom of the question of qualified, or non-qualified, assistants, there is a layer of jealousy. We oldsters find that the youngsters know a good many things of which we have never heard; and if, instead of trying to teach them the duties of the chemist and druggist, we put our pride in our pockets and condescend to pick up some novel ideas, we should find mutual benefit, the science of the young combining with the experience of the old.

A good deal has been said about the greater experience of the unqualified assistant; but experience is a measure of time under certain conditions, and there can be no question that one of these conditions ought to be a scientific education. I have only to add that I have never been an assistant, nor an employer of one, and therefore I speak without prejudice; and only for the honour of the profession to which I have the honour to belong.—I am, sir, your obedient servant,

R. E. P.

SIR,—After reading "J. B. D.'s" letter in the JOURNAL of June 30th, I came to the conclusion, that I could easily agree with "J. B. D.," in the fact that he must be a man who has had a great many assistants. In such cases it is sometimes the assistant's fault, more often a want of judicious selection on the part of the principal; for, nowadays, the latter cannot complain of having a meagre number of candidates for his vacant assistancy. Though we may need the careful watching of which "J. B. D." speaks, presuming that serious mistakes are committed at least as often by the unqualified man, as by the qualified, probably "J. B. D." would prefer that the fault, should it unfortunately occur, should be made by the licensed man, who would have to bear the consequences of it, rather than by the unqualified, who would involve the principal far more seriously.

On behalf of a large number of young qualified assistants, I protest very strongly against "J. B. D.'s" unfair letter, feeling convinced that if he took the trouble beforehand, he could easily secure a man who, though young and ignorant of the routine of practice, would yet be found willing to learn, and who would treat his patients in a gentlemanly fashion. We are all inexperienced, but we are not all ignorant and conceited; most of us, in starting, receive sufficient rebuffs to reduce the self-assurance we have brought from college. "J. B. D.'s" suggestion at the end of his letter, and his remarks thereon, reflect the general absurdity of his communication.—I am, etc.,

M. B.

SIR,—In the Medical Acts Amendment Bill, there is but little more to prohibit the practice of unqualified persons than hitherto. Such persons but seldom use medical titles, and, consequently, but rarely come within reach of the law.

In the interest of the public and the profession, why not at once stamp out such practice by making it illegal for a registrar to accept any death-certificate unless signed by a registered medical practitioner, or by a coroner's order? It appearing imminently necessary to put an effectual stop on the practice of all unqualified persons, I have offered the above as a suggestion. I enclose my card, and remain, yours truly,

L.R.C.P.Edin., Mem. Brit. Med. Assoc.

SIR,—I am constrained with gratitude to "J. B. D" for his letter on the above subject. I willingly admit, for my adversaries' sake, that there are men engaged as assistants who have never even passed the preliminary examination in arts, who have never gone through any training, and who know little or nothing about the work; these men should certainly not be recognised. On the other hand, I have had unqualified assistants who, owing to pecuniary circumstances, have not been able to finish; yet, striving honourably to win the laurels, they have, practically, been better up to the work than the legally qualified ones. When the Medical Acts Amendment Bill comes into force, I hope the Medical Council will institute an examination, similar to the primary professional examination for the L.R.C.P., in materia medica, osteology, etc. This will give to the practitioner some advantages in taking pupils before they enter hospital; and, depend upon it, the man who has spent one or two years with a man in active practice, is far better fitted for his profession than a man who has never seen a case outside his hospital. The last two qualified men I had could not dispense their own prescriptions, although they could talk for hours about the vasa vorticosa, or sublobular vein. Unqualified assistants are not often taken in a philanthropic spirit, but, on the other hand, like a cabman, to be sent hither and thither. Most of us on the *Register* have been acting as unqualified assistants at some time.

My present unqualified assistant matriculated at the University of London

in the first division, and has passed his primary examination at the College of Surgeons, and, prior to his hospital work, spent eighteen months with a practitioner. He is practically better up to the work than any qualified man, whose errors are covered by law, and who is unable to distinguish between a suppository mould and a pill-machine.—Yours, etc.,

A PRACTITIONER OF TEN YEARS' STANDING.

HOT-WATER ENEMATA IN DELIVERY.

SIR,—Under the head of Obstetric Memoranda, in the JOURNAL of July 14th, I read an article by Dr. D. L. Beckingsale on the value of hot water enemata as a means of hastening delivery in cases of tedious labour, in which either ergot or the forceps are admissible. He goes on to say that, as far as his experience goes, this fact has been unaccountably ignored in practice. But this is not the case. When I was a student at the Rotunda Lying-in Hospital in Dublin in 1875, in all cases of tedious labour admitting either the administration of ergot or the application of the forceps, when the pains lagged, it was the practice to administer an enema of salt and water (hot), generally with the result of bringing on the pains with renewed vigour; and this I believe to be the practice taught at all the Dublin schools of midwifery. What part the chloride of sodium plays in it, I cannot pretend to say. Since then, when an assistant, I have many times adopted the same practice, with the happiest results.—I am, etc,, H. STEWART JACKSON, Surgeon R.N.

H.M.S. *Orwell*, Galway, July, 1883.

ACCIDENTAL HÆMORRHAGE AT OR NEAR THE FULL TERM.

SIR,—What is the best and safest treatment in these cases? "Rupture the membranes, and wait", say text-books and examiners. Is this treatment always successful, and especially is it the best treatment in cases of accidental hæmorrhage with rigid os? I would very much like to know the opinion of practical obstetricians on this question.

In two cases I have carefully carried out the orthodox treatment, and have been dissatisfied with the result. In three others I have tried the older plan of dilating the os and emptying the uterus at once, and have concluded the cases with much greater satisfaction to myself and patients.

Before the days of dilators and chloroform, I can well imagine the dangers and difficulties attending forcible dilatation, but all that has passed away, and the risks from shock and laceration reduced to a minimum. Rupturing the membranes will undoubtedly arrest the hæmorrhage; but if labour does not quickly ensue (and this will be almost sure to happen if the os be unyielding), the difficulties of delivery are materially increased, and every hour increases this risk to the patient.

I have ventured to raise this question, in the hope that I may get the independent opinion of others better able to judge.—I am, sir, yours obediently,

RUS.

DR. WHITESIDE HIME.—Quarterly report referred to not enclosed.

STATISTICS OF CLUB PRACTICE.

SIR,—I shall feel much obliged if some gentleman can give me information on the following points.

1. The annual average sick per cent., or per 1,000, in club practice with men, women, and children on the lists.
2. The usual daily average per 1,000.
3. The average number of days sick to each person.—I remain, yours obediently,

INQUIRENS.

LEFT-HANDEDNESS AMONG THE ANCIENT HEBREWS.

SIR,—I have read with much interest your note on Dr. Erlenmeyer's theory that the ancient Hebrews were a left-handed people. It seems to me that there are some potent considerations to be advanced against the theory.

The very word for the left arm in Hebrew is said to be derived from a root ignifying "covered," while the right was called "yamen," because it was given as a pledge of faithfulness to a bargain (*amen*, faithfully). Surely the better hand is the one that would be exposed for ready use, and that would be employed as a seal of good faith.

Throughout the Old Testament, the right hand is distinctively the engine of power, and the emblem of honour. It is used above sixty-eight times, fifty-five of which are clearly in an honourable sense. The left hand is spoken of about a dozen times, three or four of which are in a derogatory sense. There are besides about thirty-three times in which both hands are mentioned in a purely descriptive sense—"on the right hand and on the left," for example. "If I forget thee, O Jerusalem, let my right hand forget (its skill)," and, "Jehovah hath sworn by his right hand, and by the arm of his strength," are instances respectively of its value and estimation.

The post of honour is distinctly marked in Koheleth, chapter 10, verse 2: "A wise man's heart is at his right hand, but a fool's heart is at his left."

Israel had a favourite son—the "son of the sorrow" of his best-beloved wife. He renamed him Benjamin. Would he have called him "the son of the *right* hand" if the right hand had been the less honourable of the twain?

And the episode in Genesis, chapter 48, verses 13, 14, 17, 18, 19, and 20, is even more conclusive. In fact, I cannot imagine anything more completely so.

We have several accounts of left-handed people in the Old Testament; all, I think, sons of the tribe of Benjamin, by a rather odd coincidence. Ehud was one of them, and his left-handedness made him especially fit for his task of slaying Eglon. A band of 700 Benjamites is distinguished (Judges, ch. 20, v. 16) as able to sling stones at a hair with the left hand, and not miss. David's army at Ziklag included a corps of ambidextrous Benjamites (1 Ch., ch. 12, v. 2).

Surely if this had been the rule among the Hebrews, these sinister warriors would not have been selected for special mention.

The Assyrians, who were also Semites, were clearly not left-handed. All their warriors, I believe, fight right-handed, and their scribes hold the style in the right hand and the paper in the left; in the sculptures.

That because we with the right hand write from left to right is a reason why those who reversed the direction of the writing should have employed the opposite hand, I conceive to be a very slight argument. It only applies to a running-hand, and, as the Hebrew letters are separate, there is no difficulty whatever, even to an unpractised hand like my own, in writing from right to left. If possible, this facility is even greater in the ancient Hebrew characters. Even the running-hand can be easily written with the right hand by a practised Rabbi, as I have several times seen.

These are some of the reasons which compel me to withhold acceptance of Dr. Erlenmeyer's theory, at least till further enlightenment.—I am, sir, yours, etc.,

JAMES MILWARD, M.D.

Cardiff.

MEDICAL BOOK-KEEPING.

SIR,—It is very good of Mr. Dow to endeavour to render our "business" somewhat less arduous than we, who have, as a rule, very unbusiness-like habits and instincts, usually make them. I believe that most of us would find it to our advantage to consult an accountant on commercial matters, as we consult a lawyer when we have the misfortune to be engaged in legal matters. My own peace of mind has certainly been more assured since I arranged with an accountant to overhaul and balance my books every quarter. These have reference to private as well as professional income and expenditure.

Your correspondent's kind suggestions do not strike me as being, in the main, new. The A B C system, and that of Dr. Sheen, of Cardiff, are based on much the same idea, viz., that of calculating the weekly or monthly amount by counting signs, such as crosses, for visits, entered on horizontal lines, instead of putting each into a ledger, entering the fee opposite, and adding up these amounts vertically.

The simplest plan in common use is, I believe, to calculate the weekly total for each patient from the visiting list. There is a column in Smith's, and Silverlock's lists, after the Sunday column, on purpose for these totals. They are then entered into the ledger, where, of course, a whole week's work, for one patient, only requires one line, with date and amount. An objection to this plan is, that one often does not make up one's mind what to charge a patient till the attendance is over. So I modify it in this way. Every month I count the visits and medicines, from the visiting list, and put the numbers of each down in the ledger. Then, at the end of the half year, say, I have only to add up six entries in each column, and multiply them by the charges. As a rule I make no charge for medicines unless their number is in excess of that of the visits. When cash is paid either for visits or home-consultations, I put the amount in the visiting list, whence it is posted into the cash-book. Do I rightly understand Mr. Dow to suggest that a cash-book should not be kept? I fear anyone attempting to enter all amounts as received, directly into the ledger, would often find himself sending in a claim for a paid bill. I find four books requisite, all, however, ordinary books, ruled in the ordinary way.

1. A visiting list, say Smith's, in which everything is entered by signs or otherwise.
2. A day-book, kept in the ordinary way.
3. A ledger; one ruled for double entry is best. The credit-side is posted monthly from the visiting list, the debit-side from the cash-book.
4. A cash-book for receipts. It is well to have two columns, one for bills paid, which has to be posted into the ledger, and one for cash-fees, which are copied from the visiting list, and do not require posting into the ledger. Any double entry "Journal" will be suitable. I use, myself, a Letts's rough octavo diary, ruled, with money columns on both right and left sides of the page.

In addition to these, I keep an expense-book, in which on one side I keep all outgoings, private and professional, and on the other all private receipts, and the monthly totals of professional ones. This book is carefully dissected every quarter by an accountant, according to an arranged plan of headings, and a balance-sheet made out to me, a most useful as well as most interesting and instructive document, and one that well repays the trifling expense to which I have gone in getting it prepared.

I shall be very glad if any professional or business reader can point out any improvements in the system I have ventured to sketch. Trusting that you will forgive my long letter on a non-scientific subject,—I remain, yours truly,

Woolwich, July 23rd, 1883. THEODORE MAXWELL, M.D.Camb.

DOCTORS AND DRESS.

SIR,—I have talked with various doctors about the dress reform, and from nearly all I get the same remark—we dare not advise ladies in that matter; we should only give offence, and lose our patients. I want to say a few words from the patients' point of view. From my own experience and that of personal friends, I feel very strongly the importance of the movement, and hardly a day passes without some conversation about it. Only in three cases have I known ladies advised by their doctors to reform their clothing. Each obeyed at once, and acknowledged the comfort gained. Whenever I hear of a doctor who has given distinct direction outside his special province of drugs, I hear also strong expressions of confidence in that doctor; but most frequently when I give advice, backing it, as I often can, by the assurance that I have heard the same from a medical man known to my hearer, she answers: "It seems very good common sense. I shall try to act upon it, but Dr. ——— never spoke to me about it." I am quite sure our doctors need not be so afraid of using their influence; if they only knew how great that influence was, I cannot but believe they would try to exercise it more. For instance, how many a young mother would give up the tight stiff bandage rolled round her baby for six months by ignorant nurses, if she had plain instruction from her doctor of the undue heat, the loss of strength to the muscles, etc., caused by it; how readily she would see that it was better the baby should lie until it gained strength of its own to sit up without artificial support of clothing. Again, the advisability of so dressing the body as to maintain an equable temperature is not a hard matter to understand; but, until it is brought to notice by some acknowledged authority, the mother follows custom, and dresses her child round the body in double linen corded waists, neither stiff nor tight certainly, but very objectionable, as preventing the free escape of perspiration so readily given out in each active game of play, while the shoulders are covered with, perhaps, one thin cotton only; and the legs, except for some short little petticoats, admitting every draught, with only another thin little cotton garment. A word in season, when mothers lament that their children are for ever taking cold, would be easy, and he must be a very timid doctor who fears so to give offence. Beginning with the children, the way would soon be easy to speak of the mother's own dress, and to give instruction on the mischief caused by heavy skirts and close-fitting bodice. It is still to almost every woman an unknown fact that her waist is, relatively to her size, by nature equal to her brother's, and that it is not actually so only because the customary clothing has prevented its full development.

Hoping you will find space for this, I enclose my card and sign myself,

RATIO.

SNORING.

SIR,—May I ask you if any of your readers know of a cure for snoring? Many remedies have been tried ineffectually.—Yours truly,

C. BROOKE WOLSELEY, M.D., etc.

Castleton, Northwich, Cheshire, July 18th, 1883.

The First Medico-Legal Necropsy in America.

Dr. Quinan, of Baltimore, has unearthed the following as the record of the first legal necropsy in America (*Maryland Medical Journal*). "At a provincial court held at Patuxent, for the province of Maryland, September 23rd, 1657, whereas it is thought requisite that a view be taken of Henry Gouge, who is suspected to have been brought to an untimely death by his master, John Dandey, and whereas it is conceived that this cannot be had so conveniently in time as by a competent jury to take a view of said corps, the court doth order that Mr. James Veitch be hereby empowered to go to the place where the said Henry Gouge was interred, and to call so many of the neighbours as conveniently can be procured, with two chirurgeons, viz., Mr. Rd. Maddocks and Mr. Emperor Smith, and after said neighbours and the two chirurgeons have taken a diligent view of the said corps, then the said chirurgeons, in the view of those present, are to take off the head of said corps, and, after diligent view and search, to signify under their hands how they find said head and corps, are to cause the said head to be carefully lapped up and warily brought to the court with what convenient and possible speed as may be." The fee allowed in this case will not be without interest to some; it was a hogshead of tobacco.

The Collective Investigation Movement.

Sir,—In an article on the extension of this movement to Germany and America, in the Journal of July 7th, we read: "It is gratifying that, in each case, most graceful allusions were made to the example set by the British Medical Association to the medical profession throughout the world, of first inaugurating this new method of observation and research." The writer of the article in making this statement appears to be ignorant of the fact that the Anthropometric Committee of the British Association inaugurated this method of research as long ago as 1875, and that it has been in constant operation from that year to this, when it has been suspended in order that the Committee may analyse and tabulate the data, referring to about 40,000 individuals, preparatory to issuing its final report at the next meeting of the Association. The writer of the article also appears to be ignorant of the fact that Dr. Mahomed, the secretary and organiser of the Collective Investigation Committee, is at the present time a nominal member of the Anthropometric Committee, and that he joined it so recently as 1880, when it was fully organised, and engaged on its special work for the purpose of inducing the Committee to take up some of the inquiries which the British Medical Association are now making. Dr. Mahomed has merely grafted our method of research on the already existing organisation of the medical profession by the British Medical Association, and the movement owes much of its success to the preliminary training we have given many of its members.

The chief feature of the method is the employment of cards for recording facts on a simple and uniform plan, which enables the collector to analyse and tabulate his observations with ease and certainty from a statistician's point of view. A great portion of the anthropometric observations which I published in the *St. George's Hospital Reports* so far back as 1874-5, and afterwards with additions in my *Anthropometry* in 1878, were collected on postcards ruled by hand (a specimen of which I enclose); and the printed card which has been in use for several years by the Anthropometric Committee, and which is the parent of those used by the Collective Investigation Committee (a specimen of which I also enclose), was the outcome of a correspondence between myself and Professor Bowditch of Harvard, and was adopted at our suggestion. Professor Bowditch has himself been using these cards in America for several years past, and he is, therefore, the pioneer of the movement in that country, and yet his name does not appear among those enumerated by the writer of the article in question as favourable to the movement in America, and as complimenting the British Medical Association on its enterprise and originality. As it has been announced that a history of the origin of the collective investigation movement is to be given in the "Record," which is shortly to be published, I hope the few facts I have mentioned will be useful to the writer thereof, and that they will be deemed of sufficient interest to excuse the length of my letter.—Your obedient servant,

Charles Roberts, F.R.C.S.

Bolton Row, Mayfair, W.

Medical Peerages.

Sir,—Happily there are members of our profession, and I hope a good many, who would confer not only honour, but dignity on the peerage. There are, unhappily, some, and I fear a good many, who confer neither honour nor dignity on our profession. There are two letters in your issue of July 7th painfully, but truthfully, pointing out how jealous our corporate bodies are one of another, how discourteous and back-biting are individual practitioners one to the other. The Journal constantly furnishes instances of the bad feeling which characterises the practice of some of our brethren. Legislation may bring about uniformity of qualification and title, but to improve the status of the profession is a reform which must be effected by the individuals composing it. Let doctors—physicians, surgeons, and apothecaries co-operate to adopt one code and abide by its dicta. Let them emancipate themselves from the vendors of brushes, tooth and nail, jujubes, and every species of pettifoggery (confining the epurative process to the home circle). The public will then think much more of them and their qualifications, and the automatic act will in no degree lessen their claim to become peers of the realm.—

M. B., M. A.

I am, etc.,

Staffordshire.

Sir,—In reference to the proposal of Mr. Fletcher Little that the lesser lights of our medical firmament agitate for the creation of medical life peers, allow me to mention that, some time ago, I addressed an advanced M.P. on this topic, arguing that we may as well have medical lords as clerical lords, now being a suitable time for legislating on such a subject.—I am, etc.,

A. Drummond Macdonald, M.B.

Liverpool.

Thinning of the Hair.

Sir,—I shall feel extremely obliged if any experienced practitioner would be good enough to inform me what remedies he would recommend in a case of thinning of the hair in a young man about thirty-three years of age. The different proportions of cantharides have been applied, and arsenic taken internally, for some months without effect. He has, and always has had, good health, but there is a slight tendency to sluggish liver. He is of good physique, never had syphilis, and resides in the country.

There is a slight tendency in his mother's family to early thinning of the hair, but they show no other sign of premature decay, being quite healthy.—I am, etc.,

A Young Practitioner.

7, Harrington Street, N.

The Medical Service of Atlantic Steamships.

Sir,—As a former surgeon to various transatlantic steamships, you will perhaps kindly allow me to say a few words as to the medical service on board such vessels. It is stated that a large proportion of the doctors of emigrant-ships are unqualified. This must either be a mistake, or it must be due to gross neglect of duty on the part of the officials at the various mercantile marine shipping offices, where every intending medical officer of an emigrant-ship is bound by law to show his certificate of registration, or satisfactorily prove that his name is entered in the *Medical Register*. I know of one case where this law was evaded by substituting an unqualified man for the qualified one whose name was entered in the ship's list, the substitute assuming the name of the latter; but the consequences were so disagreeable that the same company is not likely to attempt the same trick again. The authorities at the port of arrival wanted to know why the "fully qualified surgeon" could not sign a death-certificate.

"Brackenthwaite," in the Journal of June 30th, states that "shipowners have always resolutely declined to receive any report on medical matters from their surgeons, under pain of immediate dismissal." This may be the case with some companies, but I know it is not so with the company to whose ships I belonged (the Allan Line). We were obliged to keep a medical "log," could order freely almost anything in the ship for the emigrants, and if, in our judgment, there were any deficiencies, we had only to make out a list of such articles as were required, and this list being formally signed in the company's office at the first port entered, the things would be at once supplied. I have generally found stewards and stewardesses inclined to be rather too kind, attentive, and indulgent to the emigrants than the reverse.

As to the "miserable condition" of the sick emigrant, to use such an expression is utter nonsense. If an emigrant becomes really ill, he is removed to one of the several roomy well-ventilated hospital-wards, with which the ship must be provided, and carefully attended, nursed, and fed. In cases of simple sea-sickness, the emigrant is just as well off as the saloon-passenger. After the first day or two of sickness, I know of no happier contented person in the world than the ordinary emigrant; even the low Irish, who are so discontented at home, cease to complain. One of the captains with whom I sailed told me that he only once received a complaint. In a previous voyage, some of the machinery gave way, and so the voyage was prolonged to about a fortnight more than had been anticipated, and, in consequence, the little stores generally brought on board by the emigrants—consisting of whisky, jam, and red herrings—were exhausted. They complained that they did not get proper food. The captain asked the spokeswoman what they would like; the answer was, "Plase, sor, if we moight have a herrin," which was granted. In point of fact, with few exceptions, the average emigrant is better fed, lodged, and attended to, than he ever was in his life before.—Apologising for the length of this letter, I am, sir, your obedient servant,

J. M.

P.S.—Unqualified assistants must not be confounded with their superiors the surgeons of emigrant ships.

The Position of Ship-Surgeons.

Sir,—Can a negative answer be given to any of these questions?

1. Is it a fact that, in some steam-ship lines, there is a rule which forbids the surgeon from visiting any woman in her cabin, unless he is accompanied by the stewardess?
2. Is it a fact that, in some lines, the purser or steward has orders not to issue "medical comforts" signed for by the surgeon, unless the order is counter-signed by the captain?
3. Is it a fact that some companies demand of the surgeon that he shall refund to them half of the fees made during the voyage?
4. Is it a fact that some surgeons sign articles at one shilling a month?
5. Is it a fact that some companies do not provide a special cabin for the surgeon; and that the water used in these cases, the water used for mixing medicines, and filling bottles, is taken from the wash-jug, which is placed in the same stand as the urinal?
6. Is it a fact that there are medical men waiting about the Liverpool shipping offices, who offer to act as surgeons without receiving any pay for their services?
7. Are the ship's medicines supplied by the druggist who happens to be a shareholder in the company; are not the cheapest drugs sent; and are ether and chloroform in the compulsory list of medicines?
8. Is it a fact that in some companies the surgeon has to be "a double-barrelled doctor," that is, act as surgeon, and tally out cargo from the hatch?
9. Is it a fact that the surgeon frequently sees stewards waiting at the saloon tables and looking after the sleeping berths, who are suffering from gonorrhœa; and are not the ship's baker, butcher, or cook, often seen suffering from psoriasis, or some other syphilitic affection?
10. Does it not tend to damn a medical man's future success in shore-practice if it become known that at one time he has been a ship-surgeon; and would the directors or shareholders of the various shipping companies have these medical men, who value their services at one shilling, or perhaps £3 a month, to attend professionally their wives or children? One has a fair idea of the social position held by the "sixpenny" or "shilling" doctor on shore.

—I am, yours respectfully,

R. Reid Rentoul, M.D., M.R.C.S.

Unusual Complications of Pneumonia.

Sir.—I have had several cases of pneumonia during the last two months. Two at least out of them terminated fatally. One was a man, a labourer, aged 50, who, on the fifth day of the attack, had his case complicated with inflammation of the submaxillary glands on both sides. They were frightfully swollen in twenty-four hours. I could not account for it, and I should be very glad to be enlightened on the subject. I should like to know if this is not very unusual in pneumonia. The second case was a butcher's boy, aged 15, not a very strong lad. This case terminated in gangrene of the lung on the seventh day. He was actively employed at his work up to the time of the attack, and did it cheerfully; but I believe his spirits were greater than his physical strength.

—Your obedient servant,

Sidney Thorp.

Hedingham.

Statistics of Anæsthetics.

Sir,—In my paper on anæsthetics, in the Journal of July 21st, I ought to have said that "ether was introduced as the principal anæsthetic at Moorfields about the beginning of 1875," instead of "1874." This, of course, alters the total calculated number of administrations, since the introduction of ether, to about 11,600, instead of 13,000.—Yours truly,

R. Marcus Gunn.

108, Park Street, Grosvenor Square, W.

LUMINOUS PAINT.

SIR,—I should esteem it a favour if some member who has had experience of luminous paint would kindly inform me how it has succeeded, where it may be purchased, the price, and any other information he may possess concerning it.—Yours faithfully, NIGHT BELL.

THE INCREASED FREQUENCY OF MALIGNANT DISEASE.

SIR,—Food for thought is supplied in the BRITISH MEDICAL JOURNAL of May 19th, coupled with some remarks by Mr. Jonathan Hutchinson and Mr. Dunn. That malignant disease is more rife now than it was, I think no medical practitioner will deny, and to be accounted for in some other ways than increase of population, etc. In a country practice of nearly twenty years, the numbers of cancer cases that I can recall, within that comparatively speaking short time, is simply fearful to contemplate, and the query one is ever inclined to put to one's self is, "For what reason or reasons is cancer more common than it used to be?" Many causes are put forward for its frequent occurrence, and I think more particularly in young people, but I am afraid with as little prospect of cure as was the case fifty years ago. Hereditary tendency, I suppose, always must play a part, inasmuch as I do not believe a case of cancer ever existed in man, woman, or child where it could not be traced to some relative if we could but always obtain truthful data, or if patients could brush up their memories as to distant relatives, blood-relations, and the causes of death; and I am inclined to put hereditariness in the same category as sin, which is part and parcel of our human nature. One factor in the production of malignant disease (or what may be proved by and bye to be such), and of which little or no insistence is made, is, I think, food. We eat and live better than our ancestors. Our food, if not cheaper than it was, is, I believe, more plentiful and varied, owing to many causes, and if we do not drink as heavily (?) as our grandfathers, we feed more heavily. Again, I think animal food does not play such an important part in the production of disease, malignant or otherwise, as starchy food, and articles of diet convertible into starch. I had often been struck with the replies to queries put to patients as regards their diet, and almost invariably am told that meat is not so appreciated by cancer patients as bread, sugar, potatoes, and the ordinary farinaceous foods, which of late we see extensively used, not only by adults, but in the rearing of infants very shortly after their births; sago and arrowroot, and other well known articles of the same sort being in daily use amongst the lower orders. I cannot remember a cancer patient that had not a "sweet tooth," or had an aversion to sugar, *pur et simple*; and when one first discovers the presence of malignant disease, it is astonishing, five times out of six, to notice the wonderfully good health, or apparently good health, of our unsuspecting patients, who inform us that, beyond the local pain, etc., they never felt better in their lives—in fact were, as far as one can often judge, in good condition, though, perhaps, not great meat-eaters. Again, it is possible that the variety of drinks, and the consumption of some particular drinks, such as porter and ale, may, in addition to the foods mentioned above, help to produce disease. Stout and beer, cheap sugar and bread, plenty of potatoes and other vegetables, with a scanty supply of meat (except on Sundays), are the staple articles of diet for the labouring classes only, and for many above them socially, and, I think, play no insignificant part in producing cancerous diseases; and if we endeavour to trace the histories of our cases a little further, it is very possible we may arrive at some conclusion as regards diet. Local irritation may be the starting point of the local disease; but I think that something more than the irritation itself must account for the development of the cancerous nodule or ulcer; and the fact of hereditariness being proved or not, as the case may be, is, in my mind, unsatisfactory. If irritation and inflammation glided imperceptibly into malignant disease, it would be even more common than it is. That they are often the starting points no one denies, but we are at present in the dark as to the life-history of cancer, and until we can fully ascertain facts in connection with it, and with each individual case brought to our notice, and a good deal beyond what the microscope can teach us, we must remain in the dark. I hope and believe that we will still successfully grapple with such a direful enemy: and though hope for the present lies in the speedy and early removal of disease (there is nothing else left us, notwithstanding recurrences), we must look forward to better things with the same determination which has rewarded our efforts in the subjection of other affections.—Yours truly, EDWD. T. THOMPSON.

Wolston, Warwickshire.

A SUBURBAN PRACTITIONER.—Simple directions for the prevention of cholera and diarrhœa are issued by the National Health Society, 44, Berners Street.

THE COLLECTIVE INVESTIGATION RECORD.

SIR,—Will you permit me through the medium of your columns to correct some printer's errors in my tables at pages 84 and 85 of the Investigation Record. Page 84, Table A—(1) Mrs. K. read, "died about 40." Mr. K. at 46, and (2) "4" Mrs. G. read "31." In Table B, "by Mrs. K.," read "four grandchildren died of phthisis, one otherwise," and in summary, "19 died of phthisis." As the tables are otherwise thoroughly reliable and correct, may I ask each individual who has the *Record* to be good enough to make these corrections so that they may be wholly accurate.—Yours faithfully,

July 1883. A. D. LEITH NAPIER, M.D.

DR. POLLOCK is thanked for his communication, which shall have careful consideration.

STEWART OF CANISBAY FUND.

WE have received the following additional sums towards the above fund: F. R. (Eastbourne), £2; Dr. Spencer Thomson (Ashton, Torquay), £1.

DR. GUNN'S letter has been handed to the General Secretary.

THE ACCIDENT AT CONWAY.

SIR,—I enclose you Post-office order for 10s. 6d. towards the fund being raised for the sufferers of the accident at Conway on the occasion of the visit of the medical men to that place, I being one of them. I think we ought, through the Association, to do something for the unfortunate fellows. I saw one of them, William Jones, at the workhouse a few days later (as I was staying at Llandudno), and he seemed to build great hopes on what the medical men would do for him. Having lost his right hand and sight, he has no means of earning a livelihood.—Yours faithfully. DE VERE HUNT.

St. George's Terrace, Bolton. August 21st, 1883.

WE have received the following additional sums towards this fund: Mr. George Brown, London. £1 1s.; Mr. De Vere Hunt, Bolton, 10s. 6d.

ASTHMA, AND ITS TREATMENT BY "MEDICAL GYMNASTICS."

SIR,—I can answer Mr. J. B. Lyth's question in the JOURNAL of July 21st, about "Ling's movement-cure for Asthma." Ling was a Swedish patriot, who died in 1839, after inventing a system of exercises based upon the human anatomy and physiology. His exercises applied to medical purposes are known under various names, "Swedish Exercises," "Ling's Exercises," "The Movement Cure," or, what I prefer, "Medical Gymnastics."

As an orthopædic surgeon, employing "medical gymnastics" very largely in his practice, I have seen several cases of asthma very much improved, and one quite cured of this lung-affection, by a course of "medical gymnastic" treatment.

These were all cases in which there was more or less deformity of the ribs and spine, as pigeon-breast, lateral spinal curvature, muscular antero-posterior spinal curvature, hollowed inframammary regions, etc., etc.; viz., all deformities more or less the result of long-standing asthma. (For details of "Medical Gymnastics," see my article "on the Treatment of Lateral Spinal Curvature," in the JOURNAL of May 13th, 1882.) By developing and enlarging the deformed thorax, and increasing the patient's breathing power, a very beneficial effect is produced on the general health of the asthmatic sufferer. My opinion is that it is, especially in such cases of asthma complicated by thoracic and spinal deformity, that "medical gymnastic" treatment is of use. An asthmatic patient with tolerably well-developed thorax, and straight back would not, I believe, derive much benefit, although medical men who employ "medical gymnastics," exclusively, in the treatment of many chronic diseases of the lungs, circulation, etc., would probably give a much more favourable prognosis.

The "medical gymnastics" can be applied even in a case complicated by valvular disease of the heart, as mentioned by Mr. Lyth, as these exercises can be so scientifically regulated according to each case to be treated.—Your obedient servant. BERNARD ROTH, F.R.C.S. (Exam.)

42, Wimpole Street, London, W.

MR. R. TOWNSHEND would, we should think, have no difficulty in obtaining the necessary information by local inquiry.

DR. JAMES HUNTER.

DR. HUNTER, Lecturer on Physiology in the Extra-academical School, and Professor at the New Veterinary College, has been appointed Lecturer on Animal Physiology at the Watt Institution and School of Arts. In a previous announcement of this appointment (JOURNAL, August 4th, p. 253). Dr. Hunter was described as "Lecturer on Physiology in the Edinburgh Extramural School in the new Veterinary College." That physician is Professor in the Veterinary College, as well as Lecturer in the Extramural School, which are, of course, quite different institutions.

H. H., A MEMBER.—At present, any person possessing any sort of registrable degree is legally qualified to practise, and the extent to which he uses that privilege is not limited by law.

G. G.—We much regret that we are unable to comply with our correspondent's request.

LUNACY REFORM.

SIR,—Dr. Rogers, in his excellent address to the Psychological Section at the recent meeting at Liverpool, refers, in his sketch of Lunacy Reform in England, to the services rendered to the cause by those who established, and afterwards carried on, the Retreat at York. He might have mentioned another service, of which, however, he was, perhaps, not aware. I refer to the circumstance that the establishment of a lunacy board was suggested by Mr. S. Tuke, of York, for the whole of England, in the place of the board which, at the time when he urged it, was confined to the metropolis. If any one will look back to the Lunacy Blue Books prior to the existing Board being appointed in 1845, he will find that, in the report of the Metropolitan Commissioners of the preceding year, it is stated that the necessity for such a board had been insisted upon by Mr. Tuke, and that his recommendation had been brought by them under the notice of the Lord Chancellor. They then refer to the following words which he had employed: "We shall not secure efficient visitation until we have an appointment of a number of competent persons to visit, under the authority of Government, all the places, of whatever description, private or public, chartered or unchartered, in which the insane are confined; to compare the degrees of human misery in these abodes; to ascertain how it may be most effectually provided for and alleviated; to collect information under uniform heads from all these institutions; and to report annually to the public the result of their observations and inquiries." The fact I have mentioned seems to me to be of historic interest; but I do not find it recorded by Mr. Tuke's son in his *Chapters in the History of the Insane*, who has also omitted the glowing tribute paid to the founder of the Retreat by Lord Ashley in Parliament in 1845, when he introduced the well known Bill which bears his name.—I am, etc., E.

INSURANCE AGAINST SICKNESS.

SIR,—Some members have stated that insurance against sickness can be effected in some of the insurance offices. Will they kindly inform me in what office? On applying to the secretary of the Scottish Widows' Fund, he says that he is not aware of any office undertaking that class of insurance.—Yours truly, A. T.

August 10th, 1883.

EDUCATION OF A DEAF MUTE.

SIR,—In answer to the inquiry of "Licentiate," I would refer him to the Secretary to the Society for Training Teachers of the Deaf, and Diffusion of the German System. The office of the Society is at 298, Regent Street, London, and the training institution is at Castle Bar Hill, Ealing.—Yours truly,

August 7th, 1883. R. J. PYE-SMITH.

LICENTIATE should apply to Miss Howe, 3, Notting Hill Square, London, W.

FLOWERS AND FRUIT FOR HOSPITALS.

SIR,—A letter under the above heading appeared in your JOURNAL of July 28th. May I be allowed to reply that I believe hospital authorities are fully alive to the kindness and trouble taken on behalf of their patients by many clergy and others, and if they were able, would most gladly send their thanks. But no doubt they experience what has occurred to me twice within this last week. There is no clue to the sender, no card or address enclosed, and perhaps now two people are upbraiding us with want of courtesy, when we would only too gladly thank them if we knew to whom to send thanks.—I am, etc.,

LADY SUPERINTENDENT.

The Alexandra Hospital, 18, Queen Square, W.C.

THE HOTEL MONTE GENEROSO, MENDRISIO, SWITZERLAND.

SIR,—Though perhaps rather too late this season to point out the advantages of a locality for a few weeks' quiet sojourn, for those who are content with the luxury of rest in most lovely scenery, instead of the "rush" of an usual holiday on the Continent, yet, next year, some who have gone through the wear and tear of active work may be glad to have their steps directed to the Hotel Monte Generoso, situated on the south side of Monte Generoso, between 3,000 and 4,000 feet above the level of the sea. Monte Generoso itself—the Rigi of Italian Switzerland—is 5,561 feet, from the summit of which can be seen the lakes Lugano, Como, Varese, and Lago Maggiore, the extensive plains of Lombardy, and the entire Alpine chain, from Monte Viso to Bernina. The hotel, which is airy and well-constructed, is built on a plateau of limestone formation, isolated from any other building, and no village, with its unsanitary surroundings and squalid children, to contaminate the air with poisonous emanations, and, for the same reason, no flies and other insects to mar one's comfort. The water-supply from the mountain above is pure, cold, and refreshing, without the possibility of carrying typhoid germs. The domestic arrangements are good, the closets are clean, and well supplied with water.

The plateau on which the hotel is built is surrounded with beech-woods, in which delightful cool walks are cut, with plenty of comfortable seats, so that within twenty yards of the house a shady seat may be gained, adding much to the pleasure of the weak, while the sun is shining brightly; in these woods, the air is cool and balmy, and, from the geological formation and altitude, dry.

The hotel is well arranged, and the food ample and good, and the charges from ten to twelve francs a day; those who wish the luxury of a private sitting-room would, of course, have to pay more. The proprietor, Dr. Pasta, appears anxious to make his visitors comfortable; so that with good food, a quiet hotel, the most lovely scenery, and agreeable society, there are the essentials for restoring to its vigour the overwrought body and mind.

The hotel is open from May to the middle of October, and there is a resident clergyman of the Church of England.

With the new St. Gothard route, Monte Generoso is easily reached, leaving London by the London, Chatham, and Dover line, at 10 A.M., *via* Calais, Rheims, Bale, Lucern, through the St. Gothard Tunnel. Lugoso may be reached by four o'clock the following afternoon, where the night may be spent, or the journey continued by the first available train in four hours to Mendrisio, which takes about forty minutes. The Hotel Mendrisio is a comfortable, clean little hotel, where arrangements are made for the ascent here, seven miles taking about two hours and a half, through vineyards first, then chestnut and beech woods, and delightful scenery; it is a steep pull, and either a mule, or chair, or *voiture*, are usually taken by those who are not good walkers.

I may add that the *Times* is taken in; and, also, those who do not care to travel so rapidly, may, by taking Cook's tickets, break their journey at several points of interest.—Faithfully yours, D. HOADLEY GAUB.

HEALTH-TRIPS.

SIR,—In reply to Dr. Norris's letter, I would suggest a voyage in one of the Spanish and Portugese shipping company's steamers, which leave London every Saturday, touching, outward, at Lisbon, 1½ days; Gibraltar, 2½ days; Malaga, 3 days; homeward, at Cadiz, 4 days; Lisbon, 2 days; Vigo, half a day.

These ships are well found, the table is plentifully and well provided with meats, fish, poultry, vegetables, and all ripe fruits. The captains are courteous, and attentive to the wants and amusements of their passengers. The passengers at this time of year vary from twenty to thirty, and the cabin accommodation is good. The only drawback is the want of a medical man.

The greater part of the trip is in smooth water, and within sight of land. It is a very enjoyable excursion, and the overworked man can get as much rest as he needs, and the cost is moderate. I purpose taking my third trip about the middle of September (by which means the summer is prolonged).—I am, yours truly, A MEMBER.

SIR,—With reference to your reply to Mr. Norris in last week's JOURNAL, I beg to inform you that I sail on or about the 8th of October next, in a well provided handsome schooner yacht of 310 tons, for a five or six months' health-voyage; first to Madeira. All particulars may be obtained on application to me.—I am, etc., DOCTOR.

1, Oxford Mansions, W.

CRAMP.

SIR,—I wish to inform "Enquirens" of my experience with regard to cramp. There is no remedy I have found to answer, except the raising the head of the bed. I cause two bricks to be placed under each leg, or a block of wood of the same thickness as two bricks. Patients who have suffered for years at night, crying loudly with pain, have found the above plan an immediate, certain, and permanent relief.—I am, dear sir, yours faithfully,

ROBERT MANNERS MANN, Surgeon-Major.

Bridgewater House, Manchester, August 18th, 1883.

MEDICAL UNION SOCIETY.

SIR,—Will you kindly favour me by notifying in the columns of your JOURNAL that, during the vacation, and consequent closure of the rooms of the Medical Union Society, members of the Union wishing to exchange or obtain fresh works from the Society's library, or Messrs. W. H. Smith and Sons circulating library in connection therewith, can do so by applying to me at 3, King's Bench Walk, Temple, any day (Saturdays and Sundays excepted), between the hours of 10 A.M. and 4 P.M.—I am, sir, faithfully yours.

August 11th, 1883. JAMES GREENWOOD.

MEDICAL ALLOWANCE ON SERVANTS.

SIR,—I am asked by a retired practitioner (a former partner) to attend his servant during an attack of typhoid fever. The patient has asked me for the account. Ought I to send it, or give the attendance free.—I am, etc.,

J. W. H.

*** There is no specific rule bearing on the question submitted by our correspondent, but he will, we think, have no difficulty in arriving at a just conclusion in the matter, by simply determining the following points:

1. Did he undertake the duty of professional attendance for his former partner?

2. Would his ex-partner have made any charge to his servant?

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. Wilson Hope, Petworth; Mr. W. E. Green, Wandsworth; F. R.; Dr. Sawyer, Birmingham; Dr. Robert Bowles, Folkestone; Mr. R. Townsend, London; Dr. Walter, Manchester; Mr. J. Hutchinson, London; The Secretary of the Sanitary Institute of Great Britain; Messrs. Burroughs, Wellcome, and Co., London; Mr. Robert Kirkland, Cheltenham; Dr. D. H. Gabb, Mendrisio, Switzerland; Dr. Cresswell Baber, Brighton; Mr. Samuel J. Noake, Leeds; Mr. G. H. Morley, Birmingham; Mr. Spencer Thomson, Ashton, Torquay; Mr. Charles R. Christiani, London; Dr. Aitken, Southampton; Dr. F. Robinson, Eastbourne; Dr Tripe, Hackney; Mr. R. Catterall, London; Mr. J. H. Williams, Bootle, Lancashire; Mr. James Arthur, Wingate, Durham; Mr. J. Rhys, London; Miss B. Story, Cadland, Southampton; Mr. J. Bellamy, London; Mr. T. Bates, Worcester; Messrs. Mackey, Mackey, and Co., London; Messrs. King and Co., London; Dr. A. H. Bampton, Plymouth; Dr. H. Crookshank, Cairo; Dr. Arthur Hill Hassall, San Remo; Dr. W. Smyth, Banbridge; Our Aberdeen Correspondent; Dr. C. Gunn, Dublin; Mr. W. R. Bates, Addington; Dr. Drummond, Newcastle-on-Tyne; Dr. Sinclair, Edinburgh; Dr. Styrap, Shrewsbury; Dr. Huggard, London; Dr. J. Irving, Callander; Mr. F. J. Flower, Warminster; The Secretary of the Inebriates' Home, Fort Hamilton, New York; Rev. James Macpherson, Wick; Dr. Sidney Davies, Cairo; Dr. Mackie, Alexandria; Mr. F. H. Vertin, Southwold; Mr. Gem, London; Dr. Frederick Pearse, Haslemere; Dr. T. W. Trend, Southampton; Dr. George Beatson, Glasgow; Mr. Kenneth W. Millican, Kineton; Mr. W. Jones, Conway; Mr. John Reid, Rochdale; Mr. T. H. Bartleet, Birmingham; Dr. Manson Fraser, London; Mr. Charles J. Barry, London; Mr. F. Mowatt, London; Dr. R. Beales, Congleton; Dr. L. Cane, Peterborough; Mr. Wheelhouse, Leeds; Mr. R. Little, Raphoe, Donegal; Liverpool; Prof. Humphry, Cambridge; Dr. Sutherland, Manchester; Mr. H. Blake, Great Yarmouth; Dr. W. J. Mickle, Bow; Dr. James Barr, Liverpool; Mr. G. Vincent, Bedford; Our Edinburgh Correspondent; Mr. R. Owen, London; The Director-General Army Medical Department; Dr. Neale, London; Mr. De Vere Hunt, Bolton; Mr. W. Thomson, Dublin; Messrs. Reynolds and Branson, Leeds; Mr. Holderness, Windsor; Dr. J. H. Bryant, Gibraltar; Dr. Fairlie Clarke, Southborough; Dr. Burges, Kettering; Mr. J. Howell Thomas, Wellingborough; Mr. C. A. Lane, Sunderland; Mr. T. M. Watt, Hovingham; Dr. Gilmore, Luldaff, Londonderry; Mr. W. Arnold Thomson, Ampthill; Dr. J. Thorburn, Manchester; Mr. Robert Cory, Llanberis; Dr. M. D. Swallow, Pennistone; Mr. R Smith, Birmingham; M.B.; Dr. Drummond Macdonald, Liverpool; Dr. J. H. Stallard, San Francisco, U.S., etc.

BOOKS, ETC., RECEIVED.

The Knapsack Handbook or Pedestrian's Guide. By William White, A.C., F.S.A., etc. Second Edition. London: E. Stanford. 1883.

Report of Trials for Murder by Poisoning by Prussic Acid, Strychnia, Antimony, Arsenic, and Aconitia, Including the Trials of Tawell, W. Palmer, Dove, Madeline Smith, Dr. Pritchard, Smethurst, and Dr. Lamson, with Chemical Introduction and Notes on the Poisons Used. By G. Lathom Browne and A. Stewart. London: Stevens and Sons. 1883.

The Extra Pharmacopœia of Unofficial Drugs and Chemicals and Pharmaceutical Preparations. By William Martindale, F.R.S. With reference to their use; abstracted from medical journals. By W. W. Westcott, M.B. London: H. K. Lewis. 1883.

An Atlas of Illustrations of Pathology; Compiled (chiefly from Original Sources) for the New Sydenham Society. Fasciculus V. Diseases of the Liver (chiefly of the Gall Bladder and Larger Bile Ducts). Plates XXIII to XXVI. With Pathological Summary. By Dr. Goodhart. London: The New Sydenham Society. Agent, H. K. Lewis. 1883.

Descriptive Catalogue of the Pathological Specimens Contained in the Museum of the Royal College of Surgeons of England. By Sir James Paget, Bart., with the assistance of J. F. Goodhart, M.D., and Alban H. G. Doran. Vol. II. Morbid Conditions of the Blood, the Organs of Motion, and the Skeleton. London: J. and A. Churchill. 1883.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON THE NATURE OF PURPURA.

Being an Introduction to a Discussion in the Section of Medicine.

BY STEPHEN MACKENZIE, M.D., F.R.C.P.,
Physician to, and Lecturer on Medicine at, the London Hospital, etc.

I THINK most will agree with me that the nosological position of purpura is unsatisfactory. We find a want of uniformity of view as to its nature, and a tendency to regard it as inexplicable. It has seemed to me that, for these reasons, the subject is peculiarly suitable for discussion at a large and representative meeting like the present; and I sincerely trust that, in spite of any shortcomings of my own in introducing the matter to your notice, some clearer conceptions as to the nature of the disease we propose to consider may arise from the discussion about to take place.

In investigating a case of purpura, the first step in our inquiry is to endeavour to discover if there be any definite cause to which it can be ascribed, or to ascertain if there be any concomitant conditions with which it is clearly associated. Thus we may find that the purpura is a manifestation of a grave or malignant variola; or that it is an expression of ague; or that it is accompanied by pain, stiffness, or swelling of the joints, in a person who has previously suffered from characteristic acute rheumatism, with possibly sequential heart-disease; in this last case the purpura is regarded by some, including myself, as a manifestation of rheumatism. In these few examples that I have selected from amongst many, the purpura appears to be one only of several symptoms expressive of some constitutional condition, and ceases to be entitled to the independent position of a clinical entity. In other cases, purpura appears to arise spontaneously, in persons in whom we can find no other serious derangement of health, and, after lasting an indefinite period, the patient dies, or it passes away without our understanding why it made its appearance. Purpura is accordingly divided by many into symptomatic purpura, and essential or idiopathic purpura.

What I propose to ask you to discuss is, are there sufficient grounds for reserving this independent position for the cases of purpura, which, up to the present time, we cannot relegate definitely to some antecedent or known factor?

Within the last few years we have learned to trace many cases of purpura to their proper causes. Thus we have come to recognise that purpura is occasionally an expression of syphilis; at other times connected with altered blood-states, which better means of investigation have enabled us to recognise more surely, as idiopathic anæmia, and anæmia lymphatica; that purpura may be a manifestation of scurvy under conditions not previously acknowledged; that it may be due, in persons with peculiar susceptibilities, to the administration of some drug, as chloral or iodide of potassium. Up to a certain period, each of these kinds of purpura was included under the common head of idiopathic purpura. Each variety that has its real nature recognised is, *ipso facto*, removed from the category of "idiopathic purpura," and thus the group of cases included under this term tends to undergo dissolution. The little we know concerning the cases of so called "true purpura," is sufficient to suggest that, with better knowledge, we shall find that the term includes conditions differing widely in their causation and pathology. Indeed, when Immermann goes so far as to assert that "the less we can discover and positively affirm concerning the etiology of a case of transitory hæmorrhagic diathesis, the greater is the probability that it belongs to the category of morbus maculosus,"[1] it is clear that the group is one shut off from the remaining cases of purpura by the veil of ignorance.

In order to justify the position I have assumed, I would ask, Are there any pathological changes peculiar to, or characteristic of, purpura, which connect all cases by such a tie as to give them a close relationship, however dissimilar some of their features?

Let us review what is known of the pathology of purpura. As the sole phenomenon common to all cases of purpura is the escape of blood from the vessels into the skin and other tissues, and from free surfaces, let us begin by considering what is known of the blood in purpura. I would here state that, for convenience, I retain the conventional terms purpura simplex and purpura hæmorrhagica, as their significance is well understood; but I regard the terms only as a convenient way of expressing that the hæmorrhages are limited to the skin, or involve also the mucous surfaces and internal organs.

Condition of Blood.—In many cases of purpura, the blood at the commencement of the disease, when the cause producing the hæmorrhage must be in operation, shows no distinctive quantitative or qualitative changes. The corpuscular and hæmoglobin richness may be within the limits of health; the corpuscles, coloured and colourless, may show no deviations from their natural size and characters, and no abnormal constituent can be discovered in the blood. In other cases, especially in purpura hæmorrhagica, where considerable losses of blood may take place early in the attack, the corpuscular richness may be greatly lowered, and the hæmoglobin much reduced in quantity. As examples of the former condition, I may mention a case recorded by Laache,[2] where, in a girl, aged 18, at the commencement of the observations, eight days from the first symptoms, the coloured corpuscles were 4,636,000, with one white to 125 coloured. The coloured corpuscles were all alike in size, and of natural colour. Later, changes were present, with ultimate restitution. In two recent cases under my care, the following were the results of examination of the blood. In a case of simple (unexplained) purpura, in a boy 13 years of age, the coloured corpuscles were 103.7 per cent., the hæmoglobin 76 per cent. In a case of "peliosis rheumatica," in a lad 16 years old, the coloured corpuscles were 106 per cent., the hæmoglobin 66 per cent., the colourless corpuscles .5 per cent. In these two cases, the coloured corpuscles were above the average (such variation in the corpuscles does exist in healthy persons), but the hæmoglobin was deficient. As examples that the blood may present grave alterations, I may mention cases recorded by Laache[3], where in one, 18 days after the commencement of the disease, the coloured corpuscles only numbered 2,680,000 per c.m.m., and the hæmoglobin, 0.067 per c.m.g.; and in another, in a woman 21 years of age, the corpuscular richness was 2,091,900. When the disease has gone on for some time, however, and especially, as would naturally be anticipated, when copious external or internal hæmorrhages have taken place, the blood-richness, in colour and numbers, becomes greatly reduced. Hayem has recorded a case in which the coloured corpuscles fell below 1,000,000;[4] Quinquaud, a case with only 740,000 per c.m.m.;[4] and Hérard, one in which the corpuscular richness was 1,885,000 when first counted, but fell to 620,000 per c.m.m. on the day of death. The great majority of the coloured corpuscles were double their natural size in this last case.[5]

Quite recently I have had under my care, in the London Hospital, a child, eleven months old, in which the corpuscles, just before death, only numbered 290,000 per c.m.m., or 5.8 per cent., with one white to fifteen coloured corpuscles. In this case, the great debasement of the blood was due to uncontrollable epistaxis, and the patient died quite exsanguine. It is only when the blood-alterations appear quite early in the attacks, before any considerable loss of blood has occurred, that they can have any significance in explaining the disease. The great alterations found in the course of severe, and often fatal, cases, mentioned above, indicate the consequences rather than the causes of the hæmorrhages. On the other hand, we know that, when the coloured corpuscles are greatly reduced in number, or the hæmoglobin deficient, a tendency to hæmorrhage is developed, into the skin as well as elsewhere. We see purpura in cases of idiopathic anæmia[6], anæmia splenica and lymphatica, scurvy, ague, etc. But the cutaneous hæmorrhages are by no means constant, and are often absent in the most severe cases of the diseases I have named. Thus, we may have purpura without anæmia, and anæmia without purpura; so that anæmia cannot be regarded as an essential element of purpura. Alterations in the character of the blood-corpuscles have sometimes been present. Those occurring in idiopathic anæmia are well known. In one or two cases of purpura, the corpuscles have appeared larger than normal, and sometimes paler. In numerous other cases, both size and colour have appeared natural. Increase in the colourless corpuscles, or leucocytosis, has been present in several

[1] Ziemssen's *Cyclopædia*, English edition. Vol. xvii, p. 251.

[2] *Die Anæmia*, von S. Laache. Christiania, 1883, s. 37.
[3] *Op. cit.*, pp. 37 and 41.
[4] Quoted by Dr. Du Castel, *Des Diverses Espèces de Purpura*, Paris, 1883.
[5] Reported by M. Frémont.
[6] *Ophth. Soc. Trans.*, vol. i, p. 52, and vol. ii, p. 34.

carefully observed cases, and may, not improbably, have had the influence attributed to them in producing the hæmorrhages, by blocking the vessels or altering the nutrition of the vascular walls. Mr. Hutchinson, on clinical grounds, has described a form of "purpura thrombotica;" and Mr. Nettleship found plugging of distended blood-vessels in one case.[7] Immermann has mentioned a very severe case, but which, nevertheless, recovered, where the relative proportion of the red and white corpuscles to one another was perfectly natural during the first days of the disease; but, subsequently, the white corpuscles slightly exceeded the red in number. "This condition, however, could be regarded only as an instance of that moderate (?) leucocytosis, which is known to be a regular result of copious hæmorrhages." In the case referred to, the colour of the blood corresponded with its microscopic appearances; it was at first perfectly normal, but afterwards became somewhat paler.[8] Laache has, however, shown that the leucocytosis does not bear such precise relationship to the hæmorrhages, and that leucocytosis may diminish as anæmia advances. In the vast majority of cases, however, there is no leucocytosis. The colourless corpuscles present have, in some instances, shown deviations from the normal, having an embryonal character.[9] Microcytes have been observed in some cases, but are wanting in others. As regards the fibrin, "the blood has been several times analysed; it has sometimes been found to contain a deficiency of fibrin, sometimes a normal quantity, and sometimes an excess of that ingredient. Becquerel and Rodier have given the name of *scorbutic* condition to all cases in which the fibrin is less than 0.2 per cent. in the blood. In scurvy proper, however, and in purpura, the fibrin may even be increased; so that deficiency in fibrin is certainly not the property of the blood on which hæmorrhage always depends."[10] The remarks as regards the quantity of fibrin apply equally to its quality, to alterations in which the hæmorrhages have been by some ascribed. Of the other constituents of the blood, but little is known in disease. The iron was found in excess in two cases of purpura examined by the late Dr. Parkes. In scurvy, the alteration in the blood has been thought by Dr. Garrod to consist in a deficiency of the potash, but the etiological factor by which this is brought about in scurvy is by most held to distinguish purpura from the former. We know that in some forms of purpura there is some constituent present which does not exist in ordinary circumstances, or, if natural, is present in excess; but how this acts in bringing about the hæmorrhage we are in ignorance. Thus, in the specific blood-diseases, in phosphorus-poisoning, in bites from venomous animals, and in iodism, there is something added to the blood; in jaundice (hæmorrhagic), bile is either present in excess, or in altered quality; so also in Bright's disease. Prussac[11] "noticed a copious escape of red blood-corpuscles (whole ones as well as pieces), through unaltered blood-vessels, in frogs, perhaps also in rabbits, which had received injections of large quantities of solution of common salt in the blood, or had been placed for a long time in a strong solution of the same. Cohnheim was unable to verify this." Dr. B. W. Richardson has suggested that there are three forms of purpura—aqueous, saline, and vascular;[12] but his classification has rather a speculative character than a basis of ascertained facts.

Next as to the *blood-vessels*. The obvious escape of blood from the vessels has led to a general belief that there must be some affection of the vessel-walls, causing them to rupture, or allowing transudation of their contents. In a few cases, changes in the vessels have been found, as in the well known case described by Dr. Wilson Fox,[13] in which there was a lardaceous degeneration of the vessels in the vicinity of the hæmorrhages into the skin. Hayem has described a hyperplastic endarteritis in connection with the hæmorrhages;[14] but the same author has also examined a case in which no appreciable lesion could be found in the walls of the vessels. Immermann mentions that Zimmerman found the walls of the smallest arteries in the neighbourhood of necrotic eschars in the peritoneum, in a case of long-standing morbus maculosus Werlhofii, thickened in a peculiar manner; and that the latter refers to cases of "a periarteritis nodosa," described by Kussmaul and Meyer; but Immermann himself thinks that "the differences in the clinical histories and *post mortem* appearances are too great to warrant us in employing the periarteritis nodosa discovered by Kussmaul and Meyer as a basis on which to build up a theory of the hæmorrhagic diathesis present in morbus maculosus Werlhofii."[15] Stroganow has described a peculiar condition of the vessels in one case.[16] The condition of the blood-vessels in scurvy does not throw any decided light on purpura, its ally. Many observers have failed to find definite changes. Uskow has described[17] changes disseminated throughout the whole vascular system, but he limited his observations more particularly to the gums, where, as we know, alterations other than hæmorrhagic also take place. He found the changes to consist, first, of obstruction in the blood-vessels of the deeper layers of the gum, and that this was followed by stasis in the papillæ. The blood-vessels of the papillæ often became so distended, that the epithelium was all that remained of them. Telangiectic dilatations of blood-vessels have been found by Cornil and Rigal in two separate cases.[18] Embolisms of small arteries may be occasional causes, as suggested by Bohn,[19] or thrombosis from leucocytosis or other conditions, as already stated, but neither is constant. The influence of gravitation in producing purpura is considerable. If purpura be limited to one part of the body, it is, in the majority of cases, confined to the legs, where gravitation comes most into play. We see also persons with feeble hearts, with or without valvular disease, who readily get purpura of the lower extremities. A few days' rest in bed causes the spots to disappear, to return on resuming the upright position for a short time. This occurrence of fresh outbreaks of the purpura on resuming the erect posture is not confined to cases in which the heart is at fault. It would seem that the blood-vessels in such cases have just sufficient vitality to restrain the blood under favouring conditions, but that, with a little additional pressure, they give way, or allow diapedesis. The influence of gravitation is probably seen also in cases of iodic purpura, where, as a rule, the hæmorrhages are confined to below the knees; for there is no reason to suppose that the drug has an elective affinity for the vessels of the lower extremities. In the senile purpura, described by Bateman, cold probably assists gravity in producing the hæmorrhages seen on the exposed and chiefly dependent (but little moved) arms of old and feeble women. Dr. Weir Mitchell has suggested that purpura is due to an influence on the vessels. He writes: "In my own experiments on the hæmorrhage from snake-bites, I have shown that the contact of venom with the vessels, occasions, in a few minutes, weakening of their walls, and numerous ruptures, and this occurs throughout the body when the poison has been absorbed. Now, as the phenomena of certain exanthemata and fevers, yellow fever especially, strangely resemble venom-poisoning; and, as the appearances of the pathological processes are also alike, we are justified, I think, in supposing that the immediate causes of extravasation are of similar nature in both, or, rather, in all of these cases. In other words, extravasation in yellow fever and in snake-bite is due to weakened vessels, and not merely to a change in the blood, enabling it to escape through normal vessel-walls."[20] I have personally examined the skin microscopically in a considerable number of cases of purpura without being able to discover any condition of the vessels explaining the hæmorrhages, and I know that others of my acquaintances are in a similar position. The cases, therefore, in which changes have been found in the vessels, must, I think, be regarded as too inconstant to throw a light on the nature of the mechanism of purpura. The "leicht Zerreisslichkeit der Gefasswand," so easily assumed, sounds better when put into another language, than when we explain purpura as due to "a proneness of the vessels to rupture." The view that purpura is due to the exceptional relations "which frequently exist, at the time when a patient is convalescing from some disease, between the volume of the blood on the one hand, and the resisting power of the vascular apparatus on the other" (Immermann), is an ingenious but hypothetical explanation of a not very common variety of purpura, but not elucidating, in any way, the general mass of cases.

I would ask, Is it necessary to assume that there must be some disease of the blood or blood-vessels, or is it not possible that blood may escape from rupture of healthy vessels, or even transude from them, owing to heightened local blood-pressure, brought about by

[7] Catalogue of New Sydenham Soc., *Atlas of Skin-Diseases*, part ii, p. 133.
[8] *Loc. cit.*, 258. I have not referred to the German edition, but there appears to be some error, either of printer or translator.
[9] Hayem, Observ. de Purpura Hæmorrhagica, *Soc. de Biologie*, 1876 (quoted by Du Castel).
[10] Hillier, Art. "Purpura," in Reynolds's *System of Medicine*, vol. i., p. 798.
[11] Wagner, *Manual of General Pathology*, p. 705.
[12] *Medical Times and Gazette*, 1874, vol. ii, p. 597.
[13] *British and Foreign Med. Chir. Rev.*, 1865, p. 480.
[14] *Bull. et Mem. de la Soc. de Biologie* 1870 and 1874.
[15] *Op. cit.*, p. 270.
[16] Virchow's *Archiv*, Band lxiii, Heft 3, 4, 11, p. 540.
[17] *Centralblatt für die Med. Wissensch.*, 1878, p. 498; *Med Examiner*, 1878, p. 117.
[18] Du Castel, *op. cit.*, pp. 57 and 59.
[19] Quoted by Immermann.
[20] Trans. Coll. of Phys., Philadelphia. *American Journ of Med. Sci*, vol. lviii, p. 120.

some abnormal condition of the vessel-regulating mechanism? Let us briefly glance at some of the evidence in favour of this view.

Influence of the Nervous System in Producing Hæmorrhage.—Dr. Weir Mitchell has recorded some very interesting cases of purpura apparently due to nervous influence. A lady, forty-nine years of age, was subject to attacks of neuralgia, general in character, affecting any part of the body, and associated with muscular pains at or near the point about to suffer. "Within a space of time, which varied from ten hours to seven days, there appeared at the point of pain a spot of extravasated blood, light in tint or deep black, and having afterwards the usual history of a bruise. Finally, as the pain and twitching abated, the skin in their neighbourhood became exquisitely tender—being tender when touched ever so lightly; and there the attack ended, leaving the spot to fade through the tints usual to every dermal blood-stain. When pain was present, it was unfailingly attended at some time by the muscular phenomena, but of late the extravasations have only followed severe attacks, and at all times have been confined to the seat of the pain—usually over the point where this was worst, or above the cramped or quivering portion of the muscle affected."[21] Another case, mentioned by Weir Mitchell, had attacks very similar to that described in the first patient, and she ultimately became paraplegic. In a third case, a patient, a female, aged 24, had a fright from an alarm of fire in the house where she was staying. This was followed by hysterical symptoms. "Some time after, she began to suffer with neuralgia in the left ulnar nerve-distribution. It first attacked the abductor region of the left little finger, coming on with violent spasm of that muscular mass; and finally there appeared over the seat of pain an irregular mark, which she took to be an accidental bruise. When I saw her late in November, she had two or three such attacks every week, with usually small spots like those of purpura, and with nearly always some slight twitching of the nearer muscles. Both hands were affected, but the favourite site was the thenar or hypothenar eminence. At the time of her visit to me, she had pain in the right forearm, with twitching of a few fibres of the common flexor of the fingers, which ceased when I forcibly extended these members. She called next day to show me an irregular extravasation a little below the point of greatest pain." Closely analogous with these cases is the purpura seen in connection with tabes dorsalis, to which M. Strauss in particular has drawn attention.[22] In some cases of locomotor ataxy, at the period just when the attacks of lightning-pains are passing off, or some hours later, ecchymoses, resembling a bruise, make their appearance; but, unlike a bruise from injury, they are entirely painless, except that occasionally they are slightly tender on pressure. They are of irregularly circular form, of variable dimensions, from the size of a two-franc or five-franc piece to that of a lentil. In numbers, they vary, but they are usually multiple. The extent and intensity of the tabetic ecchymoses are generally proportionate to the violence of the pains to which they owe their origin. The transitory pains of the initial period do not occasion them. They only appear when the pains are violent and of long duration. Almost always the purpura affects the member, and the segment of the member, which is the principal seat of the tabetic pains, being situated on one side when the pains are unilateral, on both sides when the pains are bilateral. Or, curiously, the tabetic ecchymoses affect, not the part of the skin corresponding to the seat of the maximum pain, but a point higher up in the limb. The distribution of the ecchymoses corresponds approximately with the course of the cutaneous nerves, differing in this respect from the tabetic eruptions described by Charcot. It happens occasionally, but quite exceptionally, that the pains are limited exclusively to a single member, the homologous member of the opposite side being free; the eruption may appear not on the painful limb, but on that of the opposite side.[23] Purpura has been observed in connection with hemianæsthesia or hyperæsthesia (Rendu), in the course of sciatica (Faisans). My friend Dr. Barlow has communicated to me examples of the occurrence of purpura in connection with angina pectoris, tubercular meningitis, and thrombosis of cerebral sinuses. Henoch[24] and Couty[25] have described cases in which severe colic and vomiting, and sometimes diarrhœa (occasionally bloody), have occurred in connection with, and sometimes in definite order of sequence with, purpura. How far these symptoms are manifestations of central nervous disorder, and how far due, as Scheby Buch believes,[26] to hæmorrhages into the serous coats of the stomach and intestines, is open to discussion. Purpura has been seen after extirpation of sympathetic ganglia, and heightening of arterial tension by ligature of the aorta (Simon, Axmann, Bouchard). These experimental results are especially valuable, as affording us some clue to the occurrence of the hæmorrhages. They appear to indicate that disturbed conditions of the vaso-motor nerves may so alter local blood-pressure as to cause rupture of the walls, or permit diapedesis. The cases of purpura following some profound shock to the nervous system are less simple, for we know that fatal anæmia may result from such conditions. Dr. Finny has advanced strong arguments in favour of the neurotic origin of purpura.[27] But, whilst I attach much importance to the nervous system in the production of some cases of purpura, we see the latter occur under conditions where there is no reason to refer it to nervous influence. The occurrence of purpura in profound degrees of anæmia and cachexia, when there is obvious degradation of the blood, in scurvy, when some chemical constituent of the blood is wanting, and in persons with feeble circulation, certainly appears to indicate that purpura may appear without direct nervous implication. The purpura produced by drugs is of more difficult interpretation, and the influence of the nervous system is possible, if not demonstrated. In one person, iodide of potassium gives rise to purpura; in another, given in similar doses, it always occasions hydroa. The difference must depend on individual peculiarity, in whatever that may consist. As regards gross changes in the various organs, or wide-spread microscopical changes in tissues, I think all will agree that none are constant or peculiar to purpura. So, I take it, that, whilst there are proved or probable alterations in the blood, in the blood-vessels, and in the regulating nervous mechanism, in certain cases, no one of these is sufficiently constant to unite all forms of purpura in such a way that we can regard them as different varieties only of one common process. Neither is there, as we have already seen, any etiological factor common to them. Hence, we cannot assign to purpura the position of a clinical entity.

The next question that may be raised is, Is the hæmorrhage that is the one characteristic of purpura an isolated phenomenon, or do we not see hæmorrhage associated with various other morbid processes going on in the skin and elsewhere? We sometimes see purpura develop with slight prominences, and to this condition the term "purpura papillosa" has been applied. Is, in such cases, the swelling that accompanies the hæmorrhage, and constitutes the papule, part of a process common to itself and the hæmorrhage; or is it, under certain conditions, excited by the hæmorrhage? If it were a consequence, we should expect it to bear some proportion to the severity or rapidity of the extravasation: but such is certainly not the case. This papular form of purpura is, in my experience, perhaps more frequently met with in the cases one calls rheumatic; and in such the hæmorrhages, though numerous, are, as a rule, small. Or the hæmorrhages may occur into or around the hair-follicles, again forming a little papule—the "lichen lividus" of Willan; a "lichen pilaris" being also met with, unattended with obvious hæmorrhage. Or the purpura is associated with nettle-rash—the two standing, in many points, in close relationship—constituting "purpura urticans." Herpes and pemphigus are occasionally hæmorrhagic, in the same way that the eruption of variola is attended with hæmorrhage in certain cases. Certain forms of erythema are more or less constantly associated with hæmorrhage, as erythema nodosum (dermatitis contusiformis); and, whilst this is at the extreme of the scale, we find a tendency to blood-extravasation in nearly all fluxionary diseases of the skin. Does the occasional occurrence of hæmorrhage under these various conditions throw any light on the immediate causation of the purpuric extravasation? Is the element that gives the occasional hæmorrhagic character to these eruptions intensified to such a degree that it obscures the others, and appears to constitute the main or sole phenomenon? Dr. Du Castel argues in favour of this view. The point is one of interest, but also of difficulty. In some of the instances I have named, as, amongst others, herpes and urticaria, the influence of the nervous system is unquestionable; and it may be that, given a neuritis, it is only a question of constitutional tendency, or of a temporary quality of blood, that determines whether the cutaneous expression is a crop of herpes or a blotch of purpura. But, whilst I should be grateful for any facts bearing on this point, it must be admitted that, in many cases that we closely watch, we cannot

[21] *Op. cit.*, p. 116.

[22] Des Ecchymoses Tabétiques à la Suite des Crises de Douleurs Fulgurantes. *Archives de Neurologie*, 1881.

[23] I am indebted to Dr. Du Castel's book for this abstract of Dr. Straus's memoir, to which I have been unable to refer.

[24] Henoch: Purpura in Kindlichen Alter. *Berl. Klin. Woch.*, 1874.

[25] *Etude Sur Une Espèce de Purpura d'Origine Nerveuse.*

[26] *Deutsch. Archiv für Klin. Med.*, Band xiv.

[27] BRITISH MEDICAL JOURNAL, 1880, vol. i, p. 804.

observe any local condition preceding the first appearance of bleeding into the skin.

It appears to me, then, that we can no longer regard purpura as a disease, but must look upon it in all cases as a *symptom*, not of one, but of various morbid states. This view has at least the merit that, like œdema, or jaundice, or glycosuria, and other symptoms, we are compelled, when we encounter it in a patient, to endeavour to trace its cause or explain its meaning.

And here I would remark that the cause may not be a single one; that predisposing and determining causes may often co-operate in producing a purpura that neither alone could evoke. As I have already suggested, the inherited or acquired tendency must often occasion difference in action of external circumstances. A person may inherit or acquire an infinitesimal tendency to bleed, for some transmitted diseased tendencies do not begin or cease abruptly. A very slight predisposition to bleed may be called into operation by causes that in themselves would not, in ordinary persons, lead to the occurrence of hæmorrhage. Thus, whilst we see well-marked cases of hæmophilia transmitted in the manner characteristic of that disease, the transmitted tendency may be so slight that, unless some peculiarity of diet or some acquired disease, as syphilis, be added to it, or some other diathetic condition, as gout or rheumatism, meet with it in the same subject, it does not come into play. Tendencies to disease die out, and also they originate in the concurrence of circumstances tending in a certain direction. Thus some cases of purpura may be the beginning of a hæmorrhagic diathesis, which, circumstances favouring, may be transmitted in an intensified degree to the offspring; or, circumstances disfavouring, may die out at once or later in the individual affected. The tendency of purpura to recur in the same subject is noteworthy. A person may be the first or last link in a chain of a transmitted tendency to bleed, a tendency which might never have borne fruit but for some quasi-accidental circumstance.

If we agree, as I hope many here will, to regard purpura purely as a symptom, it is still convenient to endeavour to classify the conditions under which it occurs. This has been done by Dr. Du Castel in a recent and very admirable essay, to which I have already several times referred. He would make the following varieties: 1, Purpuras rheumatismaux exanthématiques (exanthémes rheumatismaux hémorrhagiques); 2, purpuras cachectiques; 3, purpuras toxiques; 4, purpuras méchaniques; 5, purpuras consecutives à une lesion du système nerveux. I have, in a paper, read some time ago, suggested a somewhat similar, but less logical arrangement,[28] possessing some clinical advantages. I think, however, some slight modification of Dr. Du Castel's classification useful for arranging the cases of purpura we see, into something like order, and would suggest the following:

1, Vascular purpura;[29] 2, toxic purpura; 3, mechanical purpura; 4, neurotic purpura.

Under the head of vascular purpura, I would place all cases in which there is some known or supposed primary blood-disorder, so that this group would include the specific blood-diseases; diseases in which the blood-disorder seems primary or most important, as profound anæmia, leucocythæmia; conditions in which some constituent or constituents of the blood are wanting, as scurvy; and conditions in which some constituent is present in excess, or superadded, as bile, urinary constituents, etc.

In the category of toxic purpura (drug-purpura), I would place all cases in which the purpura arises from adventitious matters entering the system, such as phosphorus, mercury, mineral acids, salicylic acid, quinine, iodides, venom. We do not know the exact mechanism by which the purpura is brought about in this group; but it is clearly advantageous, clinically, to keep them apart, though logically they may be said to belong to the hæmic group.

Under the third variety, purpura from mechanical causes, we should place the cases of purpura arising in connection with heart-disease, a feeble circulation, from varicose veins or paroxysms of coughing, as in whooping-cough, from thrombosis of venous trunks, and, probably, senile purpura.

Into the last category, purpura of nervous origin, would fall the cases in which the nervous system is primarily at fault, and thus it would include cases of tabetic purpura, purpura in connection with neuralgia and with disease of the nervous centres, purpura urticans, and neurotic eruptions (as herpes) becoming hæmorrhagic.

[28] British Medical Journal, January 14th, 1882, p. 53.

[29] I originally applied "hæmic" as the term for this group, but "vascular" was suggested by several speakers. The term is more comprehensive, and as the blood and blood-vessels are so intimately related, perhaps a better one.

This arrangement is, I am aware, by no means faultless, for it might be difficult to say in which category we should place certain cases; but some arrangement is useful in investigation, in the same way as we speak of dropsy being renal, cardiac, local, or due to hypalbuminosis; and, with increased knowledge, no doubt, a better classification could be devised.

Mr. Malcolm Morris (London) expressed his thanks to Dr. Stephen Mackenzie for his clear and original paper, and agreed with him that purpura was really a symptom, and not a disease. He thought good would result if the Collective Investigation Committee would take the subject in hand, because he felt sure that clinical evidence would be of greater value than simple pathological inquiry. The cause was most difficult to recognise. He mentioned a case of a youth, aged 16, who had purpura associated with syphilis, and another complicated with rheumatism. In both cases, the constitutional disease was most obscure. He concluded by saying that he thought it was a great advance to consider purpura a symptom, and not a disease.

Dr. Balthazar Foster (Birmingham) spoke of the importance of regarding purpura as a symptom, merely a transudation of blood, as in œdema there was a transudation of serum. As the condition of dropsy had by clinical analysis been broken up into a series of well-defined diseases, so he hoped that at no distant day a similar analysis of purpura would be effected. He was inclined to lay much stress on the nervous origin of the condition, and to regard it in many cases as a vaso-motor affection. Dr. Foster quoted a case he had seen some years ago in consultation, in which purpura made its appearance in a healthy young lady, after a chill caught by running out in the snow. The appearance of the spots was preceded by an epileptiform attack, and others followed. The purpura was non-febrile, and was associated with hæmorrhages from internal organs. Death ensued in a few days. This was a case dependent on disordered action of the vaso-motor system; and the appearance of purpura in connection with tabes dorsalis and cerebro-spinal fever lent support to this view. Many of the cases occurring during the course of other maladies Dr. Foster regarded as best classed under the head of vascular purpura, and due to rapid nutritive changes in the walls of the vessels. In this direction was to be sought, in his opinion, the explanation of most of the cases called hæmic, toxic, icteric, rheumatic, etc. Family history was in all cases most important, and often afforded an indication of the existence of hæmophilia, of which purpura, as ingeniously suggested by Dr. Stephen Mackenzie, might be a derivative.

Dr. Stainthorpe (Hexham) related a few cases which had occurred in his practice over a period of forty-five years. The first was a married female forty years of age, who had been suffering from an anæmic condition for some time. It was a true case of leukæmia, and terminated fatally from becoming complicated with purpura. The second case was in a boy about eight years old, and might be designated an idiopathic case, because no complication could be discovered, nor could any cause be found. After trying a variety of means for alleviation, Dr. Stainthorpe was successful in tiding him over to health by the administration of dilute sulphuric acid and sulphate of iron. The third case was a male, upwards of sixty years of age, who had suffered from chronic bronchitis and asthma for some time. Purpura hæmorrhagica appeared, and this patient also died in the course of a few days. A fourth case was a female, aged 20, who had an attack of small-pox of a typhoid type, and about the third or fourth day she also died. A fifth case occurred in his practice in an agricultural district within the last few weeks. A female, aged 24, was seen with general disturbance of the system. The following day, this patient presented symptoms of scarlatina maligna. She had severe headache, sore-throat, dry and somewhat glazed tongue, quick full pulse; temperature 103°; and backache, a very marked symptom of small-pox. The face was somewhat swollen; but there was not the slightest appearance of any eruption having the true character of small-pox, and the intellect was clear. On the third day, at his visit, he found that she had passed from the bladder, at different times, a large quantity of sanguineous urine; and, on the fourth day, well-marked purpura was found all over her body, chest, arms, face, and conjunctiva. Her pulse was intermittent and very quick; the temperature was 102°; and she was rapidly sinking from the continued passing of bloody urine. There was not the slightest appearance of any eruption of the characteristic nature of small-pox. As to the cause or pathological condition of purpura, Dr. Stainthorpe was not able to add anything; and its connection with scurvy he was equally unable to unfold. In conclusion, he congratulated the Committee

of Management on the selection of purpura for discussion at the meeting, where ample opportunities were afforded to the local medical men meeting with cases of scurvy, which medical men in agricultural districts and inland towns had no means of seeing. He had not had a single case of scurvy in his practice, extending over forty-five years.

Dr. W. RUSSELL (Carlisle) made some comments, which are embodied in the "Remarks" in his paper published at page 414.

Dr. RADCLIFFE CROCKER (London) agreed with Dr. Stephen Mackenzie, that purpura was a pathological effect of many conditions. While not ignoring the effect of diapedesis and escape of blood-colouring matter, he thought that rupture of vessels was the chief immediate cause of purpura. The blood-changes described by some observers were too contradictory and isolated to carry much weight. He thought the vascular rupture due to either increased blood-pressure, or to want of resistance in the vascular walls, either from want of support of the surrounding tissue or from defective nutrition in the vessel-walls. He thought that most of the cases of cutaneous hæmorrhage were explicable on one or a combination of these causes. He called attention to the close relationship of peliosis rheumatica to the exudative erythemata, and thought that the hæmorrhage only showed that there was a common pathological factor. That factor was the vaso-motor nervous system; and he alluded to experimental and clinical evidence, showing that lesions of the sympathetic system were capable of producing rupture of vessels. The primary cause of the sympathetic disease might be central, as toxic influences, or peripheral, as chills. He thought that, in each case of purpura, we must search for the various possible causes, and hope that some day our therapeutics would overtake the pathology of the affection.

Dr. MAHOMED (London) agreed with Dr. Foster and Dr. Crocker in regarding purpura as due to a condition of the tissues, rather than of the blood; he believed that we could not expect to see these changes in the blood or in the tissues by means of the microscope; that we should rather look for it in the chemistry of the tissues; and that it was to the pathological chemist we must look for assistance. Dr. Mahomed wished especially to draw attention to the remarkable association, pointed out by Dr. Hilton Fagge, in a recent number of the *Guy's Hospital Reports*, of purpura with sarcomatous growths; and he regarded this as a most valuable indication in many obscure cases. Although Dr. Mahomed regarded purpura as a symptom rather than as a disease, in most cases, yet he could not but think that some cases of purpura hæmorrhagica were not assignable to any of the classes into which Dr. Mackenzie had assorted the cases. These cases appeared to stand out as a specific disease; and he thought that a debt of gratitude was due to Dr. Russell for his complete investigation of his most interesting case. It was possible that he might have discovered the real nature of these most obscure cases.

Mr. PADLEY (Swansea) said that there had not been any reference to the relationship between purpura and Bright's disease. This appeared to have existed in the case of a lady under his care, a person of highly nervous temperament, who became the subject of ovarian disease. This was removed by ovariotomy in London. She recovered from the operation; but became anæmic, thin, and seriously out of health, with some œdema of the legs. Patches of purpura appeared, especially about the lower extremities. The occasional association of purpura with Bright's disease being known, the urine was examined, and found to contain a large quantity of albumen—a condition which had not been recognised in London. Whatever the etiological relationship—whether of impaired nutrition of the vascular walls, deterioration of blood, or the toxic influence of urea in the blood—was uncertain. The lady died; but no *post mortem* examination was permitted.

Dr. GLYNN (Liverpool) referred to the condition of the gums in cases of purpura and scurvy, and pointed out that occasionally, in purpura, the gums presented all the features of the gums in scurvy. In the case of a boy recently under his care, the gums were swollen, fungating, and gangrenous. He died from repeated hæmorrhages from the nose and stomach, and was covered with petechial spots. After death, hæmorrhages were found in the muscles, as well as in the peritoneum, and in the stomach and intestines. The boy had been brought up under conditions which were not at all likely to lead to the development of scurvy, as he had a comfortable home, and plenty of good food, meat, and vegetables.

Dr. DYCE DUCKWORTH (London) thought that the discussion had been one of large interest and usefulness. It seemed to him that Dr. Stephen Mackenzie's address gave a most complete and philosophical account of our knowledge of purpura It appeared very clearly that this affection could be no longer regarded as a disease, but rather as a symptom. The knowledge commonly held in the profession with respect to purpura was surely hazy, and most incomplete. One idea very prevalent was that the purpura was in some way related to scurvy, a sort of cousin, as it were, and dependent, like it, upon some dietetic error. And yet this was distinctly not the case. It was satisfactory to find that Dr. Mackenzie was not prepared to affirm dogmatically that purpura was either of hæmic or of neurotic origin, and it was also satisfactory that no view of the universally bacillar origin had been pressed home for acceptance. In short, the discussion had been approached by every speaker in a philosophical manner, and with an open mind. As tending to throw some light upon the toxic and neurotic classes of cases, Dr. Duckworth first mentioned the fact that acid tartrate of potash would sometimes determine purpura in cases of chronic Bright's disease; and then gave particulars of a remarkable case at present under his care in St. Bartholomew's Hospital, where the patient was a sufferer from hæmophilia, and had repeated attacks of hæmorrhagic purpura, while his mother presented the characters of Graves's disease in well-marked form. It was a matter of congratulation that, at the present day, the most active minds in medicine were concerned to seek out truth, and not to establish theories which they might repudiate a few years hence. It was better to confess ignorance than to be over-confident on the basis of an unsettled foundation.

Dr. STEPHEN MACKENZIE, in replying, commenced by saying he was, of course, very much gratified to find that there was a general concurrence, in those who had spoken, with the views he had ventured to put forward; for, though some valuable criticisms had been made on certain minor points, all had agreed with him in his main contention: that we must look upon purpura as a symptom, and not as a disease. He was glad, also, to find a general acceptance of some such classification of the causes of purpura as he had suggested. One or two of the speakers had suggested that the variety he had called "hæmic" was due to alterations in the blood-vessels, and that the term "vascular" would be more appropriate. He had already shown how inconstant was actual structural lesion of the blood-vessels in purpura, but he was not unwilling to exchange the terms, as he looked upon the blood and blood-vessels as so intimately related—almost constituting a tissue—that they often shared in the same morbid process. He was much interested in Mr. Malcolm Morris's case of syphilitic purpura, and had himself recorded a very similar one. To Dr. Balthazar Foster he was much indebted, both for his valuable remarks and for his interesting case of purpura of nervous origin. Dr. Crocker and Dr. Mahomed had suggested that in many cases the fault was one of tissue rather than of the blood. No doubt a want of support on the part of tissues surrounding the blood-vessels would, as the former suggested, favour the escape of blood; but, in the instance suggested by Dr. Crocker, it seemed to him that the herpetic vesicle would rather expose the tissues to increased than to lessened pressure. He was inclined to agree with Dr. Crocker, as his opening remarks showed, in the view that purpura rheumatica was really an erythema. Cases were certainly seen in which the two run into each other; but cases were seen in which the purpura was the only process that could be demonstrated. As to Dr. Mahomed's belief that all the group of cases called purpura was to be explained on chemical grounds—by chemical mistakes in the functional nutrition of the walls of the vessels—he could only say that chemistry so far had done little to solve the problem; and that, if chemical changes were present, they must produce tissue-alterations. Dr. Mahomed had alluded to Dr. Hilton Fagge's interesting paper on Purpura associated with Sarcoma, with which he was well acquainted, and Dr. Mahomed had mentioned a case in connection with Hodgkin's disease. He thought the latter supplied a link in the explanation of the former, through the intimate correlation of the blood and the blood-elaborating organs, the glands. Dr. W. Russell's cases, especially the one in which micro-organisms were found, were of great value and interest. He was quite prepared to learn that, in some cases, purpura was a symptom of some blood-disease, associated with such a cause or concomitant—his first class embraced these; but he did not believe that this explanation sufficed for all cases of purpura. For instance, to take iodic purpura; in a susceptible person, he could, at will, induce an attack of purpura any number of times; and it could not be supposed that the iodide of potassium led to the introduction of organisms. Dr. Russell's explanation would suffice for some of the most virulent and fatal cases of purpura. Dr. Padley had called attention to Bright's disease as a cause of purpura, and he (Dr. Mackenzie) included these in his hæmic or vascular group. They were all in-

debted to their excellent secretary, Dr. Caton, for his interesting diagrammatic demonstration of the process of diapedesis—a process which, he believed, occurred in certain forms of purpura. Dr. Glynn's case interested him very much. Very similar cases had been recorded by Gowers and himself, and they seemed to be examples of idiopathic anæmia. The ulceration of the gums in such cases showed that this symptom had not the restricted meaning often attached to it. To their chairman, Dr. Dyce Duckworth, he was indebted for pointing out the occurrence of purpura on the administration of the acid tartrate of potash for Bright's disease. He had not met with this result, but it was clearly a case of "toxic" purpura. Dr. Dyce Duckworth's case of purpura in a member of a family in which another neurosis had been present, showed how nervous instability found many different expressions. The choice of the subject of purpura for discussion had proved valuable in eliciting Dr. Stainthorpe's cases, and in the remarks that had been drawn forth from the various speakers; and, in conclusion, he thanked the members for the patient hearing they had accorded him.

CASES OF PURPURA HÆMORRHAGICA, WITH REMARKS ON THEIR PATHOGENESIS.[1]

By WILLIAM RUSSELL, M.B.Edin.,
Honorary Physician to the Carlisle Dispensary.

With Report on the Presence of Bacilli. By W. WATSON CHEYNE, M.B., F.R.C.S.

CASE I.—William J., aged 17, tinner, was admitted into the General Hospital, Wolverhampton, under Dr. Hunt, on October 7th, 1878.

History.—He first noticed spots on his legs a month before admission. About a fortnight before admission, the gums began to bleed, and, ten days before admission, he fell while stooping; this latter occurred several times since. He had two attacks of epistaxis within the last fortnight, while his eyesight had become dim the day previous to admission. There was no history of muscular pains, of palpitation, or of dyspnœa. He was not confined at his work. There was no history of exposure or of rheumatism. His home was comfortable; his family history good. For months past, he seemed to have lived on bread, butter, and cheese, with tea, and occasionally some potatoes and cabbage.

State on Admission.—He was not emaciated; but the muscles were soft. The skin was very pale, and the mucous membranes blanched. The lips were dry and cracked, blood-clot occupying the fissures. The gums readily bled on pressure, and, at their junction with the teeth, presented a line of coagulated blood. There were numerous petechiæ and ecchymoses over the body, being abundant on the extremities, but more so over the anterior part of the iliac bones and their neighbourhood; while the trunk, especially the thorax, showed few. The pulse was 108, bounding, dichrotic, and compressible. There was precordial pulsation, and a pulmonary systolic murmur. The lungs were normal. The hepatic dulness commenced at the fourth rib, and extended for five inches. The upper limit of splenic dulness was at the sixth rib, while its transverse dulness was much increased. The appetite was greatly impaired; he complained of thirst; and the bowels were constipated. He had no abnormal sensations, but occasionally saw red and black specks floating before his eyes. The fundus of each eye was pale, and contained hæmorrhages. The specific gravity of the urine was 1017; it was of neutral reaction, and contained no albumen. On October 10th and 11th, he vomited, the vomited matter containing a blood-clot on the latter date. On October 12th, prostration was much greater; at night he was semicomatose, and passed urine involuntarily; the pulse running up to 140. He rallied slightly the following morning, the pulse falling to about 120, but he died before night. The temperature during the five days the patient was in hospital ranged from 100° to 102° and 103°. The hæmacytometer showed the coloured corpuscles to be 18 per cent. on admission, and to have fallen to 12 per cent. before death. The treatment consisted of iron, turpentine, and sulphuric acid; brandy, eggs, milk, etc.

A *post mortem* examination was forbidden.

CASE II.—John J., aged seven years and nine months, was admitted, under the care of Dr. Millington, on October 16th, 1878. No satisfactory history of this case could be obtained. The boy had a fair complexion with red cheeks, and he was fairly well nourished. There were purpuric spots on the trunk, upper and lower limbs, the neck, and a few on the face. There were also several ecchymoses. The conjunctivæ and gums were not very pale, but the latter bled on slight pressure; and there was coagulated blood on some of the teeth. The glands in the neck, axillæ, and each groin were enlarged, but not tender, and the individual glands were distinct from each other. The pulse was 135, regular and bounding. The cardiac dulness was increased, the first sound was very faint, and the pulmonary second sound accentuated. The hepatic dulness commenced at the fifth rib, and extended beyond the ribs, the edge of the organ being distinctly felt. The splenic dulness began at the sixth interspace, and extended for 4¾ inches, and the organ could be felt projecting beyond the ribs. The abdomen was distended and tympanitic; the bowels were confined. The specific gravity of the urine was 1020; it was acid, and contained no albumen. On testing it cold with nitric acid, there was an abundant precipitate above the acid, which cleared away on standing, and the nature of which was not made out. On October 22nd, the purpuric spots had faded considerably. The gums were bleeding more. He was paler than when admitted; and, for the last few days, there had been a large deposit of white urates in the renal secretion. The pulse was 136. On October 24th, he had slight epistaxis twice, and he vomited about five ounces of clotted blood. There was oozing from the posterior nares. The pulse had run up to 160. On the 26th, there were slight epistaxis and hæmatemesis. The pulse had fallen to 132, but was small and irregular. There was severe pain in the bowels, which was relieved by an enema. In the evening, the pulse was 152, and weaker. The following morning, he was groaning and pulseless, and died early in the afternoon (the 27th). The temperature during the first five days ranged from 99° to 100.5°; thereafter its range was higher, and only on one occasion fell below 100°, while it twice reached 101.6°, and once 102.4°. The treatment consisted of turpentine, and sulphate of soda to regulate the bowels. He was nourished by milk, beef-tea, and port-wine. The local bleedings were treated with ice, etc. On October 18th, Gowers's hæmacytometer showed the red corpuscles to be 77 per cent.; on the 20th, 58 per cent.; on the 22nd, 32 per cent.; and, before death, 22 per cent. The hæmacytometric observations in this and the preceding case were made by Dr. Hunt, to whom I am indebted for permission to use them.

Post mortem Examination.—The dura mater was firmly adherent to the calvarium. Beneath the dura mater, there was a thin layer of blood, covering the anterior two-thirds of the brain; the blood in parts being bright red, in other parts darker, more abundant, and clotted. There were no hæmorrhages into the meninges or brain-substance. The brain weighed 55½ ounces; the convolutions were numerous, and the sulci shallow. There were numerous purpuric spots on the pericardium, on the outer surface of the heart, and on the endocardium. There were none on the pleuræ or bronchi. There was a blood-clot, of the size of a pigeon's egg, in the upper part of the remains of the thymus gland. The mediastinal glands were not enlarged, and the glands generally were much smaller than before death. The spleen weighed 2½ ounces, and measured 4 inches by 2½ inches; it was firm, but congested in patches, as if localised hæmorrhages had occurred into its substance. The liver weighed 29 ounces: its surface was indented by the ribs, and its section was pale, the interlobular vessels being unusually large. The stomach and upper part of the duodenum were thickly strewn with hæmorrhages, while the rest of the intestine contained none. There were a few hæmorrhages on the parietal peritoneum. The kidneys were normal.

CASE III.—T. B., aged 28, a boiler-maker, was admitted under Dr. Totherick on November 6th, 1878. During the three months preceding admission, he was conscious of a gradual failure in strength, and had suffered from unwonted pain in the small of the back, and in the back of the head and neck, if he worked hard. About eight days before admission, his throat became painful and the cervical glands swollen, while the pain of deglutition restricted him to fluid food. He had noticed a thick state of his urine for three months. No further recent history was obtainable. His mode of life and his surroundings resembled those of his fellows; he had abundance of vegetable and other food, was well housed, and of steady habits. There was no specific history. With the exception of the past eighteen months, he had been a good deal exposed at work. His mother died of "nervousness;" otherwise his family history was satisfactory.

State on Admission.—He was well built and well nourished, and gave the impression of being a man of considerable muscular power. The face appeared to be puffy, more especially round the eyes. The breath was offensive. The pulse was quick, full, and

[1] The "Remarks" in this paper embody the observations made by Dr. Russell in the discussion on Purpura, in the Section of Medicine.

bounding. The tonsils were enlarged, and presented some whitish spots on their surface. The urine contained a large deposit of urates, but no albumen. The cervical glands were enlarged. The assumption was, that the patient had follicular tonsillitis, which would speedily run a favourable course. On the 7th and 8th, there had been a small amount of blood in the expectoration, which was not thought to be of any importance; but, on the 9th, it had so much increased, that its source was sought for, when it was found that the gums were soft, with blood freely oozing from them, and in places much retracted from the teeth. The right tonsil still presented whitish spots, and the posterior wall of the pharynx was covered with what appeared to be tenacious mucus. The cervical glands were still enlarged and hard; the boundaries of individual glands being nearly obliterated. The glands in the axillæ and groins were enlarged, but discrete. There was a sparse purpuric eruption all over the body, the spots being most abundant on the right arm. There was a subconjunctival ecchymosis in the lower lid of each eye. He breathed heavily, the respirations numbering 22. Hearing was markedly impaired. There were no retinal hæmorrhages, but the fundus was pale, and the veins large. The splenic dulness was increased, and began at the sixth interspace. He became more and more apathetic, and died the following morning. There was hæmaturia before death. The temperature remained steadily between 103° and 104°, except on the morning of the 7th, when it was 101.4°, and on the morning of the 8th, when it was 99.2°.

The necropsy was made thirty-eight hours after death. Rigor mortis and hypostasis were well marked, and the green discoloration of the abdomen and round the mouth showed that putrefaction had already made considerable progress. The cerebral surface of the dura mater was lined in places by a brownish-red layer of altered blood, which was readily separable, and, when removed, exposed numerous vascular points on the membrane. Between these more recent extravasations there was a pale membranous exudation, also easily separable from the dura mater, and presumably formed of older blood-clot. There were no hæmorrhages into the other membranes. There were hæmorrhagic petechiæ on the pericardium, exocardium, and endocardium, in the loose tissue about the aorta, on both visceral and parietal pleuræ, on the mucous membranes of the bladder, stomach, intestines, and especially the rectum, on the parietal and visceral peritoneum, and in the periosteum of the ribs. The spleen weighed fourteen ounces, and measured seven inches by four inches and a half; the greater part of it was normal in colour and consistence, but the upper third contained extravasated blood, and towards the hilus its substance was pulpy. Both kidneys exuded blood on section, and the calyx of each contained blood-clot. The liver weighed seventy-seven ounces, was pale, not specially soft, and presented petechiæ on its free surface. The glands in the neck, axillæ, and groins were slightly enlarged, but they were smaller than during life, this being particularly noticeable in the cervical glands. The mediastinal glands were not enlarged.

Case IV.—Mary H., aged 19, was seen by me on October 14th, 1881. She was in bed and of corpse-like pallor, with a yellow tint. She had never been strong, and had been under treatment for some time for menorrhagia and anæmia. There were purpuric spots on the neck, upper part of the chest, and body generally, and one ecchymosis on the forearm. Her mother said that, as long as she could remember, she used to have purpuric spots on her body. She was subject to epistaxis, perhaps every two or three months; and it was noticed that, if she cut her finger, the bleeding was stopped with great difficulty, and the slightest blow produced an ecchymosis which took long to disappear. She menstruated first at sixteen, and since then there had been no epistaxis. The menstrual flux was usually only absent for a week, and reappeared, lasting for two or three weeks. The present menstrual period had lasted for a month, and was still going on; at its onset she had to give up work, as she felt unfit for it, and suffered from headache. The pulse was 140, regular, soft and compressible. The temperature was 101.4°. There was a *bruit de diable*. The bowels were regular; the appetite was fair. There was no pain. The body was plump. The pupils were normal. The gums were not bleeding, and there was no history of hæmoptysis. She was one of a family of nine, all of whom were grown up and in good health. On October 15th, Gowers's hæmacytometer showed the red blood-corpuscles to be down to 48.4 per cent. There was no increase of white corpuscles. She was treated by turpentine enemata, as the stomach would not tolerate the drug. Her progress was exceedingly satisfactory under a carefully regulated diet, and a preparation of dialysed iron. The morning temperature was invariably 99°, or a little more, while the evening temperature was a degree higher. By November 1st her colour was much improved, and the hæmacytometer showed the corpuscles to have increased to 74.2 per cent.; the bleeding from the bayonet-prick had to be stopped with caustic. The temperature after this never reached 100°, and fell to normal before the end of the month. At the beginning of the month there were no petechiæ, but on the 30th there were some new ones on the neck and arms, and for the first time I noticed that the upper gums bled readily on pressure, but her mother said they had always done so. Although I warned her friends of the necessity of having her constantly under medical surveillance, I soon ceased to see or hear of her, until, on October 25th, 1882, I was called to see her, and found her moribund. The story was, that she had resumed work since I saw her, and was much stronger, and had only menstruated three times. A fortnight ago she stopped work, as she was vomiting and menstruating, but both these had been stopped for a week, and her mother thought she was recovering. She was very pale, but had no hæmorrhage from any other quarter. She was quite conscious and bright a little time before I was sent for, and was suddenly seized with what they called a "fit." I could not get permission to make an examination of the body, but was allowed to take some blood from a small vein at the wrist; the blood on a slide looked like water with grains of red sand in it, and the small incision continued to bleed most obstinately. The immediate cause of death might possibly have been intracranial hæmorrhage.

Case V.—This was a girl, aged 12, under the care of Dr. Barnes in the Carlisle Infirmary, whom I saw during a casual visit, and to whose necropsy Dr. Barnes kindly invited me. The case is, I believe, to be published; but I may say here, that the temperature coincided with that of the preceding cases.

Remarks.—There are few diseases, our knowledge of which seems to have advanced so little during the present century, as has been the case with hæmorrhagic purpura. Since its first description by Werlhof, little has been added to the elucidation of its clinical or anatomical features. Willan, in his work on Cutaneous Diseases (1808), left us a picture which is practically as perfect now as it was then; there we find the premonitory lassitude noted; that the eruption may be preceded by, among other symptoms, shiverings and acute pain; that the course of the disease is attended by extreme debility and depression, with a weak and frequent pulse, and, further, that "febrile paroxysms, like those of a hectic or remittent fever, occur at intervals." Dr. G. Gairdner (1823) pointed out the febrile condition of a patient, both during the premonitory and the fully developed stages. Bauer (*Dissertatio Inauguralis Medica de Purpurâ Hæmorrhagicâ*, 1828) says that fever is sometimes present, and is sometimes hectic, and of remitting character. He also noticed swelling of the spleen, and that the liver was affected, and mentions that Havinga had seen the disease with swelling of the submaxillary glands, and Neuhaüser, with parotid swelling. Dr. B. W. Richardson (*Medical Times and Gazette*, November 1874) divides the disease into three forms: 1, aqueous purpura, which seems to be hæmophilia; 2, saline purpura, which includes scurvy; 3, vascular purpura, where a disease of the minute capillaries is assumed. Immermann (Ziemssen's *Cyclopædia of the Practice of Medicine*, vol. xvii.) says there is a "primary disease either of the blood or of the walls of the vessels, or of both together," and that it is "impossible to answer the question as to its pathogenesis," and that "in the search after an explanation, we are driven either to assume the existence of imperceptible changes in the blood, *e.g.*, the importation of a deleterious miasmatic principle, or to recognise as the basis of the hæmorrhagic diathesis a peculiar disease of the blood-vessels more or less independent of the condition of the blood. The febrile movements, he thinks, may be of a "resorptive nature," or the blood extravasated may act as an "inflammatory irritant," or it may be due to what he believes to have existence, namely, a special "anæmic fever." Dr. Hilton Fagge (*Guy's Hospital Reports*, third series, vol. xxv, 1880-1), in a paper on the relation between this disease and sarcomatous growths, says: "Different views may be taken with regard to their relations. One is, that a minute development of sarcomatous tissue, with vessels made up of embryonic cells, occurs at each spot which becomes the seat of an effusion of blood; or, perhaps, that sarcomatous cells, or nuclei, or even leucocytes in an abnormal condition, become lodged in the capillary vessels here and there, and produce softening of their walls after the manner of emboli" (p. 16). "But another view is to regard the purpura, the spongy state of the gums, and the epistaxis, as the joint results of a profound cachexia or alteration of the blood, analogous to that which is present in pernicious anæmia, in splenic leukæmia, and, indeed, in scorbutus

itself.....In splenic leukæmia, a morbid state of the gingival tissues has been described by Mosler; it was present in a case of that disease which occurred in this hospital in 1878" (p. 18). But, while stating these two views, he appears to lean towards that of "sarcomatous infection." But, were this correct, we should expect each spot of hæmorrhage to become the centre of a sarcomatous growth, and this does not occur. Again, that the glandular swellings present in some cases should be regarded as sarcomatous, is open to grave objections which shall appear hereafter.

The other hypothesis, that the affection is due to a structural disease of the minute capillaries, may be set aside, as no satisfactory change has been demonstrated in them, although much attention has been paid to the subject, and as it is difficult to imagine the nature of a vascular change, which would give rise to such a series of phenomena.

We thus seek to fix on the blood itself as the site of the evil. The clinical outline of the disease is, premonitory depression, or a condition below par, perhaps chilliness; the appearance of spots, and the presence of pyrexia; hæmorrhages and increasing pyrexia; and, what has not hitherto been noted, a diminution and destruction of blood-corpuscles out of all proportion to the amount of hæmorrhage; a rapid course; and a fatal termination. The pyrexia cannot be explained on any of Immermann's assumptions, for, in two of the preceding cases, the pyrexia was present when there was nothing but a few spots to require "resorption," or to act as an "inflammatory irritant," even if it were believed, at this time of day, that blood-clot, under the conditions which hold here, led to pyrexia; and the "anæmic fever" theory is untenable, for there was pyrexia in one of the preceding cases, with the red corpuscles at 77 per cent., and, in another, with them at 48 per cent.; and we know that this fall in the corpuscular richness of the blood is not, under ordinary anæmic conditions, accompanied by pyrexia. And the pyrexia is not the cause of the anæmia, for the latter is out of all proportion to what exists in other morbid conditions where as high a temperature-curve is attained. That the blood is the seat of the disease is, I believe, further shown by the glandular enlargements which occur. That such enlargement may take place from a general blood-condition, I had the opportunity of observing some time ago in a woman who had recurring attacks of pyrexia, accompanied by a general enlargement of glands, the glands regaining their normal size during the apyrexial periods; and, in the above cases, the extent to which the glands diminished after death was very striking. From a clinical consideration of this disease, it appears to my mind to present the characters of a specific fever due to a specific poison, or, what Dr. Creighton calls, an autonomous disease. On this assumption, I asked Mr. Watson Cheyne to examine what material I had preserved for micro-organisms; and I here wish to acknowledge his extreme kindness in devoting time and labour to this subject. The slides of blood which I had prepared, and on which I had proposed to depend, were so unsatisfactorily stained, that Mr. Watson Cheyne could not give a definite report on them. I had, however, retained a piece of heart covered with the hæmorrhages characteristic of this disease; this he examined, and I annex his report *verbatim*.

Mr. Watson Cheyne's Report.—Immediately beneath the exocardium are extensive hæmorrhages raising up the exocardium, and separating the muscular bundles. Many of the capillaries at the deeper part of these hæmorrhages are plugged with small bacilli, and, here and there, among the effused blood, small colonies of these bacilli are found. There are also a few single bacilli lying among the blood-corpuscles, but the typical mode of growth of these organisms is evidently in colonies. The capillaries are not merely blocked by the plugs, but their walls are distended, and, in some cases, ruptured, the bacilli thus escaping into the surrounding tissue. There are no evidences of inflammation around the masses, the tissue in the vicinity being apparently quite healthy. The individual bacilli vary somewhat in length, but the average length is $\frac{1}{7700}$ of an inch, and their breadth is about $\frac{1}{20000}$ of an inch. Some of them apparently contain spores; at least there are unstained, roundish bodies in the rods, as a rule two in each rod. They do not materially differ in relation to staining agents from the common forms of micro-organisms, such as bacillus anthracis, etc., but they are best demonstrated by an alkaline solution of methylene blue. From the size of the colonies, and the distension of the walls of the capillaries, the bacilli have evidently been growing in the blood for some time. Further, from the number of capillaries blocked by these colonies, and from the position of the plugs around the margin of the hæmorrhages, there can, I think, be no doubt that these plugs have been the cause of the hæmorrhage, acting in the same manner as any other embolus. Should the condition be found in other cases of purpura hæmorrhagica, it will establish the fact that the hæmorrhages, at least in this disease, are due to these bacilli, whether the relation between the organism and the affection as a whole be a causal one or not. I may caution future observers that the close arrangement of the organisms in the colonies, and the presence of spores, might lead one, at first sight, to the conclusion that the organisms in question were micrococci, but careful examination, with good lenses and correct illumination, will soon show that the bodies are bacilli.

Should Mr. Cheyne's observations be verified by others in other cases, it will be one step onward in our knowledge of this disease; although the more difficult problems will remain to be investigated as to suitability and preparation of nidus, the sources of infection, and the paths by which the infection reaches the circulation.

EPIPHYSAL NECROSIS AND ITS CONSEQUENCES.

Being an Introduction to a Discussion in the Section of Diseases of Children.

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The subject of inflammation and necrosis of the epiphyses of long bones is one which presents many points of much interest; some of them, I believe, not generally known. Hence my venturing to choose it as worthy of introduction to the notice of this Section.

In doing so, I purpose leaving out of consideration altogether inflammatory or other conditions which are the result of specific diseases as rickets, syphilis, or scurvy, and dealing with the subject chiefly from a clinical rather than a pathological point of view.

The following case is one of a group with which all who have had much to do with the surgical diseases of children are familiar.

Case I.—An infant, six months old, was sent to me by Dr. West (March 5th, 1880), on account of disease of the right knee-joint, of six or seven weeks' duration.

I found, on examination, that the joint was evidently distended by fluid; and, on making pressure, sanguineous pus oozed from a fistulous opening on the outer side, which, I was told, represented the spot at which an abscess had been punctured a week or two previously. The lower end of the femur seemed considerably enlarged, as if from osteitis. The child was pale, but fairly healthy, and not so much distressed by the disease as one might have expected. Its rest had been a good deal disturbed by pain.

March 9th. Not being satisfied with the opening which existed for the escape of pus, chloroform was administered, and I opened the joint on both sides of the patella, opposite its lower third, and let out about half an ounce of pus. Subsequently, it was found that a probe could be readily passed across the interior of the joint beneath the patella. No dead bone could be detected; and I could not feel any bare bone on probing through the sinus which already existed on the outer side higher up. Some lateral movement of the tibia on the femur, as if from loosening of the ligaments, could be readily felt on examination. Fomentations and linseed-meal poultices were ordered.

March 16th. The knee was less swollen, and said to be much less painful. The general condition of the child was about the same.

From this time onward, a gradual but steady improvement took place, both in the local conditions and in the general health. On April 16th, there was much less swelling of the joint, and the enlargement of the lower end of the femur was much less apparent. The motions of the joint were free, with the exception that the tibia could not be completely flexed or extended. No pain was produced by the movements at the joint; and the child was said to kick about with one leg almost as much as with the other. All the wounds were now healed. Only very slight lateral movement of the tibia on the femur could be now detected.

The last note which I have is dated April 27th. The child was much improved in every way. All the sinuses remained healed, and there was but little swelling. No pain was caused by flexion and extension, and the leg could be now almost, but not quite, straightened. Scarcely any lateral movement could be detected. The general health was extremely good.

The following is an almost identical case.

Case II.—A male infant, aged nine weeks, was brought to me at St. Bartholomew's Hospital, August 7th, 1880, on account of disease

of the knee-joint, with symptoms almost identical with those of Case I. Much puffiness existed on each side of the patella, as if from distension of the knee-joint, and there was a fistulous opening, discharging pus, opposite the internal condyle. The general appearance, indeed, was exactly like that of a joint undergoing acute inflammatory disorganisation. The swelling of the knee was first noticed when the child was four weeks old, and it increased gradually until it broke and began to discharge spontaneously a fortnight afterwards. Notwithstanding the escape of pus, however, the joint became steadily more swollen and red, with no improvement in any of the symptoms, up to the date of the child being brought to the hospital.

Chloroform was given, and I made a puncture into the knee-joint on the inner side of the patella. Blood flowed very freely from the puncture, and I could not detect any pus in it; but, from the relief given, I fancy pus or other fluid must have escaped, although concealed by the hæmorrhage.

August 9th. Very great improvement had apparently resulted from the opening into the joint. All the local symptoms were much better.

From this time, the record is only one of continued improvement; and, on September 2nd, it was noted that the diseased knee-joint looked almost like the other. The sinuses were healed. The puncture made below the patella was scarcely perceptible. The sinus-scar over the internal condyle was adherent to the deeper textures. The movements of the knee were free and smooth, and painless. The leg could be, however, not quite completely extended.

October 25th. The knee was apparently well. The child moved the limb freely in flexion and extension, and the leg could be almost, but not quite, fully straightened.

I have seen several such cases; the leading features being, in all, acute inflammation and suppuration within the knee-joint, with much general distress and fever; marked relief after free incisions into the joint; and rapid recovery with maintenance of the integrity of the articulation. In all my cases, as it happened, with one doubtful exception, the result has been recovery with preservation of the limb; and I have had no opportunity of investigating minutely the pathology of the cases.

Cases similar to these occur, in which some other joint than the knee has been the seat of the disease; but, in my own experience, the latter joint has been the more frequently affected.

We are indebted to Mr. Thomas Smith for the fact that, in these cases, which he has termed "acute arthritis of infants," the epiphysis is probably the primary seat of the disease. In a paper in the tenth volume of the *St. Bartholomew's Hospital Reports*, Mr. Smith records several cases, and in many the disease was attended by symptoms of septicæmia, and followed by death. In many of his cases, too, more than one joint was affected in the same patient. From the similarity in the train of symptoms, however, up to a certain point, from the general progress of the local affection and from the age of the patients, there can be no doubt that in all there is a close resemblance or identity in their pathology also. And one cannot doubt that the conditions found in *post mortem* examinations of those who died are present, more or less, in those who recover.

A drawing in the tenth volume of the *St. Bartholomew's Hospital Reports*, illustrates the appearance of the right knee-joint of one of Mr. Smith's cases. The patient, J. T., was a boy nine months old, who was suffering from suppurative arthritis of both hip-joints, of the right knee-joint, and of the right shoulder-joint. I need only quote the description of the knee-joint. "The right knee-joint contained pus; the synovial membrane and ligaments appeared to be healthy; the articular cartilage was normal in appearance, except just at its anterior edge, in front of the joint, between the condyles. Here was a small ragged opening, about the size of a small pea, and from this a small sinus could be traced into an abscess-cavity in the cancellous tissue of the bone. The cavity was lined by a thick, tough, well-defined membrane, and it was situated in the osseous tissue, just at the position of the future epiphysial line. The ossifying cartilage appeared to be healthy; the surrounding cancellous texture was vascular and soft." (*St. Bartholomew's Hospital Reports*, vol. x, 1874, p. 194.)

Mr. Smith speaks of the disease as occurring always within the first year of life, and the most typical and severe instances occur without doubt usually at this early period; but I am disposed to think that many of the cases of acute suppurative arthritis of children are similar in their origin to those which Mr. Smith has termed "acute arthritis of infants." I have seen what I believe to be the same kind of disease in much older children. The following is a case in point.

In September 1878, I saw, in consultation with Mr. W. E. Burton, a little girl, about three years old, who was suffering from acute inflammation and suppuration of the knee-joint, with great pain and general distress, and very high temperature. I opened the joint on both sides, making a small incision into it on a level with the upper border of the patella on the inner side, and another near the lower border of the patella on the outer side; pus escaped freely. A poultice was then applied. Many weeks elapsed before recovery took place; but at length the wounds healed, and the child began to walk. For a time I lost sight of the patient, but saw her again two years afterwards, and at this time made the following note.

"March 1st, 1881.—The knee is now quite well, and has been so for nearly two years. The child walks without the slightest indication of anything wrong with the leg, which can be completely flexed and extended. The scars of the small incisions are still visible, and apparently adherent to the synovial membrane. All the textures about the joint are perfectly sound."

A consequence of epiphysal necrosis to which, so far as I know, special attention has not been drawn, is the dissection of the periosteum from the shaft of a bone by pus which escapes from the abscess in the epiphysis. The point is one of some importance from the side both of pathology and clinical practice, and is illustrated by a case of which I have a diagram.

The case was that of a boy, eleven years old, who was admitted into St. Bartholomew's Hospital under the care of a colleague, on account of what was thought to be acute necrosis of the left femur. An incision was made into the periosteum, and a small quantity of pus was let out. The lower half or more of the femur became much thickened. Subsequently, suppuration occurred in the knee-joint, and was relieved by incisions. The tibia was displaced backward and inverted. The case was considered, of course, one in which necrosis of the greater part of the femur had been followed by destruction of the knee-joint; and, two months after the patient's admission into the hospital, the thigh was amputated in the upper third. I remember well being much puzzled by this case. Bare bone, sinuses leading down to it from the surface, destruction of the knee-joint, all seemed to point clearly enough to necrosis of the femur, with destruction of the knee-joint as one of its consequences. Yet there was no great thickening (excepting in the lower half of the femur), as from the presence of a shell of new bone, no distinct evidence of a sequestrum, and not even the usual nipple-like granulations at the sinus-orifices; and when the femur had been amputated it was seen that the shaft of the bone, although bare of periosteum, was clearly not dead; the sequestrum was formed by only a small part of the bone near the lower epiphysis. Without doubt, the pus had tracked upwards beneath the periosteum, and had then found its way through it, or was let out by the incision at some distance up the thigh.

The following is another instance of the same course of events.

A boy, T. P., 13 years old, was under my care at St. Bartholomew's Hospital in August 1879, with what was supposed to be acute necrosis of the tibia with consequent destruction of the knee-joint. Incisions were made into the joint above and below the level of the patella; and subsequently another incision was made down to the bone on the upper and inner aspect of the tibia, which at this part and for some distance downwards was bare of periosteum. It seemed to all who saw this case that recovery without amputation was most improbable, and the friends of the boy were advised accordingly. They absolutely refused, however, their consent to amputation.

It is not necessary to give in detail the further progress of this case. It may suffice to say that for many weeks suppuration continued in the knee-joint, and around the upper part of the tibia: but at length, after about two months, the limb had resumed almost its natural shape, the swelling of the knee-joint was very much less marked, and, excepting a large sinus which led down to bare bone on the inner side of the head of the tibia, all wounds were healed. The boy could bend the knee almost to a right angle; although relaxation or, possibly, destruction of some of the ligaments was indicated by the too free lateral motion of the head of the tibia on the condyles of the femur.

About three months after the patient's admission into the hospital, the sinus over the head of the tibia was laid open, and the fistulous track by which it communicated with the interior of the bone was enlarged so as to permit an examination of the interior. A large abscess-cavity, containing loose fragments of bone, was found in the head of the tibia; the upper wall of the abscess was separated

by only a thin layer of bone from the interior of the knee-joint. The opening by which, without doubt, the abscess had once communicated with the joint was not discovered. An abscess which had formed about this time over the middle of the shaft of the tibia was also incised. All went on well after this, although the wounds had not quite healed when the boy left the hospital, with a gutta-percha splint, about four months after his admission.

I had not seen this patient since he left the hospital, nearly four years ago, until within the last week, when I wrote asking him to come and see me. He did so; and I made the following note of his condition.

"July 30th, 1883.—The patient is quite well, and, excepting a slight thickening on each side of the ligamentum patellæ and the scars of the past troubles, there is absolutely nothing to distinguish one leg from another. The lad can flex and extend the leg perfectly, he can walk without the slightest limp, and there is no trace of relaxation of any of the ligaments to be found when an attempt is made to move laterally the tibia on the femur."

All of us are aware of, and probably most of us have taken part in, discussions whether the stripping of the periosteum off the shaft of a bone is sufficient to cause necrosis; as, for example, in the case of the so-called acute necrosis of young subjects, in which some think the necrosis is a cause, and some a consequence of the subperiosteal suppuration. The matter is far too wide to be covered by cases such as those which I have just quoted; but one may remark, by the way, that, so far as they go, these cases lend support to the belief that the mere raising of the periosteum is not sufficient to interfere with the vitality of the bone which it clothes.

It may be said that, in the cases of acute arthritis of infants in which recovery takes place, necrosis is assumed without sufficient reason; while, perhaps, the fact is rather that the recovery is an indication that no actual death on the part of the bone has occurred. It may be so; but such is not my opinion. The cases in which necrosis is proved to exist resemble so closely in their general course and symptoms those in which recovery occurs, that I cannot doubt that the difference is one only of degree. In one, the dead bone is so large, and the integrity of the end of the bone so much interfered with, that amputation becomes necessary; in the others, the destruction is so slight that, with the escape of a few drops of pus and the disintegration of a mere crumb of dead cancellous tissue, the primary disease comes to an end. The symptoms are altogether unlike those with which one is familiar in connection with synovial disease or chronic inflammation of bone, or with tubercle. In many of Mr. Smith's cases, of which drawings are given in his paper before referred to, and in which death occurred, not by any local effects, but by septicæmia, it will be seen how small is sometimes the actual amount of destruction, and how easily, so far as this is concerned, repair may be supposed capable of taking place.

In the cases to which I have hitherto referred, a communication between the disease of the epiphysis and the interior of the neighbouring joint has been a leading event. In a certain number, however, of cases, the disease seems to track neither into the joint, on the one hand (or, at all events, not in such a way as to cause acute inflammation), nor far beneath the periosteum, on the other. The local symptoms are those of thickening of bone, with abscess-tracking in the soft parts in the immediate neighbourhood of the epiphysis; inflammation of the joint, if present, being comparatively slight, and not forming a leading symptom. Such cases are occasionally very puzzling.

I may quote one out of the three cases of the same kind which have been under my care at St. Bartholomew's Hospital during the past year.

A little boy, C. B., a year old, was admitted into St. Bartholomew's Hospital, in August 1882, with what seemed at first sight to be inflammation of the right knee-joint. The knee was enlarged and tense; the swelling involving, also, the lower part of the thigh, especially on its outer side. The temperature was 102° Fahr. It was stated that there had been a swelling about the instep about a month before the child's admission into the hospital; and that, a few days afterwards, the knee became fixed and much swollen. A few days after the child's admission, my colleague, Mr. Shuter, who had charge of the wards in my absence from town, incised the swelling in the lower and outer part of the thigh, and let out some pus. On examination with the finger and probe, the abscess was found to track over the anterior surface of the femur, but not, so far as could be discovered, into the interior of the knee-joint. Only temporary relief seemed to be given by the incision, notwithstanding the maintenance of free drainage; the general condition of the child, with high and variable temperature and quick pulse, continuing about the same for some weeks. A good deal of swelling remained in the knee and its neighbourhood.

About a fortnight or more after the child's admission, the knee being still very tense, though not clearly fluctuating, and the symptoms not relieved, I made a small puncture into the joint under the carbolic spray, but no pus escaped.

In a few days, the small punctured wound was healed; the general and local symptoms remaining about the same.

On September 23rd (about a month after the child's entrance into the hospital), there was a marked improvement in all the symptoms, both general and local; the wound at the lower and outer part of the thigh was still discharging pus. The lower end of the femur was thickened.

October 9th. On examination with a probe, it seemed to enter a small cavity, extending for some distance into the femur, just above the condyles. The knee-joint was less swollen, and quite quiet.

Soon after this note, the local symptoms had so much improved, that extension was applied by means of a weight to the contracted knee-joint; and, the leg having been gradually brought into nearly a straight condition, a leather splint was applied, and a short time afterwards the child left the hospital.

The two other very similar cases which I have seen during the past year have been in older children—one in a boy, and the other in a girl, aged 11.

Many cases of hip-joint disease arise, I believe, from some affection of the epiphysis of the head of the femur, or, at least, from some condition which leads to its death and separation. My chief reason for believing this is derived more from what I have observed in cases of excision of this joint, than from any peculiarity in the symptoms at an early stage. In a large number of the cases of excision of the hip-joint in young children, the head of the femur, more or less disintegrated, will be found lying loose in the acetabulum; and the operation may, in many of these cases, consist merely of an incision into the joint, the introduction of the finger and forceps, and removal of the epiphysal sequestrum. The acetabulum is, of course, usually bare of cartilage, consequent on the inflammation and suppuration which have been set up by the disease of the head of the femur; but there is often no further indication of disease of the pelvis. In the thirty cases, or thereabouts, of excision of the hip in children which I have had occasion to perform, this separation of the epiphysis of the head of the bone was found to have occurred in about one-third. Of course, it is probable that disease beginning in other tissues of the joint may, in some cases, lead secondarily to separation of the head of the femur; but I cannot doubt that, in many, the disease begins here. It is quite certain that many of the cases in which such separation takes place are among the more favourable for the operation of excision; the removal of the sequestrum being followed by comparatively rapid recovery, so far as the maimed condition of the parts will permit.

The frequency of complete separation of the head of the femur at the epiphysal line, compared with the rarity of separation at the epiphysal line of the condyles, depends, without doubt, on the very different anatomical conditions; and the separation of the head, and its remaining as a sequestrum within the joint, account clearly enough for the continuance of suppuration; while in the case of the knee-joint, with no such sequestrum within it, recovery of course takes place much more readily. The nearest approach on the part of the knee to the symptoms of dislocation, which so frequently occur at the hip, is to be found in those cases, well known, in which the bone gives way at the epiphysal line either of the head of the tibia or the condyles of the femur, and, being displaced backwards, may simulate very closely a true dislocation backwards of the tibia on the lower end of the femur.

The points regarding which, as it seems to me, discussion will be especially profitable, are these:

1. The frequency of acute inflammation and suppuration within joints, as a result of necrosis in connection either with an epiphysis or the osseous tissue in its neighbourhood;

2. The good result of free incisions and drainage in such cases, often with complete restoration of the functions of the joint;

3. The simulation of acute necrosis of the shaft of a long bone by tracking of pus beneath its periosteum for some distance from its origin, in disease of an epiphysis or its neighbourhood

4. The frequency with which disease of the epiphysis of the head of the femur is the cause of hip-joint disease, and the special propriety of excision in such cases;

5. The difficulties which arise with regard both to diagnosis and treatment in cases of disease of an epiphysis attended by secondary

inflammation of the neighbouring joint, especially when no direct communication exists between the abscess in connection with the epiphysis and the interior of the joint ;

6. As an incidental matter for discussion, the relationship between subperiosteal suppuration and necrosis.[1]

A CASE OF EPIPHYSAL NECROSIS OF THE HUMERUS, FOLLOWED BY CONSIDERABLE SHORTENING OF THE ARM.

Read in the Section of Diseases of Children.

By JOHN H. MORGAN, M.A., F.R.C.S.Eng.,
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In a paper in vol. 45 of the *Medico-Chirurgical Transactions*, Professor Humphry mentions the case of a woman, aged 70, who was injured at the shoulder when six months old. There resulted a shortening of the humerus to the extent of three inches (8 to 11), with prominence at the line of junction of the epiphysis with the diaphysis. Another case is mentioned of a boy, aged 3, who was injured at the upper epiphysal line of the right humerus; suppuration followed; an abscess burst, and healed spontaneously in about a year, leaving a deeply indented cicatrix. The humerus was an inch shorter than its fellow, but movement of the joint was not lost. At nine years of age, the difference in length remained the same; showing that, though the growth was impeded during the progress of the disease, it had proceeded as well as in the opposite limb since the part healed. In his work on *Diseases of the Bones*, Stanley mentions the case of a child who had an abscess in the upper part of the tibia, accompanied by partial separation of the epiphysis; the bone, several years afterwards, was one and a half inches shorter than the opposite tibia.

Inflammation, and even necrosis, of the epiphyses of the long bones, is not uncommon; but it so frequently tends to involve the neighbouring joint that the results of its necrosis are frequently involved in the more severe ones which follow implication of the articular structures. Paget has pointed out the lengthening which sometimes results from the excessive vascularity of these structures; but the contrary condition, which follows the death of the parts to which the addition of length to the bone is mostly due, is not often seen. The principal lengthening of the humerus takes place at the upper extremity, the ossifying centre of which appears in the second year, and continues active until the twentieth. The line of junction of the epiphysal cartilage with the shaft of the humerus has only a small portion of its inner part included within the cavity of the synovial membrane, and hence the joint may escape disease which severely injures the growing part of the bone.

The following is an instance of considerable shortening of the humerus which followed abscess and necrosis in the upper epiphysis. A boy of not markedly strumous habit, and with a good family history, was brought to me at the out-patient room of the Hospital for Sick Children, having a swelling over the upper part of the arm, which had appeared as the result of a fall on the shoulder. This presented in the axilla, and was opened, and the boy improved for a short time. Before long, however, a second abscess formed in the same situation, which was allowed to burst, and he was admitted to the Hospital, where I removed some crumbs of necrosed bone from the sinus. This continued to discharge for a year, when some more small portions of dead bone were taken away, and the sinus in a short time closed.

He has been under my observation for more than three years, and I first noted the difference of length of the humeri in February 1882, when, the disease having existed a year and a half, the affected bone was found to be an inch shorter than its fellow. In the following October, the two bones measured respectively, left 8¼ inches, right 7 inches, showing a difference of 1¼ inches; and in May last, the humeri measured, right 7¼ inches, left 9¼ inches, showing a difference of two inches, and proving that no growth had taken place in the diseased bone. The sinus had then closed, and the boy's health improved; and the respective lengths at the present time (August 1st) are 8 inches and 10 inches respectively. Thus, it would seem that, while the disease was in progress, little or no growth took place in the affected humerus, but that, so soon as it had ceased, the growth in the diseased was *pari passu* with that in the healthy limb.

The casts exhibited have been quite recently made, and show the very great contrast in the length of the two limbs. There is some nodular projection at the upper part of the bone, but the movements of the shoulder-joint are not affected, and the full power of using the arm is only limited by some thickening of the parts about the sinus. There is no muscular wasting, and the general thickness of the two bones seems equal. The case thus fully bears out the truth of Professor Humphry's observations.

[1] A very interesting paper by Mr. Eve, dealing especially with the pathological aspects of Necrosis at the Extremity of the Diaphysis and in the Epiphysis of Growing Bones, is contained in the fifteenth volume of *St. Bartholomew's Hospital Reports*.

ON THE VALUE OF DETERMINING THE PRIMARY LESION IN JOINT-DISEASE AS AN INDICATION FOR TREATMENT.

Read in the Section of Diseases of Children.

By GEORGE ARTHUR WRIGHT, M.B., F.R.C.S.,
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The two principal points upon which I am anxious to hear opinions expressed are, the importance of distinguishing between articular ostitis, so called, or epiphysal osteo-myelitis and synovitis as the primary lesion in chronic joint-disease; and, secondly, the value of erasion (as a substitute for excision) in the treatment of these cases.

In deciding the position of the initial lesion, we can only be guided by observation of specimens removed by operation or on *post mortem* examination; and we may fairly take it for granted that the disease began in that spot where the greatest amount of destruction has occurred, provided the rate of change appears to be equal throughout; further, it may be shown that individual anatomical peculiarities, and the results of treatment, bear out these conclusions. In the case of the hip, I am relying more especially upon over forty cases of my own; and in these, I believe without exception, the disease begins in the neighbourhood of the epiphysal line or in the head of the femur itself. It is, of course, nothing new that hip-disease is usually a chronic epiphysitis; but the point for which I contend, is that it is always so, that primary chronic synovitis of the hip, leading to destruction of the joint, is non-existent, or at least its existence has never been proved. Primary acetabular disease may—and no doubt in some cases does—occur; but the instances are, I believe, exceedingly few.

The exact similarity in the condition of the joint in almost all the cases is most startling, as seen in the specimens before you, which are fair samples of the whole. In all, the upper epiphysis of the femur is the part most affected, and in many cases it is entirely destroyed; in some, the disease affects the bone below the epiphysal line as well; in a few cases, the mischief seems to nave been at first almost limited to the epiphysal zone, and the epiphysis has been entirely and rapidly detected as a sequestrum but little altered in form; there has been complete separation of it before any absorptive action could erode it. This process of "decapitation" is illustrated by the cases of epiphysitis in other bones where suppuration has extended along the epiphysal zone, and the pus escapes through a chink, which visibly gapes when an incision is made down upon it, a condition described by Klose, Barwell, and others, and of which I have recently had a good instance in the upper end of the tibia. Syphilitic telostitis is also a somewhat similar condition, but the special anatomical characteristics of the hip mark it off from these cases; and the resulting sequestrum, in its absolute bareness, resemble more closely the end of a bone at the seat of a pyæmic arthritis. An exactly similar condition is seen in some cases of pyæmic synovitis of the tarsus.

If it be said that the destruction of the epiphysis may be as easily explained by a primary synovitis which extends to the epiphysal line, and isolates the epiphysis after a fashion similar to that described as taking place in the tarsus, I would answer that this is negatived by the fact that the epiphysis as often contains sequestra, and the inflammation at the centre is usually of older date than at the circumference; and also that the diaphysis is often affected as well in the immediate neighbourhood of the epiphysal line, containing central sequestra; and yet again, that we see cases where the change has not yet reached the epiphysal line.

I cannot but think we have here a series and extent of changes which is totally irreconcilable with the view still held by some authorities, that hip-disease begins in the ligamentum teres, synovial membrane, or other soft tissue. In cases where we know the disease

to be primarily synovial, we do not see the same conditions. It would be easy to point out explanations of the apparent, but I believe not real, origin of the disease in the structures, such as the more rapid extension from the bone to the ligamentum teres than to other parts, by reason of the depth to which the ligament penetrates, and so on, and to show how the inflammatory changes spread along some lines rather than others, and so give rise to the appearances which are misinterpreted.

Hip-disease, then—*i.e.*, the ordinary so-called morbus coxæ—is a true epiphysitis or osteo-myelitis, or, as Mr. Greig Smith has called it, "medullo-arthritis," of the upper epiphysis of the femur, and of the neighbouring segment of the diaphysis; and this joint, I believe, stands alone in this particular, being perhaps most nearly approached by the shoulder; and the custom of considering the hip-joint apart from other joints, universally and instinctively followed in surgical works, and often condemned, I believe to be pathologically as well as clinically correct.

In the knee we have the opposite type of joint-disease. Of twenty cases of my own bearing upon the present subject, two were cases of primary necrosis of the patella, and may be set aside; two were cases of abscess in the head of the tibia, and these may be set aside also, for it is only by accident that the joint becomes affected, and the cases are a distinct class from that of joint-disease;[2] two others showed primary bone-lesions; in the rest the disease was synovial. Two other cases recently excised and two more erased were primarily synovial; though one of the latter appeared, from external examination, more like a case of primary bone-disease. It is unnecessary to insist upon the obvious fact that, in by far the larger number of knee-joints that we see opened for chronic disease, there are great changes in the synovial membrane, and that any bone-disease present is superficial; in fact, so universally is this so, that we are apt to be deceived by the fact that, perhaps, a larger number of museum specimens than would correspond with my statement show bone-lesions, and this is because it is only the rare and striking cases that are preserved; the common everyday pulpy synovitis is not considered worth keeping; and, moreover, except where amputation has been performed, the mode of operating spoils the specimen.

Most of the cases of so-called primary epiphysitis are not really so; in cases where a superficial cavity is found in the head of the tibia, or in one of the condyles of the femur, we can often see that a head or sprout of granulations has perforated the cartilage from its intra-articular aspect, or crept beneath its border, and so more rapidly destroyed that particular segment of bone. The symptoms of epiphysitis in the knee usually given are certainly not always trustworthy. I am not speaking now of cases of acute or subacute abscess of bone bursting into the joint; they form a class by themselves; but in two cases, at least, I have been misled by such accounts. In one there was marked thickening of the lower end of the femur, and the case looked so like one of primary osteomyelitis, that I feared nothing short of amputation would be of any use. However, it turned out to be simply a case of periostitis by extension along the ligaments. In the other case there was no sign of any thickening about the bone, and the disease appeared to be simply synovial; yet, on opening the joint to perform erasion, a long caseous cavity was found tunnelling up the centre of the femur.

Everyone who sees much of joint-disease knows how fallacious the apparent enlargement of the condyles of the femur and upper end of the tibia is, and how seldom the supposed thickening of bone is anything but infiltration of the soft parts. I have, however, seen two cases where there was a different explanation, at least in part. In one, genu valgum co-existed with pulpy disease, and simulated enlarged internal condyle from epiphysitis; in the other, where the inner condyle was so large as almost to suggest a new growth, the swelling was partly in the soft parts, and partly due to absorption of the inner tuberosity of the tibia, giving undue prominence to the condyle.

In the case of the ankle, of eight instances, in one only was there primary disease of the bone, and seven were synovial in origin. In eleven cases of tarsal disease, in five the os calcis was first affected; the rest were synovial.

Here we find a similar condition to that of the knee, usually a great amount of destruction of the soft articular structures, and tarsus, is a misnomer, I believe, as expressing the motion of the disease. The term has, I think, originated in this way. In the tarsus an enormously large proportion of the bone is articular, and further, of the non-articular part a great deal (nearly all, I might say) is occupied by the attachment of ligaments. Supposing the disease to begin in the synovial membrane, it soon extends to the but little bone-lesion, so that the frequently used term, caries of the surrounding ligaments; they become softened and inflamed; the nutrition of the bone is interfered with on all sides; while, by direct extension, the inflammatory process reaches the bone, and synovitis is the primary, and osteomyelitis the resulting condition. In a few cases, no doubt, there is primary bone-disease most commonly in the case of the os calcis, a fact explained by its possession of an epiphysis and the great strains thrown upon it, as well as perhaps by its greater size. In one instance, that above mentioned, I have seen primary necrosis of the upper articular surface of the astragalus, but there was nothing to indicate the fact before the joint was opened. Epiphysitis in the lower end of the tibia is of course a common disease, but, so far as I have seen, it rarely involves the ankle. In the ankle and tarsus, although it is true, as I just now pointed out, that the nutrition of the bones is readily interfered with by inflammation, yet it is not so by injury; violence tends to be diffused by a system of springs as it were, and the strain is thrown rather upon the soft parts than upon the bones; here too the synovial apparatus is complicated and extensive, and likely to suffer from such strains. In the elbow the same arguments apply, and we should from anatomical considerations expect synovial rather than bone-lesions; but the olecranon and external condyle are not only the part most exposed to direct injury from without, but the latter is the part most likely to be injured by impact of the hand of the radius against it, and it is in these structures that the disease when not synovial usually begins.

The shoulder, though anatomically much like the hip, probably suffers the more often from chronic synovitis and less from osteomyelitis than the hip, because, as Mr. Barwell has pointed out, the scapula yields to violence and prevents the dead impact that crushes the cancellous tissue. The blood-supply to the head of the humerus is also probably more free than that to the head of the femur.

The peculiarity of the anatomy of the hip-joint I will only just allude to. The poorly nourished, almost isolated, mass of bone constituting the upper epiphysis, the great strain thrown upon it, the exceeding frequency of falls and blows upon the hip, readily explain the crushing of the epiphysal line or cancellous tissue, and the results likely to follow it; its nutrition of the bone is interfered with, and hence it is frequently destroyed and unable to repair itself if once injured. So too, the depth of the joint protects it from many of the causes of synovitis. In the knee, on the other hand, there are the complex and extensive synovial membrane, the pads between the bones, and the fact that injuries are usually more diffused, and applied to the front rather than to the ends of the bones. The vascular supply, too, is so ample that repair can much more readily take place. These and many other points go far to explain the different pathology of disease in the two joints.

I would further suggest that this question of the seat of the primary lesion is not given the prominence that it deserves, considering its importance as a guide to the treatment. There is, I cannot help thinking, even now too much tendency to lump diseases together as chronic arthritis of this or that joint; whereas, if we look upon patients with hip-disease as practically from the first cases of necrosis of the upper end of the femur, we shall the more readily treat them, as I believe they ought to be treated in hospital-practice, by excision of the head of the bone as soon as the disease is established; while, on the other hand, the present plan of excision of the knee will be largely replaced by other means by which, in some cases, a movable joint may be obtained.

I cannot think that it is good surgery to wait until osteomyelitis has spread to a joint and caused suppuration, until secondary disease of the other bone of the articulation occurs, producing a large cavity full of sequestra and caseous detritus, when we might remove the disease at first, and have nothing but healthy, or comparatively healthy, tissue left behind. We do not do it in other parts of the body, and why should we in the hip? But I hope we shall have some definite expression of opinion upon this point from the members at this meeting; for I fear that the committee who, some years ago, reported upon hip-disease, left us much where we were before.

The question of erasion presents itself, I think, in this way. Is it more or less dangerous than excision? Does it give as good or better results? and to what cases is it applicable? By erasion, I mean

[2] These cases may, of course, be considered as pathologically similar to the epiphysitis of hip-disease, the disease consisting only of the anatomical peculiarities of the hips, but the clinical difference remains, that in one case the joint must become involved, in the other it is by no means necessarily implicated.

freely laying open a joint; not merely making an incision into it, but exposing the whole articular surface to view, and dissecting out, with scalpel and scissors, all diseased structures, with the greatest possible care and thoroughness.

After the diseased structures have all been removed, a drainage-tube is inserted, and the wound closed and dressed antiseptically as usual; if possible, the drainage-tube should be taken out altogether at the second or third dressing, as it is all-important to get primary union. As soon as the wound is healed, the patient should be put under an anæsthetic, and the joint carefully examined and moved. If there be but few adhesions, and these can be broken down, a movable joint may be looked for. I have had only one such case yet. If union is too firm to make this practicable, a straight stiff joint is procured by fixing the limb in an immovable apparatus; in such case the limb has the advantage over an excised joint, that there is no shortening; and, over a joint left to spontaneous cure, that the semilunar cartilages, and other material which has to be removed before adhesion can occur, are already gone, and only the articular cartilage needs to be absorbed to bring the bony surfaces together.

These questions, to my mind, may be answered thus. In proper cases, erasion is less dangerous than excision, because it does not open up bone-tissue. It has two great advantages in its results: first, a movable joint—in some cases, I have had one only—may be obtained; and secondly, there is no shortening, except such as may subsequently arise from less perfect nutrition of the limb, and this my cases show not to occur.

Lastly, it is applicable to the following cases. To the knee it may be applied in all cases of well-developed chronic synovitis (pulpy disease), which do not improve under treatment, and in which the disease has not gone on to suppuration or deep excoriation of bone. To the tarsus and carpus, it may be applied in a few cases of localised disease; but neither there, nor in the ankle, is the prospect of success good. To the elbow, it could not be, I think, applicable, if a movable joint be expected, unless it is done very early, and in special cases; but I have not tried it. To the hip it is never applicable, and probably never to the shoulder. It is never applicable where there is extensive bone-disease; where there is suppuration, unless very limited, or a great amount of caseation; nor where there is advancing tuberculosis. To be successful, it must be very complete. These points are, I think, strongly indicated by my cases, though the number of patients in whom I have tried it is as yet small.

Thus, of the eleven cases of erasion of the knee, in two extensive suppuration had taken place, and in two tuberculosis existed. All of these failed. At the time when I began to erase, I had, as I have said, not much basis to go upon in deciding what cases were suitable, and I was obliged, therefore, to ascertain for myself. I may say here that I do not think a case which has been erased is much the worse for it, should it come to excision afterwards; but I would urge strongly that the erasion must be most complete and thorough, not a mere scooping out, but such removal as will, if possible, leave simply a healthy incised wound, as it were, to heal rapidly, and allow early passive movement. Hence it is only possible, when the joint is actually opened, to decide whether it is a case for erasion, or whether excision is required. It is, I think, chiefly the difficulty of removing all the morbid tissue completely, that renders the operation unsuccessful in the ankle, and probably in the elbow.

My conclusions, therefore, are, these. In the case of the hip, excise very early. In the knee, if seen early, and general treatment with splints, and so on, does not speedily cause improvement, erase; if too late for that, excise. In the ankle, erasion and excision are alike unsatisfactory, and, if non-operative treatment fail, I advise amputation. Pirogoff's operation, if possible, gives the best results; though, for the tarsus, gouging, in many cases, is successful. In the elbow, failing treatment otherwise, I do not yet know about erasion, but I think excision is generally necessary to obtain a movable joint. Of the other joints, I do not propose to speak. Lastly, I may say that, where possible, I have used antiseptic (Listerian) methods in almost all cases.

I have brought a few specimens, and two cases of erasion, to illustrate some of the points of which I have spoken; but I need hardly say that I have expressed my own views rather with the hope of getting definite opinions from others, than with any thought of laying them down as established rules of treatment; and, indeed, I must cordially confess that I have not yet had the courage to systematically excise cases of early hip-disease, though I more and more feel that that is what we shall have to come to in hospital practice, where mainly we have to do with these cases.

Mr. R. W. PARKER (London) would confine his remarks to one of the points—viz., the relation of epiphysal disease, or necrosis, to hip-disease. He agreed with Mr. Baker as to this being a common cause of hip-disease; but he was rather at variance with him as to the desirability of later excision in such cases. Three or four years ago, at the Clinical Society of London, he had been taken to task by a well-known surgeon for stating that, in six or seven cases of excision of the hip, he had found the head of the femur loose and necrosed in the joint, and by its presence doubtless keeping up the disease. He had looked up museum-specimens, and his own further experience convinced him that epiphysal necrosis was indeed by no means uncommon; and the Clinical Society's special committee had since referred to this as a frequent cause of hip-disease. Not only did epiphysal separation occur from local disease, it occurred secondarily from extension of disease in the shaft, and then gave rise to a train of symptoms not unlike those of hip-disease. In such cases, removal of the loosened epiphysis would also be necessary. As regards excision in such cases, he differed from what Mr. Baker appeared to advocate. In any given case where a loosened epiphysis was shut up in a joint, he thought, contrary to Mr. Baker, that early excision was indicated; the earlier, indeed, the better. He thought a lump of necrosed bone would surely act like the issue-pea of old; that is, would tend to keep up the inflammatory process. Unfortunately, so far as his own experience went, there was no train of symptoms which indicated that this separation had occurred; that, indeed, was the difficulty in actual practice. In his own cases (the specimens from which were shown), the points in common were, acuteness of the disease, continued aggravation of the symptoms in spite of long rest and care in hospital, temperature and constitutional disturbance. He thought these symptoms important from a diagnostic point of view; and when they were found, then careful examination under an anæsthetic was indicated, with excision, if need be. Regarding Mr. Wright's paper, he would ask one or two questions. First, what did Mr. Wright mean by excising early? Were all joints to be excised? Did rest in bed never succeed? He could only congratulate Mr. Wright on the successful result of his treatment of the elder of the two children exhibited. It was more successful than the plan had proved itself in his own hands.

Mr. JESSOP (Leeds), having congratulated the readers of the papers upon their valuable contributions to the success of the Section, pointed out the paramount necessity which existed in every case of joint-disease in children for a more accurate diagnosis of the actual beginning of the disease, more especially as to the tissue and locality of the diseased action, in order to arrive at the most approximate treatment. A single line of treatment was not, and could not be, applicable to the many joint-diseases to which joints were liable. It would be found that the lines of greatest nutritive activity were the usual sites of commencing, and subsequently of more advanced, inflammation. The various epiphysal lines, the subchondrial tissue, the subperiosteal bone, the synovial membrane, and even the ligaments and cartilages, might severally become the seats of commencing disease, or might be the recipients of injury. And upon the site occupied by the disease would in a large measure depend the line of treatment to be adopted. Erasion would be futile if the epiphysis were necrosed, and excision or amputation would be unjustifiable if synovial membranes only were implicated. The general outcome of the papers and of the discussion seemed to be—and in this he entirely agreed—that increased means of distinguishing the various joint-diseases were much needed.

Mr. THOMAS JONES (Manchester) said he was glad Mr. Baker supported what was undoubtedly a fact, that epiphysal necrosis did not unfrequently occur in the hip. The head of the femur was found lying loose in the joint, and, in these, the removal of the necrosed bone led to a good result. Mr. Jones mentioned a case of articular osteitis of the lower end of the femur, in which the disease commenced probably in the centre of ossification. A sequestrum was found in the centre of the epiphysis, with no fistulous communication with the exterior. Mr. Jones suggested trephining in cases of articular osteitis, with the view of preventing the disease from extending into the neighbouring joint.

Mr. RICHARDSON CROSS (Clifton) said that, where possible, disease in a joint should be definitely localised, and treatment on ordinary surgical rules adopted, early in the case. Relief of tension, evacuation of abscess, removal of caries and of sequestra, should be adopted, rather than excision. Experience of over one hundred cases, taken irrespectively of age, seemed to show that, when the joint-structures generally were diseased (arthritis proper), no operation short of excision was likely to succeed, partial operation almost always failing in these cases, except where the knee was the joint

diseased. Here, partial operation would frequently rescue the joint from excision. Excision of the hip should not be too long postponed, disease of the head of the femur usually existing; and at the ankle disease would usually require amputation.

Mr. R. N. PUGHE (Liverpool) said that there had been lately in the Children's Infirmary here three cases of suppuration of the knee-joint due to what Mr. Baker had described as acute epiphysal necrosis, and mentioned as what was described by Mr. Thomas Smith as acute arthritis of children. The first was a child nine months old, knee-joint much swollen and full of fluid, and with high fever, etc. It was treated by free incision and drainage, the joint being kept at rest by a Thomas's splint. In another the joint was aspirated, and recovered with no further treatment than the application of a splint. In a third case, the knee and hip-joint on the same side were similarly affected. Recovery took place in some weeks after incision and free drainage of the knee-joint, and excision of the hip-joint. He considered that many, if not most, cases of hip-joint disease were due to acute necrosis of the epiphysis, as, perhaps, rather acute ostitis or osteomyelitis of the epiphysis. It was found that the cartilage was separated from the head of the femur. There might be acute caries or necrosis of part or the whole head, which might be found separated in the joint. There was also frequently suppuration at the epiphysal line. Partial operations were frequently successful in the knee-joint, but he could agree with Mr. Cross that in the hip-joint, and also in the elbow-joint, complete and free excision should be practised.

Mr. WRIGHT, in reply, alluded to the frequency of pyæmia in acute suppurative arthritis, and mentioned a case which began *in utero*. He believed that the specimens removed, as well as the clinical history and anatomy of the hip, alike proved the origin of the disease in the bone, and stated, as far as his experience went, that all cases of hip-disease relapsed sooner or later, and developed abscesses. He was inclined to think that, as the upper epiphysis was practically a sequestrum, the sooner it was removed the better, and the less likely was the pelvis to become diseased.

Mr. JOHN H. MORGAN complimented Mr. Baker upon the value of his observations, and regretted that more attention was not generally called to this frequent cause of joint-disease; his remarks as to the diagnosis of this particular lesion at an early period were of the greatest importance. That cases frequently occurred after the first year of life, he had had many opportunities of observing. The phenomena which followed this disease of the epiphysis would be modified by the relation of the epiphysis to the joint-structure, and as this varied in every joint, it was necessary that any points which bore on its early recognition should be detected as early as possible. He was not so familiar as Mr. Baker appeared to be with the tracking of matter in these cases beneath the periosteum; but of its frequency as a cause of hip-disease he was fully convinced by his experience at the Hospital for Hip-Disease in Childhood, and at the Children's Hospital.

Mr. MORRANT BAKER replied that he agreed entirely with Mr. Parker in the view that excision of the head of the femur should be performed early in those cases in which it seemed likely that the epiphysis had separated at the epiphysal line. The difficulty, of course, lay in the fact that such cases could not, in more than a small minority, be distinguished from others. In cases of hip-joint disease, each must be judged, in reference to excision, on its merits. Mr. Baker was not disposed to agree with Mr. Wright, that in all cases of hip-joint disease the trouble began in the epiphysis.

BEQUESTS AND DONATIONS.—The British Home for Incurables has received £744 14s. 8d. under the will of Mrs. Crowder, and one hundred guineas from "One who (in his little way) works ere the night cometh."—Mr. Thomas Garfitt, late M.P. for Boston, bequeathed £200 to the Lincoln County Hospital, £200 to the Boston Dispensary, £100 to the Boston Cottage Hospital, £100 to the Louth Hospital and Dispensary, £100 to the Horncastle Dispensary, and £100 to the Mablethorpe Convalescent Home.—Mr. Dietz, of Clive Vale, Hastings, bequeathed £500 to the Hastings Free Dispensary.—The Gloucester Infirmary has received £500 under the will of Mr. Joseph Lovegrove.—The Lincoln General Dispensary has received £500 under the will of Miss C. Hutton.—Mr. H. B. Alexander, of the Laurels, Barnes, has given £300 to the Sussex County Hospital, Brighton.—The Kent and Canterbury Hospital has received £100, and the Canterbury Dispensary £50, under the will of Captain Thomas Hilton.—Miss Rawson has given £100 to Miss Mary Wardell's Convalescent Home for Scarlet Fever.

REMARKS ON SOME POINTS OF HOSPITAL CONSTRUCTION.

Read in the Section of Public Medicine.

BY DOUGLAS GALTON, C.B., D.C.L., F.R.S.

IT is now seventeen years since I had the honour of addressing the British Medical Association on the subject of hospital construction. During these seventeen years the subject has received continual attention, and principles of construction which were then comparatively new are now accepted as axioms.

But in the construction of hospitals, as, indeed, in all matters of human progress, there is no finality. That which was looked upon as perfect yesterday is somewhat antiquated to-day, and may possibly be obsolete to-morrow. It is not only that the science of medicine and surgery progresses; but with the increase of wealth, of mechanical knowledge, and of constructive skill, our ideas of fitness also expand, and arrangements which were formerly considered to be luxuries come to be looked upon as necessities.

A hospital is not only a place for the reception and cure of the sick poor; it has, so far as the community is concerned, a far more important function. It is the technical school in which the medical student must learn his profession, and it is an experimental workshop for the matured physician or surgeon.

In order that the effect of the curative art may be studied under the most favourable circumstances and without disturbing causes, it becomes necessary that the hospital building in which the patients are lodged should be placed in the most favourable hygienic conditions, and furnished with the most complete curative appliances. Therefore, whether the hospital be looked upon as a place for the relief of misery, or as a place for education, the same necessity prevails of making it as perfect as possible.

It is, I think, now generally admitted that hospitals should be built on the pavilion principle; that is to say, that the buildings for the sick should be apart from the administration; that in town hospitals the number of beds should not exceed from fifty to sixty under one roof in a single pavilion; that there should be ample circulation of air round the ward-buildings; that the wards should have windows on opposite sides; that the ward-offices should be separated by a ventilated air-space from the ward itself; that water-closets should be outside the main walls of the building, ventilated and warmed independently, and the drains cut off by traps and air-spaces from the town drains or from any long length of drain-pipe; that all drains in the hospital enclosure should be ventilated and be entirely free from deposit; and that every part of the hospital buildings should be light, so that all accumulations of rubbish and all want of cleanliness should be at once apparent. Various other matters of detail are also admitted. But when a new hospital is proposed to be built in a town I am frequently asked certain questions which I think it would be useful to consider here. These are:

1. What area per bed should a town hospital occupy?
2. What number of wards can be superimposed?
3. What shape of ward is preferable?

In the first place, what space in a town area should a hospital occupy?

So far as the site is concerned, it would be preferable if it were possible to place the hospital on the outskirts of a town, where houses are widely distributed; for it is certain that the larger the open space is round hospital buildings the better. On the other hand, it has generally been the practice for hospitals to be placed within reasonable reach of the population for which they provide. Many cases suffer from conveyance to a distance; hospitals must be accessible to the leading physicians and surgeons of the town, who necessarily reside near the centres of population.

These centres of population consist often of districts closely built over, which are under questionable sanitary conditions, and where the circulation of air is often much impeded.

It is, therefore, necessary to consider not only what is likely to be the effect of the surroundings upon the health of the hospital, but whether the aggregation of disease in the hospital will have any effect on the surrounding population.

We have hitherto been accustomed to ignore this question; but it has forced itself into prominence in the case of the small-pox hospitals in London.

A very full inquiry as to the health of the neighbourhood was

made in the case of each of the five small-pox and fever hospitals established in London. The Royal Commission of Inquiry upon these hospitals say:

"That by some means or other the asylum hospitals in their present shape cause an increase of small-pox in their neighbourhoods, appears to us clearly established by the experience of the five hospitals during the last ten years, and we feel that so long as it is not proved that 'personal communication' is adequate to the explanation of the whole spread of small-pox, and so long as distant 'atmospheric dissemination' is not shown to be in the highest degree improbable, it is essential that, in the construction and management of small-pox hospitals, both sources of danger should be with the utmost care guarded against."

The Commission state that the same influence on the adjacent locality has not been proved with respect to cases of fever. And they express the opinion that some hospitals must be placed in the vicinity of the inhabitants, on the alleged ground that in many cases the patients are too ill to be transferred to a distance.

That some effect has been produced by the aggregation of persons suffering from small-pox seems thus beyond doubt. Cases have been mentioned where a large hospital suddenly filled with wounded men has been alleged to exercise a pernicious influence on the neighbourhood; but there has not been any clear proof that the aggregation of disease in the case of ordinary hospitals affects the health of the surrounding population. It is very difficult to collect statistics of the health-rate of any area, as distinguished from the death-rate; but if any harmful influence were to be exercised by a hospital, it would seem probable that it would be more apparent in a poor neighbourhood, where the houses are under bad sanitary conditions, than in the neighbourhood of good houses, and therefore that the hospital, if possible, should be placed near the better class rather than amongst the poorer class of houses.

It is difficult to find examples of recently-erected town hospitals the air-space round which is restricted entirely to the ground on which they stand. For instance, the new St. Thomas's Hospital has a river frontage;

The Glasgow Infirmary adjoins a park;

The space occupied by the Heidelberg Hospital, which may be considered one of the German model hospitals, affords 1,070 feet per bed, but the grounds adjoin the Neckar.

Of the new hospitals the following appear to occupy an area surrounded by streets. In these the area occupied per bed is as follows:

Name.	Patients.	Feet per Patient.
The New York Hospital	163	200
The St. Marylebone Infirmary	744	264
Leeds General Hospital	328	512
Antwerp Hospital	380	1,126
Berlin Military Hospital	504	1,308
Johns Hopkins Hospital, Baltimore	400	1,519
Dresden Public Hospital	260	3,297

The New York Hospital is built with wards in six stories, and its ventilation and warming depend on very perfectly arranged mechanical appliances; but, on the occasions when I happened to visit it, the fans were not at work.

The Marylebone Infirmary is mainly intended for chronic cases from the workhouse, and therefore is not under the same conditions as a hospital.

The Leeds Infirmary was constructed some years ago, and provided 512 feet per patient, exclusive of the area of the surrounding roads; but it will be seen that the recently constructed Continental and the model American hospitals afford from 1,126 to 3,297 feet per patient, exclusive of the roads around them.

The sites occupied by the best arranged hospitals for infectious diseases in this country afford more than 2,000 square feet per patient.

I observe, from the plan of the ground proposed to be acquired for the new hospital in Liverpool, that the area extended to Pembroke Place contains over 200,000 square feet; and, assuming that the hospital is to accommodate 250 beds, that would afford about 800 square feet per bed, which is much less than the space thought necessary in the newest Continental hospitals, *e.g.*, at Antwerp, Berlin, and Dresden; but it must be observed that the space is supplemented, for the present at least, by the adjoining open ground occupied by the Medical School and University.

The figures above mentioned show a very great increase of space in the most approved modern hospitals over that formerly thought necessary.

Let us, therefore, consider what has been the experience which has led to this change of opinion. In doing so, we at once come to the second and third questions, viz., as to the number of stories of wards, and the shape of a ward.

A preliminary consideration, however, in the matter of the space occupied by a hospital in a town site with buildings all round is, no doubt, the one as to how far sunshine will be obstructed by surrounding buildings.

Thus the latitude has some influence upon the question, for, in the north, the sun in midwinter is very low above the horizon; moreover, the buildings should be so arranged, that there may be as few spaces as possible in the hospital area to which sunshine does not penetrate.

From this point of view, the distance between the hospital buildings and the surrounding buildings should be, in England, at the very least three times (and, if possible, more) the height of the buildings above the level of the hospital enclosure. The distance between adjacent pavilions should be, at least, twice the height of the pavilions, measured from the level of the ward-floors to the parapet of the building if in the Italian style, or to half the height of the roof if the pavilions have steep roofs.

In the Heidelberg Hospital, the pavilions are a distance apart of three and one-third times the height from the ward-floors to the eaves; and in the Berlin Hospital, more than four times in the case of two-story pavilions. The question of the position of the pavilions with respect to the points of the compass must be considered with respect to the sunshine. In the Heidelberg Hospital, the wards, after much discussion and careful consideration by leading German sanitary authorities, were placed east and west. With wards so placed, the open space adjacent to the northern side of a pavilion would not, in the winter, receive any sunshine. For this reason, the arrangement of the axes of the pavilions of the new French hospital at Montpellier, which are south-east and north-west, would appear preferable.

The details of the Berlin Civil Hospital received the most careful consideration of Dr. Esmarch, of Kiel; Professor Baum, of Gottingen; and Professor von Langenbeck, Dr. Wilms, and Dr. Quincke, of Berlin; as also of the Government officials, Dr. Esse and Director Herfordt; and the building may, therefore, be considered to embody the deliberate views of the leading German authorities. In this hospital, the wards are placed with the axes north and south; this is the arrangement which is adopted in the Johns Hopkins Hospital at Baltimore; and it is the one which has been generally preferred in England on account of its allowing the sunshine to fall on both sides of the ward at some period during the day.

This arrangement certainly seems preferable in this country, but it is always desirable that wards whose ends face the south should have end windows.

The shape of the ward would have some bearing on the question, and the considerations above mentioned relate chiefly to rectangular wards. The rectangular form of ward has hitherto been preferred; it enables the windows to be placed opposite each other, so that they may act efficiently for changing the air of the ward. The breadth which combines convenience with this condition is from twenty-four to twenty-eight feet; beyond thirty feet, the width becomes too great for this purpose. The beds stand between the windows, and, to prevent any stagnation of air or accumulation of dust in the corners, it is desirable, in allotting the window-spaces, always to place a window in the corner adjacent to the end wall of the ward. In this form of ward, the floor and cubic space allotted to each patient is all available in the immediate vicinity of the bed. The floor-space around each bed is of more importance than great height; the latter often gives an excess of cubic space; but this is not necessarily an advantage, provided the ventilation or change of air be adequate; because, if we assume that the exhalations of the patients are uniformly diffused, the degree of purity in the air will ultimately depend upon the rate at which the emanations are produced and at which fresh air is introduced, and in no way upon the size of the room.

Mr. John Marshall, F.R.S., proposed, in 1878, to construct hospital-wards in the circular form, with the beds round the circumference of the circle, and this form has been adopted in the new hospital at Antwerp for 380 beds.

In a circular ward, the walls are all available for wall-space for beds, but in the rectangular ward, the end walls of the ward are additional; hence the circular form gives the maximum floor-space with a minimum of wall-space, but the enlarged floor and cubic space is not by the side of the patient, but in the middle of the ward, away from him. In the Antwerp Hospital, a ward of twenty

beds has a diameter of 61.6 feet. The wall-space per bed is about 9.6 feet, the floor-space is 149 feet, the cubic space is 2,525 feet.

A rectangular ward, affording similar floor and cubic space, would be 30 feet wide. Therefore, whilst in the Antwerp ward the distances between the feet of opposite beds would be 47 feet 6 inches, it would be only 16 feet in a rectangular ward. In the Antwerp circular ward, the actual space between the adjacent beds is 8 feet at the head, and 6 feet at the foot; in the rectangular ward, the beds would be 8 feet apart at both ends; and, of the 149 feet of floor-space and 2,525 cubic space, between one-fourth and one-fifth would be beyond a distance of 16 feet from the vicinity of the head of the patient. This proportion of floor-space at a distance from the patient is comparatively useless for its object; and the consequent additional cubic space is objectionable; for the large volume of air, at a distance from the patient and not of much use to him, would have to be removed and replaced just as much as the air immediately round the patient. A measure of this waste of cubic space is afforded by considering that, in the circular ward, the floor-space per patient within 16 feet of the wall would only be, 14.2 feet, and the cubic space only 1,923 feet, whilst, in a rectangular ward, with a similar wall-space, and 32 feet wide, the floor-space per bed, within a distance of 16 feet of the patient, would be 149 square feet, with a corresponding cubic space of 2,525 feet.

In large wards, the distance between opposite windows in the circular ward is far greater than is desirable, if the windows are to be mainly depended upon for ventilation. The wards of the Antwerp Hospital do depend upon the windows for ventilation, except in winter, when certain arrangements for the inflow of warm, and the removal of foul, air are provided.

The circular form of ward thus appears open to many objections; but, in cases of hospital construction, practical experience is of more value than theoretical arguments.

The Antwerp Hospital is not yet completed. When it shall have been in operation for a sufficient time, the experience derived from it will be watched with great interest.

Dr. Burdon Sanderson has suggested the adoption of circular wards, or rather annular wards, for fever and small-pox patients, with the especial object that the hospital should be ventilated artificially, in order that the air which is used by the patient may, after it has passed through the hospital, be subjected to high temperature, or to some other process for destroying whatever dangerous properties it may possess before it is discharged. He lays down the following conditions, viz.: The outlets of air are the sources of danger, and not the inlets; therefore, it is preferable that the air should be drawn out of the hospital, and not driven into it; the beds for the patients should therefore be placed as near the outlets for air as possible; the outlets themselves should be as near together as possible; the communication between the outlets and the source of motion, whatever its nature may be, should be as direct and ample as possible. He proposes that each ward should be in the form of a ring, with the chamber from which the air is directly extracted in the centre of the ring; because the annular is the simplest form for making it possible to make the opening for extraction of air communicate directly with the space in which each bed is contained. For a ward of twelve beds, having a capacity of about 1,200 cubic feet per bed, he proposes that the removal of air should be about 120,000 cubic feet per hour, and, consequently, the removal of air per patient 10,000 cubic feet per hour.

The beds would be placed as near as possible to, and immediately below, each extracting opening, and would, therefore, be placed against the internal wall; and between the beds would be placed screens, passing to a certain distance out from the internal wall into the annular space, so that the head of each bed would be included in the space between each two neighbouring screens.

A fan working in the central ring would collect the air from the ward, and at once discharge it into a chamber, where it could be subjected to a high temperature, so as to destroy all organic matter it might contain. Dr. Burdon Sanderson would, if necessary, construct these wards in three stories. At Boston, U.S., a square ward, with a central square inner space or shaft, has been built, with the object of drawing the ward-air into the central space or shaft.

The arrangement of beds thus proposed, with their heads against the inner wall, is the reverse of that intended in the Antwerp Hospital; and the ward must be dependent at all times for its ventilation upon mechanical means. If this could be relied on, and if it be conceded that it is really necessary to pass the air through a disinfecting chamber, Dr. Burdon Sanderson's arrangement would probably answer the purpose. If this view of the danger of the aërial dissemination of the disease, when so concentrated, is sound, the danger from any failure of the mechanical ventilation would be excessive.

Is there any proof that, provided excessive aggregation of sick be avoided, the free-moving atmosphere does not of itself afford adequate protection? Experience has not been favourable to mechanical ventilation. If mechanical ventilation is to be efficient and economical, it must never be intermitted, and must emanate from, and be controlled at, some central source.

In the hospitals which I have visited which depend on mechanical appliances, I have always found that some interruption to the action has occurred at intervals more or less frequent.

The whole efforts of the most advanced of the recent constructors of hospitals in Europe, and the constructors of the Johns Hopkins Hospital in America, have been directed to the separation of the several ward-units which make up the hospital; and this separation is adverse to economical arrangements for mechanical ventilation. It has, therefore, been considered preferable to obtain the free movement of air in the wards by means independent of mechanical appliances; and it has been with the view of securing this object that the present recognised form of ward-construction has been designed.

The circular form of ward appears to have had partly for its object to round the angles of the wards, so as to prevent them from being places for the stagnation of the organic matter in the air.

This object has been sought to be attained in another way by M. Tollet, in France. He adopts what he terms an "ogival" shape for the vertical cross-section of the ward. The walls are of brick, lined with glazed tiles, which also form the ceiling, and are supported by iron ribs carried up from the floor to the ridge, where the iron ribs from opposite sides join in the shape of a Gothic arch; and the tiles thus form a curved lining for the ward, reaching from the floor to the ridge of the roof. The form renders cross-ties unnecessary; there are no corners or projections on which dust can lodge; the warmed air draws up to the apex of the roof, where it escapes. There is, outside the ceiling, a roof of tiles, between which and the inner lining of glazed tiles is an air-space. Light, and, when necessary, fresh air, are admitted into the upper part of the ward by skylights in the curved roof.

This method of construction is very simple, free from angles, and fireproof, as the roof is constructed without wood; and the air space between the tiles on the roof and the tile ceiling keeps up an equable temperature in the wards.

The military hospital at Bourges was constructed for 330 beds, with single-story pavilions, on this plan. The wards are raised to a height of somewhat over five feet from the ground, and they are about twenty-six feet three inches wide. The wall-space per bed is six feet ten inches, and the cubic space about 1,870 feet per bed. The hospital appears to have cost, exclusive of the land, about £105 per bed.

There are some military hospitals in the fortifications round Paris on the same plan. The new hospital at Montpellier is the most complete adaptation of this system. The wards are raised nearly ten feet above the ground, and connected by terraces, which afford covered access for the service. M. Tollet's method of ward construction appears to be the most approved system of hospital construction in France.

Like the new system in Germany, and the system adopted in the Johns Hopkins Hospital at Baltimore, it is based upon the separation of the ward-units, as contradistinguished from their aggregation.

It is interesting to consider the grounds which have led to this view of hospital construction.

One of the recent experiences which appears to have largely influenced the plans for new Continental hospitals, has been that acquired in Germany and France during the Franco-German war. This experience may be summed up as the curative effect of fresh air treatment of surgical cases. This is in no sense a new experience, but it is one which the designers and architects of hospitals in the first half of this century seem to have continually ignored.

Dr. Guy, in his lecture on Public Health, recalls to notice the experience of Dr. Brocklesby in 1758, who found that soldiers ill with fever, landed from an expedition from France, died rapidly when placed in houses and barns, whilst they recovered when removed to a temporary shed, erected with deal-boards and a thatched roof, in the open forest.

Sir John Pringle recorded many similar experiences, and the experience of the Crimean war led to the general adoption of the pavilion system of hospital construction in this country.

The Franco-German war in 1879 furnishes us with numerous examples of the curative effect of fresh air, of which I will mention

one. The wounded, after the battle of Weisenbourg, were placed in the houses of the adjacent villages and in farm-houses. Pyæmia and hospital gangrene largely prevailed. The wounded were then removed into tents in the open country, the sides of which were looped up so as to allow of free perflation of air; and the patients were, moreover, daily carried out in their beds into the adjacent fields, and left there quite in the open air all day. The result was that in a short time the patients recovered.

In the temporary hut-hospitals, which were organised by the Germans in the several towns adjacent to the frontier, to which the wounded from the field-hospitals were removed, the sides were furnished with large flaps hung on hinges, so that they could be lifted up and left open in the day-time to admit of free circulation of air, and, even when these were closed at night, the ventilation was very plentiful.

This experience has not been lost on German surgeons. A leading surgeon employs in his hospital a tent, enamelled inside, for patients under operations, and the advantage of moving the patient into the open air is recognised in the constructive arrangements of permanent hospitals. The more recent and the most carefully devised forms of hospital construction on the Continent provide some arrangement for enabling patients in certain circumstances to be moved in their beds into the open air and to lie there. Attached to the wards of the new Town Hospital at Friedrichshain, in Berlin, are wide verandahs into which the beds may be wheeled. The Dresden Hospital possesses a similar arrangement.

In some of these hospitals places are specially provided in the hospital enclosure where tents may be erected, and places for tents are also a feature of the Johns Hopkins Hospital.

The new hospital at Montpellier has large verandahs along the sides of every ward, where the patients' beds may be placed when desired. In some of the hospitals in the United States of America, there are conservatories adjoining the wards into which the patients can go, and where their beds can be placed. A conservatory and gymnasium on the roof of a children's hospital in New York is an especial feature of that hospital. The terraces which connect the upper wards of the Herbert Hospital were designed for the same purpose. A sun-room, or glazed verandah attached to each ward, is becoming a feature of hospital construction in this country.

These experiences of war-hospitals appear to have led the Germans to introduce single-story pavilions for surgical cases in their new hospitals; and the French, who seem to be quite as much advanced in hospital construction, have adopted single-story pavilions for the whole of their sick-wards in their most approved new hospitals.

The question of the effect of the aggregation of the sick under one roof, or in one hospital, has also received much consideration in this country and in America during the last twenty years.

The subject was brought into prominence in America during the American Civil War; and in this country Sir James Simpson took up the question as an ardent advocate for diminishing the size of hospitals. It will be in the recollection of the members of this Association that he took the results of the major amputations of limbs (that is to say, of the thigh, the leg, the arm, and forearm) as a test of the healthiness of different hospitals; and adduced statistics, derived from 6,000 cases of limb-amputation, which showed that the mortality increased according to some law in ratio to the size of the hospital. In the large Parisian hospital of the Hôtel Dieu (which in its old form was very bad), three men out of every five died when the limbs were amputated; in British hospitals of over 300 beds the mortality was two out of every five; in hospitals containing between 300 and 150 beds, it was one in four; and this figure was, to some extent, corroborated by Professor Erichsen's experience at University College Hospital, which contains from 150 to 200 beds, in which he showed that in his wards the mortality in amputation cases during a period of 38 years had been one in four; in hospitals with from 150 to 25 beds, Sir James Simpson's statistics gave the mortality as one in five or five and a half, and in cottage hospitals it was only one in seven. Moreover, in country practice, where country surgeons were in the habit of operating, it was one in twelve; and he deduced from the fact that these patients in the country were treated in their own dwellings or isolated rooms, and that the patients recovered in a proportion so immensely greater in poor cottages than in rich hospitals, that our system of great hospitals should be changed from palaces into villages, from mansions into cottages.

Mr. Burdett, following the statistical plan adopted by Sir James Simpson, published, about a year ago, statistics obtained from sixty-one cottage hospitals, showing a mortality in similar cases of amputation of one in five or six, or seventeen per hundred. But Mr. Burdett shows that the statistics of the individual hospitals vary much, and that they present great differences in their sanitary condition. He observes that more favourable results might be expected from cottage hospitals if the arrangements in all cases were all that could be desired. He observes that:

"It is now more than twenty-five years since the first cottage hospital was opened, and many of the older of these hospitals are now beginning to be reconstructed; but the new hospitals are often worse for the patients than the old cottages. These had no system of direct drainage; in the new hospitals, the sanitary arrangements are generally faulty, and constitute a danger to the health of the patients, for frequently sewer-gas is directly laid on to a new hospital, whereas earth-closets, or the old-fashioned outside privies, were generally at the old cottages."

These statistics are based on one only of the agencies to which the case is subjected, viz., segregation; whereas there are many others upon which the result in an individual case depends.

The management and nursing has often more to do with the success of a case than the form of the ward; and whilst it may be true that a fair general idea of what are the difficulties of large hospitals may be obtained from results of the large number of cases, it is equally clear that we may produce bad results by neglect in a good cottage hospital, whilst possibly, with eminent care, we may produce good results in a badly-constructed town hospital.

In this discussion of cottage hospitals, we must not forget that one main object of a town hospital is that it should be a school for the education of the future surgeons and physicians; and that this object could not be fulfilled if the large town hospitals were replaced by numerous scattered cottage hospitals.

Since the first publication of Sir James Simpson's views, Professor Lister has developed his system of antiseptic treatment for operations. Mr. Lister says:

"It is immaterial how many stories of wards there may be in a hospital, provided that the details of the antiseptic method are accurately carried out in all of them. If these details are faithfully observed, hospitalism can be prevented."

And Mr. Burdett gives the following comparison between the results, as compiled by Dr. Schede, of the treatment of surgical cases in German hospitals by Lister's method, and the results of treatment by the ordinary methods in different classes of hospitals.

	Per Cent.
Sir J. Simpson's results of town hospitals show an average mortality of	41.6
Mr. Erichsen—University College Hospital	25.7
Mr. Burdett—cottage hospitals	15.0
Sir J. Simpson—country practice	10.0
Lister's method. Dr. Schede—German hospitals ...	4.36

Of course, the question depends much upon the particulars of the individual cases. There can be no question but that the additional care in surgical operations which has been more generally practised since Lister's antiseptic system was promulgated, has of itself done much to diminish the number of fatal results of major operations. And it is certain that any system of treatment which could be applied universally, and which would produce results such as those shown by Dr. Schede, with absolute certainty, ought to have a material influence on hospital construction, in that the special evils which arise from open wounds would no longer require to be provided against in the manner hitherto deemed necessary by largely-increased space and expensive construction. The surgical wards might then be approximated in size to the ordinary medical wards, as the general health of the patient alone would be in question.

The antiseptic treatment, even if it were always perfectly administered, could not relieve us from the necessity of resorting to the best known methods of keeping a pure atmosphere in the wards; and although in an extreme case, like that of the New York Hospital or some of the London hospitals, it may be necessary occasionally to retain a hospital on a limited area in the centre of a dense population, the health of the general wards, as apart from the surgical wards, would render such a course always undesirable if it could be avoided.

The recent report of the Royal Commission on small-pox and fever patients bears on this question of the aggregation of sick.

If a disease is so intensified by aggregation as to produce danger to the surrounding population, what is the effect of the aggregation of one class of disease into one hospital? And, still more, what is the effect of many such cases in one ward?

In regard to this question, the Commission state that at Homerton it became necessary to receive fever patients into the Small-pox Hospital and small-pox patients into the Fever Hospital. There were fever cases at the West End and small-pox patients at the East End; but there was not a single case of small-pox amongst the fever patients, or of fever amongst the small-pox patients.

As bearing, however, on the subject, there is in Mr. Burdett's paper on Cottage Hospitals a quotation from a letter of Mr. Thomas Moore, F.R.C.S., which deserves notice.

"The way in which wounds heal in the pure air of this Cottage Hospital (Petersfield), where there are good nursing, and every available creature comfort, and where no ward contains more than two beds, is beautiful; and I think I could persuade even Mr. Lister himself that antiseptic precautions are not necessary under all circumstances, if I could get him to spend twelve months in the unexciting but germless air of our Cottage Hospital. Out of 272 surgical cases, many of them of a serious nature, only one has been attacked by erysipelas, and that occurred when there were several cases of puerperal fever in the neighbourhood, and could thus, probably, be accounted for. It is only right to mention that some of the healthiness of this hospital may be attributed to the fact that we have no sewer-gas laid on, as is too frequently the case, I fear, even in the best drained towns. The closets are on the earth principle, and the drain from the kitchen-sink is made to open well into the outer air."

Dr. Mouat, in his recent work on *Hospital Construction and Management*, written by him and Mr. Saxon Snell, in referring to aggregation of sick, observes that:

"Any one person can bear his own exhalations with comparative impunity, but that he is liable to be poisoned by those of his neighbours, in an increasing ratio proportionate to their number."

He illustrates this view by an experiment which he performed in one of the prisons in Bengal.

"Towards the end of the Orissa famine, a large number of half-starved sickly men were sent to a district gaol. The majority of these prisoners were placed in fairly ventilated wards, with ample room for each, according to the standard measurement allowed. About 120, however, for whom there was no spare room elsewhere, were put in as many separate cells, having 480 cubic feet of space each, and, practically, without ventilation; for, although they had open grated iron doors, they were situated in long corridors at right angles to the prevailing winds. A considerable number of the former died, chiefly from diarrhœa, while there was not a single casualty among the latter, who were said to have been the sickliest of the lot on admission, and who were, on this account, placed in the cells."

It would be interesting to know to what extent other observers would support Dr. Mouat's conclusion, and whether a really well ventilated ward would not have produced more favourable results than this segregation. Mr. Greenway of Plymouth has long advocated the absolute separation of patients in hospital. The following is the description of his system, which I allude to because he states it is about to be tried at Plymouth.

"The ward consists of a building, containing a smaller one, the sides and end spaces between the two forming corridors. The inner building is made of glass, or enamelled sheet-iron and glass, fixed in iron framework, and is divided longitudinally by a partition into two equal parts, and these are subdivided by partitions transversely, so as to form a double row of compartments, each of which has an entrance from its corridor. Each compartment is supplied with fresh air from a grating in the floor, by means of an air-tube which lies underneath, and also by an extra tube over the door, and the foul air is extracted by a heated flue which passes from the summit of the inclined inner roof or ceiling up through the outer roof. The building is heated by hot-water or steam-pipes. The nurses' rooms are so placed that the nurse has a view of the patients through either row of transparent compartments. By this plan of hospital construction each patient is surrounded with air uncontaminated by himself, by his fellow-patients, or by the building, the materials of which the compartments (including the floors) are made being non-absorbent, and the ventilation constant and complete. Although each patient would be isolated, he would not feel lonely, as he could see and converse with his neighbour through the glass partition. He would also not be exposed to draughts, as in ordinary hospitals, where the amount of ventilation which is useful to some patients, is frequently injurious to others."

As regards the facility of inspection, it is quite certain that a view of the beds in a distant cubicle could not be obtained through a series of glass partitions, and, admitting the desirability of isolating the patients, the complications of Mr. Greenway's method seem to present difficulties, and to create corners for dirt.

The pavilion is 35 feet wide, the area of each cubicle is 10 feet by 10 feet, and, including the corridor, he gives 175 feet of floor-space to each patient.

The patient is absolutely dependent for ventilation, even in summer, on artificial means, because the corridor prevents the direct flow of fresh air from the windows into the cubicle where the bed is placed. The large amount of glass surface to be cleaned would be a continual trouble. It would seem far preferable to place each cubicle against the outside wall, and give it a three feet window to itself, which would leave ample space for the bed.

But to what extent is this isolation desirable? Is there any proof of its necessity, except in special cases? For special cases, a limited number of wards would suffice.

The isolation-wards in the Johns Hopkins Hospital are on each side of a nine-feet central corridor, in a building 39 feet wide; and the separate rooms are 10 feet by 14 feet, with a window three feet wide, and a fireplace in each. Including the corridor, the area per bed is 185 feet.

It is probable that rooms 10 feet by 12 feet, in a one-story building, placed on the south side of a seven-feet corridor, also provided with windows (or, still better, an open verandah), would be the most satisfactory for isolation-wards. The floor should be raised several feet above the ground, each cubicle having, in addition to its window, such other openings for ventilation as might seem necessary.

The recent forms of hospital construction which have been adopted show that the absolute isolation of patients has not been thought necessary, if free ventilation can be secured. The experience as to the effect of fresh air and free ventilation, which I have enumerated above, has induced the leading Continental and American constructors of hospitals to place their surgical wards in one-story buildings. In the case of medical wards, one of the objections made by the German medical men to a one-story building is, that it is difficult to keep warm. The sensation of cold in a room is generally due to the radiation of heat from the body to the colder walls and to the floor, and also to the roof of the building, unless there is a ceiling. This cold is especially liable to be felt in a one-story building with a large surface of outer-wall, and a floor raised above the ground, with circulation of air underneath. In proportion as the temperature of the floor and walls is raised, so will the sensation of cold be less felt. It is, therefore, desirable that, in hospital wards of this construction, the floors and walls should be so formed as to be able to be warmed. For the floor, it is probable that it would suffice to warm that portion on each side of the ward, extending from the wall a certain distance under the beds, for which purpose this part should be of cement or tiles; the central part of the ward-floor might be of wood, as heretofore. It might suffice to arrange for warming the walls up to the level of the heads of the occupants of the wards. A warmed floor and warmed walls would tend to prevent the sensation of draught, and would enable the temperature of the fresh air admitted for ventilation to be reduced. The experience seems to be conclusive, that the one-story building admits of the best treatment for surgical cases; it is also admittedly preferable for fever-cases. The one-story ward has been adopted in the most improved French and American hospitals; and, where the space admits, it may be predicted that the future unit of hospital construction will consist of one large ward with subsidiary small wards, and with the necessary ward-appurtenances in detached single-story buildings.

If it be really true, as alleged in the Report of the Commission on Small-pox and Fever Hospitals, that the aggregation of this class of patients intensifies the poison, and admits of its spread to the neighbourhood, the aggregation must also be unfavourable to the patients themselves. The French have termed our fever hospitals "Foyers d'Infection." The logical conclusion would be not to collect infectious cases (that is, small-pox and fever patients) all together, but to separate them as much as possible. That is to say, in the first place, if necessary, to separate the individual patients by lodging them each in a small separate ward. If an epidemic arises, and if there are more cases than can be so accommodated, resort must be had to temporary hut-hospitals; but certainly the number of the sick in any one such hospital should be limited to very few in each, instead of collecting large numbers in one or more central positions.

Upon this question, the Royal Commission say:

"If we determine, as has been suggested by some witnesses, that each parish shall bear its own burden, we necessitate the sudden establishment, on occasion of every great epidemic, of thirty or forty institutions, in a great measure extemporised, each of which will be

extremely expensive, both in construction and management, in proportion to its number of patients, some of which will certainly be ill-managed, and all of which, in proportion to their defects or mismanagement, will be effective foci of infection."

If, however, the management of these hospitals in London is placed under one Asylum Board, as proposed by the Commission, and if the members of this board are qualified for their work, there appears to be no reason why these separate hospitals should not be established on permanent sites; and, with adequate supervision by the board, there ought to be no difficulty in insuring that they are properly managed.

Whatever may be the case so far as London is concerned, it would seem advisable in other places, that fever hospitals and small-pox hospitals should invariably be limited in size to a very few, say eight or ten beds each—placed in quite separate localities—the wards to be of temporary materials, to be burned or destroyed every year after use, and replaced to be in readiness for the next emergency. The materials selected for the walls and roof should in preference be such as would check the loss of heat by radiation. A double roof of Willesden paper, and a double wall of the same material, with an intermediate layer of felt, or a double wall of canvas, might suffice; the floor might be permanent, and of cement, raised five or six feet from the ground, and warmed underneath on the Roman plan. Such buildings for the sick would be temporary and cheap. There should be a permanent cottage adjacent for the habitation of a nurse and attendant; and a kitchen, a disinfecting-chamber, and other necessary appurtenances, should be provided.

The conclusion to which these various considerations would lead us is that, for fever and small-pox hospitals, temporary structures, to be renewed at frequent intervals, are desirable for the reception of the sick, the only permanent buildings being those for administrative purposes, and for the use of the hospital attendants. It would also be desirable that every part of the ground attached to such hospitals should be paved or asphalted, except where covered with vegetation.

In general hospitals, the unit of construction for the part of a hospital devoted to the sick is one general ward and the necessary attached subsidiary small wards, with the adjacent ward-offices and appurtenances; there can be no question that the considerations which have led to the adoption of single-story buildings for surgical wards on the Continent should apply wherever sufficient space is available, not only to surgical and infectious wards, but to all the wards of a hospital.

But the wards should be raised 8 feet or 10 feet off the ground, and communications for administrative purposes could be carried on, if desired, in covered corridors under open terraces connecting the wards.

It is questionable whether it would not be preferable for some, at least, of the surgical wards to be temporary structures so far as the walls and roof are concerned. But permanent structures would be necessary in all cases where uniformity of temperature must be maintained; and they should be so constructed as to check the loss of heat by radiation.

It seems probable that some modification of the Tollet form of construction, combined with the use of floors partially or entirely warmed underneath on the old Roman system, and with walls capable of being warmed, may be found to be the most convenient description of ward for the immediate future.

I have endeavoured in these remarks to bring to your notice the chief points in hospital construction which have been developed by the experience of the last few years. Whatever may be the discoveries of science in respect to the origin and propagation of disease, the experience of the whole civilised world in the matter of hospital construction appears to point with unerring certainty to the fact that just as pure air is the best safeguard against disease, so does a free atmosphere produce the conditions most favourable to the cure of disease, and to the healing of injuries.

The patient should be surrounded with pure air, which can only be obtained by free circulation of air. This is not compatible with complicated buildings, and therefore in proportion as we progress in sanitary knowledge, so do we revert to simpler forms of hospital construction. We first abandoned the palatial hospital; we are now abandoning the pavilion-hospital of many stories, and we are adopting single-story pavilions, or what may be termed the hut-hospital.

With simplicity in the form of hospital-building we shall do well to combine shortness of duration; for, if the aggregation of sick is in any degree injurious, the hospital-building must partake of that injury in an enhanced degree.

The longer I study this question of hospital-construction, the more firmly do I become convinced that hospitals should not be built for a long futurity.

In these remarks I have left many points of hospital-construction untouched, and I feel I have dealt very inefficiently with the subject; but I think that the questions which I have raised will at least have the effect of drawing attention to this very important subject.

Mr. TEALE (President), on behalf of the Section, thanked Captain Galton for his very valuable paper. He thought that Sir J. Simpson's well known statistics of the mortality from amputation in large hospitals would be very different if made now, and mentioned the Leeds Infirmary as a large hospital in which the mortality among major amputations was very small; much of this improvement was due to the more careful management of the individual patient and his wounds. He thought the actual amount of cubic feet per bed was less important than the provision of means for rapid and complete change of the atmosphere; too much cubic space being itself an evil, from the greater difficulty in effectually changing it.

Dr. C. R. DRYSDALE (London) was quite aware of the fact that Listerism had greatly influenced the statistics of surgical hospitals; and it was now well known that the great mortality after operations was due to neglect of extreme cleanliness and those minute attentions to the dressings of wounds introduced by the great surgeon Mr. Lister. But he entirely endorsed the view of Captain Galton that all hospitals for fevers, and especially all hospitals for small-pox, should be ephemeral structures, merely constructed to last for a year or during the existence of an epidemic. It had been given in evidence in London, that in the neighbourhood of small-pox hospitals there was apt to be a considerably greater number of cases of the disease than were found in other parts of London of similar kinds of population. Dr. Bertillon, of Paris, had noticed the same in Paris with regard to the old hospital, the Hôtel Dieu. Probably this was due to the traffic between the inmates and the neighbours; but some persons had gone so far as to suggest that the epithelial *débris* from small-pox hospitals might be carried to their neighbourhood. But there could be no doubt, at any rate, that small-pox wards might retain contagion, and therefore in future it was to be hoped that large small-pox hospitals with permanent wards might pass away and be replaced by temporary structures like those suggested by Captain Galton.

Dr. BEVERLEY (Norwich) drew attention to the fact that the new Norfolk and Norwich Hospital to be opened was the result of a discussion on a paper on Hospital Mortality, illustrated by ten years' surgical practice, read by him at the meeting of the British Medical Association at Norwich ten years ago. As plans of the new hospital at Norwich were on the walls, Dr. Beverley described the arrangements, calling especial attention to the advantages of the operation-block being of one story, and separated from the rest of the hospital; of a special isolation-block for infectious surgical cases; and to the advantage of having the out-patient department quite apart from the main hospital, as was the case in the Norwich Hospital.

Mr. VACHER (Birkenhead) said that, on reading Dr. Burdon Sanderson's suggestions for an annular ward, he was reminded of an hospital he had seen at Boston, where the wards were square, with arrangements in the centre for drawing the air up a large square chamber. The air thus drawn was not disinfected, and wards were superimposed one on another. Dr. Sanderson's proposals would doubtless, when given effect to, furnish an excellent ward for the treatment of infectious cases. Mr. Vacher had seen two simple and useful modifications in ward-construction, in the United States. One was providing a small conservatory at the end of the ward (into which a patient could be wheeled in bed, and, if necessary, temporarily shut off from depressing surroundings), and another was arranging the windows in a long ward so that each window was opposite a bed, instead of another window; the windows were thus placed in the Johns Hopkins Hospital, in Baltimore.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.—The following gentlemen were recently elected officers for the year 1883-4:—*President*—Dr. Philipson; *Vice-Presidents*—Drs. L. Armstrong and Travers; *Secretaries*—Drs. Mears and Milson; *Council*—Drs. Arnison, Bowman, Drummond, Bedford Fenwick, Fielden, Goldsmith, Morton, Porter, Tyson, W. T. Wilson, Gibb, and W. Robinson.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF SURGERY,

At the Annual Meeting of the British Medical Association in Liverpool, August 1883.

BY EDWARD R. BICKERSTETH, F.R.C.S.Eng. and Edin.,
Surgeon to the Liverpool Royal Infirmary; President of the Section.[1]

GENTLEMEN AND FELLOW MEMBERS OF THE BRITISH MEDICAL ASSOCIATION,—Let me in the first instance welcome you to the city of Liverpool, and congratulate you on the abundant and rich programme of subjects that will occupy our attention in the Section of Surgery. I do not intend to take up your time by an address on any special subject connected with our Section; that, indeed, is not expected nor required of the President of a Section. The Council, in its wisdom, decided that the Address in Surgery should be given by one not occupying the presidential chair. They have selected my friend and colleague in the Royal Infirmary, Mr. Reginald Harrison, for this duty; and we have heard from him much that will interest, and, I doubt not, much that will encourage and cheer, us in the work to which we have devoted our lives—the advancement of surgery as a science and as an art, the relief of human suffering, and the promotion, in short, of whatever tends to render life happier and longer, and freer from the discomforts and pains which, whether necessary or not, certainly exist.

Sanitary science has, as we all know, made enormous strides during the last few years; but Liverpool remains as it always has been, almost the most unhealthy of our great centres of population; and no wonder, when we remember that the density of its population to the acreage is more than double that of London, and far more than any other great town in the kingdom. With a limited water-supply, demanding, in the opinion of our authorities, the use of a "regulation cistern," restricting the supply of water to our closets to a degree which I think inadequate to the proper flushing of house-drains, it is not surprising that the house is unhealthy; though the street-drains are regularly flushed. Smoke, and the prosecution of offensive trades in our very midst, poison the atmosphere of our streets, which otherwise might be comparatively pure; and every night (when formerly we were for twelve hours at least enjoying fresh air, at any rate, those of us who opened our windows), Widnes pours forth its foul impurities, and we are, if the wind be favourable, compelled to breathe air so charged with poisonous gases, that vegetation is injured.

Altogether, Liverpool is not a pleasant or desirable place to live in; and life is not rendered more comfortable by the recent action of the City Council, in its obstinate determination to lay tram-routes along every outlet, and even in residential streets, that have hitherto enjoyed the comparative quietness and peace of macadam pavement. Even Rodney Street—the street occupied, above all others, by the profession, on account of its convenient position and its quietness—is to be invaded and laid with square setts "from kerb to kerb," as we are told by the relentless and merciless party that is dominant in our City Council. We are to be driven out by our homes being rendered untenable, whether for the pursuit of our profession or the comfort of quietness during the brief period of rest snatched from our laborious life. I say nothing about the deterioration of our property, though this is certain; nor of the wilfulness of the proceeding, for the actual traffic in the street does not support an ordinary omnibus-route; but I do mention the fact, as showing how little attention is shown to the wishes of the profession, who attended (as a deputation) in large numbers, and protested against this unnecessary and unjust proceeding.

But the subject of pavement with square setts is one which, I think, ought to be taken up by the profession in a wider sense than a purely personal one. Quiet is essential to the sick, and nothing can be more painful than to witness (unless it be to bear) the suffering of those confined to their beds, along the existing tram-routes. Imagine the agony of those suffering from painful nervous affections, brain-disease, fever, joint and spinal complaints, and the thousand and one other diseases in which quiet is, of all things, most important. To open the window for a breath of fresh air (however hot and sultry the day may be) is simply cruelty; conversation is impossible; and I have often been obliged, after futile efforts to hear the poor patient's voice, to retire into some back room or passage to consult with the friends, or with my brother practitioner.

And why is this? Do the City Council suppose that by paving as they are now doing, they are making life more comfortable and bearable, more healthy and happy? Certainly not. Is it that they may provide a more luxurious seat for those who have hitherto ridden in the ordinary omnibus, or for themselves (who, having secured sufficient wealth to enable them to reside in suburban retreats, may be more comfortably conveyed to their business offices)? Let us hope not. Do they suppose that, by laying such pavements as render all other vehicular traffic, not only most unpleasant to those who ride in cabs and carriages, but actually dangerous, and cruel to horses, they contribute to the welfare and prosperity of Liverpool? I venture to assert that they do not. It has been long said that no one who could help it would reside here. With more truth than ever it may be repeated now.

In other great towns, attention is paid to the comfort of the inhabitants. London has its great thoroughfares—Oxford Street, Regent Street, Piccadilly, and scores of miles (where traffic is ten times as great as anywhere here)—laid with wood; and it is possible to open windows and doors, and enjoy conversation in the daytime, and rest at night. The better class of residential streets are everywhere paved with macadam, and, wherever practicable, square setts are being replaced by wood or other quiet pavement. But enough on this subject. Let us hope that, ere long, our authorities will awaken to the fact that the city exists for the inhabitants, and not alone for those who can afford to live in quiet suburbs; that life is unbearable in the midst of din and noise; and that it is their duty to promote whatever tends to the comfort, health, and happiness of those whom circumstances compel to reside in this busy centre. Let them no longer pursue a system of false and niggardly economy, by paving with iron and the hardest and noisiest stone, calculating that it will last longer than the brain and nervous system of the youngest inhabitant, and so in the long run reduce paving and scavenging rates. We most sincerely thank them for their consideration in temporarily spreading bark over the obnoxious pavement they have just laid down in front of this College, and so enabling us to conduct our deliberations within its walls; but we cannot congratulate them in the spirit of disregard they have shown in condemning the present and future youth of Liverpool to the difficult and delicate task of education in the midst of noise, thus tacitly acknowledged to be prohibitive to quiet thought and calm discussion.

In conclusion, let me hope that, during your residence among us, you are all provided with comfortable abodes, in streets where we may still have peace and quietness after the labours of the day.

[1] The MS. of this Address has been accidentally delayed in transmission, and has only recently been received at the office of the JOURNAL.

ROYAL COLLEGE OF SURGEONS.—From the annual report of the College from Midsummer Day, 1882, to Midsummer Day last, it appears that the income amounted to £19,374 19s. 2d., the largest amount being from fees paid by students on their examinations—viz., £16,249 2s.; rents from chambers adjoining the College, £1,524 8s.; dividends on stock, £1,124 5s. 2d.; receipts from trust funds, £345 17s. 6d.; fees paid on admission to the Fellowship, Council, and Court of Examiners, £115 10s. The total expenditure amounted to £19,446 18s. 5d., principally in fees paid to Members of the Council, Courts, and Boards of Examiners—viz,, £7,374 19s. 6d. For the large staff of officers and servants in the three departments of office, museum, and library, the sum of £3,849 18s. 5d. was required; stamps, taxes, and rates, £1,427 16s. 6d.; alterations, repairs, and painting, £2,142 11s.; miscellaneous items, £433 14s 2d. The balance at the bankers' is represented by £2,087 10s. 4d.

WEST LONDON HOSPITAL.—The Princess Mary Adelaide recently opened the west wing of the West London Hospital at Hammersmith, which gives to this valuable institution an addition of fifty beds. The Princess was accompanied by the Duke of Teck, with the Princess Victoria and Prince Adolphus of Teck, and was received in the central hall hy Viscount Enfield, the Bishop of London, Cardinal Manning, the vice-presidents and trustees, and a numerous gathering. After the west wing had been declared open, purses were received; and, in conclusion, the thanks of the vice-presidents, etc., were tendered to Her Royal Highness by Cardinal Manning, and acknowledged on behalf of the Princess by the Duke of Teck.

A CASE OF ADDISON'S DISEASE CLOSELY RESEMBLING IDIOPATHIC ANÆMIA: WITH REMARKS.

By G. HARRISON YOUNGE, L.K.Q.C.P.I., etc.,
Army Medical Department.

In July 1880, I was asked to see Mrs. A. W., aged 40. She was married, and had six children. She stated that her illness had commenced three years previously. At that time, she had given birth to her youngest child, and had had a very difficult and prolonged labour; but there had been no hæmorrhage. Convalescence had been very protracted, and she never regained her wonted strength. Before the present attack, her health had always been good, and she had led an active life. From her last confinement, however, her health had begun gradually to fail, and she had become weak, debilitated, and unable to attend to any domestic duties. About two years previously, the menses had ceased; but she afterwards suffered, at irregular periods, from attacks of menorrhagia. Latterly, however, even these had not appeared. She was naturally a tall stout woman, and had been plethoric, but now was very anæmic. The face was of a pale waxy appearance; the conjunctivæ were pearly white; and the mucous membrane of the lips and eyes had a bloodless appearance. The body showed but slight wasting, although the tissues were flabby and relaxed. There was slight œdema of the ankles; but this usually disappeared when the recumbent posture had been maintained for some time. She had never been exposed to the influence of malaria, nor to any unsanitary conditions that would account for the development of anæmia.

The patient complained of great breathlessness on exertion. Languor and a dislike for all exercise were marked. The most troublesome symptom, however, was pain and tenderness in the epigastrium. The pain was always excited on taking food; but was brought on equally by fluids as by solids. Position had no effect in relieving this; and, although vomiting had occasionally taken place, the vomited matter never contained any traces of blood. The tenderness was marked, but it was diffused over the entire epigastric region, and also extended into the right hypochondrium.

Dyspeptic symptoms were present, but these had developed after the pain had set in. Constipation was also a troublesome symptom, and the tongue was flabby and coated with a thin white fur.

The most careful examination failed to detect any disease in the heart, liver, lungs, or spleen. There was, however, a hæmic, basic murmur heard on auscultation over the heart, and murmurs were also present in the large veins of the neck.

The pulse was soft and compressible, and ninety-eight per minute. The temperature was normal on each occasion on which it was taken. The urine was normal in colour and quantity, and contained neither sugar nor albumen.

Believing, from the above symptoms, that the case was one of idiopathic anæmia, I determined to examine the blood. This I found of a paler colour and less consistence than normal. Under the microscope the red corpuscles were seen to be much diminished, and generally smaller in size than normal. The white corpuscles did not appear to be increased; but, in addition to these, there were present a considerable number of microcytes, and also several curious shaped bodies resembling distorted red cells.

From this appearance of the blood, and from the symptoms present, I diagnosed the case as one of idiopathic anæmia; and, therefore, determined to adopt the treatment that had proved so successful in the hands of Drs. Finny and Bramwell, viz., liquor arsenicalis. A mixture was ordered containing four minims of liquor arsenicalis, and a drachm of tincture of calumba. This to be taken four times a day.

Under this treatment and a carefully regulated diet, the patient began to improve, and when I was leaving the district she was able to sit up, though still complaining of a certain amount of languor and debility. In six months afterwards, I again visited the same district, and was asked to see the same patient. I found that, after my leaving, she had discontinued the treatment, and that the symptoms had gradually returned.

Those now present generally resembled those above-described; but there was now superadded the peculiar bronzed appearance of the skin so characteristic of morbus Addisonii.

The symptoms gradually increased, the integumental discoloration became more pronounced, and the patient succumbed in spite of all treatment. Unfortunately, no *post mortem* examination could be performed.

Remarks.—The above case suggests some interesting points for consideration. When first seen, the symptoms strikingly resembled those present in cases of so-called idiopathic anæmia. This resemblance was seen in the profoundly bloodless appearance presented by the patient; in the pearly whiteness of the conjunctivæ; in the flabby, though not emaciated, state of the tissues; in the epigastric pain and tenderness; in improvement under the administration of arsenic; and, lastly, in the characters of the blood, which characters have been looked upon as pathognomonic of idiopathic anæmia. In the later stage of the disease, however, the appearance of the characteristic discoloration of the skin proclaimed the case, beyond a doubt, one of morbus Addisonii.

The case has led me to conclude that idiopathic anæmia is in some way connected with disease of the suprarenal capsules. Indeed, I am inclined to look upon it as only a primary stage of Addison's disease, or as that disease *minus* bronzing of the skin. If we compare the descriptions of that great physician, we will see how exactly alike they are in both cases. Thus, in speaking of idiopathic anæmia, he says: "The countenance gets pale; the whites of the eyes become pearly; the general frame flabby, rather than wasted; the pulse, perhaps, large, but remarkably soft and compressible..... There is an increasing indisposition to exertion, with an uncomfortable feeling of faintness and breathlessness on attempting it; the whole surface of the body presents a blanched, smooth, and waxy appearance; the lips, gums, and tongue seem bloodless; the flabbiness of the solids increases; the appetite fails; the debility becomes extreme.....The patient can no longer rise from his bed; the mind occasionally wanders; he falls into a prostrate and half-torpid state; and at length expires."

Compare this with his description of the disease that bears his name, and the resemblance is seen to be striking. "The patient gradually becomes languid, weak, and indisposed either to bodily or mental exertion; appetite impaired, or entirely lost; the white of the eyes becomes pearly; the pulse small, perhaps soft and compressible; the body wastes without presenting the dry shrivelled skin and extreme emaciation usually attendant on protracted malignant disease; slight pain and uneasiness is from time to time referred to the region of the stomach; and there is occasional actual vomiting; and it is by no means rare for the patient to manifest indications of disturbed cerebral circulation."

Such precisely similar language could scarcely be used in describing dissimilar diseases. Indeed, these read as two descriptions of the same disease, only written at different periods; and the passages might be transposed, and yet the description would be accurate.

But how are we to account for the anæmia? and in what way does disease of the suprarenal capsules influence the blood? To answer this, we must briefly glance at the physiology of these bodies. Many physiologists believe that the atrabiliary bodies are connected with the sympathetic nerves, being, if I may so express it, head-centres of the abdominal sympathetic system. But the most approved, and most probable, theory is that suggested by Kölliker, viz., that the cortical portion of these glands is connected with the elaboration of the blood, while the medulla is the centre of the sympathetic system. When, therefore, these bodies become the seat of disease, the blood becomes impoverished on account of one of its sources of elaboration being cut off. At the same time, the abdominal portion of the sympathetic is thrown into a profound state of disorder, which reacts injuriously on the functions of digestion, secretion, and excretion. At one and the same time, therefore, the blood is rendered impoverished and impure; and this state of things has only to continue for a short space of time to beget a profound state of anæmia and general disorder.

The severe pain and tenderness in the epigastrium, frequently experienced in this disease, also point to a nervous disorder; and the remarkable and sudden rises of temperature often witnessed, together with the extreme langour and depression, apparently unconnected with any serious anatomical lesion, can be satisfactorily accounted for in the same way.

As regards treatment, there can be no doubt that arsenic is the great remedy in so-called idiopathic anæmia. The cases recorded by Drs. Finny and Bramwell conclusively prove this. Arsenic acts, I believe, in some inexplainable manner on the suprarenal capsules, checking the diseased action that is taking place in them; and it is the only remedy on which any reliance can be placed in these cases.

There was no application for the appointment of medical officer of health for the Alnwick and Canongate Urban Sanitary district at £30 *per annum*, and £50 *per annum* is now offered.

A CASE OF MALIGNANT GOITRE.

By CHAUNCY PUZEY, L.R.C.P., M.R.C.S.Eng.,
Surgeon to the Northern Hospital, Liverpool.

In the JOURNAL for June 23rd appeared the account of a case of large bronchocele, for which an operation had been performed by Mr. Bennett May, at the Queen's Hospital, Birmingham.

Ten days before this, there had been admitted under my care into the Northern Hospital, Liverpool, a case which must have presented such similar appearances, that a short history of it appears worthy of publication, if only for the sake of comparison; for my case may, to a certain extent, be described in Mr. May's own words.

The patient, a married woman, 55 years old, had been the subject of a (goitrous?) swelling in the front of the neck for many years, without much discomfort. Last Christmas, it began to grow suddenly; but as for years past it had appeared to her sometimes to increase, and then to diminish, she delayed seeking advice until she presented herself at the hospital, on June 13th, on account, principally, of increasing dyspnœa. The tumour presented all the appearances of an unusually large bronchocele, filling up the neck completely in front, so that neither thyroid bone, thyroid cartilage, nor trachea could be felt. On the right side, the outline of the tumour could be well defined posteriorly, and the carotid artery was felt pushed outwards by it; but, on the left side, no defined margin could be made out, and the great vessels appeared to pass deeply behind, even if they were not involved in it. On this side, moreover, the tumour overlapped the clavicle, and the skin over the lower part was dusky red, tense, and adherent. She was unable to lie down on account of dyspnœa. During the day, she was tolerably easy; but at night, or rather early in the morning, she had severe paroxysms of dyspnœa, caused, apparently, partly by direct pressure on the trachea, partly by implication of the laryngeal nerves. Her voice was faint and husky.

The history of the case, and the appearance of the tumour, led to the diagnosis of malignant disease arising in an ordinary bronchocele; but the question of treatment was more difficult. There appeared to be three methods of active treatment to consider: (1) the removal of the tumour; (2) the tapping of it with trocar or aspirator; and (3) tracheotomy; the last two courses being, of course, only palliative measures for the relief of dyspnœa. The first course was considered as precluded, not so much on account of the evident extent of the growth, as because of the impossibility of estimating the limit of the disease; its almost certain malignancy, the infiltration of the skin, and probably of deeper parts, rendering it likely that such an operation, if not immediately fatal, would in no way improve the condition or comfort of the patient. With regard to tapping, there was reason to fear that, although fluid might be drawn off, it would come from some vascular cavity which would speedily fill again, and, perhaps, give rise to troublesome oozing; the result being no relief, but rather the reverse. Tracheotomy did not appear urgently demanded; and it was a question whether it was even possible. A little to the right of the middle line of the neck, there was a slight depression, apparently marking the interval between the two lobes of the thyroid gland, but no trachea could be felt; the isthmus of the gland was clearly enlarged, and filled up this space completely. It was impossible to feel sure where the trachea was, or whither it might have been pushed. In one place, somewhat to the right of the middle line, something like the prominence of the thyroid cartilage was felt, and below this a line was drawn with marking-ink, for guidance, in case threatened suffocation should demand an attempt at relief. But, as regards present treatment, it was decided that operative measures were not desirable. Frequent doses of the ethereal tincture of lobelia were taken by the patient with considerable apparent advantage.

The woman gradually became weaker, but the dyspnœa became no worse, although the left lobe of the tumour increased in size. But on June 24th, her condition became much worse; dyspnœa was rather more troublesome; but, in addition, she seemed to have lost the power of swallowing, and her voice had completely gone; her face was rather dusky in hue. Towards the evening she gradually became unconscious, and died quietly and painlessly, probably from slow asphyxia, without any of those distressing symptoms which accompany suffocation from laryngeal obstruction.

At the *post mortem* examination, the first incision made was as for tracheotomy, along the line marked out before death. On dividing the deep fascia, thick creamy fluid oozed out, and no trachea could be felt. The fact that tracheotomy would have been a hopeless failure having been demonstrated, the mass was dissected out, together with the larynx, trachea, œsophagus, and large vessels, in the course of which process a large cavity in the left lobe gave way, and some ounces of thick chocolate-coloured fluid escaped. On the right side, as anticipated, the mass could be fairly well enucleated, but on the left the growth was found adherent to, or even blended with, muscle, cervical fascia, and the periosteum of the clavicle, and so overlapping and surrounding the large vessels of the neck, that it would have been impossible to clear the growth from them. It was evident that any operative measures could only have "made bad worse."

The contents of the tumour being principally semi-fluid, or soft solid, the mass was, without further examination, immersed in spirit, and sent to the museum of the Royal Infirmary School of Medicine, in order that it might be thoroughly examined by the curator, Mr. Frank T. Paul, to whom I am indebted for the accompanying report. Some secondary growths which were found in the lungs were also forwarded for examination.

"The tumour consists of two principal masses, the larger of which is very soft throughout, and has, in its centre, broken down, thus giving rise to a large ragged cavity. In front are some portions of the muscles of the neck adherent to it, and the anterior jugular vein is seen filled with new growth. Posteriorly, the left carotid artery is somewhat flattened by pressure, but not infiltrated, but the internal jugular vein is entirely filled with soft growth. The pneumogastric nerve does not appear to have suffered. There are several cervical glands slightly enlarged. The lesser mass is encapsuled, and has the appearance of soft sarcoma, and can be apparently dissected free, or almost free, from the right lobe of the thyroid, which it indents. The larynx and trachea are bowed to the right, having been displaced about three inches from the middle line of the neck. The pharynx and œsophagus are similarly displaced, but none of these parts are infiltrated by the growth. The growths in the lungs present the same soft sarcoma-like appearance.

"The larger mass of the tumour may be supposed to represent the primary growth in the left lobe of the thyroid, and the lesser a more recent infiltration of the isthmus. The specimen is not yet in a suitable condition for thorough microscopical examination; but a recent section taken from the lesser mass shows it to be freely vascular, and to consist, over the greater part of its area, of elongated cells, which have a general tendency to become broad and spindle-shaped, with large nuclei, and often with two nuclei. But at one part there is a small area consisting entirely of distinct carcinoma, composed of delicate vascular fibrous alveoli, filled with cubical epithelial cells, larger than those of the normal thyroid; and near this is a tract of healthy thyroid tissue.

"There is no doubt that all these elements are present in the growth, but further details cannot be given until sufficient time has elapsed for the preparation of good sections."

REMARKS ON CASES OF MULTIPLE SYNOVITIS, FOLLOWING INJURIES TO JOINTS.

By C. MANSELL MOULLIN, F.R.C.S.,
Assistant-Surgeon to the London Hospital.

Among the almost endless variety of consequences and complications that may follow sprains and other injuries to joints, there is one which, so far as I can ascertain, has not yet been described; and yet it is difficult to see how it has hitherto escaped. It can scarcely be from its rarity; for, since my attention was first drawn to it by a series of five or six occurring in rapid succession, I have frequently met with others, though I admit that the whole number from which they were selected was very large, perhaps some hundreds; and certainly it cannot arise from any deficiency in features of interest; for, if its existence as a distinct variety should be established, it will be found to be as good an example as one could wish of those perplexing affections, which are due to what used to be called the sympathy of one organ with another. I can only conclude, if my conjecture that it has not yet been described be correct, that this variety has hitherto been lost in that vast collection of troubles known as gouty or rheumatic, to which is referred much that is hard to explain.

The uniformity in the essential features of the cases was so close, the differences so slight and so individual, that it is not necessary to give more than a description that will answer for them generally, without dwelling on special peculiarities. The patients were nearly all young adults; with one exception, men of the class which naturally furnishes to the hospitals the majority of the cases of acute

traumatic synovitis, and suffering, in each case, from either a sprain or a contusion of some large joint. The history ran to the effect that the swelling of the joint for which they came was not immediate; that is, it had not made its appearance, or at least caused sufficient inconvenience to make the patient apply for admission, until some hours had elapsed after the receipt of the injury; and that it had gradually become worse and worse, until it was quite clear there was a very considerable amount of effused liquid in the synovial sac. It was pretty nearly limited to this; but, sometimes, in the more subcutaneous parts—such as over the inner side of the head of the tibia—a certain amount of puffiness, with tenderness on pressure, could be detected. So far, there is nothing at all out of the common.

The next day, after twenty-four hours' perfect rest in bed, the patient complains of some uneasiness in other joints, more frequently described as a feeling of weakness and stiffness than as amounting to actual pain; and examination shows at once that they are full of fluid, distending the synovial sac, but usually to a less degree than the primarily affected articulation. Perhaps, two or three days later, a third set of joints, or a single one, is attacked, but rarely with sufficient constitutional disturbance to cause a rise of the thermometer. Under the ordinary treatment of rest in bed, with cold applications and pressure, or small blisters, the effused fluid is rapidly absorbed; the secondarily affected joints, as a rule, clearing up as soon as, or even sooner than, the original one.

It does not seem to me, after a careful consideration of these cases, that the terms gouty or rheumatic can be fairly applied to them. I admit that very frequently a local injury, especially an injury to a joint, is credited with being the cause of an attack of gouty or rheumatic synovitis; and I consider it fairly well shown that the hurt, although of course it cannot originate the complaint, can at least determine the exact seat of its outbreak. Indeed, it is quite possible that something of the same sort may occasionally happen in rheumatic fever; for there are numerous examples, too many and too well observed to be passed over, of patients, upon whose statements the greatest reliance can be placed, persisting that the affection of the first joint came on within a very few hours after the infliction of some slight injury. But, even when the fullest allowance is made for these, there remains a considerable number for which no satisfactory explanation is forthcoming. The history of the accident was carefully sifted, in case by any chance more than one joint had been injured; and the strictest inquiry was made as to any evidence of gout or of rheumatism, either in themselves or in their relatives; but none of them would admit it. I am aware that too much reliance must not be placed upon the statements of hospital patients in this respect; but still, there was evidence in strong corroboration in the rapidity of their recovery, in the slight amount of pain from which they suffered, and in the absence of the other clinical features so characteristic of these affections.

In short, there is, in this class of cases, something more than a mere synovitis, arising from a gouty or rheumatic diathesis, or from simple inaction. We are already acquainted with one peculiar affection—acute multiple periostitis—in which it is as morally certain as it well can be, that, in consequence of injury to a particular tissue in one region of the body, similar tissues in other regions become involved in the same way, though with a less degree of severity, in all probability through the medium of the blood; and there is no great unlikelihood in the suggestion, that many inflammatory affections of internal organs, where there is an interval between the attacks, and of which as many examples must be known in medicine as in surgery, may admit of a similar explanation—so far, that is to say, as it is an explanation simply to state a succession of facts, and to compare them with others. It is with these that I would compare cases of consecutive traumatic synovitis; and more particularly with acute multiple periostitis, to which it presents, in its causes, in the sequence of its phenomena, in everything but its severity, such a striking resemblance, that I was at first doubtful whether, owing to the frequent occurrence of slight periostitis after sprains at the attachments of the ligaments, these cases were not essentially periostitic, with consecutive synovitis of the neighbouring joint. The slight degree of pain, especially the absence of nocturnal pain, and the very large amount of effusion, however, render it more likely that the periostitis, when present, was merely an accessory.

THE LATE MR. THOMAS TURNER, J.P., D.L., ETC.—The will of this gentlemen, for many years the treasurer of Guy's Hospital, has just been proved as amounting to over £99,000, the whole of which he has bequeathed to his widow.

SURGICAL MEMORANDA.

PROBABLE CAUSE OF NON-UNION OF FRACTURE OF PATELLA.

G. R., aged 60, a strong and healthy-looking old man, was admitted into the Infirmary on May 20th, with transverse fracture of the patella. At the time of admission, there was a good deal of ecchymosis around the joint, and the fragments were widely separated. He was placed in the ordinary position, and treated with evaporating lotions and perfect rest, until the effusion had disappeared; the symmetry of the joint appearing perfect, except a tilting of the fragments, which did not fit together properly after the application of straps and buckles, plaster, etc., which caused me to imagine that there must be something besides the action of the triceps femoris, which was very relaxed. The patient dying on August 15th, a *post mortem* examination was made for verification of the diagnosis. There was no attempt at fibrous union; but, on divancating the fragments, three ounces of clotted and partly organised blood was visible, pushing up the fragments, and so causing the displacement and non-co-aptation of the fractured bone. The query arises, might not this clotted blood (or organised blood in the young subject) be the cause of non-union in a great many cases, supposed to be due to the action of the triceps femoris? The case appears of interest, in clearly showing the line of treatment which should have been adopted, and the practical utility of early aspiration and putting up in plaster-of-Paris, so doing away with elaborate splints and lotions, and avoiding long confinement to bed. The case also shows the deformity and non-union produced by blood-clot from beneath the fragments, when apparently all effusion had disappeared.

W. GEM, L.R.C.S.I., Assistant Medical Officer,
City of London Infirmary, Bow.

PATHOLOGICAL MEMORANDA.

SARCOMA IN THE COMMON FOWL.

A FEW weeks ago, there was published in the BRITISH MEDICAL JOURNAL an account of a case of sarcoma in the common fowl. Another instance may be worth recording. The growth appeared round the margin of the left eye, forming a thick prominent fleshy ring. When I first saw it during the third week in June last, the collapsed eye remained visible at the bottom of a cup-like depression, of which the tumour formed the walls. There was very slight tenderness, and a little dark blood followed a puncture of the soft fleshy mass. Another growth of the size of a pigeon's egg on the lower third of the neck was also felt.

Mr. A. A. Bowlby, of St. Bartholomew's Hospital, has kindly made some sections of the tumour, which, he says, precisely resembles in type that previously described. It consists almost entirely of small round cells with some spindle-shaped ones, the latter possessing more than one nucleus, and forms an infiltrating mass between the layers of subcutaneous tissue.

The hen died in three weeks after I had seen her, without any operation being performed, but at the time she was apparently laying and in good health. It will be interesting to look out for a re-appearance of the disease among the young fowls.

G. PARKER, M.A.Cantab.

TOXICOLOGICAL MEMORANDA.

POISONING BY LABURNUM.

LATELY, no fewer than eight different cases of poisoning by laburnum pods and berries have come before me. The children all presented a pallid and exhausted appearance. Some of them complained of extreme griping pains in the abdomen, nausea, and vomiting occasionally, the vomited matter consisting of the contents of the stomach, with pieces of the pods and berries scattered in it. The pulse was slow and somewhat feeble, and, in two of the cases, scarcely perceptible. One little boy, who had partaken of some of the pods and berries, and whom I watched very carefully, got into a very drowsy condition, and was with difficulty kept awake; occasionally, twitching of the muscles of his upper extremity was noticed. Only in one case was there diarrhœa present along with the vomiting. The pupils were either natural or slightly contracted. The symptoms came on from half an hour to an hour after receiving the poison. In some of the cases I administered emetic doses of ipecacuanha wine, and in others five to six grains of sulphate of zinc. I found that the sulphate of zinc relieved the sufferings quicker, and had not the depressing effect of ipecacuanha.

C. A. LANE, L.R.C.P.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

CUMBERLAND INFIRMARY, CARLISLE.

CASE OF PURPURA HÆMORRHAGICA.

(Under the care of Dr. Barnes.)

[Contributed by J. L. Waters, M.B., House-Surgeon.]

M. J. H., a girl, aged 12, from Thomas Street, Carlisle, was admitted, June 9th, 1883, with purpura stigmata and petechiæ over the legs, trunk, and arms, and in a state of considerable anæmia.

About a fortnight before admission, some spots were first observed on her legs. These faded, and others appeared in fresh places. Similar spots were shortly afterwards seen on the trunk and arms. At the same time, the mother observed some bleeding from the lips or gums, she could not tell which, in the mornings; and it was stated by some companions, that the patient vomited blood twice, each time to the extent of half a cupful, The mother thought she recollected her daughter complaining of some pain in her joints, previously to the onset of her illness.

Previous History.—She had been an ailing child since her birth; she had bronchitis when ten weeks old, and measles in her seventh year; she never had rheumatic fever; she was the third of eight children, all the others being healthy. There was no history of hæmophilia.

Family History.—The mother was apparently a healthy woman. In the third month of her pregnancy with this child, she had a "flooding," which quickly passed off in a day or so; and the labour, at full term, was easy and natural, though she lost a very considerable quantity of blood, much more considerable than at any other of her confinements. She never had an abortion. The father was also apparently in perfect health. Neither father nor mother had had rheumatic fever.

Social History.—The family was in fair circumstances. They had frequently changed residence during this child's life, the houses in which they lived being airy and healthy in every way, so far as the mother knew.

Dietetic History.—There had been no lack of suitable food, and specially no lack of vegetable food.

On Admission, it was noted that the patient was rather tall for her age, very thin, and anæmic; her hair was a dark auburn. Scattered over the legs, especially over the inner aspect, were various purpuric stigmata and petechiæ, mostly stigmata. There were some on the body, and a few on the arms; none on the face. Over the legs were various areas of ecchymosis, dull in colour and varying in size from a split hazel-nut to a split walnut, but irregular in shape. These bruises were seated mostly over the bony parts, viz., the malleoli and condyles, and skin-surfaces of the tibiæ. The patient stated that these were caused by knocks. The conjunctivæ were very anæmic. There was a *bruit de diable* at the root of the neck, and a hæmic systolic *bruit* at the base of the heart. She was put on tincture of the perchloride of iron, seven-minim doses, with fifteen grains of chlorate of potash, thrice daily. For nine days after admission she gained in condition, the original spots fading, and no fresh crops appearing. At the end of this time, during the night, and while she was quietly sleeping, bleeding came on from the right nostril. Cold cloths and ice-bags seemed to check the hæmorrhage slightly, but plugging the anterior nares was ultimately necessary, this completely controlling it. Next day there was a discharge of thin, watery, dark-coloured blood from the left ear, not coagulating, and differing entirely from the blood that came from the nostril, this latter forming a good clot, and undergoing oxygenation. The iron-mixture was now stopped, and she was put on pills containing half a grain of acetate of lead. She became unconscious this evening (June 21st), but the unconsciousness passed off, and left her intelligence quite clear through the night. Up till her death on June 24th, she was mostly in a restless unconscious state. The bleeding from the nose did not return, and the hæmorrhage from the ear seemed to be checked by the administration of turpentine. The red blood-corpuscles, estimated by Gowers's hæmacytometer, had diminished, on the day before her death, to 18½ per cent. There was nothing remarkable about her pulse-tracing, taken by Dudgeon's sphygmograph. The dicrotic wave was well marked; that was all.

Every effort was made to sustain the patient's strength. Peptonised enemata were given, the turpentine was continued, and arrangements were made for the intravenous injection of saline fluids; but, unfortunately, the patient died before these could be completed.

The following is a record of pulse and temperature during the last few days before death.

June 20th	.....	Temperature—	morning, 100.2°	...Pulse, 128.
„ „	.....	„	evening, 102.2°	
„ 21st	.....	„	morning, 100.2°	...Pulse, 132.
„ „	.....	„	evening, 103.4°	
„ 22nd	.....	„	morning, 103.8°	...Pulse, 126.
„ „	.....	„	evening, 103.8°	... „ 140.
„ 23rd	.....	„	morning, 103.2°	... „ 120.
„ „	.....	„	evening, 102.2°	... „ 140.
„ 24th	.....	„	morning, 104.6°	... „ 172.

Post mortem examination thirty hours after death. Cadaveric rigidity was well marked in the legs, slightly in the arms. Lividity was feeble, and in lines along the back. The body was spare. The pupils were moderately dilated. Scattered over the legs and trunk, with one special collection on the inner aspect of the upper third of the left upper arm, were the remains of the purpuric petechiæ. About six drachms of high-coloured serum were found in the pericardium. Over the epicardium, especially over the left ventricle, and on the anterior aspect, were numerous extravasations, varying in size, and massing themselves into irregular shapes. Over the right ventricle, both in front and behind, the extravasations were mostly in the form of rounded maculæ. On section, the ecchymosis was seen to extend into the myocardium to about one-fifth of its thickness. Under the endocardium, and located chiefly on the septum ventriculosum, were various ecchymoses—these ecchymosed areas being chiefly seen on the wall of the left ventricle. There was very distinct fatty mottling of the musculi papillares, and, under the microscope, the fibres were very distinctly granular. The fatty mottling was chiefly seated in the musculi papillares of the left ventricle, and on all the varieties of musculi. There were about three ounces of serous fluid in each pleural sac. Few ecchymoses were seen on the parietal pleura; and over the general surface of the visceral pleura were various dark spots. It is doubtful whether these were not the carbon-filled lymph-spaces. The lungs were normal, but anæmic. The spleen was not much, if at all, enlarged; the Malpighian bodies showed themselves as grey points. The surface of the section was variously coloured. There were no ecchymoses. Under the epithelial lining of the pelvis of the right kidney was an extravasation. In this kidney, the Malpighian bodies and vasa recta were congested. The left kidney was more anæmic, and under the epithelium of the calyces were minute ecchymoses, which did not extend into the pelvis. The liver was fairly normal in size, colour, and consistency. On taking off the calvarium, the dura mater was seen to be very anæmic, and bore the imprint of the underlying convolutions, as if there were some internal compression. On opening the longitudinal sinus, it was seen to be occupied by a brownish, gelatinous-looking clot, tapering towards its anterior extremity. The middle meningeal artery was empty of blood. A slight ecchymosis was seen on the middle of the right parietal lobe, and another on the under surface of the left lowest temporo-sphenoidal lobe, and a third along the convolution of the corpus callosum. Several punctiform ecchymoses were seen on the olfactory bulbs, these being especially numerous on the surface of the right, and lying over the cribriform plate of the ethnoid; on the right side was some fluid blood. Section of the cerebrum showed punctiform hæmorrhages throughout its white matter. These would appear to be more than the well-marked *puncta cruenta*, as they were raised above the surface of the section, and could be picked off it, and did not seem as if continuous with the vessels. There were some ecchymoses on the fornix, and on the ventricular aspect of the optic thalamus, and between the optic thalamus and corpus striatum. The cerebellum was a well-marked specimen of disease, being covered by punctiform hæmorrhages. The hæmorrhages extended into the white matter, and lay between the laminæ.

REMARKS BY DR. BARNES.—The foregoing presents a good picture of a comparatively rare disease. It is a point of interest that the mother should have been subject to hæmorrhage during her pregnancy and when the birth of this patient occurred. The presence of pain in the joints previously to the onset of the illness is also noteworthy, and links the case with those of peliosis rheumatica,

or which should be more properly described as purpura rheumatica. While the patient appeared for the first few days to undergo marked improvement under the influence of iron and the hospital dietary, I am inclined to think that the iron was acting in a prejudicial manner. It is strongly recommended by some authors. According to Immermann, good results have been attained by Mignot, Argany, and Soufflet from its use; but its action in the present case has not been such as to encourage me to use it again. The very rapid downward progress after the first hæmorrhage took place is not an usual feature in such cases; and how far it is to be accounted for by the changes which the iron produced in the condition of the blood, it is difficult to say. It seems to me that it is in this direction that we should look for a solution of the ultimate pathology of the disease. The rise of temperature only came on after the hæmorrhage, and may be accounted for by the high degree of anæmia. The patient was running about the ward each day before the hæmorrhage set in, and the temperature was not taken; but, when it was taken, it was found to be elevated. The balance of the circulation was so disturbed, that the patient never rallied; and the numerous effusions into the brain and viscera of the body showed how impossible recovery was under the circumstances.

SEAMEN'S HOSPITAL, GREENWICH.

A CASE OF EPILEPTIC ATTACKS FOLLOWING THE PRIVATIONS OF SHIPWRECK.

(Under the care of Dr. CURNOW.)

[Reported by Dr. PENNY, House-Physician.]

EDWARD SWENDSEN, aged 41, was admitted into the Seamen's Hospital, Greenwich, on June 25th, 1883, in a semi-maniacal condition. It was said that for some days he had been subject to fits, after each of which he remained for a variable number of hours in a state of mania. When seen on admission, he was excited, making constant efforts to escape from the room, apparently not comprehending what was said to him, and talking incoherently on nautical matters. When placed in bed, it was at first found necessary to restrain him by mechanical means, but, in two or three hours, he became composed and sensible, and was soon after able to give the following account of himself. He was a Dane, and, in November last, had embarked in Japan in a Danish ship for the purpose of going home to his own country. The ship was caught in a storm in the Japan Sea, and became a total wreck on one of the small islands there situated, all hands being lost except himself, the captain, and a boy. For eight days, they lived on this island, which formed a mere narrow sandy reef without shelter of any kind, entirely exposed to the weather, and subsisting on "grass" and raw fish. On the ninth day, they were picked off by a steamer sent out after the storm to look for survivors, and taken to Shanghai, where the captain and boy died. Here he remained in hospital some time suffering with fits, sometimes as many as six daily. He had never suffered from fits before, nor had any of his relations, and he ascribed them to his privations and exposure to the sun. He stated that he was aware of the approach of a fit by a peculiar feeling "worming up" from his stomach to his head, and when it reached his head, the fit came on. Sometimes some weeks passed without the occurrence of a fit. He remained in the Seamen's Hospital till June 30th, and, during that time, was quite rational, and much troubled at his affliction. He then left to go home to Denmark. No fits having occurred while he was under observation, their nature can only be surmised; but, from the man's description, they would seem to be of a true epileptic nature.

SUMMARY OF PROCEEDINGS OF SECTIONS.—In the Section of Psychology, the following members spoke, in addition to those mentioned at pages 333 and 334 of the JOURNAL for August 18th: On Bone Degeneration in the Insane, Dr. W. H. O. Sankey, Dr. Jelly, Mr. Mould, and Dr. Cassidy: on the Pathology of Mania, Dr. Sankey: on Syphilitic Lesions in Insane Patients, Dr. Yellowlees: on Cerebral Localisation, Dr. Ireland, Dr. Fletcher Beach, and Dr. Sankey: on the Legal Responsibility of Imbeciles, Dr. Fletcher Beach: on General Paralysis of the Insane, Dr. Cassidy, Dr. O. Woods, Mr. Rooke Ley, Dr. Yellowlees, Dr. G. H. Savage, and Dr. Sankey. In the summary of Wednesday's proceedings, in the paragraph commencing "Dr. Yellowlees," "Dr. Caundy" should be "Dr. Cassidy;" and "Dr. Bowse" should be "Dr. Bower."—In the Section of Obstetric Medicine, Mr. A. D. Macdonald, of Liverpool, read a paper on Position in Labour.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FIRST SWISS ALPINE MILK.

WE have received a copy of a very interesting report on the First Swiss Alpine Milk, as put up by the First Swiss Alpine Milk Exporting Company at their factory at Romanshorn. This milk is alleged to fulfil what had long been a great desideratum, and one which may be considered to be of the first importance in the feeding of children. It professes to be, and, according to the unimpeachable evidence before us, evidently is, a pure condensed milk, to which no foreign substance whatever has been added, neither antiseptic nor sweetening. To ordinary condensed milk the strongest objections have been raised, both on the ground of their manipulation by the abstraction of cream or otherwise, and on account of the considerable addition of cane-sugar which is commonly made to them. When treated with water, and employed as children's food, they do not represent normal cow's milk; and many experienced practitioners consider that the large amount of cane-sugar which they contain renders them, in a large number of cases, unsuited for the daily food of infants. On the other hand, it had hitherto, we believe, been considered impossible to preserve milk in a condensed form except by the addition of an antiseptic substance, or by this conversion into a semi-syrup. The First Swiss Alpine Company, however, availing themselves of the most recent knowledge as to the causes of change in milk, and similar animal fluids, have adopted in their factory all the precautions known to the chemical laboratory by which complex fluids may be preserved from change. M. Vignal, of the Collège de France, who has recently inspected and repeatedly examined the process of manufacture, reports that no foreign addition is made to the milk in the factory, and that the result aimed at is achieved by a well devised, elaborate, and conscientiously carried out system of rigid cleanliness, and the use of the precautions pointed out by Pasteur and Lister. All the utensils and appliances are treated with boiling-water, then with steam, afterwards cleansed with sand, and again treated with steam. The same scrupulous cleanliness is observed in filling the tins and bottles; and the machinery and utensils are cleansed in a similar way daily; and tables, trays, concrete flooring, are daily treated with hot soda and water.

The milk, after being received in the factory, is first cooled, and then heated and condensed *in vacuo*, and, when it has lost little more than two-thirds of its water, at a density of 1.066 at 25°C., it is rapidly enclosed in bottles and tins. Four hours suffice for the process. The milk brought at six o'clock to the factory is ready for use at ten. The analyses by Fresenius, Von Moser, E. Egger, Hassall, and others, show that the condensed milk of this company contains organic and inorganic substances in the same proportion as genuine milk, and is free from foreign ingredients. When a mixture is made of one part of this condensed milk and two parts of water, the composition of the milk thus reconstituted corresponds with the average constitution of pure milk, according to Keith. Such a condensed milk fulfils the requirements which have long been felt, but which have not hitherto, so far as we know, been supplied elsewhere, and this company may be congratulated on the skilful application of scientific principles to industrial enterprise. It seems probable that the pure unsweetened condensed milk of this brand will come very largely into use, as it is seems to supply a want which has long been expressed by medical practitioners, and it will be satisfactory to learn that this pure condensed milk fulfils all that can be expected of it.

THE CASE OF MR. O'FLANAGAN.—In reply to the petition sent to the Home Secretary, praying for a mitigation of the sentence passed upon Mr. O'Flanagan for perjury at the last Durham Assizes, the following reply has been received: "Whitehall, August 25th, 1883. Sir,—With reference to the petition forwarded by you on behalf of James O'Flanagan, I am to acqnaint you that the Secretary of State, after careful consideration, must decline to interfere with the sentence in this case. He has received a report from the medical officer to the effect that the prisoner is in a good state of health. I am, sir, your obedient servant, A. F. O. LIDDELL."

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 1st, 1883.

THE MEDICAL WORK OF THE SESSION.

THE legislative promise of the past session, from a medical and hygienic point of view, has been sadly marred in the result. If it were not that the Queen's Speech has come to be regarded as being far from absolutely indicative of the kind of legislation we are to expect, it might have been thought that the reference in it to two, if not three matters of high sanitary importance, would have entailed some kind of obligation on the Government to bring forward, and endeavour to pass into law, measures dealing with these subjects. Yet the Bill for the better government of the metropolis never saw the light, despite the obvious advantages of allowing public opinion to ripen on a measure sure to meet with a stern and unscrupulous opposition. The County Boards Bill, again, has remained in embryo, and the Rivers Conservancy Bill got no further than an abstract in the *Times*. There has been in the House of Commons only one debate of first-class importance on medical subjects—the vaccination discussion, provoked by Mr. Peter Taylor; but there were several useful and business-like speeches in the House of Lords, in the course of the various stages of the Medical Act Amendment Bill. The Cabinet had a surprise for us in their *laissez faire* attitude as to the maintenance of the Contagious Diseases Acts; and the Detention in Hospitals Bills, which were designed in some sort to rectify the practical nullification of these Acts, were not persevered in. The anti-vivisectionists paraded again their customary mistaken sentimentalism, and only escaped assured defeat by their Bill being talked out.

We spoke last week so fully and so strongly on the subject of the tactics that caused the withdrawal of the Medical Bill, that there is no necessity to gird again at the House of Commons for the clogging of its legislative machinery. Obstruction and loquacity undoubtedly hamper the progress of Government measures to a very serious degree; but it is not seldom found that a little firmness and tact on the part of the Minister in charge of a Bill neutralises much of this opposition. No one accuses Mr. Dodson of the possession of these qualities; and we have, indeed, no choice but to hold him directly responsible for the slaughter of a Bill, simple in itself, but potentially involving the health of the great mass of the population. The Public Health (Dairies) Bill was received with practically universal approval. It proposed to set straight an administrative blunder which was made in 1878, and which we pointed out at the time, and to impose the responsibility of the supervision of dairies, and the safe-guarding of our milk-supplies, upon the proper authority, the sanitary board of each district. Except by licensed "blockers" with the proclivities of Mr. Warton, no opposition was manifested to its provisions; and yet the Bill, after passing the Lords, was allowed to be deferred night after night, to re-appear low down on the orders of the next day, and finally to be dropped on the motion of Mr. Dodson himself, the Minister in charge of the Bill. Seeing that other measures in exactly similar case—as, for instance, the Factory Act Amendment Bill—were passed into law, we are surely justified in attributing this failure of legislation, on a most vital and important point, to the negligence of the Chancellor of the Duchy of Lancaster.

The reputation for statesmanship of Sir Charles Dilke, on the other hand, has been measurably increased by his conduct of the business of the Local Government Board. He made an excellent and uncompromising speech on vaccination in reply to Mr. Taylor; his answers to questions addressed to him have been capable and sympathetic; and the steps which he inaugurated on the first threatenings of cholera in this country were of a thoroughly business-like description. The calling together of a committee of experts to advise him on the subject, and the putting of his chief medical officer into intimate official relation with the health-officers of the metropolis, alike testified to his capacity for organisation, and to his strong personal interest in the duties of his high office.

The two Scotch sanitary Bills were both unfortunate. The Burgh Police and Health Bill was of portentous size, containing 623 sections, and monopolising 238 pages of printed matter. It was small wonder if, with so many other distractions, the House felt unequal to the consideration of this measure. The Local Government Board (Scotland) Bill was devised by Sir William Harcourt as a panacea for the Scotch members, who have, for a considerable time, been clamouring for a Minister of higher rank than the Lord Advocate to look after police and municipal business north of the Tweed. It did not appear to be met with unmitigated pleasure by those for whom it was designed; but it was passed through its later stages at unseasonable hours of the morning in the last few days of the session, only to be contemptuously thrown out by the House of Lords as a protest against important Bills being sent to them late in the session.

Mr. Hastings courted defeat by the unbending attitude which he assumed with regard to his Bill for the Compulsory Notification of Infectious Diseases. It met with the fate of many better Bills in being counted out; but Mr. Hastings intends to bring it forward again, and Sir Charles Dilke has promised the Parliamentary Bills Committee of the Association that, should it reach the stage of second reading, he will support its being referred to a Select Committee, with instructions to take evidence on the subject of the notification of infectious diseases generally, and the best method of making it. Mr. Sclater-Booth's Committee of last session was too circumscribed in its functions to be of any real assistance; and, failing a Royal Commission, a Select Committee, with sufficiently ample powers, appears to be the best method of satisfactorily threshing out the subject.

Thus, in one way or another, most of the legislative ventures of a sanitary bearing have come to an untimely end. The measures that have actually received the Royal Assent are few in number, and not important in character. The Diseases Prevention (Metropolis) Act deals with a possible emergency in the event of cholera breaking out amongst us, and expires a year hence. The Factory and Workshops Amendment Act forbids the carrying on of a white-lead factory, unless it be certified by an inspector as having complied with certain stringent conditions as to ventilation, facilities for ablution, and the like, designed to guard the health of the persons employed. New bakehouses underground are also prohibited by the Act, and a variety of sanitary requirements are laid down as essentials for all new bakehouses. An important concession is, moreover, made by a clause providing that, as regards all retail bakehouses, the sections of the principal Act dealing with cleanliness, ventilation, overcrowding, and other sanitary conditions, are to be enforced by the local sanitary authority, and not by an Inspector of Factories. For the purposes of this section, the local medical officer of health has, and may exercise, all the powers of entry, inspection, and taking legal proceedings, of the Factory Inspectors, whose attempt to supervise bakehouses has admittedly been a failure. The Medical Act (1858) Amendment Act is a mere formality, transferring to the

Royal University of Ireland the power of nominating a member of the General Medical Council in place of the now defunct Queen's University.

Of public Acts, it remains only to speak of three Irish measures, promoted by Home Rulers, and apparently passed by the House more for the sake of saving further wrangles than anything else. The Cholera (Hospitals) Act we described last week. The Earl of Dalhousie remarked, when a noble lord commented on its extraordinary provisions, that the Bill is perfectly satisfactory to those immediately concerned; and Parliament has apparently come to the conclusion that no one else has a right to be heard. The Epidemic and other Diseases Prevention Act merely provides that, when regulations for the prevention of some dangerous epidemic disease have been made by the central authority, the works of speedy interment of the dead, house-to-house visitation, medical aid, hospital accommodation and the like, required of local authorities, are to be deemed purposes for which sanitary authorities may borrow money. Such loans are to be made forthwith, and without any preliminary inquiry, if the Local Government Board think proper. There was some show of discussion over the third Act, the Labourers' Dwelling (Ireland) Act, which requires a sanitary authority to make an improvement scheme—to be confirmed by the Local Government Board—when a representation is made to it that the existing house-accommodation for agricultural labourers and their families within any section of the sanitary district is deficient, or is unfit for human habitation owing to dilapidation, the want of light, air, ventilation, or other proper conveniences. There can be no doubt as to the need for improvement in the condition of dwellings of the poor in Ireland.

As regards local legislation, there is not much to chronicle. The new standing order which requires committees to report specially to the House any deviation from, or addition to, general statute law, appears to have worked well; though the labours of the committees, as regards medico-sanitary matters, have been materially simplified by Mr. Sclater Booth's Committee of the session of 1882. The Bills of all the seven corporations mentioned in the report of the Chairman of the Parliamentary Bills Committee—Birmingham, Burnley, Hartlepool, Heywood, Longton, Portsmouth, and Sheffield—have received the Royal Assent substantially as introduced; and to the list of the towns where notification of infectious disease is now compulsory, must therefore now be added Burnley, Hartlepool, Heywood, and Portsmouth. Though no struggles have taken place over corporation Bills, to accentuate the inadequacy of a House of Commons Committee as a tribunal for deciding the merits of local legislative proposals, yet there have not been wanting, in other departments, abundant evidences of the need for reform in the effectual control of local measures. Two Bills were fought out on the floor of the committee-rooms, one for forty-three days (at an estimated expenditure of five guineas a minute), and the other for forty-nine days. Both, in the end, were rejected; but who is to say what time, what energy, what expense, might not have been saved by the adoption of some such principle with regard to local legislation as Mr. Craig Sellar sketched out in his remarkable speech of March 6th last?

Up to within the last few weeks, medical men had not even the chance of defending themselves effectually against the imposition upon them, by local Bills, of duties which they feel to be repugnant to their position with their patients. Fortunately, our Parliamentary Bills Committee have succeeded in removing this grievance, for Sir Charles Dilke has now promised that, should any local Bills be brought forward during the ensuing session, applying for powers of compulsory notification of infectious disease, he will arrange that such Bills shall be referred to a public Committee of the House, before which Committee medical men and the Parliamentary Bills Committee will be able to state their views and have them considered.

ETIOLOGY AND PATHOLOGY OF SUMMER DIARRHŒA.

No more appropriate subject than that of summer diarrhœa could have been selected for discussion in the Section devoted to the Diseases of Children at the Liverpool meeting. Considerable expectation of a fruitful result was raised, as it was known that a past master in the art of inquiry would open the debate. It may not be without profit to review the papers read on the subject, and to analyse the remarks of the various speakers in the subsequent discussion.

What is summer diarrhœa? According to Dr. Ballard, it is something more than a simple dyspepsia; it is a disease of a general character, with well-known symptoms. Changes of a most extensive nature are produced in the organs of the body, and these changes are so rapid, that its pathology seems somewhat analogous to the pathology of cholera. On this part of his subject, Dr. Ballard was necessarily brief, for reasons explained; he had not been able to collect sufficient material to verify this provisionary hypothesis.

On the subject of its etiology he was more exhaustive. By a division of the alleged principal causes, we may be able to narrow down the points at issue, and, by a process of exclusion, to wipe out certain causes which are not generally concerned in the production of summer diarrhœa.

1. *Neglect of Infants in Large Manufacturing Towns.*—This cause is not the efficient one. In Leicester, Nottingham, Oldham, Preston, Rochdale, and Halifax, women are largely employed in factories, and the neglect of children is pretty much the same; yet the death-rate in Oldham, Rochdale, and Halifax, is very low, while that of Leicester, Preston, and Nottingham is exceptionally high.

2. *The Use of Dirty Feeding-Bottles.*—This cause may also be looked upon as not exclusive. At Leicester, exceptional care seems to have been taken of the feeding-bottles. Again, such feeding-bottles are used all the year round, so that, if this were the cause, the disease should prevail at all times, in all places, and at all seasons.

3. *Temperature of the Air and Drought.*—This cause is negatived by facts. Mr. Turner of Portsmouth stated that he could predicate, by certain formulæ, what the amount of mortality would be in any particular week from the temperature of that week, and that summer diarrhœa was associated with a high temperature. His evidence is counterbalanced by the general experience of other epidemics. The acme of diarrhœa is not always at the acme of temperature; the acme of diarrhœa is reached before the highest rise of temperature. Temperature is not, then, an essential condition.

4. *Sewer-Exhalations.*—Facts are opposed to this cause. Summer diarrhœa prevails in towns without sewers. For instance, it prevailed extensively at Winchester in 1876, a town then without sewers. It is well known to exist in country villages where sewers are unknown.

5. *Filth, and Especially Excremental Filth.*—Facts again are opposed to this cause. In Nottingham, there is less excremental filth-nuisance than in any town in England, yet summer diarrhœa has been very prevalent. There is scarcely any town in England less careful about surface-pollution than Helston, in Cornwall, yet in Helston summer diarrhœa is not prevalent. Plymouth is filthy, yet summer diarrhœa does not occur in the same degree there as in other towns. In Leicester, Dr. Ballard stated that it occurred in families whose sanitary surroundings were good.

6. *Foods*—A. *Artificial Food.*—In Leicester, of 341 fatal cases, only 2 per cent. were suckled from the breast alone. The majority of them had some kind of artificial food.

B. *Cow's Milk.*—In Leicester, 60 per cent. used cow's milk. As Cardiff has a very low prevalence of diarrhœa, Dr. Ballard asked the health-officer how it was that diarrhœa was so slight, and especially amongst the Irish people. The reply was, that the Irish of Cardiff got very little cow's milk, and the infants got no cow's milk.

Dr. Fowler, of Wakefield, told Dr. Ballard, that he had invariably found that the milk supplied to children having diarrhœa had been from cows which had been fed on sour grain. When a child had diarrhœa in his practice, the first thing he said was: "Change your milk."

In the subsequent discussion, several speakers advanced facts which would seem to support a milk-contamination theory. The evidence of Dr. Howie, of Liverpool, is very striking in this connection. About nine years since, a patient of his died, after being fed on goat's milk. The goat also died the same night. This convinced him that the child was poisoned by the food it received from the goat. Since then he had always acted on the principle that, in the majority of instances, the immediate cause of summer diarrhœa was to be found in the food. He told his patients, whenever they found diarrhœa beginning in a child, to starve it for twenty-four hours, and afterwards to use condensed milk. He was now rarely called in for an attack of summer diarrhœa.

Dr. Oxley, of Liverpool, believed that something was due to the change which took place in the water or food—particularly food—which was liable to decomposition, and nothing was more liable to rapid decomposition than milk. Dr. Kealy, of Gosport, has also found that in cases of children brought up by hand, and fed on milk from cows fed on grains, diarrhœa was very common. Over and over again he had proved diarrhœa to have proceeded from the milk of cows fed on mangolds. In the paper read by Dr. Morison, special stress was laid upon milk in its relation to a high summer temperature, the closeness of dwelling-rooms, and other states which conduce to the fermentation of milk. It would seem, *primâ facie*, that the solution of the problem was to be found in the milk-supply of infants.

Accepting this theory, it would appear comparatively easy to account for all the phenomena attendant on summer diarrhœa.

If there were a specific organism or microphyte at the root of this disease, knowing the peculiar receptivity of milk for this class, and the power of milk in spreading typhoid, scarlatina, etc., we might be all the more tempted to cut the knot and to accept the milk-theory. There cannot be a question that, in a very large number of cases of diarrhœa, when the milk is changed, the diarrhœa abates. Unfortunately, we cannot so summarily solve the problem. There are certain grave difficulties in the way, which have first to be cleared up. Whatever explanation may be given of infantile diarrhœa, it must be an explanation which will apply to adult diarrhœa as well. The cow's milk theory does not affect the diarrhœa of adults.

c. *Fruit and Vegetables.*—Fruits in a decayed or an unsound condition will produce diarrhœa. They are popularly regarded as one of the causes of summer diarrhœa. In all our large towns, fruit and vegetables in almost a decomposed state are hawked in the streets, and sold to the public at very low prices. Infants under one year of age are not affected by this.

We have now given the principal points in Dr. Ballard's paper. With his usual caution and desire for scientific accuracy, Dr. Ballard refrained from drawing premature conclusions. He came more as a learner than as a teacher, expecting assistance from general practitioners, who must see a number of cases of summer diarrhœa. He explained that he wanted help and facts; cases of infantile diarrhœa well taken; *post mortem* examinations carefully made, and the important organs—the lungs, intestines, liver, spleen—sent up to Whitehall for microscopical examination.

Though the debate, with few exceptions, was confined to theoretical explanations, and though Dr. Ballard did not obtain any information of the kind he wanted, yet the results may be regarded as satisfactory. It has led to the ventilation of an important subject, and to a happy suggestion from Dr. Strange of Worcester—viz., that Dr. Ballard should use his influence with the authorities of the British Medical Association to have a card issued by the Collective Investigation Committee. It is very true, as stated by Dr. Strange, that there are such a large number of points in connection with the matter, that, unless we can induce gentlemen throughout the country to tabulate their experience, no advance of knowledge will be arrived at.

We have no doubt that this suggestion is one which would be entertained, if properly laid before the Investigation Committee. If a large collection of well-observed cases could be obtained from the members of the British Medical Association, and entrusted to Dr. Ballard, he would be able to extract the true measure of importance to be assigned to each cause, and from the whole to build up a solid theory on the etiology of summer diarrhœa. One great reason why some of our debates are not so successful as we could desire, is illustrated by some remarks by Dr. Buck. Dr. Buck said "he had not brought any special facts or figures with him, as he had no idea he should speak on the subject." In all debates which are advertised beforehand, speakers should endeavour to bring facts and figures. We are glad to say that this did not prevent Dr. Buck from contributing some very interesting remarks to the discussion. In his opinion, summer diarrhœa was associated with a specific organism, and occurred in badly drained towns, and low-lying parts of a town. It must then be connected with subsoil waters. The question of subsoil water has not escaped the notice of Dr. Ballard, who is having observations made in three different towns—Leicester, Winchester, and Great Yarmouth.

At this special season of the year, when there may be opportunities of observing cases of diarrhœa, we would urge upon the members of the Association the importance of the inquiry Dr. Ballard has undertaken; and we would ask them to take notes of all such cases. It will be easy, from the foregoing division of causes, to select the points upon which information is wanted. Each practitioner can draw up for himself a tabulated card, which he can fill up and forward to Dr. Ballard. For instance, the milk-supply has been impugned. It would be well then to pay particular attention to the milk, and the feeding of the cows from which it is derived. The general practitioner will be doing good service to the protection of infant life by this sacrifice of a little time and trouble. He will be amply rewarded in the future by being able to read in the JOURNAL the matured conclusions of Dr. Ballard, and by the knowledge that he has contributed a share to the elucidation of a difficult problem.

THE REGISTRATION OF NURSES IN PHILADELPHIA.

THE Directory for Nurses in Philadelphia was formally opened on May 15th, 1882, and has since become widely known, not only in that city, but throughout the State, and indeed the whole country. The co-operation of the oldest two training schools for nurses was secured at the outset, and the medical press encouraged the undertaking from the first. The acknowledged success of the work has been due to the following facts. (1) The Directory is conducted under the management of the College of Physicians, an eminent body of regulars, who undertake nothing that is in any way opposed to true medical science; (2) the great care manifested in obtaining nurses, each applicant being subjected to the most comprehensive questioning; (3) the devotion of the nurses to their work. Taking up more closely the second of these causes, let us see how carefully the rights of the community are guarded against ignorant or unworthy applicants. In the first place, graduates of recognised training schools are registered on presenting their diplomas, without further references. To all others blank forms are given, requiring a statement of the name, age, address, qualifications, kind of nursing preferred, rates of charge, and both family and medical references. References to three physicians must be given, together with the names and addresses of three families in which the applicant has nursed during the past two years. Confidential blank forms are then sent to each of the three physicians referred to, asking for information concerning the applicant's character and qualifications. The

following four questions are asked the physicians. 1. Do you consider her a desirable nurse? 2. Has she seemed to you capable, good-tempered, neat, and mindful of your directions? 3. What are her faults, if any? 4. In what class of cases do you especially recommend her? The confidential blanks to the families where the applicant has nursed are equally searching in their questions. If the replies from the referees are satisfactory, the nurse is registered on the payment of a fee of three dollars. The supervising care exercised by the management does not stop here, however; for, after every engagement, detailed inquiries are sent both to the physician and the family, in order to learn more and more of the nurse's qualifications. The questions asked the physician in charge of the case are these. 1. Is she efficient? 2. Is she tidy and neat? 3. Is she well and strong? 4. Is she faithful to your orders? 5. Is she fitted for cases of severe and critical illness? 6. Is she equal to an emergency? 7. Is she modest in assuming responsibility? 8. Would she have tact and patience with a child or nervous patient? 9. Can she cook satisfactorily? 10. Have you any criticisms to make? The committee reserve the right to drop any name from the register if grave faults or defects be proved against the person.

The Directory also supplies wet-nurses; and applicants for this department are put through a comprehensive course of questioning; in addition to which a physician's certificate as to the health of the nurse and her baby must be given, if desired, by applicants for nurses. Among the questions asked the examining physician are the following. 3. Have you any previous knowledge of her health or her habits? If so, state it briefly. 4. Have you made a careful physical examination of her and her baby within a week? 5. Has she plenty of milk in both breasts? 6. Is it of good quality? 7. Are there any evidences of consumption? 8. Any of scrofula? 9. Any of syphilis? 10. Is her health in all respects such as would fit her for wet-nursing? 11. Is her baby healthy?

It is thus evident that nothing is left undone to secure and to retain the best nurses.

The managers, recognising the fact that the value of such a Directory depends chiefly upon the accuracy and the promptness of its information, have established the following rules. "Every engagement, whether obtained privately or through the Directory, must be reported by the nurse to the secretary immediately after it is made. Again, immediately after it is terminated, the secretary must be notified of the fact, in order to keep the register accurate as to who is engaged and who is disengaged. No nurse will be marked 'disengaged' until such notice shall have been received. Repeated failure to notify the secretary as to these points will be sufficient cause for dropping the nurse's name from the register." Cards containing suggestions concerning the treatment of nurses are given to the families where such nurses may be desired; and the interests of nurses are looked after quite as keenly as are those of patients.

The first annual report of the Committee on the Directory contains the following statistics. Number of applications (to December 1st) for registration, 296; fully registered, 213; approved, and awaiting registration, 17; disapproved, 19; stricken from the roll for grave faults or defects, 2. Of registered nurses, there are 26 males, and 187 females; 35 graduates of training schools; 165 non-graduates; manipulators, male and female, 11; cuppers and leechers, 3. The number of calls for nurses, 342 (during seven months—an average, approximately, of 50 a month). The trained nurses are constantly in demand, and many more are needed. Boston, with half the population of Philadelphia, has 485—double the number of nurses in the latter city.

The Directory is not only for those who want the highest priced nurses; the wants of all are provided for. Many of the nurses charge only from five dollars to eight dollars per week. The rates are fixed by the nurses themselves. All that the Directory does in this regard is to register these rates, and to see that nurses do not charge beyond the stipulated sum.

Perhaps the most important result achieved through the Directory is the promptness with which calls to grave emergencies are met. Cases of accident, sudden illness, insanity, small-pox, etc., often brook no delay; and yet, under the old system, they were the very ones in which it was most difficult to procure good nurses, and especially with promptness. These cases may now usually be supplied within two or three hours. A large number of the nurses are registered for contagious diseases and insanity. The report instances two cases, illustrating the advantages of the Directory over the previous unsatisfactory methods of obtaining nurses. "At 7.20 P.M., a gentleman from Wilmington, Delaware (an hour's ride from Philadelphia by railway), came to the office to obtain a nurse for his wife, who was urgently sick after confinement. His return train left at 8.30 P.M. A *coupé* was rung for, and was at the door by the time the Secretary had made out a list of three or four disengaged nurses. By 8.15 he was at the station with a most experienced nurse, who had a ten weeks' engagement as a result. The same evening, at 10 P.M., a gentleman telephoned for a male nurse, immediately, for a sudden emergency. The telegraph and messenger service were at once invoked, and by 11 o'clock the nurse was on his doorstep, and stayed with him for three weeks." The Directory is open all hours of the day and night.

The College of Physicians are assisted by a committee of four ladies, two representing the training schools of the Woman's Hospital and the Philadelphia Lying-in Charity, and two not connected with either.

So useful have the Boston and Philadelphia Directories proved, that Toronto, Washington, Cincinnati, and San Francisco, will soon establish similar organisations.

THE rate of mortality for the past month at Tunbridge Wells has been 12.25. There has been no death from zymotic causes.

THE sixteenth annual meeting of the Canada Medical Association will be held in Kingston on September 5th, 6th, and 7th, under the presidency of Dr. Mullin of Hamilton.

DR. THOMAS DWIGHT has succeeded Dr. Oliver Wendell Holmes as Professor of Anatomy in Harvard University. He is well known as an original worker and author in anatomy.

WE are pleased to hear that Surgeon-Major Boileau, M.D., has quite recovered from his recent severe attack of small-pox, and is now rendering efficient help in connection with the outbreak of cholera in the Royal Artillery station at Allahabad.

AT a recent meeting of the Academy of Sciences, in Paris, M. Crechel drew attention to the practice of adulterating milk with glucose, which does not alter its specific gravity, but gives it a sweet pleasant flavour.

DR. WATERS of Liverpool, the President of the Association, has sent to the British Medical Benevolent Fund the sum of £20, being the amount collected after the sermon preached by the Bishop of Liverpool on the first day of the annual meeting of the Association.

IN view of the needs of the Johns Hopkins Medical School and Hospital shortly to be opened, the trustees have commenced the organisation of a Faculty, and have selected Professor Remsen for the Chair of Chemistry, Professor Martin for that of Biology, and Dr. Billings for that of Hygiene.

THE vacant assistant-secretaryship at the Local Government Board has been conferred upon Mr. Alfred Douglas Adrian, B.A., barrister-at-law, who was lately appointed Inspector of Local Loans in the room of Mr. C. N. Dalton. Mr. Adrian has passed through every grade in the office, from a junior clerk upwards, and has shown himself thoroughly competent in each. His appointment is probably the best that could have been made.

MEDICINE AND THE PARCELS POST.

THE Postmaster-General has, we are glad to be informed, in virtue of the representations made by our correspondents and others, so far relaxed the regulations affecting rural postmen, as to permit light packets of medicine being conveyed by carriers in the country, provided that this does not interfere in any way with the due performance of the mail-service, in which case, or in the event of the privilege being abused, it will be at once withdrawn.

ZYMOTICS IN BIRMINGHAM.

DURING the past week, the abatement which had manifested itself in the prevalence of the serious epidemic of small-pox in Birmingham has not been maintained. Many new cases have been reported, and the hospital accommodation for isolation is strained to the utmost. The epidemic of scarlet fever is still unabated, but there is plenty of room at the borough hospital for patients suffering from that disease.

SOCIETY OF APOTHECARIES.

AT a recent examination for the prizes in materia medica and pharmaceutical chemistry, the successful candidates were: 1st, Arthur Pearson Luff, student of St. Mary's Hospital, a gold medal; 2nd, Augustus Frederick Dimmock, student of King's College, London, a silver medal and a book. The examination in arts, for registration of medical students, will take place on Thursday, Friday, and Saturday, the 13th, 14th, and 15th of September.

CONTAGIOUS DISEASES ACTS.

A PARLIAMENTARY paper was issued on Saturday containing a memorial recently sent to the First Lord of the Treasury by the Association for Promoting the Extension of the Contagious Diseases Acts, together with the reply to it, from Lord Hartington, dated August 7th, 1883, which says that "in view of the decisive majority by which the resolution of the House of Commons, condemning compulsory examination, was carried, Her Majesty's Government are not prepared to submit to the House estimates for the purpose of giving effect to those clauses of the Contagious Diseases Acts."

NEPHRECTOMY AT THE QUEEN'S HOSPITAL, BIRMINGHAM.

ON Saturday, August 11th, Mr. Bennett May excised the right kidney of a female patient, aged 24. The organ, which was the seat of tubercular disease, and weighed nearly a pound, was removed by lumbar incision. No urine was secreted after the operation, but, with this important exception, there was little indication of local or constitutional disturbance till the patient's death, which occurred suddenly five days afterwards. The necropsy showed, as the suppression of urine indicated too surely, that the other kidney was also disorganised by similar disease.

THE COMTE DE CHAMBORD.

WE are informed by a correspondent from Vienna that the necropsy of the Comte de Chambord, performed by Drs. Vulpian, Drasche, Mayer, and Kundrat, disclosed the existence of extensive carcinoma of the œsophageal end of the stomach, with stricture of the œsophageal entrance and atrophy of the coats of the stomach. There was also evidence of old-standing Bright's disease of the kidneys, and extensive degeneration of the coats of the arteries, which commonly accompanies that disease, and which has been especially described by Sir William Gull and Dr. Sutton. The story which has been in circulation, with respect to Dr. Vulpian having framed the cheque for his fee as a memento of his employment in the case is, we are informed on the best authority, without foundation.

DANGER OF GLAZED EARTHENWARE VESSELS.

M. PÉRUSSON, a chemist at Limoges, furnishes fresh evidence of the danger of using glazed earthenware vessels, inasmuch as the glaze frequently contains lead oxide, which becomes soluble in the presence of acids. M. Pérusson cites the following instance. One hundred grammes of milk was left to ferment in a glazed receptacle, and twenty-two centigrammes of lead sulphate was removed from it. When the glaze becomes rugged, the interstices are filled with metallic and fermenting substances; thus the danger is increased. Such utensils should either not be used, or else submitted to the influence of the direct contact of flame, or, in other words, singed. This is the only method to render them harmless.

LIFT "ACCIDENTS."

A FORTNIGHT ago, two clearly preventable calamities, by which fourteen men lost their lives, were reported. In one case, at the Wheal Agar mine, Redruth, a wire rope used for raising a cage in a shaft suddenly snapped asunder, and the cage, containing twelve men, fell to the bottom of the shaft, and all the men were killed. In the other instance, a rope suspending the cage of a warehouse-lift in Chiswell Street, London, broke, and two men were killed by the falling cage. Such accidents ought never to occur. They might easily and cheaply be prevented by the attachment of suitable clips to the cages of lifts, such clips coming into operation when the suspending rope of a cage breaks, and immediately fixing and sustaining the cage at whatever point it may happen to have reached. Several such clips are in use, and answer their purpose admirably. It is high time that their universal employment wherever lifts are used was rendered compulsory.

AN ITALIAN HOSPITAL IN LONDON.

HIS Excellency Count Nigra, the Italian Ambassador, recently presided at the Italian Embassy at a numerous meeting of members of the Italian colony, which had assembled to discuss the project of the foundation of an Italian Hospital in London. Up to the present, all Italian subjects were treated in the French Hospital, the Italian Government and members of the Italian colony subscribing annual donations to that institution. But the Chevalier Ortelli having munificently offered a freehold house in London for the purpose of a hospital, and the Chevalier Sperati having deposited at the Italian Consulate the sum of 80,000 francs to meet the expenses necessary for opening the hospital, the proposal was made to open it as soon as possible. Count Nigra read a considerable number of letters from influential members of the colony promising annual subscriptions, and proposed the nomination of a commission to draw out the statistics and prepare the means for insuring a sufficient sum for the working of the hospital. A vote of thanks was proposed to the Chevalier Ortelli and the Chevalier Sperati for the munificent donations made, which placed the Italian colony in the position of at once realising a long-cherished hope.

CHOLERA IN INDIA.

THE deaths from cholera in the Khandesh district during the week ended on July 24th, reached the total of 1,116. In other districts for the same week deaths from cholera are reported as follows: Ahmednuggur, 663; Sholapur, 352; Poona, 215; Nasik and Thana, each 99; and Satara, 64, In addition to smaller totals in several other places. For the seven districts mentioned, the cholera-mortality for this single week totals 2,598. The week before there were 1,854

deaths in six districts, for which alone figures were given in the official reports, and the week before that 2,133. In the Ahmednuggur district alone during the seven weeks since the commencement of the epidemic to date, 4,179 people have succumbed to the disease, the weekly rate being as follows: For the week ended on June 12th, 102; week ended June 19th, 468; week ended June 26th, 633; week ended July 3rd, 817; week ended July 10th, 873; week ended July 17th, 623; week ended July 24th, 663. Evidently some serious attempts at improved sanitation and corrective measures are necessary in the Deccan districts, even more than in Bombay city. The very primitive and defective sanitary arrangements of native villages—generally of the character with which every visitor to the outskirts, say of Coorla, near the Bombay Volunteers' rifle range, is only too well acquainted—is probably in a great measure responsible for the firm hold which cholera-epidemics take of the rural population in India.

THE CONSTABLE SHOT AT WIMBLEDON.

THE police-constable, Boans, who was recently shot by a burglar at Wimbledon, was found, on his admission to St. George's Hospital, to have received a bullet-wound in the right thigh, the ball entering on the inner side of the thigh, about the centre, passing through the muscles, and lodging just beneath the skin on the outer side of the limb, where it could be easily felt, almost opposite the wound of entrance. It must have passed in close proximity to the femoral artery. The bullet was removed shortly after his admission to the hospital, and the wound dressed antiseptically. There was a bullet-wound also on the middle finger of the left hand, and an incised wound on the little finger of the same hand, caused by a knife, with which the burglar was also armed. These are being dressed with a simple lotion. The wounded man on Wednesday had a temperature of 100°, and seemed considerably shocked; he, however, has since been easier; his temperature is 99.4°.

TEMPERANCE AND HEALTH.

WE have before us the report of the Blue Ribbon Gospel Temperance Mission, which was presented at the annual meeting of its supporters at Exeter Hall in May last. It gives a complete summary of the work which has been carried on by the Blue Ribbon crusade, since its establishment by Mr. W. Noble in February 1878. The secretary read a report at the meeting, which set out the course which has been followed, and the success which has attended it. There is a medical aspect about the aggressive work in which the promotors say they are engaged; the object being to bring home to Christian people a more decided sense of their responsibility in regard to the removal of the drink-hindrance to the progress of healthy religious feeling. It appears that, since the establishment of the Mission, nearly 700,000 pledges have been taken, and the number of relapses has been from 10 to 15 per cent. We should like to see added to the report a census of the number of visits paid by the medical men to the abstainers since they took the pledge, compared with those paid in a corresponding period before they became total abstainers. As the addresses of the members are preserved, and a large number of them are well-to-do members of society, there would not be much difficulty in getting an approximate return upon this point, which would have a medical interest in both directions. We should learn, not accurately, it is true, but approximately, how much the Blue Ribbon Mission is assisting to improve the general health of the people.

POLITICAL INFLUENCE OF THE MEDICAL PROFESSION.

DR. BALTHAZAR FOSTER, in a very interesting letter to the *Times*, dwells with much force upon the insufficient representation of the medical profession in Parliament, and especially the absence of any official representatives of the medical profession in the House of Lords. The more this question is discussed, and the more publicly the want indicated is expressed and enforced, the sooner we may hope for increase in the political power to which the medical profession is undoubtedly entitled; on the other hand, in the case of the Medical Act Amendment Bill, to which Dr. Foster refers, and which forms the leading theme of his letter, the failure of the Bill was due, not to absence of political power of the medical profession, but, on the contrary, to the excessive political influence exercised by the medical corporations. It was the representatives of the Irish and Scotch corporations, who, at the last moment, availed themselves of the pressure of time to interpose effectual obstacles to the will of the Government and to Parliament itself, and prevented the final consideration of the Bill this year. Medical influence, and medical influence alone, in Parliament, caused the miscarriage of this Bill. It is to be regretted that so much disunion exists in the profession, even on the subject of medical administration; but it certainly was to a rather excessive use of political influence on the part of persons representing the medical profession that the miscarriage of the Bill was due. Next year will, we have good reason to hope, see that matter set right.

COPPER AS AN ANTIDOTE TO CHOLERA.

AT a recent meeting of the Académie des Sciences, M. Bouley drew attention to M. Burq's assertion that those persons whose organism is thoroughly submitted to the influence of copper, are as inaccessible to the attacks of cholera as those vaccinated are to small-pox. The following methods, according to M. Burq, are all equally efficacious, the habit of wearing copper bracelets, or bands which encircle the waist, or materials which have been steeped in copper solution, or the administration of black oxide of copper in the form of pills. At a recent meeting of the Academy of Medicine, M. Bailly furnished personal evidence which invalidated M. Burq's statement concerning the therapeutic value of copper in treating cholera. M. Bailly practises at Chambly, very near manufacturies where spoons and forks are made with a copper alloy known as *alféniде*. All hands employed exhibit symptoms of the influence of copper; nevertheless, the ravages made in 1866 by an epidemic of cholera are subversive of M. Burq's hypothesis. During an epidemic of typhoid fever, fifty-six people were attacked; of these, twenty-six were impregnated with copper. Four of the twenty-six died; no other deaths were recorded. M. Bailly mentioned a fatal case of "charbon," consequent on a fly-sting; also deaths from diphtheria. All the sufferers exhibited symptoms of copper-impregnation. Summer diarrhœa, also choleraic diarrhœa, attack those among the workpeople who are thoroughly impregnated.

THE MORTALITY IN INDIAN GAOLS.

WHEN Sir Ashley Eden, then Lieutenant-Governor of Bengal, was busy, some years ago, in carrying out, with a high hand, certain reforms, or so-called reforms, in hospital and prison administration, we more than once commented on the probable outcome of too hard-and-fast rules in hospital and prison diet, and expressed our opinion that, if to the other depressing effects of prison-life that of an insufficient diet were added, the result would be, as it invariably has been elsewhere, a marked increase in the death-rate. In this country, as is well known, the population of our prisons is about the most healthy in the three kingdoms. Should cholera invade us, we venture to predict that the safest place of refuge will be one of Her Majesty's gaols. The daily average of sick during the year 1882, according to the published official report, was 5.35, "the highest since 1866;" and the mortality was 6.81 per cent., "the highest since 1879." Our readers are aware that the large mortality in Indian gaols, and the excessive amount of corporal punishment, have excited unfavourable comment in the House of Commons. The result, as we gather from the *Statesman*, a leading Indian journal, has been some increase in the food of the prisoners, a more sparing use of the rattan, and the

exaction of work more in accordance with the strength and capabilities of those under prison discipline than was the custom before the matter was under discussion in Parliament. Our readers will agree with us that some reform in the above directions was called for, when we state, from trustworthy evidence supplied to us, that in one Bengal gaol the average cost of dieting a prisoner was 14 rupees a year; which, reckoning the rupee at 1s. 9d. of our money, is about three farthings a day. In this particular prison, the medical officer complains that he had the greatest difficulty in obtaining the food he thought necessary for the use of the sick in hospital. The prison-superintendent in this particular gaol, it is believed, owed his promotion to the success with which he carried out this three-farthing-a-day policy. The miserable prisoners in some of the Indian prisons, if they only knew it, would thank their gods that there is a House of Commons.

HONOURS TO SANITARIANS.

THAT the veteran Chief of the Engineering Department of the Local Government Board should have had to wait until he has arrived at the age of seventy-three before receiving the honours fairly earned, by general consent, nearly a generation ago, is a significant commentary on the estimation in which Governments hold sanitary services. Despite Lord Beaconsfield's famous parody on the words of the wise king, public hygiene seems to be looked upon by the Government much in the light that it is still regarded by a considerable section of society, as something shocking and indelicate, to be mentioned with bated breath, and to be kept out of sight as much as possible. Edward Chadwick, the administrator; John Simon, the medical man; Robert Rawlinson, the engineer, have each, by their work and writings, been the means of an incalculable saving of life and health. Yet, while we reward with peerages and pensions those whose business it is to destroy life, we think the services of these men sufficiently recompensed by a Companionship of the Bath. If it be answered that Sir Robert Rawlinson has now received the accolade, the retort is easy, that the honour comes too late to be accepted as more than a grudging acknowledgment of his sanitary services, since he received his first decoration for his work in the cotton-famine. The multiplication of orders, after the fashion of our lively neighbours across the Channel, is not a thing to be lightly recommended; but we are bound to say that a more liberal recognition by the State of the splendid services which have been rendered to it by many sanitarians, whose work has hitherto been its own reward, would meet with very general and cordial assent.

A FEVER HOSPITAL FOR BOLTON.

A NEW hospital which has been especially constructed for the treatment of cases of infectious or contagious disease has been opened at Bolton. The local sanitary authorities have powers under an improvement Act to compel all resident medical practitioners to notify them of any case of infectious disease they are called on to attend, and the hospital which has just been erected is expected to prove a powerful auxiliary in preventing the spread of disease. The hospital is a model of its class, and the latest improvements have been embodied in its formation. Four distinct blocks of buildings, connected by concrete paths, stand in the centre of a well-laid out plot of ground on the outskirts of the town. The administrative block is that set apart for the persons in charge, and where the food for patients is prepared; there are two pavilions, each consisting of a male and female ward, and in another building the mortuary and disinfecting stove are situated. Flowers grow in front of every window. The ventilation is very complete, all fresh air entering the building being first taken through worsted fibres, then passed over hot water-pipes in the floor, and it finally rises through ventilators under each bed and zinc tubes fixed in the walls. Gas-burners are fixed in the ceiling to give force to the current of foul air leaving the wards. Each patient has 2,300 cubic feet of space, and every window is made to open. The buildings have cost nearly £5,000, and the furnishing £600 in addition. No disease of any moment at present exists at Bolton.

CHILD-ACROBATS.

THE police-courts have lately made public several instances of revolting cruelty suffered by little children in the course of their training for performance as acrobats. It appears that, in the present stage of our civilisation, the supply of acrobats is a steady public demand, and that many British children of very tender years are regularly devoted to the acrobatic business, to be systematically trained, while their limbs and joints are yielding, by a long process of painful exercises enforced by punishment and privation, for the gratification of a debased public taste by their performances as "human serpents," tumblers, and contortionists. Mr. Charles Mylne Barker, who acted as honorary solicitor in the proceedings taken some time ago by Mr. Littler, Q.C., and his friends, regarding a number of young English children found living in slavery, or *quasi*-slavery, at Constantinople, writes to the *Times* to express his disappointment that a short Act of Parliament has not been passed during the recent session, making it illegal for any infant child of twelve years of age or under to be apprenticed to any trade or business without the consent of a magistrate. Mr. Barker states that, with the assistance of the authorities of the Criminal Investigation Department, he had made several inquiries as to the manner in which infant children being trained as acrobats were treated when out of the jurisdiction of English courts; and it was found that, in many instances, the treatment was harsh in the extreme, especially when the children did not take kindly to their calling; and it was believed that a child was actually killed in Spain, its back having been broken by the cruel treatment to which it was subjected. Mr. Barker thinks that some philanthropic member of Parliament, at a time when so much public sympathy is expended on the sufferings of pigeons, might have carried through a short Bill such as he has indicated.

HOWLING DOGS.

MANY wearied and wakeful persons find in the howling of dogs by night a persistent, widespread, and most annoying form of irritation. The owners of dogs given to spend the hours of darkness in assiduous howling, appear generally to regard with a serene personal imperturbability the noisy nuisance which makes night hideous for their neighbours. Nevertheless, those who keep dogs, especially those who do so in populous places, ought to feel bound to take the simple precautions which alone are necessary to prevent a troublesome form of vexation, which is really a serious source of inconvenience and loss of rest, and possibly of loss of health, to very many people. To the honest bark of a watch-dog giving warning tongue upon suitable occasion no one would object, but the purposeless and unending howling of the chained curs which are especially prevalent in the suburbs of towns is simply intolerable. It is not necessary to exterminate dogs to put an end to the annoyance in question. The nuisance is perfectly preventable by the adoption of a few simple and sensible measures which, so far from injuring the offending animals, tend to give them length of days by conducing to their contentment. Those who have had experience in keeping dogs know that these animals will not howl at night if they be comfortable. If dogs, instead of being cruelly chained up out of doors, in kennels which are often draughty and damp, be allowed to have their liberty by day, and to lie within the house at night, they will generally sleep through the night in perfect quietness. Or, if it be necessary to keep a dog chained by day, he ought to be left loose at night, when it will be found that he will retire quietly to his kennel, and abstain from howling, especially if he be furnished with some fresh hay on a clean mat for a bed. In

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warm weather, dogs often howl simply because they want water. Many dogs howl at night because they are kept constantly chained both by night and by day. This is a common and most reprehensible form of cruelty; dogs so treated are sure to be restless and irritable, and can scarcely be healthy.

TURKISH PRECAUTIONS AGAINST CHOLERA.

IT is stated that Consul-General Fawcett has forwarded to the British Foreign Office, from Constantinople, a long report on the history, constitution, and working of the Turkish Council of Health, in which he points out that this Council is an Ottoman institution created by the will of the Sultan in opposition to the views and wishes of Her Majesty's Government; that no organic law has ever been promulgated defining its constitution and attributes; and that the foreign delegates who form part of it were attached to it by foreign Governments at the request of the Porte, and in order to enable the Board to work harmoniously with the capitulations. The majority of the Board, notwithstanding treaty engagements and the stipulation of the International Conference of Paris, are impressed with the idea that the "Conseil Superieur de Santé" is a mixed Sanitary Board, and has the right of assuming judicial authority and giving judgment on all matters regarding the Health Department. This, although acted upon, seems a dangerous concession to make, and places our shipping in Ottoman waters at the mercy of a body with no legal education or knowledge of law. Some members of the Board are indifferent, and others hostile, to British commercial interests. The Consul-General adds that, should Her Majesty's Government be inclined to make use of the present opportunity for the purpose, in some measure, of limiting the aspirations of the Sanitary Board, and confining their powers within the limits of an organic statute or a revised one (if it be contended that one exists), it might be well to point out that, since 1879, and in spite of the protests of the British delegate, no balance-sheet has been published, although it is distinctly laid down that such should be published yearly. It might be well also to recall the words of Lord Palmerston and Count Metternich, that it is preposterous for the Sublime Porte to insist so stringently on quarantine, while their own seaboard cities, and even their capital, are in a state of indescribable filth and decay.

PROPAGATION OF DISEASE BY NEW CLOTHES.

AT the present time, when zymotic diseases are epidemic in many communities in the kingdom, it is especially important that sanitary authorities should recognise, remember, and effectually deal with, all possible sources and channels from and by which infection may be conveyed from the sick to the healthy. It is well known that the specific contagions of most of the zymotic diseases prevalent in this country readily become attached to textile fabrics; that, in such relationship, they long retain their activity; and that clothes, for these reasons, are especially apt to form the media by which infectious diseases are spread. It is necessary to warn the public that clothes which are quite new are especially liable, under certain circumstances, which we are afraid are comparatively common and frequent, to be impregnated with the specific germs of zymotic disorders. It is a trade custom, which is especially in vogue in large towns, amongst tailors, dressmakers, and others who make clothes, to employ largely the services of out-door assistants. Under this system, materials are "given out" at shops to outworkers, who take the fabrics home, and there make them up into garments, which are finished, carried to the shop, and distributed to the customers. Such outworkers are usually poor persons, and they often live amid surroundings which practically make zymotic disease a perpetual circumstance of their existence. It can be no marvel that these poor assistants of tailors and dressmakers, with the payment of their toil often cut down to the lowest limit, and driven by the stress of poverty to work even when ill, sometimes infect or allow to be infected, through ignorance or recklessness, the materials on which they work. Scarlet fever and small-pox are the zymotic diseases which are especially apt to be spread under the conditions in question. This is so for the two following reasons: the subjects of scarlet fever and small-pox are very commonly able to do comparatively light work, such as needlework, especially in their own homes, and even upon their beds, during a considerable portion of the infectious stages of their illness; and the emanations from the subjects of scarlet fever and small-pox, which are conspicuously, if not solely, contagious, namely, the desquamated epidermis in the case of scarlet fever, and the desiccated crusts in the case of small-pox, are *materies morbi* which, relatively to the contagia of other zymotics, are very substantial, and especially liable to be caught and kept in the meshes of textile fabrics. That the source of public danger through new clothes, to which we draw attention, is very real and very widespread, those who have had practical experience in zymotic disorders amongst the poor can bear abundant testimony. The evil is one which, we are afraid, it will prove difficult completely to control. Much, however, might probably be done to minimise the public peril in question, if sanitary authorities duly recognised the part which the outworkers of tailors and dressmakers play in the propagation of zymotic diseases, and vigorously dealt with the difficulty on obvious prophylactic principles. In places where zymotic maladies are prevalent, and especially where scarlet fever or small-pox is epidemic, local health-committees should require the proprietors of tailoring and dressmaking establishments to supply lists of their outworkers' names and addresses; these known, the homes of such outworkers ought to be regularly visited and reported upon by representatives of the sanitary authority.

RETREATS FOR DIPSOMANIACS.

THE third report of the Inspector of Retreats, Dr. Hoffman, under the Habitual Drunkards' Act of 1879, which has just been published as a Parliamentary paper, deals with the two licensed retreats of Cannock and Westgate-on-Sea, and refers to the retreat near Rickmansworth, called the Dalrymple Home, which has recently been licensed for the reception of sixteen male patients. Dr. Hoffman, during many visits paid to these retreats during 1882, investigated all matters brought to his notice both by the patients and licensees; and, though the complaints by the former were found to be few in number and of a trivial character, it was not so with those emanating from the licensees, some of which were of so serious a character that it became necessary to warn the delinquents of the unpleasant consequences which would follow a repetition of the offence. The general conduct of these two retreats, both of which are licensed for ten patients, and also the health of the patients, had been on the whole very good, and the results of treatment pronounced to be on the whole satisfactory. From the detailed report furnished, Dr. Hoffman found that, in one case, three out of the five patients admitted during the year had received decided benefit, and in the other case, nine out of twenty were spoken of as "certain or probable cures." At the Westgate Retreat there were, at the end of 1881, four patients remaining: twenty were admitted during 1882, and fourteen were discharged within the same period, leaving ten remaining at the end of the year. In the case of the Cannock Retreat, the number admitted was far more limited. There were no patients in this retreat at the end of 1881, and only five were admitted during 1882, of whom one was discharged, leaving four at the end of the year. Both licensees agreed that a shorter period than twelve month's detention in a retreat is insufficient for permanent cure, in the majority of cases. Dr. Hoffman quotes the opinion of one of the licensees, as to the successful operation of the Habitual Drunkards' Act. He spoke of the manifest advantages that existed in a licensed retreat for the successful treatment and control of dipsomaniacs; and, having had experience in the management of an establishment

for a similar purpose, prior to the passing of the Act, expressed his opinion that it was scarcely possible to conduct a retreat for dipsomaniac patients, in a satisfactory manner, without the aid afforded by the Act. Attention is called to the fact that the St. Albans magistrates have licensed, under the Act, a house and four and a half acres of ground, called "The Cedars," near Rickmansworth, for the reception of sixteen male patients. This establishment has been started under the auspices and patronage of the Archbishop of Canterbury, the Duke of Westminster, the Lord Mayor, Lord Shaftesbury, Sir Henry Thompson, Dr. A. Clark, Dr. B. W. Richardson, Canon Duckworth, Dr. Alfred Carpenter, Dr. Norman Kerr, and many other eminent persons in the philanthropic and scientific world. This retreat, which is to be called "The Dalrymple Home for the Treatment of Inebriates," is intended for the use of persons of moderate means. Dr. Hoffman believes it to be a well-directed effort to give the provisions of the Act a fair trial, under principles mentioned in his last report, and under circumstances which seem to promise success. He anticipates that much experience of the working of the Act will be gained by this movement.

PASTEUR'S PRECAUTIONS AGAINST THE CHOLERA.

M. PASTEUR has given the following instructions to the members of the mission sent by the French Government to study the present epidemic of cholera. These instructions all relate to the contingency of resisting the maximum amount of causes of contagion, and are framed on the hypothesis that cholera does not enter the animal economy by the respiratory passages, but by the digestive tract only, except in very exceptional cases. They are contained in the *Revue de Hygiène* for August 1883. 1. The drinking-water of the locality where the mission settles to undertake researches should not be used without having been first boiled, and shaken, when cold, for two or three minutes in a phial or bottle, half filled and stoppered. The water of the locality may be used if it be drawn at the source itself in vessels which have been exposed some moments to air heated to about 150 Cent. (302° Fahr.), or, better still, to a higher temperature. Natural mineral waters may be used with advantage. 2. Wine which has been warmed in bottles to from 55° to 60° Cent. (131° to 140° Fahr.), may be drunk in glasses which have been warmed in a similar way. 3. Thoroughly cooked food only should be used, or raw fruit well washed in water which has been boiled, and which has been kept in the same vessels in which it was boiled, or which has been poured from those vessels into other heated vessels. 4. Bread should be cut into thin slices and exposed to a heat of about 150° Cent. for twenty minutes at the utmost after it has been cut in slices. 5. All the vessels employed in the preparation of food should be warmed to a temperature of 150° or more. 6. Bed-clothes and body-linen should be plunged into boiling water and then dried. 7. Water for washing should be brought to boiling point; and, after cooling, one five-hundredth part of thymic acid (a litre, $1\frac{3}{4}$ pint, of alcoholised water to two grammes of acid), should be added, or one-fiftieth (a litre of water to twenty grammes) of carbolic acid. 8. The face and hands should be washed several times daily with water which has been boiled, and to which carbolic acid dissolved in water has been added. 9. In cases only when it would be required to handle the bodies of cholera patients, or sheets or body-linen soiled with their injections, it would be necessary to cover the mouth and the nostrils with a little mask formed of two pieces of fine metallic cloth, containing between their surfaces wadding about the thickness of one centimètre or more. This mask should be warmed to 150°, and the temperature should be renewed on each fresh occasion of peculiar infection.

SUEING FOR A DIPLOMA.

A CASE so unique as to be unparalleled, we believe, is reported by the *Maryland Medical Journal* to have lately been brought before the Superior Court of that city. A young man, a member of the class of 1883 at the College of Physicians and Surgeons of Baltimore, who was among the rejected applicants for the diploma of that medical school at the end of the last session, petitioned the court to issue a writ of *mandamus* upon the Faculty that they should issue to him a diploma, and alleged that its non-issuance had damaged his character to the extent of 2,000 dollars. Through counsel, the Faculty filed a demurrer, which set forth that the Faculty had the right to deny its diploma upon any grounds whenever it saw fit; that it was, so far as that went, the supreme tribunal; and that no court of justice could control such action. After argument before the court, the sitting judge decided in favour of the demurrer. An appeal was taken. Looking at the subject simply from an educational standpoint, and leaving the particular facts in this case aside, the *Maryland Journal* suggests that the fact of a student of any school, college, or university appealing to a court of justice for satisfaction against such school, college, or university, must strike at every element of our educational system. If it be in the power of a medical student to sue out a writ of *mandamus* upon a medical school, no matter if he have attended twenty sessions of that school, and oblige the Faculty, by mandate of court, to give him a diploma, every small free-school scholar, freshman, or third-class man, has the same right; and, by authority of such court, must, whether worthy or not, be sent up higher. In other words, the schoolmaster, school-board, board of examiners (such as we have at our military and naval schools), and the various Faculties of our universities and seats of learning, must consider their action in any case subject to the revision of a tribunal not one whit more capable of deciding the point (and, indeed, we may truly say not at all as competent), and upon which tribunal no larger powers have been conferred by legislative action. The examining body of any institution is, we contend, so far as that individual body is concerned, whether it consists of one schoolmaster or twenty professors, final, and any decision arrived at by such body should not even be discussed by any outside party. The scholar, when he enters any school, is supposed to consider himself as subject to all the rules and decisions of his tutors, and, unless such rules conflict with good morals, personal health, or national polity, has no redress. As well might he appeal from the decision of the Supreme Court of the United States.

SCOTLAND.

BEQUESTS TO MEDICAL CHARITIES.

THE late Miss Morris, of Radermil, St. Andrew's, has bequeathed £3,400 to charitable and philanthropic institutions. Among these, the Edinburgh Royal Infirmary will benefit to the extent of £300, and the Imbecile Institution of Larbert to the extent of £200.

DUNDEE LUNATIC ASYLUM.

IN a previous number of the JOURNAL, it was mentioned that, owing to various untoward circumstances, the Dundee Royal Lunatic Asylum was threatened with financial difficulties, and that the managers were considering the propriety of an appeal to public benevolence. The form of this appeal has now been submitted and approved of; and it is stated that, if subscriptions or donations to the extent of £12,000 be received in response to the appeal to pay off floating debts, the directors believe they would be able to tide over their present difficulties.

HANDSOME DONATION TO EDINBURGH UNIVERSITY.

A SCOTSMAN, who emigrated many years ago to America, and there made himself a name and a substantial fortune, Mr. Andrew Carnegie, has once more shown his warm interest in his native land, by presenting the sum of £1,000 to the Buildings Completion Fund of the University of Edinburgh, accompanying the intimation of his

gift with the expression of some admirable sentiments on the subject of education. Mr. Carnegie previously presented to his native town of Dumfermline a complete establishment of public baths, and more recently a magnificent library, which was opened publicly by Lord Rosebery on Wednesday.

GLASGOW DISTRICT BOARD OF LUNACY.

AT a meeting of the Glasgow District Board of Lunacy held last week, it was pointed out that the Kirklands Asylum (which was previously a private asylum, but was, a few years ago, acquired by the Board) was succeeding well, and that, during the first year, 101 patients were discharged from it, and, in the second year, 128 patients were discharged from it; about one-third of these were recoveries; the remaining two-thirds were not, but were sent to their relatives or boarded out. It was pointed out that only 7 per cent. of the Board's patients were boarded out, whereas, in other districts, as many as 20 per cent. were sometimes boarded out; and the Chairman thought it would be advantageous to increase the number boarded out.

CHAIR OF MEDICAL JURISPRUDENCE IN THE UNIVERSITY OF ABERDEEN.

DR. MATTHEW HAY, assistant to the Professor of Materia Medica in the University of Edinburgh, was, on Tuesday, appointed to the above chair, which was rendered vacant by the resignation of Professor Ogston. The University Court—the electors—are to be congratulated on their choice of a successor to Dr. Ogston; and the University of Aberdeen is fortunate in having its chair filled by one so able, energetic, and accomplished, as Dr. Hay. Dr. Hay's scientific work stamps him as a man who will adorn the chair, and who will add a most efficient element to the already strong teaching staff of this medical school. The Court also has done well in securing the best man, quite irrespectively of local prejudices and local influence. We ventured to advocate the claims of Dr. Hay when the appointment was first mentioned, and we congratulate the University of Aberdeen on securing a worthy successor to Dr. Ogston, who for half a century has been one of the most successful teachers of medical jurisprudence in this country. Dr. Hay submitted to the Court, in support of his candidature, testimonials from Professors Fraser, Douglas Maclagan, Rutherford, Crum-Brown, Turner, Ewart, Greenfield, Simpson, Dickson, Grainger Stewart, and Chiene, of Edinburgh University; Professors Gairdner, McKendrick, Cleland, and Ferguson, of Glasgow University, and Emeritus Professor Allen Thomson, of the same; also from Drs. Lauder Brunton, Stevenson, Ferrier, F. T. Roberts, and Sydney Ringer, and Messrs. Lister and Thomas Bond, of London, Drs. Affleck and Thomas Keith of Edinburgh, from Dr. Humphry of Cambridge, Professor H. C. Wood of Philadelphia, and from the Continent from Drs. Schmiedeberg, A. Vulpian, Oscar Liebreich, M. F. Rossbach, C. Binz, Erich Harnack, and Hans Meyer; also testimonials largely signed by present and past colleagues of Dr. Hay's assistants in the University, and another from pupils who have studied with him in the University. Dr. Hay's candidature was thus a strong one, not only by reason of these testimonials, but by the acknowledged position he has taken as an original investigator and accomplished teacher; and the University of Aberdeen is to be congratulated on having added to its already powerful teaching staff a Professor who combines in himself enthusiasm for his work, a comprehensive grasp of his subject, acknowledged ability as a teacher, and youth. His career as a student was marked by those events which culminated in his graduating as Ettles Scholar, since which time he has gained the Goodsir Prize, and more recently the valuable Sanitary Research Scholarship recently founded by the Grocers' Company of London.

EXTRAORDINARY FEAT.

AN extraordinary incident, in which an athlete showed great presence of mind and unusual muscular strength, happened at Cranachan Farm, near Dundee, the other day, and is reported in the *Dundee Advertiser*. Mr. Archibald Macdonald, one of five brothers who occupy the farm, was going over his land accompanied by the shepherd, and, when they were passing through a field in which cattle were grazing, a bull gave them chase. The shepherd ran, and left his master to his fate. Mr. Macdonald could not run, he having suffered much from rheumatism, and being now obliged to use crutches. The bull approached, and began to attack him, he doing his best to keep him at bay with the aid of his crutches. As good luck would have it, Mr. John Macdonald, an elder brother, hearing cries, ran to the rescue. In his hurry, he forgot to bring any instrument with him with which to fell the brute; but it occurred to him that if he caught the bull by the horns, he might keep him from doing more mischief till help arrived. Seizing the enraged animal by the horns, and using them as levers, with one supreme effort he gave a sudden twist to the head, dislocating the neck by his jerk, and, in a moment, the bull fell helpless at his feet. Mr. John Macdonald was, at one time, champion athlete of Scotland.

HEALTH OF THE PRINCIPAL SCOTTISH TOWNS.

THERE were registered during the month of July in eight principal Scottish towns the deaths of 1,055 males, and 1,124 females, the total number, 2,179, is 166 under the average for the same month during the preceding ten years, due allowance being made for proportionate increase of population. The respective mortality of each town was, per 1,000 of its population, in Perth, 13; in Aberdeen, 14; in Edinburgh, 17; in Leith, 18; in Dundee, 20; in Paisley, 22; in Greenock, 25; and in Glasgow, 25. Forty-one per cent. of the deaths were of children under five years of age, and the respective percentages were, in Perth, 24; in Edinburgh, 31; in Aberdeen, 33; in Dundee, 34; in Paisley, 39; in Glasgow, 45; in Leith, 49; and in Greenock no less than 56 per cent. Zymotic diseases contributed 17.7 per cent. of the entire mortality, or 386 deaths; in Glasgow, Greenock, and Paisley, the percentage was higher. Of 22 deaths due to fever, 8 were registered as due to typhus, 13 to enteric, and 1 to simple continued fever, six of the deaths from typhus occurred in Glasgow. Whooping-cough as usual was most fatal in Glasgow and Dundee, 5.3; and in Greenock 6.4 per cent. of all the deaths resulted from it. Measles caused 92 deaths; diarrhœa, 82; scarlet fever, 34; croup, 19; diphtheria, 18; dysentery, 4; British cholera, 1; and metria 1 death. Apoplexy caused 43 deaths; paralysis, 59; cardiac diseases, 136; hydrocephalus, 54; and premature birth debility 63 deaths. Phthisis pulmonalis caused 298 deaths, or 13.7 per cent. of the entire mortality, while inflammatory affections of the respiratory organs (other than those already referred to) caused 398 deaths, or 18.3 per cent. of the whole. Of 88 deaths from violent causes, 7 were of suicidal origin. Eleven deaths were considered due directly to intemperance in alcoholics. Three males and five females were over 90 years of age at their deaths, the oldest of whom, a farmer, was 98 years of age. During July there were registered in these eight Scottish towns the births of 1,944 male and 1,791 female children. As to the meteorological conditions, the month of July was characterised by low and much disturbed barometric pressure with a consequent low mean temperature, large humidity, large rainfall, and large number of days in falling. The details are, that the mean barometric pressure was less by 0.124 inch, and its monthly range greater by 0.145 inch; the mean temperature was less by 1.5°, and its mean daily range greater by 0.9°; the mean humidity greater by 1; the rain, in number of days of fall, greater by 3, and in depth greater by 0.99 inch; and the wind-pressure less by 0.36 pounds than the averages for the same month during the preceding twenty-six years.

IRELAND.

DR. FRANCIS J. FALVEY has been appointed by his Excellency the Lord Lieutenant of Ireland, physician and surgeon to the County Kerry Prison, in succession to Dr. W. H. Lawlor, resigned.

CORK OPHTHALMIC AND AURAL HOSPITAL.

THE Alpine Fancy Fair recently held for the purpose of removing a debt of some £300, incurred in adding two new wards to the hospital, has been most successful. After paying all expenses, a sum of £320 has been obtained, and the committee of stallholders intend, towards the end of the November, to hold a supplementary sale of work of the goods remaining unsold.

HEALTH OF CORK.

DURING the four weeks ending August 11th, the deaths registered amounted to 102, including 13 in the workhouse, and, therefore, outside the borough; while 158 births took place. The annual death-rate per 1,000 inhabitants give a total ratio of mortality of 16.0; but deducting those who died in the workhouse, the urban death-rate will then stand at 14.0; from infectious diseases, 0.06; an infant-mortality of 1.0; and a birth-rate of 25.0. This return compares favourably with the corresponding period for last year, more particularly as regards the item of infectious diseases, which was an unusually small one.

THE VICE-REGAL VISIT TO CORK.

HIS Excellency, Earl Spencer, while in Cork last week, devoted one day to visiting public institutions, and, among the rest, drove to the Queen's College, where he was received by the President. The Viceroy and Countess Spencer having signed the register, they were shown the plans of the new College Hall, and the ground purchased by Mr. Crawford, on which he intends building residences for the professors at a cost of £25,000, provided the Government gives an undertaking that the College will remain undenominational, or else give an undertaking that, should a change be made, he should get back the money expended. The Plant House was then visited, and the Observatory, where Grubbs' splendid telescope was examined, and where attention was directed to the new transit apparatus, which it has taken three years to complete.

HEALTH OF IRELAND: QUARTERLY REPORT.

THE births registered during the June quarter amounted to 31,953, being equal to an annual ratio of 1 in every 39.2, or 25.5 per 1,000. The deaths numbered 27,288, affording an annual ratio of 1 in every 45.9, or 21.8 per 1,000. The birth-rate was 1.4 under the average, and the death-rate 1.8 over the average, for the second quarter of the five years 1878-82. This increase in the death-rate for the past quarter is attributed to the excessive mortality among the old, the excess over the average in the deaths at all ages being 1,260, and the increase in deaths at 60 years and upwards amounting to 1,289. Measles was prevalent, but, except in a few districts, not very fatal; the mortality from whooping-cough, which was very high in the previous quarter, showed but a slight decrease, as, although the disease declined in many parts of the country, it was prevalent in portions of the province of Connaught. The deaths from the seven principal zymotic diseases amounted to 2,062; being 131 under the number for the preceding three months, but 296 over the number for the June quarter of 1882. The annual rate per 1,000, represented by the deaths from these causes, is 1.6, against 1.7 in the previous quarter. Small-pox caused 12 deaths, 10 of which occurred in Belfast, and 2 in Glennamaddy Union; measles 225 deaths, and scarlet fever 337. Whooping-cough caused 491 deaths, diphtheria 58, diarrhœa 311, and simple cholera 5. To fever, 623 deaths were ascribed, of which 282 were caused by typhus, 205 by enteric fever, and 136 by simple continued fever. One death from hydrophobia was registered during the quarter.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual meeting was held at the College, Liverpool, on August 1st, at 5 P.M. There were present: C. G. Wheelhouse, Esq., President (in the chair); Mr. Bickersteth, Liverpool; Mr. Buck, Leicester; Mr. Bowen, Birkenhead; Mr. Banks, Liverpool; Mr. Coates, Shrewsbury; Mr. Cross, Bristol; Dr. Ward Cousins, Southsea; Mr. Folker, Hanley; Mr. Husband, Bournemouth; Mr. Harrison, Liverpool; Mr. Hayward, Haydock; Mr. Jessop, Leeds; Mr. Johnson, Lancaster; Mr. Lunn, Hull; Mr. B. May, Birmingham; Mr. Manby, Wolverhampton; Mr. Rushton Parker, Liverpool; Mr. Pemberton, Birmingham; Mr. Prichard, Bristol; Mr. Roth, London; Mr. Solomon, Birmingham; Mr. Sympson, Lincoln; Dr. Stainthorpe, Hexham; Dr. Thompson, Bideford; Mr. Taylor, Chester; Mr. L. Tait, Birmingham; Mr. Underhill, Tipton; Dr. Webb, Wirksworth; Mr. Bartleet (Honorary Secretary); etc.

The HONORARY SECRETARY read the following report of the Committee, which was received, adopted, and ordered to be circulated among the members.

"On August 11th, 1882, at a meeting of Fellows of the College of Surgeons of England, convened by advertisement, the Association of Fellows of the College of Surgeons was formed, 'for the consideration of all questions affecting the Fellows and the government of the College.' The first Committee was chosen, to consist of all members attending the first meeting.

"The number of members of the Association is 206. Three members—Mr. W. Ottley, Mr. T. W. Williams, and Mr. J. F. West—have died during the year. Nine members resident in the metropolis have resigned during the year—Sir W. Mac Cormac, Messrs. J. Croft, H. H. Clutton, A. Cooper, J. Langton, F. J. Mouat, H. Marsh, E. Owen, F. Treves; and one member resident outside London—Mr. J. Horsfall, Leeds.

"The Committee has met twice during the year; at each meeting, the President, C. G. Wheelhouse, Esq., has occupied the chair.

"At the first meeting of the Committee, in London, April 10th, 1883, it was resolved 'to recommend the members to support those candidates only for the Council of the College at the next election who will support a scheme for securing such alterations of the charter of the College as will allow of voting by proxy or by voting-paper at the election of the Council, as well as the right of Fellows and Members to meet within the walls of the College.' It was also resolved that the President should inquire of each candidate for the Council his views upon these points, and communicate them to the Fellows.

"At a meeting of the Committee held in Birmingham, June 18th, 1883, the President laid before the Committee the answers of the various candidates to his letter, and it was resolved to circulate copies of the President's letter, and of the replies thereto, among the members of the Association.

"At the election of Council, no provincial Fellow was successful; and, while your Committee cannot but regret the apathy of provincial Fellows, which eventuated again in neither of the provincial candidates securing election, yet it recognises the fact that at the recent election more provincial Fellows voted than, it is believed, on any previous occasion; and it hopes that Fellows in the provinces may yet be stirred up to secure for themselves that amount of representation in the Council which their importance, numerical, social, and scientific, justifies them in expecting: an amount of representation which, this Committee has reason to know, is acknowledged to be their due by many thoughtful Fellows resident in the metropolis.

"Your Committee, in seeking to ascertain the views of the several candidates for election, put forward no presumptuous claim; it asked no pledge; but, with studied courtesy, it requested to be informed by those who sought to represent it in the Council what their respective views were on certain specific subjects. This it had a clear right to do; and it hopes that, by doing it, it has secured the recognition of this right; and that, in the future, the propriety of asking candidates for seats in the Council to make a formal declaration of their views upon any points which may concern the welfare or management of the College, will be conceded.

"It believes that the recent election proves more conclusively than ever the need of some arrangement for non-personal voting. Your Committee suggest the propriety of the presentation of a petition, as numerously signed as possible, to the Council of the College, urging strongly their favourable consideration of Mr. Cadge's motion with respect to this matter.

"Your Committee desires also that the members will indicate to it

their views as to the future action of the Association, and that they will take steps for the election of a Committee that may be considered suitably representative.

"Your Committee gratefully records its appreciation of much fairness and generosity on the part of the important organs of the medical press; and, while it regrets that its open, straightforward, and moderate action has been misconstrued, and even deliberately misrepresented, it feels strong in the knowledge that it has been working honestly, and at some sacrifice, for the good of the Fellows generally, by endeavouring to develop, more widely than has hitherto existed, an intelligent and vital interest in the College of Surgeons among its Fellows—an interest which that institution never more needed than at the present time."

Mr. LAWSON TAIT proposed, Dr. WARD COUSINS seconded, and it was resolved:

"That the following petition be forwarded to every Fellow of the College, with a request that it be signed and returned to the Secretary; and that the officers be empowered to take such steps as they think fit for the publication of the results of this application, and for the presentation of the petition to the Council.

"*To the President, Vice-Presidents, and Members of the Council of the Royal College of Surgeons of England.*

"This petition of the undersigned Fellows of the Royal College of Surgeons humbly sheweth,—

"That, by the present arrangements for the election of the members of Council, by which it is incumbent on each Fellow desirous of voting at any election to be personally present, and that, from the nature of the engagements and occupation of the great majority of the Fellows of the College, and the residence of more than half of them at a considerable distance from London, it is absolutely impossible to display that attention to its interests, and that interest in its management, which would be their custom if they were not practically debarred from the exercise of their franchise.

"That the undersigned, having learned that a motion concerning this matter has been before the Council, and has been referred by them to a committee, your petitioners most earnestly pray that the Council may do their utmost to devise some scheme by which the great mass of the Fellows may be able to vote at all elections without the necessity of their personal presence at the College.

"Your petitioners would urge on behalf of this the danger there is, should the Medical Acts Amendment Bill, now before Parliament, pass into law, that the College should suffer from the lack of interest and support of the great body of Fellows, comprising as it does all the most influential and eminent practitioners of surgery throughout England.

"In support of this petition, it may be urged that in 1863, and again in 1865, the British Medical Association memorialised your Council in favour of some such change; and in 1879 a memorial to a similar effect was presented to your Council, signed by three hundred and eighty Fellows of the College, including eighty of those residing within the metropolitan limits."

The following were appointed officers of the Association for the ensuing year: *President*, C. G. Wheelhouse, Esq.; *Treasurer*, W. D. Husband, Esq.; *Secretary*, T. H. Bartleet, M.B.; and the following gentlemen, with power to add to their number, were appointed the Committee: J. E. Adams, Esq., London; W. Allingham, Esq., London; E. Andrew, M.D., Shrewsbury; J. Archer, Esq., Birmingham; A. Baker, Esq., Birmingham; T. H. Bartleet, M.B., Birmingham (Honorary Secretary); J. Beddard, Esq., Nottingham; E. R. Bickersteth, Esq., Liverpool; G. F. Bodington, M.D., Kingswinford; J. O. Brookhouse, M.D., Nottingham; F. Buszard, M.D., Northampton; W. E. Buck, M.D., Leicester; W. M. Coates, Esq., Salisbury; C. H. Cornish, Esq., Taunton; J. Cornwall, Esq., Fairford; J. Ward Cousins, M.D., Southsea; G. Cowell, Esq., London; T. W. Crosse, Esq., Norwich; W. H. Folker, Esq., Hanley; F. J. Gant, Esq., London; R. Harrison, Esq., Liverpool; E. Haward, M.D., London; J. Hough, Esq., Cambridge; J. Hutchinson, Esq., London; W. D. Husband, Esq., Bournemouth (Treasurer); G. Jackson, Esq., Plymouth; T. R. Jessop, Esq., Leeds; C. Johnson, Esq., Lancaster; C. R. B. Keetley, Esq., London; M. K. King, M.D., Hull; C. Macnamara, Esq., London; F. E. Manby, Esq., Wolverhampton; C. H. Marriott, M.D., Leicester; J. B. Maurice, Esq., Marlborough; E. Morris, M.D., Spalding; H. Morris, Esq., London; R. Parker, Esq., Liverpool; O. Pemberton, Esq., Birmingham; G. D. Pollock, Esq., London; A. Prichard, Esq., Clifton; B. M. S. Roth, Esq., London; J. Shuter, Esq., London; J. V. Solomon, Esq., Birmingham; W. P. Swain, Esq., Plymouth; T. Sympson, Esq., Lincoln; L. Tait, Esq., Birmingham; J. Taylor, Esq., Chester; T. P. Teale, Esq., Leeds; W. L. Underhill, Esq., Tipton; C. G. Wheelhouse, Esq. Leeds (President); J. Woodman, Esq., Exeter; G. F. Yeo, M.D., Staines.

THE HEALTH OF THE TROOPS IN EGYPT.

FROM the latest reports received at the head-quarters of the Army Medical Department, the epidemic amongst the British troops in Egypt may now practically be considered at an end, those cases now occurring being of a mild character, and yielding easily to medical treatment. Surgeon-General Irvine, the principal medical officer to the army of occupation, confidently anticipates that the troops will be entirely free from the cholera early next month. Since the outbreak of the epidemic among the British troops, 185 men have been attacked, of whom 133 have succumbed. There have, in addition, been three fatal cases amongst officers. Surgeon-General Irvine reports that the general health of the troops under Lieutenant-General Stephenson is now excellent, the majority of those who have died of cholera having either been actually sick or ailing. The average sick-rate is, at present, about 8 per cent. The Royal Engineers at Abbasiyieh and Kavr-el-nil, out of a strength of 185, have only 4 men, or 2 per cent., ill; while the Duke of Cornwall's Light Infantry, at Ramleh, have 133 on the sick-list out of 794, or 16 per cent. The sick-rate among the other corps is as follows:—Royal Highlanders (Black Watch), 4 per cent.; King's Royal Rifle Corps, 3 per cent.; Cameron Highlanders, 5; Royal Sussex Regiment, 9; cavalry and mounted infantry, 9; Royal Artillery, 10; Gordon Highlanders, 10; sundry corps, including Commissariat and Transport, 11; West Kent Regiment, 12. It is noticeable that, during the entire stay of the Royal Engineers in Egypt, their health has been better than that of other corps, and they have enjoyed an almost entire immunity from choleraic disease. Surgeon-General Irvine expresses his approval of the arrangements made at the Ramleh Military Hospital for the comfort of the men, and bears testimony to the value of the orderlies of the Army Hospital Corps during the prevalence of the epidemic. Of the officers of the Army Medical Department, Surgeon-Major J. Ramsbottom has resumed medical charge of the citadel, and Surgeon-Major Macnamara of Helouan Hospital, Surgeon Parke proceeding to Alexandria, and Surgeon Wellings to Suez. It is understood that, during the ensuing month, a large detachment of Army Hospital Corps will come to England, being relieved by other detachments.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual meeting of the Medico-Psychological Association was held on the 27th July, at the Royal College of Physicians, London, under the presidency of Dr. Orange, of Broadmoor Asylum. There was a large attendance of members. After a vote of thanks to Professor Gairdner, the outgoing President, who was unavoidably absent, the ordinary business of the Association was proceeded with. Dr. Manley, of the Hants County Asylum, was appointed President-elect, and the other officers and the council for the ensuing year were appointed.

Some discussion arose with reference to the new statistical tables of the Association, and it was agreed that the tables, which had already been on trial for a year, should be adopted, subject to revision as required, and that the secretary should forward copies of those tables to the different Boards of Lunacy in the kingdom.

It was reported, by the adjudicators, that the prize of ten guineas, offered for the best essay by assistant medical officers, had been gained by Dr. Wiglesworth, of Rainhill Asylum.

At the afternoon meeting the President (Dr. ORANGE) delivered an address upon the subject of Criminal Lunatics, and the Relation of Mental Derangement to Offences against the Law of the Land. The term criminal lunatic had been in use for the last eighty years, and was likely to continue in use, because it was really descriptive of the class of persons to whom it was applied. The nature of the crime and the circumstances of its commission determined whether the person entered the class of criminal lunatics or not. If the crime were not grave, the person went to the parish or to friends, and came under the general lunacy laws; but if the crime were grave, or if the circumstances were such that society would be insufficiently protected by trusting to the operation of the general lunacy laws, then the person entered the class of "criminal lunatics" and became subject to special statutes. Insanity and crime might be combined in an infinite variety of proportions; and, if the term "criminal lunatic" were expanded so as to be made to include all insane persons who had ever committed any act contrary to law, and also every criminal whose mental organisation fell short of the

ideal standard of perfection, it might, in that way, be made to embrace a large proportion of the inmates of the lunatic asylums and prisons of the country; but, in practice, no insane person who had committed a crime became a criminal lunatic unless the nature of the crime was such as to render this course necessary for the protection of the community, whilst no criminal was removed from prison on the ground of mental defect or derangement, unless unfit for penal discipline. After explaining that, in a more nearly ideal state of society than now existed, the class of "criminal lunatics" would disappear, since no one would be sentenced to punishment who was insane, and no one who was insane would be left at large to commit crime, Dr. Orange reviewed the general tendency and scope of legislation upon the subject. In 1800, the case of Hadfield, who was tried for firing at King George III, produced a definite amendment in regard to law and practice, and the immediate result of his acquittal was the passing of the "Insane Offenders' Bill," which made provision for detention in cases classed as treason, murder, and felony. After showing how similar provisions were, forty years later, applied to persons charged with misdemeanour, Dr. Orange reviewed the steps which led to the establishment of Dundrum and Broadmoor Asylums, and submitted several valuable statistical statements in reference to patients at Broadmoor. The evils of sentencing persons to imprisonment who were really insane were manifold. There was the injury inflicted upon the individual; there was also the injury to the discipline of the prison by the introduction of a person for whose sake a relaxation, and in some cases a total abandonment, of the regulations was inevitable; and then there was also the injury to the moral sense of the community caused by encouraging the notion that it had no duty towards an insane person, except to wait for the commission of a crime, and then to punish him. Mr. Justice Stephen, in his recent *History of the Criminal Law of England*, had called attention to the necessity of weighing most carefully every word, and more particularly the word "know," contained in the question, "Did the accused know, at the time of committing his act, that he was doing wrong?" and had stated that, in his opinion, the law of England did recognise defective power of control, if caused by disease affecting the mind, or by congenital mental imperfection, as being one element to be considered in determining the question of legal responsibility. This opinion of Mr. Justice Stephen was in accordance with the ruling of other learned judges. Dr. Orange also called particular attention to those passages of Mr. Justice Stephens's work in which incapacity, in consequence of mental disease or defect, to form a rational judgment with respect to the moral character of a particular act, was declared, in the writer's opinion, to be equivalent to incapacity to fully know that the act is wrong; and he urged medical men to bear this opinion of so learned a writer and judge in mind, when called upon to give evidence in a court of law; although the chief question from a medical point of view would ever be whether the accused was insane, and whether the act for which he was being tried was the product and result of the mental disease. In conclusion, it was suggested that it was very desirable that medical officers of prisons should possess a competent knowledge of mental diseases, and that prisoners suspected of being mentally deranged should be examined as soon as possible after the commission of the crime with which they were charged, and that the examination should be provided for by the Treasury, in a manner similar to that in which counsel for the prosecution was provided. It was also suggested that the examiners should be the medical officer of the prison, the medical officer of the county asylum, or hospital for the insane in the neighbourhood, and a medical practitioner of standing in the town where the prison was situated; and that the three medical men should, after consulting together, draw up a joint report, to be given to the prosecuting counsel; the cost being borne by the public purse.

After a vote of thanks to Dr. Orange, which was proposed by Dr. BUCKNILL, and seconded by Dr. NUGENT, Inspector and Commissioner of Control of Asylums in Ireland, a long and interesting discussion followed, in which Dr. Hack Tuke, Dr. Yellowlees, Dr. Orange, and Dr. Gover, took part.

A vote of thanks to the Royal College of Physicians, for the use of the room, terminated the meeting, and the members of the Association afterwards dined together at Greenwich.

CHOLERA AT ALLAHABAD.

A COMMUNICATION from India, bearing the date of August 5th, announces an outbreak of cholera in the Royal Artillery station at Allahabad. "During the last few days," observes our correspondent, "there have been twelve cases amongst the native servants of the regiment, and four deaths. Four Europeans have been attacked; one died, and three are under treatment, dangerously ill. No case has yet occurred in the 81st Foot, but two cases are reported to-day in the Native Infantry Regiment. The weather is much cooler than it has been for some months past; still the shade-temperature varies from 80° to 90° daily, and the percentage of humidity from 70 nearly to saturation."

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Council (Committee of Council) will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

November 9th, 1882.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

A card and memorandum on acute gout is now ready, and may be had by application as above.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee,
161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at Hayward's Heath, on Wednesday, September 19th. Dr. Newth will pr side. The chairman proposes to invite a discussion on "The Relation between Consulting Physicians and General Practitioners, with special reference to seeing Patients, Payment of Fees, and Abuse of Prescriptions." Mr. G. Abbott will read a short paper on the Treatment of Acute Nasal Catarrh.—T. JENNER VERRALL, 95, Western Road, Brighton.—August 1st, 1883.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of this district will be held at St. Bartholomew's Hospital, Chatham, on Friday, September 7th, at 2.30 P.M. Agenda: 1. To fix the next meeting. 2. To elect a new honorary secretary for the West Kent District.—A. H. B. HALLOWES, Honorary Secretary.

SOUTH EASTERN BRANCH: EAST AND WEST KENT DISTRICTS: CONJOINT MEETING.—A conjoint meeting of the above districts will be held at St. Bartholomew's Hospital, Chatham, on Friday, September 7th, at 3 P.M. Brigade-Surgeon Watts will take the chair. Dinner will take place at the Bull Inn, Rochester, at 5 P.M. Charge, 6s. 6d., exclusive of wine. Members wishing to read papers at this meeting are requested to communicate, at once, with the honorary secretaries.—A. H. B. HALLOWES and T. WHITEHEAD REID, Honorary Secretaries.

LONDON HOSPITAL MEDICAL COLLEGE.—The opening address will be delivered by Professor Huxley, P.R.S., on Tuesday, October 9th, at 8 P.M., instead of October 1st, as previously announced. A *conversazione* will be held afterwards, to which all past and present students are invited.

SPECIAL CORRESPONDENCE.

ROME.

The Berti Scheme for the Sanitation of the Agro Romano.—Arsenic as a Prophylactic against Malaria.—A New Remedy for Ague.

In the beginning of the present session of the Italian Chamber of Deputies, the Minister of Agriculture and Commerce submitted a law, giving the Government power to compel proprietors to put under cultivation any land belonging to them in the Campagna within a certain distance from the supposed site of the *Milliarium aureum* in the Roman Forum. This law, which is supplementary to one passed in 1880, dealing with the drainage of the lakes, the marshes, and the subsoil generally of the Campagna, was submitted to a Committee of the Chamber, and has since been enacte d.

The law lately passed by the Italian Legislature is likely to effect one of the most important changes in the direction of public hygiene which Europe has ever witnessed. It is well known that the Roman Campagna, of which the Agro Romano is the part nearest to the city, was in ancient times pre-eminently fertile, and the home of the great and highly civilised peoples of Etruria and Latium, who were the formidable rivals of the Romans in war, as well as their skilled instructors in engineering and similar arts of peace. The geological condition of the subsoil of the Roman Campagna must have at all times rendered it insalubrious until dealt with by engineering agencies for the purpose of getting rid of the water, which, percolating from the mountain-lakes, keeps it in a state of perpetual saturation. In other words, the conditions necessary to the production of malaria must have existed there ever since its occupation by man. At the same time, the facts of history and antiquarian research make it clear that the inhabitants of this territory, at the time of the settlement of the Roman colony on the Tiber, were not influenced to any considerable extent by malaria. The discovery, in recent years, of the system of archaic subsoil drainage has shown us the means by which the ancients got rid of malaria, and it is not difficult to trace the progressive increase of this evil as the ancient system of drainage and irrigation become more and more destroyed or useless, until the whole Campagna was given over to desolation and disease, and its degenerate harvests came to be reaped, as they now are, by migratory labourers from the adjacent mountains, who succumb in large numbers to the attacks of malarious fever. A zone of a mile and a quarter round Rome is now in fairly good cultivation, and includes the parks and villas of some of the Roman nobles. By the new law, it is proposed to bring into cultivation, by efficient drainage and other works, a zone of six miles round the city, which will cover one-seventh of the Agro Romano.

Within six months of the promulgation of the Act, a list of all properties within this zone will be prepared and published, and, within six months more, all proprietors must send in full particulars of their holdings, with a statement of the ameliorations they intend to carry out, which will be examined into by a Commission charged with the inspection of the lands, etc. Within six months more, full notice will be given of the alterations decided upon by the Agrarian Commission, the estimated expense, and time requisite for carrying them out. Two months more will be allowed, in which the proprietors must elect either to effect the improvements at their own expense, or oblige themselves to repay the outlay in annual taxes, extending over twenty years. Should they neglect to make such declaration, the Government may occupy the lands, paying the owners the present rents, or expropriate them under the law of June 1865.

In the former case, the lands will be returned to their owners after the Government has recouped itself for the outlay; and, in the latter, will continue expropriated for reasons of public utility.

Five years after the promulgation of the law, it will be forbidden to graze horned cattle at large within the six-mile zone.

Proprietors building dwellings for artisans or labourers outside the excise limit, within twenty years, will be exempt from taxation, for such, for ten years.

The increase in rents, owing to the ameliorations, will be exempt from land-tax during twenty years.

Prizes in money will be given to such proprietors as shall construct comfortable dwellings for men and cattle; as shall promote agrarian industry; or cultivate, according to the best rules of agriculture, such plants, trees, etc., as are best adapted to the conditions of the soil and climate.

It is not easy to exaggerate the good which is likely to flow from such a measure. The value of land will increase as its produce becomes greater in quantity and of superior quality; a larger population will exist under proper hygienic conditions; the produce will find a ready market in Rome, with its annually increasing population; the country will be planted and beautified, instead of being, as at present, a dreary waste; foreign capital, which even now, under so many difficulties, has effected so much, will be able to do infinitely more in the cultivation of the vines, cereals, and olives; in the improvement of the breeds of cattle and sheep; and a great menace to the health of the capital itself be gradually removed.

In connection with this subject, there some time ago appeared an interesting letter addressed to the Minister of Agriculture by Professor Tommasi-Crudeli, pointing out in what way the provisions of such a law, which will necessitate the presence of a number of labourers on the Campagna during the unhealthy season of the year, may best be carried out at the least sacrifice of human life.

Whatever be the method adopted for the improvement of a malarial district, whether by the filling up and drainage of lakes and marshes, by the removal of subsoil-water, by the careful cultivation of the land, or by judicious planting of trees and shrubs, it is certain that the desired effect can only very gradually be produced, and that the labourers employed in the operations must be for long exposed to great risks. The usual precautions against such dangers, as remaining in-doors at sunrise and sunset, the wearing of proper clothing, particularly flannel, generous living, and good wine, are neither generally applicable to the working classes, nor efficient where the malaria is intense; and still less so are such recommendations as that of wearing respirators filled with cotton-wool. Some of the risks may be lessened by those responsible for the earlier operations providing a better nourishment for the labourers than their scanty wages can supply, by housing them in the more healthy parts of the Campagna, not too far off from their work, or, if that be impossible, by providing sleeping quarters sufficiently raised above the soil, as has lately been done for the workmen on the Isthmus of Panama, where the huts have been built on trees at a height of twenty to thirty feet from the ground. If it were possible to employ negroes to begin the cultivation of the Agro Romano, much of the difficulty would be got rid of; but there can be no question of such an importation into Italy, where the labourers seem only too many for the work they find to do, or the wages they can earn. Some of the Italians, however, have gradually acquired a greater power of resisting malarial influences than others; the races who inhabit the provinces of Rome and the Abruzzi seeming most acclimatised, probably from having lived for centuries in districts where malaria is endemic.

But, in addition to such precautions, there are certain drugs which, if taken regularly, undoubtedly increase the resisting power of the human frame to the action of malaria. The prophylactic virtues of quinine are indisputable, and salicine and the salts of salicylic acid have also some preservative effects; but those drugs are costly, and cannot be taken for any great length of time without deranging the system in some degree. Preparations of eucalyptus, much vaunted of late years, have not been found effectual, as has been shown by the occurrence of epidemics during the seasons of 1880 and 1882 at the Tre Fontane, in spite of the large use made there of the elixir and tincture of eucalyptus prepared on the spot by the Trappist monks. It then occurred to Professor Tommasi-Crudeli that arsenic might be tried; and, as ignorant peasants could not be entrusted with the fluid preparations, he fixed on the gelatine wafers of De Cian of Venice, which are like the gelatine lamels of Messrs. Savory and Moore, as presenting facilities for giving the medicine and gradually increasing the dose. To attain his object, the professor secured the co-operation of Dr. Riechie, the chief medical officer of the South Italian and Calabrian railways; and it appears from the report of that gentleman to the director-general of the company, summing up the results of the experiments made by the medical attendants of the *employés* on different sections of the lines in 1882—a bad year for malaria—that, when the arsenic was given carefully and in sufficient doses, decided effects resulted.

Only from three sections, however, had the medical men sent in trustworthy data, but all these sections were in very malarial districts. The total number of persons subjected to treatment was

455; 401 men and 54 women. Of these, 250 were victims of chronic malarial poisoning, 115 had been recently infected, and 90 were in fair health. There were cured, or, if well, there remained free from attacks 338; 43 were not benefited; and in 74 the result was doubtful. He particularly notes that of the 90 who never had had any malarial fever, only 19 per cent. were attacked in this unhealthy year, and those attacked only had slight fevers readily yielding to quinine.

The treatment was begun with one lamel containing two milligrammes, about the one thirty-fifth of a grain, of arsenious acid daily. After four days, a second lamel was given, and so on, until four were taken each day. In a few cases, the dose was increased to seven lamels, about one-fifth of a grain, daily, and apparently with better results. When it was doubtful whether an official had taken the lamels, or had given them up after a few doses, the result was classified as unfavourable; and amongst the doubtful are put those who at once began quinine as soon as they suffered from the slightest indisposition, returning afterwards to the use of the arsenic. Some observations made by proprietors near Rome and in the Tuscan Maremma on the effect of arsenic thus given to their labourers, have also yielded good results, and warrant, to say the least, testing experiments on a large scale, which might as readily be carried out in India as in Italy. Some controlling experiments which Professor Tommasi-Crudeli intended making on animals, to whom arsenic had been given for some time, could not be tried in the autumn of last year, as the malarial cases then received into the hospitals of Rome were mostly of a chronic type, or presented only the slighter forms of acute infection; and it is only from the injection of the blood of patients with "perniciosa" that any satisfactory results can be expected.

In the same letter to the Minister of Agriculture from Professor Tommasi-Crudeli, attention is called to a simple remedy for intermittent fevers, used with good effects by Dr. Maglieri. This physician heard of it from his uncle, who had treated his farm-labourers by administering to them a decoction of lemons prepared in the following way. A lemon, freshly gathered and unpeeled, is cut into very thin slices, put into an earthenware jar with three cupfulls of water, and boiled down to one cupfull. The decoction is strained through a cloth, the remains of the lemon being firmly squeezed. The decoction ought, if possible, to stand overnight in the open air, and be drunk some hours before the access of fever is expected. Besides the testimony of Dr. Maglieri, that of a well known landed proprietor near Rome is adduced, who had also cured many of his workmen, whose fevers had proved rebellious to quinine, with this simple remedy. I lately gave the lemon decoction, prepared exactly as described, in two cases; one, an American lady, recovering from enteric fever, and suffering from obstinate intermittent attacks which quinine seemed scarcely to influence; and in both cases, though the fever did not entirely yield, much benefit was derived, and the quinine could be given up, which was, in itself, a considerable gain.

CORRESPONDENCE.

STATISTICS OF DEATHS FROM SNAKE-BITE.

SIR,—In the JOURNAL for March 10th, page 472, is an article on poisonous snakes which must certainly have conveyed to readers of the JOURNAL an erroneous impression, which I hope you will allow me to correct. The article states that Sir Joseph Fayrer estimated the mortality in India from this cause at the appalling number of 150,000 to 200,000 human beings since 1870, that he urges vigorous and organised measures to grapple with and overcome this evil, that the mortality in 1881 was somewhat less than in the preceding year, and "that this desirable result was due to the measures which had been taken by the Government to procure the destruction of the thanatophidia." The figures on which this inference is based are given, showing that in 1881 the number of deaths fell from 19,060, in the preceding year, to 18,610; while the destruction of snakes increased from 212,776 to 254,968.

I think I may safely say that this article is a summary of an article by Sir Joseph Fayrer in *Nature*, for December 28th, in which he gives the above figures and infers from them that "in 1881, 42,192 more snakes were destroyed, and 450 lives were preserved."

This inference is unfortunately in direct opposition to the official detailed statistics by which it is ostensibly supported, and which Sir Joseph Fayrer reproduced in his article. As he has, in his zeal for the crusade against the thanatophidia, overlooked the evidence of these statistics, it is probable that the great majority of the readers of his article have done likewise; and as the JOURNAL did not give them, all who read its article have been induced into error on a subject of great importance. Sir Joseph Fayrer, medical adviser to the Council of India, advocates a crusade against venomous snakes under the direction of a special department of government, organised for action throughout India and necessarily working regardless of expense. It is therefore most important that any misstatement of fact be corrected, before the medical profession gives the crusade that support which the statement at present before it might seem to justify.

British India is not one country, but an aggregate of countries or great provinces altogether as large as western and central Europe, and varying from about the size of Belgium to that of the British Isles or more. Each of these dozen or so of provinces has a separate government, and the statistics of this subject have been furnished from each government separately. And taking them separately it will be seen that, roughly speaking, the increased destruction of snakes for which such great results are claimed, took place in one province, and the decreased mortality in the other provinces.

I reproduce the statistics of the subject; I omit the figures relating to cattle killed and amount of rewards paid as irrelevant to the present question; I add the population of the provinces so that the death-rate can be calculated.

Provinces.	Pop. in millions.	Snakes Destroyed.		Deaths from Snake-bite.	
		1880.	1881.	1880.	1881.
Madras	30.8	nil.	nil.	1,182	1,064
Bombay	14	177,078	207,113	972	1,024
Bengal	60.5	23,201	19,282	10,064	9,208
N.W.P. and Aoudh ...	44.1	1,029	1,142	4,723	5,010
Punjab	18.8	9,126	22,279	681	744
Central P.	8.2	866	1,493	901	985
British Burmah	3.7	997	2,990	149	135
Coorg	.2	58	16	3	nil.
Assam	4.8	202	300	211	189
Hyd. Assd. District ...	2.7	158	332	125	197
Ajmere-Merwara	.5	61	21	49	54
	188.3	212,776	254,968	19,060	18,610

From this table, it will be seen that, out of the eleven provinces (comprising the whole of British India, except perhaps Sindh), only in three minor provinces were the statistics in any way favourable to the system of destroying snakes. In two of them (Burma and Assam), increased destruction of snakes was accompanied by decreased loss of life; in the third (Ajmere-Merwara), decreased destruction was accompanied by increased mortality. But any inferences drawn from these minor provinces, furnishing about 1 per cent. of the statistics, is invalidated by the overwhelming evidence of the other provinces. The other provinces furnish 99 per cent. of the whole mortality. In five of them (Bombay, the North-west Provinces and Aoudh, the Punjab, the Central Provinces, the Hyderabad Assigned Districts), I find that increased destruction of snakes resulted in increased mortality from snake-bite.

	Snakes destroyed.		Deaths from Snake-bite.	
	1880.	1881.	1880.	1881.
Five provinces ...	188,257 ...	232,359 ...	7,402 ...	7,960

Inference.—44,102 more snakes were destroyed, and 558 more deaths occurred.

In the three remaining provinces (Bengal, Coorg, Madras), a decrease in the destruction of snakes, or no destruction of them at all, resulted in a large decrease of mortality.

Snakes destroyed.		Deaths from Snake-bite.	
1880.	1881.	1880.	1881.
23,259	19,297	11,249	10,272

Inference.—3,962 fewer snakes were destroyed, and 977 less deaths occurred.

Now, the apparent combination of these two sets of figures adverse to the system will show how Sir Joseph Fayrer's inference in favour of it is obtained.

Five provinces ...	44,102 more snakes killed ...	558 more deaths.
Three ,, ...	3,962 less ,, ,, ...	977 less ,,
India*	40,140 more ,, ,, ...	419 lives preserved.

* The figures for the three minor provinces must be added, to have the exact totals put forward.

Thus two blacks make one white.

Apart from the necessity of demonstrating Sir Joseph Fayrer's

erroneous statement, there is no need of going into the statistics of all the provinces; the two extreme cases of Bombay and Madras are sufficient to discredit the thanatophidian crusade. In Bombay, there were five times as many snakes destroyed as in all the rest of India, and increased vigour in the destruction only resulted in increased mortality from snake-bite. In Madras, the local government has, after sufficient experience, wisely ceased from patronising the system of destruction, and the mortality from snake-bite diminishes. I argue no connection between the destruction of snakes and the mortality from snake-bite; I simply disprove the facts alleged by the very arguments and statistics on which they are ostensibly supported.—I am, sir, yours obediently,

EDWARD NICHOLSON, Surgeon-Major A.M.D.

*** Our annotation on Poisonous Snakes was written by a correspondent who based his observations upon some previous knowledge of the subject and upon a summary of Sir Joseph Fayrer's valuable paper on the question which appeared in *Nature* for December 28th, 1882. The writer desired to draw the attention of the medical profession to the very great loss of life which arises in British India from the bites of poisonous snakes, and to insist upon Sir Joseph Fayrer's teaching, that this loss is in some degree preventable, and that the number of human deaths from snake-bites has lately decreased, while the number of snakes recorded as killed has increased. The figures given in our annotation are quoted as the latest data obtainable on the subject. The more extended statistics which Surgeon-Major Nicholson quotes, are reproduced, as he says, with the qualifications he mentions, from Sir Joseph Fayrer's paper. We frankly admit the force of the conclusions at which Surgeon-Major Nicholson arrives by subdividing into groups the data upon which Sir Joseph Fayrer founds some of his inferences; and we recognise the value of his criticism in elucidating an important question, which must still in great part remain *sub judice*. The facts, however, remain as given in our notice, namely, that, taking the whole of India together, 18,610 human lives were lost from snake-bites in the year 1881, as compared with 19,060 deaths in 1880; that, in 1880, the number of snakes reported as killed was 212,776 and 254,968 in the following year. The Governor-General of India has considered the subject so important, that he has given a detailed account in Council of the measures adopted for the destruction of venomous snakes.

RECOGNITION OF PROFESSIONAL SERVICES.

SIR,—Everything that comes from the pen of Mr. Reginald Harrison, is worthy of the most distinguished consideration. What he has said, he has said, with great truth, in his letter of last week's issue of this JOURNAL.. He asks, very pertinently, "who is responsible for this strange anomaly? Is it the profession or the public, or both?" He then goes on to suggest the formation of a council of the profession, metropolitan and provincial, to remedy this state of affairs, by trying to obtain a juster recognition of professional services. Now, sir, I go with my friend to the fullest, but I ask, how is it to be done? I was passing, last Monday, along one of the main thoroughfares leading to Poplar, and saw, outside a medical man's surgery, in large gold letters, "Advice and medicine, 6d.; visits out of doors, 1s." Now, sir, if the profession will not be true to themselves, and to each other, how can you expect the public not to take advantage of us?—I am, sir, yours etc., S. SPRATLY, M.D.

August 10th, 1883.

POLITICAL POWERLESSNESS OF THE MEDICAL PROFESSION.

SIR,—In his letter, published in the JOURNAL, August 11th, Surgeon-Major Alcock takes for granted either that the members of the British Medical Association are of one mind in politics, or that it is possible and wise to establish another parliamentary party, which would vote independently of existing political institutions and traditions.

The inaccuracy of the former assumption is obvious to any one who compares the parliamentary career of the various members of our honourable profession who have, at different times, secured this distinction, with the known politics of many of our most esteemed *confrères;* and I am sure very few would be found to approve of the expedient, even if possible, of establishing an independent political party, as the tendency of this would be to sacrifice the interest of the community at large to the accomplishment of its projects; for it could only exercise a power to this end, by joining, indiscriminately, in general politics, whichever political party should at the time prove most favourable to its aims.

There already exist the well-known organisation for those of advanced ideas, and the various "constitutional" clubs and organisations for those who value our social institutions, and desire to oppose the veiled principles of revolution, now so plausibly and insidiously disseminated in nicely expressed phrases, intended to impress hearers with the intensely unselfish philanthropy of the policy so propounded; besides these, there are minor political parties which I shall not name.

It is outside my province and intention to suggest any means of securing political power through affiliation to these established institutions, but I take the opportunity of proposing for consideration another application of the suggested half-guinea additional subscription to the British Medical Association; and that is, to establish a fund in connection therewith, for the relief of destitute and needy widows and orphans of members of our profession; for this purpose I shall be delighted to add half a guinea to my annual subscription; but for the former, I for one will not do so.—I am, sir, yours faithfully, WM. J. MACKIE, L.K.Q.C.P.I.

Richmond House, Turvey, August 11th, 1883.

DR. CREIGHTON'S ADDRESS IN PATHOLOGY.

SIR,—There is a passage in Dr. Creighton's admirable address on the autonomy of specific infections which, I apologise for saying, seems to me somewhat obscure. Referring to the application of the "origin of species" to diseases, Dr. Creighton says: "But where is the individual life in disease? In my humble opinion, the germ will not serve our purpose; for, according to the great Darwinian analogy, the germ is always a part of the individual, and always presupposes the individual."

What does Dr. Creighton mean by the "germ?" Does he, in the first place, mean the so-called "germ theory," or the germ of what? Of what individual is it a part? The individual in whom disease occurs, or the mature individual of which it is the germ? Then, is the individual the complete disease, the phenomena, or is it some micro-organism hypothetically originating those phenomena to whose immature form he refers? In short, does he mean the germ of the disease or the disease-germ?

I ask this because all that Dr. Creighton has so ably adduced on the autonomous and pre-autonomous conditions of "specific diseases," instead of conflicting with the "germ theory" (the term is misleading, and, therefore, objectionable) of disease, appears to me to coincide remarkably with at least one view of it—viz., that which I adduced last year at Worcester, and which is published in the BRITISH MEDICAL JOURNAL of September 30th, 1882.

I could wish for no better examples in support of that view than those brought forward by Dr. Creighton as regards cholera, yellow fever, and typhus.—I am, yours faithfully,

KENNETH W. MILLICAN.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, August 23rd.

Artisans' Dwellings.—Sir W. HARCOURT, replying to Mr. Broadhurst, said the question of providing better dwellings for working people in large towns was a very important one, and he should be happy to give it his best consideration during the recess.

Ventilation of Sewers.—Sir W. HARCOURT, being interrogated by Mr. J. G. Talbot, explained that neither the Home Office nor the Local Government Board had any authority in the matter of the ventilation of sewers in the metropolis. The sewers were vested in either the Commissioners of Sewers, the Metropolitan Board of Works, or the local vestries, and the Government had no power to compel those bodies to take any particular course with reference to them.—Sir C. DILKE believed that the Mayor of Ryde had a scheme of ventilation, but it had been tried, and the Town Council did not approve of it. It was the opinion of competent authorities that the open drain system now in use was the best that had yet been devised.

Vaccination.—Mr. HOPWOOD asked the Secretary of the Local Government Board whether he would inquire into the case of a child named Emily Agnes Henning, of Mayall Road, Herne Hill, aged 4 months, who was vaccinated on July 25th, was within three days attacked with symptoms of blood-poisoning, and died in great suffering on August 15th; whether he was aware that the certificate of death stated the cause to be erysipelas P., convulsions S., without mentioning vaccination; and whether he would cause an inquiry into the circumstances satisfactory to the parents.—Mr. G. RUSSELL said that the child was vaccinated on July 25th, and was not at-

tacked with symptoms of blood-poisoning within three days after vaccination. The vaccination ran its normal course, and the result, on the eighth day after vaccination, was regarded as satisfactory by the medical man who had vaccinated the child. One of the vesicles, however, became broken through the rubbing of a piece of muslin, and, following on this occurrence, a blush of the nature of erysipelas appeared on the arm. This was on the ninth, and not the third day after vaccination. This subsequently spread, and the child died three weeks after vaccination. Having regard to the history of the case, and to the date when the inflammatory blush first appeared, it would seem that death resulted from the absorption of some septic matter by the surface of the broken vesicle, and not from the vaccination itself, which, apart from the accident to the vesicle, was running its normal course. Under these circumstances, the primary and secondary causes of death were, in the Board's opinion, correctly stated in the certificate, and the Board saw no sufficient reason for further inquiry.

MILITARY AND NAVAL MEDICAL SERVICES.

SHORTNESS OF HOME SERVICE IN THE ARMY MEDICAL DEPARTMENT.

It appears from an army exchange-agent's circular, which has been forwarded to us by a surgeon-major, A.M.D., that medical officers who returned from India in December 1881 are being ordered out to that country again, and that the average of service is now less than two years at home after five or more years abroad. Our correspondent attributes this inequality to the Government endeavouring to carry on war with a medical staff only adapted for peace requirements. If the information be correct, the periods of home and tropical service are very disproportionate, and it can hardly be a matter of wonder that many medical officers break down in health. It may readily be understood that the war in Egypt, and the epidemic of cholera by which it has been succeeded, has led to a great demand for army surgeons in that country, and that the interference with the roster caused by this demand must have considerably curtailed the length of home service which, under other circumstances, would have fallen to the lot of the medical officers who have returned home from India since the Egyptian campaign began. The present shortness of the home service period may, therefore, be only a temporary matter. It is not to be forgotten, moreover, that if the Government were to make any considerable addition to the ranks of the medical department to meet the exigencies of a short campaign, such as the Egyptian campaign was beforehand expected to be, one consequence would be that, at the conclusion of the campaign, a large proportion of the medical officers so taken would become supernumerary, and would be subjected to the inconvenience of being placed on half-pay. The subject, however, is one that requires proper consideration on the part of the military authorities.

MEDICAL SUPPLIES ON BOARD SHIP.

SIR,—It is a matter of regret which is sorely felt by many members of the Naval Medical Service, that no attempt is being made to improve the means placed at their disposal for the prevention and cure of disease and injury. That such an improvement is not uncalled for may be inferred from the following brief and incomplete statement.

First, as to drugs on board ship. While such articles as sulphur, calomel, and antimony are furnished in profusion, there is quite an inadequate supply of carbolic acid, iodide of potassium, ether, and chloroform, and the following, most of which are indispensable at the present day for satisfactory treatment, are not even mentioned—aconite, conium, cannabis Indica, ergot, chloral, bromide of potassium, nitrite of amyl, iodoform, podophyllum, santonine, chloride of zinc, boracic acid, salicine, salicylic acid, and salicylates.

Secondly, with regard to instruments. Contrary to what obtains in the other public services, officers are obliged to supply themselves according to scale at a considerable expense. (N.B.—This fact is not mentioned amongst the inducements to take service in the navy.) This arrangement, it is scarcely necessary to point out, is attended by a certain loss of efficiency, inasmuchas it often produces an excess of comparatively useless instruments, while it hinders the obtaining of others of primary importance. The inadequacy of the present scale is shown by the fact that there is not an article included in it the name of which ends in "scope," not even a stethoscope; naval medical officers, more particularly the seniors, being presumably too well educated to require the use of such an instrument. What this want implies may be fully seen by a glance over any instrument maker's list. The following are also absent—antiseptic appliances, drainage-tubes, Esmarch's bandage, cautery, galvanic apparatus, aspirator, and clinical thermometer. Of apparatus for fractures, perhaps the less said the better. The late Director-General, Sir A. Armstrong, to whom the service is much indebted for various reforms made in the face of persistent official opposition, introduced the means of partially testing urine and water, but this advance has not been supplemented by the wherewithal for an analysis, which is now being duly recognised as of far more importance on board ship.

Thirdly. One cannot overlook the inferior character of the education given to cadets at Haslar, where there is no systematic instruction in naval or military surgery and medicine, or in the means and methods of conveying the wounded either ashore or afloat. Any one cognisant of the amount of knowledge of these subjects which the average naval surgeon possesses, must allow that such instruction is by no means unnecessary.

Fourthly. There is no regular or recognised system of transport of the wounded under the control of the medical officer. On board ship, certain "waifs and strays," who are considered unfit for any other duty at general quarters, are "told off" by the executive officer to assist the surgeon, but the same persons are not always sent, nor are they constant in number. It is, of course, impossible that they should be properly trained to their special duties, which are generally but imperfectly known by anyone concerned. On shore, as might be supposed, there is a still greater want of method. There are some regulations as to "bearer parties" in the Gunnery Book, which, however, are not supposed to be known to the surgeon, and the nondescript character of the appliances is almost too ridiculous. On a recent occasion, when bodies of men were landed together from men-of-war of various nationalities, it was painfully humiliating to contrast the smart workman-like turn-out of the several foreign ambulances and their attendants with our own slipshod and slovenly-looking "bearer-parties." Nor was it merely in appearance that we fell so far behind. There was scarcely a single detail in arrangements or appliances for the succour and relief of the wounded in which we could bear comparison.

It is far from pleasant to be obliged to request publication for such an *exposé*, but that things should remain as they are would be still more unpleasant to contemplate; and they have often, I am well aware, been brought to the notice of the authorities at the Admiralty. Various well-known causes prevent such frequent recourse to the press amongst naval officers as is customary with their brethren in the army; otherwise the unnecessary sufferings of "Jack," sick or wounded, would probably not have been so long unrelieved. It is to be hoped that the present Director-General may see his way to make some improvements on the lines suggested above.—I am, etc.,

NAUTILUS.

INDIAN MEDICAL SERVICE.—The undermentioned candidates for Her Majesty's Indian Medical Service were successful at the competitive examination held at Burlington House on August 13th, 1883, and following days. Twenty-one candidates competed for five appointments. All were reported qualified.

	Marks.		Marks.
1. Pratt, J. J.	2,475	4. Bannerman, W. B.	2,230
2. Shore, R.	2,410	5. Thomson, H.	2,015
3. Sarkies, C. J.	2,341		

NAVAL MEDICAL DEPARTMENT.—At the competition for commissions in the Medical Service of the Royal Navy, held on August 13th and following days, in the Hall of the University of London, Burlington Gardens, the undermentioned gentlemen were the successful candidates.

	Marks.		Marks.
1. Lea, F. J.	2,150	8. Doyne, R. W.	1,885
2. Rowland, J. C.	2,125	9. Dimsey, E. R.	1,815
3. Morley, E. T.	2,035	10. McDonnell, J. R.	1,795
4. Macnamara, H. W.	2,025	11. Donovan, D. W.	1,780
5. Whelan, J. H.	2,010	12. Meikle, H.	1,725
6. Bassett-Smith, P. W.	2,000	13. Canton, H.	1,690
7. Coolican, L. P. J.	1,945		

ARMY MEDICAL DEPARTMENT.—The following changes in the medical staff of the army of occupation in Egypt are announced. Surgeon-Major Ramsbotham has resumed medical charge of the citadel; Surgeon-Major McNamara has taken over charge of the Helouan Hospital; Surgeon Wellings has proceeded to Suez for duty. During the illness of Surgeon Dixon, Surgeon-Major Ferguson assumed charge of the staff and departments of the army of occupation.

MAJOR KITCHENER has been appointed sanitary inspector at the Abbassiyeh quarters of the Egyptian Army.

INTELLIGENCE has been received of the death of Surgeon W. J. Lyons, M.D., Army Medical Department, from a sudden attack of cholera, at Deolali, Bombay, on May 16th last. Dr. Lyons entered the army in February 1881.

THE following are the names of the officers of the Army Medical Department who have returned to Egypt, and taken up duty with the various regiments under General Stephenson: Surgeon-Majors Flood and Prendergast, to Alexandria; Surgeons Dicke and Johnstone have medical charge of the Royal Sussex Regiment at Ismailia; Surgeons Mackonochie and Turner have assumed duty at Cairo; Surgeons Lewis and Lucas, to El Warden, are in charge of the 19th Hussars and Royal Artillery respectively; and Surgeon Lappan has taken up duty with the Queen's Own Cameron Highlanders.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

ADVERTISING FOR HEALTH APPOINTMENTS.

THE red-tape regulations of the Local Government Board as to the advertisement of vacancies in the offices of health, have had a singularly mischievous effect in the case of the health-officership for the rural district of the Isle of Wight. The rural authority having at length been prevailed upon to appoint one health-officer for the entire area of their district, judged it necessary to advertise their requirements not only in the local papers, but also in this and other medical journals. The inevitable result was a considerable number of applicants, from all parts of the country, for a post presenting so many advantages. But, as one of the forty-three gentlemen who were induced to enter for what appeared to be a *bonâ fide* competition, writes to us, the proceedings of the guardians at the election meeting, if correctly reported in the Newport papers, certainly dispel any idea of competition, as the appointment was clearly predetermined in favour of a local candidate. One sapient guardian naïvely remarked: "We all know who we are going to vote for, and I object to the remainder of the applications being read." Certainly if a suitable man, and one on whom the guardians had such confidence, could be found, literally at their own door, it was scarcely necessary to make their wants so prominently known in all the medical journals. If the regulations of the Local Government Board require such vacancies as these to be advertised, an insertion in a local paper would, under existing circumstances, have been amply sufficient, and would have saved forty-two candidates the trouble, expense, and anxiety involved in making their applications, and securing the necessary testimonials in support thereof. If such proceedings are to become of frequent occurrence, it is quite conceivable that in future vacancies, rather than allow themselves to be victims of local prejudice or favour, competent men will not trouble themselves to apply, and looking to the few attractions that the health-service affords, this would be a matter for very serious regret.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

LONDON PORT.—While there is nothing of special moment in Mr. Collingridge's last half-yearly report, it contains many points of interest. Reference is made to the foul state of the river, and some improvement is chronicled in the removal of several foul outfalls. During the earlier part of the year, a considerable number of cases of small-pox were discovered on board vessels within the limits of the Port, and the usual precautions of isolation and disinfection were adopted. Mr. Collingridge comments on the gradual increase in the number of outbreaks of scurvy among seamen, due to improper dieting, which the antiscorbutic properties of limejuice cannot correct. The general health of the boys on the training-ships in the Thames was remarkably good, but one case only of scarlatina and two of measles appearing during the half-year. In dealing with the subject of quarantine, Mr. Collingridge laments that there is no power for stopping a vessel at Gravesend when infectious disease is discovered on board. He urges with great show of reason that when once the Customs medical officer has satisfied himself of the presence of an infectious illness on board, the authorities should certainly have power to detain a vessel until the arrival of the Port medical officer, by whom the patient would be removed, and under whose superintendence fumigation, etc., could be carried out. Referring to the enormous number of emigrants who pass through the Port on their way from the Continent to America, Mr. Collingridge states that, whenever practicable, vessels carrying them are inspected; but, unfortunately, the Port authority has no power to detain them until such examination has taken place. The whole question of emigration is now being dealt with by the Local Government Board, whose inspector, Dr. Blaxall, is inquiring into the arrangements by which emigrants pass through the principal ports, and the sanitary conditions under which they live while waiting for vessels. Such an inquiry cannot fail to be productive of good results, and it is to be hoped that a compulsory medical inspection of all emigrant ships will be one of them.

HEALTH.—1. We do not know the salary of the officers referred to; but you would be within your rights as a ratepayer in making inquiry at the vestry on the subject. 2. A list of Metropolitan Medical Officers of Health appears annually in the *Medical Directory* at the end of the section devoted to London Practitioners. See page 311 of the *Directory* for 1882, and 319 of that for 1883.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending 25th ult., that the death-rate was recently equal to 32.8 in Madras and 33.5 in Bombay; 49 deaths from cholera were reported in Bombay, and 40 from small-pox in Madras, while "fever" fatality showed a marked excess in Bombay. According to the most recent weekly returns, the average annual death-rate in twenty-two large European cities was equal to 26.9 per 1,000 of their aggregate population; this rate was no less than 7.8 above the mean rate last week in twenty-eight of the largest English towns. The rate in St. Petersburg was equal to 30.1; the 537 deaths included 127 from diarrhœal diseases and 25 from "fever." In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate was 24.6, the highest rate being 29.0 in Christiania, where the 69 deaths included 25 from diarrhœal diseases, and 2 from scarlet fever; diarrhœal diseases also showed an excessive fatality in Stockholm. In Paris, the death-rate was 22.7, and the deaths included 38 from typhoid fever, and 23 from diphtheria and croup. The 209 deaths in Brussels were equal to a rate of 26.2, and included 5 from small-pox and 5 from "fever." In Geneva, but 21 deaths were returned, the rate not exceeding 15.6. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 23.1, the highest rate being 26.9 in the Hague; small-pox caused 5 deaths in Rotterdam, and scarlet fever was somewhat prevalent in the two other Dutch cities. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 30.0; it ranged from 23.8 in Dresden and 24.5 in Trieste, to 34.6 and 36.4 in Breslau and Munich. Diarrhœal diseases continued to show exceptional fatality in nearly all these German cities, more especially in Berlin and Buda-Pesth; small-pox caused 11 deaths in Prague, and scarlet fever 11 in Hamburg. The rate did not exceed 18.3 in Turin, whereas it was equal to 28.2 in Venice. The 118 deaths in Lisbon included 2 fatal cases of scarlet fever, and were equal to a rate of 30.8. The death-rate in four of the principal American cities averaged 29.6; the excess was mainly due to the excessive fatality of diarrhœal diseases, which caused the highest death-rates in New York and Brooklyn. The death-rate did not exceed 18.1 in Philadelphia, whereas it was equal to 33.5 in New York and 33.2 in Brooklyn. Diphtheria was somewhat fatally prevalent both in Philadelphia and in Baltimore.

OBITUARY.

JOHN H. LOFTIE STONEY, M.D., F.R.C.S.I.

IT is with great regret that we announce the death of this genial and widely known member of the profession. Dr. Stoney was spending the summer months with his family at their seaside residence at Bray; and came into his town-house in Dublin as usual, and apparently in his ordinary health, on the morning of last Thursday week, the 23rd ultimo. He is believed to have exerted himself after his arrival in town, by mowing in his garden. Violent hæmoptysis came on, and recurred several times the same day and the following day. From the first there was great nervous excitement and presentiment of death. On Saturday morning, there was another considerable hæmoptysis. He became weaker, and died, without any further return of the hæmorrhage, on Sunday afternoon, after an illness of only four days, in his forty-seventh year.

Dr. Stoney received his professional education in the school of the Royal College of Surgeons in Ireland, and graduated M.D. in the late Queen's University. At a very early period, he showed that taste for anatomy and for teaching which he subsequently markedly developed. Even when a second year's student, he used to demonstrate in the anatomical school of the College, and as a demonstrator and private teacher he was connected with the College school for a number of years. The election of one of his former pupils to a vacant chair of anatomy in the College, for which Dr. Stoney was also a candidate, was a bitter disappointment to him. Soon afterwards he left the College school, and joined the Carmichael College of Medicine, in which he was appointed Lecturer on Anatomy—an office which he held at the time of his death. Dr Stoney was also Ophthalmic and Aural Surgeon to the City of Dublin Hospital; but, his time being so much devoted to teaching, he unfortunately debarred himself from attaining that large share of practice in his specialty which his ability and skill entitled him to.

Private teaching was undoubtedly Stoney's *forte*. Good-natured, witty, and full of anecdote, he was an immense favourite with students. His mode of teaching was impressive, and never weari-

some; and he seemed to regard all his pupils as his friends. His success with them was great. They are scattered now all over the world, especially in the public services; and we are sure that there is not one of them who will hear of poor Loftie Stoney's sudden death but will regret his premature demise, and will sympathise with his widow and family in their sad bereavement.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—Intermediate Examination in Medicine. 1883. Pass List. Entire Examination.

First Division.

Adams, Charles Edward, University College.
Alcock, Samuel King, St. Bartholomew's Hospital.
Barendt, Frank Hugh, Royal Infirmary School of Medicine and University College, Liverpool.
Barratt, John Oglethorpe Wakelin, B.Sc., Mason and Queen's Colleges, Birmingham.
Braddon, William Leonard, Guy's Hospital.
Carless, Albert, King's College.
Corbin, Eustace Rhodes St. Clair, University College.
Dale, William Kelynack, King's College.
Davenport, Arthur Frederick, University of Edinburgh and University College.
De Chazal, Edmond Lucien, University College.
Gabriel, Leonard Maurice, St. Bartholomew's Hospital.
Goodall, Edwin, Guy's Hospital.
Gow, William John, St. Bartholomew's Hospital.
Gray, John Power William, King's College.
Halstead, George Ezra, B.A., B.Sc., Guy's Hospital.
Hart-Smith, Franke Chamberlain, University College.
Hitchens, Frank, London Hospital.
Hutton, John Stuart, St. Thomas's Hospital.
Johnson, Raymond, University College.
Jones, Sydney Harold, St. Thomas's Hospital.
Kidd, Hugh Cameron, St. Thomas's Hospital.
Larkin, Frederic Charles, Royal Infirmary School of Medicine and University College, Liverpool.
Lever, Frederick, Guy's Hospital.
Meison, George Hyde, Queen's and Mason Colleges, Birmingham.
Price, Alfred Edward, Guy's Hospital.
Stedman, Frederick Osmund, Charing Cross Hospital.
Stevenson, George, St. Bartholomew's Hospital.
Thane, Edgar Herbert, University College.
Washbourn, John Wychenford, Guy's Hospital.
Wild, Robert Briggs, Owens College.
Wills, William Alfred, Westminster Hospital.

Second Division.

Aikin, William Arthur, Guy's Hospital.
Bailey, William Henry, St. Bartholomew's Hospital.
Barwise, Sidney, Queen's and Mason Colleges, Birmingham.
Bright, Eustace Frederick, University College.
Calvert, James, B.A., St. Bartholomew's Hospital.
Childe, Letterstedt Frederick, Guy's Hospital.
Clegg, Joseph, Owens College.
Edge, Frederick, Owens College.
Finley, Frederick Gault, Owens and McGill Colleges.
Gardner, Henry Willoughby, St. Bartholomew's Hospital.
Goodall, Edward Wilberforce, Guy's Hospital.
Harsant, Joseph George, Guy's Hospital.
Heatherley, Francis, Guy's Hospital.
Lawson, Robert, St. Thomas's Hospital.
Leech, Priestley, Owens College.
Marriott, John, Charing Cross Hospital.
Morison, Frederick William, St. Bartholomew's Hospital.
Mourilyan, Edward Pain, Guy's Hospital.
Muspratt, Charles Drummond, Guy's Hospital.
Napier, Francis Horatio, St. Bartholomew's Hospital.
O'Brien, Patrick Moriarty, Royal Infirmary School of Medicine and University College, Liverpool.
Pailthorpe, Mary Elizabeth, London School of Medicine for Women and Royal Free Hospital
Prall, Samuel Esmond, Guy's Hospital.
Sutton, Alfred Martin, Guy's Hospital.
Thomas, Benjamin Wilfred, Charing Cross Hospital.
Walker, Alfred William Hinsley, Owens College.
Wethered, Frank Joseph, Bristol Medical School.
Williams, Patrick Watson, Bristol Medical School.

Excluding Physiology.

First Division.

Wynter, Walter Essex, Middlesex Hospital.

Second Division.

Ackland, Charles Kingsley, King's College.
Roberts, Edward, Guy's Hospital.
Taylor, Charles Henry, King's College.
Williams, Reginald Muzio, St. Thomas's Hospital.

Physiology only.

First Division.

Freeland, Freeland John, King's College.

Second Division.

Carpenter, George Alfred, St. Thomas's Hospital.
Lankester, Alfred Owen, St. Bartholomew's Hospital.
Marriner, William Herbert Lister, St. Thomas's Hospital.

Examination for Honours.—Anatomy.

First Class.

Thane, Edgar Herbert (Exhibition and Gold Medal), University College.
Johnson, Raymond (Gold Medal), University College.
Washbourn, John Wychenford, Guy's Hospital.

Second Class.

Goodall, Edward Wilberforce, Guy's Hospital.
Hart-Smith, Franke Chamberlain, University College.
Wild, Robert Briggs, Owens College.
Gray, John Power William, King's College.
Halstead, George Ezra, B.A., B.Sc., Guy's Hospital.
Wills, William Alfred, Westminster Hospital.

Third Class.

Davenport, Arthur Frederick, University of Edinburgh and University College.
Jones, Sydney Harold, St. Thomas's Hospital.

Materia Medica and Pharmaceutical Chemistry.

First Class.

Johnson, Raymond (Exhibition and Gold Medal), University College.
*Thane, Edgar Herbert, University College.
*Calvert, James, B.A., St. Bartholomew's Hospital.
*Carless, Albert, King's College.
*Corbin, Eustace Rhodes St. Clair, University College.
Finley, Frederick Gault, Owens and McGill Colleges.
Gardner, Henry Willoughby, St. Bartholomew's Hospital.
Gow, William John, St. Bartholomew's Hospital.
Stevenson, George, St. Bartholomew's Hospital.
Braddon, William Leonard, Guy's Hospital.
Davenport, Arthur Fredk., University of Edinburgh and University College.
Wild, Robert Briggs, Owens College.
Wills, William Alfred, Westminster Hospital.

Second Class.

Hichens, Frank, London Hospital.
Leech, Priestley, Owens College.
Muspratt, Charles Drummond, Guy's Hospital.
Washbourn, John Wychenford, Guy's Hospital.
Childe, Letterstedt Frederick, Guy's Hospital.

Third Class.

Stedman, Frederick Osmund, Charing Cross Hospital.
Barendt, Frank Hugh, Royal Infirmary School of Medicine and University College, Liverpool.
Lever, Frederick, Guy's Hospital.

Organic Chemistry.

First Class.

Washbourn, John Wychenford (Exhibition and Gold Medal), Guy's Hospital.
¶Hichens, Frank, London Hospital.
¶Stevenson, George, St. Bartholomew's Hospital.

Second Class.

Halstead, George Ezra, Guy's Hospital.
Braddon, William Leonard, Guy's Hospital.

Physiology and Histology.

First Class.

Wild, Robert Briggs (Exhibition and Gold Medal), Owens College.
Thane, Edgar Herbert (Gold Medal), University College.

Second Class.

Bright, Eustace Frederick, University College.
Finley, Frederick Gault, Owens and McGill Colleges.
Braddon, William Leonard, Guy's Hospital.
Gow, William John, St. Bartholomew's Hospital.
Johnson, Raymond, University College.
Leech, Priestley, Owens College.

Third Class.

Lever, Frederick, Guy's Hospital.
O'Brien, Patrick Moriarty, Royal Infirmary School of Medicine and University College, Liverpool.
Edge, Frederick, Owens College.

* Obtained the number of marks qualifying for the Exhibition and Medal.
¶ Obtained the number of marks qualifying for a Medal.
N.B.—The bracket denotes equality of merit.

Examinations for Honours.—Intermediate Science and Preliminary Scientific (M.B.) conjointly.—Inorganic Chemistry.

First Class.

Starling, Ernest Henry, Prel. Sci. (Exhibition), Guy's Hospital.
*Hatch, Frederick Henry, Int. Sci., University College.
Bloxam, William Popplewell, Int. Sci., King's College.
Roberts, John Lloyd, Prel. Sci., Guy's Hospital.

Second Class.

Sutherland, G. Whitefield, B.A.Sydney, Prel. Sci., University of Edinburgh and University College.
Jones, Hugh Richard, Int. Sci., Liverpool Inst. and St. John's College, Cambridge.
Overbeck, Otto Christopher J. G. L., Int. Sci., University College.

Third Class.

Ashworth, Percy, Prel. Sci., Owens College.
Black, George, Prel. Sci., Guy's Hospital.
Taylor, Frederick Howard, Prel. Sci., London Hospital and Private Study.
Ashe, Evelyn Oliver, Prel. Sci., Owens College.
Cooke, Cecil Whitehall, Prel. Sci., St. Thomas's Hospital.
Rennie, George Edward, B.A.Syd., Prel. Sci., University College.
Harris, Walter, Int. Sci., Bradford Grammar School and Private Tuition.
Field, Alfred Ernest, Int. Sci., Trinity College, Oxford.
Hensley, Philip Henry, Prel. Sci., King's College.

Experimental Physics.

First Class.

Buchanan, John, Int. Sci., (disqualified by age for the Arnott Exhibition and Medal), University and King's Colleges.
Starling, Ernest Henry, Prel. Sci., Guy's Hospital.

Second Class.

Roberts, John Lloyd, Prel. Sci., Guy's Hospital.
Baker, Edward George, Int. Sci., Private Study.

Third Class.

Finnegan, John Maxwell, Int. Sci., Queen's College, Belfast, and Private Tuition.
Adamson, Mary Madeline, Int. Sci., Bedford College, London.
Chambers, Jesse Mary, Int. Sci., Private Study.

Jones, Hugh Richard, Int. Sci., Liverpool Inst. and St. John's College, Cambridge.
Ashworth, Percy, Prel. Sci., Owens College.
Whitehead, Henry Edward, Prel. Sci , St. Bartholomew's Hospital.

Botany.

First Class.

Boyce, Rubert William, Prel. Sci. (Exhibition), University College.
*Starling, Ernest Henry, Prel. Sci., Guy's Hospital.
Fernau, Chas. Hermann, Prel. Sci., University College.

Second Class.

Powell, Llewelyn William, Prel. Sci., University College.
Blake, James Edward Huxley, Prel. Sci., Mason College, Birmingham.
Gardiner, John, Prel. Sci., Owens College.
Baker, Edward George, Int. Sci., Private Study.

Third Class.

Hastings, Edwin Birchall, Prel. Sci., University College.

Zoology.

First Class.

Rennie, George Edward, Prel. Sci., University College.
Fernau, Chas. Hermann, Prel. Sci., University College.

Second Class.

Brindley, Albert Edward, Prel. Sci., Owens College.
Gardiner, John, Prel. Sci., Owens College.

Third Class.

{ Durham, Arthur Ellis, Prel. Sci., University College.
{ Wood, Frank Lomax, Prel. Sci., Owens College.

* Obtained the number of marks qualifying for the Exhibition or Prize.
N.B.—The bracket denotes equality of merit.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 23rd, 1883.

Abbott, Frederick Ernest, The Manse, Penrith.
Alsop, Clement, Teignmouth.
Bhabha, Rev. Shapurji Dadabhai, Queen's Road, Norland Square, W.
Cheves, James Trelawny, Millbrook, Devonport.
Gibbon, Frederick William, Seaham, Co. Durham.
Larking, Arthur Ernest, St. Thomas's Terrace, Southwark.
Robinson, Louis, Saddlescombe, Sussex.
Smithwick, Thomas, Middleton, Cork.

The following gentlemen also on the same day passed their Primary Professional Examination.

Roberts, George Augustus Edward, Middlesex Hospital.
Simpson, George Augustus Garry, London Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

ANDERSON'S COLLEGE.—Chair of Institutes of Medicine. Applications by September 5th.

CASHEL UNION, CASHEL DISPENSARY.—Medical Officer. Salary, £120 per annum, and £20 as Medical Officer of Health. Election September 1st.

CASTLEBAR UNION.—Medical Officer, Castlebar Dispensary, North Division, No. 2. Salary, £125 per annum, and fees. Election on September 8th.

CAVAN COUNTY INFIRMARY.—Surgeon. Salary, £94 per annum. Applications by September 18th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by September 8th.

CITY PARISH DISPENSARY, Parliamentary Road, Glasgow.—Assistant-Dispenser. Salary, £50 per annum. Applications to the Inspector of Poor, 218, Parliamentary Road, by September 1st.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

DURSLEY UNION.—Medical Officer. Salary, £80 per annum. Applications by September 12th.

GENERAL INFIRMARY at Gloucester and GLOUCESTERSHIRE EYE INSTITUTION.—House-Surgeon. Salary, £100 per annum. Applications by September 1st.

GENERAL INFIRMARY, Leeds.—House-Physician. Salary, £100 per annum. Applications to Dr. T. Clifford Allbutt, the Infirmary, Leeds, by September 12th.

GENERAL LYING-IN HOSPITAL, York Road, Lambeth.—House-Physician. Salary, £50 per annum. Applications by September 7th.

HARTLEPOOLS' FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to T. Twiddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by September 1st.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Applications by September 20th.

JERSEY PUBLIC LUNATIC ASYLUM.—Superintendent Medical Officer. Salary, £250 per annum. Applications to the President of the Committee by September 1st.

KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by October 1st.

LEEDS UNION.—Assistant Medical Officer and Dispenser. Salary, £100 per annum. Applications endorsed "Application for Assistant Medical Officer," by September 1st.

LONDON HOSPITAL.—Demonstrator of Practical Chemistry. Salary, £100 per annum. Applications to the Warden by September 1st.

PARISH OF CANISBAY, Caithness.—Medical Officer. Applications to Peter Keith, Esq., Barrogill Castle by Wick, Chairman of the Parochial Board, by September 19th.

PAROCHIAL BOARD OF KILLEAN AND KILCHENZIE.—Medical Officer. Salary, £150 per annum. Applications to the Chairman of Board Glencreggan, Kintyre, Argyleshire, or to Inspector Gallowhill, Campbeltown.

ROYAL INFIRMARY, Bristol.—Junior Assistant Dispenser. Applications to F. J. Milner by September 1st.

ST. BARTHOLOMEW'S HOSPITAL.—Assistant Physician. Applications by September 10th.

ST. GEORGE'S, HANOVER SQUARE, PROVIDENT DISPENSARY, 59, Mount Street, W.—Resident Medical Officer. Applications by September 29th.

ST. GEORGE'S UNION, Middlesex.—Assistant Medical Officer. Salary, £120 per annum. Applications by September 10th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden.—House-Surgeon. Appointment for six months. Honorarium, 25 guineas. Applications by September 25th.

WESTERN GENERAL DISPENSARY, Marylebone.—Honorary Physician. Applications by September 10th.

WALLASEY DISPENSARY.—House-Surgeon. Salary, £140 per annum. Applications by September 8th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon. Applications by September 1st.

MEDICAL APPOINTMENTS.

COOPER, Austin N., L.R.C.S.I., appointed a Demonstrator of Anatomy in the School of the Royal College of Surgeons in Ireland.

DOWSON, W., M.B., appointed House-Surgeon to the Salop Infirmary, *vice* G. D. Collins, M.R.C.S., resigned.

DUNCAN, G., M.B., appointed Assistant Surgeon to the Gateshead Dispensary, *vice* W. Harding, M.B., resigned.

ELBORNE, W., appointed Assistant Lecturer in Materia Medica and Pharmacy, and Curator of the Materia Medica Museum, to the Owens College, Manchester.

GOWANS, William Bruce, M.B., C.M., appointed House-Surgeon to the Perth County and City Infirmary.

HART, H. Wheatley, M.R.C.S., L.S.A., appointed House-Surgeon to the Hartlepools' Hospital, *vice* Dr. Donkin, resigned.

HILL, A. B., M.D., Birmingham, appointed Analyst to the City of Coventry.

HOLTON, R., M.R.C.S., appointed Resident House-Surgeon to the Oldham Infirmary, *vice* R. F. Rand, M.B., resigned.

JONES, C. W., M.B., appointed Resident Assistant Medical Officer to the Township of Manchester, *vice* A. Watlie, M.B., resigned.

LEGAT, H. T., L.R.C.P., appointed House-Surgeon to the Stockton-upon-Tees Hospital and Dispensary, *vice* E. G. Hull, M.B.

RAMSAY, A. M., M.B., appointed Resident House-Surgeon to the Glasgow Eye Infirmary.

SHEARER, Frank, M.B., C.M., appointed Dispensary Physician to the Paisley Infirmary.

VINCENT, George, M.B., C.M., M.R.C.S.Eng., appointed House-Surgeon to the Worksop Dispensary, *vice* E. Fielding, M.R.C.S.Eng., resigned.

WILLEY, C. H., M.B., appointed Resident Medical Officer to the Sheffield Borough Hospital for Infectious Diseases, *vice* B. A. Whitelegge, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

WALKER.—On August 25th, at Field Head, Golcar, near Huddersfield, the wife of J. Burnley Walker, M.D., of a son.

WESTON.—On the 23rd instant, at Springfield Cottage, Handsworth, the wife of S. T. Darley Weston, M.R.C.S.Eng., of a son.

MARRIAGES.

O'FARRELL—ROCHE.—August 22nd, 1883, at the Church of St. Columbkill, Bray, by the Very Rev. Dean Lee, P.P., assisted by the Rev. T. Bourke, D.D., Thomas O'Farrell, Esq., M.A., M.D., Surgeon-Major A.M.D., son of Thomas D. O'Farrell, Esq., Loughrea, Crown Solicitor for Galway, to Maria Josephine, daughter of William Roche, Esq., 72, Harcourt Street, Crown Solicitor for Limerick.

RICE-OXLEY—AMOS.—On the 23rd inst., at Holy Trinity Church, Clapham Common, by the Rev. Edward Collinson, Rector of Woodsford, near Dorchester, Alfred James Rice-Oxley, B.A.Oxon, M.B., M.R.C.P.Lond., of "Conisbro'," Leigham Court Road, Streatham Common, to Eva Augusta, fourth daughter of the late Charles Edwards Amos, C.E., of 5, Cedars Road, Clapham Common. No cards.

WEBB—DOCKSEY.—On the 23rd instant, at St. James's Church, Birkdale, Southport, by the Rev. R. Stephenson, M.A., Vicar, Henry Langley Webb, M.R.C.S.E., Cheadle, Staffordshire, to Jeanette, only daughter of John Docksey, Birkdale, Southport.

A PARIS correspondent of the *Daily Telegraph* states that M. Pasteur, the eminent physician and scientist, who was largely instrumental in procuring the despatch of a French medical expedition to Egypt to examine into the causes of cholera and the nature of the disease, has received reports from the commission which are highly satisfactory to him. The mission believes that the result of examinations it is now pursuing, will establish that old accepted theories as to the origin and nature of the disease are greatly at fault. It is hoped the mission will make a report embodying practical suggestions for prevention of the epidemic.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S , 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE REPRESENTATION OF THE MEDICAL PROFESSION IN PARLIAMENT.

SIR,—The increasing influence of the medical profession in public affairs, is not compensated by the want of political power in matters relating to its own body. Would it not be advantageous to the profession if it introduced and supported, as a body, and at its own expense, some member who would take up and prosecute reforms connected with the practice of medicine? Such measures as the Medical Bill might be taken up and pressed forward by a member who was especially sent to represent the interest of the medical profession. It is beyond the power of a medical man engaged in practice to become a candidate for Parliament; but if a maintenance were insured, there are able members of the medical profession who would willingly offer themselves as representatives. I should be very willing to subscribe annually for this object.—Yours,

T. FREDERICK PEARSE, M.D.

Haslemere, Surrey.

SMALL BIRDS AND CHOLERA.

A CORRESPONDENT writes to *Nature* to say that he has received from a resident at Zagazig, in Egypt, a curious observation relating to cholera. The town of Zagazig had, up to the time, remained perfectly healthy, and the swallows and sparrows were flying about as usual, and, so long as they remained, the resident considered the inhabitants were quite secure from any attack, but when the birds left he would not be long before he followed them. He remarked further, that the birds had been observed by residents of long standing to depart before the approach of cholera during the last four epidemics. The gentleman writing to *Nature* asks what can be the cause of this, and we shall be glad if any of our readers can answer the question.

TENNIS ELBOW.

SIR,—I am an unfortunate sufferer from the above troublesome affection, which came on after five or six hard sets at tennis at the commencement of this season. Will some of your numerous readers, who have had experience of this complaint, kindly inform me what is the condition produced in the tissues surrounding the joint, and also the treatment they have found most efficacious in obstinate cases? I have tried rest and friction for about two months, without much benefit, as my arm quickly breaks down the moment I commence using it, and becomes very painful. I am compelled to use it very carefully even for ordinary purposes, such as dressing, etc., and it is quite useless where strength and prolonged exertion are required. The mischief seems to be chiefly in the muscles and tendons of the forearm immediately below the joint, and the triceps above the joint.—I am, yours faithfully,

A MEMBER.

A NIGHT MEDICAL SERVICE.

SIR,—In reference to the very judicious remarks you make as to the necessity of a "Night Medical Service," permit me to observe, that until a better plan can be initiated and established, the elements of such a service already exist and might be made available in cases like that of a little girl who recently died in Peabody's Buildings, Bermondsey, viz., the medical practitioner attached to each of the Metropolitan Police Stations. The only requisite should be an application made to, and an order for attendance obtained from, the inspector or officer in charge of night duty at the nearest police station. The discretionary power invested in the Home Secretary should be sufficient authority for the prompt action of the police in similar cases.—I am, sir, yours obediently,

H. C. STEWART, F.R.C.S.E.

22, North Bank, Regent's Park, N.W., August 10th, 1883.

AUTUMN BEE-STINGS.

SIR,—There having been several cases reported this month of death from the sting of a single bee (two cases, if I remember correctly, occurring in Warwickshire), I write to say it would be interesting to know if any of your correspondents who saw any of these cases, did ascertain whether or not the war, not unusual at this season of the year, was proceeding in the hives between the working bees and the drones. Supposing one of these wars to be actually proceeding at the time, it does not seem very difficult to account for the virulence of the sting, quite apart from any abnormal condition of the blood and nerve-centres of the person stung, or even the exact spot where the wound was inflicted.—Yours, etc.,

J. H. W.

August 17th, 1883.

MEDICAL INSURANCE.

SIR,—Now that medical providence is being placed on a secure basis by the Association, I ask, as an uninsured member, if the Committee will not undertake to at least recommend one or more insurance companies to its members, seeing that life-assurance cannot be entered into by the Society? This question has, I know, been asked of you before, but has only been answered by referring the anxious inquirer to a digest of prospectuses, and then letting him choose for himself. Taking, for instance, the sixty or so companies presented in Churchill's *Directory*, it is almost impossible for an average reader, inexperienced in actuarial business, to decide upon the best or safest. Whereas, if the Provident Committee were but to inquire into, and treat with, a few of the number, and explain their several merits to members, it would, I believe, save a deal of heart-burning, and prevent that diffidence and lamentable lack of providence which have hitherto marked our profession.

Most of us have had experience with offers of medical refereeships as baits for premiums; and how many there are who have thus been taken in by the most plausible and able representations of agents, it is difficult to tell. For the sake of those who may now possess valueless policies, and the many more whose wives and families are unprovided for, a complete and authoritative reply would be gladly welcomed.—Faithfully yours,

A. LL. J.

WARRANTS OF BROUGHAMS.

SIR,—If any of your readers should feel tempted to purchase a brougham for the forthcoming winter, or otherwise, let me advise that a thorough understanding should exist between the buyer and seller, as to what "a warrant to last for two years" means.

I bought a brougham in November last year, "warranted to last two years," of a person who advertises a medical brougham. In April I had to send it to have the wheels repaired; in July the wheels had again broken down, and the roof had cracked; and I, finally, to get rid of it, accepted £40 from the seller, to whom I had paid £78 15s.; not a very profitable piece of work. The guarantee to "last two years," merely meant to repair if broken down with fair wear and tear—the latter of course was disputed.—I am, sir, yours truly,

H.

Ship-Surgeons.

Sir,—My attention has been recently drawn to an article in the *Shipping and Mercantile Gazette* of August 3rd, on the subject of ship-surgeons. I do not propose to enter into the controversy as to the position of ship-surgeons; but, inasmuch as a most unwarrantable attack is made on the medical officers of the Board of Trade, perhaps you will allow me, through the medium of your Journal, to say a few words in their defence. The article in question says: "If the mortality on board Atlantic steamers is unnecessarily high, the blame rests not with the shipowner, but with the Board of Trade, or with the medical officer who passes the emigrants previous to embarkation. The former sees that the accommodation is sufficient and wholesome; the latter ought to see—and usually does not—that no person in a diseased condition leaves in an emigrant-ship. If the accommodation be sufficient, why should there be an unduly high rate of mortality? We can assign no reason unless the medical examination is a farce."

It is evident from the general tone of the article, and the feeble and somewhat shallow attempts to sneer at the medical profession in general, that the writer is not a medical man; and, therefore, his opinion as to the value of a medical examination is absolutely worthless. As, however, he evidently believes in the principle, "throw as much dirt as you can, some of it will be sure to stick," it will, perhaps, be as well to show, by a few simple facts, the obvious fallacies contained in the above statement.

In the first place, the medical inspector does not, and is not supposed to, see that no person in a diseased condition leaves in an emigrant-ship; but simply that no person suffering from a contagious or infectious disease, and likely to endanger the health or safety of the rest of the passengers, proceeds. This is a vastly different thing, and requires a much simpler examination. Of course, when, as sometimes happens, as many as a thousand emigrants have to be passed on the deck of a ship, it is impossible to devote much time to each case; but the examination is as thorough as the circumstances of the case admit; and that, practically, it answers the purpose intended, is proved by the fact that it is very seldom any infectious disease breaks out on a ship for the first four or five days after leaving port. Obviously (a thing the lay mind cannot grasp), it is impossible to detect the zymotic diseases during the period of incubation, and, therefore, a week's quarantine could alone guard against this danger. Were such a proposal as this seriously put forward, would there be not weeping, wailing, and gnashing of teeth, not only among the emigrants, but the ship-owners also?

For my own part, I have never shared the opinion that the death-rate on the first-class Atlantic lines is excessive, and the statistics quoted by Dr. Irwin appear to me to prove this, when worked out; whether it might not still further be reduced is an open question. Whatever the mortality may be, however, it can be clearly shown that it cannot possibly be attributed to the insufficient examination at the time of sailing. Thus, from the reports of the different ship-surgeons, it appears that, from August 1882, to August 1883, there were 68 deaths among emigrants embarking at Liverpool; and out of this number, 3 were attributed to diphtheria, and 3 to cramp, and none to any of the eruptive fevers. Thus there were only 6 deaths in the year from infectious diseases, the majority being caused by pneumonia, bronchitis, diarrhœa, and heart-disease. The evidence on this point is, therefore, pretty conclusive.

Again, the writer affirms that the Board of Trade sees that the accommodation is sufficient and wholesome; this is erroneous. The inspectors of the Board of Trade can only insist on the accommodation being in accordance with the requirements of the Passenger Acts, last revised twenty years ago. This is rather a different thing; and, if they are to be held responsible for any excess of mortality, and are to be blamed if the sanitary arrangements are not up to the requirements of the present day, is it not nearly time that they had more power given to them by Act of Parliament? I can quite imagine that, if the sanitary inspectors had fuller powers, they would certainly object, among other things, to any hospital being placed on the same deck as the passengers, upper or lower, to the surgeon of the ship having no proper dispensary apart from his sleeping cabin, and to men with only a single qualification being allowed to take charge of a ship with a large number of emigrants.

In conclusion, I think it is very much to be regretted that the writer of leading articles in a respectable paper should not be more sure of his ground before bringing serious and unfounded charges against professional men.—I am, sir, yours, etc., L.R.C.P.Lond., M.R.C.S.

Sir,—Being about to undertake a voyage in an emigrant ship as surgeon, I should be much obliged if any Associate would inform me what work or works are written on the sanitation of the above ships.—I am, sir, your obedient servant, Orient.

Cramp.

Sir,—I suggest for the drug-treatment of this condition, subject to the peculiarities of the patient, ext. hyoscyami gr. iij; camphoræ gr. ij; morphiæ bromidi gr. $\frac{1}{12}$, in a pill at bedtime. This pill has succeeded perfectly in a recent case. "Enquirens" will, of course, remove all ascertained causes so far as possible.—Yours truly, T. C.

Sir,—I would recommend "A Member" to try a small dose of bichloride of soda when the cramp comes on. I have found much benefit from it.—I am, etc., A Victim.

The Relief of Toothache.

Sir,—Possibly the following may be of use. I have found it very successful. It is a modification of a method recommended by Professor Babaieff to the Caucasian Medical Society. Melt white wax or spermaceti, two parts, and when melted, add carbolic acid crystals, one part, and chloral hydrate crystals, two parts; stir well till dissolved. While still liquid, immerse thin layers of carbolised absorbent cotton-wool, and allow them to dry. When required for use, a small piece may be snipped off, and slightly warmed, when it can be inserted into the hollow tooth, where it will solidify. The ease produced by this simple method is really very great.—I am, etc.,

Kineton, August 21st, 1883. Kenneth W. Millican.

Tricycles.

Bewildered will find much information of the kind he desires in the first volume of the Journal for the present year, pages 391, 493, 749, 1102, and 1263. Our correspondent desires in particular to obtain the opinion of the experienced concerning the "Cheylesmore" tricycle, particularly as to its fitness for riders not possessing great muscular strength.

A Holiday Cruise.

The S.S. *Ceylon*, until recently one of the well-known fleet of the Peninsular and Oriental Steam Navigation Company, will, as announced in our advertisement columns, sail on a cruise in the Mediterranean about the middle of October.

The ship is now at Sunderland, in the process of being refitted with new engines and boilers, and undergoing various alterations necessary to complete the comfort of passengers. Every care is being taken to make the vessel as perfect as possible for her employment, which is to provide the means of travelling for those whose object is not so much to see as many foreign countries as they can in the least possible time, and at the cheapest rate, but for that class who care less to see a great number of places than to make a cruise under the pleasantest possible circumstances, in a vessel combining the special features of a private yacht, with the size and comfort of our best passenger-steamers.

The *Ceylon* contains a luxurious ladies' boudoir upon the quarter deck, and card and smoking rooms forward. The cabins are roomy, well-ventilated, and lighted by a large square port in each, a luxury which all acquainted with ocean voyaging well know how to appreciate. There are numerous marble baths supplied with hot and cold water.

The advantages of a ship sailing in the style of the *Ceylon* over an ordinary passenger-ship carrying mails and cargo are obvious; inasmuch as, when in port of call, all noise, confusion, and dirt, incidental to the discharging and embarking of cargo will be avoided, and a great comfort to passengers will be provided by their conveyance to and from the shore in the ship's boats, manned by members of the crew, in place of the necessity of employing native boats, manned by unknown, generally rapacious, and often insolent boatmen. Should the hotels be the reverse of comfortable, passengers will enjoy the advantage of being able to return to the ship at night, where they are certain of comfortable quarters.

The places selected to be visited are chosen on account of the salubrity and equable temperature of the climate, as well as for the beauty of scenery and the historic associations connected therewith. An endeavour has also been made to strike out a new line for those travellers anxious to get away from the beaten track followed by the crowd of autumn tourists.

A Question of Diagnosis and Treatment.

Sir,—I have lately had a case almost identical with that of "An Associate," as he describes it in the Journal for August 18th. The mode of attack, initiatory symptoms, and, as far as I can judge, the predisposing causes, were precisely similar. The gouty diathesis certainly existed, and the patient had, some months before, suffered from purpura. The cutaneous irritation was extreme, and, as in your correspondent's case, not only a touch, but the very directing of the patient's attention to the complaint, sufficed to render it well-nigh intolerable. There were frequent eruptions of urticaria about the neck, and one distinct attack of erysipelas. All this cutaneous disorder rapidly and completely disappeared under the use of the following: ℞ Potassæ acetatis ʒj; potassæ bicarbon. ʒvj; liq. arsenicalis ʒj; tinct. belladonnæ ʒiij; vini colchici ʒss; tinct. aurantii ʒj; aquam chloroformi ad ʒxij. Fiat mistura. Half an ounce, three times daily, in water, after meals. The only local application was an ointment of chloral-camphor (ʒij of the liquid to ʒvj of benzoated lard) to the patches of urticaria when present. This, the patient found "cooling" and agreeable. When the cutaneous affection had disappeared, the patient took, for eight or ten days, two grains of sulphate of quinine, three grains of dried sulphate of iron, with one minim and a half of liquor atropiæ sulphatis, and six minims of dilute sulphuric acid in mixture, three times daily; and is now perfectly well.

Now, whether or not the gouty diathesis exists in your correspondent's case (which, notwithstanding his scorn of the suggestion, is highly probable), I have no doubt at all that he is suffering from that peculiar nervous lesion of which the "explosion" is purpura. As a nerve-tonic in such cases, sulphate of copper is unequalled. I would suggest the following: ℞ Cupri sulphatis. gr. iv; pulv. opii gr. iij; extracti gentiani, q. s. ut fiat massa, in pilulas xij dividenda. Sumat j quater die.

I have given these pills for three months together, without inducing constipation or other inconvenience, except, occasionally, slight nausea, which can always be avoided by taking them with, or shortly after, food. I think a course of them, the cutaneous irritation being first got rid of, likely to result in much benefit to your correspondent, especially if "mental worries" can be got rid of too. Should he adopt these suggestions, I shall be glad to know the result.—Yours obediently, Usher B. Caton, M.D.

Mitchelstown, August 25th, 1883.

Sir,—I am of opinion that your correspondent "An Associate" suffers from attacks of eczema, caused by digestive derangement brought on by worry. I was attacked with eczema for the first time two years ago, after deep sorrow from bereavement, but not in so severe a form as that of your correspondent. It reappears if I get out of order or depressed. I found the following medicine to do me most good. R. Magnesiæ sulphatis ʒiij; tincturæ zingiberis ʒgr.; infusi gentianæ comp. ʒvj. An ounce to be taken twice or three times a day; applying during the acute stage a mild lead lotion, and afterwards ointment of ammonio-chloride of mercury. I do not know that I am gouty; but, as a precaution, I take occasionally small doses of bicarbonate of potash and colchicum.—Yours, etc., Addi.

Sir,—I take it that "Associate's" case is one of idiopathic phlegmonous erysipelas, and suggest Plummer's pill at night, followed by draught of Friedrichshall water in the morning, to be taken in the early stage of nervous depression; to be followed by the following mixture: R Liq. ferri perchlor. ʒiiss; acidi acetic fort. ʒj; liq. ammon. acet. ʒij; tinct. aconiti ʒj; syrupi simplicis ʒss; aquam ad ʒviij. Misce. Fiat mistura, cujus capiat cochleare modicum secundâ quâque horâ. If the attack be not abated, as a local application, atropia or extract of belladonna in glycerine, or oleate of zinc, would be found soothing. In case of insomnia, hydrate of chloral may be taken at bedtime.—Yours truly, A. H. Bampton, M.D.

Plymouth.

Sir,—In an essay by Dr. Gee, in vol. ii of *Quain's Dictionary of Medicine*, page 1399, "An Associate," notwithstanding his positive assertion that his constitution is "without any hereditary taint whatever," may find some hints to help in explaining the indefinite condition of his singular diathesis. In certain constitutional states of life, like the imagination, "bodies forth the forms of things unknown." It is only the pen of the transcendental pathologist that "can turn them to shapes, and give to airy nothing a local habitation and a name."—Yours faithfully, Another Associate.

FISH AS AN ARTICLE OF DIET IN WORKHOUSES.

SIR,—I am endeavouring to convince the Board of Guardians (of which I am a member) of this district, that it would be for the benefit of the workhouse inmates, and possibly economical as regards the ratepayers, if they would adopt—if only for a limited period—fish as a regular article of diet in lieu of meat, once or twice weekly. I have not yet been able to obtain a majority in favor of my proposition, owing to a prejudice against innovation; but, as I am convinced of the utility of the change, I mean to succeed. As a help to that end, I would be glad if every reader of this note having knowledge of a workhouse that has adopted a partial fish diet, would kindly inform me, as soon as convenient, and, if possible, also let me know the amount per head found necessary for a dinner.—Yours faithfully, W. ARNOLD THOMSON.

Ampthill, August 21st.

MARRIAGE OF COUSINS.

SIR,—Will you direct the attention of "A First Cousin" to Section 563 of the *Medical Digest*, where he will find all that has been written upon the subject, during the last thirty-five years, referred to.

Since the publication of the *Digest*, a paper by Dr. Cameron has appeared in the JOURNAL, January 1883, p. 12, as well as some consolatory remarks, in cases of healthy subjects, in the *Lancet*, July 1883, p. 88.—I am, yours truly, RICHARD NEALE, M.D.Lond.

60, Boundary Road, South Hampstead, N.W., August 21st, 1883.

SIR,—In answer to the inquiry of your correspondent, "A First Cousin," in the JOURNAL of August 18th, I may inform him that the book to which I believe he refers is *The Marriage of Near Kin, considered with respect to the Laws of Nations, Results of Experience, and the Teachings of Biology*, by Alfred H. Huth, published by Churchill. He will find the subject of consanguineous marriages very fully considered therein.—I am, etc., JOHN W. ELLIS, L.R.C.P.E.

101, Everton Road, Liverpool, August 25th, 1883.

SIR,—Your correspondent "A First Cousin" will find requisite information concerning results of consanguineous marriages, in the following treatises. Huth *On the Marriage of Near Kin:* Liebreich, *Medical Times and Gazette*, April 6th, 1861, p. 372; Correspondent in the *Lancet* for 1866, p. 113; Professor Devay, *Gazette Hebdomadaire*, September 1860, p. 598; *Transactions of the American Medical Association*, vol. ii, 1858; "Marriages between First Cousins," *Journal of the Statistical Society*, vol. 38, p. 347, 1875.—I am, etc.,

1, Euston Square, N.W. CHARLES J. BARRY.

LUMINOUS PAINT.

SIR,—"Night Bell" may find luminous paint at Nemitz's, 28, Boulevard Poissonière, Paris. I am satisfied with mine, which I have had now about four months. I do not know whether Nemitz has a depôt in London.—Yours truly, A. CORDES.

Geneva, August 26th, 1883.

SIR,—If "Night Bell" will write to Messrs. Ihlee and Horne, 31, Aldermanbury, E.C., he will obtain all the information he requires; and has only to carry out their directions to ensure success.—Yours faithfully, ONE WHO HAS TRIED IT.

DR. GRAHAM (Weybridge) writes to the same effect; but he does not think that the paint will last for more than two years without repainting.

OXYURIS VERMICULARIS.

A MEMBER asks for suggestions in the following case. C. N., aged 32, has been troubled with oxyuris vermicularis since his fourteenth year, and from time to time has taken calomel, scammony with jalap; and for the last four years, once a month, santonin (seven grains), followed by castor oil, and, some hours afterwards, an enema of turpentine and gruel. He states he has used enemata of salt and water, quassia, aloes, etc. His father, grandfather, and great grandmother, also two sisters, were all teased with the same kind of worm.

SIR,—A lady who wishes for a female child, asks if I can give her any information whether any steps can be taken to secure this result. I have seen in the JOURNAL some remarks about sex, and its cause, but cannot remember where. Can any of your readers help.—Yours, etc., M. D.

HYPERTROPHY OF THE BREAST.

SIR,—Hypertrophy of the breast is, I think, not a common affection. The following case, although occurring in a far distant colony, may, therefore, not be uninteresting.

M., a negress, and a labourer on an adjacent estate, applied for relief last month. She was apparently forty years of age, and well nourished. She married about twenty years ago, and has had three children, aged respectively 15, 12, and 10 years. She first noticed commencing enlargement after the birth of her second child, which she nursed for sixteen months. Her third child she nursed fifteen months. She has always menstruated regularly, except during pregnancy and nursing. The enlargement has been gradual since the birth of her second child, and pain has throughout been entirely absent.

On examination, both breasts, when allowed to hang, very nearly reached the umbilicus, the right being slightly longer than the left. She refuses all operative interference.—Faithfully yours, S. FITZGERALD PROCTOR, M.B., M.A.

St. Lucia, West Indies, July 20th, 1883.

LOCAL ANIDROSIS.

SIR,—Can any of your readers help me in the following case? A gentleman of active habits and careful living comes to me complaining of suffering from dry hot hands and feet, so much so as to be an ever-present source of discomfort to him. Sweating freely on exertion from head and body, not the slightest moisture is to be found on the extremities. The skin on them appears to be perfectly healthy, and he is in very good health himself. I have tried a number of external applications, and, internally, diaphoretics, and refrigerants, but without the slightest effect in causing perspiration, or removing the sensation of burning heat.

I shall be much obliged by any suggestions.—Yours truly, A MEMBER.

SIR,—Will you kindly inform me which is the most suitable book for "getting up" mechanics as required by the London examining bodies?—Yours truly, MEDICAL STUDENT.

*** Ganot's *Physics;* or Deschanel's *Natural Philosophy*, translated by Everett.

HOME FOR CRIPPLED GIRLS.

SIR,—Can any of your readers give the name of a home for crippled girls, or any other charitable institution where a female child would be received? She is about ten years old, and without the use of her lower limbs, having been the victim of infantile paralysis from the first year of her life. The information would greatly oblige,—Yours truly, THOS. M. WATT.

X.—The employment of unqualified assistants is a burning question, on which we have repeatedly expressed our opinion, as our correspondent will find if he has followed the discussions during the past year. The General Medical Council has issued a report on the subject, of which a copy may be obtained at their printers, Messrs. Spottiswoode and Co., 30, Parliament Street, S.W., and which would probably interest our correspondent to read.

EXCISION OF CANCER OF THE BREAST IN AN AGED PATIENT.

IN the case described by Mr. Joshua Rhys at page 270 of the JOURNAL for August 11th, the operation was performed by Dr. Augustus Brown.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. S. T. Daley Weston, Handsworth; Mr. W. Spooner, Liverpool; Mr. T. Richards, Wincanton; Mr. E. Child, New Malden; Dr. Churton, Leeds; Mr. A. R. Graham, Holmwood, Weybridge; Mr. B. Spedding, Belfast; Mr. Lancelot Newton, Alconbury Hill; Mr. Henry Bird, Scole; Mr. E. O. Rowland, Whittingham, Preston; Dr. Mackie, Alexandria; Mr. J. H. Johnson, London; Dr. Styrap, Shrewsbury; Mr. John J. M. Roberts, Amlwch; Dr. G. F. Bodington, Kingswinford; Mr. James Gopal, London; Mr. R. Davy, London; The Right Hon. A. J. Mundella, M.P., London; Lord E. Fitzmaurice, London; Mr. W. E. Gowans, Perth; Dr. John Alexander, Glasgow; Dr. J. H. Clarke, London; Messrs. Evans and Worral, London; Mr. R. Denham Pinnock, Ballarat, Australia; An Indian Medical Officer; Mr. James Barron, Sunderland; Dr. A. Brown, London; The Editor of *Nature*, London; Hon. E. Gibson, London; Dr. B. Foster, Birmingham; Dr. Fairlie Clarke, Southborough; Mr. A. L. Jones, London; Dr. A. Cordes, Geneva; Messrs. Street Brothers, London; Mr. Dolan, Halifax; Mr. R. R. Barnett, London; Mr. W. Allam, London; Dr. Alfred Carpenter, Croydon; Mr. W. Johnson Smith, Greenwich; Mr. T. H. Dale, Birmingham; Mr. A. D. Hayter, London; Mr. C. G. Wheelhouse, Leeds; Mr. Bowman, London; Dr. E. Drummond, Rome; Mr. George Gentle, London; A Member; Mr. W. H. S. Walker, Glasgow; Dr. Henry Ashby, Manchester; Dr. J. A. Owles, London; Dr. Sawyer, Birmingham; Mr. George Padley, Swansea; Mr. W. S. Frost, West Wratling, Cambridge; Mr. J. W. Lax, Burslem; Dr. Grabham, Wellington, N.Z.; Mr. Fitzgerald Proctor, St. Lucia; Mr. J. W. Ellis, Liverpool; Dr. U. B. Eaton, Mitchelstown; Dr. Clifford Allbutt, Leeds; Mr. Johnson, Dublin; Mr. Thomas Ryan, London; Mr. M. D. Makuna, London; Mr. L. Humphry, Cambridge; Mr. C. Coppinger, Dublin; Mr. W. R. Pollock, London; Mr. F. W. Fairbank, Hambrook, near Bristol; Mr. E. C. Barnes, Hammersmith; Dr. C. E. Glascott, Manchester; Mr. A. H. Barrett, Wallingford, Berkshire; Dr. H. Davy, Exeter; Mr. J. D. Power, London; Mr. Thomas G. Prosser, Monmouth, etc.

BOOKS, ETC., RECEIVED.

A History of Tuberculosis from the Time of Lyevins to the Present Day; Being in Part a Translation, with Notes and Additions from the German of Dr. Arnold Spina; Containing also an Account of the Researches and Discoveries of Dr. R. Koch, and other recent investigations. By Eric E. Sattler, M.D. Cincinnati: Robert Clarke and Co. 1883.

Royat (les Bains) in Auvergne; Its Mineral Waters and Climate. By G. H. Brandt, M.D. Second Edition. London: H. K. Lewis. 1883.

Hamman Rirta, Algiers; A Winter Health-Resort and Mineral Water Cure Combined. By G. H. Brandt, M.D. London: H. K. Lewis. 1883.

A Guide to the Practical Examination of the Urine, for the Use of Physicians and Students. By James Tyson, M.D. Fourth Edition. Revised and corrected, with coloured plates and wood engravings. Philadelphia: P. Blakiston, Son, and Co., 1012, Walnut Street.

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REGULATIONS
OF
THE GENERAL MEDICAL COUNCIL AND MEDICAL LICENSING BODIES.

SESSION 1883-84.

RECOMMENDATIONS OF THE GENERAL MEDICAL COUNCIL ON EDUCATION AND EXAMINATION.

PRELIMINARY EXAMINATION.—1. No person is allowed to be registered as a medical student unless he shall have previously passed a preliminary examination in the subjects of general education as hereinafter provided.—2. The Executive Committee is to prepare and issue from time to time a list of examining bodies whose examinations fulfil the conditions of the Medical Council as regards general education.—3. Testimonials of proficiency granted by educational bodies, according to the subjoined list, are accepted; the Council reserving the right to add to or take from the list. (A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient testimonial of proficiency.) I. *Universities of the United Kingdom. Oxford:* Responsions; Moderations. *Cambridge:* Previous Examination; Higher Local Examinations. *Durham:* Examination for Students in their second and first years; Registration Examination for Medical Students. *Oxford, Cambridge, and Durham:* Examination for Degrees in Arts; Senior Local Examinations, Certificates to include Latin and Mathematics; Junior Local Examinations, Certificate to include Latin and Mathematics; and also one of the following optional subjects, viz., Greek, French, German, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.—*Oxford and Cambridge Schools' Examination Board:* Certificate to include English Language, including Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry, including the first two books of Euclid; Latin, including Translation and Grammar; and one of the following optional subjects: Greek, French, German, and Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.—*London:* Matriculation Examination; Preliminary Scientific (M.B.) Examination; Examination for a Degree in Arts or Science.—*Aberdeen, Edinburgh, Glasgow, and St. Andrew's:* Examination for a Degree in Arts; Preliminary Examination for Graduation in Medicine or Surgery.—*Aberdeen, Edinburgh, and St. Andrew's:* Examination of Senior Candidates for Honorary Certificates under Local Examinations.—*Edinburgh:* Entrance Examination for a three years' Course in Arts.—*Dublin:* Entrance Examination; Examination for a Degree in Arts.—*Queen's University (Ireland):* Local Examinations, Certificates to include all the subjects required by the General Medical Council; Entrance or Matriculation Examination; Previous Examination for B.A. Degree; Examination for a Degree in Arts.—*Royal University of Ireland:* Matriculation Examination. II. *Other Bodies named in Schedule (A) to the Medical Act.—Society of Apothecaries in London:* Examination in Arts.—*Royal Colleges of Physicians and Surgeons of Edinburgh:* Preliminary Examination in General Education, conducted by a Board appointed by these Colleges combined.—*Faculty of Physicians and Surgeons of Glasgow; and Apothecaries' Hall of Ireland:* Preliminary Examination in General Education.—*Royal College of Surgeons in Ireland:* Preliminary Examination; Certificate to include all the subjects required.—III. *Examining Bodies, in the United Kingdom, not included in Schedule (A) to the Medical Act.—Royal College of Preceptors:* Examination for a First Class Certificate.—*Intermediate Education Board of Ireland:* Junior, Middle, and Senior Grades; the Certificate to include all the subjects required by the Medical Council.—*The Examiners for Commissions and Appointments in Her Majesty's Service, Military, Naval, and Civil:* Certificate including all the subjects required by the General Medical Council. IV. *Indian, Colonial, and Foreign Universities, and Colleges.—Universities of Calcutta, Madras, and Bombay:* Entrance Examination; Certificate to include Latin.—*Universities of McGill College, Montreal; Bishop's College, Montreal; Toronto: Trinity College, Toronto; Queen's College, Kingston; Victoria College, Upper Canada; Manitoba: Fredericton, New Brunswick; Medical College, Halifax, Nova Scotia: Melbourne; Sydney; Adelaide.* Matriculation Examination.—*Ceylon Medical College:* Preliminary Examination (primary class).—*University of Adelaide:* Matriculation Examination: Primary Examination.—*University of King's College, Nova Scotia:* Matriculation Examination; Responsions.—*University of Otago:* Preliminary Examination.—*University of Cape of Good Hope:* Matriculation Examination; Examination for a Degree in Arts.—*University of New Zealand:* Entrance Examination.—*Codrington College, Barbadoes:* English Certificate for Students of two years' standing, and Latin Certificate, or "Testamur."—*Tasmanian Council of Education:* Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics.—*Christ's College, Canterbury, New Zealand:* Voluntary Examinations, Certificates to include all the subjects required by the General Medical Council.—*Dalhousie College and University, Halifax:* Matriculation and Sessional Examinations.—*University of California:* Examination in Department of Letters.—*Germany and other Continental Countries:* Gymnasial Abiturienten Examen in Germany, and corresponding entrance examinations to the Universities in other Continental countries.—*Gymnasia of the Circuit of Dorpat:* Examinations of Maturity.—4. No person will be allowed to be registered as a Medical Student unless he shall have previously passed a Preliminary Examination in: 1. English Language, including Grammar and Composition;[1] 2. English History; 3. Modern Geography; 4. Latin, including Translation from the original and Grammar; 5. Elements of Mathematics, comprising (*a*) Arithmetic—including Vulgar and Decimal Fractions; (*b*) Algebra—including Simple Equations; (*c*) Geometry—including the first two books of Euclid or the subjects thereof; 6. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics;[2] 7. One of the following optional subjects: (*a*) Greek; (*b*) French; (*c*) German; (*d*) Italian; (*e*) any other modern language; (*f*) Logic; (*g*) Botany; (*h*) Elementary Chemistry.[3] 5. It is desirable that the examination in general education be left to the Universities and such other bodies engaged in general education and examination as may from time to time be approved by this Council.—6. It is recommended to the various licensing bodies to instruct their examiners in professional subjects to report to them any cases in which decided ignorance in the subjects of general education has been displayed by the candidates, with the name of the Board or Boards before which the preliminary Examinations have been passed; and the licensing bodies are requested to transmit such reports to the Registrar of the General Medical Council.

REGISTRATION OF MEDICAL STUDENTS.—7. Every medical student shall be registered in the manner hereinafter prescribed by the General Medical Council.—8. No medical student shall be registered until he has passed a preliminary examination, as required by the General Medical Council,[4] and has produced evidence that he has commenced medical study.—9. The commencement of the course of professional study recognised by any of the qualifying bodies shall not be reckoned as dating earlier than fifteen days before the date of registration.—10. The registration of medical students shall be placed under the charge of the Branch Registrars.—11. Each of the Branch Registrars shall keep a register of medical students, according to a form indicating the name; the preliminary examination, with date thereof; the date of registration, and the place and date of commencement of medical study, as certified by a master, or a teacher, or an official in a medical school or hospital.—12. Every person desirous of being registered as a medical student shall apply to the Branch Register of the division of the United Kingdom in which he is residing, according to a form which may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar a certificate of his having passed a preliminary examination, as required by the General Medical Council, and evidence that he has

[1] The General Medical Council will not consider any Examination in English sufficient that does not fully test the ability of the candidate.—1. To write sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition; 2. To write correctly from dictation; 3. To explain the grammatical construction of sentences; 4. To point out the grammatical errors in sentences ungrammatically composed, and to explain their nature; 5. To give the derivation and definition of English words in common use.

[2] This subject may be passed either as Preliminary, or before, or at the first Professional Examination.

[3] The examination in General Education conducted by Universities will be accepted as heretofore; but if, in any of these examinations, the subjects of Elementary Mechanics of Solids and Fluids be not included, a knowledge of these subjects will be required at a subsequent Examination.

[4] Exception may be made in the case of a Student from any Indian, Colonial, or Foreign University or College, who shall have passed the Matriculation or other equivalent Examination of his University or College, provided such examination fairly represents a standard of general education equivalent to that required in this country.

commenced medical study.[5]—13. The Branch Registrar shall enter the applicant's name and other particulars in the *Students' Register*, and shall give him a certificate of such registration.—14. Each of the Branch Registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is Registrar, a sufficient number of blank forms of application for the registration of medical students.—15. The several Branch Councils—and in England the Executive Committee, if its meeting be more convenient and the case be urgent—shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory.—16. A copy of the *Medical Students' Register*, prepared by each of the Branch Registrars, shall be transmitted, on or before the 31st of December in each year, to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply a copy of such authorised list to each of the bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to each of the several medical schools and hospitals.—17. The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts any candidate (not exempted from registration) whose name has not been entered in the *Medical Students' Register* at least forty-five months previously. In the case of candidates from other than schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.—18. The Branch Councils are desired to take means to make these regulations known at the various medical schools.

AGE FOR LICENCE TO PRACTISE, ETC.—19. The age of twenty-one shall be the earliest age at which a candidate shall obtain a licence to practise, and the age shall in all instances be duly certified.—20. No licence shall be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student.[6]

PROFESSIONAL EDUCATION.—21. The course of professional study required for a licence shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at any school recognised by any of the licensing bodies mentioned in Schedule (A) of the Medical Act.—22. No teaching or licensing body should insist on the student taking more than one course of lectures on any one subject.—23. The following are the subjects, without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered: 1. Chemistry, including a knowledge of the Principles of Chemistry, and of those details of the science which bear on the study of Medicine, and Chemical Physics, meaning thereby Heat, Light, and Electricity; 2. Anatomy; 3. Physiology; 4. Materia Medica and Pharmacy; 5. Pathology, including Morbid Anatomy; 6. Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; 7. Surgery, including Surgical Anatomy and Clinical Surgery; 8. Midwifery; 9. Forensic Medicine.—24. The Council will view with approbation any encouragement held out by the licensing bodies to students to prosecute the study of the natural sciences before they engage in studies of a strictly professional character.—25. A certificate shall be required by each licensing body from every candidate for its degree, diploma, or licence to practise medicine or surgery, that he has studied vaccination under a competent and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the methods of preserving lymph; and that he is thoroughly informed in every necessary part of the subject.—26. Such a certificate should be received by any licensing body only from an institution where the appointed teacher of vaccination is recognised by the Local Government Board.

PROFESSIONAL EXAMINATION.—27. The different licensing bodies, whether singly or in combination, should frame their examinations so as to secure that the knowledge of every practitioner whose name appears on the *Register* shall have been tested in all the subjects of professional education which the Council has determined to be essential; viz.: (as in Recommendation 23).—28. There should be in future three professional examinations.—29. The professional examinations should be arranged in two divisions; the first division to embrace the more elementary subjects. The first division may be completed at or before the close of the second year of professional study; but the second division not till the expiration of two years after the passing of the first division, nor before the completion of the fourth year of study. The examinations, and the subjects included in each, shall be such, and in such order, as may insure, so far as possible, a due continuity and sequence of study.—30. The first division of the examinations should include the following subjects: 1. Chemistry and Chemical Physics; 2. Anatomy; 3. Physiology; 4. Materia Medica and Pharmacy. The second division should include the following subjects: 1. Pathology, including Morbid Anatomy; 2. Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; 3. Surgery, including Surgical Anatomy and Clinical Surgery; 4. Midwifery; 5. Forensic Medicine.—31. An examination in the earlier subjects of professional study should take place before the end of the first year of professional study.—32. The professional examinations should be conducted both in writing and orally; and they should be practical in all branches in which they admit of being so.—33. Not less than two examiners should take part in every oral and clinical examination.—34. The questions to be answered in writing should be submitted to the whole body of examiners for consideration, and revision, if desirable, before being proposed to the candidates.—35. The written answers should be submitted to more than one of the examiners.—36. Excellence in one or more subjects should not be allowed to compensate for failure in others.—37. The professional examination should be held by the several licensing bodies, except in special cases, at stated periods, to be publicly notified.—38. No University of the United Kingdom should confer any degree in medicine or surgery, whether that of bachelor, doctor, or master, upon candidates who have not graduated in Arts, or passed all the examinations required for the Bachelorship in Arts, or passed, after due course of education, examinations such as are *bonâ fide* academically equivalent to those required for a degree in Arts.—39. As a general rule, none of the higher degrees or qualifications in medicine or surgery should be conferred on persons who have not shown evidence of higher professional attainments.—40. In the examinations on several of the subjects of the curriculum—such, for example, as chemistry, including chemical physics, physiology, and materia medica—the licensing bodies should limit and define by schedule the extent of examination.—41. In no case should the examination of a candidate by any of the licensing bodies in any subject be conducted wholly by the lecturer or teacher in that subject in the school in which the candidate has been educated.—42. Observation with the microscope should form part of the examinations of candidates for a licence.—43. Candidates for the final professional examinations should be required to give evidence that they have had opportunities of practical study, with care of patients, as pupil, assistant, clinical clerk, or dresser, in hospital, dispensary, or elsewhere.—44. In examinations in anatomy, candidates should understand that they may be called upon to perform actual dissections; and candidates in examinations in surgery should understand that they may be called upon to perform one or more operations on the dead subject.—45. Returns from the licensing bodies enumerated in Schedule (A) of the Medical Act (1858) should be made during the month of January in each year, to the General Medical Council, stating the number of the candidates who have passed their first as well as their second and third examinations, and the number of those who have been rejected at the first and second and third examinations respectively; and the Registrar should forward a sufficient number of forms, with a notice for their being returned in due time.—46. The bodies conferring licences in Dental Surgery should be requested to furnish, during the month of January in each year, according to a

[5] *Form of Application for Registration as a Medical Student.*—I hereby apply to be registered a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars. [Name of applicant (to be written in words at length); Surname; Christian name; Preliminary examination, with date thereof; Place and date of commencement of medical study; Applicant's signature; Address; and Date of application.]

Certificate of Commencement of Medical Study.—I hereby certify that Mr. —— has commenced the study of medicine in (insert name of School, or Hospital, or place of apprenticeship, as the case may be); Signature of Master, Teacher, or Official in a Medical School or Hospital; Place and date. To the Registrar of the Branch Council for ——.

N.B.—The word "Master" or "Teacher" will be held to include any registered practitioner whose pupil the applicant may be at the time. The certificate of examination must testify that the student has been examined in the subjects mentioned in Recommendation 4.

The above form of Application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a certificate of the applicant's having passed a preliminary examination, as required by the General Medical Council.

[6] Exception may be allowed in the case of any graduate in medicine of an Indian, or colonial, or foreign university, or of any student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, colonial, or foreign university, the several licensing bodies being requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year, in regard of such exceptional cases.

certain form, a statement of the nature of the examinations—whether written, *vivâ voce*, or practical (one or all of the three)—and of the number of candidates for their licences, showing the respective numbers passed and rejected.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MEMBERS.

ALL persons who have been admitted before February 16th, 1859, Licentiates of the College, shall be entitled to be admitted Members of the College, provided that they have, since their admission as Licentiates, obeyed the By-laws, and accept such membership, and engage henceforth to obey the By-laws and Regulations of the College.

Any Extra-Licentiate who shall have produced testimonials as to character satisfactory to the Censors, and shall have assured the said Censors that he is not engaged in the practice of Pharmacy, and who shall engage henceforth to obey the By-laws and Regulations, may be proposed to the College to be admitted a member of the College. The fee for admission is £5 5s.

Every candidate for the membership of the College must furnish proof that he has attained the age of twenty-five years, and must produce a testimonial from a Fellow or Member of the College, satisfactory to the Censors' Board, to the effect that, as regards moral character and conduct, he is a fit and proper person to be admitted a member of the College.

No candidate shall be admitted to examination who is engaged in trade; or who dispenses medicine, or makes any engagement with a chemist or any other person for the supply of medicines; or who practises Medicine or Surgery in partnership, by deed or otherwise, so long as that partnership continues; or who refuses to make known, when so required by the President and Censors, the nature and composition of any remedy he uses.

A candidate for the membership is inadmissible to the Professional Examination who is unable to satisfy the Censors' Board of his general culture.

All candidates for the membership shall exhibit to the Censors' Board such diplomas or other evidence of their general education as they may possess, that it may be recorded by the Registrar for future consideration of their claims to the Fellowship of the College.

All candidates for membership under the age of forty shall be required to prove a knowledge of Latin, and of either Greek, French, or German, by examination before the Censors' Board, unless they have obtained a Degree in Arts in a British University.

Any candidate who has already obtained the degree of Doctor or Bachelor of Medicine at an University in the United Kingdom, in India, or a British Colony, or who shall have obtained a Foreign Qualification entitling him to practise Medicine or Surgery in the country where such qualification has been conferred, wherein the Courses of Study, and the Examinations to be undergone previously to graduation, shall have been adjudged by the Censor's Board to be satisfactory, shall, if the Censors shall think fit, be admitted to the Pass Examination. The nature and extent of this examination shall, in the case of each candidate, be determined by the Censors' Board.

Pass Examination for Membership.—The Pass Examination shall be conducted as follows:—Thursday: from 2 till 6, by written questions on Medical Anatomy, and on the Principles of Medicine. Friday: from 2 to 6, by written questions on the Practice of Medicine, including the Principles of Public Health, and on Psychological Medicine. Saturday or Monday: the candidate's practical knowledge will be tested, either at the College or in the Medical Wards of an Hospital. Tuesday and Wednesday: by Examination *vivâ voce*. This examination will commence on the last Thursday but one in January, April, July, and October.

Any candidate who has attained the age of forty years, and who can produce testimonials as to his moral character and conduct, his general and professional acquirements, and that he has improved the art or extended the science of Medicine, or has at least distinguished himself highly as a medical practitioner, shall submit such testimonials to the Censors' Board, who may, if they see fit, submit them to the Fellows at a general meeting, and it shall be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the candidate shall be admitted to examination.

The fee to be paid for examination for membership shall be £6 6s., and such examination fee shall be reckoned as part of the fee for admission as a member, in the event of the candidate satisfying the Censors' Board of his competency.

Every candidate (except those holding the qualifications above mentioned, or above forty years of age) shall produce proof of his having passed the examinations required for the Licence of the College.

If the Censors' Board doubt the sufficiency of the certificates and testimonials produced by any candidate, or his fitness for admission to examination, they may submit the case to a general meeting of the Fellows.

Every candidate (except in cases specially exempted as above) shall give proof of his acquirements by written answers to questions, and shall also be examined *vivâ voce*.

Every candidate approved by the Censors' Board shall be proposed, at the next general meeting of Fellows, as qualified to become a member of the College; and if the majority of the Fellows present shall consent, he shall, on engaging to obey the By-laws and Regulations, be admitted a member of the College.

The fee to be paid for admission as a member of the College shall be £31 10s., except when the candidate for membership is a Licentiate of the College, in which case the fee for admission as a member will be £15 15s.

Any candidate not approved by the Censors' Board shall not (except by special permission of the College) be readmitted to examination until after the lapse of a year.

Every candidate is required to give fourteen days' notice in writing to the Registrar of the College of his intention to present himself for examination, at the same time transmitting—1. Such diplomas or other evidence of his general education as he may possess; 2. Such Medical and Surgical Qualifications as he may have obtained, unless such qualifications are registered in the *Medical Register*; 3. Proof that he has attained the age of twenty-five years; and 4. A testimonial from a Fellow or Member of the College.

LICENTIATES.

The licence of the College is a qualification to practise Medicine, Surgery, and Midwifery. The regulations here given (for synopsis, see pp. 460 and 461) are applicable to candidates who shall have commenced their professional studies after March 25th, 1880.

Of the forty-five months of professional study, one winter and two summer sessions may be passed in either of the following ways: 1. Attending the practice of a hospital, infirmary, or other institution, recognised by the College; 2. Receiving instruction as the pupil of a legally qualified practitioner, having opportunities of imparting practical knowledge of Medicine, Surgery, or Midwifery; 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction. Professional studies commenced *before* registration, except in the cases of Chemistry, Materia Medica, Botany, and Pharmacy, will not be recognised.

Certificates required: First Examination.—Evidence of having been registered as a Medical Student by the General Medical Council; and of having received instruction in Chemistry, including Chemical Physics (*i.e.*, Heat, Light, and Electricity), in Practical Chemistry, in Materia Medica, in Botany, and in Practical Pharmacy.

Second Examination.—Evidence of having completed, after registration as a student, eighteen months of professional study at a recognised school or schools; and of instruction in Anatomy and Physiology. (*See* Table.)

Third Examination.—Evidence of being twenty-one years of age; of moral character; of having passed the second examination; of having been engaged in professional study not less than forty-five months (*see* Table); and of instruction in the remaining subjects of study mentioned in the Table.

The systematic practical instruction in Medicine, Surgery, and Obstetric Medicine comprises practical details—such as: 1. The application of anatomical facts to the investigation of disease; 2. The methods of examining various organs in order to detect the evidence of disease or the effects of accidents; 3. The employment of instruments used in diagnosis and treatment; 4. The examination of normal and diseased structures, whether recent or in a museum; 5. The chemical examination of morbid products; 6. Operations on the dead body; 7. *Post mortem* examinations.

No metropolitan hospital is recognised which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients. A three months' course of clinical instruction in the wards of a recognised Lunatic Hospital or Asylum, may be substituted for the same period in the medical wards of a General Hospital.

Exemptions.—Any candidate who shall produce satisfactory evi-

TABULAR VIEW OF THE REGULATIONS OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, AND OF THE SOCIETY OF APOTHECARIES IN LONDON.

	ROYAL COLLEGE OF PHYSICIANS OF LONDON.	ROYAL COLLEGE OF SURGEONS OF ENGLAND.		APOTHECARIES' SOCIETY.
	LICENTIATES.	FELLOWS.	MEMBERS.	LICENTIATES.
AGE REQUIRED	Twenty-one.	Twenty-five.	Twenty-one.	Twenty-one.
EVIDENCE OF GENERAL EDUCATION BEFORE COMMENCEMENT OF PROFESSIONAL STUDY.	Certificate of having passed examination in subjects of General Education recognised by the General Medical Council, and of being registered as a student.	Certificate of Registration by the General Medical Council.	Certificate of Registration by the General Medical Council.	Certificate of having passed an Examination in Arts recognised by the Medical Council.
DURATION OF PROFESSIONAL STUDY	Forty-five months; at least three winters and two summers at a recognised school or schools.	Six years; or members, two years in addition to the certificate for the diploma of member.	Four years, or not less than four winter and four summer sessions.	Four years; not less than three winter and two summer sessions at a school or hospital.
COURSES OF LECTURES, ETC., REQUIRED.				
Anatomy and Dissections...	A course of Anatomy; Dissections 12 months.	Lectures during two winters; dissections three winters.	Lectures, two winters; dissections, two winters.	First two winter sessions.
Physiology	Physiology & Practical Physiology, each one course.	Lectures one winter; & Practical Physiology, another session.	Lectures, one winter; Practical Physiology, another session.	First two winter sessions.
Chemistry	Instructions; time not specified.	One course.	One course.	First winter session.
Practical Chemistry		Three months.	Three months.	First summer session.
Materia Medica		One course.	One course.	First summer session.
Practical Pharmacy		Three months.	Three months.	Three months.
Botany...		Not required.	Not required.	First summer session.
Morbid Anatomy	One course; demonstrations in *post mortem* room during clinical study.	Lectures, three months; demonstrations, three winters and two summer sessions.	Lectures, three months; demonstrations in *post mortem* room.	Third winter and summer sessions.
Medicine	One course.	One course.	One course.	Second winter session.
Clinical Medicine	Nine months.	One winter and one summer session.	One winter and one summer session.	Third winter session.
Surgery	One course.	One winter session.	One winter session.	One course after second year.
Clinical Surgery...	Nine months.	Two winter and two summer sessions. Observation and examination of patients for three months.	Two winter and two summer sessions. Observation and examination of patients, three months.	Not required.
Practical Surgery	Required.	Six months.	Six months.	Not required.
Midwifery and Diseases of Women	One course; not less than twenty labours.	One course; not less than ten labours.	One course; not less than ten labours.	Second summer session; twenty cases of Labour.
Clinical Study of Diseases of Women	Three months.	Not stated.	Not stated.	Not stated.
Forensic Medicine	One course.	One course.	One course.	Second summer session.
Hospital Practice	Medical and surgical practice, three winter and two summer sessions.	Surgical practice, four winter and four summer sessions; medical practice, one winter and one summer.	Surgical practice, three winters and two summers: Medical practice, one winter and one summer.	Medical practice, beginning with second winter session to end of period of study.
Hospital Appointments	Clinical clerk, six months; dresser, six months.	House-surgeon or dresser, six months.	Dresser, or (after a year of study) charge of patients under superintendence of a surgeon, six months.	Clinical clerk, six weeks at least.
Other Certificates	Systematic Practical Instruction in Medicine, Surgery, and Obstetric Medicine. Instruction & proficiency in Vaccination. Moral character.	Instruction and proficiency in Vaccination. Comparative Anatomy, one course. Operations on Dead Body.	Instruction and proficiency in vaccination. Examinations in Elementary Anatomy and Physiology at medical school.	Having been examined at class examinations. Instruction in Vaccination (not less than twenty cases). Moral conduct.

NUMBER OF EXAMINATIONS	Three.	Two.	Two.	Two.
FIRST EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	After registration as a student; Chemistry and Chemical Physics; Materia Medica, Medical Botany, and Pharmacy; and Osteology.	After third winter session; in Anatomy and Physiology.	After second winter session; Anatomy and Physiology.	After second winter session; Physicians' Prescriptions & Pharmacy, Anatomy & Physiology, General & Practical Chemistry, Botany, Materia Medica, & Histology.
SECOND EXAMINATION; AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS.	After eighteen months of study subsequent to registration as a medical student; Anatomy and Physiology.	After six years of professional study; in Surgery, including Surgical Anatomy and Pathology, Medicine, & Midwifery (Medicine and Midwifery not required if passed for the membership, nor from candidates holding approved diplomas, degrees, or licences, or from those intending to obtain a qualification in Medicine and Midwifery; the diploma of the College is not issued until proof of having passed the required examination is produced).	After end of fourth year of professional education; in Surgical Anatomy, and Principles and Practice of Surgery, Medicine, and Midwifery.	At end of medical studies, in Medicine, Pathology & Therapeutics, Midwifery and Diseases of Women and Children, Forensic Medicine, Toxicology, and Microscopical Pathology.
THIRD EXAMINATION; AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS.	After four years of study; two years after second examination; Medical and Surgical Anatomy and Pathology; Principles and Practice of Medicine and Therapeutics, and of Surgery; Midwifery and Diseases of Women. (Forensic Medicine, Public Health, and Therapeutics are included.)			
FEES PAYABLE	£5 5s. for admission to each examination. Candidate rejected at any examination must pay additional £3 3s. before readmission to examination. Fee for Licence, £15 15s.	At first examination, members £5 5s.; non-members £10 10s.; £5 5s. returned if rejected. At second examination, member, £10 10s. (above charge for stamps); if not a member, £21 (over & above charges for stamps). In each case, £10 10s. is retained in case of rejection.	£22; £5 5s. at first examination; after failure at this examination, candidate must pay an additional £3 3s. before being again admitted. At Pass Examination, £5 5s. retained on each failure.	Entire Examination, £6 6s.; half retained in case of rejection, and accounted for at subsequent examination. First examination, £3 3s., retained in case of rejection and accounted for subsequently. Second examination, £3 3s.
REJECTED CANDIDATES	After rejection at first or second examination, not again admitted until end of three months; after third examination, not till end of six months.	After rejection at first examination, candidates not again admitted for six months; after second examination, not till end of one year, unless Court of Examiners shall otherwise determine.	After rejection at primary examination, three or six months; after rejection at second examination, six months or longer.	After rejection at first examination, candidate cannot be again admitted till after three calendar months; after second examination, not till after six calendar months.
CANDIDATES (1) EXEMPTED FROM CERTAIN PORTIONS OF THE EXAMINATIONS, OR (2) ADMITTED UNDER SPECIAL REGULATIONS.	(1) Candidates who have elsewhere passed examinations in the subjects of the first and second examinations; who have obtained Degrees in Surgery at a recognised University; who have passed an examination in Surgery at a College of Surgeons; who have obtained foreign qualifications entitling them to practise Medicine or Surgery.	(2) Members are admitted to first examination at any time after receiving diploma; to second examination at any subsequent time, if engaged not less than six years in study (or practice) of profession; in case of graduates in Arts of a recognised University, five years.	(2) *a.* Candidates who have studied in Scotland or in Ireland, or at recognised Foreign or Colonial Universities; *b.* members or licentiates of the other Colleges of Surgeons; and Graduates in Medicine or Surgery of a recognised University, admitted to professional examination on production of the necessary certificates or diplomas.	Graduates in Medicine of British Universities; licentiates & members of Colleges of Physicians & Surgeons in the United Kingdom or of Apothecaries' Hall in Ireland; candidates who have passed the first professional examination of other boards; candidates apprenticed before August 1st, 1858, or who commenced hospital attendance on or before October 1st, 1861.

dence of having passed an examination in any of the subjects of the first examination, or an examination in Anatomy and Physiology as required for a degree in medicine or surgery, at an university in the United Kingdom, in India, or in a British Colony; or an examination in Anatomy and Physiology conducted by either of the Royal Colleges of Surgeons in the United Kingdom or by the Faculty of Physicians and Surgeons of Glasgow, will be exempt from re-examination in the respective subjects. Any candidate who shall have obtained a Degree in Surgery at an University in the United Kingdom, or who shall have passed the Examination in Surgery conducted by a Royal College of Surgeons of the United Kingdom, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and Pathology, and on the Principles and Practice of Surgery. Any candidate who shall have obtained a Foreign Qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and an examination equivalent to those required by the regulations of the College, shall, on production of satisfactory evidence as to age, moral character, and proficiency in vaccination, be admissible to the Pass Examination, and shall be exempt from re-examination on such subjects as shall in each case be considered by the Censors' Board to be unnecessary.

The examinations will commence in January, April, July, and October, unless otherwise appointed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF MEMBER.

For synopsis of Regulations, *see* pages 460 and 461.

I. *Preliminary General Education and Examination.*—Candidates are required, before the commencement of their professional education, to pass a Preliminary Examination recognised by the General Medical Council, and to obtain a certificate of having been registered by the General Medical Council. In the case of any Colonial, Indian, or Foreign student, not registered by the General Medical Council, the conditions of admission to the professional examination for the diploma will be determined by the Council of the College.

II. *Professional Education.*—The following are recognised modes of commencing professional education. 1. Attendance on the practice of a Hospital, or other public institution recognised by this College. 2. Instruction as the pupil of a legally qualified surgeon, holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. 3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

a. By the Practical Course of General Anatomy and Physiology, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not intended that the learners shall perform vivisections.

b. The certificates of attendance on Lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

c. The Course of Practical Surgery is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to Surgery, on the living person or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effects of diseases or accidents on the living person or on the dead body; the performance, where practicable, of the operations of Surgery on the dead body; the use of surgical apparatus; the examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise.

d. The course of lectures on Chemistry is not required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

e. The certificate of instruction in Vaccination must be such as will qualify its holder to contract as a Public Vaccinator under the Regulations at the time in force of the Local Government Board.

III. *Certificates, etc.*—Certificates of attendance upon the practice of a recognised Provincial or Colonial Hospital, unconnected with, or not in convenient proximity to, a recognised Medical School, will not be received for more than one Winter and one Summer Session of the Hospital Attendance required by the Regulations of this College; and in such cases Clinical Lectures will not be necessary, but a Certificate of having acted as Dresser for at least six months will be required.

IV. *Professional Examinations.*—The First or Primary Examination is partly written and partly demonstrative. The Second or Pass Examination is partly written, partly oral, and partly on the practical use of surgical apparatus and the practical examination of patients. A candidate, having entered his name for either the Primary or the Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, cannot present himself for examination within three months afterwards.

Primary Examination.—Candidates commencing their professional studies on or after the 1st of October, 1882 and pursuing those studies in recognised Medical Schools in England, will be required, before presenting themselves for the Primary or Anatomical and Physiological Examination for the Diploma of Member of the College, to produce certificates of having passed an examination in Elementary Anatomy and Physiology, such examination to be conducted by their teachers at the several Medical Schools. 1. The periods at which the examination shall be held will be determined by the teachers at the several Medical Schools, provided that an interval of not less than six months shall elapse between the date at which the candidates shall have passed the examination and the date of their presenting themselves for the Primary Examination at the College. 2. It shall be left to the teachers at the several Medical Schools to determine the nature and extent of the examination in Elementary Anatomy and Physiology.

Candidates commencing their professional education on or after October 1st, 1882, will not be admitted to the Second or Pass Examination until after the expiration of two years from the date of their passing the Primary Examination, except in the following cases, viz.: 1. When a candidate, before presenting himself for the Primary Examination, shall possess a recognised Degree or Diploma in Medicine or Surgery, or shall have completed the curriculum of professional education for the diploma. 2. In the case of a candidate who, being desirous of obtaining the Fellowship, shall fail to present himself for the Primary Examination for the Membership at the end of his second year of professional study, but who shall pass at the end of his third winter session the Primary Examination for the Fellowship; it being required in such case that not less than one year's attendance on the Surgical Practice of a recognised Hospital shall intervene between the date of his passing the Primary Examination for the Fellowship and the date of his presenting himself for the Second or Pass Examination for the Diploma of Member. 3. In the case of a candidate who, having commenced his professional studies by attendance on the practice of a recognised provincial or colonial hospital, and having completed a year of such attendance, shall fail to pass the Primary Examination at the end of his second winter session of attendance at a recognised Medical School; provided that in his case not less than one year shall elapse between the date of his passing the Primary Examination and the date of his presenting himself for the Second or Pass Examination for the Diploma of Member. 4. When a candidate, owing to illness, duly certified by one or more of the teachers of his Medical School, shall be prevented from presenting himself for the Primary Examination on the completion of his second year of professional study. 5. And in the case of a candidate who, from some unforeseen circumstances, shall fail to present himself for the Primary Exmination on the completion of his second year of professional study, it being left to the Court of Examiners to determine whether, in such case, the candidate shall or shall not be required to comply with the regulation.

Candidates can claim exemption from examination in Medicine and Midwifery under the following conditions; viz.:

1. The production by the candidate of a Degree, Diploma, or Licence in Medicine and Midwifery, entitling him to register under the Medical Act of 1858, or a Degree, Diploma, or Licence in Medicine and Midwifery of a Colonial or Foreign University approved by the Council of the College.

2. A declaration by the candidate, prior to his admission to the Final Examination for Membership or Fellowship, that it is his intention to obtain either of the Qualifications in Medicine and Midwifery mentioned in the foregoing paragraph, in which case the Diploma of the College will not be issued to him until he shall produce either the said Medical Qualification or proof of having passed the several examinations entitling him to receive the same.

"*Referred*" *Candidates.*—A candidate referred on the Primary Examination is required, prior to his admission to re-examination, to produce a certificate that he has pursued, to the satisfaction of his teachers, his Anatomical and Physiological Studies in a recognised Medical School during not less than three months subsequently to the date of his reference. A candidate referred upon the

Primary Examination, who shall not obtain more than half of the total minimum number of marks, is not readmitted to examination until after the lapse of six months, and is then required to produce a certificate of the performance of Dissections during not less than three months, and of having pursued, to the satisfaction of his teachers, his Anatomical and Physiological Studies in a recognised Medical School during six months subsequently to the date of his reference. A candidate referred on the Pass Examination is required, unless the Court of Examiners shall otherwise determine, to produce, prior to his admission to re-examination, a certificate of at least six months' further attendance on the Surgical Practice of a recognised Hospital, together with Lectures on Clinical Surgery, subsequently to the date of his reference. A candidate, referred on the Pass Examination, who shall have exhibited such extreme ignorance in the Examination as, in the opinion of the Court of Examiners, to render it desirable that he should be referred for a longer period than six months, is required, before his admission to re-examination, to produce a certificate of having attended the Surgical Practice and Clinical Lectures on Surgery of a recognised Hospital for a further period of nine or twelve months, as the Court shall determine.

The candidates under the special regulations referred to in the table at page 461 are admitted to examination on producing, (*a*) the several certificates required for the degrees or diplomas in the respective countries; (*b*) the diploma, licence, or degree of the College or University; together with, in each case, a certificate of instruction and proficiency in Vaccination, and satisfactory evidence of having been occupied, after passing the Preliminary Examination, at least four years, or during four Winter and four Summer Sessions, in the acquirement of professional knowledge.

DIPLOMA OF FELLOW.

For synopsis of Regulations, see pages 460 and 461.

The paragraphs marked *a*, *b*, *c*, *d*, *e*, in the Regulations for the Membership are also applicable to the Fellowship.

SOCIETY OF APOTHECARIES, LONDON.

FOR synopsis of Regulations, see pages 460 and 461.

Examination in Arts.—Examinations in the subject of Preliminary Education will be held at the Hall of the Society, in 1884, on January 10th, 11th, and 12th; April 3rd, 4th, and 5th; and September 11th, 12th, and 13th. Candidates will be examined in the following branches, and no candidate will be approved unless he show a competent knowledge of each branch. 1. The English Language. 2. English History. 3. Modern Geography. 4. The Latin Language. 5. Mathematics. 6. Elementary Mechanics. 7. Elementary Chemistry. One of the following subjects, at the option of the candidate:—(*a*) Greek; (*b*) French; (*c*) German.[1] Candidates who pass are arranged in two classes; the first in order of merit, the second in alphabetical order. Candidates must pay the fee (one guinea) at least one week before the examination.[2] Certificates in Arts, granted by any of the bodies whose certificates are recognised by the Medical Council, will be accepted as equivalent to having passed the above examination.

Professional Examinations.—The Court meets every Wednesday and Thursday; and candidates are required to attend at 4.30 P.M. Every candidate intending to offer himself for examination must give seven days' notice, and must, at the same time, deposit all the required testimonials, with the fee, at the office of the beadle, where attendance is given every day, except Sunday, from 10 to 4 o'clock; Saturdays, 10 to 2.

The examination is divided into two parts, and is conducted partly in writing, and partly *vivâ voce*. The written examination takes place on Wednesday, and the *vivâ voce* examination on Thursday.

The following are recognised and considered equivalent to eighteen months' study, in addition to the two years and a half above mentioned.

1. Attendance on the practice of a hospital or other public institution recognised for that purpose. 2. Instruction as the pupil or assistant of a registered practitioner, physician, or surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be deemed satisfactory.

Modified Examinations.—1. All Graduates in Medicine of British Universities will be admitted to a Clinical and General Examination in the Practice of Medicine, Pathology, and Midwifery. 2. Licentiates of the Royal College of Physicians, London; of the Royal College of Physicians, Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians in Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a Clinical and *vivâ voce* Examination in the Practice of Medicine, Pathology, Midwifery, Forensic Medicine, and Toxicology. 3. Any candidate who has passed his first examination for the Licence of the King and Queen's College of Physicians in Ireland; the joint Licence of the Royal Colleges of Physicians and Surgeons, Edinburgh; or for the single Licence of the College of Physicians, Edinburgh; the Licence of the Faculty of Physicians and Surgeons, Glasgow; the first Professional Examination for the Degree of M.B., or Master in Surgery in the Universities of Oxford, Cambridge, London, or Durham; or the first Examination for the Licence of the Apothecaries' Company, Dublin; the first and second Examination of the Royal College of Physicians, London; or the second part of the Professional Examination for the Degree of M.B., or Master in Surgery, in the Universities of Glasgow, Aberdeen, St. Andrew's, and Edinburgh; the first of the Royal College of Surgeons, England, together with the first Examination of the Royal College of Physicians, London; or the first and second Examination for Medical and Surgical Degrees in the Irish Universities, will be admitted to Examination, partly in writing and partly *vivâ voce*, in Practice of Medicine (including Clinical Medicine), Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicology. And those candidates who have not undergone an Examination in Anatomy, Materia Medica, or Botany, will, in addition, be examined *vivâ voce* on those subjects. 4. Members of the Royal College of Surgeons, England: Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland; and all candidates who have passed the First Anatomical Examination of the Royal College of Surgeons, England; the Royal College of Surgeons, Edinburgh; and the Royal College of Surgeons, Ireland, will have to undergo the two Examinations, but are exempt from writing on Anatomy and Physiology, in their First Examination. 5. The cases of Graduates of Colonial and Foreign Colleges or Universities will be considered on their respective merits.

Each qualified candidate, unless registered, will be required to produce his diploma.

Medical and Surgical Scholarships.—Each scholarship is of the annual value of £100, and is tenable for two years on certain conditions. It is open to all students of the medical profession whose standing at the time of the examination is not less than four and not more than five years from the date of their registration, and who possess an English medical qualification.

Prizes.—The Society of Apothecaries annually offer two Prizes for proficiency in the knowledge of the Materia Medica and of Pharmaceutical Chemistry; and two in Botany.

The Prizes consist of a Gold Medal awarded to the candidate who distinguishes himself the most in the Examination; and of a Silver Medal, and a Book, or Books, to the candidate who does so in the next degree. All registered Medical Students, prior to the close of the third year of their Medical Studies, will be competent to compete for the Society's Prizes.

[1] The following will be the subjects of examination. 1. English Language, including Grammar and Composition; writing Sentences in correct English upon a given theme; Writing correctly from Dictation; Explaining the Construction of Sentences; pointing out the Grammatical Errors in Sentences ungrammatically expressed; giving the Derivation and Definition of words in common use. 2. English History: from the accession of James I to the death of Cromwell. 3. Modern Geography: including the Elements of Physical Geography. 4. Latin: including Translations from the Original, and Grammar. January, Cicero, *De Amicitiâ;* April, Horace's *Odes*, Books i and ii; September, Livy, Book xxi. 5. Mathematics: Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; the first two Books of *Euclid*, or the subjects thereof (Euclid's Axioms will be required; and no proof of any proposition will be admitted which assumes the proof of anything not proved in preceding propositions in *Euclid*). 6. Elementary Mechanics; of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. (The candidate is allowed to pass this subject either as preliminary, or before, or at the first Professional Examination.) 7. (*a*) Greek: Lucian, *Somnium;* Grammatical Questions. (*b*) French: Emile Souvestre, *Un Philosophe sous les Toits;* Translation from English into French; Grammatical Questions. (*c*) German: Goethe, *Knabenjahre*, 1749-1759; Translation from English into German; Grammatical Questions. (*d*) Elementary Chemistry: Inorganic. Candidates will be examined only in the optional subject of which they shall have given notice. —The Examiners recommend the study of one of the following: English—Angus's, Adams's, or Mason's *Grammar*, and Earle's *Philology*. English History —Bright's *History of England*, and Green's *Short History of the English People*. Mechanics—Wormell's or Newth's *Natural Philosophy*, or Girdlestone's *Mechanics*. Chemistry—Roscoe's *Elementary Chemistry*.

[2] The following form of notice must be written on note paper in the candidate's handwriting in the presence of a magistrate, clergyman, or registered medical practitioner. I (name in full), residing at (address), intend to present myself for the Preliminary Examination in Arts at the Apothecaries' Hall, London, on the , and that I intend to take as my optional subject. Signature, . The above has been written and signed in my presence by the the abovenamed candidate, with whom I am personally acquainted. Signed, A. B. Address, X. Date .

The examination in Materia Medica will be held at the Hall of the Society on the third Wednesday in August, and that in Botany on the third Thursday in June, at 10 A.M., and will be conducted by printed papers and *viva voce* questions. Gentlemen intending to compete for these Prizes must send a written notice of their intention to the Beadle, on or before the 1st day of the month in which the examination is held, with evidence of their being in attendance on their Medical Studies, and a Certificate of their having attended their Lectures and Class Examinations with diligence and regularity.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

EVERY student must reside either in one of the Colleges or Halls, or in a Licensed Lodging House, for three years. During these three years, he has to pass two examinations in Arts and one in either Mathematics, Natural Science, or Law and Modern History; when, if he obtain a first, second, or third class, he can take his B.A. degree; if he do not gain such honours, he has to pass a third examination *in Literis Humanioribus*. A student deciding to graduate in Medicine must, after passing the requisite examination for the degree of B.A., spend eight terms (two years) in study prior to a scientific examination for the degree of Bachelor of Medicine, unless he shall have taken a first or second class in the natural science school, when he may go in at the first opportunity for the first M.B. examination. Two years after passing this examination, and after four years of professional and scientific study, he may go in for the second or practical examination for the M.B. degree. These four years of medical study may be spent either in or out of Oxford, in an approved medical school. Each examination is conducted partly in writing and partly *viva voce*, and part of each is practical. The subjects of the first examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine; those of the second examination are the Theory and Practice of Medicine (including Diseases of Women and Children), Materia Medica, Therapeutics, Pathology, the Principles of Surgery and Midwifery, Medical Jurisprudence, and General Hygiene. Every candidate at the second examination is examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus; or in one of these and in some modern author approved by the Regius Professor (such as Morgagni, Sydenham, or Boerhaave).

For the Degree of Doctor in Medicine, a dissertation has to be publicly read three years after taking the M.B. Degree.

The medical examinations take place annually in Michaelmas Term.

Scholarships of about the value of £75 are obtainable at Christ Church, Magdalen, and other Colleges, by competitive examination in natural science. Each year, a Radcliffe Travelling Fellowship is competed for by anyone who, having taken a first class at any of the Public Examinations of the University, or having obtained some University Prize or Scholarship open to general competition, proposes to graduate in Medicine. The Travelling Fellows receive £200 a year for three years, half this period being spent in study abroad.

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE.

A STUDENT proceeding to this degree must—1. Reside in the University two-thirds of each of nine terms; 2. Pass the previous examination (both classical and mathematical);[1] 3. Pursue medical study for five years, unless he have obtained honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, in which case four years only are required.

There are three examinations for the Degree of Bachelor of Medicine. They are partly in writing, partly oral, and partly practical, and include chemical analysis, the recognition and description of specimens (healthy, morbid, and microscopical), dissections, and the examination of patients. They take place twice annually, commencing on the Thursday following the first Monday in December; and in the Easter Term, on the Thursday next but one preceding the general admission to the B.A. degree.

The subjects of the first examination are—1. Chemistry and other branches of Physic; 2. Botany. The student may present himself for this examination at any time after he has passed the previous examination. He is required to produce certificates of having diligently attended one course of lectures on Chemistry, including manipulations, and one course on Botany.

The subjects of the second examination are—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacy and Pharmaceutical Chemistry. Before presenting himself for this examination, the student must have completed two years of medical study; he must have attended hospital practice during one year, must have practised dissection during one session, and must have diligently attended a course of lectures on each of the subjects of examination.

The subjects of the third examination are—1. Pathology and the Practice of Physic (two papers); 2. Clinical Medicine; 3. Midwifery; 4. Principles of Surgery; 5. Medical Jurisprudence. Before presenting himself for this examination, the candidate must have completed the course of medical study, must have attended the medical practice of a recognised hospital during three years, and the surgical practice during one year at least, and must produce certificates of having attended one course of lectures on each of the following subjects: 1. Pathological Anatomy; 2. The Physiological and Therapeutical Action of Remedies; 3. Principles and Practice of Physic; 4. Clinical Medicine; 5. Clinical Surgery; 6. Medical Jurisprudence; 7. Midwifery; 8. Of having attended ten cases of Midwifery; 9. Of having acquired proficiency in Vaccination;[1] 10. And of having been Clinical Clerk for six months at least at a recognised hospital; or of having, subsequently to the completion of his attendance on hospital practice, attended to practical medicine, with special charge of patients, in a hospital, dispensary, or parochial union, under superintendence of a qualified practitioner, unless he himself be duly qualified.

After these examinations have been passed, an Act must be kept in the Schools in the following manner. The Professor of Physic assigns the day and hour for keeping the Act, of which public notice has to be given eight days before. The candidate reads a thesis, composed by himself, on some subject approved by the professor; the professor brings forward arguments or objections for the candidate to answer, and examines him *viva voce*, as well on questions connected with his thesis as on other subjects in the faculty of a more general nature.

DOCTOR OF MEDICINE.

This degree may be taken by a Bachelor of Medicine in the ninth term after his inauguration (this occurs on the commencement day next following the admission to the degree). He is required to produce certificates of having been engaged five years in medical study, to keep an Act similar to that for M.B., and to write a short extempore essay on some one (at his choice) of four topics relating severally to Physiology, Pathology, Practice of Medicine, and State Medicine.

A Master of Arts may proceed to the degree of M.D. in the twelfth term after his inauguration as M.A., without having taken the degree of M.B. He must pass the three examinations for M.B., and keep the Act and write the extempore essay for the M.D. degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on lectures and hospital practice as are required of the candidate for the degree of M.B.

BACHELOR OF SURGERY.

The subjects of examination are—1. Surgical operations and the application of surgical apparatus; 2. The examination of surgical patients.

The candidate must have passed the examinations for M.B., have attended the surgical practice of a hospital two years, have acted as dresser or house-surgeon six months, and have gone through a course of instruction in Practical Surgery.

MASTER IN SURGERY.

The subjects of the examination for this degree are—1. Surgical Anatomy and Surgical Operations; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery at the Hospital. A surgical case and a topic relating to surgery will be submitted in writing to the candidate, on one or both of which, at his option, he will be required to write extempore a short essay.

Before admission to this examination, the candidate must have passed all the examinations for the degree of Bachelor of Surgery two years.

A notice is published early in the Michaelmas and Easter Terms, stating when the examinations for Medical and Surgical degrees

[1] This may be done in the first term of residence, or, better still, through the "Local Examinations," or the Oxford and Cambridge School Board Examinations, before coming into residence.

[1] The Certificate must be from one of the Vaccinators authorised by the Local Government Board.

commence, and the date when candidates are required to send to the Regius Professor of Physic notice of their intention to offer themselves for examination and the necessary certificates.

Each candidate pays three guineas to the Registrary of the University on giving notice of his intention to offer himself for his first examination for M.B. He pays two guineas before the second examination, and two guineas before the examination for B.S.

Schedules defining the range of subjects in the first examination, and of the Comparative Anatomy in the second examination, also schedules for the requisite certificates, and a list of the Schools of Medicine recognised by the University, may be obtained, on application, from Mr. English, at the Anatomical Museum.

UNIVERSITY OF LONDON.

THE following examinations will be held in the University of London in 1884.

Preliminary Scientific Examination: Monday, July 16th.
Intermediate Examination in Medicine: Monday, July 30th.
Bachelor of Medicine (M.B): Monday, November 5th.
Bachelor of Surgery (B.S.): Tuesday, December 4th.
Master in Surgery (M.S.) and Doctor of Medicine (M.D.): Monday, December 3rd.
Subjects relating to Public Health: Monday, December 10th.

The certificates in each case must be transmitted to the Registrar at least fourteen days before the commencement of the examination.

The fee for each examination is Five Pounds.[1] If a candidate withdraw, or fail to pass either of the examinations, the fee is not returned; but he is admitted to a subsequent preliminary, scientific, intermediate, M.B. or B.S., M.S. or M.D. examination, on payment of an additional fee of Two Pounds Ten Shillings, provided that he give notice to the Registrar at least fourteen days before the commencement of the examination.

BACHELOR OF MEDICINE.

Every candidate for the degree of Bachelor of Medicine is required —1. To have passed the Matriculation Examination; 2. To have passed the Preliminary Scientific Examination; 3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, in one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom; 4. To pass two examinations in Medicine.

Preliminary Scientific Examination.—Candidates are strongly recommended by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies. For the Preliminary Scientific Examination, candidates are examined in Inorganic Chemistry; Experimental Physics; Botany and Vegetable Physiology; Zoology. They must show a competent knowledge in all the subjects.[2]

Intermediate Examination in Medicine.—The candidate must have passed the Preliminary Scientific Examination at least one year previously, and must produce certificates—1. Of having completed his nineteenth year; 2. Of having been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of three of the following subjects: Descriptive and Surgical Anatomy, Physiology and Histology, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine;[3] 3. Of having dissected during two winter sessions; 4. Of having attended a course of Practical Chemistry; 5. Of having attended to Practical Pharmacy, and having acquired a practical knowledge of the preparation of Medicines. Candidates are examined in Anatomy, Physiology, and Histology,[4] Materia Medica and Pharmaceutical Chemistry, Organic Chemistry. Candidates must show a competent knowledge in all the subjects. The examinations are conducted by printed papers and *viva voce* interrogation, by demonstration from preparations and specimens, and by dissections.

Examinations for Honours.—Any candidate who has passed the examination in all its subjects at one time may be examined for Honours in—1. Anatomy; 2. Materia Medica and Pharmaceutical Chemistry; 3. Organic Chemistry; 4. Physiology and Histology.[4] If, in the opinion of the Examiners, sufficient merit be evinced, the candidate who distinguishes himself most in each of the first and fourth divisions receives an exhibition of £40 *per annum*, and in each of the others £30 *per annum*, for the next two years, payable in quarterly instalments; provided that, on receiving each instalment, he declare his intention of presenting himself at the M.B. examination within three academical years from the time of passing the intermediate examination in Medicine. Under the same circumstances, the first and second candidates in subjects 1 and 4, and the first candidate in subjects 2 and 3, receive each a gold medal of the value of five pounds.

M.B. Examination.[5]—No candidate is admitted to this examination within two academical years of the time of his passing the intermediate examination, nor without certificates:—1. Of having passed the intermediate examination in medicine; 2. Of having subsequently attended a course of lectures on each of two of the subjects for which he had not presented certificates at the intermediate examination; 3. Of having conducted at least twenty labours;[6] 4 and 5, Of having attended the Surgical and the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery and Clinical Medicine; 6. Of having, after having attended Surgical and Medical Hospital Practice[7] for at least twelve months subsequently to passing the intermediate examination in Medicine, attended to Practical Medicine, Surgery, and Midwifery, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months—such attendance not to be counted as part of the hospital practice prescribed in 4 and 5; 7. Of having acquired proficiency in Vaccination.[8] The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. Candidates are examined in General Pathology, General Therapeutics, and Hygiene, Surgery, Medicine, Obstetric Medicine, and Forensic Medicine. The examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The examinations are conducted by printed papers and *viva voce* interrogations; by practical examinations in obstetric preparations and apparatus; by examination, and report on cases, of medical patients in the wards of a hospital; demonstrations from specimens and preparations. Candidates are expected to write prescriptions in Latin, without abbreviations.

Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

Examination for Honours.—Any candidate who has passed the M.B. examination may be examined for Honours in—1. Medicine; 2. Obstetric Medicine; and 3. Forensic Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in Medicine receives £50 *per annum* for the next two years, with the style of University Scholar in Medicine; and the candidates who distinguish themselves the most in Obstetric Medicine and in Forensic Medicine receive each £30

[1] For the degree of Doctor of Medicine, the fee will continue to be Ten Pounds to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of Five Pounds at the Preliminary Scientific Examination.

[2] Any candidate may, if he give notice at the time of registration, postpone his examination in any *one* of the four subjects of the examination from the Preliminary Scientific Examination at which he presents himself for examination in the remaining subjects until the Preliminary Scientific Examination in the next or any following year; but no candidate is admissible to the Examination for Honours unless he shall have passed the previous Pass Examination *in all its subjects* at the same time; nor is any candidate who thus postpones his examination in one subject admissible to the Intermediate Examination in Medicine, until he has passed the examination in that subject.

[3] The subjects numbered 2, 3, and 4, must be attended after passing the Matriculation Examination.

[4] Any candidate, on giving notice at the time of registration, may postpone his examination in Physiology and Histology from the Intermediate Examination in Medicine at which he presents himself for examination in the remaining subjects, until the Intermediate Examination in Medicine in any subsequent year; but he cannot compete for honours on either occasion; and he cannot be admitted as a candidate at the M.B. Examination until at least twelve months after he has passed his examination in Physiology and Histology.

[5] Any candidate for the M.B. Examination who has passed the Intermediate Examination in Medicine under the former regulations, is required to have also passed the Examination in Physiology at some previous Intermediate Examination in Medicine carried on under the present regulations; at which examination he is not allowed to compete for honours.

[6] Certificates will be received from any legally qualified practitioner.

[7] The student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the Intermediate Examination in Medicine. Attendance during three months in the wards of a Lunatic Asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.

[8] Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.

per annum for the next two years, with the style of University Scholar in Obstetric Medicine and in Forensic Medicine respectively. The first and second candidates in each of the preceding subjects each receive a gold medal of the value of five pounds.

BACHELOR OF SURGERY.

The candidates must produce certificates—1. Of having passed the examination for the degree of Bachelor of Medicine in this University; 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. The examinations are conducted by printed papers on Surgical Anatomy and Surgical Operations; by examination, and report on cases, of surgical patients; by performance of operations upon the dead subject; by application of surgical apparatus; and by *vivâ voce* interrogation.

Examination for Honours.—Any candidate who has passed the B.S. examination may be examined for Honours in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives £50 *per annum* for the next two years, with the style of University Scholar in Surgery; and the first and second candidates each receive a gold medal of the value of £5.

MASTER IN SURGERY.

The candidate must produce certificates—1. Of having taken the degree of Bachelor of Surgery[1] in this University; 2. Of having attended subsequently—(*a*) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; (*b*) or to Clinical or Practical Surgery during one year in a recognised hospital or medical institution, and of having been engaged during three years in the practice of his profession; (*c*) or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University.[2] 3. Of moral character, signed by two persons of respectability. The examination is conducted by means of printed papers and *vivâ voce* interrogation; and the candidates are examined in Logic and Psychology,[3] and in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of £20.

DOCTOR OF MEDICINE.

The candidate must produce certificates analogous to those required for candidates for the degree of Master in Surgery, but having special relation to Medicine. The examination is conducted by printed papers and *vivâ voce* interrogations; and candidates are examined in Logic and Psychology, and in Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of £20.

UNIVERSITY OF DURHAM.

THERE are two Licences and three Degrees conferred; viz., a Licence in Medicine and a Licence in Surgery, and the Degrees of Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. A certificate of proficiency in Sanitary Science is also awarded.

The regulations for the licence and degree of Bachelor, so far as regards the course of study, the subjects of each examination, and the certificates required, are similar; but the candidate for a degree must produce evidence of general education in addition to that implied in the certificate of registration as a medical student.

The examinations for the licences and degrees above named are conducted at the College of Medicine, and in the Infirmary, at Newcastle-on-Tyne. Candidates are examined—(1) by printed papers of questions, (2) practically, (3) *vivâ voce*. Every candidate who intends to present himself for any of the above-named examinations must give at least twenty-eight days' notice to the Registrar of the College, and must at the same time send the fee, £5, and the necessary certificates. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, he shall not receive back the fee, but shall be allowed to enter for one subsequent examination of the same kind without the payment of any additional fee.[3]

BACHELOR OF MEDICINE.

The course of attendance on Lectures and Hospital Practice required is the same as that required by the Royal College of Surgeons of England, together with the following additional courses:—Botany and Therapeutics, each three months; Public Health and Medicine, each six months; Medical Hospital Practice and Clinical Lectures on Medicine, each one winter and one summer session.

For this Degree there are two Professional Examinations, the first being held in October and April, the second in June and December. The first will commence on October 8th, 1883, and April 21st, 1884; and the second on December 3rd, 1883, and June 23rd, 1884. The subjects of the First Examination are Anatomy, Physiology, Chemistry, and Botany. The candidate must produce the following certificates:—1. Of registration in the books of the General Medical Council as a medical student; 2. Of (*a*) Graduation in Arts at one of the following Universities, viz., Oxford, Cambridge, Durham, Dublin, London, Queen's (Ireland), Edinburgh, Glasgow, St. Andrew's, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), and Queen's College (Kingston); or (*b*) of having passed the Preliminary or Extra-Professional Examination for Graduation in Medicine at one of the following Universities, viz., London, Edinburgh, Glasgow, St. Andrew's, Aberdeen, and Queen's (Ireland); or (*c*) of having passed the Preliminary Examination in Arts which, before 1881, qualified for the Fellowship of the Royal College of Surgeons of England, or that qualifying for the Membership of the Royal College of Physicians of London; or (*d*) of having passed the Preliminary Examination in Arts for the Degrees in Medicine of the University of Durham. This Examination is held twice yearly, in April and September, at the same time as the Registration Examination.[4] Application for admission must be made at least one month before the Examination in Arts. The Fee is £1. Candidates who, at the commencement of their professional education, passed the Arts Examination for Registration only, may pass in the extra subjects required, either *before or after* presenting themselves for the First Examination for the Degree, but must do so before presenting themselves for the Second Examination. 3. Of attendance on two courses of Anatomy, on one of Physiology, on one of Theoretical and one of Practical Chemistry, and on one of Botany; of twelve months' Dissection; and of attendance on a course of Practical Physiology of not less than thirty lessons.

The subjects of the Second Examination are Medicine, Surgery, Pathology, Midwifery, and Diseases of Women and Children, Medical Jurisprudence, Materia Medica and Therapeutics, and Public Health. Candidates must produce the following certificates:—1. Of being not less than twenty-one years of age; 2. Of good moral character; and 3. Of attendance on the remainder of the course of medical and surgical study as prescribed by the Royal College of Surgeons of England, together with the following additional subjects, viz., one course of lectures on Medicine, one on Therapeutics, and one on Public Health, and Medical Hospital Practice with Clinical Lectures during one Winter and one Summer Session. There must be proof that the whole course of professional study has occupied at least four years.

One of the four years of professional education must be spent in attendance at the College of Medicine, Newcastle-upon-Tyne. During the year so spent, the candidate must attend at least two courses of

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[1] Candidates who have obtained the degree of Bachelor of Medicine previously to 1866, will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and their attendance on surgical practice required by Regulation 2, may commence from the date of the M.B. Degree.

[2] One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division.

[3] Any candidate who has taken the degree either of M.D., B.A., or B.Sc., in this University (provided that Mental and Moral Science was one branch of his examination), is exempted from this part of the examination; and any candidate who has passed the M.B. Examination may, at any subsequent M.S. Examination, present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.—An analogous exemption is allowed in the case of candidates for the degree of M.D.

[3] There are special regulations in the case of practitioners of fifteen years' standing. See next page.

[4] The next examination will commence on September 18th, 1883, and will include the following subjects, viz.: *Necessary:* Greek: Xenophon's *Anabasis*, Book III. Euclid: Books III and IV.—*Optional (of which two only must be taken):* Latin: Cicero's *De Senectute*. French: Voltaire's *Louis XIV*, chapters 1 to 13. German: Freytag's *Der Staat Friedrich's des Grossen*. Mechanics, Hydrostatics, and Pneumatics. English History: William I to Henry II. Similar examinations will also be held in 1884, beginning on March 25th and September 23rd. *Necessary:* Greek: Xenophon's *Anabasis*, Book IV. Euclid: Books III and IV. *Optional Subjects (two to be taken):* Latin: Cicero, *De Amicitiâ*. French: Voltaire, *Louis XIV.*, chapters 1 to 13. German: Goethe, *Knabenjahre*. Mechanics, Hydrostatics, and Pneumatics. English History: Richard I to Richard II. In 1885 the examinations will commence on March 25th and on September 22nd. *Necessary:* Greek: Xenophon's *Anabasis*, Book V. Euclid: Books III and IV. *Optional Subjects (two to be taken):* Latin: Cicero, *De Senectute*. French: *Frédégonde et Brunehaut*. German: Goethe, *Knabenjahre*. Mechanics, Hydrostatics, and Pneumatics. English History: Henry IV to Richard III.

lectures in the Winter Session, and two in the Summer Session, together with the Class and Test Examinations held in connection with those classes; and must also attend Hospital Practice and Clinical Lectures at the Infirmary. Candidates may fulfil this portion of the curriculum at any period before they present themselves for the Final Examination for the Degree. They are not required to reside at Durham. The other three years of the curriculum may be spent either at Newcastle-upon-Tyne or at one or more of the Schools recognised by the Licensing Bodies.

The successful candidates for the First and Second Examinations for the Degree of Bachelor in Medicine will be arranged in three classes, the first and second, honour, according to merit, and the third or pass, in alphabetical order.

Candidates who have completed part of their curriculum elsewhere may pass their First Examination previously to entering at Newcastle-on-Tyne, and are recommended to commence their year of residence at Newcastle at the beginning of the Winter Session.

DEGREE OF DOCTOR OF MEDICINE.

Candidates must not be less than twenty-four years of age, must have obtained the Degree of Bachelor of Medicine at least two years previously, and have been subsequently engaged in medical and surgical practice. Each candidate must write an essay on some medical subject selected by himself and approved by the Professor of Medicine, and pass an examination thereon; and must be prepared to answer questions on the other subjects of his curriculum, so far as they are related to the subject of the essay. A Gold Medal will be awarded to the candidate who presents the best essay (provided that the essay is judged to be of sufficient merit). The successful candidate will be permitted to publish his essay. The essays will be retained by the Faculty of Medicine.

DEGREE OF MASTER IN SURGERY.

Candidates must have passed the Examination for the Degree of Bachelor in Medicine, and must have attended one Course of Lectures on Operative Surgery. Each candidate will have an additional Paper on Surgery, and will have to perform operations on the dead body, and to explain the use of instruments.

THE DEGREE OF DOCTOR OF MEDICINE FOR MEDICAL PRACTITIONERS OF FIFTEEN YEARS' STANDING, WITHOUT RESIDENCE.

Practitioners of fifteen years' standing are admitted to examination for the Degree of Doctor of Medicine under the following regulations. 1. The candidate must be registered by the General Council of Medical Education and Registration of the United Kingdom. 2. He must have been in the active practice of his profession for fifteen years as a qualified practitioner. 3. He must not be under forty years of age. 4. He must produce a certificate of moral character from three registered members of the medical profession. 5. If the candidate shall not have passed, previously to his Professional Examination (in virtue of which he has been placed on the *Register*), an Examination in Arts, he must pass an Examination in Classics and Mathematics.[1] 6. If the candidate shall have passed previously to his Professional Examination (in virtue of which he has been placed on the *Register*), a Preliminary Examination, he must translate into English passages in any of the parts specified below of any one of the Latin authors mentioned:—Cæsar—*De Bello Gallico*, first three books; Virgil—first three books of the *Æneid:* Celsus—first three books.[2] The candidate has an opportunity of showing proficiency in Greek, Moral Philosophy, or some Modern Language.[3] 7. He must pass an Examination in the following subjects: i. Principles and Practice of Medicine, including Psychological Medicine and Hygiene; ii. Principles and Practice of Surgery; iii. Midwifery and Diseases peculiar to Women and Children; iv. Pathology, Medical and Surgical; v. Anatomy, Medical and Surgical; vi. Medical Jurisprudence and Toxicology; vii. Therapeutics. The examination is conducted by means of printed papers, clinically, in the Newcastle Infirmary, and *viva voce*. 8. The fee is Fifty Guineas. 9. If the candidate shall fail to satisfy the Examiners, Twenty Guineas are retained; but, if he again offer himself for the Examination, Forty Guineas only are then required.

Examinations, in accordance with the above regulations will commence on December 3rd, 1883, and June 23rd, 1884; and will last four days on each occasion, in the College of Medicine, Newcastle-on-Tyne. Gentlemen intending to offer themselves as candidates are requested to forward their names to Dr. Luke Armstrong, Registrar of the University of Durham College of Medicine, Newcastle-on-Tyne, on or before November 1st, 1883, or May 1st, 1884, together with the fee and the before-mentioned certificates.

[1] The subjects for this examination are:—1. An English Essay. (A short essay on some subject to be specified at the time of the examination.) 2. Arithmetic. 3. Euclid—Books I and II. 4. Latin—Translation from Virgil, *Æneid*, Books I and II, together with Grammatical Questions. 5. One of the following subjects: i. Greek—Translation from Xenophon's *Memorabilia*, Books I and II, with Grammatical Questions; ii. French—Translation from Voltaire's *Charles XII*, with Grammatical Questions; iii. German—Translation from Goethe's *Dichtung und Wahrheit*, Book I, with Grammatical Questions; iv. Elements of Mechanics, Pneumatics, and Hydrostatics; v. Some Treatise on Moral, Political, or Metaphysical Philosophy.

[2] The candidate may choose for himself any one of the three above-named authors.

[3] For these subjects no extra marks are awarded.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE.

No one can obtain the Licence of the College under the age of twenty-one years. Every applicant must produce evidence of having been engaged in the study of Medicine during at least four years subsequently to registration as a medical student, including attendance during not less than four winter sessions, or three winter and two summer sessions, at a recognised medical school. He must produce certificates of having attended the following courses at an university or medical school:—Anatomy, Practical Anatomy, Chemistry, Practice of Medicine, Clinical Medicine, and Principles and Practice of Surgery, each a six months' course; Practical Chemistry, Materia Medica and Pharmacy, Physiology, Clinical Surgery, Midwifery, Medical Jurisprudence, General Pathology or Pathological Anatomy, and Practical Pharmacy, each a three months' course. He must have attended the practice of a public hospital (containing not fewer than eighty beds), during not less than twenty-four months, twelve of which must have been spent in the medical wards. He must also have attended for six months the practice of a public dispensary, or have acted for six months as clinical clerk or dresser in an hospital; or have been engaged during six months as a visiting assistant to a registered practitioner. He must also have attended at least six cases of labour under the superintendence of a qualified medical practitioner, and have studied vaccination under a competent and recognised teacher. He must have passed the Preliminary Examination in Literature and Science,[1] and had his name inscribed in the General Medical Council's *Register* of Medical Students, previously to the commencement of his medical studies. Masters and Bachelors of Arts of any British or foreign university, whose course of study may be approved of by the College, will be exempted from the preliminary examination; also those who have passed the examination of the national educational bodies, or of any of the licensing boards recognised by the Medical Act.

The Professional Examination will be divided into two parts:—1. Anatomy, Physiology, Chemistry; 2. Materia Medica and Pharmacy, Pathology and Pathological Anatomy, Practice of Medicine, Surgery, Midwifery, Medical Jurisprudence, Clinical Medicine. No candidate will be admitted to the first examination until the end of the second winter session, or to the second until he has completed four years of professional study. The preliminary examination will be held on October 13th, 15th, and 16th, 1883; April 8th, 9th, and 10th, and July 4th, 5th, and 7th, 1884. The first professional examinations will be held on October 10th, 1883; January 16th, April 16th, July 16th, and October 15th, 1884. The second professional examination will be held on the Thursdays and Fridays following the first professional examination.

Candidates who have passed the first professional examination before a qualifying body (provided it be as extensive as that required by this College), will be at once admitted to the second examination.

Meetings for the examination of candidates who already possess a qualification, will be held on the first Wednesday of every month, except September and October.

No candidate is admissible to examination who has been rejected by any other licensing board within the previous three months. Every candidate must sign a declaration that he has not been rejected within this period.

The Fee for the Licence is £15 15s. A candidate for the first professional examination pays £6 6s., and for the second or final £9 9s.: but, if exempted from the first professional examination, he must, before appearing for the final, pay the whole fee of £15 15s. If a candidate be unsuccessful at the first professional examination, £3 3s.: and at the second or final £4 4s. will be retained. This regulation will also apply in cases in which the candidate may have been previously rejected.

[1] For the subjects, see note to Regulations for Double Qualification.

Candidates may be admitted to special examination by bringing forward satisfactory reasons, and paying an extra fee of £5 5s. Should the candidate be unsuccessful, £11 11s. will be returned to him.

FELLOWSHIP AND MEMBERSHIP.

No one can be elected a Fellow of the College until he has been at least one year a Member, and has attained the age of twenty-five years.

Any Licentiate of a College of Physicians, or Graduate of a British or Irish University, with whose knowledge of Medical and General Science the College may be satisfied, may be admitted a Member of the College, provided he shall have attained the age of twenty-four years.

Every motion for the election of a Fellow or Member shall be made at a quarterly meeting of Fellows by one of the Fellows present, and seconded by another; and this motion shall be determined by ballot at the next quarterly meeting—a majority of three-fourths being necessary to carry it in the affirmative.

Every candidate for the Membership (except such as are admissible under the provisions for candidates above forty years of age) must pass an examination:—(1) On the Principles and Practice of Medicine, including Therapeutics;—(2) On one of the following subjects, to be selected by the candidate: (*a*) Pathology, including Morbid Anatomy; (*b*) Medical Jurisprudence and Public Health; (*c*) Midwifery and the Diseases of Women; (*d*) Psychological Medicine.

Application for the membership must be made through the Secretary, who will transmit to the candidate a copy of the Regulations and Plan of Examination, together with a Form of Petition. The candidate must return the petition duly filled up to the Secretary, and shall at the same time transmit testimonials of recent date from well-known members of the profession, certifying as to his professional and social standing. If satisfied as to the eligibility of the candidate, the Council authorise his examination by the Board of Examiners. If the report of the Examiners be satisfactory, the Council report the same to the College at the next quarterly meeting, when a motion may be made for the election of such candidate to the Membership of the College.

If any candidate who has attained the age of forty years, and has been a Registered Practitioner for not less than ten years, produce testimonials showing that he has been distinguished for his scientific attainments, or eminence as a Medical Practitioner, the Council may, if they see fit, exempt him from the whole or any part of the prescribed examination.

Examinations will be held on October 9th and 10th, 1883, January 8th and 9th, April 8th and 9th, and July 8th and 9th, 1884. Application must be made to the Secretary not less than one month previous to the date of the Examination at which the candidate proposes to appear.

Fees.—The fee to be paid by a Member is £31 10s. A Licentiate who has obtained the Licence prior to the 1st of August, 1876, when raised to the rank of Member, pays £21; a Licentiate obtaining the Licence subsequent to that date, when raised to the rank of Member, pays £15 15s. When a Member is raised to the rank of Fellow he pays £31 10s., exclusive of stamp-duty (£25). All candidates for Fellowship or Membership must lodge their fees and the amount of stamp-duty payable with the Treasurer previously to presenting their petitions.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS FOR CANDIDATES FOR THE DIPLOMA.

THE regulations regarding schools of medicine, preliminary examination, and professional study and examination, are similar to those for the double qualification (see below), except that the third course of Medicine is not required. The first professional examinations will be held on October 16th, 1883; January 22nd, March 25th, April 15th, and July 15th, 1884. The second examinations take place immediately after the conclusion of the first.

At the second examination, the student, in furnishing the statement of his professional study, must, if he have been an apprentice, insert the name of his master, the date of his indenture, and the length of time for which he was bound. If he have been apprenticed to a Fellow of the College, he must also produce his discharged indenture.

Recent Dissections, Anatomical Specimens, and articles of the Materia Medica are employed in the examinations; and all candidates are required to write out formulæ of prescriptions, and are subjected to a practical examination in the Surgical Hospital.

The Fees are:—for the first examination, £6 6s.; for the second, £9 9s. At the first examination, £3 3s., and at the second £5 5s., will be returned to unsuccessful candidates.

Candidates who have passed the first examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second Professional Examination under the same conditions as are described in the regulations for the double qualification. The fee will be £15 15s.; and unsuccessful candidates will receive back £11 11s.

Candidates desirous of special examinations on other days than those fixed, must prepare a case to be submitted to the consideration of the authorities of the College. They must produce certificates of the whole of the prescribed course of study, and of having passed the preliminary examination, and must state the earliest and the latest days within which they can present themselves. The fees are as follows, viz., £20 for first and second examinations, of which £12 will be returned to candidates remitted on the first examination; but no part of the money will be repaid to candidates who, having passed the first, are unsuccessful in the second examination; £17 for second examination. Of this, no part will be returned to the candidate if unsuccessful.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

DOUBLE QUALIFICATION IN MEDICINE AND SURGERY.

THE examination for this qualification is conducted by a Board, in which each College is represented, for examination in the branches common to both Medicine and Surgery; but the College of Physicians takes exclusive charge of the examination in Medicine, and the College of Surgeons of the examination in Surgery. Students passing that examination are enabled to register two qualifications—Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

Every candidate must have followed his course of study in an University, or in an established School of Medicine, or in a Provincial School specially recognised by the Colleges of Physicians and of Surgeons of that division of the United Kingdom in which it is situate. Under the title of Established School of Medicine are comprehended the Medical Schools of those cities of Great Britain and Ireland in which Diplomas in Medicine or Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

Preliminary Examination in General Education.—All candidates for the Diplomas of the Colleges must have passed the complete examination in General Education,[1] and have had their names inscribed in the General Medical Council's Register of Medical Students at the commencement of their professional studies. Certificates of having passed the examination in General Education, conducted by certain other educational bodies, will be accepted. Each candidate who intends to undergo the preliminary examination must give in his name to the officer of either College not less than two days before the day of examination. He must pay a fee of Ten Shillings. If unsuccessful, he must pay Five Shillings for each subsequent examination.

Professional Education.—1. Candidates must have been engaged during forty-five months after the preliminary examination in professional study, including not less than four winter sessions', or three winter and two summer sessions' attendance at a recognised Medical School. 2. The candidate must have attended the following courses of lectures: Anatomy, two courses[2] of six months each, and Practical Anatomy, twelve months; or, Anatomy, one course of six months, and Practical Anatomy, eighteen months; Physiology, not less than fifty lectures; Chemistry, Practice of Medicine, Clinical

[1] The examination in 1884 will embrace the following subjects:—Part I. 1. English Language, including Grammar and Composition; English History; Modern Geography. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, up to and including Simple Equations. 4. Geometry; first two Books of Euclid, or the subjects thereof. 5. Latin; Ovid, *Fasti*, Book I; Cicero, *De Finibus Bonorum et Malorum*, Books I and II. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. (The last subject may be passed at any period previous to the first Professional Examination.) Part II. Optional Subjects, of which one only is required to be passed:—1. Greek: Demosthenes, *De Coronâ* (first half); Sophocles, *Philoctetes*. 2. French: Souvestre, *Un Philosophe sous les Toits*. 3. German: Lessing, *Minna von Barnhelm*. The Examination in English History will embrace the period from 1603 to 1714 inclusive; and in Modern Geography, the Geography of Great Britain, and the principal Physical Features and Political Divisions of Europe and Asia. In Latin, Greek, French, and German, parsing, and translation of short sentences from English into the respective languages, will be required. In Latin, translation of a passage from an unprescribed author will also be required.

[2] The two courses must not be attended in the same session.

Medicine,[3] Medicine (a third course, either Practice or Clinical, at option),[3] Principles and Practice of Surgery, Clinical Surgery,[3] Surgery (a third course, either Principles and Practice or Clinical Surgery, at option),[3] each six months; Practical or Analytical Chemistry, Materia Medica, Midwifery and Diseases of Women and Children, Medical Jurisprudence, and Pathological Anatomy,[4] each three months.[5] He must also produce certificates:—*a*. Of having attended at least six cases of labour under the superintendence of a registered medical practitioner. *b*. Of having attended, for three months, instruction in Practical Pharmacy. The teacher signing the certificate must be a Member of the Pharmaceutical Society of Great Britain, or a chemist and druggist recognised by either College on special application, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses medicines to his own patients. *c*. Of having attended, for twenty-four months, a public general hospital containing, on an average, at least eighty patients. *d*. Of having attended, for six months, the practice of a public dispensary specially recognised by either College; or of having been engaged for six months as assistant to a registered practitioner. *e*. Of having been instructed in vaccination; the teacher signing the certificate must be a registered practitioner. It is strongly recommended to students to avail themselves of opportunities of attending lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope.

Professional Examination.—1. Candidates for the double qualification are subjected to two professional examinations. 2. Opportunities for both examinations are presented six times in each year. On each occasion, the candidates write answers to questions, and are examined orally on the days immediately succeeding. 3. Unsuccessful candidates are remitted to their studies for not less than three months. 4. The first examination embraces Anatomy, Physiology, and Chemistry, and takes place not sooner than the end of the second winter session. 5. Candidates must apply to the Inspector of Certificates on or before the Friday preceding the day of examination; and must produce certificates of attendance on those courses of lectures which have reference to the subjects of the examination, and evidence of having passed the preliminary examination.[6] 6. The sum of £8 8s. must be paid to the Inspector of Certificates for this examination not later than 9 A.M. of the Saturday preceding it. This sum will be considered as paid to account for the entire fee of £21 payable for the two Diplomas. 7. In the case of a candidate being unsuccessful at this examination, £5 5s. will be returned to him. 8. The second examination embraces Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and takes place after the termination of the winter session of the last year of study, at least forty-five months after the examination in general education. 9. Application for examination must be made to the Inspector of Certificates not later than the Monday previous to the day of examination. 10. Every candidate must produce—*a*. Satisfactory evidence of having attained the age of twenty-one years; *b*. A certificate of having passed the preliminary examination, unless this certificate have been already seen by the Inspector; *c*. A certificate of registration in the books of the General Medical Council; *d*. A certificate of having passed the first professional examination; *e*. The certificate mentioned under Professional Education, Sections 2 and 3 (above); *f*. A tabular statement (for which a printed form will be furnished), exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session. 11. The fee for this examination is £12 12s., which must be lodged with the Inspector not later than 9 A.M. of the Tuesday preceding the examination. 12. On the production of the above documents, and after receiving the fees, the Inspector gives the candidate a letter authorising the examiners to take him on trial. 13. In case of a candidate being unsuccessful at this examination, £8 8s. will be returned to him. 14. Candidates who have passed the first professional examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second professional examination on producing certificates of the whole course of study prescribed, of having passed their preliminary and first professional examinations, and of having been registered as students. If any of the three subjects of the first examination have been omitted, the candidate will have to undergo an examination on the omitted subjects; and none of the subjects of the second examination will be omitted. The fee payable by such candidates is £21, and unsuccessful candidates will receive back £16 16s. 15. In addition to the written and oral examinations, all candidates are subjected to practical Clinical Examinations in Medicine and Surgery. 16. No candidate is admissible to examination who has been rejected by any other Licensing Board within the preceding three months.

Communications from candidates must be addressed to Dr. A. James, 11, Albyn Place, Edinburgh.

The following will be the periods of examination for the Double Qualification for the year 1883-84. *Preliminary Examination in General Education*, October 13th, 15th, and 16th, 1883; April 8th, 9th, and 10th, July 4th, 5th, and 7th, and October 11th, 13th, and 14th, 1884. *First Professional Examinations.*—Tuesdays, October 9th, 1883; January 29th, April 22nd, July 22nd, 1884. *Second Professional Examinations.*—These will take place immediately after the conclusion of the first professional examination. In no case will they be begun on an earlier day than the Thursday of any period.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

REGULATIONS FOR THE DIPLOMA.

THE regulations respecting the curriculum of Professional Study, and the Fees, are similar to those of the Royal College of Surgeons of Edinburgh.

Preliminary Examinations in General Literature will be held on October 19th, 1883; and March 28th, June 27th, September 12th, and October 17th, 1884.[1] The Fee is Ten Shillings. Candidates will be furnished, on application to the Secretary, with a form of application, which they must fill up and transmit to him at least four days before the examination.

The First Professional Examinations take place on October 17th, 1883, and January 7th, April 7th, July 14th, and October 15th, 1884; *the Second Professional Examinations* on October 22nd, 1883, and January 14th, April 10th, July 23rd, and October 20th, 1884. Applications for admission to the first examination must be made four days, and to the second examination a week, before the respective examinations.

Students are strongly recommended to avail themselves of opportunities of studying Ophthalmic and Mental Diseases, Natural History, Comparative Anatomy, and Practical Physiology, in addition to what is required in the curriculum.

The examinations are conducted partly in writing and partly orally. Recent Dissections, Anatomical Specimens, the Microscope, Physiological Apparatus, Chemical Tests, Surgical and Obstetrical Instruments and Apparatus, Articles of the Materia Medica, Pathological Specimens, and Toxicological Tests and Specimens, may be employed. Candidates are also subjected, at the second examina-

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[3] Two courses of Clinical Medicine or of Clinical Surgery of three months each, if not simultaneous, will be held equivalent to one course of six months. They must be attended during the attendance at the Hospital where they are delivered.

[4] A certificate of attendance at the *Post Mortem* Examinations at a General Hospital will be accepted in lieu of this course.

[5] The six months' courses delivered in Scotland must consist of not fewer than 100 lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' courses must consist of not fewer than fifty lectures.

[6] Candidates at a distance are requested to send their certificates much earlier, so as to give sufficient time for the exchange of one or two explanatory letters, as much disappointment has been occasioned by the discovery of defects in their course of study when it was too late to rectify them by the production of documents. Candidates should attend punctually to the dates fixed by the Regulations for lodging their Certificates and for paying their money. If these preliminaries are neglected, their examinations may require to be postponed. The safest mode of remitting money is by a bank order made payable, at sight, to the Treasurer, at an Edinburgh Bank, and crossed in the usual way. A cheque on a private account cannot be received, as it is worth nothing till paid by the banker on whom it is drawn.

[1] The examinations will embrace the following subjects:—1. English Language, including Writing to Dictation, Grammar, Analysis of Sentences and Derivations and Meaning of Common Words, and Composition. History of England (1688 to 1820); Geography of the British Islands. 2. Latin: Translations: Cicero, *De Senectute*, and Virgil, *Georgics*, Book I. Translation from an author not presented; Questions in Grammar; an Exercise in rendering English correctly into Latin, the Latin words being in part supplied. 3. Arithmetic, to Vulgar and Decimal Fractions inclusive; 4. Algebra, including Simple Equations. 5. Geometry: First two Books of Euclid (questions will be given on the third Book of Euclid, but the answering of them will be optional). 6. Elementary Mechanics of Solids and Fluids (this subject may be passed either as preliminary, or before, or at the first professional examination). 7. One of the following subjects at the option of the candidate. Greek: *a*. Xenophon's *Memorabilia*, Book I; St. Mark's Gospel. *b*. French: in 1882, Molière, *Les Femmes Savantes*. *c*. German: Schiller, *Geschichte des dreissigjährigen Kriegs*, Erster Theil, Buch I, II. *d*. Chemistry; General Principles of the Science, with the principal Non-metallic and Metallic Elements and their more common combinations. In the English, Latin, Greek, French, and German papers, special stress will be laid on accurate grammatical knowledge. Translations of English into Greek, French, and German, will be required from candidates examined in these languages.

tion, to a Practical Clinical Examination at the Hospital, and may be examined practically in Operative Surgery.

Candidates who have passed the examination in Anatomy, Physiology, and Chemistry, before any of the licensing bodies enumerated in Schedule (A) of the Medical Act, on complying with the Regulations in other respects, are admitted to the second professional examination, under the conditions described in the regulations for the double qualification of the Colleges of Physicians and Surgeons in Edinburgh. Graduates and Licentiates in Medicine of other bodies are exempt from examination in Medicine and Materia Medica.

The Fee for the diploma is £15 15s.; £6 6s. is paid at the first examination, of which £3 3s. is retained in case of rejection; and £9 9s. for the second examination, of which £4 4s. is retained if the candidate be rejected.

A candidate, on showing a sufficient reason, may be admitted to examination on a day specially arranged, on paying an extra fee of £5 5s.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

THE Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, conjointly grant their Diplomas after one series of examinations before a Board of Examiners in which each body is represented. The regulations as to the curriculum of study, and the fees, are similar to those for the conjoined examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh. The first examinations will be held on October 17th, 1883, and January 7th, April 7th, July 14th, and October 15th, 1884; the second examinations on October 26th, 1883, and January 21st, April 14th, July 28th, and October 27th, 1884.

UNIVERSITIES OF EDINBURGH, GLASGOW, ABERDEEN, AND ST. ANDREW'S.

REGULATIONS RESPECTING DEGREES IN MEDICINE.

[THE Regulations of these Universities are nearly similar. We therefore give but one statement, noticing points of difference when necessary.]

Three Medical Degrees are conferred by each University: viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of C.M. is conferred only on those who at the same time obtain the Degree of Bachelor of Medicine.

Preliminary Education.—The preliminary branches of extraprofessional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and candidates must also pass an examination in at least two of the following subjects: Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy.[1] The examinations on both classes of subjects take place[2] before the commencement of medical study.[3]

A Degree in Arts (not honorary) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University specially recognised by the University Courts, exempts from preliminary examination. The Universities also recognise examination in Arts by any corporate body whose examination has been recognised by the General Medical Council, and also approved by the University Court, so far as regards all subjects comprised in the examination of the said corporate body.

DEGREE OF BACHELOR IN MEDICINE AND MASTER IN SURGERY.

Candidates for the Degree of Bachelor in Medicine or Master in Surgery must have been engaged in medical and surgical study for four years—each *Annus Medicus* being constituted by at least two courses of not less than 100 lectures each, or by one such course, and two courses of not less than 50 lectures each; with the exception of the clinical course, in which lectures are to be given at least twice a week.

Every candidate for the Degree of M.B. and C.M. must give sufficient evidence by certificates—1. That he has studied Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine and of Surgery, Midwifery and the Diseases of Women and Children,[4] General Pathology,[5] during courses including

[1] The Universities of Glasgow and St. Andrew's include Natural History. In Edinburgh, Natural History is included in the first professional examination.

[2] As far as possible—*Aberdeen.*—At *Glasgow*, the examination in the second class must take place previously to the first professional examination.

[3] In Edinburgh, examinations on these subjects will be held on October 2nd, 3rd, 4th, and 5th, 1883, and March 4th, 5th, 6th, and 7th, 1884. 1. English: Writing a passage from dictation; Composition, with correction of sentences of bad English; Grammar, with analysis of sentences and derivation and definition of some common English words: History and Geography. 2. Latin: for October 1883 and March 1884, Livy, Book XXI; for October 1884 and March 1885, Livy, Book X; an easy passage from a Latin prose author, and a single passage of English (translated from a Latin author) to be re-translated into Latin, the more difficult Latin words being given. 3. Arithmetic: The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics: Euclid, Books I, II, and III; or Wilson's *Elementary Geometry*, Books I, II, and III; and the Elementary Rules of Algebra, including Simple Equations. A knowledge of Geometry alone or of Algebra alone will not be sufficient. 5. Elements of Dynamics (Mechanics): Elementary Kinematics, Statics, Kinetics, and Hydrostatics: Text-book, Blaikie's *Elements of Dynamics*. At least two of the following subjects. 1. Greek: For October 1883 and March 1884, Plato, *Apologia Socratis*; for October 1884 and March 1885, Xenophon, *Memorabilia*, Book I. 2. French: for October 1883 and March 1884, Souvestre, *Un Philosophe sous les Toits*, i-ix; for October 1884 and March 1885, Madame De Witt, *Derrière les Haies*, chaps. i to xvi. 3. German: For October 1883 and March 1884, Chamisso, *Peter Schlemihl's wunderbare Geschichte*: for October 1884 and March 1885, Schiller, *Der Neffe als Onkel*. 4. Higher Mathematics; Geometry, Euclid, Books I to IV, Book VI, and the Propositions of XI usually given in the modern editions, or Wilson's *Elementary Geometry*, Books I, II, III, and V, and Wilson's *Solid Geometry and Conic Sections*, Book IV, Sections 1 and 2; Algebra, Elementary Trigonometry and Conic Sections, Wilson's *Solid Geometry and Conic Sections*, Book V. 5. Natural Philosophy: Balfour Stewart's *Elementary Physics*. 6. Logic: Jevons's *Elementary Lessons in Logic*, or Fraser's *Selections from Berkeley*, 2nd edition, pp. 143-249. 7. Moral Philosophy: For October 1883 and March 1884, Butler's *Ethical Theory*, Sermons 1, 2, 3, and Calderwood's *Handbook*, pp. 1-43, 77-97, and 123-152; for October 1884 and March 1885, Mackintosh's *Dissertation*—"Hobbes," "Cudworth," "Clarke," "Shaftesbury," "Butler," "Hutchison," "Hume," "Smith," "Price," "Paley," "Bentham," "Stewart;" Professor Calderwood's *Handbook*, pp. 1-43, 77-97. In answering the questions in Arithmetic, Mathematics, and Dynamics (Mechanics), the steps of the reasoning, as well as the final result, must be exhibited. In Latin, Greek, French, and German, questions in Grammar will be set, and passages to be translated from English.

In Glasgow, examinations will take place on October 10th, 11th, 12th, and 13th, 1883; and on March 26th, 27th, 28th, and 29th, 1884. *First or Elementary Part:* The candidate must pass in all the subjects of this division before registration by the Branch Registrar of the General Council. 1. English: Writing correctly a passage to dictation; Composition of a short Essay on a given theme; Questions in Grammar, with analysis of sentences and the derivation and meaning of some common English words; English History from 1603 to 1688; Geography of the British Isles. 2. Latin, Virgil, *Æneid*, Book II; Sallust, *De Bello Jugurthino*, chap. I to L.—Translations of passages from authors not prescribed, and of English passages into Latin, the principal Latin words being supplied; Questions in Grammar and Construction. 3. Arithmetic: The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics: Euclid, Books I, II, and III; Algebra, as far as Simple Equations. 5. Elements of Dynamics (Mechanics): Elementary Kinematics, Statics, Kinetics, and Hydrostatics. Text books: Bottomley's *Dynamics* (Collins's series); Blaikie's *Elements of Dynamics*. (For Registration, any subject in the second part may be substituted for Mechanics, in which case Mechanics must be passed before the first professional examination.) *Second Part:* The candidate must pass in at least two of the following subjects, to be selected by himself, before he can be admitted to the first professional examination. 1. Greek: Xenophon, *Memorabilia*, Book I, and the Gospel according to St. John; Translations of passages from Greek authors not prescribed, and of English passages into Greek—the principal Greek words supplied; Questions in Grammar. 2. French: Montesquieu, *Considerations sur les Causes de la Grandeur des Romains et de leur Decadence*—Translations and Exercises. 3. German: Schiller's *Maria Stuart*—Translations and Exercises. 4. Higher Mathematics: Euclid, Books I to VI; Algebra, including Quadratic Equations, and the Rudiments of Trigonometry. 5. Natural Philosophy: Such a knowledge of the principles as may be obtained from Bottomley's *Handbook* and Balfour Stewart's *Elementary Lessons in Physics*. 6. Logic: Jevons's *Elementary Lessons in Logic*. 7. Moral Philosophy: Dr. Fleming's *Manual*, Part I. A Certificate of having passed, at the examinations for the Degree of M.A. or B.Sc., in English, Latin, Mathematics, Natural Philosophy, Greek, Logic, or Moral Philosophy, will be accepted instead of examination in these subjects.

At St. Andrew's, the examination takes place during the first week of the session. The following are the subjects. 1. English Language, including Grammar and Composition. 2. English History, from the Norman Conquest to the Revolt of the American Colonies. 3. Modern Geography. 4. Latin, Cicero *De Officiis*, Book I; Virgil, *Æneid*, Book II. 5. Elements of Mathematics, comprising Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry, including the first two books of Euclid or the subjects thereof. 6. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. (This subject may be passed either as Preliminary, or before, or at the first Professional Examination.) 7. One of the following optional subjects: (*a*) Greek, Xenophon's *Anabasis* first two books, or any one book of Herodotus or two books of Homer that they like to select; (*b*) French: Voltaire's *Charles XII;* (*c*) German: Schiller, *Thirty Year's War*, or any one of his dramas; (*d*) Italian: Tasso's *Gerusalemme*, Canto I, Manzoni's *I Promessi Sposi*, Hallam's *History of Literature in Europe*, part I, chaps ii and iii, Grammar and Composition; (*e*) any other modern language. Candidates will be expected to have a knowledge of one or other of the following works: Garnett's *Elementary Dynamics*, Blaikie's *Elements of Dynamics*, Besant's *Hydrostatics*, Parkinson's *Elementary Dynamics*. (*f*) Logic: Jevon's *Elementary Lessons in Logic*; (*g*) Botany: Hooker's *Catechism of Botany*, or Macnab's *Elementary Botany*; (*h*) Elementary Chemistry.

At each University, the candidate for the Degree of Doctor of Medicine must, before or at the time of his obtaining the Degree of Bachelor of Medicine, or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the following subjects, namely, French, German, Higher Mathematics, Natural Philosophy, and Natural History.

[4] Two courses of Midwifery, of three months each, are reckoned equivalent to a six months' course, provided different departments of Obstetric Medicine be taught in each of the courses.

[5] Or a three months' course of lectures on Morbid Anatomy, together with a supplemental course of Practice of Medicine or Clinical Medicine. The course of Pathology is not required at Aberdeen.

not less than 100 lectures; Practical Anatomy, a course of the same duration as the preceding; Practical Chemistry, three months; Practical Midwifery, three months at a Midwifery Hospital, or attendance on six cases under a registered medical practitioner; Clinical Medicine and Clinical Surgery, each course of not less than 100 lectures, or two courses of three months; Medical Jurisprudence, Botany, Natural History, including Zoology, courses of not less than 50 lectures. 2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital with no fewer than 80 patients. 3. That he has been engaged for at least three months in compounding and dispensing drugs at the Laboratory of a Hospital or Dispensary, of a Member of a Surgical College or Faculty, Licentiate of the London or Dublin Society of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.[6] 4. That he has attended, for at least six months, the out-practice of a hospital or the practice of a dispensary, or of a registered practitioner. Evidence of a practical knowledge of vaccination is also required.

One of the four years of medical and surgical study must be in the University granting the degree sought. Another year must be either in the same University, or in some other University entitled to give the Degree of Doctor of Medicine.[7] [At St. Andrew's, no one can be received as a candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following Universities and Colleges, viz.: the Universities of St. Andrew's, Glasgow, Aberdeen, Edinburgh, Oxford, or Cambridge; Trinity College, Dublin; and Queen's College, Belfast, Cork, or Galway.] Attendance during at least six winter months on the medical or surgical practice of a General Hospital which accommodates at least eighty patients, and, during the same period, on a course of Practical Anatomy; and one year's attendance, to the extent of four of the departments of medical study required, on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Ireland, or of such teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the University Court, may be reckoned as one of the four years.[8] All candidates not students of the University attending the lectures of Extra-Academical Teachers, must at the commencement of each year of attendance, enroll their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the Matriculation Fee.

Every candidate must deliver, at such time of the year as may be fixed by the Senatus Academicus—1. A declaration, in his own handwriting, that he is twenty-one years of age, or that he will be so on or before the day of graduation; and that he will not be, on the day of graduation, under articles of apprenticeship. 2. A statement of his studies, general and professional, accompanied with proper certificates.[9]

The examinations are conducted in writing and *vivâ voce*, and, as far as possible, by demonstrations of objects and other practical tests. They are divided as follows.

EDINBURGH: 1. Chemistry, Botany, and Natural History; 2. Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; 3. Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; 4. Clinical Medicine and Surgery in a hospital. Students may be admitted to examination on the first division at the end of their second year, and on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*. Candidates may be admitted to examination on the first two divisions at the end of their third year, or to the four examinations at the end of the fourth year.

GLASGOW: 1. Chemistry, Botany, and Natural History; 2. Anatomy and Physiology; 3. Regional Anatomy, Materia Medica and Pharmacy, and Pathology; 4. Surgery, Clinical Surgery, Medicine, Clinical Medicine, Therapeutics, Midwifery, and Forensic Medicine. Students may be examined in first division of subjects after attending the required courses during three sessions; in the second division, after five sessions from the time of the commencement of their studies; in the third division, after the conclusion of the third winter's session of attendance upon medical classes; in the fourth division, at the first term for the final examination after the conclusion of their curriculum of study.

ABERDEEN: 1. Botany, Natural History, Chemistry, and Anatomy; 2. Regional Anatomy, Institutes of Medicine, Materia Medica, and Surgery; 3. Practice of Medicine, and General Pathology, Clinical Medicine, Clinical Surgery, Midwifery, and Medical Jurisprudence.

ST. ANDREW'S: 1. Chemistry, Botany, Elementary Anatomy, and Materia Medica; 2. Advanced Anatomy, Zoology with Comparative Anatomy, Physiology, and Surgery; 3. Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

At the Universities of Aberdeen and St. Andrew's, the examination in the first division of subjects cannot be passed before the end of the second year (except that at Aberdeen the examination in Botany and Natural History may be passed at the examination term preceding the second winter session); the examination in the second division cannot be passed before the end of the third year; and that in the third division not before the end of the fourth year. Candidates may be admitted to examination on the first two divisions at the end of the third year, or to the three examinations at the end of the fourth year.

A rejected candidate is not again admitted to examination at either of the Universities unless he shall have completed another year of medical study, or such portion of a year as may be prescribed by the examiners.

The professional examinations will be held at the following times: *Aberdeen*—April and July, directly after the closing of the session. *Edinburgh*—First Examination, October 11th and 12th, 1883, and March 24th and 25th, 1884; Second Examination, March 31st and April 1st, 1884; Clinical Examination, May 3rd, 1884; Final Examination, June 22nd and June 23rd, 1884. *Glasgow*—First, Second, and Third Examinations, beginning on October 15th, 1883, and April 4th, 1884; Fourth Examination, Clinical, June 7th, 1884; Written, July 9th, 1884.

DEGREE OF DOCTOR OF MEDICINE.

The Degree of Doctor of Medicine may be conferred on any candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to having received the Degree of Bachelor of Medicine, for at least two years in attendance on a hospital, or in the Military or Naval Medical Service, or in Medical and Surgical Practice. The candidate must be a graduate in Arts, or must before or at the time of obtaining his Degree of Bachelor of Medicine,[10] or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the other optional subjects of the examination in general education (see page 470). At Aberdeen, Edinburgh, and Glasgow, he must submit to the Medical Faculty a thesis composed by himself, and which shall be approved by the Faculty, on any Branch of knowledge comprised in the professional examinations for the degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree.[11]

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[6] In the Laboratory of an Hospital, or Dispensary of a Registered Medical Practitioner, or of a Member of the Pharmaceutical Society of Great Britain.—*Glasgow.*

[7] Entitled to grant Degrees in Medicine.—*Glasgow.*

[8] Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain there two *Anni Medici* out of the four required for the Edinburgh Degrees in Medicine. Courses of Lectures in these Schools are regarded as equivalent to Lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, being only three months' courses in them, are not equivalent. One *Annus Medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *Annus Medicus* by attending either (*a*) full winter courses on any two of the following subjects: Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (*b*) on one such course and a three months' course on any two of the following subjects: Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student selects the arrangement prescribed in (*a*), certificates of attendance on either a third winter course, or a third three months' course, will also be accepted. The other subjects, and the additional courses, not given in London or Dublin, required for the degrees of the University, will have to be attended at the University. In Provincial Schools, where there are no Lecturers recognised by the University Court, a Candidate can have only One *Annus Medicus*, and this is constituted by attendance on a Qualified Hospital along with a course of Practical Anatomy; but in a Provincial School where there are two or more Lecturers recognised by this University, a Second *Annus Medicus* may be made by attendance on at least two six months', or one six months' and two three months, recognised courses.—*Edinburgh.*—The other two years may be constituted by attendance upon courses in the great Hospital Medical Schools of London or Dublin; and, in default of such attendance, one of the four years may be constituted by attendance on any general Hospital containing not less than eighty beds, provided attendance has been given at the same time on a course of Practical Anatomy.—*Glasgow.*

[9] The University of St. Andrew's requires an Inaugural Dissertation to be presented previously to the final examination for M.B. In the other universities, no Thesis is required until the candidate seeks the Degree of M.D.

[10] Or within three years thereafter.—*St. Andrew's.*

[11] No Thesis will be approved by the Medical Faculty which does not contain either the results of original observations in Practical Medicine, Surgery, Mid-

Candidates who commenced their medical studies in Edinburgh before February 4th, 1861, in Aberdeen before the first Tuesday in November 1861, and in Glasgow before October 1st, 1861, are entitled to be examined for the Degree of Doctor of Medicine, under the regulations then in force in each University respectively. At Edinburgh, candidates settled for a period of years in foreign parts, who have complied with all the regulations for the Degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.

The Degree of Doctor of Medicine may be conferred by the University of St. Andrew's on any Registered Medical Practitioner above the age of forty years, whose professional position and experiences are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiner of the sufficiency of his professional knowledge, provided always that such degrees shall not be conferred on more than ten in any one year. The candidate must produce a certificate of age, and three certificates from medical men of acknowledged reputation as to his professional position and experience. The examination is conducted in writing and *viva voce* on Materia Medica and General Therapeutics, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, and Midwifery, and Diseases of Women and Children.

The Graduation Fees in each of the Universities are—for the Degree of M.B., three examinations, each £5 5s. = £15 15s.; for the Degree of C.M., £5 5s. additional; for the Degree of M.D., £5 5s. additional to that for M.B., together with Government stamp duty (£10).

The fee for graduating under the old Regulations in Edinburgh is £25. At St. Andrew's, the fee for the Degree of M.D. under the Section relative to Registered Medical Practitioners is 50 guineas; if the candidate fail to pass, £10 10s. (which is to be paid before the examination) is retained. Stamp duty is included in both cases.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

STATED Examinations for the Licences of the College in Medicine and Midwifery are held in the week following the first Friday in each month, except August and September.

LICENCE IN MEDICINE.

Every candidate for the licence of the College to practise Medicine must produce satisfactory evidence—1. Of character, from a Fellow of the College, or from two registered practitioners. 2. Of having passed an examination in general education, held by some one of the examining bodies recognised by the General Medical Council. 3. Of having been engaged during four years in the study of Medicine. 4. Of having attended courses of lectures on the following subjects, at Schools recognised by the College: Practical Anatomy, two courses; Physiology or Institutes of Medicine, Chemistry, Practical Chemistry, Materia Medica, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, and Midwifery—each one course. 5. Of having attended for twenty-seven months a recognised Medico-Chirurgical Hospital, in which clinical lectures and clinical instruction in Medicine are given; the attendance not to be for more than nine months in any one year, viz., six winter and three summer months; and of having, for not less than three months, studied Fever in a recognised Clinical Hospital containing fever wards, and of having recorded, from daily personal observation, at least five cases of fever, to the satisfaction of the attending Clinical Physician. 6. Of having attended Practical Midwifery and Diseases of Women for six months at a Lying-in Hospital or Maternity recognised by the College; or, where such hospital attendance cannot have been obtained during the course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner holding public appointments; in either case, not less than twenty labour-cases must have been actually attended. 7. Of having lodged the admission-fee in the Royal Bank of Ireland to the credit of the College. Every candidate who commenced the study of Medicine on or after October 1st, 1879, must furnish evidence of having been engaged in the practical study of Vaccination.

Examinations.—The professional examination is divided into two parts: 1. Anatomy, Physiology, Chemistry, and Materia Medica; 2. Practice of Medicine, Clinical Medicine, Pathology, Medical Jurisprudence, Midwifery, Hygiene, and Therapeutics. Candidates may be examined in the subjects of the first part at the termination of the second year of study, on producing the certificates in these subjects, or in all the subjects of their education, on the completion of their medical studies. No candidate can be examined in all the subjects of the first and second parts in the same month. The examinations are conducted by printed papers, orally, and at the bedside.

Exempted Cases.—Candidates qualified as follows are required to undergo the second part only of the professional examination; viz.: 1. Graduates in Medicine of any University in the United Kingdom, or of any Foreign University approved by the College; 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh; 3. Graduates or Licentiates in Surgery; 4. Candidates who, having completed the curriculum laid down above, shall have passed the previous professional examination or examinations of any of the licensing medical authorities in the United Kingdom. Candidates thus qualified, as specified in Sections 1, 2, and 3, must fill up a schedule and present their registration-certificate (or their medical or surgical qualification), as well as certificates of character, of practical midwifery, and of attendance on a clinical hospital which receives cases of fever. Candidates whose case is met by Section 4 must produce, in addition to the certificates required from candidates for the licence, a certificate from the licensing medical authority to the effect that such previous professional examination has been successfully passed.

Any registered practitioner of *five* years' standing may be admitted to examination for the licence of the College, on producing his certificate of registration, with satisfactory reference, and is exempted from the examination by printed questions.

Unsuccessful candidates may be admitted to re-examination after not less than two months.

LICENCE IN MIDWIFERY.

Candidates for the licence in Midwifery, who are not licentiates in Medicine, may be admitted to examination on the following qualifications: 1. The degree or licence in Medicine or Surgery from any University or College of Physicians or Surgeons in the United Kingdom; 2. Testimonials as to character; 3. Certificates of having attended (*a*) a course of lectures on Midwifery in a school recognised by the College; (*b*) Practical Midwifery and Diseases of Women, as in Section 6th of the Regulations for the Licence in Medicine.

Candidates who are licentiates in medicine of the College, or who have passed the examination for such licence, may be admitted to examination for the licence in Midwifery on lodging their fees, and signifying their wish to the Registrar a week at least before such examination.

Registered practitioners of *five* years' standing are admitted to examination for the licence in Midwifery on producing their certificate of registration, with satisfactory reference, and are exempted from the examination by printed questions.

Fees.—The fees are: For the licence to practise medicine, £15 15s., which may be divided as follows: viz., examination at the termination of the first period of study, £5 5s.; final examination, £10 10s. Examination for the licence to practise midwifery, £3 3s. Examination for the licences in medicine and midwifery, if obtained within a month, to be lodged in one sum, £16 16s. Special examination for the licence to practise medicine, £21; for the licence to practise midwifery, £5 5s. The admission fee, less the sum paid to the examiners, is returned to any candidate rejected at any of the College examinations.

MEMBERSHIP.

Every candidate for the Membership of the College (not admitted before December 12th, 1878), is required to produce satisfactory evidence—1. Of having attained the age of twenty-five years. 2. Of being a Licentiate of this College for three years at least, computed from the day on which he shall have subscribed his name on admission as a Licentiate; or a Licentiate of one year's standing, who shall be a Graduate of Arts of an University in the United Kingdom at the time of his obtaining the licence; or a Licentiate of one year's standing, who shall be a registered practitioner of seven years' standing at the time of his obtaining the licence. 3. Of moral character and professional conduct from a Fellow or Member of the College, or from a Fellow of one of the Colleges of Physicians of London or of Edinburgh. 4. That he is not engaged in trade; and that he does not dispense medicine, or make any engagement with a chemist or other person for the supply of medicines and that he does not prac-

wifery, or some of the sciences embraced in the curriculum for the Bachelor's Degree; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise reference to the publications quoted, so that due verification may be facilitated.—*Edinburgh.* There is a similar regulation in the University of Glasgow.

tise medicine or surgery in partnership. 5. Of having held during at least six months the office of resident physician or resident medical pupil, or of having acted during the same period as medical clinical clerk, in a recognised hospital; or of having been in medical charge for at least twelve months of a public institution for the treatment of the sick.

Every candidate must pass an examination in: 1. Principles of Medicine, including Pathology, Morbid Anatomy, and Medical Chemistry; 2. Practice of Medicine, including Principles of Public Health; 3. Clinical Medicine. The fee for the examination is £21, which must be lodged in the Royal Bank, Dublin, before the applications and certificates are sent in. The examinations are held in January, April, July, and October.

Candidates who were admitted Licentiates of the College before December 12th, 1878, may be admitted Members of the College, under the following conditions. They shall comply with Clauses 1, 2, 3, and 4, as above stated. 2. They shall satisfy the College that they have, since their admission as Licentiates, obeyed the by-laws of the College. Should the College be satisfied that they have complied with the above regulations, they shall be admitted Members without fee or examination, on taking the declaration required of Members.[1] Should the candidate wish to obtain the parchment diploma of Membership, he shall pay one guinea.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

LETTERS TESTIMONIAL (LICENCE).

THE following regulations are applicable to students who commence their study after May 1st, 1882.

Every candidate for the Letters Testimonial of the College must produce evidence—*a*. Of having, before entering on medical studies, passed the Preliminary Examination of the College, or an equivalent examination in general education, recognised by the General Medical Council; and *b*. Of having been registered by that Council as a student of medicine.

The College recognises as the commencement of professional study:—1. Attendance on the practice of a hospital, or other public institution recognised by the College for that purpose; or, 2. Instruction as pupil of a legally qualified surgeon, holding the appointment of surgeon to a hospital, general dispensary, or union workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council; or, 3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

The Letters Testimonial of the College will not be granted to any candidate at an earlier period than forty-five months subsequent to his registration as a medical student; nor to any one who has not attained the age of twenty-one years.

Registered Pupils of the College.—Any student desiring to be registered as a pupil in the College books shall, if the Council think fit, be so registered on payment of a registration fee of £5 5s., for which credit will be given subsequently in his examination fee. No student can be admitted as a candidate to any examination for the Letters Testimonial, until he shall have been enrolled as a registered pupil, and passed the Preliminary Examination. Registered pupils of the College are admitted to the Preliminary Examination, but are not entitled to re-examination without further fee. They are permitted to study each week-day in the Museum, and to read in the Library; also to attend the lectures on Comparative Anatomy, and to obtain a certificate for such attendance, without payment of any fee.

Examinations.—Every candidate must pass a Preliminary Examination and four Professional Examinations. Candidates who possess a Diploma or Degree in either Medicine or Surgery recognised by this College, or who have passed an examination in these subjects, considered by the Council to be equivalent to examinations required by these regulations, may be exempted from the necessity of compliance with this rule, on such terms as the Council may deem expedient. Candidates must return their names to the Registrar of the College, and lodge their fees and certificates, at least one week before the day specified for examinations. Each candidate shall have a number assigned to him, by which alone he shall be recognised during the examination.

The Preliminary Examinations are held on the third Wednesdays in January, April, July, and October in each year.[2]

Professional Examinations.—The First, Second, and Third Professional Examinations shall be held in July and October of each year. Should the student fail to pass in July, he may present himself at the examination held in October. The examination of each year must be passed before a new session can be entered on, but, in special cases, it shall be in the discretion of the Council of the College to permit the student to commence a new year of study, and subsequently present himself for a supplemental examination.

First Professional Examination.—Candidates must, before admission to the First Professional Examination, produce evidence of having passed the Preliminary Examination, and of having been registered as medical students, and of having been engaged in study for at least nine months subsequent to registration. Candidates are recommended to attend a course of lectures on Practical Anatomy, and one on Chemistry, before the First Professional Examination. The examination will include:—1. Physics (if not passed at the Preliminary Examination); 2. The Elements of Chemistry; 3. Botany; 4. Anatomy (Human Osteology); 5. Practical Pharmacy (Elementary). The candidates are examined in numerical order, one day by printed questions, and the next day orally.

Second Professional Examination.—Candidates must, before admission to the Second Professional Examinaton, produce evidence of having passed the First Professional Examination; also certificates of having subsequently attended: Medico-Chirurgical Hospital, nine months; winter courses of Practical Anatomy, with Demonstrations and Dissections; Physiology; Surgery; Chemistry (unless attended in the first year); and summer courses (three months) of Practical Chemistry; Practical Physiology; and Materia Medica. Candidates shall be examined in: 1. Anatomy (Bones, Joints, Muscles, and Topographical Anatomy of the Viscera of the Chest, Abdomen, and Pelvis); 2. Histology; and the Physiology of the Circulatory, Respiratory, and Digestive Systems; 3. Surgery (the Signs, Terminations, and Treatment of Inflammation; Wounds; Hæmorrhage; Burns and Scalds; Ulcers; Bandaging); 4. Chemistry; 5. Materia Medica. The candidates shall be examined in numerical order; the first day orally, and the second on Dissections and Histology. Each candidate will be required to dissect a region allotted to him; half an hour, at least, being allowed for this purpose. He will be examined on the anatomy of that part, and may also be examined on regions dissected by other candidates.

Third Professional Examination.—Candidates must produce evidence of having passed the Second Examination; also certificates of having subsequently attended a Medico-Chirurgical Hospital, nine months as an extern pupil, or six months as a resident pupil; winter courses of Demonstrations and Dissections; Practical Anatomy (unless attended in the first year); Surgery; and Medicine; and a three months' summer course of Medical Jurisprudence. Candidates will be examined in: 1. Anatomy; 2. Physiology; 3. Surgery (not including Operative, Clinical, and Ophthalmic Surgery). Candidates will be examined in numerical order; the first day by printed questions, the second day orally. On the third day, each candidate will be required to make a dissection of a region allotted to him. He shall be examined on the anatomy of that part, and may also be examined on regions dissected by other candidates.

The Fourth Professional Examination will be held in July and October, and in the following April. Candidates must produce evidence of having passed the Third Professional Examination; also certificates of having subsequently attended a Medico-Chirurgical Hospital, nine months as extern pupil (or six months as resident pupil, unless a certificate to that effect has been accepted in the third year); winter courses of Dissections and Demonstrations, and of Midwifery; of having attended a Midwifery Hospital, or Maternity, for six months, and of having been present at thirty labours; of Clinical Ophthalmology, three months; of Operative Surgery (between April 1st and October 1st); and of Practical Instruction in Vaccination. Candidates will be examined in: 1. Surgery—Clinical, Ophthalmic, and Operative, with Surgical Anatomy; 2. Medicine; 3. Midwifery and Diseases of Women; 4. Medical Jurisprudence. The Candidates will be examined in numerical order,

[1] In case the residence of any candidate be beyond a radius of twenty miles out of Dublin, the candidate will be permitted to send a copy of the declaration required of members, written in his own handwriting, with his name subscribed and duly attested.

[2] The Preliminary Examinations shall be in the following subjects; 1. English, including Grammar and Composition. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, including Simple Equations. 4. Geometry, first two books of Euclid. 5. Latin: the First and Second Books of the *Æneid* of Virgil, or the *Jugurthine War* of Sallust, or the Third Book of Livy. 6. Physics, as may be found in Ganot's *Popular Natural Philosophy*. (The Examination in Physics may be passed either at the Preliminary or the First Professional Examination; notice to be given when entering for the Preliminary Examination.) *Alternative Subjects* (one to be selected by the student): 1. Greek: The *Gospel of St. John*, or the First Book of Xenophon's *Anabasis*, or the Dialogue of Lucian, entitled *Menippus or the Necromancy*. 2. French: Fénélon's *Télémaque*. 3. German: Schiller's *Wilhelm Tell*.

and the examination will occupy four days. On the first day it will be by written questions, and on the second oral. On the third day, the examination will be clinical. The candidates must attend at the College on the morning of the examination, and draw from a ballot-box the name of the hospitals in which they are to be examined; but no candidate shall be examined in a hospital at which he was in attendance during the session preceding his admission to examination. Each candidate will be required to make a diagnosis in, at least, two surgical cases, examining the patients in the presence of the Examiners. He will be questioned upon these cases, and upon others, if necessary. He must also take notes of another case, to test his accuracy in case-taking. He will be required to bandage, adjust some surgical appliance, or perform some clinical surgical duty. On the fourth day, there will be an examination in Operative Surgery. Each candidate will perform a major and a minor operation, the names of which he will draw by ballot. He will be questioned upon these, and on surgical instruments and appliances, and on the relative anatomy of the parts implicated in the operations performed by himself or other candidates.

Rejected Candidates.—No candidate shall present himself for examination on the second or following days who has not satisfied his examiners upon the previous days; but all candidates who have passed any of these days' examinations shall get credit for the same. Rejected candidates, when presenting themselves upon a subsequent occasion, will not again be examined in the subjects in which they have passed.

Fees.—For the Preliminary Examination, registered pupils of the College pay no fees; non-registered pupils pay £1 1s. All registered candidates pay a further fee of £1 1s. for re-examination. For each of the Professional Examinations, the fee is £5 5s., no part of which will be returned on rejection. Registered candidates will be admitted to re-examination on paying an additional sum of £2 2s.

FELLOWSHIP.

A candidate is admitted to the examination for the Fellowship if he have laid before the Council—(*a*) a receipt showing that he has lodged in the Bank of Ireland the fees as hereafter stated; also (*b*) a certificate that he is twenty-five years of age; (*c*) a certificate of general good conduct during his professional education, to be signed by two or more Fellows of the College; (*d*) certificates of attendance on the courses of lectures required for Letters Testimonial, together with one course of lectures on Comparative Anatomy, and one course of lectures on Natural Philosophy; also (*e*) a Thesis on some medical subject, or Clinical Reports, with observations, of six or more Medical or Surgical cases, taken by himself. He must also produce certificates that he has been engaged in the acquisition of professional knowledge for not less than six years, during three of which he must have studied in one or more of the Schools and Hospitals recognised by the Council. He may have studied for the other three years in any School or Schools of the United Kingdom which shall be approved by the Council, or in any foreign School of repute. The candidate must also have been House-Surgeon or Dresser in a recognised hospital.

Licentiates of the College, who may not be able to show that they have followed the course of study specified in the preceding regulations, may, at the expiration of ten years from the date of their diploma, be admitted to the examination required for the Fellowship, provided they produce such evidence as shall be satisfactory to the Council that they have conducted themselves honourably in the practice of their profession.

Examinations for the Fellowship shall be held from time to time as the Council may direct. Candidates are arranged in five grades.

Grade 1.—Candidates possessing no qualification are examined on at least three days; the first two of which are devoted to the examination for the Letters Testimonial of the College; the third to additional subjects required for the Fellowship. Candidates who do not pass the first two days' examination shall not be allowed to proceed to the third, but those who do pass shall be entitled to receive the Letters Testimonial of the College, although they may not have passed the third day's examination. No credit will be given, on a subsequent occasion, for passing a part only of either examination. The examination on the first day is written and oral in Anatomy, Physiology, and Histology, and Chemistry and Materia Medica, with Dissections; second day, clinical, in Surgery and Ophthalmic Surgery; written in Surgery, Medicine, Medical Jurisprudence, and Prescriptions; oral in Surgery and Medicine; and operations; third day, clinical in Surgery, written in Pathology and Comparative Anatomy, and oral in Surgery and Pathology, Comparative Anatomy, Histology and Physiology, and Therapeutics. The fees are; registration, £5 5s.; special licence examination, £5 5s.; letters testimonial, £21; additional for fellowship, urban, £31 10s.: rural, £21. The fees for registration and special licence examination are retained in case of rejection.

Grade II.—Licentiates of the College of less than ten years' standing are examined in one day orally in Anatomy, Comparative Anatomy, and Histology and Pathology, with Dissections; on the second day, clinically, and by written and oral examination, in Surgery, and orally in Pathology and Practice of Medicine and Therapeutics; they also perform operations on the dead subject. The fee is: for urban practitioners, £31 10s.; rural, £21; £10 10s. being retained in case of rejection.

Grade III.—Candidates of less than ten years' standing, possessing qualifications in surgery of other bodies, which the Council shall consider satisfactory, are, if admitted to examination, examined according to Grade II. The fees are the same.

Grade IV.—Licentiates of the College of more than ten years' standing are examined on the first day, orally, in Surgical Anatomy; and perform Operations on the dead subject. On the second day they are examined clinically in Surgery and Medicine, and a Written Examination in Surgery, and are examined orally in Theory and Practice of Surgery, and in Morbid Anatomy. The fees are as in Grade II.

Grade V.—Candidates of more than ten years' standing, possessing qualifications in surgery of other bodies are, if admitted to examination, examined according to Grade IV.

Candidates may present themselves for examination in any grade junior to that under which they are classed, but shall pay the fees of the senior grade.

DIPLOMA IN MIDWIFERY.

Any Fellow or Licentiate of the College is admissible to the examination for a Diploma in Midwifery on producing certificates of having attended a course of Lectures on Midwifery and Diseases of Women and Children; the Practice (for six months) of a Lying-in Hospital, or of a Dispensary for Lying-in Women and Children; and that he has attended at least thirty labours.

Candidates are examined on the Organisation of the Female; the Growth and Peculiarities of the Fœtus; the Practice of Midwifery, and the Diseases of Women and Children; and, if approved of, receive a licence or diploma.

A rejected candidate is not again admitted to examination within three months, nor unless he produces satisfactory evidence of having been engaged in the study of Midwifery subsequently to his rejection.

The fee is £1 6s. if the Midwifery Diploma be taken out within one month from the date of the Letters Testimonial; afterwards it is £2 2s.

APOTHECARIES' HALL OF IRELAND.

EVERY candidate for the Licence to Practise is required to undergo a Preliminary and a Professional Education and Examination.[1] The Arts Examination is held four times in the year, viz., the third Thursday in the months of January, April, July, and October. Unsuccessful candidates are remitted to their studies for six months.

Professional Education and Examinations.—Every Candidate for the Licence to Practise Medicine and Pharmacy must produce certificates: 1. Of having passed an examination in Arts previously to entering on professional study. 2. Of registration as a medical student, at least forty-five months before admission to the final professional examination. 3. Of being twenty-one years of age, and of good moral character. 4. Of apprenticeship or pupilage to a qualified apothecary, or of having been otherwise engaged at Practical Pharmacy for twelve months subsequently to having passed the examination in Arts. 5. Of having spent four years in professional study. 6. Of having attended the following courses, viz.: Chemistry, Anatomy and Physiology, Principles and Practice of Medicine, and Surgery, each during one winter session; Demonstrations and Dissections, each during two winter sessions; Botany and Natural History, and Forensic Medicine, each during one summer session; Practical Chemistry (in a recognised Laboratory) and Materia Medica,

[1] The following are the subjects of Preliminary Examination: *Compulsory.* 1. English: Grammar, Composition, Modern Geography, and the leading events of English History. 2. Arithmetic and Algebra: Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: The First Two Books of Livy, or the First Two Books of the *Æneid* of Virgil, and Latin Prose Composition. 5. One of the following: *Optional: a.* Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. *b.* Greek; *c.* French; *d.* German; *e.* Logic; *f.* Botany; *g.* Elementary Chemistry.

each during three months; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (twenty cases); instruction in Vaccination by a Public Vaccinator. 7. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one winter and one summer session. 8. Of Practical Study, with care of patients, as apprentice, pupil, assistant, clinical clerk, or dresser in Hospital, Dispensary, or with a registered Practitioner.

The Examination for the Licence to Practise is divided into two parts. The first part comprehends Chemistry (including Physics), Botany, Anatomy, Physiology, Materia Medica, and Pharmacy; the second, Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene. The first part may be undergone after the candidate has passed an examination in Arts and attended the requisite courses of Lectures; and the second after the completion of his studies at the termination of the fourth winter session.

Candidates at the examination on Anatomy are liable to be called on to perform Dissections; and at the examination on Surgery to perform one or more Operations on the dead subject.

The professional examinations will commence, the first examination on the first, and final examination on the second, Mondays in January, April, July, and October, and will be continued on the succeeding Tuesdays and Wednesdays; clinical examinations will take place (in the final division) on Thursdays. The first three hours of each day will be devoted to writing answers to papers, and afterwards there will be an oral and practical examination on the subject.

Candidates who fail to pass the first part of the professional examination will be remitted to their studies for three months; and, at the final examination, for six months.

Doctors of Medicine of any of the Universities of the United Kingdom, and Licentiates of a Royal College of Physicians, or Surgeons of any of the Royal Colleges of Surgeons, whose qualifications as such appear in the *Medical Register*, and who, having first passed an examination in Arts, have also passed twelve months at Practical Pharmacy, may obtain the Licence of the Hall by undergoing an examination—the former two in Surgery and Pharmacy, and the latter in Medicine and Pharmacy.

The fee for the preliminary examination is 10s.; for the professional examination 16s.

Candidates must lodge their testimonials and the fees, and enroll their names and addresses, with Mr. Charles Wright, at the Hall, in Dublin, a clear week prior to the day of examination.

UNIVERSITY OF DUBLIN.

THE degrees in Medicine and Surgery granted by the University of Dublin are: 1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Master in Surgery; 5. Master in Obstetric Science. It also grants Licences in Medicine, Surgery, and Obstetric Science.

BACHELOR IN MEDICINE.

A candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same commencement as that at which he receives his Degree of B.A., or at any subsequent commencement, provided the requisite medical education shall have been completed. The medical education is of four years' duration, and comprises attendance on a course of each of the following lectures: *Winter*—Anatomy; Practical Anatomy; Theoretical and Operative Surgery; Chemistry; Practical Course of Institutes of Medicine; Practice of Medicine; Midwifery. *Summer*—Botany; Institutes of Medicine; Comparative Anatomy; Materia Medica and Pharmacy; Medical Jurisprudence; Practical Chemistry. *Term Courses*—Heat (Michaelmas); Electricity and Magnetism (Hilary). Six months' dissection, and three months' laboratory instruction in Chemistry. Three courses of nine months' attendance on the clinical lecturers of Sir Patrick Dun's or other metropolitan hospital recognised by the Board.[1] A certificate of personal attendance on fever cases, with names and dates of cases. Six months' instruction in Practical Midwifery,[2] including clinical lectures. Practical instruction in Vaccination. Any of the winter or summer courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows.[3] Students who shall have diligently attended the practice of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies are allowed to count those two years as equivalent to one year spent in a recognised metropolitan hospital.

Candidates for the degree of M.B. must pass the Previous Medical Examination and the Bachelor of Medicine Examination.

The *Previous Examination* comprises Botany and Materia Medica; Physics and Chemistry; Descriptive Anatomy and Institutes of Medicine (Practical Histology and Physiology). The examination in Descriptive Anatomy includes examination in the dead subject. It is not necessary that the student should pass in all these subjects at the same examination.

A stated Half M.B. examination is held at the close of the summer session in each year; in addition to which there is an examination in last term before the M.B.

Bachelor of Medicine Examination.—The candidate for the M.B. examination must have previously passed the Previous Medical Examination in all the subjects, and have lodged with the Medical Registrar, on a certain day to be duly advertised, certificates of attendance upon all the courses of study above prescribed.

Candidates must pass a final examination in the following subjects: Physiological Anatomy; Practice of Medicine; Surgery; Midwifery; Medical Jurisprudence; Institutes of Medicine (Pathology and Hygiene). The fee for the *Liceat ad Examinandum* is £5; for the Degree of M.B., £11.

Members of the Royal College of Physicians or Surgeons of Dublin, London, or Edinburgh, who are Graduates in Arts of Oxford, Cambridge, or Dublin, are admissible to the Examination for M.B. They must first take the B.A. Degree *ad eundem*.

DOCTOR IN MEDICINE.

A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the Degree of Bachelor in Medicine for three years. He must also read a Thesis publicly before the Regius Professor of Physic, or must undergo an examination before the Regius Professor of Physic. The total amount of fees for this degree is £13.

BACHELOR IN SURGERY.

A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must have passed the M.B. examination before presenting himself at the B.Ch. examination, having previously completed the prescribed curriculum of study. The curriculum of study comprises the following, in addition to the complete Course for the Degree of Bachelor in Medicine: Operative Surgery and Ophthalmic Surgery, each one course; Dissections, two courses. Candidates are required to perform surgical operations on the dead subject, and are examined in Bandaging and Minor Surgery, and in Surgical Pathology. Fee for the *Liceat ad Examinandum*, £5; for the Degree of Bachelor in Surgery, £5.

MASTER IN SURGERY.

A Master in Surgery must be a Bachelor in Surgery of three years standing, or have been qualified to take the Degree of Bachelor in Surgery for three years; and must read a Thesis publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor. Fee for the Degree of Master in Surgery, £11.

MASTER IN OBSTETRIC SCIENCE.

A Master in Obstetric Science must have passed the M.B. and B.Ch. Examinations, and produce certificates of having attended, 1. One winter course in Midwifery; 2. Six months' practice in a recognised Lying-in-Hospital or Maternity; 3. A summer course of Obstetric Medicine and Surgery; 4. Two months' practice in the Cowpock Institution. Existing Graduates in Medicine, of the standing of M.D., may present themselves for examination without producing certificates of attending 3 and 4. Fee for the Degree of Master in Obstetric Science, £5.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine, Surgery, or Obstetric

[1] The following Hospitals are recognised:—Sir Patrick Dun's Hospital, Meath Hospital, House of Industry Hospitals, Dr. Steevens' Hospital, Jervis Street Infirmary, City of Dublin Hospital, Mercer's Hospital, St. Vincent's Hospital, Adelaide Hospital, Mater Misericordiæ Hospital, St. Mark's Ophthalmic Hospital, and the National Eye and Ear Infirmary.

[2] Certificates of Practical Midwifery are received from the Rotunda Hospital, the Coombe Hospital, and Sir P. Dun's Hospital Maternity.

[3] The following schools, in addition to the School of Physic of Trinity College, are recognised:—The School of the Royal College of Surgeons in Ireland, the Carmichael School, the Ledwich School of Medicine, the School of the Catholic University. The recognition of schools and hospitals is conditional on the students being furnished with *bonâ fide* certificates of regular attendance equivalent to that required by the University; *i.e.*, three-fourths of the entire Lectures in each course.

Science, must be matriculated in Medicine, and must have completed two years in Arts and four years in Medical Studies.

Licentiate in Medicine.—The Medical course and examination necessary for the Licence in Medicine are the same as for the Degree of M.B. A Licentiate in Medicine, on completing his Course in Arts, and proceeding to the Degree of B.A., may become a Bachelor in Medicine, on paying the degree fees, without further examination in Medicine.

Licentiate in Surgery.—The surgical course and examination are the same as for the Degree of Bachelor in Surgery.

Licentiate in Obstetric Science.—The course of study and examination are the same as for the Degree in Obstetric Science.

Fee for the *Liceat ad Examinandum* in Medicine or Surgery, £5; for the Licence in each of the three cases, £4.

ROYAL UNIVERSITY OF IRELAND.

DEGREE OF BACHELOR OF MEDICINE.

CANDIDATES must, in addition to attending the lectures and complying with the other conditions prescribed, pass the following examinations: the Matriculation Examination; the First University Examination; the First Examination in Medicine; the Second Examination in Medicine; the Degree Examination.

A medical student from one of the Queen's Colleges, the Queen's University, or any other institution approved by the Senate, matriculated therein before October 1st, 1881, who has completed at least one year of the medical curriculum in any of the said institutions, shall be exempted from passing the First Examination in Arts.

The course of medical studies extends over at least four years, and is divided into periods of at least two years each.

The first period comprises attendance on the following courses: Chemistry, one course of at least six months: Practical Chemistry, at least three months; Botany (with Herborisation) and Zoology; Anatomy and Physiology; Practical Anatomy; Materia Medica.

The second period comprises attendance on the following courses: Anatomy and Physiology (including Histology); Practical Anatomy; Theory and Practice of Surgery; Midwifery and Diseases of Women, a six months' course; Theory and Practice of Medicine; Medical Jurisprudence.

Candidates must also attend, in the first period, during a winter session of six months, the Practice and Clinical Lectures at a Medico-Chirurgical Hospital (recognised by the Senate, containing at least sixty beds; and, during the second period, six months at a recognised Midwifery Hospital or at a Midwifery Dispensary, at either of which Clinical Instruction in Midwifery and Diseases of Women and Children is given; the certificate in each case stating that the candidate has attended at least twenty labours; also, the Practice of a recognised Medico-Chirurgical Hospital during eighteen months, including either three winter sessions of six months each, or two winter sessions of six months each and two summer sessions of three months each.

Candidates will also be required, before presenting themselves for the Degree Examination, to produce certificates: 1. Of three months' attendance on a fever hospital or the fever wards of a general hospital, and of personal attendance on at least ten fever cases; 2. Of having compounded medicine under an apothecary or pharmaceutical chemist for at least three months; 3. Of having received practical instruction in Vaccination; 4. Of having attended a course of lectures (not less than twenty-five) and clinical instruction on Mental Diseases.

The Senate further recommend that students should avail themselves of opportunities of attendance on lectures on Diseases of the Eye, Ear, and other special departments.

First Examination in Medicine.—Students are admitted to this examination after one academical year from their matriculation. They may pass this examination at the same time as the First University Examination. Candidates must give notice, in writing, to the Secretaries, of their intention to present themselves, and must pay the prescribed fee of £1, at least one month previous to the examination, and must, at the same time, produce satisfactory evidence of having completed the prescribed courses of study.

The subjects of this examination are Zoology,[1] Botany,[2] and a Modern Language. Candidates who have passed in a Modern Language at the ordinary First University Examination are exempt from presenting this subject.

Second Examination in Medicine.—Students are admitted to this examination after one academical year from the time of passing the First Examination in Medicine, provided they have completed the first period of the course of medical studies.

The subjects for this examination are: Anatomy, Physiology, Materia Medica, and Chemistry.

Examination for the Degree of M.B.—Students are admitted to this examination after one academical year from the time of passing the Second Examination in Medicine, provided that they have completed the second period of the course of medical studies.

The subjects for this examination are: Anatomy and Physiology, Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, and Medical Jurisprudence.

DEGREE OF DOCTOR OF MEDICINE.

Candidates may be admitted to this Degree after two academical years from the time of obtaining the Degree of M.B. All persons who were students in Medicine in the Queen's University at the date of its dissolution are entitled to obtain the Degree of M.D. upon passing the examination for the M.B. Degree.

Candidates must, when they give notice of their intention to present themselves, produce a certificate of having been, for at least two years, engaged in Hospital or Private Medical or Surgical Practice, or in the Military or Naval Medical Service.

Every candidate will be examined at the bedside, and required to diagnose at least six cases, medical and surgical, and prescribe treatment; to write detailed reports on at least two cases to be selected by the examiners, and to discuss all the questions arising thereon. Every candidate must submit to the Medical Examiners a Thesis certified by him (or her) to have been composed by himself (or herself). No Thesis shall be approved which does not contain some original or personal observations in Practical Medicine, Surgery, Midwifery, or in some of the Sciences embraced in the curriculum; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

Candidates who have been settled for two years in the Colonies or Foreign Countries, may, upon furnishing papers on medical subjects written by them, or official reports dealing with subjects of Medical Science, with evidence of the papers or reports being their own original composition, have the Degree conferred on them in absence.

For three years, the Senate may, in the case of medical students who, previously to their Matriculation in the University, have received a Medical and Arts Education in institutions approved by the Senate, give such students credit for the Education in Arts, if they shall be found proficient in the subjects of the Medical Course of the University. The Senate may also allow candidates who have gone through a complete course in Arts and Medicine in a recognised Institution, to present themselves for the Examination for the Degree of M.B.

DEGREE OF MASTER IN SURGERY (M.CH.)

This Degree is conferred only on Graduates in Medicine of the University.

The examination for this Degree comprises the Theory and Practice of Surgery, including Operative and Clinical Surgery.

DIPLOMA IN OBSTETRICS.

This Diploma is conferred only on Graduates in Medicine of the University.

The examination comprises the Theory and Practice of Midwifery, and the use of Obstetrical Instruments and Appliances.

Candidates must give notice in writing to the Secretaries, at least one month before each examination, of their intention to present themselves. They must at the same time produce evidence of having completed the required courses of study, and pay the prescribed fees, viz.:

First Examination in Medicine and Second Examination in Medicine, each £1.

Examination for the Degree of M.B., £3.

Examination for the Degrees of M.D. and M.Ch., each £5.

Examination for the Diploma in Obstetrics, £2.

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[1] The examination in Zoology will consist of questions on the Anatomy and Classification either of the Vertebrate or Invertebrate Animals—the selection to be made by the candidates at the time of examination.

[2] The examination in Botany will comprise the general principles of the Structure and Classification of Plants. Candidates will be expected to possess a practical acquaintance with the following natural orders, viz.: Ranunculaceæ, Cruciferæ, Leguminosæ, Rosaceæ, Umbelliferæ, Compositæ, Scrophularineæ, Solaneæ, Boragineæ, Labiatæ, Euphorbiaceæ, Cupuliferæ, Coniferæ, Aroideæ, Orchideæ, Liliaceæ, and Gramineæ, in addition to what they may learn from Oliver's *Lessons* as to the structure of these and other orders described in Part II of that work. Candidates must be able to distinguish the orders named from the principal allied orders.

NOTES CONCERNING THE HOSPITALS AND MEDICAL SCHOOLS IN LONDON.

In addition to the Tables of the Classes, hours of attendance, and fees, given at pages 478-81, we subjoin the points of most interest in the Programmes issued by the several Medical Schools. At each hospital, clinical instruction in Medicine, Surgery, and Midwifery, is given in the wards and in the out-patient department; and also in various special departments, as stated in the tables at pages 478-79 and in the subjoined notes. All hospital appointments, except where otherwise specified, are made without extra fee.

ST. BARTHOLOMEW'S HOSPITAL.—*The Hospital* contains 710 beds; viz., 227 for Medical cases, 353 for Surgical cases, 26 for Diseases of the Eye, 20 for Diseases of Women, and 50 for Syphilitic cases; while 34 are at the Convalescent Hospital at Highgate. Children are admitted into both the medical and surgical wards.

Museums, etc.—The Anatomical Museum, and the Museums of Materia Medica and of Botany, are open to students daily from 10 A.M. to 4 P.M. The Library is open every day from 9 to 5, except one week of the Christmas vacation and one month in the long vacation.

College.—Students attending the hospital or medical school are admitted to residence on the recommendation of a medical officer of the hospital; and such recommendation may be obtained by commencing students on adducing satisfactory evidence of good moral character. The entrance fee is £2 2s.; and a deposit of £3 3s. is required, which will be returned to the student on leaving the College, subject to deduction of whole or part for wilful damage of furniture. Resident students are expected to dine in the hall every day.

Special Departments, etc.—Surgical consultations are held on Thursdays at 1.30. Medical casualty patients are attended by the Junior Assistant-Physician, the Casualty Physicians (Dr. Kidd and Dr. Herringham), and the House-Physician; the surgical casualty patients, by the Junior Assistant-Surgeons and the House-Surgeons and Dressers. In addition to the courses mentioned at page 478, Dr. Matthews Duncan teaches Practical Gynæcology in the Wards for Diseases of Women on Tuesdays, Thursdays, and Saturdays, at 2 P.M. The Demonstrator of Morbid Anatomy gives a detailed demonstration at 11 on Fridays, winter and summer. The Ophthalmic Wards are visited at 1.30 on Tuesdays and Thursdays by Mr. Power, and at 2 on Mondays, Thursdays, and Saturdays, by Mr. Vernon; the ophthalmic out-patients are seen at 2 o'clock on Tuesdays and Thursdays by Mr. Power, and at 2.30 on Mondays, Thursdays, and Saturdays, by Mr. Vernon. Mr. Vernon gives Ophthalmic Demonstrations at 2 P.M. on Wednesdays in the winter session. Mr. Walsham sees orthopædic cases at 2.30 on Mondays, and Mr. Butlin patients with diseases of the larynx at 2.30 on Fridays. Demonstrations of Operative Surgery are given by Mr. Butlin and Mr. Walsham throughout the year.

Appointments.—Four House-Physicians and ten House-Surgeons (who must be qualified to practise), and a Senior and a Junior Assistant-Chloroformist, are appointed annually. A Resident Midwifery Assistant and an Ophthalmic House-Surgeon are appointed every six months. Each of these officers receives a salary of £25 a year, except the Senior Assistant-Chloroformist, who receives £50. All, except the five Junior House-Surgeons, are provided with rooms. The Clinical Clerks to the medical in-patients, and the Clerks to the Physician-Accoucheur, are chosen from the most diligent students. Dressers to the surgical in-patients and the surgical casualty department are selected, to the number of forty in each year, from the students (of the first year) who pass the best examination in the subjects of the first year. Other in-patient dresserships may be obtained by payment of the usual fees (see page 480). There are also clerks and dressers to the Assistant-Physicians and Assistant-Surgeons in the general and special departments.

Exhibitions, Scholarships, and Prizes.—Two Open Scholarships in Science, value of each £130, tenable for one year, to be competed for on September 25th. For one of the scholarships, candidates must be under twenty; for the other, under twenty-five years of age. The subjects are Physics, Chemistry (theoretical and practical), Botany, Zoology, and Physiology. No candidate may take more than four subjects. The successful candidates must enter at St. Bartholomew's Hospital in the October succeeding the examination. Jeaffreson Exhibition: £50; examination on September 25th; subjects, Latin, Mathematics, and any two of the following languages—Greek, French, German. Candidates for the Open Scholarships and the Jeaffreson Exhibition must not have entered to the hospital practice of any metropolitan medical school. Preliminary Scientific exhibition, £50, for one year, on October 20th, for students of less than six months' standing; holder of Open Scholarship not eligible; subjects, Physics, Chemistry (theoretical and practical), Botany, and Zoology. Three Junior Scholarships, of the value of £50, £30, and £20, after the general examination in first year's subjects at the end of the winter and summer sessions. Treasurer's Prize for Practical Anatomy, junior. *Second Year:* Foster Prize for Practical Anatomy, senior. Harvey Prize for Practical Physiology. *Second or Third Year:* Senior Scholarship, value £50, in Anatomy, Physiology, and Chemistry. Wix Prize: subject, The Life and Works of Dr. Thomas Willis. Hichens Prize: subject, Bishop Butler's *Analogy*. *Third or Fourth Year:* Lawrence Scholarship and Gold Medal, value £42: subjects, Medicine, Surgery, and Midwifery. Two Brackenbury Scholarships in Medicine and Surgery. Candidates for the Lawrence and Brackenbury Scholarships may not compete before the end of the third winter session, nor later than the beginning of the fifth winter session in the hospital. Bentley Prize, for the best report of not less than twelve medical or twelve surgical cases occurring in the hospital during the previous year. The Kirkes Gold Medal for Clinical Medicine, open to students of not less than two or not more than four years' standing.

Examinations.—Students preparing for their examinations are arranged in classes, and examined by the lecturers, demonstrators, and tutors. All students of the first year are examined at the close of the first winter and first summer sessions. Classes are held to prepare candidates for the examinations of the University of London.

The Abernethian Society, composed of the teachers and students of the Hospital, meets every Thursday at 8 P.M. during the winter. The Abernethian Reading Room is for the exclusive use of members of the Society.

Communications regarding the Hospital and Medical College must be addressed to Dr. Norman Moore, the Warden of the College, St. Bartholomew's Hospital.

CHARING CROSS HOSPITAL.—*The Hospital* contains 180 beds, of which some are set apart for Diseases of Women and of Children.

The Library is open daily from 10 A.M. to 4 P.M., except on Saturdays, when it is closed at 1 P.M. The *Museum* is open from 10 to 4.

Special Courses.—Matriculated students are admitted to the practice of the Royal Westminster Ophthalmic Hospital (50 beds). Clinical instruction in the Diseases of Children is given at 1.30 P.M. on Wednesday and Saturday.—Dr. Lubbock will give a course of Practical Medicine on Mondays and Thursdays, at 12, during the winter.—Instruction in case-taking is given by the Registrars.—Mr. Woodhouse Braine and Mr. G. H. Bailey give instruction in the administration of Anæsthetics in the operating theatre every Thursday. Practical instruction in Operative and Minor Surgery is given by Mr. Bloxam; and in Surgical Pathology by Mr. Morgan.

Appointments.—A Medical and a Surgical Registrar, each with a salary of £40 a year, are appointed for 12 months. Two House-Physicians, two House-Surgeons, and an Obstetrical Officer, are appointed by competitive examination for six months. Clinical Clerks and Surgeons' Dressers and Pathological Assistants are appointed for three months. Each student must hold an In-patient Clerkship and In-patient Dressership, after the first professional examination, in order to obtain certificates of hospital attendance. Students may serve as assistant to the Dental Surgeon for three months.

Scholarships, Medals, and Prizes.—Two Entrance Scholarships, value £30 and £20, tenable for one year, awarded in October, after examination in English, Latin, French, and German, and Mathematics, with either Chemistry, Mechanics, German, or French. Intending candidates must give notice before September 19th. The Llewellyn Scholarship of £25, open to all matriculated students who have just completed their second year; examination in Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery. The Golding Scholarship, £15 a year, open to all matriculated students who have just completed their first year; subjects of examination, Descriptive Anatomy, Physiology, Materia Medica, and Chemistry. The Pereira Prize of £5, to matriculated students who have completed the third year, for the best clinical reports of cases in the hospital (surgical, in 1884). The Governors' Clinical Gold Medal; examination on sub-

GUIDE TO THE LONDON HOSPITALS AND MEDICAL SCHOOLS: 1883-84.

For further particulars regarding each Hospital and Medical School, see pp. 477 and 482, et seq.

	St. Bartholomew's Hospital.	Charing Cross Hospital.	St. George's Hospital.	Guy's Hospital.	King's College and Hospital.
Physicians	Dr. Andrew. dy. ex. Th., 1.30 Dr. Church.....daily, exc. W., 1.30 Dr. Gee...M. Th. S., 1.30 Dr. Duckworth	Dr. Pollock...M. Th. } 1 to 3; Dr. Green...W. S. } Dr. Bruce...Tu. F. }	Dr. Wadham...M. F., 1 Dr. Dickinson...M. Tu. Th. F., 1 Dr. Whipham...Tu. W. S., 1 Dr. Cavafy...Tu. S., 1	Dr. Wilks...M. Th. S., 1.30 Dr. Pavy...M. W. F., 1.30 Dr. Moxon...M. Tu. Th. F., 1.30 Dr. Fagge...Tu. Th. S., 1.30	Dr. Johnson...M. Th., 2. Dr. Beale...Tu., 2 Dr. Duffin...S., 2 Dr I. B. Yeo, T. W. F. 1.30 Dr Ferrier, M. W. T. 1.30 Dr. Baxter...W. S., 1.30 Dr. Curnow...S., 1.30 (Sum.) } put. p.
Assistant-Physicians	Dr. Hensley ... M. Th., 11 Dr. Brunton...Tu. F., 11 Dr. Legg	Dr. Abercrombie...Tu. F. Dr. M Lubbock...W. S. Dr. Willcocks...M. Th.	Dr. Ewart...M. F., 12 Dr. I. Owen...Tu. S., 12	Dr. Pye Smith Dr. Taylor...F., 12.30 Dr. Goodhart...W., 12.30 Dr. Mahomed...M., 12.30	
Obstetric Physicians *Assist. Obstetric Physicians*	Dr. M. Duncan..Tu. Th. S., 2 Dr. Godson...W. S., 9	Dr. J. W. Black...Tu. F. Dr. A. Routh...Tu. F.	Dr. Barnes...Tu. F., 2 Dr. Champneys...M. Th., 2	Dr. Galabin...M. F., 1.30 Dr. Horrocks...Tu. F., 1.30; (o.-p.), Th. S., 12.30	Dr. Playfair...Tu. Th. S., 2 Dr. Hayes (o.-p.)...M. F., 12.30
Diseases of the Skin *Surgeons*	Dr. Legg...W., 1.30 Mr. Savory...daily, 1.30 Mr. T. Smith... daily, exc Tu., 1.30 Mr. Willett...daily, 1.30 Mr. Langton...daily, 1.30 Mr. M. Baker... daily, 1.30	Dr. Sangster...M. Th., 1.30 Mr. Barwell...Tu. F. } 1 to 3; Mr. Bellamy...M. Th. } Mr. Bloxam...W. S. }	Dr. Cavafy...W., 2 Mr. Holmes...M. Th. F., 1; W., 1.30 Mr. Rouse M. Th. F. 1; W. 1.30 Mr. Pick, Tu. Th. S. 1; W., 1.30 Mr. Haward...Tu. Th. S., 1; W. 1.30	Dr. Pye-Smith...Tu., 12 Mr. Bryant...M. Th., 1.30 Mr. Durham..M. Th. F., 1.30 Mr. Howse...W. S., 1.30 Mr. Davies-Colley...M. Th., 1.30	Dr. Duffin...F. Mr. Wood...Tu. Th. S., 1.30 Mr. Lister...M. W. F., 1.30 Mr. H. Smith...M. W. F., 1.30 Mr. R. Bell...M. Th., 1.30
Assistant-Surgeons	Mr. Marsh...Tu. F., 12.30 Mr. Butlin...M. Th., 12.30 Mr. Walsham...W. S., 12.30 Mr. Cripps, Mr. Shuter, 9	Mr. Cantlie...M., Th. Mr. Morgan...Tu. F. Mr. Boyd...W. S.	Mr. Bennett...M. F., 12 Mr. Dent...Tu. S., 12	Mr. Lucas...Th., 12.30 Mr. Golding-Bird..M., 12.30 Mr. Jacobson...W., 12.30 Mr. Symonds...S., 12.30	Mr. Rose...Tu. F.., 1.30 Mr. Cheyne...W. S., 1.30
Ophthalmic Surgeons	Mr. Power Mr. Vernon	Royal Westminster Ophthalmic Hospital 1	Mr. B. Carter M. Th. 2; F. 1.15 Mr. Frost, (asst.)...W. S., 2	Mr. Higgens Dr. Brailey (Asst.)	Mr. McHardy...M. Th., 1
Aural Surgeons *Dental Surgeons*	Mr. Cumberbatch...Tu. F., 2 Mr. Coleman...Tu. F., 9	Mr. Cantlie...F. 9 Mr. Fairbank...M. W. F. 9	Mr. Dalby...Tu., 2 Mr. Winterbottom...Tu., 9	Mr. Purves..Tu. F., 12.30 Mr. Moon...Tu. Th., 12.30	Dr. U. Pritchard...Th., 2 Mr. Cartwright...Tu. F., 10
Clinical Medicine	The Physicians...F., 1	The Physicians	The Physicians...M., 2	The Physicians (Win.)...S., 1.30; the Assistant-Physicians (Sum.)...W., 1.30	Dr. Johnson...alt. M., 3 Dr. Beale...alt. Tu., 3 Dr. Duffin...alt. F. (Win.) 3 Dr. B. Yeo...alt. Tu. (Sm.) 3
Clinical Surgery	The Surgeons...S., 12.45	The Surgeons	The Surgeons...Tu., 2	The Surgeons (Win.)...W., 1.30; the Assistant-Surgeons (Sum.)...F., 1.30	Mr. Wood...Tu. Th., 1.30 Mr. Lister...M. W., 2
Clinical Midwifery and Diseases of Women	Dr. M. Duncan ... (Dis. of Women) alt. Th., 1	Dr. J. W. Black...Twice a week	Dr. Barnes...F., 2	Dr. Galabin (Win.) W. 1.30; Dr. Horrocks (Sum.) Tu. 1.30	Dr. Playfair.....alt. Th. in Winter, 3
Operations	Wed. and Sat., 1.30; on Eye, Tu. Th., 1.30	Thursday and Saturday...2	Thursday, 1; Eye, F., 1.15	Tuesday and Friday, 1.30; Eye, M. Th., 1.30	Mr. Wood and Mr. Smith... S., 1; Mr. Lister...F., 2
WINTER LECTURES.					
Physiology	Mr. Baker and Dr. Klein M. Tu. Th. F., 2.30	Mr. Wolfenden...M. W. F. 3	Dr. W. Ewart...Tu. Th., 3; S., 10	Dr. Pye-Smith...M. W. F., 4.15	Dr. G. F. Yeo...Daily, 12.15
Anatomy, Descriptive and Surgical	Mr. Langton & Mr. Marsh ...Tu. W. Th. F., 9	Mr. Bellamy, M. W. F., 9; S., 12	Mr. Bennett...M. W., 3; F., 4	Mr. Howse and Mr. Davies-Colley...Tu. W. Th. F., 9	Dr. Curnow (sen.)...M. Tu. W. Th., 9; (jun.) W. Th., 11.15; F. S., 9
Anatomical Demonstrations	Mr. Bruce Clarke, Mr. Edwards, Mr. Lockwood & Assistants...7 to 4	Mr. Cantlie...daily, 9 to 4; (S. and Sum., 9 to 1 daily)	Mr. Turner and Assistant-Demonstrators	Dr. White, Mr. Lane, and Mr. Price...daily 10 to 4	Dr. Curnow and Mr. Kenny
Chemistry	Dr. Russell...M. W. F., 10	Mr. Heaton...M. W. F., 4	Mr. Donkin...Tu. Th. S., 11.30	Dr. Debus and Dr. Stevenson...Tu. Th. S., 11	Mr. Bloxam...M. W. Th., 10.15
Medicine	Dr. Andrew and Dr. Gee.. M. Tu. Th., 3.30	Dr. Pollock...M. W. Th., 4	Dr. Dickinson...M. Th. F., 3	Dr. Pavy and Dr. Moxon.. M. W. F., 3	Dr. Beale...M. F., 4; W., 5
Surgery	Mr. Savory...W. Th. F., 2.30	Mr. Barwell...Tu. F., 4; Th., 3	Mr. Rouse and Mr. Pick... M. W. F., 9.30	Mr. Bryant & Mr. Durham ...Tu. Th., 3.30; S., 2.45	Mr. H. Smith...Tu. W. Th., 4
SUMMER LECTURES.					
Materia Medica	Dr. Lauder Brunton...Tu. W. Th. S., 10	Dr. Bruce...Tu. Th. S., 9	Dr. Owen...M. F., 2; W., 10	Dr. F. Taylor...M. Tu. Th., 2	Dr. Baxter...Tu. W. Th. F., 8.45
Botany	Rev. G. Henslow...M. F., 10; W., 11.30	Dr. Willcocks...M. W. F., 10	Mr. G. Murray...Tu. Th. S., 10	Mr. Bettany...Tu. Th. S., 11.15	Mr. Bentley...M. Tu. Th. F., 12.15
Midwifery	Dr. Matthews Duncan..... daily, 9	Dr. J. W. Black.....M. Tu. W. F., 3	Dr. Barnes and Dr. Champneys...M. W. F., 9	Dr. Galabin...Tu. W. Th. F., 9	Dr. Playfair.....Tu. W. Th. F., 9
Forensic Medicine	(vacant)	Dr. Abercrombie ... M. W. F., 9	Dr. Wadham...Tu. Th. S., 9	Dr. Stevenson...Tu. Th., S., 10	Dr. Ferrier...M. Tu. W. F., 4
Practical Chemistry	Dr. Russell...M. Tu. F., 11	Mr. Heaton...M. Th., 3	Mr. Donkin...daily, 11	Mr. Groves...M. W. F., 10 to 1	Mr. Bloxam and Demonstrators...M. W. Th., 10.15
Comparative Anatomy	Dr. N. Moore (Summer) Tu., 4; Th., 11.15	Dr. Garson (Sum.)...S., 9	—— (Sum.)	Dr. Brailey (Win.).....M. W., 1.45	Mr. F. J. Bell...(Win.) M. Tu. F., 4
Practical Physiology & Histology	Dr. Harris, Dr. Ormerod, and Dr. Nall, daily	Mr. Wolfenden...(Sum.)... M. W. F., 11; (Win.)... M. W. F., 10	Mr. Bennett (Histology)... M. W. F., 11; Tu., 2	Mr. Golding Bird (Win.)... Tu., 1.30; W. S. 1	Dr. G. F. Yeo and Demonstrators (Sum.)...Tu. F. S. 10.15
Pathology and Morbid Anatomy	Dr. Legg (lect.)..M. F., 3.30; (demons.), Medical, 12; Surgical, 2.30	Dr. Green (Sum.) ...Tu. W. F., 4; Mr. Morgan, Surgical (Win.)	Dr. Whipham (Winter) ... F., 3.30; Dr. Owen (demons.), W., 12	Dr. Fagge (lect.) (Sum.)... S., 9; Dr. Goodhart (dem) and Dr. Mahomed...2.30	Dr. Duffin (Sum.)...W. Th. F., 3
Psychological Medicine	Dr. Claye Shaw (Sum.) ... Th., 12.30	Dr. L. F. Winslow (Sum.) ...W., 11	Dr. Blandford	Dr. Savage (Sum.).....Tu., 11; F., 10.30	Dr. Sheppard (Summer)
Public Health	Dr. Thorne Thorne, M., 10	——	With Medicine	Mr. G. Turner...M. F., 12	Dr. Kelly (Win.)...F., 3
Practical & Operative Surgery	Mr. Butlin and Mr. Walsham...M. W. F., 3.30	Mr. Bloxam and Mr. Morgan (Win.)...Tu. W. F. 3	Mr. Dent (Pract.) (Sum.) M. W. F., 3; Mr. Turner (Oper.) (Sum.) M. W. F. 9.30	Mr. Clement Lucas...Pract. Surg. in Win.; Oper. Surg. in Sum.	——
Ophthalmic Medicine & Surgery	Mr. Power...Tu. Th., 9; Mr. Vernon (dem.), (Win.) ...M., 2	——	Mr. R. B. Carter and Mr. Frast (Win.).....W., 4; (Clin.) W. S., 2	Mr. Higgens...W., 3	Mr. McHardy (clin. lect.) (Win.)...alt. M., 3
Dental Surgery	Mr. Coleman.....S., 10.30 (Oct. Nov. Dec.)	Mr. Fairbank ... Jan. Feb. March	Mr. Winterbottom (Sum.) Tu., 10	Mr. Moon (Summer)	Mr. Cartwright (clinical lect.) (Win.)...alt. M., 3
Aural Surgery	——	——	Mr. Dalby (Sum.)...W., 2	——	Dr. U. Pritchard...W., 9, Oct.-Dec.
Diseases of Skin	——	Dr. Sangster...F., 4, Sum.	Dr. Cavafy (Win.),,W., 1.30	——	——
Vaccination	——	——	——	——	Mr. R. W. Dunn

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For further particulars regarding each Hospital and Medical School, see pp. 477 and 482 et seq.

London Hospital.	St. Mary's Hospital.	Middlesex Hospital.	St. Thomas's Hospital.	University College and Hospital.	Westminster Hospital.
Sir A. Clark...M.Th., 2 Dr. Down...Tu. F., 2 Dr. H. Jackson...M. Th., 2 Dr. Sutton...M. Th., 2 Dr. Fenwick...Tu. F., 2 Dr. S. Mackenzie...Tu. F., 2; (o-p.)W.S., 1.30 [1.30 Dr.Sansom W.2(o.p.)M.Th	Dr. H. Jones...M. Th.,1.45 Dr. Sieveking...Tu.F., 1.45 Dr.Broadbent..W.1.45;S.,9 Dr. Cheadle...Tu. F., 9.30; Tu. F., 1 out-p. Dr. Shepherd...M. Th., 2 Dr. Lees...W. S. 1	Dr. Cayley.....M. W. F., 1.30 Dr. Coupland.....Tu. Th., 1.30; S., 9.30 Dr. D. Powell...M. W. S., 1.30	Dr. Bristowe...Tu. F., 2 Dr. Stone...M. Th., 2 Dr. Ord...M. Th., 2 Dr. J. Harley...Tu. F., 2	Dr. Wilson Fox Dr. Ringer Dr. C. Bastian Dr. F. T Roberts Dr. Gowers Dr. Poore } 1 and 2 daily.	Dr. Sturges...M. Th., 1.30 Dr. Allchin...Tu.F., 1.30 Dr. Donkin, W. S., 1.30
Dr. Turner...W., 9.30; S., 1.30; (o.-p.) Tu. F., 1.30 Dr. G. Smith...Tu. F., 2; (o.-p.) W.S., 1.30 Dr. Warner...M.,1.30; Th., 10.30; (o.-p.) Tu. F., 1.30 Dr. Ralfe...M. Th. 1.30	Dr. S. Phillips	Dr. Finlay...Tu.,10; F., 2; (o.p.) M. Th., 9 Dr. Fowler...Tu.,3.30; F., 9 Dr. Biss...W., 9; S., 3.30	Dr. Payne...Tu. F., 12.30 Dr. Sharkey...M. Th.,12.30 Dr. Gulliver...W. S., 12.30	Dr. T. Barlow	Dr. Hall...M.Th., 1.30 Dr.A.H.Bennett,Tu.F.1.30 Dr. Murrell, W. S., 1.30
Dr. Herman.....Tu. F., 2; (o.p.) W. S., 1.30 Dr. S. Mackenzie...Th., 9	Dr. Meadows...Tu. F., 9.30 Dr. Wiltshire...Tu. F.,1.30	Dr. H. Davis...Tu. F., 1.30 Dr. Edis...(o.p.) W. S., 1.30	Dr. Gervis.....M. Th., 2 Dr. Cory.....W., 1.30; S., 12.30	Dr. Graily Hewitt Dr. J. Williams	Dr. Potter...Tu. F., 2 Dr. Grigg...Tu. F., 9
Mr. Couper...M. Th., 1.30 Mr. Rivington...Tu. F., 2 Mr. Adams...Tu. F., 2 Mr. Tay...M. Th., 2 Mr. McCarthy...W.S.,1.30 Mr. Reeves...Tu. S., 1.30 Mr. Treves...M. Th., 1.30 Mr. C. Mansell-Moullin... M. W., 1.30	Mr. M. Morris, Tu. F., 2 Mr.Walton...W.S., 1.45 Mr. Norton...M. Th., 1.45 Mr. Owen...Tu. F., 1.45 Mr. Page...T. F., 1 Mr. Pye...M. Th. 1 Mr. Pepper...W. S.1 } out.-p	Dr. R. Liveing...F., 4 Mr. Hulke...M. Th., 1.30 Mr. Lawson...M. Th., 1.30 Mr. Morris...Tu. F., 1.30 Cancer...Th., 1.30 Mr. A. Clark...M. Th., 1.15 Mr. Pearce Gould...Tu. F., 1.30	Dr. Payne...W., 12.30 Mr. S. Jones...Tu. F., 2 Mr. Croft...M. Th., 2 Sir W. Mac Cormac.....M. Th., 2 Mr. Mason...Tu. F., 2 Mr. MacKellarM.Th.,12.30 Mr. Clutton...Tu. F., 12.30 Mr. Anderson...W.S.,12.30 Mr. Pitts, M. Tu., 12.30	Dr.Crocker..W1.30.; S.9.15 Mr. Marshall Mr. Berkeley Hill Mr. C. Heath } 1 & 2 daily. Mr. Marcus Beck Mr. A. E. Barker Mr. R. J. Godlee	Dr. Allchin...W., 1.30 Mr. Cowell...M. Th., 1.30 Mr. Davy...Tu. F., 1.30 Mr. Macnamara ... W. 1.30 S., 9.30 Mr. T. Cooke...M.Th., 1.30 Mr. Bond...Tu. F., 1.30 Mr. B. Barrow...W.S., 1.30
Mr. Adams and Mr. W. Tay...W. S., 9 Dr. Woakes...S., 9.30 Mr. Barrett...Tu., 9 The Physicians	Mr. A. Critchett...Tu. F., 9 Mr. H. Juler Mr. Field...M. Th., 2 Mr.H.Hayward..W.S.,9.30 The Physicians	Mr. Lang...W. S. (o.p.) 9 (in-p.) 10 Mr. Hensman...Tu., 9 Mr.Bennett & Mr.C.Rogers The Physicians...F., 3	Mr. Nettleship...M.Th., 9; M. Tu. W. Th. F., 1.30 Mr.Clutton,M.,12.30 [F.10 Mr. Ranger...Tu. The Physicians...weekly	Mr. Streatfeild and Mr. Tweedy...M.T.Th.F., 2 Mr. Barker...S, 1.30 Mr. Hutchinson...W., 9.30 Dr. W. Fox(Holme prof.), Dr. Ringer, Dr. Bastian, Dr. Roberts, Dr.Gowers, and Dr. Barlow	Mr. Cowell...M.Th., 2.30 Mr. Keene...Tu.F., 9 Mr. Walker and Mr. Smale ...W. S., 9.15 Dr.Sturges..Th.(aft.Xms.) Dr.Allchin..F.(bef.Xmas.) Dr. Donkin...W. (Sum.)
The Surgeons	The Surgeons	The Surgeons...Tu., 3	TheSurgeons...weekly;Mr. Croft, special course, W. 9	Mr. Marshall, Mr. Hill, Mr. Heath(Holme prof.),Mr. Barker	Mr.Cowell..Th.(aft.Xmas) Mr. Davy...F. (Sum.) Mr.MacnamaraW.(bf.Xms
Dr.Herman(Win)2nd F. in mon.;(Sum)alt. Tu., 2.30 Wednesday, Thursday, and Saturday, 2	Dr. A. Meadows (Win.)Tu., 9.30; (Sum.) Tu. 2 Wednesday...1.30; Eye, Tu. F., 9	Dr. Hall Davis...Tu., 10.; Dr. Edis (sum.),W.S., 1.30 Wednesday, 1; Saturday. 2	Dr. Gervis Wednesday and Saturday, 1.30; Eye, Friday 2	Dr.G.Hewitt...fortnightly Wednesday, 3	Dr. Potter...F. (Sum.) Tuesday and Saturday, 2
Mr. McCarthy...M. Th. S., 9 Mr. Rivington...M., 3; Tu. W. F., 9.10 Mr. Treves & Demnstratrs. ...10 to 5, excepting Sat. aft. Dr. Tidy...M. W. F., 10.30 Dr. S. Mackenzie...M. W. F., 4 Mr. J. E. Adams...Tu. Th., 4; S., 10 Dr. Prosser James...Tu.Th F., 3 Dr. F. Warner...M. W. F., 12 Dr. Herman...M. W. F., 9 Dr. Tidy.....W. F., 10.30; Dr. Sansom, M. Th., 3.30 Dr. Tidy...M. W. F., 9 Dr. Mansell-Moullin...Tu., Th., 10 Mr. McCarthy (Win.)...M. Th. S., 9; (Sum.) Tu. Th 11 Dr. Sutton (Sum.) ... Th., 12.30; S., 10; ditto.or Mr. McCarthy(dem)daily,3.30 With Forensic Medicine Mr. Reeves and Mr. J. E. Adams (Sum.) Mr. Adams (Sum.) Mr. Barrett (Sum.) Dr. Woakes (Sum.)...Th.,4	Mr. Pye...M. W. Th. F., 12 Mr. Owen...M. Tu. Th. F., 9 Dr. Phillips and Mr. J. E. Lane...daily 9 to 5 Dr. Wright ... M. Th., 10; W. S., 9 Dr. Broadbent and Dr. Cheadle...beforeChr.M.Tu. Th.,3; afterChr.M.W.Th.,3 Mr. Norton and Mr. Page ...M. Tu. Th., 4 Dr. Lees...Tu. W. F. S., 12 Rev. J. M. Crombie ... M. W. F., 11 Dr. Meadows and Dr. Wiltshire..Tu.W.Th.F.,9 Dr. Randall...M.Tu.Th., 10 Dr. Wright...W. F. S., 9; organic, W. F., 10 Mr. St. G. Mivart (Sum.) ...W. Th. 10 Mr. Nall, Tu. Th. S., 10 Dr. Shepherd...Tu. F., 12; Mr. Silcock, daily, 2.30 With Forensic Medicine With Forensic Medicine Mr. Pepper...M. Th., 12 Mr. G. A. Critchett (Sum.) ...S., 9 Mr. H. Hayward (Sum.) Mr. Field (Sum.)...F., 3 Mr. M. Morris (Sum.)... Th., 3 Mr. Sumner	Mr. Lowne...M.W.F., 9 Mr. Hensman.....M. Th., 4.30; Tu. F., 4 Mr. Hensman, Mr. Sutton & Mr. Crago..daily, 9 to 4 Mr. Foster...M. Th, 3.30; W. F., 3 Dr. Cayley...Tu. Th. S., 9 Mr. Morris.....M W. Th., 3.30 Dr. Thorowgood.....M. W. F., 4 Dr. Biss...M. Th. F., 10 Dr. Edis ... Tu Th. S., 9 Dr. Finlay...M. W. F., 9 Mr. Foster...M. W. F., 3 Mr. J. B. Sutton (Sum.)... Tu. Th., 4 Mr. Lowne (Sum.) ... Tu. Th. S., 9 Dr. Coupland (Win.) ... M. Th., 9; S., 12 Mr. H. Case (Sum.)...Th.,12 Dr. Finlay (Sum.) Mr. A. Clark (Win.)...M. Th., 3.30; W., 3; Oper. Surg., April Mr. Lang (Clin.)...W.S., 3 Mr. S. Bennett...W., 9.30 Dr. W. Pearse and Mr. [Sumner	Dr. J. Harley and Mr. Stewart...Tu.W. F., 4 Mr. Reid and Mr. Anderson ...daily exc. Sat. 9.30 Mr. Reid, Mr. Anderson, Dr. Taylor, Mr. Ballance ...daily, 10 Dr. Bernays...Tu. Th. F., 10.30 Dr. Bristowe and Dr. Ord ...M., 9; Th. F., 4; after Jan. 1, M., 4; Th. F., 9 Mr. Jones & Sir W. MacCormac...toDec.31.M.Th.F., 4; after Jan.1.M.Th.F., 9 Dr. Stone...M. W. F., 9 Mr. A. W. Bennett.....Tu W. S., 10 Dr. Gervis...M. Tu. Th. F., 4 Mr. Clutton and Dr. Cory ...Tu. Th S., 9 Dr. Bernays...M.Th.F., 10 Mr. Stewart (Sum.).....M. Th., 12 Dr. T. D. Acland (Win.)... W.F.,11.30; Pract.Phys. Dr. T. C. Charles (Sum). ...Tu. W. F., 12.30 Lectrs.: Drs.Payne & Sharkey; Demonst.,Drs.Sharkey & Hadden Dr. H. Rayner(Sum.)...F., 12 Dr. A. Carpenter (Sum.)... W., 4 Mr. Mason and Mr. MacKellar (Win.).....S., 9; (Sum.) Tu. F., 4 Mr. Nettleship (Oct. 1 to Dec. 31) Tu. F., 5 Dr. Cory...W., 11.30)	Mr. Schäfer & Dr. McWilliam...M. Tu. Th. F., 10 Mr. Thane...daily, exc. S., 12 Mr. Godlee, Mr. Collingwood, and assistants, 8 to 5; Sat., 8 to 2 Dr.Williamson..daily,exc. S.,11;(exerc.)Tu.W.Th.F.9 Dr. Ringer ... Tu.W.Th.F., 9 Mr. Marshall.....Tu.W.F., 4 Dr. F. T. Roberts ... M., 9; Tu.W.Th.F., 10 Mr. Oliver ...daily, exc. S., 8 a.m Dr. Graily Hewitt and Dr. J.Williams...TuW.F.S.,9 Dr. Poore.....Tu. W. Th.. F., 10 Dr.Williamson(jun.)Tu.W Th.F.,11; (sen.) M.S., 10 Mr. Lankester, (Win. and Sum.) Dr. McWilliam and Demonstrators. Dr. Bastian(Sum.)...M. S., 10; Th. F., 4; Pract., & Mr. Barker (Surg.) Jan. Feb. March, M. Th., 4 Dr. Corfield (Sum.) ... Tu. Th., 4 Mr. Hill (Oct. Nov. Dec.) ...M. Th., 4; Mr. Beck (Win. and Sum.) Mr. Tweedy (Sum.),M.W., 4; (clin.), Mr.Streatfeild and Mr. Tweedy Mr. Hutchinson Dr. Crocker.....(clin. lect. alt. weeks) Mr.W.PearseorMr.Sumner	Dr. Heneage Gibbes...M. W. F., 4 Mr. Black ... Tu. W. Th. F. S., 9; also Sum,Tu.Th., 9 Dr. Sanderson ... M., 9.30 to 1, other days 10 to 1 Dr. Dupré...W. Th. F., 3 Dr. Sturges & Dr. Allchin M. W. Th., 3 Mr. Cowell and Mr. Macnamara...Tu.Th., 4; F., 3 Dr. Murrell...M. W.F., 9 Mr. Worsley-Benison...Tu. W.F.S., 10 Dr. Potter...Tu. Th. S., 9; F., 4 Dr.Hall and Dr. Dupré... Tu.Th.F., 3 Dr. Dupré and Mr. Hehner ...M.W.F., 11 Dr. L. Ogilvie.....Jan. to July Mr. H. Gibbes...M. W. F., 1.30; Hist.(Sum.) M. W. F., 1.30 Dr. Allchin.....Tu.W.Th., 4; the Pathologist (dem),2 Dr. Sutherland (June) ... Tu. Th. F., 3 With Forensic Medicine Mr. Davy...F., 12.30 Mr. Cowell (Sum.), M., 3 Dr. J. Walker...(Oct., Nov., Dec.), W., 9.30 Mr. Keene...(June) Tu., 10 Dr. Allchin ... (Feb., Mar. Th., 2.30 Mr. W. Pearse

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p" perpetual or unlimited attendance.)

	St. Bartholomew's.	Charing Cross.	St. George's.	Guy's.	King's College.	London.	St. Mary's.	Middlesex.
Composition Fee for all Lectures and Hospital Practice required by Examining Boards	£131 5s.; or 1st win. £42 1st sum. £48 6s 2nd win. £48 6s	1st win. (with matric. £2. 2s.) £9 9s. 1st sum. £21 2nd win. £22 1s. 2nd sum. £15 15s 3rd win. £10 10s	1st year £45 2nd year, £45 3rd year, £20 Each subseqnt. year, £15 (See note)	£131 5s.; or 1st win. and 1st sum., each £66; or 1st and 2nd year, each £50; 3rd yr. £37 10s.	£125; or on entr. £70 2nd win. £60 or on entr. £60 2nd win. £50 3rd win. £25	£94 10s.; or 1st year, £47 5s. 2nd yr. £42 3rd yr. £15 15s. (See note)	£106 1s.; or 1st year, £52 10s. 2nd year, £42 3rd year, £17 17s.	£94 10s.; or 1st year, £40 2nd year, £40 3rd year, £20 4th year, £5
Hospital Practice	*Medical.* 3 mos. £10 10s. 6 mos. £15 15s. 2yrs. £23 12s. 6d Unlim. £33 1s. 6d *Surgical.* 3 mos. £13 2s. 6d 6 mos. £19 19s. 12 mos. £26 5s. Unlim. £33 1s. 6d	*Med. or Surg.* 3 mos. £6 6s. 6 mos. £10 10s. 12 mos. £15 15s. Full period £21 *Med. and Surg.* 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 Full p. £31 10s.	*Med. or Surg.* 1 year, £10 10s. 2 years, £21 Perp. £31 10s.	*Med. or Surg.* 3 mos. £10 10s. 6 mos. £15 15s. 1 year, £24 3s. Perp. £31 10s. *Med. and Surg.* 3 mos. £15 15s. 6 mos. £24 3s. 1 year, £31 10s. Perp. £47 5s.	*Med. or Surg.* 1 sum. £5 5s. 1 win. £9 9s. 1 year, £12 12s. Perp. £31 10s. *Med. and Surg.* 1 sum. £8 8s. 1 win. £14 14s. 1 year, £18 18s. Perp. £42	Perp. £52 10s. *Medical.* 6 mos. £10 10s. 12 mos. £15 15s. Perp. £26 5s. *Surgical.* 6 mos. £10 10s. 12 mos. £15 15s. 18 mos. £21 Perp. £26 5s.	*Med. or Surg.* 6 mos. £5 5s. 12 mos. £10 10s. Perp. £21 *Med. and Surg.* 6 mos. £8 8s. 12 mos. £15 15s. Perp. £36 15s.	*Med. or Surg.* Perp. £15 15s. 1 year, £8 8s. 6 mos. £5 5s. *Med. and Surg.* Perp. £26 5s. 1 year, £12 12s. 6 mos. £7 7s.
Fees for Students of Dental Surgery	£63; or 1st win. £31 10s 1st sum. £31 10s	1st Oct. £22 2s. 2nd Oct. £20 —	£55; or 1st year, £30 2nd year, £25	£63; or 1st year, £42 2nd yr. £24 3s.	*Hospital.* 1 year £10 10s. 2 years, £15 15s.	£40 Dent. pr. gen., £10	£55; or 1st year, £30 2nd year £25	£42; or 1st win. £30 2nd win. £15
Anatomy	*s.* £9 9s. *p.* £13 2s. 6d.	£6 6s. —	*s.* £7 7s. *p.* £8 18s. 6d.	*s.* £7 7s. —	*s.* £6 6s. *p.* £9 9s.	*s.* £5 5s. 2 yrs. £8 8s.	*s.* £7 17s. 6d.	*s.* £8 8s. Subs. c. £4 4s.
Demonstrations and Dissections	*s.* £7 7s. — —	1st year £4 4s. 2nd year, £3 3s. —	*s.* £3 3s. — —	*s.* £7 7s. — —	*s.* £7 7s. — —	*s.* £5 5s. 2 yrs. £8 8s. —	*s.* £4 4s. — —	*s.* £6 6s. Subs. c. £3 3s. —
Physiology	*s.* £9 9s. *p.* £13 2s. 6d.	£6 6s. —	*s.* £7 7s. *p.* £8 16s. 6d.	*s.* £7 7s. —	*s.* £8 8s. *p.* £11 11s.	*s.* £4 4s. 2 yrs. £6 6s.	*s.* £4 4s. —	*s.* £6 6s. Subs. c. £2 2s.
Practical Physiology and Histology	(P.P.) *s.* £7 7s.; (H.) *s.* £2 12s. 6d	*s.* £4 4s. —	— (H.) *s.* £3 3s.	*s.* £7 7s. —	*s.* £6 6s. *p.* £8 8s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £4 4s. —	*s.* £4 4s. Subs. c. £2 2s.
Comparative Anatomy	*s.* £2 12s. 6d. *p.* £4 4s.	*s.* £4 4s. —	*s.* £4 4s. —	*s.* £5 5s. —	*s.* £1 1s. *p.* £3 6s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £2 12s. 6d. —	*s.* £2 2s. Subs. c. £1 1s.
Botany	*s.* £4 4s. *p.* £5 5s.	*s.* £3 3s. —	*s.* £3 13s. 6d. *p.* £4 14s. 6d.	*s.* £5 5s. —	*s.* £4 4s. *p.* £6 6s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £4 4s. —	*s.* £4 4s. Subs. c. £1 1s.
Chemistry	*s.* £6 16s. 6d. *p.* £9 9s.	*s.* £5 5s. —	*s.* £6 6s. *p.* £7 17s. 6d.	*s.* £7 7s. —	*s.* £8 8s. *p.* £11 11s.	*s.* £7 7s. 2 yrs. £10 10s.	*s.* £6 16s. 6d. —	*s.* £8 8s. Subs. c. £4 4s.
Practical Chemistry	*s.* £3 3s.	*s.* £4 4s. —	*s.* £4 4s.	*s.* £7 7s. —	*s.* £6 6s. *p.* £8 8s.	*s.* to stud. £2 2s. to others, £5 5s.	*s.* £4 4s. —	*s.* £4 4s. Subs. c. £1 1s.
Materia Medica	*s.* £6 16s. 6d. *p.* £7 17s. 6d.	*s.* £3 3s. —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £5 5s. —	*s.* £5 5s. *p.* £6 6s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £5 5s. —	*s.* £4 4s. Subs. c. £1 1s.
Practical Pharmacy	— —	*s.* £3 3s. —	*s.* £3 3s. —	*s.* £3 3s. —	— —	*s.* £1 4s. —	3 mos. £3 3s.; 6 mos. £6 6s.	£5 5s. —
Pathology and Morbid Anatomy	*s.* £2 12s. 6d. *p.* £4 4s.	*s.* £3 3s. (See note)	*s.* £3 3s. —	P. £3 3s. M.A. £7 7s.	*s.* £3 3s. *p.* £4 4s.	*s.* £3 3s. —	*s.* £4 4s. —	*s* £4 4s. Subs. c. £2 2s.
Medicine	*s.* £6 16s. 6d. *p.* £9 9s.	£6 6s. —	*s.* £7 7s. *p.* £8 18s. 6d.	*s.* £7 7s. —	*s.* £8 8s. *p.* £9 9s.	*s.* £5 5s. 2 yrs. £6 6s.	*s.* £5 5s. —	*s.* £6 6s. Subs. c. £2 2s.
Surgery	*s.* £6 16s. 6d. *p.* £9 9s.	£6 6s. —	*s.* £7 7s. *p.* £8 18s. 6d.	*s.* £7 7s. —	*s.* £8 8s. *p.* £9 9s.	*s.* £5 5s. 2 yrs. £6 6s.	*s.* £5 5s. —	*s.* £6 6s. Subs. c. £2 2s.
Practical Surgery	*s.* £6 16s. 6d. *p.* £9 9s.	£2 2s. —	*s.* £4 4s. —	*s.* £4 4s. —	*s.* £3 3s. *p.* £5 5s.	— —	*s.* £4 4s. —	*s.* £4 4s. Subs. c. £2 2s.
Operative Surgery	*s.* £3 3s.	(See note)	*s.* £2 2s.	*s.* £5 5s.	—	£3 3s.	£4 4s.	*s.* £4 4s.
Ophthalmic Surgery	*s.* £2 12s 6d. *p.* £4. 4s.	— —	inc. in Surg. —	— —	— —	*s.* £2 2s. 2 yrs. £3 3s.	*s.* £2 12s. 6d. —	Subs. c. £1 1s. *s.* £5 5s.
Dental Surgery	*s.* £2 12s. 6. *p.* £4 4s.	— —	— —	— —	— —	*s.* £2 2s. —	*s.* £2 12s. 6d. —	*s.* £2 2s. Subs. c. £1 1s.
Midwifery	*s.* £6 16s. 6d. *p.* £7 17s. 6d.	*s.* £3 3s. —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £7 7s. —	*s.* £5 5s. *p.* £6 6s.	*s.* £4 4s. 2 yrs. £6 6s.	*s.* £5 5s. —	*s.* £4 4s. Subs. c. £1 1s.
Forensic Medicine	*s.* £4 4s. *p.* £5 5s.	*s.* £3 3s. —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £5 5s. —	*s.* £5 5s. *p.* £6 6s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £4 4s. —	*s.* £4 4s. Subs. c. £1 1s.
Psychology	*s.* £2 12s. 6d. *p.* £4 4s.	*s.* £1 1s. —	inc. in For. Med. —	*s.* £3 3s. —	— —	— —	— —	*s.* £2 2s. Subs. c. £1 1s.
Public Health or Hygiene	—	*s.* £1 1s.	—	*s.* £3 3s.	*s.* £1 1s.	—	—	*s.* £2 2s.
Instruction in Vaccination	—	Not stated	—	—	Small fee	—	£1 1s.	£1 1s.
Library	—	£1 1s.	Each yr. 10s. 6d.	£1 1s.	£1 1s.	£1 1s.	£1 1s.	£1 1s.

ADDITIONAL NOTES.

St. Bartholomew's Hospital.—Extra in-patient dresserships: 3 months, £10 10s.; second period of 3 months, £6 6s.

Charing Cross Hospital.—Hospital Practice after third year, £5 5s. for each winter, and £3 3s. for each summer. Matriculated students pay £3 3s. for Comparative Anatomy. Occasional students pay £10 10s. for a winter course, £5 5s. for a summer course, of Practical Anatomy.—The Lectures on Psychology and on Normal Histology and Operative Surgery are free to matriculated students.—A fee of £1 1s. is charged for the use of Microscopes.—Operative Surgery: private class, whole body, £8 8s.; half body, £5 5s.; Matriculated Students, each part, 15s. Practical Medicine or Surgery: Non-Matriculated Students, £5 5s. Students dissecting in the summer pay an extra fee of £1 1s. The Matriculation Fee is £2 2s. Students rejected at either of the College of Surgeons Examinations pay an additional fee of £2 2s.

St. George's Hospital.—Perpetual pupils pay £125 at entrance; or 1st and 2nd years, each £45; 3rd year, £40. Gentlemen who have completed a year of professional study at an English University are allowed a reduction of £40 from the perpetual pupil's fee. A reduced fee is also paid by students who have attended lectures in other schools. The payments for courses required by the examining boards do not confer the privileges of perpetual pupils. Practical Medicine, *s.* £4 4s.; Histology, £3 3s.; Physiological Chemistry, *s.* £3 3s. Extra payment is required for Practical Pharmacy; Practical Chemistry; Subjects for Dissection (£3 3s.); Operative Surgery; Library; and Comparative Anatomy.

Guy's Hospital.—Morbid Histology and Natural Philosophy, each £5 5s.—Extra fees: Practical Chemistry, £1 10s.; Operative Surgery, £2 2s. (both included in fee in table). The library fee (£1 1s.) is returned when the student leaves the hospital.

King's College.—The Composition Fee includes perpetual attendance on Anatomy, Physiology, Chemistry, Medicine, Clinical Medicine, Surgery, Clinical Surgery (one Professor), Obstetric Medicine, Botany, Forensic Medicine, Materia Medica, Comparative Anatomy, Pathological Anatomy, and Hospital Practice; and one course each of Practical Surgery, Practical Chemistry, and Practical Physiology.—Clinical Surgery (win.), one professor, *s.* £6 6s; *p.* £8 8s.; both professors, *s.* £8 8s.; *p.* £11 11s.; (sum.), one professor, *s.* £4 4s.; *p.* £5 5s.; both, *s.* £5 5s.; *p.* £6 6s.—Anatomy and Practical Anatomy, together, *s.* £9 9s.; *p.* £12 12s. Students of Practical Physiology pay £1 1s. for use of apparatus, etc. Practical Biology and Experimental Physics, 3 terms, each subject, £8 8s.; second year, each £3 3s.; Analytical and Experimental Chemistry (exclusive of materials) 1 month, £4 4s.; 3 months, £10 10s.; 6 months, £18 18s. Medical Tutor, one year, £3 3s.

London Hospital.—The General Fee for Lectures and Hospital Practice covers four years, and includes two years' Practical Anatomy. For students entering at or before beginning of second winter, £78 15s.; or two instalments of £47 5s. and £31 10s. This fee covers three years from the date of entry. Students in Arts of Universities who have attended Lectures in Anatomy, Physiology,

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p" perpetual or unlimited attendance.)

St. Thomas's.	University College.	Westminster.	Queen's Coll., Birmingham.	Bristol.	Leeds.	Univers. Coll., Liverpool.	Owens Coll., Manchester.	Coll. of Med., Newcastle.	Sheffield.
£125; or On entr. £75 2nd win. £60; or 1st year, £65 2nd year, £50 3rd year, £30	£131 5s.; or 1st year, £63 2nd yr. £52 10s. 3rd yr. £21	£100; or 1st win., £52 10s 2d win., £52 10s or 5 payments of £23 each	Lect. £63; or 1st yr £31 10s. 2nd yr. £31 10s.	Lect. £63; or 1st sess. £42 2nd sess. £21	Lect. £52 10s; or 1st yr. £27 6s. 2nd yr. £27 6s.	Lecture, £63; or 1st yr. £31 10s. 2nd yr. £31 10s.	Lect. £63; or 1st yr. £31 10s. 2nd yr. £31 10s.	£63; or 2 instalments, each £36 15s.; or 3 instalments: 1st, £31 10s.; 2nd, £26 5s.; 3rd, £21	Lectures, £45
Med. and Surg. 3 mos. £15 6 mos. £26 9 mos. £35 12 mos. £40 Perp. £55	*Med. and Surg.* Perp. £36 15s. 1 year, £21	*Med. or Surg.* 3 mos. £6 6s. 6 mos. £10 10s. Each subseqnt. 6 mos. £5 5s. 3 yrs. £24 3s. *Med. and Surg.* 3 mos. £10 10s. 6 mos. £14 14s. Each subseqnt. 6 mos. £7 7s. 3 yrs. £36 15s.	*General and Queen's Hosptls.* 4 years, £42, or in two equal sums. 1 year, £21 6 mos. £14 3 mos. £10	*Royal Infirm.* *Med. or Surg.* 6 mos. £7 7s. 1 year £12 12s. Perp. £21 *Med. and Surg.* 1 year, £21 Perp. £36 15s. *Gen. Hosp.* *Med. or Surg.* 6 mos. £6 1 year, £10 Perp. £20	*Infirmary.* *Med. or Surg.* 1 win. £7 7s. 1 sum. £6 6s. 12 mos. £12 12s. 18 mos. £15 15s. 3 years. £21 Perp. £26 5s.	*Royal Infirm.* Perp. £42, or in two equal instalments. *Medical.* 3 mos. £3 15s. £6 mos. £6 6s. 12 mos. £7 7s. *Surgical.* 3 mos. £5 5s. 6 mos. £7 7s. 12 mos. £10	*Royal Infirm.* Full per. £42; or 2 instlmnts. £22 *Medical.* 3 mos. £4 4s. 6 mos. £8 8s. 12 mos. £12 12s. Full per. £18 18s. *Surgical.* 3 mos. £6 6s. 6 mos. £9 9s. 12 mos. £18 18s. Full per. £31 10s	*Infirmary.* 3 mos. £5 5s. 6 mos. £8 8s. 12 mos. £12 12s. Perp. £26 5s.; or 1st year, £12 12s.; 2nd yr. £10 10s.; 3rd yr. £6 6s.; or, 1st year, £14 14s; 2nd year, £12 12s.	*Gen. Infirm., or Public Hospitl.* *Med. or Surg.* Win., £6 6s. Sum., £3 3s.
£55; or 1st year, £50 2nd year, £10	— — —	£50; or 1st yr. £32 10s. 2nd year, £20	£75; or 1st yr. £52 10s. 2nd yr. £26 5s.	— — —	— — —	— — —	— — —	— — —	— — —
s. £7 7s. *p.* £10 10s. 3 mos. £4 4s. 6 mos. £6 6s. Perp. £10 10s.	*s.* £8 8s. *p.* £10 10s. 3 mos. £3 3s. 1 yr. £6 6s. Ea. add. yr. £1 1s	1 c. £7 7s. Subsq. c. £2 2s. 3 mos. £5 5s. Subsequent 3 mos. £3 3s.	*s.* £6 6s. —	*s.* £5 5s. — £3 3s. —	*s.* £6 6s. — 3 mos. £2 2s. 6 mos. £3 3s.	2 cs. each. £5 5s 3rd c. £2 12s. 6d *s.* £3 3s. Sum. £2 2s.	*s.* £5 5s. — 6 mos. £3 3s. 3 mos. £2 2s.	*s.* £5 5s. —	1st c. £4 4s. 2nd c. £2 2s.
s. £7 7s. *p.* £10 10s. *s.* £6 6s. —	(See below.) — *s.* £8 8s. Sec. c. £2 2s.	1 c. £6 6s. Subsq. c. £2 2s. 1 c. £7 7s. —	*s.* £6 6s. —	*s.* £5 5s. — *s.* £3 3s. —	*s.* £6 6s. — *s.* £6 6s. —	2 cs. ea. £5 5s. 3rd c. £2 12s. 6d — —	*s.* jun. or sen., £2 12s. 6d. *s.* £5 5s. (See note.)	*s.* £5 5s. —	1st c. £3 3s. 2nd c. £2 2s. *s.* £3 3s. —
s. £4 4s. *p.* £5 5s.	(See note below.)	1 c. £3 3s. Subseqt. c. £2 2s	—	*s.* £4 4s. —	*s.* £2 2s. —	Term £2; course £3; pract., *s.c.*, £3	*s.* £2 12s. 6d.	—	—
s. £4 4s. *p.* £5 5s. *s.* £7 7s. *p.* £10 10s. *s.* £6 6s. —	*s.* £3 13s. 6d. *p.* £5 5s. *s.* £7 7s. *p.* £9 9s. *s.* £5 5s. Sec. c. £3 3s.	1 c. £4 4s. 2 cs. £5 5s. 1 c. £6 6s. Subseq. c. £2 2s *s.* £4 4s. Subs. c. £2 2s.	*s.* £4 4s. — *s.* £5 5s. — *s.* £4 4s. —	*s.* £3 3s. — *s.* £5 5s. — *s.* £3 3s. —	*s.* £4 4s. — *s.* £5 5s. — *s.* £4 4s. —	1st c. £4 4s.; 2 & 3, £2 2s. 1st c. £5 5s.; 2 & 3 ea. £2 12s. 6d. *s.* £4 4s. —	*s.* £2 12s. 6d. — (See note.) — *s.* £4 4s. (See note.)	*s.* £5 5s. — *s.* £5 5s. — —	*s.* £3 3s. — *s.* £4 4s. — *s.* £3 3s. —
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s. £4 4s. *p.* £5 5s. *s.* £7 7s. *p.* £10 10s. *s.* £7 7s. *p.* £10 10s. *s.* £6 6s. —	*s.* £6 6s. *p.* £7 7s. *s.* £9 9s. *p.* £11 11s. *s.* £7 7s. *p.* £8 8s. *s.* £6 6s. Sec. c. £4 4s.	1 c. £3 3s. 2 cs. £4 4s. 1 c £6 6s. Subsq. c. £2 2s. 1 c. £6 6s. Subsq. c. £2 2s. 1 c. £3 3s. Subs. c. £2 2s.	*s.* £3 3s. — *s.* £6 6s. — *s.* £6 6s. — —	*s.* £3 3s. — *s.* £5 5s. — *s.* £5 5s. — £3 3s. —	*s.* £3 3s. — *s.* £5 5s. — *s.* £5 5s. — —	1st c, £3 3s.; 2 & 3, ea. £1 11s. 6d. 1st & 2nd cs. £5 5s.; 3d. £2 12s. 6d 1st c. £5 5s.; 2nd & 3rd ea. £1 1s. 1st c. £4 4s.; 2 & 3 each £2 2s.	*s.* £4 4s. — *s.* £5 5s. — *s.* £4 4s. —	*s.* £5 5s. — *s.* £5 5s. — —	*s.* £3 3s. — 1st c. £4 4s. 2nd c. £2 2s. *s.* £4 4s. — *s.* £3 3s. —
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s. £5 5s. *p.* £6 6s. *s.* £4 4s. *p.* £5 5s. *s.* £2 2s. *p.* £3 3s. *s.* £2 2s.	*s.* £6 6s. *p.* £7 7s. *s.* £5 5s. *p.* £6 6s. — — *s.* £2 2s.	1 c. £4 4s. 2 cs. £5 5s. 1 c. £3 3s. 2 cs. £4 4s. *s.* £1 1s. — —	*s.* £5 5s. — *s.* £4 4s. — — — —	*s.* £4 4s. — *s.* £3 3s. — — — *s.* £2 2s.	*s.* £4 4s. — *s.* £4 4s. — — — —	1st c. £5 5s.; 2 & 3 ea. £2 12s. 6d. 1st c. £4 4s.; 2 & 3, ea. £2 2s. — — — — —	*s.* £5 5s. (for 2 ses.) — *s.* £4 4s. — *s.* £1 11s. 6d. — In For. Med.	*s.* £5 5s. — *s.* £5 5s. — *s.* £5 5s. — *s.* £5 5s.	*s.* £3 3s. — *s.* £3 3s. — — — £1 1s.
£1 1s. £1 1s.	£1 1s. —	£1 1s. —	— £1 1s.	— £1 1s.	£1 1s. £1 1s.	£1 1s. *s.* 10s. 6d. *p.* £1 1s.	A fee —	£1 1s. 1 yr. 10s.; longer, 15s.	— —

Chemistry, Botany, or Comparative Anatomy, may become Pupils of the Hospital, eligible for all Hospital Appointments, on payment of £52 10s. Students who have attended elsewhere Lectures in Botany, Zoology, Chemistry, and Practical Chemistry, have the fees for these (£18 18s.) remitted if they have passed, or pass within eighteen months of their entry as full students, the Preliminary Scientific Examination of the University of London. Graduates of any Indian, Canadian, or other Colonial or American University or Medical College, may be admitted to three months' Dressership and Perpetual Hospital Practice for £10 10s.—The fees for Hospital Practice include Clerkships and Dresserships for one-half the term, not exceeding 6 months' Clerkship and 9 months' Dressership. Maternity Department, one year, £4 4s.; including Midwifery Lectures, £6 6s. Perpetual Fee for Lectures or Hospital Practice alone, £52 10s. Diseases of Throat and Aural Surgery, each, *s.* £2 2s.; two years, £3 3s. Experimental Physics, one session, £3 3s. Extra for use of Apparatus, etc., in Practical Physiology, £1 1s. The Subscription to the Library, and the fees for Practical Pharmacy and Apparatus in Practical Chemistry, are also extra.

St. Mary's Hospital.—Entrance Fees for unlimited attendance on Hospital Practice and Lectures (including one course of Practical Chemistry), £131 5s., in instalments, or £124 19s. in one sum. Students who have kept a portion of the course of Medical Study elsewhere, are admitted as Perpetual Pupils at a reduction. Students who have not entered to the Anatomical and Physiological classes, can dissect on the payment of £4 4s. for each session. Inorganic Practical Chemistry is included in the General Fee. Aural Surgery, Diseases of Skin, each £2 12s. 6d. Practical Pharmacy, twelve months, £10 10s.

Middlesex Hospital.—The Composition Fee includes all the Lectures required by the London licensing boards, one course of Practical Chemistry, and two courses of Dissections, the use of the Library, and the instruction of the Tutor. Additional fees must be paid after the fourth year. Members of English Universities who have completed one year of medical study in University, are admitted to all lectures and hospital practice required (except Practical Chemistry, and including only one course of dissections), for £55 on entrance, or instalments of £40, £20, and £5 at the beginning of each year; separate fees being required after the third year. Qualified Practitioners are admitted to six months' Hospital Practice on payment of £3 3s.; perpetual, £10 10s. Occasional pupils entering to the Hospital Practice pay a registration fee of £1 6s. Anatomy, including dissection, *s.* £10 10s.; *p.* £14 14s.

St. Thomas's Hospital.—Perpetual Fee; for students entering in second year, £85 in one sum; or, 2nd year, £65; 3rd year, £25; for students entering in third year, £55 on entrance; or £40, and the next year, £20. Qualified Medical Practitioners are admitted to Hospital Practice and Lectures on payment of £12 10s. for unlimited attendance. Practical Pharmacy is not included in the perpetual fee. Students Dissecting, or attending Operative Surgery, pay for the parts they use. Midwifery Practice, £5 5s; Obstetric Demonstrations, £3 3s.; Ophthalmic Practice, £2 2s.; Operative Surgery (voluntary class), £5 5s.; Operations on Eye (voluntary class), £2 2s., or, if with Operative Surgery, £1 1s. Pathological Anatomy, £6 6s., with 10s. 6d. (extra) for apparatus, etc. Laryngology, £3 3s.; Experimental Physics, *s.* £4 4s.; *p.* £5 5s.

[*Continued on next page.*

jects of clinical lectures during the session, and on medical and surgical cases in the hospital. Silver and Bronze Medals and Certificates of Honour in all the classes. Prizes of six guineas and four guineas are given by the lecturer on Dental Surgery.

Examinations.—Classes are held to prepare students for the Preliminary Scientific Examination of the University of London, and the Primary Fellowship Examination of the Royal College of Surgeons.

Residence.—Arrangements have deen made with several members of the hospital staff to receive resident pupils.

Information may be had of the Dean, Dr. Mitchell Bruce, or the Sub-Dean, Mr. Cantlie.

ST. GEORGE'S HOSPITAL.—*The Hospital* contains 351 beds, of which 205 are devoted to Surgical, and 146 to Medical, cases. There are special wards for cases of Diseases of the Eye (19 beds) and Diseases of Women. Children are received into the women's wards.

The Library and Reading Room and the Museum are open daily.

Special Subjects.—Orthopædic out-patients are seen by Mr. Bennett every Wednesday at 2. Dr. Whipham sees patients with Diseases of the Throat on Thursdays at 1.30, and gives instruction in the use of the laryngoscope, etc. Dr. Ewart will give a course of demonstrations on Physiological Chemistry on Tuesday and Wednesday at 10, and on Saturday at 11, during the winter session. Mr. Turner will give demonstrations in Osteology on Tuesday, Thursday, and Saturday, at 10. A course of demonstrations in Histology will be given by Mr. F. Compton. A course of Practical Medicine (including note-taking, consultation, etc.) will be given by Dr. Whipham to students of the second summer session, at 9 A.M. on Tuesdays, Thursdays, and Saturdays. Mr. Dent gives a course of Practical Surgery (including minor surgery, bandaging, case-taking, etc.) for second year's students, at 3 P.M. on Mondays, Wednesdays, and Fridays in the summer, and Mr. Turner a course of Operative Surgery third year's students, at 9.30 on the same days. Dr. Champneys holds a class of Practical Midwifery in the winter and summer sessions.

Hospital Appointments.—House-Physicians, House-Surgeons, an Assistant House-Physician, and an Assistant House-Surgeon, are appointed, half-yearly, from among the perpetual pupils.[1] The House-Physicians and House-Surgeons are appointed by the Weekly Board, on the nomination of the Medical School Committee; they hold office for twelve months, and reside and board in the hospital free of expense. They must each deposit 50 guineas with the Treasurer, which will be returned on the expiration of their term of office, if they have satisfactorily performed their duties. An Obstetric Assistant is appointed annually; he must be a legally qualified practitioner. He resides and boards in the hospital, and receives a yearly salary of £100. A Curator of the Pathological Museum, a Medical and a Surgical Registrar, and a Demonstrator of Anatomy, are appointed annually from among the senior pupils, each with a salary of £50. A Microscopical Pathologist is appointed annually, with a salary of £25. Two Assistant Medical Registrars are appointed every six months by competition. This office must be held before competing for that of Assistant House-Physician. An Assistant Surgical Registrar is also appointed; this office must be held, alternately with that of Ophthalmic Assistant, before competing for the office of Assistant House-Surgeon. A Senior Assistant Demonstrator is appointed at a salary of £20. Each pupil of the hospital must act as Clinical Clerk and Dresser before a certificate of attendance on hospital practice can be signed.

Exhibitions and Prizes.—The William Brown Exhibitions: 1. £100 *per annum* for two years, open to perpetual pupils of the hospital under the age of 25, who have become entitled to be registered under the Medical Act within two years previously; examinations in July; subjects, Medicine, Midwifery, and Surgery, including Ophthalmic Surgery. 2. £40 *per annum* for three years, to perpetual pupils of the third and fourth winter sessions. Brackenbury Prizes in Medicine and in Surgery (value of each £32 5s. 11½d.), open to all pupils

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UNIVERSITY COLLEGE.—The Composition Fee admits to perpetual attendance on Hospital Practice and Lectures on Anatomy, Physiology, Histology, Chemistry, Surgery, Medicine, and Midwifery, and three years' Practical Anatomy; and to one course each of Botany, Materia Medica, Practical Chemistry, Practical Physiology, Practical Histology, Medical Jurisprudence, Pathological Anatomy, Practical Surgery, and Pharmacy; and one term of the tutorial class of Physiology. Additional for perpetual attendance on Botany, £1 11s. 6d.; on Materia Medica, Medical Jurisprudence, and Pathological Anatomy, £1 1s. each; Practical Anatomy, each additional year, £1 1s.; second course of Practical Physiology, Practical Histology, or the tutorial class of Physiology, £2 2s.; of Practical Chemistry, £3 3s.; of Practical Surgery, £4 4s.—Physiology: General Course of Physiology, *s.* £7 7s.; *p.* £8 8s.; General Course of Practical Physiology, one course, £2 2s.; each additional, £1 1s.; Advanced Practical Physiology, *s.* £4 4s.; General Course of Histology, *s.* £5 5s.; *p.* £6 6s.; General Course of Practical Histology, one course, £5 5s.; each additional, £1 1s.; tutorial class, each term, £1 1s. Special instruction in Laboratory, £3 3s. each term, with fee to instructor.—Zoology and Comparative Anatomy: General Course, *s.* £6 6s.; *p.* £8 8s.; advanced Practical Course (in summer), £3 3s. Shorter Practical Courses: winter and summer, each £4 4s., and 5s. for Specimens; Longer Practical Course, winter, £7 7s.; winter and summer, £12 12s.; animals charged for separately. Advanced Practical Course (summer), three days a week, £4 4s.; five days, £5 5s. Separate Laboratory Work (winter and summer) per month, two days a week, £2 2s.; three days, £3 3s.; every day, £4 4s. Elementary Biology, £8 8s., and 5s. for Specimens. Embryology, *s.* £3 3s.; with Practical Work, three days in the week, £5 5s.—Chemistry: Half Course, £4 4s.; Organic Course alone, £2 2s.; Exercise Class, £1 11s. 6d. Elementary Organic Chemistry, in winter, and senior in summer, £4 4s.; senior and higher senior Organic Chemistry (summer) each, £2 12s. 6d.; both, £4 4s.; perpetual, £6 6s.—Anatomy: Lectures and Practical Anatomy, Course, £11 11s.; Perpetual Lectures and three years' Practical Anatomy, £16 16s.—Pathological Anatomy: Practical Course, £2 2s.—Hygiene and Public Health: Laboratory Instruction (exclusive of materials), three months, £10 10s.; one month, £4 4s., exclusive of materials.

WESTMINSTER HOSPITAL.—The payments include all extras except parts for Dissection.—Students who have completed a year of study elsewhere pay £72 on entrance, or two instalments of £37 16s. each, or three payments of £30, £30, and £20. Students who have completed their Anatomical and Physiological Studies can enter to hospital practice and lectures on practical subjects by paying £60 on entrance, or two instalments of £31 10s. each. These payments do not include Lectures on Experimental Physics or Comparative Anatomy, nor the special course of Operative Surgery. Graduates of Medicine of Colonial and Foreign Universities are admitted to Hospital Practice and Lectures on payment of £12 12s. Experimental Physics, one course, £3 3s.; each subsequent course, £2 2s. Anatomy and Elementary Anatomy in summer, each course £2 2s. Minor Surgery and Bandaging, £1 1s. Diseases of Skin, £1 1s. Aural Surgery, £1 1s. Obstetric, Ophthalmic, Aural, Skin, or Dental Clinical Departments, 3 months, £2 2s.; 6 months, £3 3s. General students may attend additional courses of lectures on all subjects except Histology and Practical Chemistry, for a second course of which a half-fee is charged. Special Clinical Departments, and Lectures on Psychological Medicine, Ophthalmic, Aural, and Dental Surgery, Diseases of Skin, and Comparative Anatomy, are free to general students, unless a special certificate is required.

QUEEN'S COLLEGE, BIRMINGHAM.—Students who have paid the composition fee, and desire to repeat attendance in any class beyond the ordinary requirements of the examining bodies, can do so on payment of half the stated fee for each class. A fee of £1 1s. is charged for apparatus in the class of Practical Physiology, and 15s. in the class of Practical Chemistry. Each student also deposits £2 as "caution money," the balance of which is returned when he has passed a final examination. Every dissecting student pays a fee of £1 10s. at the beginning of each winter session.

BRISTOL MEDICAL SCHOOL.—Students of Anatomy or Physiology pay a Medical Tutor Fee of £2 2s. *per annum;* this (for 2 years) is included in the Composition Fee. Students not belonging to the Anatomical Class may dissect on paying £3 3s. each session, besides Tutor's fee.—*Royal Infirmary:* Entrance fee, £2 2s.; and £1 1s. *per annum* to Library; Clinical Clerk, 6 months, £5 5s.; 1 year, £8 8s.; Dresser, each 6 months, £5 5s.; Obstetric Clerk, each 3 months, £3 3s. *General Hospital:* Extra fee for Clerk or Dresser, £5 5s. for six months; for Obstetric Clerk, £3 3s. for three months. Library, £1 1s. *per annum.*

LEEDS SCHOOL OF MEDICINE.—An Entrance Fee of £1 1s. is paid by all students. The composition fee admits to one course on Mental Diseases, but not to Comparative Anatomy. A fee of 10s. 6d. is charged in the class of Morbid Histology, for apparatus, etc. Dissecting-room for students not attending the course on Descriptive Anatomy, 3 months, £2 2s.; 6 months, £3 3s.

LIVERPOOL UNIVERSITY COLLEGE (ROYAL INFIRMARY) SCHOOL OF MEDICINE.—The Composition Fee includes Library and Ophthalmology. The aggregate fee of £105 for Lectures and Hospital Practice is exclusive of Vaccination (£1 1s.); Dissecting-room expenses (about £3 3s.); Practical Anatomy in summer (£2 2s.); and Practical Pharmacy (£3 3s.). Practical Pathological Histology, each course, £1 1s. Diseases of Children, 1st course, £2 2s.; 2nd and 3rd, each £1 1s. Physics, one term, £4; two terms, £6 10s.; three terms, £8 10s.

OWENS COLLEGE, MEDICAL DEPARTMENT.—The Composition Fee admits to four years of study. It does not include Practical Anatomy, after two sessions, 3 months, £2 2s.; 6 months, £3 3s.; Operative Surgery (special course), £4 4s.; Practical Pharmacy, £3 3s.; Practical Zoology and Comparative Anatomy, two days per week, £7 7s.; one day, £4 4s.; Comparative Embryology, £5 5s.; Comparative Osteology, £2 2s.; Botany (Practical Course), £1 11s. 6d.; Demonstration class in Anatomy, £2 2s.; to members of Practical Anatomy Class, £1 1s.; Tutorial classes in Anatomy and Physiology, each £1 1s.; Tutorial Classes in Chemistry, Zoology, and Botany, each 10s. 6d.; Deposit Fee (Dissection), £2 5s.; Practical Chemistry, for chemicals, £1 1s.—Surgical Pathology, £4 4s.—Practical Physiology and Histology, extended course (October to end of July), six days per week, £17 17s.; four days, £13 13s.; three days, £11 11s.; two days, £7 7s.; one day, £4 4s. Students entering at or after Christmas pay two-thirds of the fees, if they enter for not less than two days a week. For shorter periods, the fees, entitling the student to work every class in the week, are, six months, £15 15s.; three months, £9 9s.; one month, £4 4s.—Chemistry, Preliminary Scientific, £4 14s. 6d.; junior and senior lectures, each £3 10s.; both £5 5s.; Organic Chemistry, lectures, £3 10s.; Laboratory classes according to length of course and number of days.—Zoological Laboratory fees as for Practical Physiology.—Midwifery, if paid in instalments, 1st session, £4 4s.; 2nd session, £2 2s.—Diseases of Children, £2 2s. Morbid Histology (summer), £2 2s.—Registered medical practitioners wishing to qualify as officers of health can attend the Hygiene course free.—Practical Anatomy in summer, £2 2s.

NEWCASTLE-ON-TYNE COLLEGE OF MEDICINE.—Chemical Apparatus, £1 1s. (to be returned at end of session); Use of Bones, 5s.; Use of books for home-reading, 10s. The perpetual fee does not include Chemistry and Practical Physiology beyond one course.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor's Fee, £2 2s.

[1] All perpetual pupils are eligible for the office of House-Physician and House-Surgeon. All pupils of the hospital may become candidates for the offices of Medical and Surgical Registrar, Obstetric Assistant, Curator of the Museum, and Demonstrator of Anatomy. They are also entitled to attendance on the Maternity Department, and the practice of Ophthalmic and Dental Surgery, without additional fee.

who have not completed the fourth year on April 1st; examinations in May. Sir Charles Clarke's Prize (value £6 5s. 9d.) for good conduct; awarded at end of summer session. The Thompson Silver Medal (value £4 11s. 6d.) and the Treasurer's Prize (value £10 10s.) in May, for proficiency in the clinical examination of three Medical and three Surgical cases (including one case of Obstetric Medicine and one of Ophthalmic Surgery). Sir Benjamin Brodie's Clinical Prize in Surgery (value £6) for the best report (with notes) of not more than twelve surgical cases in the hospital during the preceding twelve months. Dr. Acland's Clinical Prize in Medicine (value £5) for the best record of not more than twelve cases of disease in the hospital during the preceding twelve months. (The Clinical Prizes are open to fourth year's students. Reports must be sent in on or before May 1st.) The Henry Charles Johnson Memorial Prize (value £10 10s.) for Practical Anatomy. The Pollock Prize in Physiology (value £18 12s. 6d.). These two prizes are for second year's students. General Proficiency Prizes, £10 10s., for students of each year: first year, Anatomy, Practical Physiology, Botany, and Physiological Chemistry; second year, Anatomy, Physiology, Chemistry, and Materia Medica; third year, Medicine, Surgery, Pathology, and Midwifery.

The Medical Society meets once a week at the hospital during the winter session.

Further Information may be obtained from Dr. Wadham, the Dean of the School; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

GUY'S HOSPITAL.—*The Hospital* contains 695 beds. There are 50 beds for Ophthalmic and 26 for Obstetric cases. Children are received into the female wards.

Museums, etc.—The Museums of Human Anatomy, Comparative Anatomy (above 2,000 specimens), Pathological Anatomy (above 5,000 specimens), and Materia Medicaa, re open to the students. The Library is open to the students daily from 9.30 A.M. to 5.30 P.M., except on Saturdays, when it is closed at 4 P.M.

Special Courses.—The Dissecting-room is open at stated periods during the summer; and students who desire to dissect in September have facilities for doing so. Students are allowed to visit Bethlem Hospital on fixed days in the summer; and gentlemen can enter as extern students for three months by arrangement with Dr. Savage. A course of Lectures on Experimental Physics is given by Mr. Reinold at 11 on Mondays and Wednesdays during the winter session.—Mr. Symonds gives a course of practical demonstrations in Morbid Histology three days in the week.—Mr. Clement Lucas gives a course of demonstrations of Practical Surgery (including Minor Surgery and Surgical Pathology) in the winter; and in summer a course of Operative Surgery, at 4 P.M. on Mondays, Wednesdays, and Fridays.—Mr. Jacobson will hold a surgical class daily before each pass examination of the Royal College of Surgeons.—Ophthalmic out-patients are seen at 12.30 by Mr. Higgens on Tuesdays, and on Tuesdays and Fridays by Dr. Brailey; in-patients at 1.30 P.M. on Fridays by Mr. Higgens, and on Wednesdays and Fridays by Dr. Brailey.—Dr. Horrocks gives courses of practical instruction in Midwifery and Diseases of Women.

Appointments.—All appointments are given according to the respective merits of the candidates. The numbers appointed annually are as follows: 6 House-Physicians, for six months; 6 House-Surgeons, six months; 12 Obstetric Residents, two months; 24 Surgeons' Dressers, six months; 18 Clinical Assistants, three months; 18 Dressers in the Eye Wards, four months; 24 *Post mortem* Clerks, two months; 24 Obstetric Out-Patient Clerks, six weeks; 32 Assistant-Physicians' Clerks, three months; 12 Dental Surgeons' Dressers, two months; 12 Aural Surgeons' Dressers, two months; 64 Medical Clinical Clerks, three months; 72 or more Assistant-Surgeons' Dressers, and a similar number of Dressers in the Surgery, three months; 12 Obstetric Ward Clerks, three months; 80 Surgical Clinical Clerks, three months; 32 Assistant-Surgeons' Clerks, three months; 60 Extern Obstetric Attendants, one month; also Clerks in the Room for applying Electricity. A special honorary certificate is given to every gentleman who has diligently performed the duties of not less than three of the various offices; and special certificates are given to those who have attended one hundred cases of midwifery.

Scholarships and Prizes.—Two Entrance Scholarships, each 125 guineas, to be competed for on September 25th, 26th, and 27th: one in Arts,[1] and one in Science.[2] Candidates must be under twenty-five years of age, and must not compete for both Scholarships. Notice must be given before September 22nd. The successful candidates must enter into the Hospital in the October immediately following. *First Year:* At the end of summer session, two prizes of £50 and £25; subjects, Anatomy of Bones, Ligaments, and Muscles, Physiology, Materia Medica, Chemistry (including Practical Chemistry), and Botany or Comparative Anatomy. *Second Year:* At end of summer session, Prizes of £25 and £10; subjects, Anatomy and Physiology (including Practical Physiology). At end of winter session, the Michael Harris Prize of £10 for Human Anatomy (including Minute Anatomy); the Sands Cox Scholarship (every third year, next in 1886), value £15, tenable for three years; subjects, Physiology (including Physiological Physics), Histology, and Physiological Chemistry. *Third Year:* At end of summer session, two prizes of £25 and £10; subjects, Medical Anatomy and Methods of Diagnosis, Surgical Anatomy and Diagnosis, Operative and Minor Surgery, Midwifery, and Therapeutics. *Fourth Year:* At end of summer session, two prizes of £25 and £10, in Medicine, Surgery, Diseases of Women, and Medical Jurisprudence. *Fourth and Fifth Years:* Treasurer's Gold Medals in Medicine and Surgery. Gurney Hoare Prize of £25, for best reports of three Medical and three Surgical cases, with commentaries; Beaney Prize of 30 guineas in Pathology. *Fourth, Fifth, and Sixth Years:* Mackenzie Bacon Prize, value £10 10s., for proficiency in Medical Ophthalmoscopy. Honorary certificates are given to those candidates who pass creditable examinations.

The Registrars and Demonstrators of Anatomy and Chemistry assist the pupils in their studies. Classes for the preparation of candidates for the Examinations of the University of London are held.

The Pupils' Physical Society meets on alternate Sundays, at 7.30 P.M. Two prizes of £10 and £5 will be awarded for the best papers read during the session. Two prizes, value £5 each, will be given for the best essays on selected subjects. A prize of £5 is also given to the member who has most distinguished himself in the debates.

Several of the Lecturers have vacancies for Resident Private Pupils.

Information may be obtained from the Dean, Dr. F. Taylor, at the hospital.

KING'S COLLEGE AND HOSPITAL.—*The Hospital* contains 170 beds in use.

The Museums of Anatomy, Materia Medica, Natural History, etc., are open daily from 10 till 4. *The Medical Library* is open daily.

Special Courses.—Clinical Instruction is given daily by the Physicians and Surgeons; and Special Demonstrations in Operative Surgery, Minor Surgery and Bandaging, and Surgical Pathology, by the out-patient Surgeons and Assistant-Surgeons. Instruction is given in the Diseases of Women and Children; and in Throat-Diseases (with Laryngoscopic Demonstrations), by Mr. Royes Bell, every Wednesday at 2. Demonstrations and Practical Instruction in Morbid Anatomy are given in the *Post Mortem* Theatre. Special Instruction is given in Medical Chemistry and the Microscope by the Physicians.

Appointments.—Resident Medical Officers, Clinical Clerks, and Dressers are chosen by examination from matriculated students,[3] who are pupils at the hospital.

Scholarships and Prizes.—Two Warneford Scholarships, for the encouragement of previous education,[4] each £25 *per annum*, for three

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[1] The subjects are—*Latin:* Virgil, *Æneid*, Book III; Sallust, *Cataline's Conspiracy*. *Greek:* Homer, *Iliad*, Book I; Herodotus, Book I. *German:* Goethe, *Faust*, Part I; Lessing, *Laocoon*. *French:* Molière, *L'Avare:* Pascal, *Les Provinciales*. Questions on these works and on Grammar. Translation into French and German. Euclid, the first four Books; Algebra to Simple Equations; Arithmetic. Candidates may choose Greek or German, but will not be allowed marks in more than one of these subjects.

[2] The subjects are—Inorganic Chemistry; Zoology; Botany; Physics, including general properties of solid, liquid, and gaseous bodies; Acoustics, Heat, Magnetism, Electricity, and Optics. Specimens will be given with the papers in Botany and Zoology.

[3] Matriculated students are those who receive their entire medical education at King's College, and those who, after having received a portion of their medical education at other Schools, come to King's College to complete their studies. They have the privilege of filling the various hospital offices; and of becoming candidates for the Scholarships, for the Sambrooke Registrarships, and for the endowed prizes. Occasional Students, who enter no particular classes, on payment of the prescribed fees, have the privilege of competing for Class Prizes and Certificates.

[4] Candidates for these three Scholarships must be matriculated students of the Medical Department, and perpetual pupils of the Hospital. Their first Winter Session must commence in October 1883. The examination will be in the following subjects. 1. Divinity: The First and Second Books of Samuel; The Gospel according to St. Matthew; The Church Catechism. 2. English Language and Literature. Shakespeare, *Richard III;* History—The History of England from 1714 to 1760. 3. Latin: Ovid's *Metamorphoses*, Book II, and *Epistolæ ex Ponto*, Book I. 4. Mathematics, Arithmetic; the ordinary rules, with Vulgar and Decimal Fractions; Algebra, as far as and including Quadratic

years; and one Warneford Scholarship of £25 *per annum* at the close of the winter session, for two years, for third year resident medical students. Medical Scholarships given yearly to matriculated students—one of £40 for two years, open to students of the third and fourth year; one of £30 for one year, to students of the second and third year; three of £20 for one year, to students of the first year. Daniell Scholarship, open to students who have worked in the laboratory six months, £20 *per annum* for two years. Two Sambrooke Registrarships, of the annual value of £50 each, open to matriculated students who have filled any of the higher appointments at the hospital. Two Sambrooke Exhibitions, one £60 and one £40, open to all matriculated students at the commencement of their course of study.[5] Any student who joined in the previous summer may compete. Two Science Exhibitions, given by the Clothworkers' Company, one of £50 and one of £25 *per annum*, each tenable two years, for proficiency in any four of the following subjects: Mathematics, Mechanics, Physics, Chemistry, Botany, Geology, Mineralogy, and Zoology; open to all candidates under 19 on October 1st, 1883. Inglis Scholarships: two annually, £50 each, for proficiency in Modern History and English Literature. Leathes' Prizes: Interest of £300 applied in purchase of a Bible and Prayer-Book, as annual prizes to two matriculated medical students. Warneford Prizes: £40 in medals and books, to two matriculated medical students. Class Prizes: Books of the value of £3, and certificates of honour, are awarded annually for proficiency in each of the several subjects taught in the classes. Two Medical Clinical Prizes, one of £3 for the winter session, and the other of £2 for the summer session; and two Surgical Clinical Prizes of £3 each for the winter session. Todd Medical Clinical Prize: Bronze Medal and Books, value £4 4s. Jelf Medal, to the candidate at the senior scholarship examination who is second in order of merit. Tanner Prize, value £10, for proficiency in Diseases of Women and Children, and in Obstetrics. Carter Prize: Gold Medal and Books, value £15, for proficiency in Botany. The Carter, Stephen, Trench, and McCaul Prizes are open to students of the medical department.

The Medical Tutor assists, by instruction and examination, all students in the subjects of the first winter and summer sessions, as well as those preparing for the Preliminary Scientific Examination of the University of London. Classes are held for the latter examination.

Associate of King's College.—At the end of each winter session, the professors recommend to the Council the names of medical students to be elected associates.

Residence.—Rooms are provided within the College for a limited number of matriculated students under the supervision of the Censor. The cost of the academical year varies from £50 to £60.

The Medical Society meets on Thursdays, at 8.30 P.M.

Information.—The Dean of the Medical Department, Professor Curnow, or the Subdean, Dr. Tirard, attends daily (Saturday excepted), at King's College, from 11 A.M. to 1 P.M., for the purpose of seeing students and their friends. Any letter addressed to the Dean during the vacation will receive early attention.

LONDON HOSPITAL.—*The Hospital* contains about 800 beds, approximately thus allotted: Accidents and Surgical cases, 334; Medical cases, 300; Diseases of Women, 26; Children under seven years of age, 68; Ophthalmic cases, 12; out-door wards, 60.

Museum, etc.—The Anatomical and Pathological Museum, the Materia Medica Museum, and the Library are open daily.

Special Courses.—Mr. Jonathan Hutchinson will give in the winter and summer sessions courses of six lectures on Clinical Surgery. Students desirous of obtaining a practical knowledge of Mental Diseases can attend, without additional fee, the practice of Mr. Millar, at the Bethnal House Asylum, every Wednesday from 10 to 12. Dr. Morell Mackenzie gives a course of lectures on Diseases of the Throat in the summer. Mr. H. A. Reeves gives a course of Practical Surgery (bandaging, etc.), and Mr. J. E. Adams a course of Operative Surgery in the summer session. Dr. Herman gives instruction in Diseases of Women at 1.30, on Wednesdays and Saturdays. Mr. T. Mark Hovell is Junior Surgeon to the Aural department. Mr. T. J. M. Page gives a course of Experimental Physics at 10.30 on Thursday and Saturday, in January, February, and March. Mr. McCarthy gives instruction to first year's students in Practical Histology, at 9.15 on Tuesday and Thursday in the summer.

Appointments.—Five House-Physicians, five House-Surgeons, and a Resident Accoucheur, are appointed every six months, renewable for two further periods of three months each. The house-physicians and resident accoucheur must possess a medical or surgical degree or diploma, and the house-surgeons a surgical diploma. Clinical Clerks, Surgical Dressers, and Clinical Obstetric Clerks are appointed for three months. They must have passed the first College of Surgeons, or an equivalent examination. Every student must act as Clinical Clerk for six weeks in the medical out-patient department, after passing the first College of Surgeons examination. Maternity pupils must have passed the primary examination of the College of Surgeons, or an equivalent examination. Two reside in the hospital every week. Each student must attend at least twenty cases of Midwifery; those who have attended one hundred are entitled to a special certificate. Four Dressers reside and board in the hospital every week. Every student must act as Dresser in the Surgical out-patient department for at least three months after the end of the first winter session. Three Clinical Assistants are appointed every three months for the Medical out-patients, and are eligible for re-election. Each receives a salary at the rate of £80 *per annum*. An unpaid Clinical Assistant is appointed in the Ophthalmic department. A Medical Registrar and a Surgical Registrar are appointed annually; each receives £100. Every student must act as *Post mortem* Clerk for three months. A Dental Assistant, Prosectors of Anatomy, and Dressers in the Ophthalmic and Aural departments are also appointed. Full pupils, and those who, having commenced elsewhere, pay the general fee to the hospital and college, at or before the beginning of the second winter, are eligible for appointments. The holders of resident appointments are provided with rooms and board.

Scholarships and Prizes.—Nine scholarships will be offered for competition. 1 and 2. Two Entrance Scholarships, value £60 and £40; examination on September 24th, 25th, and 26th; subjects: Physics, Botany, Zoology, and Inorganic Chemistry. Successful candidates must forthwith become pupils of the hospital and school. 3 and 4. Two Buxton scholarships, value £30 and £20; examination on September 28th, 29th, and 30th.[6] 5. A Scholarship at the end of the summer session, value £20, to a first year's student; subjects: Human Anatomy and Physiology. 6. A Scholarship, value £25, to a first or second year's student, at the end of the winter session; subjects: Anatomy, Physiology, and Chemistry. 7, 8, 9. Hospital Scholarships, value each £20, for proficiency and zeal in Clinical Medicine, Surgery, and Obstetrics. The Letheby Prize, value £30, for Chemistry; open to all full students from the end of the second session to the end of the fourth year. The Duckworth Nelson Prize, value £10, awarded biennially; open to all students who have not completed their education; subjects: Practical Medicine and Surgery. Six prizes, of the aggregate value of £60, to the most meritorious of the Dressers in the out-patient rooms. Special certificates to those gentlemen who have faithfully performed

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Equations; Euclid, Book I, Book II (except props. 8. 9, 10), Book III. 5. Greek: Homer, *Iliad*, Book VI. 6. French: Montesquieu, *De la Grandeur et de la Décadence des Romains*. 7. German: Schiller, *Wilhelm Tell*. 8. Chemistry: Miller's *Inorganic Chemistry* (in Longman's Series of Text-Books on Science). 9. Natural Philosophy: Deschanel's *Natural Philosophy*, translated by Professor Everett, Part I and Part IV. 10. Botany: Bentley's *Manual of Botany*, third edition, to page 203, together with chapters on the General Principles of Classification, and Diagnosis of Ranunculaceæ, Rosaceæ, Compositæ, Labiatæ, Scrofulariaceæ, and Liliaceæ. Subjects 1, 2, 3, 4, are compulsory; candidates may also select one subject out of 5, 6, and 7, and another either out of 5, 6, 7, or out of 8, 9, 10. —The examination will begin on September 29th, at 10 A.M.

[5] The following are the subjects of examination: *a*. Compulsory: 1. An English Essay. 2. Mathematics: Arithmetic: the Ordinary Rules; Vulgar and Decimal Fractions; Extraction of the Square Root; Algebra: Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion; Arithmetical and Geometrical Progression; Simple Equations; Geometry: the first four books of Euclid or the subjects thereof. 3. Any two languages other than English. If Latin, Greek, French, or German are taken, the books are the same as for the Warneford Scholarships. *b*. Optional: 1. Elementary Physics (as for Preliminary Science Examination of the University of London, omitting Optics and Acoustics). 2. Inorganic Chemistry. 3. Botany. 4. Zoology. A candidate may take up any one or more of these optional subjects, but he must gain half marks in each of those which he takes up. The examination will begin at 10 A.M. on Friday, September 29th. Names of candidates and subjects chosen for examination must be sent to the Secretary of the College, on a form to be obtained in the office, before 2 P.M. on September 26th.

[6] The subjects are:—1. English, including Writing from Dictation; English Grammar, and the Composition of a short Essay. 2. Arithmetic. No Candidate will be passed who does not show a competent knowledge of the first four rules, simple and compund, of Vulgar Fractions, and of Decimals. 3. Algebra to Simple Equations inclusive. 4. The first four Books of Euclid. 5. Translation of a passage from Sallust's *Catiline*, and Horace, *Odes*, Book I, and one of the following subjects at the discretion of the candidate: 1. The first Book of Homer's *Iliad*. 2. X. B. Saintine's *Picciola*. 3. Schiller's *Wilhelm Tell*. (Besides Translation into English, the candidate will be required to answer Questions on the Grammar of each language, whether Compulsory or Optional.) 4. Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

their duties in the hospital, and to those who have distinguished themselves at the examinations.

Special attention is paid to the preparation of students for the examinations of the Colleges of Physicians and Surgeons, the Apothecaries' Hall, and the University of London.

The Medical Society meets for the reading and discussion of papers at 7.30 P.M. on alternate Wednesdays during the winter session.

Information may be obtained from the Warden, Mr. Munro Scott, at the College.

ST. MARY'S HOSPITAL.—*The Hospital* contains 200 beds; 94 Medical and 106 Surgical. On the completion of a new wing, it will contain 270 beds. Two wards are appropriated to Diseases of Children, and one to those of Women; there are also beds for Ophthalmic cases.

The Reading Rooms and Library are open daily. The *Museum* is open daily to students. It contains about 3,000 specimens of healthy and morbid anatomy. There are also a Materia Medica Department and a collection of specimens illustrative of Comparative Anatomy. A Histological Room is open daily.

Clinical Demonstrations on Diseases of the Skin and of the Throat are given.—The students are carefully trained to the use of the Microscope. Dr. Alder Wright gives a course of Physics at 10 A.M. on Fridays. Mr. de Watteville gives Instruction in the Practical Application of Electricity. Mr. Pepper gives a course of Operative and Practical Surgery at 12 on Mondays and Thursdays during the winter.

Appointments.—Four Resident Medical Officers are appointed for twelve months, and an Obstetric Officer for six months; all live free of expense in the hospital. A Resident Registrar is appointed annually, and may be re-elected. A Clinical Assistant is appointed for six months, with an honorarium of £20, from among students with one qualification. All students must act as clinical clerks and dressers for eight months after passing the Primary Examinations, and after having acted as dressers two months in the Casualty Department, and one month in the Electrical Department. A Demonstrator of Anatomy is appointed at a salary of £70, and a junior demonstrator at £50 a year. Two prosectors are appointed annually; each receives a certificate and £5. A Demonstratorship in Pathological Anatomy, value £15, tenable for six months, is given after competitive examination in Pathology and Morbid Anatomy.

Scholarships and Prizes.—Four Scholarships in Natural Science, value £50 each; subjects, Inorganic Chemistry and Experimental Physics, with either Botany and Vegetable Physiology, or Zoology. There will be a practical examination in each subject. The examination will take place on October 2nd and following days. The candidate must not have completed a year of study at a medical school in London. The successful candidates must enter as perpetual pupils of the hospital, and pursue the full course of study there. Three scholarships, value £20, £25, and £30, at end of each year, after examination in class subjects. *First Year:* Winter Session: Prize of £3 3s. in Anatomy and Histology; one of £3 3s. in Chemistry. Summer Session: Prizes, value £2 2s. each, in Comparative Anatomy, Materia Medica, Botany, and Inorganic Practical Chemistry. *Second Year:* Winter: Prize of £3 3s. for Anatomy and General Physiology. Summer: Prizes value £2 2s. each, for Midwifery and Medical Jurisprudence. *Third Year:* Winter: Prizes of £3 3s. each, for Medicine, Surgery, Pathology, and Operative Surgery. At end of each year prizes of £5 5s. each for Clinical Medicine and Clinical Surgery. Rolleston Prize in Biology: Book or Books of the value of about £5; open to students of not less than one year's standing; subject, the Principles of Construction of Animals and Plants.

The Medical Tutor assists the students in preparing for their final examination, testing their knowledge by the preparations in the museum, specimens from the dead-house, and other means at his disposal.

The Medical Society meets on alternate Wednesday evenings, during the winter session, at 8 P.M.

A *Students' Club* has been founded. The rooms (in the basement of the new "Mary Stanford" wing) will comprise a library, reading-room, and dining rooms. The annual subscription is 7s. 6d.

Further Information may be obtained from Mr. G. P. Field, Dean of the School; from any of the lecturers, or from the medical superintendent, Mr. A. S. Brown, at the Hospital.

MIDDLESEX HOSPITAL.—*The Hospital* contains upwards of 300 beds, of which 185 are devoted to Surgical, and 120 to Medical, cases. There are 33 beds for cases of Cancer; also wards for cases of Uterine Disease and of Syphilis, and beds for cases of Diseases of the Eye.

The Museum is open to students daily from 9 to 5. It contains above 5,000 specimens.—*The Library and Reading-Room* are open to all general students from 9 to 5; on Saturday, from 9 to 2.

Special Subjects.—Mr. Morris sees out-patient cancer cases at 1.30 on Thursdays. Practical Instruction in Mental Diseases is given at the Leavesden Asylum. A class for Practical Surgery is held in the winter session. Mr. Andrew Clark will commence a class of Practical Instruction in Operative Surgery in April. Each student will personally perform all the operations.

Appointments, etc.—Nine Resident Appointments are open annually to competition among pupils of the Hospital. The officers are appointed by the Weekly Board on the recommendation of the Medical Committee, and reside and board in the Hospital free of expense. Two House-Surgeons are appointed in June and December. The Senior House-Surgeon must have a legal surgical qualification. The Junior House-Surgeon is eligible for appointment as Senior House-Surgeon if he have performed his duties satisfactorily. Each House-Surgeon pays £21 on appointment; but a Junior House-Surgeon pays no fee on promotion. Six Resident Physicians' Assistants are appointed from time to time for six months. They must have a legal medical qualification, or hold a Broderip Scholarship. Each pays £10 10s. on appointment. A Resident Obstetric Physician's Assistant (qualified to practise) is appointed for six months. He pays £10 10s. Non-Resident Physicians' Assistants are appointed in the out-patient department. Clinical Clerks and Dressers are appointed for six months. An Obstetric Physician's Clerk and Ophthalmic Dressers are appointed. The appointments are so arranged that every student may take both a clerkship and a dressership. Each student must be an out-patient clerk or an out-patient dresser, before being eligible to an in-patient clerkship or dressership.

Scholarships and Prizes.—Two Entrance Scholarships, value £25 and £20, tenable for two years,[7] open to all gentlemen commencing their medical studies at the Hospital in October 1883. The successful candidates must become general pupils of the school. Science Scholarship, value £50, open to all students who have not completed a year of study at a metropolitan school of medicine, or more than a year at an university or provincial school. The successful candidate must become a general student of the school. The subjects of examination are: Inorganic Chemistry, Botany, and Vegetable Physiology, Zoology, and Experimental Physics, as in the Preliminary Scientific Examination of the University of London. Examination on September 28th and following days. John Murray Scholarship and Gold Medal open to competition, in May, 1886, among students in actual attendance who have entered since April 30th, 1882. Subjects: Medicine, Surgery, and Obstetrics. Lyett Medal, value £5 5s., at end of second winter, for proficiency in Surgical Anatomy and Practical Surgery. Exhibition, value £10 10s., at end of first winter session. Subjects: Osteology, Elementary Anatomy, and Physiology. Two Broderip Scholarships, value £30 and £20, tenable for two years, to students who have completed the third or fourth year, for reports or comments on selected medical and surgical cases. The Governor's Prize, value £21, to the student who, at the end of the third winter session, not obtaining a Broderip Scholarship, shall have been most diligent in the wards, and shall pass the best examination in Clinical Medicine and Surgery, and Practical Pathology. Prizes and Certificates of Honour are given in each class.

Tutors.—Mr. Pearce Gould and the Demonstrators assist all general students of the Hospital, especially those who are preparing for primary examination before the Licensing Boards. Special classes are held for the Preliminary Scientific Examination of the University of London.

The Students' Medical Society meets in the Board Room of the Hospital once a fortnight during the winter session. A Prize is

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[7] The Examination will take place on October 1st and following days. The following are the subjects for examination. Latin: Passages for translation into English; short passages for translation from English into Latin; and questions in Grammar. October, 1883: Ovid, *Metamorphoses*, Book ii, and *Epistolæ ex Ponto*, Book i; October, 1884: Cicero, *De Amicitiâ*, and *First Oration against Catiline*.—Greek: Easy passages for translation into English; questions in Grammar. October, 1883: *Iliad*, Book vi; October, 1884: Xenophon, *Cyropædia*, Book v.—French or German: Passages for translation into English; short passages for translation from English into French or German; and questions in Grammar.—Mathematics: Arithmetic; Algebra up to and including Quadratic Equations; and Euclid, Books i, ii, iii.—Natural Philosophy.—Chemistry.—Botany.—Zoology: Huxley's *Classification of the Animal Kingdom*; Rudiments of Animal Physiology.—Candidates will be examined in any three, and not more, of the above subjects which they may select.

given to the reader of the best paper during the session, and also to the student who has exhibited the best pathological specimens.

Information may be obtained from Mr. Andrew Clark, the Dean: from Dr. Cayley, Treasurer of the College; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

ST. THOMAS'S HOSPITAL.—*The Hospital* contains 572 beds, of which about 180 are appropriated to ordinary Medical, and 230 to ordinary Surgical cases. There are also special wards for Diseases of Women, Diseases of the Eye, Venereal Affections, Children under six years of age, and (in a separate block) Infectious Diseases.

Museum, etc.—Students have access to the Library, and to the Museums of Human Anatomy, of Comparative Anatomy, of Materia Medica, of Botany, and of Chemistry and Mineralogy, and to the Laboratories of Practical Physiology and Practical Chemistry.

Special Subjects.—A course of Lectures on Physics and Natural Philosophy is given by Dr. Stone at 12 noon on Saturdays in the winter. Physiological Demonstrations are given at 11.30 A.M. on Wednesdays and Fridays in the winter session; and Demonstrations of Pathological Anatomy at 2 P.M. daily. Dr. Corry sees cases of diseases of women and children at 1.30 on Wednesdays and 12.30 on Saturdays. Out-patients with diseases of the throat are seen by Dr. Semon at 12.30 on Tuesdays and Fridays. Dr. Semon gives a short course of Clinical Lectures on Throat-Diseases. Mr. Mason and Mr. McKellar give instruction in Practical and Manipulative Surgery.

Appointments.—Two resident and one non-resident House-Physicians, an Assistant House-Physician, two House-Surgeons, an Assistant House-Surgeon, and a Resident Accoucheur, are selected from gentlemen who have obtained their professional diplomas; they hold office for three or six months. An Ophthalmic Clinical Assistant is appointed for six months, with a salary at the rate of £50 *per annum*. Clinical Clerks and Dressers are selected each year, to the number of at least one hundred for in-patients, and eighty to one hundred for out-patients. Obstetric Clerks are from time to time appointed; also Assistants in the Physiological Laboratory in the Dissecting-room, Prosectors, and Assistants to the Demonstrator of Pathological Anatomy. All students have the opportunity of being engaged in the performance of practical duties in connection with the Medical, Surgical, Obstetrical, Ophthalmic, and Pathological Departments of the Hospital. The House-Physicians, House-Surgeons, the Resident Accoucheur, and Dressers and Obstetric Clerks, are provided with rooms and commons. The Ophthalmic Assistant has board, but not residence. Two Hospital Registrars are appointed, at an annual salary of £100.

Scholarships and Prizes.—Two Open Scholarships in Natural Science, value £100 and £60, open to students who have passed a Preliminary Examination in Arts; subjects: Physics, Chemistry, and either Botany or Zoology; examinations on October 3rd, 4th, and 5th. Successful candidates must become students of the Hospital. The William Tite Scholarship, £30, to the student highest on the first-class list at the examination at the end of the first winter session. The Musgrove Scholarship, value £42 *per annum* for two years, biennially, to the student highest on the first-class list at the end of the second winter session. The Peacock Scholarship, of the same value as the Musgrove Scholarship, and given alternately with it, on the same terms. College Prizes each winter for first and second years' students, of £20 and £10 each winter; and for third year's students, of £20, £15, and £10; and £15 and £10 each of three summers. The Cheselden Medal, annually, to a fourth year's student, for Surgery and Surgical Anatomy. The Mead Medal, annually, to a fourth year's student, after practical examination in Medicine, Pathology, and Hygiene. The Treasurer's Gold Medal, annually, at end of fourth winter session, for general proficiency and good conduct. The Grainger Testimonial Prize, value £20, biennially, to students of from three to six years' standing, for a Physiological Essay. The Solly Medal, with a Prize in money, every two years, for Reports of Surgical Cases, to a third, fourth, fifth, or sixth year's student.

University of London.—Classes in the subjects required for the Matriculation Examination are held in October and March, for the Preliminary Scientific Examination from October to July, and for the first M.B. Examination are held from January to July.

The Medical and Physical Society meets on alternate Thursdays at 7.30 P.M. Three prizes, with certificates, are annually awarded to the authors of the best papers written by second, third, and fourth year's students respectively.

Further information may be obtained from Mr. G. Rendle, the Secretary to the Medical School, at the Hospital.

UNIVERSITY COLLEGE AND HOSPITAL.—*The Hospital* contains over 200 beds available for clinical instruction and study. In addition to the Physicians' and Surgeons' wards, there are special wards for Diseases of Women, for Children's Diseases, for Ophthalmic affections, and for Skin-disorders. In connection with the Skin department, there is a complete system of medicated baths.

Libraries, Museums, etc.—The General and Medical Libraries, the Museums of Anatomy and Pathology, of Comparative Anatomy, of Materia Medica and Chemistry, of Geology, and of Natural Philosophy, and the Parkes Museum of Hygiene, are open daily. There are also a Chemical, a Physiological, a Zootomical, and a Hygienic Laboratory, where instruction is given under the superintendence of the Professors.

Practical Instruction.—Dr. Wilson Fox, Holme Professor of Clinical Medicine, delivers Clinical Lectures every Tuesday and Thursday at 2, and trains the pupils in the practical study of disease. Lectures are also given by Dr. Ringer, Dr. Bastian, and Dr. Roberts. Dr. Gowers, Assistant-Professor of Clinical Medicine, gives instruction and demonstration on Physical Examination, on the Diagnosis of the Diseases of the Heart and Blood-vessels, and on the Modes of Investigation of Diseases of the Nervous System; and Dr. Barlow, Assistant-Teacher of Clinical Medicine, instructs in the Examination of the Lungs and of the Urine. Lectures are given every Monday at 2 by Mr. Christopher Heath, the Holme Professor of Clinical Surgery; once a fortnight or oftener by Mr. Marshall and Mr. Berkeley Hill. Mr. Erichsen and Sir Henry Thompson, Emeritus Professors of Clinical Surgery, will deliver short courses during the session. The Holme Professor will hold a Clinical Examination every Friday at 3. Mr. Marcus Beck and Mr. Barker, the Assistant-Professors of Clinical Surgery, will hold examinations, and instruct students in the observation and examination of patients. Dr. Poore attends on Thursdays at 1.30 to see patients with throat-diseases, and to give instruction in the use of the Laryngoscope. A class for the study of Practical Gynæcology meets twice a week under the direction of Dr. John Williams. A course of Practical Surgery is given during the winter. It consists of three divisions. 1. The use of Surgical Apparatus, etc., by Mr. Berkeley Hill, Dr. Silcock, and Dr. Pollard, on Mondays and Thursdays, at 4, in October, November, and December. 2. Operative Surgery, by Mr. Beck during the latter part of the session. 3. Demonstrations of Surgical Preparations, by Mr. Barker, on Mondays and Thursdays at 4, in January, February, and March. Mr. Beck also gives in the summer a course of Operative Surgery intended for candidates for the public services, for the surgical degrees of the University of London, and the Fellowship of the Royal College of Surgeons. A practical course of instruction in Pathological Anatomy is given in January, February, and March.

Biological Courses.—Elaborate courses of instruction are given in this College in the class of Physiology, by the Jodrell Professor, Mr. Schäfer, and assistants; and in the class of Comparative Anatomy and Zoology, by Mr. Ray Lankester, Jodrell Professor, and assistants.

Offices.—Eight House-Physicians, six House-Surgeons, four Obstetric Assistants, Out-patient Physicians' and Surgeons' Assistants, Clinical Clerks, Surgeons' Dressers, and Ophthalmic Surgeons' Assistants, are selected from among the pupils. The House-Physicians, the House-Surgeons, and the Obstetric Assistants, reside in the hospital, paying for their board.

Scholarships, etc.—Three Entrance Exhibitions, value £100, £60, and £40 *per annum*, to gentlemen who are about to commence their first winter's attendance. Subjects: Chemistry, Physics, Botany, and Zoology. The examination will take place on September 26th and 27th. Notice of intention to compete must be given on or before September 25th. The Atkinson-Morley Surgical Scholarship, £45, tenable for three years, for proficiency in Surgery. The Sharpey Physiological Scholarship, annual value about £105. The Filliter Exhibition of £30, annually in July, for proficiency in Pathological Anatomy. Dr. Fellowes' Clinical Medals, one Gold and one Silver, with Certificates of Honour, at the end of each winter and each summer session. The Liston Gold Medal, with Certificates of Honour, at the end of the winter session, for reports and observations on the surgical cases in the hospital. The Alexander Bruce Gold Medal, for proficiency in Pathology and Surgery. The Cluff Memorial Prize, every second year, to the most proficient in Anatomy, Physiology, and Chemistry: next award in 1883. An Atchison Scholarship, value about £55, tenable for two years, annually after the winter session, for general proficiency. Erichsen Prize, a Surgeon's Operating Case, value £10 10s., awarded yearly in the class of Practical Surgery. Morris Bursary of £25 a year, tenable for two years. Gold and Silver Medals or other Prizes, as well as Certifi-

cates of Honour, after competitive examinations in the classes. Prizes to the value of £10 in the class of Hygiene.

Private Instruction.—Gentlemen may obtain assistance in their studies within the College, on application to the respective Professors.

The Medical Society meets fortnightly to discuss subjects connected with the study of medicine, and for the exhibition of microscopical specimens.

Residence of Students.—Several gentlemen connected with the College receive students to reside with them; and, in the office of the College, there is kept a register of persons who receive boarders.

Information respecting the College may be obtained from the Dean, Mr. Berkeley Hill; the Vice-Dean, Mr. Thane; or the Secretary, Mr. Talfourd Ely.

WESTMINSTER HOSPITAL.—*The Hospital* contains upwards of 200 beds. There are separate departments for Diseases of the Eye, Ear, Skin, Teeth, and Throat, for Diseases of Women, and for Orthopædic Practice.

Museums, etc.—The Anatomical Museum is constantly open to the students. A cabinet containing a valuable collection of microscopical preparations, chiefly histological, has been presented to the Museum. There are also a Pathological Museum and a Materia Medica Museum. The Library is open daily from 9 to 5.

Special Subjects.—In addition to the practice of the Hospital, general students may attend, without further fee, Mr. Cowell's practice at the Royal Westminster Ophthalmic Hospital; and the practice of the National Hospital for Paralysis. Instruction in the physical examination of the Chest is given by the Physicians and Assistant-Physicians, and in the use of the Laryngoscope by Dr. De Havilland Hall. Mr. R. Davy gives demonstrations on Orthopædic subjects. A course of Practical Surgery is given by Mr. Davy in three divisions: 1. October to December, Surgical Anatomy and Diagnosis and Use of Apparatus; 2. January to March, Examination of Pathological Specimens, the Use of the Ophthalmoscope, Laryngoscope, etc.; 3. May to July, Surgical Instruments; Operations on the Dead Subject. In the summer, a second meeting of the class will be held weekly for instruction in minor surgery. Mr. Black gives, on Tuesday and Thursday, at 9 A.M., during the summer, a course of demonstrations on the upper and lower limbs, for first year's students.

Appointments.—A Curator of the Museum and Pathologist is appointed annually, with a salary of £52 10s.; and a Medical and a Surgical Registrar, each with a salary of £40. Two House-Physicians, a House-Surgeon, and a Resident Obstetric Assistant are appointed for six months, after examination, and are provided with rooms and commons. The Senior House-Physician, who is also Chloroformist, receives in addition £21. An Assistant House-Surgeon is appointed from among the senior students; he is provided with commons at the hospital table. Clinical Assistants to the Assistant-Physicians and Assistant-Surgeons, and to the officers in charge of special departments, are appointed from students of the fourth year. Every Student must perform the duties of out-patient Dresser for three months during the first year; and afterwards hold the office of in-patient Dresser and Clinical Clerk for periods of three months each.

Scholarships and Prizes.—The Fence and Houldsworth Entrance Scholarship, each £40 a year for two years; and two Entrance Scholarships, value £20 each, tenable for two years.[8] Treasurers' Exhibition in Anatomy, Physiology, and Chemistry, value £10 10s., tenable for one year for first year's men. A Prize of £2 2s., by Mr. A. P. Gould, to the first year's student who takes the first place in the Examination in Anatomy at the end of the first summer session. The President's Scholarship in Anatomy, Histology, and Physiology, value £21, to student of second year (to be styled Assistant-Demonstrator). After end of fourth winter, Prizes of £5 each (books or instruments), in Clinical Medicine and Clinical Surgery. Frederic Bird Medal and Prize, value £15, to students who have completed their fourth winter; subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology. Chadwick Prize for General Proficiency, £21 (books or instruments), to the most meritorious student or students of any year not exceeding the fifth; subjects of examination: Anatomy, Physiology, Histology, Medicine, Surgery, and Midwifery. In most of the Classes, Special Prizes are given by the Lecturers; and Certificates of Honour are awarded in each Class.

Two *Tutors* assist and guide the students in their work, and hold Senior and Junior Classes. Each student must attend at least three hours' tutorial instruction each week. Classes are held for the Preliminary Scientific Examination of the University of London.

Communications respecting the Medical School should be addressed to Dr. De Havilland Hall, the Dean of the School, from whom all particulars may be obtained. Information may also be obtained from any of the Lecturers, or from the Secretary at the Hospital.

SCHOOL OF ANATOMY, PHYSIOLOGY, AND SURGERY.—The School meets the requirements of two distinct classes of students: *i.e.*, 1, advanced students and qualified practitioners, who may wish either to extend their knowledge of the foregoing subjects, or to recall to mind what they once knew and have since forgotten; 2, beginners entering upon their medical duties by a short term of apprenticeship with a general practitioner. For the former, rapid advanced classes, complete in three months, but still thoroughly practical, are provided; and for the latter, more elementary classes of six months' duration, also thoroughly practical.

The Operations of Surgery are all performed on the dead body by the students.

The dissecting-room is open daily from 10 A.M. to 6 P.M. The Demonstrators attend four hours daily.

Fees.—Anatomy and Physiology: For Primary Membership Examination of Royal College of Surgeons, three months, £4 4s.; six months, £5 5s. For Primary Fellowship Examination (with Comparative Anatomy), six months, £5 5s. Surgery: For Second Membership Examination of Royal College of Surgeons, three months, £5 5s.; six months, £8 8s.; for Second Fellowship Examination, six months, £8 8s.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—The Winter Session will commence on October 1st.

The following courses of Lectures are delivered at this school: Anatomy and Practical Anatomy, by Mr. Stanley Boyd; Physiology, by Dr. A. Waller; Chemistry, by Mr. Heaton; Botany, by Dr. P. H. Stokoe; Materia Medica, by Dr. Samuel West; Practice of Medicine, by Mrs. Garrett-Anderson, M.D., and Dr. H. Donkin; Midwifery, by Dr. Ford Anderson; Diseases of Women, by Dr. Louisa Atkins; Forensic Medicine, by Dr. Dupré and Mr. T. Bond; Surgery, by Mr. Norton; Ophthalmic Surgery, by Mr. James Adams; Pathology, by Dr. W. A. Sturge; Hygiene, by Dr. Sophia Jex-Blake and Dr. Edith Pechey; Mental Pathology, by Dr. Sankey; Comparative Anatomy or Zoology and Biology, by Dr. Murie; Experimental Physics, by Mr. Neison; Clinical Medicine (Royal Free Hospital), by Dr. Cockle and Dr. Baxter; Clinical Surgery (Royal Free Hospital), by Mr. Gant and Mr. Rose.

The Dissecting-Room, the Physiological Laboratory, the Chemical Laboratory (in summer), the Library, and the Museum of Anatomy, Pathology, and Materia Medica, are open daily.

Clinical Instruction is given at the Royal Free Hospital, which contains 150 beds. *Physicians:* Dr. Cockle and Dr. Buchanan Baxter; *Assistant-Physician:* Dr. Samuel West; *Surgeons:* Mr. Gant and Mr. W. Rose; *Assistant-Surgeon:* Mr. Shuter; *Physician for Diseases of Women:* Dr. T. C. Hayes; *Ophthalmic Surgeon:* Mr. Grosvenor Mackinlay; *Pathological Demonstrator:* Dr. S. West.

Clinical Lectures are given once a fortnight by each of the four senior members of the staff. Instruction is also given at the Hospital as follows. Practical Pharmacy, by Mr. S. Barker; Pathological Demonstration twice a week, by Dr. S. West; Minor Surgery, ten demonstrations, by Mr. Shuter; Auscultation, ten demonstrations, by Dr. West. Students are appointed to the posts of Clinical Clerks, Surgical Dressers, and Pathological Registrar without further fee.

Fees.—The cost of a Medical Education varies, within moderate limits, with the requirements of the several examining boards. In the case of the three diplomas open to women, the total cost of either, spread over four years, is as follows. 1. For the Licence in

[8] The next Examination will be held at the Hospital on September 28th and 29th. The following are the subjects. Latin—Ovid, *Metamorphoses*, Book II, and *Epistolæ ex Ponto*, Book I. The paper will contain passages for translation, questions in Grammar, and easy English sentences for translation into Latin. French and German—The papers will contain passages for translation into English, and questions in Grammar. Mathematics: Arithmetic—including Vulgar and Decimal Fractions, and extraction of Square Root. Algebra—Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion, Arithmetical and Geometrical Progression, Simple Equations. Geometry—First Four Books of Euclid, or the subjects thereof. Natural Philosophy and Chemistry—The questions in these will be elementary, and in the latter will be confined to the Non-Metallic Elements. The examination is by written papers. Notice of intention to compete, with a statement of the languages in which the candidate wishes to be examined, and a certificate of moral character, must be sent to the Dean not later than September 24th.

Medicine and Midwifery of the King's and Queen's College of Physicians, Dublin, £172 13s. 2. For the Medical, Surgical, and Obstetric Diplomas of the Royal University of Ireland, £179 3s. 3. For the Medical and Surgical Diplomas of the London University, £181. These sums include the fees at the School, at the Hospital, for instruction in Practical Midwifery, etc., and all examination fees. Lectures attended at Bedford College, or elsewhere, are paid for as extras. Practical Pharmacy costs £3 3s. extra. The fee for Hospital Practice alone is £45 for the entire course. Students are allowed to enter for each course of Lectures separately, if they prefer it. The fees for the courses vary from two to eight guineas.

Partial Students.—Ladies not desiring to study medicine with a view to practise, may, by permission of the Executive Council, attend any of the Classes on payment of the fees, without passing the Examination in Arts, but they will not receive certificates of attendance. Art Students are admitted to the Classes of Anatomy and Practical Anatomy. The courses of Chemistry, Practical Chemistry, Physiology, and Practical Physiology are available for ladies preparing for the Examinations of the University of London in Arts or Science on the ordinary conditions.

Scholarships and Prizes.—1. An Entrance Scholarship, value £30, is offered for competition at the end of September in each year. Candidates must have passed a Preliminary Examination in Arts, and the successful Candidate must enter on a full course of medical study at the School.[9] 2. A Scholarship of the value of £50 for five years is offered to ladies willing to prepare for the Practice of Medicine amongst the women of India. Particulars can be obtained on application to the Honorary Secretary. 3. A Scholarship, value £30 a year for three years, in June 1884, by the National Association for the Promotion of the Medical Education of Women; and a Scholarship is offered from time to time by the Birmingham Ladies' Association. 4. The Zenana Medical Mission Society assists ladies who wish to go to India as missionaries. 5. A Prize, value £100, will shortly be offered for competition to registered medical women. The holder of this Prize will be required to spend one year on the Continent, and to give up her time to the special study of Operative Midwifery. 6. Prizes and Certificates of Honour are awarded in each Class at the end of the Session.

Besides the above, students and practitioners are admitted to attend the practice of several of the general and special hospitals and infirmaries; among which are the following. Information may be obtained on application to the secretaries of the respective institutions.

Great Northern Hospital, Caledonian Road.
Seamen's Hospital, Greenwich.
West London Hospital, Hammersmith Road.
City of London Hospital for Diseases of the Chest, Victoria Park.
Hospital for Consumption and Diseases of the Chest, Brompton; fees, three months, £3 3s.; six months, £5 5s.
Hospital for Sick Children, Great Ormond Street.
Belgrave Hospital for Children, Cumberland Street.
Evelina Hospital for Sick Children, Southwark Bridge Road.
Victoria Hospital for Children, Queen's Road, Chelsea.
East London Children's Hospital, Shadwell.
Royal Infirmary for Children and Women, Waterloo Bridge Road.
Samaritan Hospital for Women and Children, Lower Seymour Street.
Chelsea Hospital for Women, King's Road.
Hospital for Women, Soho Square.
British Lying-in Hospital, Endell Street.
Queen Charlotte's Lying-in Hospital, Marylebone Road; fees, six weeks, £10 10s.; three months, £15 15s., exclusive of board and lodging.
City of London Lying-in Hospital, City Road.
London Fever Hospital, Liverpool Road.
Royal London Ophthalmic Hospital, Moorfields; fees, six months, £3 3s.; perpetual, £5 5s.
Royal Westminster Orthopædic Hospital, King William Street.
National Hospital for the Paralysed and Epileptic, Queen Square.
Central London Throat and Ear Hospital; fee, three months £2 2s.; six months, £3 3s.

[9] The subjects of examination for the Entrance Scholarship of September 1884, are these. 1. *English*—Comprising Dictation, Grammar, Analysis, and Composition, with Definitions and Derivations of Words. 2. *Latin*—Translation from Latin into English, Grammar, Translation of easy passages into Latin. 3. *Arithmetic*—including Decimals. 4. *Elements of Mathematics*—Euclid, Books I and II; Algebra, Simple Equations. 5. *Elementary Physics*—Balfour Stewart's *Lessons in Elementary Physics*, to end of Chapter 5.

NOTES CONCERNING THE PROVINCIAL HOSPITALS AND MEDICAL SCHOOLS.

UNIVERSITY OF CAMBRIDGE.—The following Lectures and Courses of Practical Instruction in the subjects of the Examinations for Medical and Surgical degrees will be given during the ensuing year.

Michaelmas Term, 1883.—Chemistry and other branches of Physics: Elementary: Physical Chemistry, by the Assistant to the Jacksonian Professor (New Museums), M. W. F., 1; Organic Chemistry, by Mr. Main (St. John's College), T. Th. S., 11; Chemistry, especially the Metallic Elements, by Mr. Pattison Muir (Caius College), M. W. F., 10; Qualitative Analysis with Demonstrations, by Mr. Hicks (Sidney College), T. Th. S., 10; Electricity and Magnetism, by Mr. Trotter (Trinity College), T. Th. S., 10; Physics (for Natural Sciences Tripos Part I), by Mr. Shaw (Emmanuel College), M. W. F., 9. Advanced: General Course of Chemistry (for 1st year men), by Professor Liveing, T. Th. S., 12; Physical Chemistry, by Professor Dewar, M. W. F., 12; Chemistry of Carbon-compounds, by Mr. Pattison Muir (Caius College), T. Th. S., 10; Current Electricity and its applications, by Professor Lord Rayleigh, T. Th. S., 1; Physics (for Natural Sciences Tripos Part II), by Mr. Shaw (Emmanuel College), T. Th. S., 9. Practical Work and Demonstrations: Advanced Demonstrations in Heat, Cavendish Laboratory, M. W. F., 10½ to 12½; Advanced Demonstrations in Electricity and Magnetism, Cavendish Laboratory, T. Th. S., 10½ to 12½; Spectroscopic Analysis, by Professor Liveing, T. Th. S., 12; Demonstrations in Quantitative Analysis, by the Demonstrators of Chemistry, daily, 10; Demonstrations in Analysis of Water and Food, by the Assistant to the Professor of Chemistry, M. W. F., 11; Chemistry (University Laboratory), daily, 10 to 6, (St. John's College Laboratory), daily, 10 to 5, (Caius College Laboratory), daily, 10 to 5, (Sidney College Laboratory), daily, 10 to 5; Physics (Cavendish Laboratory), daily, 10 to 5.—Biology: Elementary: General Course of Botany (with practical work), by Mr. Vines (New Museums), T. Th. S., 10; Practical Morphology *(Invertebrata)*, by Mr. Sedgwick (New Museums), M. W. F., 9. Advanced: Physiology of Plants, by Mr. Vines (Christ's College), M. W. F., 12; Evolution in the Animal Kingdom, by Professor Newton, M. W. F., 1; Practical Morphology *(Invertebrata)*, by Mr. Sedgwick (New Museums), T. Th., 11.—Anatomy and Physiology: Elementary: Human Anatomy, by Professor Macalister, T. Th. S., 1; Physiology (with practical work), by Professor M. Foster (New Museums), T. Th. S., 9. Advanced: Class in Anatomy (for 3rd year men), by Professor Macalister, time to be arranged; Chemical Physiology, by Mr. Lea (New Museums), W. F., 11; Course of Physiology, by Mr. Langley (New Museums), M. S., 11; Preparation-class in Physiology (for Second M.B. Examination), by Mr. Hill (Downing College), T. Th. S., 12. Practical Work and Demonstrations: Demonstrations in Human Anatomy, by the Demonstrator, at the Anatomical School; Dissection, under the supervision of the Professor and Demonstrator, in the Dissection-room, daily, 9 to 4.—Medicine and Surgery: Pharmacy and Pharmaceutical Chemistry, by Professor Latham (Downing College), M. W. F., 9; Physiological Actions and Therapeutical Uses of Remedies, by Professor Latham (Downing College), T. Th. S., 9; Pathological Anatomy, by the Linacre Lecturer (Dr. Bradbury), (Old Anatomical School), T. Th., 9; Surgery (Principles), by Professor Humphry (New Museums), M. W. F., 12; Practical Surgery, by Mr. Wherry (Hospital), T. Th. S., 9 P.M.; Principles of Medicine, by Mr. MacAlister (New Museums), M. W. F., 11; Clinical Medicine, by Dr. Paget (Hospital), M. W. F., 10; Clinical Surgery, by Mr. Carver (Hospital), T. Th. S., 10.

Lent Term, 1884.—Chemistry and other branches of Physics: Elementary: Organic Chemistry, by the Assistant to the Jacksonian Professor, M. W. F., 12; General Course of Chemistry, by Mr. Main (St. John's College), T. Th. S., 11; Chemistry, especially the Non-metallic Elements, by Mr. Pattison Muir (Caius College), M. W. F., 10; Electricity and Magnetism (supplementary course), by Mr. Trotter (Trinity College), T. Th. S., 10; Mechanics and Heat (for First M.B. Examination), by Mr. Glazebrook (Trinity College), M. W. F., 9; Experimental Course in Hydrostatics and Heat (for General and First M.B. Examinations), by Mr. Shaw (Emmanuel College), M. W. F., 12; Physics (for Natural Sciences Tripos) Part I continued, by Mr. Shaw (Emmanuel College), M. W. F., 9. Advanced: General Course of Chemistry (for 1st year men), continued, by Professor Liveing, T. Th. S., 12; Organic Chemistry, by Professor Dewar, M. W. F., 12; General Principles of Chemistry, by Mr. Pattison Muir (Caius College), T. Th. S., 10; Physical Optics, by Mr. Trotter (Trinity College), T. Th. S., 12; Acoustics, by Professor Lord

GUIDE TO HOSPITALS AND MEDICAL SCHOOLS IN THE PROVINCES: 1883-84.

For further particulars regarding each Hospital and Medical School, see pp. 490 *to* 493.

Lectures, etc.	Birmingham Queen's College.	Bristol University College: Medical School.	Leeds School of Medicine.	Liverpool University College: Medical Faculty.	Owens College (Manchester Royal) School of Medicine.	Sheffield School of Medicine.	University of Durham College of Medicine, Newcastle.
WINTER SESSION.							
Anatomy & Physiology.	Mr. Haycraft ..... daily, exc. S., 11	Dr. R. S. Smith...M. W. F., 10	Mr. Wright & Dr. Jacob ...M. W. F., 12; Dr. Barrs...dem., Tu. Th., 12	Dr. Caton...Tu. Th. F. S., 9.15	Dr. A. Gamgee, and Mr. Waters, jun. M. W. F.; sen. Tu. Th., 11.30	Dr. Dyson & Dr. S. White ...W., 12.30; F., 4	Mr. Williamson and Dr. Oliver ... M. Th. F., 3.45
Anatomy, Descriptive & Surgical.	Mr. Thomas...M. Tu. Th. F., 12	Mr. F. R. Cross...Tu. Th. S., 9; F., 11	Mr. Nunneley, Mr. Robinson, & Mr. McGill...daily, 10	Mr. W. M. Banks.....M. Tu. W. Th. F., 11	Dr. M. Watson.....daily, exc. S., 1	Mr. E. Skinner and Mr. Snell...M. Tu. W. Th., 4; F., 6 (before Xmas.)	Dr. Mears...1st year, M. F., 9.15; Tu. Th., 12; 2nd year, Tu. W. Th. F., 9.15
Demonstrations & Dissections.	Mr. B. May and Mr. Eales...daily	Mr. Harsant	Mr. Robson and five assistants...daily from 9	Mr. Barron...daily, 9 to 5; exc. S., 9 to 2	Dr. M. Watson and demonstrators... daily, 9.30 to 4.30; S., 9.30 to 12	Mr. Lee, M. Tu., 9 to 5; W. Th. F., 10 to 5	Dr. Mears
Chemistry	Dr. Tilden.....M. Tu. W. Th. F., 10	Mr. Coomber...M. W. F., 9 A.M.	Dr. Thorpe...M. Tu. Th. F., 4	Dr. J. C. Brown...M. W. F., 3; Tu. Th., 2	Dr. Roscoe & Mr. Schorlemmer... daily, 9.30	Mr. Allen...M. W. F., 10; Tu. Th. S., 11	Dr. Bedson...M. W. F., 12.5
Medicine.....	Dr. Foster...Tu. W. F., 3	Dr. Spencer and Dr. Skerritt...M. W. F., 9	Dr. Clifford Allbutt and Dr. Eddison...M. W. F., 1	Dr. Waters...Tu. Th. S., 9.15	Dr. W. Roberts and Dr. Morgan..M., 4; Tu. Th., 3	Drs. De Bartolomé, Banham, & Thomas, M. W. F., 5; Mr. A. Jackson... M. W. F., 8 A.M.	Dr. Philipson.....M. W. F., 5
Surgery	Mr. Pemberton and Mr. F. Jordan...Tu. W. F., 4	Mr. Dobson...Tu. Th. S., 9	Mr. Jessop & Mr. Atkinson...M. Th. S., 9	Mr. Rushton Parker...M. W. Th., 3	Mr. Lund and Mr. Southam...M. W. F., 3		Dr. Heath & Dr. Arnison M. W. F., 6
Hospital Practice	General Hospital (*a*). Queen's Hospital (*b*).	Royal Infirmary (*c*). General Hospital (*d*).	Leeds General Infirmary (*g*).	Liverpool Royal Infirmary (*f*).	Manchester Royal Infirmary (*g*).	Sheffield Infmy. (*h*) Sheffield Hptl. (*i*)	Newcastle Infirmary (*k*).
Clinical Medicne	Physicians of Hospitals (*a*), 10 A.M.; (*b*) daily	Royal Infirmary...S., 12 General Hospital.....M. Tu. F., 12	Physicians of Infirmary ...Tu. F., 1	Physicians, Royal Infirmary...weekly	Dr. Roberts (Win.)...Tu. F., 9.30; and clin. lec. every W. at 9	Physicians of Infirmary and Hospital.....Tu., 5 P.M.	Physicians of Infirmary ...M. F., 12
Clinical Surgery	Surgeons of Hospital (*a*), 9 and 10 A.M.; (*b*) daily	Royal Infirmary...F., 12 General Hospital...W., 12	Surgeons of Infirmary... Tu. F., 9	Surgeons, Royal Infirmary, weekly	Surgeons, Royal Infirmary...M., 9	Surgeons of Infirmary and Hospital.....Th., 5 P.M.	Surgeons of Infirmary... Th., 10
SUMMER SESSION.							
Materia Medica.....	Dr. Sawyer...Tu. W. Th., 12	Dr. Shaw...Tu. Th. S., 9	Dr. Churton...M. W. Th., 9	Dr. Carter...Tu. Th. F., S., 9 A.M.	Dr. Leech...M. T. W. Th.; 1st course, 1; 2nd crse., 12	Dr. Young...M. W. F., 8 A.M.	Mr. McBean...M. W., 4; F., 5; Mr. Barron, M. W., 3
Midwifery, etc.	Mr. Clay and Dr. Bassett ...M. Tu. Th. F., 1	Dr. Swayne & Dr. Aust Lawrence...daily, exc. S., 8 A.M.	Mr. Price and Dr. J. Braithwaite.....M. Tu. Th. F., 4	Dr. Wallace (Win.)...M. W. F., 9.15; S., 10	Dr. Thorburn.....M. Tu. Th. F., 1; clin. W. S., 10	Dr. Hime.....M. W. F., 8 P.M.	Dr. Gibson & Dr. Nesham ...daily, 9 A.M.
Botany.....	Mr. Hillhouse...M. W. F., 3	Mr. Leipner...Tu. Th. S., 8 A.M.	Mr. Miall...M. W. Th., 2	Dr. Shearer... M. Tu. W. F., 3	Mr. W. C. Williamson and Mr. Ward...M. Tu. W. Th. F., 2.30	Mr. Birks.....Tu., Th., 8 A.M.	Dr. J. Murphy...Tu. Th. F., 4
Forensic Medicine.....	Mr. Wilders...M. F., 12; Tu., 3	Dr. Eager and Dr. Harrison...M. Th. S., 10	Mr. Scattergood...M. Tu. Th. F., 5	Dr. E. Whittle...M. W. F., 3	Dr. Cullingworth ... Tu. W. Th. F., 2	Mr. Harrison...Tu. Th., 5; Toxicol. M. F., 9.30	Dr. F. Page...Tu. Th. F., 3
Practical Chemistry ...	Dr. Tilden...Tu. Th., 2	Mr. Coomber...M. W. F., 9	Dr. Thorpe...Tu. Th., 10	Dr. J. C. Brown...M. W. Th. F., 10	Dr. Roscoe...M. W., 10.30	Mr. Allen...M. W. F., 11	Dr. Bedson...M. W., 9.30
Comparative Anatomy..		Mr. Sollas...Tu. W. F., 10	Mr. Miall...M. Th., 3.30	Dr. Herdman...M. W. F. 12; (Sum.) daily, exc. S., 9	Dr. M. Marshall & Mr. Hurst...M. W. F., 10.30		
Practical Physiology...	Mr. Haycraft (Sum.)...M. W. F., 9 and 10.30	Mr. Atchley ... M. W. F. 8 A.M.	Dr. Jacob and Dr. Barrs	Dr. Caton and Mr. Paul (Win.)...M. W., 2	Dr. A. Gamgee (Sum.)... daily, except Sat., 3.30	Mr. Pye-Smith...M. Tu., 12.30	Dr. Oliver...Tu. W. Th., 2.30
Pathology.....	Dr. Rickards ..... Th., 3 (Win.)	Dr. Spencer & Dr. Skerritt (Sum.)...M. W. F., 9	Mr. Robson...M. S., 10	Dr. Davidson (Win.)..... Tu. 3; Mr. Paul (Sum.)	Dr. Dreschfeld (Win.)... M. Tu. Th., 2	House-Surgeon at Infirmary (Sum.)	Dr. Gibb & Dr. Drummond (Sum.) M. W. F., 8 A.M.
Practical Surgery	Mr. Bartleet and Mr. May	Mr. A. W. Prichard (Sum) Tu. Th. S., 9	Mr. Jessop and Mr. Atkinson	Mr. Parker (Win.) M. Th. 4; oper. course in sum.	Mr. T. Jones (Win.)...Tu. Th., 1	House-Surgeon (Win.); Mr. Favell (Sum.)	Dr. L. Armstrong (Sum.)
Ophthalmic Surgery ...	—	—	Mr. Nunneley...F., 2	Mr. T. S. Walker...W., 4	Dr. Little (Sum.)...W. F., 4; clin., M. Th., 10	Mr. Snell (Sum.)...W., 12.30	—
Vaccination	—	—	Mr. Holmes	Mr. Roger Parker	Mr. E. Guest	Mr. Skinner	—

(*a*) *Physicians:* Dr. Russell, Dr. Wade, Dr. Foster, Dr. Rickards. *Assistant-Physicians:* Dr. Saundby, Dr. Simon. *Surgeons:* Mr. O. Pemberton, Mr. T. H. Bartleet, Mr. R. Jolly, Mr. T. F. Chavasse. *Assistant-Surgeons:* Mr. Archer, Mr. W. F. Haslam. *Obstetric Officer:* Dr. E. Malins.

(*b*) *Physicians:* Dr. Sawyer, Dr. Carter, Dr. ——— *Surgeons:* Mr. F. Jordan, Mr. J. St. S. Wilders, Mr. B. May, Mr. Jordan Lloyd. *Obstetric Surgeon:* Mr. J. Clay. *Ophthalmic Surgeon:* Mr. P. Smith. *Dental Surgeon:* Mr. C. Sims. *Casualty Surgeon:* Mr. A. F. Hawkins.

(*c*) *Physicians:* Dr. Spencer, Dr. R. S. Smith, Dr. Waldo, Dr. Shaw. *Surgeons:* Mr. Board, Mr. Dowson, Mr. A. W. Prichard, Mr. Cross, Mr. J. G. Smith. *Assistant-Surgeon:* Mr. Harsant. *Operations:* Tu. F., 1.30.

(*d*) *Physicians:* Dr. Burder, Dr. Skerritt, Dr. Harrison. *Surgeons:* Mr. F. P. Lansdown, Mr. Dobson, Mr. Keall, Mr. Pickering. *Physician-Accoucheur:* Dr. Aust Lawrence. *Diseases of Skin:* Dr. Harrison. *Diseases of Eye:* Mr. Keall. *Diseases of Ear:* Mr. Pickering. *Dentist:* Mr. Parson. *Operations:* Th., 1.30.

(*e*) *Physicians:* Dr. Clifford Allbutt, Dr. Eddison, Dr. Churton. *Surgeons:* Mr. Wheelhouse, Mr. T. P. Teale, Mr. T. R. Jessop, Mr. E. Atkinson. *Assistant-Surgeons:* Mr. McGill, Mr. Mayo Robson. *Surgeons to the Eye and Ear Department:* Mr. J. A. Nunneley, Mr. H. B. Hewetson. *Dental Surgeon:* Mr. T. Carter. *Operations:* Th., 1; Eye, Tu., 12.

(*f*) *Physicians:* Dr. Waters, Dr. Glynn, Dr. Davidson. *Surgeons:* Mr. Bickersteth, Mr. Harrison, Mr. Banks. *Assistant-Surgeon:* Mr. Rushton Parker. *Obstetric Physician:* Dr. Wallace. *Dental Surgeon:* Mr. Phillips. *Pathologist:* Dr. Rich. *Surgeons to Lock Hospital:* Mr. F. W. Lowndes and Dr. Bernard. *Operations:* Tu. W., 1.

(*g*) *Physicians:* Dr. H. Simpson, Dr. J. E. Morgan, Dr. D. J. Leech, Dr. Dreschfeld. *Assistant-Physicians:* Dr. Ross, Dr. G. Steell. *Surgeons:* Mr. F. A. Heath, Mr. W. Whitehead, Mr. T. Jones, Mr. Hardie. *Assistant-Surgeons:* Mr. F. A. Southam, Mr. G. A. Wright. *Obstetric Physician:* Dr. Thorburn. *Ophthalmic Surgeon:* Dr. D. Little. *Dental Surgeon:* Mr. Smith. *Operations:* F. S., 11; Eye, M., 12.

(*h*) *Physicians:* Dr. De Bartolomé, Dr. Law, Dr. Banham. *Surgeons:* Mr. Barber, Mr. W. F. Favell, Mr. A. Jackson. *Ophthalmic Surgeon:* Mr. Snell. *Operations:* Th., 12.30; Eye, M., 12.30.

(*i*) *Physicians:* Dr. Dyson, Dr. Thomas. *Surgeons:* Dr. Keeling, Mr. Thorpe, Mr. Pye-Smith. *Operations:* F., 12.30.

(*k*) *Physicians:* Dr. Philipson, Dr. Drummond, Dr. Oliver. *Surgeons:* Dr. Arnison, Dr. L. Armstrong, Dr. Hume, Dr. Page. *Assistant-Surgeons:* Mr. Dodd, Mr. Williamson. *Pathologist:* Dr. Drummond. *Dental Surgeon:* Mr. E. Fothergill.

Rayleigh, T. Th. S., 1; Physics (for Natural Sciences Tripos Part II) continued, by Mr. Shaw (Emmanuel College), T. Th. S., 9. Practical Work and Demonstrations: Elementary Demonstrations in Mechanics and Heat (Cavendish Laboratory), M. W. F., 10½ to 12½; Advanced Demonstrations in Electricity and Magnetism (Cavendish Laboratory), T. Th. S., 10½ to 12½; Demonstrations in Quantitative Analysis, by the Demonstrators of Chemistry, daily, 10; Chemistry (University Laboratory), daily, 10 to 6, (St. John's College Laboratory), daily, 10 to 5, (Caius College Laboratory), daily, 10 to 5, (Sidney College Laboratory), daily, 10 to 5; Physics (Cavendish Laboratory), daily, 10 to 5.—Biology: Elementary: General Course of Botany (with practical work) continued, by Mr. Vines (New Museums), T. Th. S., 10; Botany, chiefly Morphological, by Mr. Hicks (Sidney College), M. W. F., 11; Course of Elementary Biology, by Mr. Vines and Mr. Sedgwick (New Museums), T. Th. S., 9; Embryology, by Mr. Sedgwick (New Museums), M. W. F., 9. Advanced: Geographical Distribution of the Vertebrata, by Professor Newton, M. W. F., 1; Practical Morphology *(Invertebrata)*, by Mr. Sedgwick (New Museums), T. Th., 11.—Anatomy and Physiology: Elementary: Human Anatomy, by Professor Macalister, T. Th. S., 1; Class in Osteology, by the Demonstrator of Human Anatomy, at the Anatomical School, time to be arranged; Physiology (with practical work) continued, by Professor M. Foster (New Museums), T. Th. S., 9. Advanced: Class in Anatomy, by Professor Macalister, time to be arranged; Chemical Physiology continued, by Mr. Lea (New Museums), W. F., 11; Course of Physiology, by Mr. Langley (New Museums), M. S., 11; Preparation-class in Physiology (for Second M.B. Examination), by Mr. Hill (Downing College), T. Th. S., 12. Practical Work: Dissection, under the supervision of the Professor and Demonstrator, in the Dissecting-room, daily, 9 to 4.—Medicine and Surgery: Principles and Practice of Medicine, by Professor Paget (New Museums), M. F., 11; Surgery, on Injuries and Diseases of certain parts, considered more especially with reference to the Anatomy of the parts, by Professor Humphry (New Museums), M. W. F., 12; Practical Surgery, by Mr. Wherry (Hospital), T. Th., 9 P.M.; Midwifery, by Dr. Ingle, time to be arranged; Introduction to Clinical Medicine, by Mr. MacAlister (New Museums), T. Th. S., 9; Clinical Medicine, by Dr. Latham (Hospital), M. W. F., 10; Clinical Surgery, by Mr. Wherry (Hospital), T. Th. S., 10.

Easter Term, 1884.—Chemistry and other Branches of Physics: Elementary: Gas-Analysis, by the Assistant to the Jacksonian Professor (New Museums), M. W. F., 10; Course of Chemistry, by a Demonstrator of Chemistry, M. W. F., 12; General Course (including Carbon-compounds) continued, by Mr. Main (St. John's College), T. Th. S., 11; Non-metals and Carbon-compounds, by Mr. Pattison Muir (Caius College), M. W. F., 10; Electricity and Magnetism (supplementary course) continued, by Mr. Trotter (Trinity College), T. Th. S., 10; Optics and Electricity (for First M.B. Examination, by Mr. Glazebrook (Trinity College), M. W. F., 9; Physics (for Natural Science Tripos, Part I) continued, by Mr. Shaw (Emmanuel College), M. W. F., 9; Papers in Physics, by Mr. Shaw (Emmanuel College), T., 1. Advanced: General Principles of Chemistry continued, by Mr. Pattison Muir (Caius College), T. Th. S., 10. Practical Work and Demonstrations: Elementary Demonstrations in Optics and Electricity (Cavendish Laboratory), M. W. F., 10½ to 12½; Advanced Demonstrations in Optics (Cavendish Laboratory), T. Th. S., 10½ to 12½; Chemistry (University Laboratory), daily, 10 to 6, (St. John's College Laboratory), daily, 10 to 5, (Caius College Laboratory), daily, 10 to 5, (Sidney College Laboratory), daily, 10 to 5); Physics (Cavendish Laboratory), daily, 10 to 5.—Biology: Elementary: Structural and Systematic Botany, by Professor Babington, M. T. Th. F., 1; Demonstrations in Systematic Botany, by Mr. Corry (New Museums), time to be arranged; Course of Elementary Biology continued, by Mr. Sedgwick (New Museums), T. Th. S., 9. Advanced: Morphology of *Thallophyta* and *Muscineæ* (with practical work), by Mr. Vines (Christ's College), M. W. F., 12; Morphology and Classification of Vascular Cryptogams (with practical work), by Mr. Corry (New Museums), T. Th., S., 10; Practical Morphology *(Invertebrata)*, by Mr. Sedgwick (New Museums), T. Th., 11.—Anatomy and Physiology: Elementary: Physiology (with practical work) continued, by Professor M. Foster (New Museums), T. Th. S., 9. Advanced: Demonstrations in Human Anatomy, by the Demonstrator (Anatomical School), M. W. F., 1; Course of Physiology continued, by Mr. Langley (New Museums), M. S., 11; Preparation-class in Physiology (for Second M.B. Examination), by Mr. Hill (Downing College), T. Th. S., 12. Practical Work: Dissection, under the supervision of the Professor and Demonstrator, in the Dissecting-room, daily, 9 to 4.—Medicine and Surgery: Principles and Practice of Medicine, by Professor Paget, M. F., 11; Methods of Physical Diagnosis, by Mr. MacAlister (New Museums), T. Th. S., 9; Practical Surgery, by Mr. Wherry (Hospital), T. Th., 9 P.M.; Clinical Medicine, by Dr. Bradbury (Hospital), M. W. F., 10; Clinical Surgery, by Dr. Humphry (Hospital), T. Th. S., 11.

Long Vacation (July and August), 1884.—Practical Physics, in the Cavendish Laboratory; Practical Chemistry, in the University Laboratory; Course of General Chemistry, by Mr. H. J. H. Fenton; Demonstration-lectures (with practical work) in the Morphology and Classification of *Phanerogams* (advanced), by Mr. Corry; Practical Anatomy, in the Dissecting-room; Instruction in Human Osteology, at the Anatomical School; Practical Histology, at the New Museums; Clinical Instruction at the Hospital; Instruction in Surgery, by Professor Humphry; Instruction in Practical Surgery, by Mr. Wherry; Medical Jurisprudence, by Dr. Anningson; Instruction in Midwifery, by Dr. Ingle.

Professor Humphry will lecture in the Michaelmas and Lent terms as above stated, and in June, July, and August, on Special Diseases, on Mondays, Wednesdays, and Fridays, at 12. The Lectures will be open, without fee, to Students entered to the practice of Addenbrooke's Hospital, and to such other persons as may receive permission from the Professor. A satisfactory knowledge of the subjects of the Lectures will be required in the case of those who desire certificates of attendance. The Lectures delivered in any two of the periods mentioned will constitute a Course.

Medical Students requiring Certificates of attendance in Cambridge on a Course of Lectures in Chemistry may attend one of the following: either the General Course of the Professor of Chemistry, or the two courses of the Jacksonian Professor, in Michaelmas and Lent terms; or Mr. Main's course in Lent and Easter terms; or Mr. Pattison Muir's courses in two terms; or the course of the Demonstrator of Chemistry in Easter term, together with Mr. Main's course on Organic Chemistry in Michaelmas term. Manipulations have to be practised besides, which may be done in any term. The University Laboratories, Dissecting-rooms, and Museums of Anatomy are open daily during the vacation as well as in the terms. Opportunities for Clinical Instruction in Mental Diseases are afforded at the County Asylum, Fulbourn, by Mr. Rogers. Notice will be given of the days and hours. Commencing Students of Medicine must be registered according to the Regulations of the General Council of Medical Education and Registration.

BIRMINGHAM.—QUEEN'S COLLEGE.—The classes of Physiology, Histological and Practical Physiology, Chemistry, Practical Chemistry, and Botany, are held in Mason Science College.

Clinical Lectures and Lectures in special departments are given in the General Hospital and the Queen's Hospital, which have a total of upwards of 400 beds. Practical instruction is given in the use of the microscope, laryngoscope, and ophthalmoscope, and surgical appliances; also in case-taking and bandaging, with minor surgery and prescribing. Students must attend each hospital alternately for six months, as directed by the Clinical Board.

Appointments.—General Hospital: Resident Medical and Resident Surgical Assistant, two Resident Dressers, tenable for six months. *Queen's Hospital:* Resident Obstetric Assistant, tenable for six months; Resident Dresser, tenable for three months.

Prizes.—The Sands Cox Prize, value £20, annually, to students who have completed their curriculum, after examination in Medicine, Surgery, and Midwifery. Candidates must produce certificates of good conduct from the Warden. The examinations in 1884 will be held in the last week in March. Two Ingleby Scholarships, after examination in Obstetric Medicine and Surgery and the Diseases of Women and Children; open to students who have completed the second year. One or more Sydenham Scholarships, £31 10s. each, awarded annually; limited to orphan sons (not exceeding 23 years of age) of legally qualified medical men. One or more Queen's Scholarships, value £31 10s. each, awarded annually after examination;[1] limited to sons (not more than 20 years of age) of legally qualified medical practitioners. The Sydenham and Queen's Scholarships are open to students entering at the College, and are each tenable for three years. Preference in each case is given to sons of former pupils of the College. Application must be made on or before September 15th in each year. Medals and Certificates of Honour, annually, in each class after examination. A Senior Medical

[1] The subjects of examination are: Latin: 1883, Vigil, *Æneid*, Book I.; 1884, Cicero, *De Senectute*. Greek: 1883, Homer, *Iliad*, Book I.; 1884, Homer, *Odyssey*, Book VII. French: 1883, Souvestre, *Un Philosophe sous les Toits;* 1884, Edmond About, *La Mère de la Marquise*. German: Schiller's *Wilhelm Tell*. Mathematics, Arithmetic, Algebra to the end of Progressions, and First two Books of Euclid; Chemistry of the Metalloids; Human Osteology.

and a Senior Surgical Clinical Prize (third and fourth years), value in each department, £5 5s; a Junior Medical and a Junior Surgical Prize (first and second years), value £3 3s.; Midwifery Prize (third and fourth years), £4 4s.

The Medical Tutor holds classes for Junior students.

Further particulars may be obtained by application to the Rev. the Warden, at the College, or 54, Islington Row, Edgbaston; to Dr. Carter, 51, Newhall Street; to Dr. Malins, 8, Old Square; or to Mr. Jordan Lloyd, 21, Broad Street, Birmingham.

BRISTOL MEDICAL SCHOOL, AFFILIATED TO UNIVERSITY COLLEGE, BRISTOL.—Clinical Instruction is given at the Royal Infirmary and the General Hospital. The Royal Infirmary contains 264 beds; it has a large Children's ward; wards for Eye cases, and other special purposes; and two wards, apart from the main building, for cases requiring isolation. The General Hospital contains 154 beds; it has a Children's ward, and private and isolated wards. The Infirmary and the Hospital each contain a Library and a Museum. Demonstrations and instruction in Diseases of the Eye and the Use of the Ophthalmoscope are given at the Royal Infirmary by Mr. A. W. Prichard on Tuesdays at 11, and by Mr. Cross on Saturdays at 11; and in Diseases of the Throat and Ear, including the Use of the Laryngoscope, etc., on Tuesdays at 11, by Mr. Harsant. Instruction in the Diseases of Women is given at the Royal Infirmary by Mr. Greig Smith on Wednesdays at 11. and at the General Hospital, by Dr. Lawrence, on Mondays and Thursdays at 12. A course of Operative Surgery and Surgical Pathology is given by Mr. Keall on Tuesdays, Wednesdays, and Fridays, at 10 A.M. during the summer; each student performs operations on the dead body. On Tuesdays, Thursdays, and Saturdays, at 9 A.M., Mr. A. W. Prichard gives instruction in Practical Surgery, including surgical diagnosis, the use of apparatus, etc. Mr. D. Davies gives a course of Lectures on Hygiene in the Medical School.

Appointments.—Royal Infirmary: Students are appointed to Dresserships after the first year of study. Resident Dressers are appointed in weekly rotation. Clinical Clerks are appointed in the third and fourth years of study. A Pathological Clerk is appointed every four months. Obstetric Clerks are appointed from students who have attended lectures on Midwifery and entered to the Surgical Practice.—*General Hospital:* Clinical Clerks, Dressers, and Obstetric Clerks are appointed. The Dressers reside in the Hospital in rotation, free of expense. Resident pupils are received at the Hospital.

Prizes.—Prizes and Certificates of Honour are awarded after examination in the subjects of each year. In awarding the prizes for Practical and Operative Surgery, the marks obtained in the two courses are added together. Certificates alone are given for Comparative Anatomy and Hygiene.—*Royal Infirmary:* Suple's Medical Prize, and Suple's Surgical Prize, each a Gold Medal, value £5 5s., and about £7 7s. in money, awarded after examination in Medicine and in Surgery respectively. Clarke's Prize (interest of £500) to the most successful student of the third year in the Medical School, if he have attended the Royal Infirmary. Tibbits Memorial Prize (interest on £315), annually, for proficiency in Practical Surgery. Crosby Leonard Prize (interest on £300) to third year's surgical students, for best written report of ten surgical cases (excluding those taken for the Suple Prize). A prize of £3 3s. to the Pathological Clerk, if he have performed his duties satisfactorily.—*General Hospital:* Martyn Memorial Entrance Scholarship, £20, at beginning of winter session, after examination in subjects of general education. Clarke Surgical Scholarship, £15, annually. Sanders Scholarship (interest of £500); and Lady Haberfield Prize (interest of £1,000 annually); each after examination in Medicine, Surgery, and Diseases of Women The Martyn Memorial Scholarship and the Lady Haberfield Prize, when not awarded, are available for the remuneration of a Museum Curator, appointed from among the students after competitive examination.

The Medical Tutor assists students in their Practical Anatomical and Physiological studies.

Further particulars respecting the Infirmary may be known on application to Mr. F. R. Cross; respecting the Hospital, on application to Dr. Markham Skerritt. Information regarding the Medical School will be afforded by the Honorary Secretary, Dr. E. Markham Skerritt.

LEEDS SCHOOL OF MEDICINE.—There are Anatomical, Pathological, Chemical, Botanical, and Materia Medica Museums. The Library is open to students. The Museum of the Literary and Philosophical Society is open to students at a nominal charge.

The lectures in Chemistry and Botany, and the instruction in Practical Chemistry are given at the Yorkshire College, and the lectures in Comparative Anatomy at the Philosophical Hall.

Clinical Instruction, etc.—The General Infirmary has 300 beds. Clinical Lectures are delivered by the Physicians and Surgeons, and classes meet in the wards for practical instruction. Courses of Practical Physiology are held. The Systematic and the Practical courses of Surgery are delivered in alternate winter sessions. Demonstrations of Eye and Ear Diseases, and instruction in the use of the Ophthalmoscope, are given. The West Riding Lunatic Asylum at Wakefield is open for the study of Mental Diseases, and a course of lectures is given by Dr. Major during the summer; the systematic lectures being given at the school, and the clinical at the Asylum, in alternate weeks. Students can also attend the practice of the Leeds Public Dispensary and the Fever Hospital. There are several resident appointments at these institutions.

Hospital Appointments.—Every student must hold the offices of Clinical Clerk and Dresser. A House-Physician and a House-Surgeon are elected from time to time. There are also four Resident Assistant Dressers and Clinical Clerks in the Infirmary; two are selected from the senior students every six months. They hold office for one year, and are provided with apartments and board free of charge.

Prizes.—The Hardwick Clinical Prize, value £10, is given annually for the best reports of medical cases, and the Surgeons' Clinical Prizes of £8, £5, and £3, for the best reports of surgical cases during the winter session. These prizes are open to students who have completed the first year. The Thorp Scholarship in Forensic Medicine (£10) at the close of each summer session. At the close of each session, Silver and Bronze Medals, Books, and Certificates of Honour are awarded according to merit.

UNIVERSITY COLLEGE, LIVERPOOL: MEDICAL DEPARTMENT (ROYAL INFIRMARY SCHOOL OF MEDICINE).—There are a Museum containing specimens of Morbid and Comparative Anatomy, a collection of Wax Models, and a collection of Materia Medica, a Library, and a Reading Room.

Instruction.—Clinical lectures are given weekly at the Royal Infirmary, which contains nearly 300 beds; the Lock Hospital adjoining contains 60 beds. Medical and Surgical Tutors attend in the wards from 10 to 12, daily. Dr. Glynn gives practical instruction in Clinical Medicine and the Methods of Physical Diagnosis at 11.15 on Tuesdays during the winter. Besides a winter course of Practical Surgery, a course of Operative Surgery is given in the summer for candidates for the Fellowship of the Royal College of Surgeons, and the degree of Bachelor of Surgery of the University of London. Dr. Gee lectures on Diseases of Children. Students of Midwifery attend the practice of the Ladies' Charity and Lying-in Hospital on payment of a fee of £2 2s. The Dissecting-room will be open during the summer. In May, a series of twelve lectures on the Cranial Nerves, and afterwards a course of twenty-four demonstrations on Surgical Anatomy will be given. There will also be a tutorial class of osteology and an examining class in the summer. Dr. Lodge will give a complete course of Physics, beginning in October and ending in June. Mr. F. T. Paul will give a course of Practical Pathological Histology once a week during the summer.

Appointments.—Royal Infirmary: Two House-Physicians and three House-Surgeons are appointed for six months after (if there be more applicants than vacancies) competitive examination. Candidates must have a legal qualification. Three Clinical Clerks for each Physician, three or more Dressers for each Surgeon, and two Clerks to the Thornton Wards for Diseases of Women, are appointed for three months in October, January, and May. *Post Mortem* Clerks are appointed for six weeks. All students must perform this duty before the Schedule for the final examination is signed.

Exhibitions and Prizes.—Roger Lyon Jones Scholarships (each £21 for two years): one, as an entrance scholarship to the applicant who shall have taken the highest position in the Honours Division at a Matriculation Examination of the University of London in the same year, or (failing such candidate) to be awarded by competition in the last week of September. Another of the Scholarships to a student who has completed two years in July after examination in Anatomy, Physiology, Chemistry, Botany, Materia Medica, and Practical Chemistry, on condition of his remaining a pupil of the School. Derby Exhibition of £15, awarded after exa-

mination; open to third and fourth years' students. Gold Medal for Anatomy and Physiology, presented by Mr. Torr, M.P., for second year's students; and one, also for Anatomy and Physiology, presented by Dr. J. Bligh, for students of the first year. Medals and Certificates of Honour for groups of subjects: viz., second year, Advanced Anatomy and Physiology; first year, Elementary Anatomy and Physiology, and Chemistry. Silver Medal and Certificates in each of the following: Medicine, Surgery, Pathology, Midwifery, Botany, Materia Medica, Practical Chemistry, and Medical Jurisprudence (including Toxicology). Two prizes, and certificates, for Midwifery, by the lecturer on that subject. Two prizes for the best sets of Microscopical Preparations made in the Physiological Laboratory during the winter.

The *Debating Society* meets eight or ten times during the winter session on Saturday evenings, for the reading and discussion of papers. Prizes are given for the best papers, and for the best collection of clinical reports.

Communications should be addressed to the Dean, Dr. Caton.

OWENS COLLEGE, MANCHESTER: MEDICAL DEPARTMENT.—The great increase in the number of students attending the school, which has well-nigh doubled since 1874, the extension of the courses of study, but especially a desire to give the fullest possible opportunities for teaching and investigation in the Departments of Physiology, Pathology, and Materia Medica, led the Governing Body to sanction, about two years ago, great extensions of the so recently constructed buildings; these are now completed, and will be opened for regular work at the commencement of the session 1883-4.—I. *Anatomical Department.* This comprises (1) a dissecting-room, measuring 78 feet by 32 feet; (2) a bone-room immediately adjacent; (3) an anatomical workroom for the Assistant-Curator; (4) room for the storing and preparation of subjects; (5) an "articulating" room; (6) Professor's private room; (7) Demonstrators' room.—II. *Physiological Department.* This comprises (A) a lecture-room set apart for the department, and furnished with every requirement for the special subject. This room admits of being perfectly darkened, and may be lighted either by gas or the electric light. (B) The Physiological Laboratory, which includes the following rooms. (1) A room for the practical classes in histology; sometimes also used for physiological demonstrations. (2) A workroom for the use of regular laboratory students working at practical physiology and histology. This room is provided with several sets of recording apparatus, and with the great majority of the instruments and appliances needed in the study of practical physiology and histology. (3) A room primarily devoted to researches on the electromotive properties of the animal tissues, and to physiological optics. This room is admirably lighted, and has one window specially constructed for experiments in which the heliostat is required; it admits of being rapidly and efficiently darkened by means of blinds, and will be lighted as occasion requires by gas-light, and by incandescent or arc electric lights. (4) A photographic room, contiguous to 3, and arranged so that, if need be, photographic registration of phenomena observed by the aid of the galvanometer and the electrometer may be carried on, as well as for other applications of photography to physics and physiology. This room is provided also with an ophthalmoscope lamp, and will be available for observations with the ophthalmoscope and laryngoscope. (5) A room for chemical balances. (6) A room for mercurial pumps and gas-analysis. (7) A laboratory for physiological chemistry, comprising complete working facilities for twenty-four students, besides a thoroughly fitted-up demonstrators' table, and working space for making observations, etc. (8) A small workshop. (9) A small laboratory adjoining the lecture-room, in which will be stored those instruments and appliances specially used in the illustration of lectures. (10) A private laboratory for the Professor. (11) A private study for the Professor. (12) A small room for the gas-engine and dynamo. Certain of the principal rooms of the laboratory will be supplied with power furnished by the gas-engine, and will be fitted up so as to permit of recording cylinders being put in motion in any part of them. The laboratory is supplied with a very complete collection of apparatus required in teaching and investigating physiological phenomena.—III. *Pathological Department.* This is provided with—(1) A students' laboratory, fitted up with work-tables and other appliances necessary for the study of pathological anatomy; (2) a Professor's private laboratory; (3) a laboratory for surgical pathology, in which will be also lodged a typical collection of specimens illustrating surgical anatomy, for the use of students; (4) an Assistant-Curator's room. The pathological collection is mainly lodged in one of the galleries of the Anatomical Museum.—IV. *Department of Materia Medica, Pharmacy, and Pharmacology.* To this department belong (1) a large museum of materia medica; (2) a laboratory for pharmaceutical instruction and investigation; (3) a Professor's laboratory, specially set aside for pharmacological work.—V. *Department of Hygiene and Medical Jurisprudence.* Space has been assigned in the new buildings for a collection to illustrate these subjects.—VI. *Department of Midwifery and Diseases of Women.* The collection illustrating the course of instruction in these subjects is lodged in the upper gallery of the Anatomical Museum.—VII. *Lecture-Rooms.* With the exception of the courses on Physiology, Chemistry, Zoology, and Botany, which are given in lecture-rooms specially devoted to these subjects, the various lectures are delivered in two lecture-rooms, one of which accommodates nearly 200, and the other nearly 150 students.—VIII. *Library of the Medical Society and Students' Library.* On the ground-floor of the Medical Buildings are situated the set of rooms in which are located the Library of the Medical Society of Manchester, under the terms of agreement entered into between the Society and the Owens College. These include (1) the Library, in which are lodged upwards of 26,000 volumes; this is one of the richest collections of ancient and modern medical books in this country; (2) a Students' Library; (3) a very handsome Reading-Room, specially reserved for members of the Medical Society, which will also be used for the meetings of the Society. The Medical Buildings also comprise a Students' Common Room, besides rooms for Professors and Lecturers, Offices, etc.

In the College, the following courses (in addition to those mentioned in the table) are given in the summer: Diseases of Children, by Dr. H. Ashby (W. and F., 3 P.M.); Mental Diseases, by Mr. G. W. Mould (Tu. and Th., 4 P.M.); Practical Morbid Histology, by Dr. Dreschfeld (M. and F., 9 A.M.); Hygiene, by Dr. A. Ransome (Tu. and F., 2 P.M., June and July); and Embryology (lectures and laboratory work), by Dr. A. M. Marshall (M., W., and F., 1.30 P.M., in the summer); Comparative Osteology, by Mr. Hurst (M., W., F., 9.30). The course of Practical Physiology and Histology will be given in the second winter session. Mr. Thomas Jones gives a course of Practical and Operative Surgery (Tu. and Th., 1 P.M.) in the winter, and a special course of Operative Surgery in the winter and in the summer. Mr. A. Young gives a course of Surgical Pathology in the winter, at 2 P.M., on Tuesdays and Fridays; also in the summer. Two courses of Materia Medica and Therapeutics are given at separate hours on the same day; one being devoted to Materia Medica proper, and the other to the Action of Drugs.

The *Royal Infirmary* contains 315 beds. In addition to the Practice of the Infirmary, the Monsall Fever Hospital (130 beds), and the Barnes Convalescent Home (124 beds), and the Royal Lunatic Asylum at Cheadle, which accommodates 150 patients, are open for purposes of instruction.

Clinical Instruction is given by the Physicians and Surgeons of the Infirmary. A special Course of Clinical Medicine is given by Dr. W. Roberts on Tuesdays and Fridays during the Winter Session, at 9.30 A.M. Medical Demonstrations are given at 9 A.M. one morning weekly in the summer by Dr. Ross and Dr. Steell, and Surgical Demonstrations by Mr. Southam and Mr. Wright. Dr. Simpson gives instructions in the use of the Laryngoscope (Tu., 10); Dr. Dreschfeld in Electro-Therapeutics (W., 11, in summer); Mr. Wright in Aural Surgery (M., 12). Clinical Classes are held in the Fever Hospital from time to time. Mr. Mould gives Demonstrations of the various forms of Insanity at the Cheadle Lunatic Asylum, in summer (Tu., Th., 4).

Appointments.—The following appointments are made: a Registrar, a Pathological Registrar, and two Assistant Medical Officers, annually, each at £100 *per annum;* Resident Medical Officer, two years, £250 *per annum;* ditto, at Cheadle, one year, £150 *per annum;* ditto, at Monsall, one year, £200 *per annum;* Resident Surgical Officer, one year, £150 *per annum;* eight House-Surgeons (qualified) and four House-Physicians, a Resident Assistant at Monsall, and one at Cheadle, each for six months. Two or more Clinical Clerks are attached to each Physician and Assistant-Physician, and two or more Dressers to each Surgeon and Assistant-Surgeon. Two Clerks are also appointed to the Pathological Registrar, and to each of the Assistant Medical Officers. These appointments are made for three months. Accident-room Dressers are appointed monthly, for two months.

Prizes.—Class Prizes.—A prize of the value of £5 5s. is offered on the results of the Final Class Examinations in each of the following subjects: Anatomy (first and second years), Physiology (first and second years); Pathology and Morbid Anatomy, Medicine, Surgery, and Midwifery and Diseases of Women and Children; one of the value of £3 3s. in each of the following: Botany, Practical

Chemistry, Materia Medica and Therapeutics, Medical Jurisprudence, Hygiene, Practical Surgery, Ophthalmology, and Practical Physiology; and one of the value of £2 5s. in each of the following subjects: Practical Anatomy (senior and junior), Surgical Pathology, Diseases of Children, Mental Diseases, and Materia Medica (first year's course). [Students absent from these examinations are not entitled to a certificate of attendance on the class.] Turner Scholarship of £25, to students who have completed four years of study in the College, after examination in the subjects of the third and fourth years' courses. Platt Physiological Scholarship, value £50, tenable for two years, to students between the ages of 18 and 25, who have attended Physiology in the College Laboratory during one session, for best original investigation and the result of a written examination. The successful candidate must attend for one year of his tenure the class of Practical Physiology in the Laboratory of the College, and in the other year the same or some other approved Physiological Laboratory. Examinations on October 8th, 9th, and 10th. Two Platt Exhibitions, £15 each, for first and second years' students in Physiology. Dumville Surgical Prize, value £20 (in books or surgical instruments), at the end of winter session, to students of two years who have attended four courses, including one at least in Surgery. Subjects of Examination (about middle of July, 1884): Principles and Practice of Surgery (including Surgical Anatomy), or Surgical Pathology, and, at option of Examiners, examination of patients and operations on dead subject, with reports of cases. Dauntesey Medical Scholarship, value about £100, tenable for one year. Candidates must not have attended lectures in a medical school. Subjects of Examination: General and Comparative Anatomy, with Dissections and Description of Preparations illustrating Typical Forms of Animals; Outlines of Physiological Botany; Chemistry; and either Mathematics or Latin. The successful candidate must enter to the full course of medical studies at the College. Examination will commence on September 29th. A Gilchrist Scholarship of £50 *per annum*, tenable for three years in the College, to the candidate standing highest in the Matriculation Examination of the University of London in June, if in the Honours Division. The successful candidate must prepare for graduation in the University of London. Grammar School Scholarship, value £17, tenable for three years, open to scholars of the Manchester Grammar School between the ages of 15 and 23. The successful candidate must enter to one of the departments of Owens College. Medical and Surgical Clinical Prizes (books or instruments to the value of £6 6s. in each department) are given for reports of cases in the Infirmary.

Tutorial Classes in Medicine and Surgery are formed before each examination at the College of Surgeons. There are also tutored classes in Anatomy and Physiology.

Prospectuses may be obtained from the Registrar, Mr. J. H. Nicholson.

SHEFFIELD SCHOOL OF MEDICINE.—The General Infirmary contains 180 beds, including two ophthalmic wards. The Public Hospital and Dispensary contains 110 beds. Students are also admitted to the practice of the Jessop Hospital for Diseases of Women.

Besides the lectures mentioned at page 489, a course of Public Medicine is given by Dr. Drew.

The Library of the Medical School is open to students under certain regulations.

Prizes and certificates of honour are given at the end of each session.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Students have access to the Reading Room, and the Museums of Anatomy and Pathology, and of Materia Medica, in the College; the Museum of Pathology and the Medical Library of the Infirmary; the Libraries of the College of Physical Science and of the Literary and Philosophical Society; and the Chemical and Physical Laboratories in the College of Physical Science.

Appointments.—An Assistant-Curator of the Museum is annually appointed from among the senior students, and receives £12 as an honorarium. Assistant Demonstrators of Anatomy, Prosectors for the Lectures on Anatomy, Assistant Physiologists, Pathological Assistants, and Assistants to the Dental Surgeon, are also elected. Four times in the year, two Resident Medical Assistants, two Resident Surgical Assistants, three Non-resident Clinical Clerks, and sixteen Non-resident Dressers (eight for the In-patients, and eight for the Out-patient Department), are nominated by the Medical Board, and, if approved, appointed by the House Committee for three months. The Medical and Surgical Assistants are provided with apartments and board in the Infirmary, on payment of £5 5s. for three months.

The Infirmary contains 230 beds. There are special wards for diseases of the eye, for lock cases, male and female, and for children. Pathological Demonstrations are given as opportunity offers. Practical Midwifery can be studied at the Newcastle Lying-in Hospital, which contains 12 beds. Opportunities for practical study are also afforded by the Dispensary, Fever Hospital, Eye Infirmary, Children's Hospital, and Coxlodge and Dunston Lunatic Asylums. Lectures are given on Psychological Medicine at the Coxlodge Lunatic Asylum, by Mr. R. H. B. Wickham, Medical Superintendent. Mr. H. E. Armstrong gives a course of lectures on Public Health at 3 P.M. on Tuesday, in winter. The lectures on Anatomy during the first six weeks are given as follows: first year students, Tu., Th., 12, and M. and F., 9.15; second year students, Tu., W., Th., and S., 9.15. The lectures on Therapeutics are given by Mr. Barron (M., W., 3), and those on Materia Medica by Mr. McBean (M., W., 4; F., 3). Courses of Anatomical Demonstration are given in the summer.

Scholarships, etc.—An University of Durham Scholarship, value £25 a year, for four years, for proficiency in Arts, awarded annually at beginning of winter session to perpetual students in their first year only.[2] The Dickinson Memorial Scholarship, value £15 annually, for Medicine, Surgery, Midwifery, and Pathology; open to perpetual students who have passed the primary examination of a licensing body. The Tulloch Scholarship, interest of £400 annually, for Anatomy, Physiology, and Chemistry. The Charlton Memorial Scholarship, interest of £700 annually, with Gold Medal, open to full students entered for the class of Medicine, at end of winter session. The Gibb Scholarship, interest of £500 annually, for Pathology, at end of summer session. The Goyder Memorial Scholarship, proceeds of £325: subjects, Clinical Medicine and Clinical Surgery. At the end of each session, a Silver Medal and Certificates of Honour are awarded in each of the regular classes.

Further Information may be obtained from the Registrar, Dr. Luke Armstrong, Newcastle-on-Tyne.

The following hospitals are also recognised by the Royal College of Surgeons for the purpose of professional education: Bath United Hospital; Bedford General Infirmary; Berkshire Royal Hospital, Reading; Bradford Infirmary; Addenbrooke's Hospital, Cambridge; Derbyshire General Infirmary; Devon and Exeter Hospital: Gloucester General Infirmary; Hants County Hospital, Hull Infirmary; Kent and Canterbury Hospital; Leicester Infirmary; Norfolk and Norwich Hospital; Northampton General Infirmary; Nottingham General Hospital; Radcliffe Infirmary, Oxford; Salisbury General Infirmary; Salop Infirmary; Staffordshire General Infirmary; North Staffordshire Infirmary; Wolverhampton and Staffordshire General Hospital; Sussex County Hospital; Worcester Infirmary.

NOTES ON THE MEDICAL SCHOOLS AND HOSPITALS IN SCOTLAND.

UNIVERSITY OF ABERDEEN.—Practical Toxicology, Dr. Matthew Hay (sum.). Fee to each class, £3 3s., except Anatomical Demonstrations, £2 2s.; Practical Natural History, Practical Midwifery, Practical Pharmacy, Operative Surgery, each £2 2s.; Practical Ophthalmology, Practical Toxicology, Dental Surgery, and Public Health, each £1 1s.; Matriculation fee, both sessions, £1; summer session alone, 10s.

ROYAL INFIRMARY, ABERDEEN.—Perpetual fee, £6; or first year, £3 10s.; second year, £3. Clinical Medicine and Clinical Surgery, each £3 3s. The General Dispensary and the Lying-in, Vaccine, and Eye Institutions are open daily. Clinical instruction in Insanity is given at the Royal Lunatic Asylum by Dr. Reid; in Diseases of the Ear and Larynx at the Dispensary, by Dr. Mackenzie Booth; and in Diseases of the Skin at the Royal Infirmary and Sick Children's Hospital, by Dr. Garden. The fee in each case is £1 1s.

UNIVERSITY OF EDINBURGH.—Minimum expenses for Lectures and Hospital Practice, with Examinations, £107 18s.; or, first summer, £9 8s.; first winter, £18 17s.; second summer, £8 8s.; second

[2] The subjects of examination, which will commence on October 12th, will be, Greek: *The Gospel of St. Luke;* Latin: Grammar: Cæsar, *De Bello Gallico*, Book IV; Virgil's *Æneid*, Book IV; Euclid, Books I and II; English History (William III to William IV, inclusive).

TABLE OF THE MEDICAL OFFICERS, PROFESSORS, AND LECTURERS IN MEDICAL SCHOOLS OF SCOTLAND.

For further particulars regarding each Hospital and Medical School, see pp. 493 *and* 495-96. *The letters* (W.) *and* (S.) *in this Table denote respectively Winter and Summer Courses.*

Lectures, etc.	Aberdeen University.	Edinburgh University.	School of Medicine, Edinburgh.	Glasgow University.	Glasgow, Anderson's College.	Glasgow Royal Infirmary School.	Glasgow Western Medical School.
Anatomy (Lectures).	Dr. Struthers 11 (W.)	Mr. Turner, 1 (W.)	(*b*) Mr. Symington 1 (W.) & (*a*) Mr. Cathcart, 9 (W.)	Dr. Cleland, 2 and 11 (W.); 11 (S.)	Dr. A. M. Buchanan (jun.), 12.30 (W.)	Mr. H. E. Clark, 12 (W.); M. W. Th., 12 (S.)	Mr. F. Carter 11 (W. and S.)
Anatomical Demonstrations.	Dr. Struthers, 9 (W. and S.)	Mr. Turner, 4 (W.); 11 (S.)	Mr. Symington and Mr. Cathcart, 4 (W.); 11 (S.)	Dr. Cleland, 11 (W.)	Dr. A. M. Buchanan, 4 (W.), 11 (S.)	Mr. Clark, 12 (W.)	Mr. Carter 2 P.M. (W.)
Dissections	9 to 4 (W. and S.)	Daily (W. and S.)	9 to 4 (W. and S.)	9 to 4 (W.); 8 to 2 (S.)	9 to 5 (W.); 6 A.M. to 5 P.M. (S.)	10 to 5 (W.); 7 A.M. to 1 P.M. (S.)	10 to 4 (W.); 8 to 4 (S.)
Physiology	Dr. Stirling, 2 (W.)	Dr. Rutherford, 11 (W.)	(*a*) Dr. James and (*b*) Mr. J. Hunter, 11 (W.)	Dr. McKendrick, 12 (W.)	Dr. —— 12.30 (W.)	Dr. W. J. Fleming, 3 (W.)	Mr. Limont, 1 (W.)
Practical Physiology.	Dr. Stirling, 2 (S.)	Dr. Rutherford (W. and S.)	Dr. James and Mr. J. Hunter (S.)	Dr. McKendrick and Dr. Muirhead, 12 (S.)	Dr. —— 12.30 (W.)	Dr. W. J. Fleming, Tu. Wed. Th., 4 (S.)	Mr. Limont, 3 (W. & S.)
Chemistry	Mr. Brazier, 3 (W.)	Dr. Crum-Brown 10 (W.); 1 (S.)	(*a*) Dr. S. Macadam, (*b*) Mr. King, (*c*) Dr. Drinkwater, Mr. J. Y. Buchanan, 10 (W.)	Mr. Ferguson, 10 (W.)	Mr. Dittmar, 10.15 (W.)	Dr. J. Clark, 4 (W.)	Mr. Milne, 10 (W.)
Practical Chemistry.	Mr. Brazier, 10 (S.)	Dr. Crum-Brown, 2 (W.); 10 (S.)	Dr. S. Macadam, etc. (as above), & (*a*) Mr. I. Macadam, 9 to 5 (W. and S.)	Mr. Ferguson, 9 (S.)	Mr. Dittmar, Tu. Wed. Th., 4 (S.)	Dr. J. Clark, M. Tu. Wed., 3 (S.)	Dr. Milne, 10 (S.)
Materia Medica .	Dr. Davidson, 4 (W.)	Dr. Fraser, 2 (W.)	(*a*) Dr. Moinet and (*b*) Dr. Craig, 2 (W.); 9 (S.)	Dr. Charteris, 12 (W.)	Dr. Morton, 4 (W.)	Dr. Dougall, 3 (W.)	Dr. Carmichael, 3 (W.)
Pharmacy.....	Dr. Davidson, 4 (S.)	Dr. Fraser, 10 (W. and S.)	(*b*) Dr. Craig, 3 (W.); 10 (S.)	Dr. Charteris, 12 (S.)	——	——	Dr. Carmichael, 12 (S.)
Botany	Dr. Trail, 8 A.M. (S.)	Dr. Dickson, 8 (S.)	——	Dr. I. B. Balfour, 8 A.M. (S.)	Mr. A. S. Wilson, 1 (S.)	——	——
Zoology & Comparative Anatomy.	Dr. H. A. Nicholson, 2 (W & S.); Practical, 3 (S.)	Dr. Cossar Ewart, 2 (S.)	(*a*) Dr. A. Wilson, 3 (W.); 2 (S.); (*b*) Mr. Geddes, 2 (W.)	Dr. Young, 9 (W.)	——	——	——
Medicine	Dr. Smith-Shand, 11 (W.)	Dr. Grainger Stewart, 9 (W.)	(*b*) Dr. J. Wyllie, (*a*) Dr. Affleck, and (*d*) Dr. B. Bramwell, 9 (W.)	Dr. Gairdner, 11 (W.); Tu. Th., 1 (S.)	Dr. Gemmell, 5 (W.)	Dr. J. W. Anderson, 1 (W).	Dr. McVail, 11 (W.)
Surgery.....	Dr. A. Ogston, 10 (W.)	Mr. Chiene, 10 (W.)	(*d*) Mr. J. Duncan, Dr. A. G. Miller, and Dr. MacGillivray, 10 (W.)	Dr. Macleod, 1 (W.)	Dr. Dunlop, 3 (W.)	Dr. Macewen, 11 (W.)	Mr. Knox, 12 (W.)
Practical & Operative Surgery.	Dr. A. Ogston, 10 (S.)	Mr. Chiene, M. Tu. Th. F., 4 (S.)	Mr. J. Bell (W.); Mr. Duncan, etc. (as above) 4 (S.)	Dr. Macleod, Mon. Wed., Fr., 1 (S.)	Dr. Dunlop, Mon. W. Fr., 11 (S.)	Dr. Macewen, 1 (S.)	Mr. Knox, 1 (S.)
Ophthalmic Surgery.	Dr. A. D. Davidson (S.)	——	(*a*) Dr. A. Robertson, daily, 9 (S.); (*b*) Dr. J. Robertson, Tu. Th., 4 (W.); M. W. F., 3 (S.); (*a*) Mr. G. Berry, Tu. W. Th., 9 (S.)	Dr. T. Reid, Tu. Th., 2 (S.)	Dr. Wolfe, Sat., 1 (W.); Wed., 12 (S.)	Mr. H. E. Clark, Tu. Fr., 12 (S.)	——
Midwifery & Diseases of Women, etc.	Dr. Stephenson, 4 (W.); Practical, 11 (S.)	Dr. Simpson, 11 (W.); Practical, Tu. F., 10 (S.)	(*c*) Dr. C. Bell and (*d*) Dr. P. Young, 11 (W.), 10 (S.); (*a*) Dr. Keiller, (*b*) Dr. Croom, (*d*) Dr. P. Young and Dr. B. Hart, 10 (S.)	Dr. Leishman, 2 (W.)	Dr. A. Wallace, 1.30 (S.)	Dr. Stirton, 3 (S.)	Dr. W. L. Reid, 12 (W.); Practical, 12 (S.)
Pathology	Mr. D. J. Hamilton, 3 (W.); Practical (W. & S.)	Dr. Greenfield, 3 (W.); 11 (S.)	(*b*) Dr. Waller, 9 (W.); 2 (S.); (*a*) Dr. Buist, 9 (W. and S.)	Dr. Coats	——	Mr. D. Newman, 10 (S.)	In Western Infirmary.
Medical Jurisprudence.	Dr. M. Hay 9 (W.), (with Medical Logic).	Dr. Maclagan, 11 (S.)	(*a*) Dr. Littlejohn, 2 (W.); 11 (S.); (*b*) Mr. Aubrey Husband, 2	Dr. P. A. Simpson, 11 (S.)	Dr. A. Lindsay, 3 (S.)	Dr. Glaister, 11 (S.)	Dr. Eben Duncan, (S.)
Hospital	Royal Infirmary (*a*), daily, noon	Royal Infirmary (*b*)	Royal Infirmary (*b*).	Western Infirm. (*c*.), 9; Royal Infirmary (*d*)	Royal Infirmary (*d*), 9	Royal Infirmary (*d*), 9	Western Infirmary (*c*)
Clinical Medicine	Dr. Smith-Shand, Dr. Beveridge, and Dr. A. Fraser.	Drs. Maclagan, Stewart, Fraser, Greenfield and Simpson (Dis. of. Women, Tu. F., 12	Drs. Muirhead, Brakenridge, Wyllie, A. Macdonald (Obst.), Tu. F., 12 (W. and S.)	Dr. McCall Anderson and Dr. Gairdner, 9 (W. and S.)	Physicians of Royal Infirmary.	Physicians of Royal Infirmary.	Physicians of Western Infirmary.
Clinical Surgery	Dr. A. Ogston, Dr. Will, and Dr. Garden.	Mr. Annandale, M. Th., 12 (W. and S.)	Mr. J. Bell, M. Th., 12 (W. and S.)	Dr. G. Buchanan and Dr Macleod, 9 (W. & S.)	Surgeons of Royal Infirmary.	Surgeons of Royal Infirmary.	Surgeons of Western Infirmary.

a. Aberdeen Royal Infirmary.—*Physicians:* Dr. Smith-Shand, Dr. Beveridge, and Dr. A. Fraser. *Surgeons:* Dr. A. Ogston, Dr. Will, and Dr. Garden. *Ophthalmic Surgeon:* Dr. Davidson. *Dentist:* Dr. Williamson.

b. Edinburgh Royal Infirmary.—*Consulting Physicians:* Dr. D. R. Haldane and Dr. A. Keiller. *Physicians:* Mr. Maslagan, Dr. A. R. Simpson, Dr. T. Grainger Stewart, Dr. T. R. Fraser, Dr. Greenfield (the preceding as Professors of Clinical Medicine), Dr. C. Muirhead, Dr. Brakenridge, Dr. A. Macdonald, and Dr. J. Wyllie (lecturers on Clinical Medicine). *Assistant-Physicians:* Dr. Affleck, Dr. A. Smart, Dr. A. James. *Consulting-Surgeons:* Dr. J. Dunsmure and Dr. J. D. Gillespie. *Surgeons:* Mr. J. Chiene (Professor of Surgery). Mr. Annandale (Professor of Clinical Surgery), Dr. J. Bell, Dr. Duncan, and Dr. A. G. Miller. *Extra Acting Surgeon:* Dr. P. H. Watson. *Ophthalmic Surgeon:* Dr. D. A. Robertson. *Assistant Ophthalmic Surgeon:* Dr. G. A. Berry. *Surgeon for Ovarian Diseases:* Dr. T. Keith. *Surgeon for Diseases of the Ear, Throat and Larynx:* Dr. P. McBride. *Assistant-Surgeons:* Dr. P. H. Maclaren, Dr. J. Bishop, Dr. MacGillivray, and Dr. Cotterill. *Pathologist:* Dr. Byrom Bramwell. *Dental Surgeon;* Dr. J. Smith.

c. Glasgow Western Infirmary.—*Physicians:* Dr. Gairdner, Dr. McCall Anderson, Dr. Finlayson, Dr. G. P. Tennent. *Assistant Physician:* Dr. J. Coats. *Physician for Diseases of Women:* Dr. Leishman. *Surgeons:* Dr. Macleod, Dr. G. Buchanan, Dr. A. Patterson, Dr. H. C. Cameron. *Dispensary Physicians:* Dr. McVail, Dr. S. Gemmell, and Dr. J. Christie. *Extra Dispensary Physician:* Dr. W. G. Dun. *Out-door Physician Accoucheurs:* Dr. R. Kirk, Dr. W. L. Reid, Dr. M. Cameron. *Dispensary Surgeons:* Dr. Knox, Dr. Renton, and Dr. Beatson. *Dispensary Surgeon for Diseases of the Ear:* Dr. T. Barr. *Extra Dispensary Surgeons:* Dr. D. Newman, Mr. A. E. Maylard. *Dental Surgeon:* Mr. J. R. Brownlie. *Pathologist:* Dr. Coats. *Pathological Chemist:* Mr. J. L. Steven.

d. Glasgow Royal Infirmary.—*Physicians:* Dr. Perry, Dr. Charteris, Dr. Maclaren, Dr. Scott Orr, Dr. Wood Smith. *Physician for Diseases of Women:* Dr. Stirton. *Surgeons:* Dr. Dunlop, Dr. Clark, Dr. Morton, Dr. E. Watson, Dr. Macewen. *Aural Surgeon:* Dr. J. Macfie. *Dental Surgeon:* Dr. J. C. Woodburn. *Dispensary Physicians:* Dr. J. W. Anderson, Dr. Dougall. *Extra Dispensary Physicians:* Dr. Middleton, Dr. T. B. Henderson, Dr. Campbell Black, Dr. Macphee. *Dispensary Surgeons:* Dr. Lothian, Dr. Fleming. *Extra Dispensary Surgeons:* Dr. Barlow, Dr. J. A. Adams, Dr. Muir, Dr. Shaw. *Surgeon for Diseases of the Throat:* Dr. E. Watson. *Diseases of the Skin:* Dr. Provan.

winter, £15 14s.; third summer, £3 3s.; third winter, £18 17s. fourth summer, £6 6s.; fourth winter, £16 15s.; final examination £10 10s.; Sessional Fee for Materia Medica, Chemistry, Surgery Institutes of Medicine, Midwifery, Clinical Surgery (winter), Clinical Medicine (winter), Anatomy, Practice of Physic, Pathology, Botany (with Garden Fee of 5s.), Natural History, Medical Jurisprudence, each £4 4s.; Practical Anatomy, Practical Physiology, Practical Chemistry, Practical Pathology, Clinical Medicine (summer), Clinical Surgery (summer), Operative Surgery, Mental Diseases, Practical Materia Medica and Pharmacy, £3 3s.; Anatomical Demonstrations, Obstetric and Gynæcological Operations, Organic Chemistry (advanced), Practical Natural History, Vegetable Histology, each £2 2s.; Practical Midwifery, £1 4s.; Vaccination, £1 1s. The fee for a second course of any lectures is £3 3s.; any subsequent course is free. For a perpetual ticket at the beginning of the first course, the fee is £6 6s. Every student, before entering with any Professor, must produce a matriculation-ticket for the ensuing session, for which a fee of £1 is paid at the beginning of each winter session. Students first entering in the summer session pay a fee of 10s.—The Library is open every lawful day during the winter session, from 10 A.M. till 4 P.M.; on Saturdays, till 1 P.M.

The following means are afforded for practical instruction, in addition to those mentioned in the table at page 494: Practical Pathology, Morbid Anatomy, under the superintendence of Dr. Greenfield, assisted by Dr. Woodhouse and Mr. Kennedy; Tutorial Class of Clinical Medicine, in the Royal Infirmary, by the Clinical Tutor, Dr. Murdoch Brown, under the superintendence of the Clinical Professor; Tutorial Class of Clinical Surgery, by the Clinical Tutor, Mr. Cotterill, under the superintendence of the Clinical Professor; Practical Surgery, under the superintendence of Mr. Chiene and Mr. F. M. Caird; Obstetric Operations, by Dr. Simpson and Dr. Barbour; Chemistry (advanced class), by Dr. Crum Brown; Practical Instruction in Mental Diseases at Morningside Asylum, by Dr. Clouston, on Mondays, Wednesdays, and Fridays, at 3. The Anatomical Museum, under the superintendence of Mr. Turner; Chemical Laboratories, under Dr. Crum Brown and Assistants; Physiological Laboratory, under Dr. Rutherford and Assistants; Physical Laboratory, under Mr. Tait; Natural History Museum, under the superintendence of Dr. Cossar Ewart and Assistants; Medical Jurisprudence Laboratory, under the superintendence of Dr. Maclagan and Dr. J. A. Gray; Royal Botanic Garden, Herbarium, and Museum, under the superintendence of Dr. Dickson; Materia Medica Museum and Laboratory, under the superintendence of Dr. Fraser, are open to students.

Fellowships, etc.—Falconer Memorial Fellowship, for the encouragement of the study of Palæontology and Geology, value £100, tenable for two years, open to Graduates in Science or Medicine of the University of not more than three years' standing. Syme Surgical Fellowship, value about £100, tenable for two years, open to Bachelors of Medicine of not more than three years' standing, who shall present the best Thesis on a Surgical subject, giving evidence of original research or practical talent. Leckie-Mactier Fellowship, annual proceeds of £2,000, tenable three years, open to Bachelors of Medicine of not more than three years' standing; next award in November 1885. Sibbald Scholarship, £40, tenable for three years; subjects: Chemistry, Botany, and Natural History; next competition in October 1883. Hope Prize Scholarship, about £30. Thomson Scholarship, value £40, in October 1886; subjects: Botany, Zoology, and Elementary Mechanics. Six Vans Dunlop Scholarships, each about £100, tenable for three years; one, in March 1884, for highest marks at Preliminary Examinations; one, in July 1884, for highest marks (not less than 60 per cent.) in first year's subjects—Botany, Zoology, Chemistry, and Anatomy; one, in March 1884, for highest marks (as above) in Physiology and Surgery; three (one annually in April) at end of third winter, for highest marks at a special examination on Anatomy, Physiology, Materia Medica, and Pathology. Vans Dunlop Scholarships in Chemistry and Clinical Pharmacy, and in Natural History, including Botany and Geology, each £100, tenable for three years. Coldstream Memorial Medical Missionary Scholarship, proceeds of at least £470, tenable for four years, to the students who intend to become medical missionaries; next award at Preliminary Examination in October, 1883. Buchanan Scholarship, annual proceeds of £1,000, yearly, for proficiency in Midwifery and Gynæcology. Murchison Memorial Scholarship, annual proceeds of about £1,000; alternately in Edinburgh and London; next competition in London in 1884. James Scott Scholarship; annual proceeds of £1,000, for proficiency in Midwifery. Abercrombie Bursary of £20, for four years, to students who have been brought up in Heriot's Hospital. Two Sibbald Bursaries, value £30 each. Eight Thomson Bursaries, value £25 each, tenable four years, in March and October, at Preliminary Examination in the subjects of General Education. Four Grierson Bursaries, each £20 *per annum*; in the absence of certain preferential candidates, open to competition: one to the student who shall pass the best examination in the subjects of Preliminary Education; one open to student commencing the second winter session; after examination in Chemistry, Botany, and Natural History; one to student commencing the third winter session, after examination in Anatomy and Physiology; one to student commencing the fourth winter session, after examination in Materia Medica and Pathology. Tyndall Bruce Bursary, £25, to students at end of third winter session; subjects of examination: Materia Medica and Pathology. Two Dr. John Aitken Carlyle's Medical Bursaries, £25 each, for one year, for proficiency in ordinary class-examinations: one to a first year's student, in Anatomy and Chemistry; one to a second year's student, in Anatomy and Physiology. Two Mackenzie Bursaries, proceeds of £1,000 annually, to students in junior and senior classes of Practical Anatomy, for industry and skill. Competitors for the Bursaries must have studied the subjects of examination at the University of Edinburgh. Gold medals are given on graduation to Doctors of Medicine whose theses are deemed worthy. Ettles Medical Prize, value about £40, to the most distinguished Graduate in Medicine of the year. Beaney Prize, value about £40, to the candidate for degrees of M.B. and C.M., who shall obtain most marks in Anatomy, Surgery, and Clinical Surgery. Hope Chemistry Prize, value £100, open to all students of the University not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory. Neil Arnott Prize, about £40, to the candidate who, having been a medical student of the University during either a summer or a winter session, shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. The successful candidate must continue a medical student of this University during the winter session. Ellis Prize: accumulated proceeds of about £500, every three years, for an Essay or Treatise in some subject of Animal or Vegetable Physiology. Goodsir Memorial Prize, £60, awarded triennially. Wightman Prize, £10 10s., to student of class of Clinical Medicine for best report and commentary on cases treated in the wards. Cameron Prize, income of £2,000, yearly, to the member of the medical profession who shall have made the most valuable addition to Practical Therapeutics during the preceding year.

EDINBURGH ROYAL INFIRMARY.—Fees: three months, £2 2s.; six months, £4 4s.; one year, £6 6s.; perpetual, £12. Separate payments, amounting to £12 12s., entitle to a perpetual ticket. Clinical Medicine and Clinical Surgery, each £4 4s. for the course in winter, and £3 3s. in summer. Resident Physicians and Resident Surgeons are appointed; they live in the house for six months free of charge. Candidates must be registered as legally qualified practitioners. Non-resident Clinical Clerks are appointed. Each surgeon appoints from four to nine Dressers for six months. Assistants in the Pathological Department are appointed by the Pathologist. Instruction is given in special departments.

SCHOOL OF MEDICINE, EDINBURGH.—In the table at page 494, the lecturers marked *a.* give their instruction in Surgeons' Hall; *b.* at Minto House; *c.* at 20, Marshall Street; *d.* at Park Place. The following courses of instruction are given in addition to those mentioned at page 494: Tutorial Classes of Physical Diagnosis and of Practical Surgery at the Royal Infirmary; Diseases of the Ear, Dr. Kirk Duncanson, lectures, Fridays, 4 (winter), and Thursdays and Fridays, 11 (summer), with clinical instruction Mondays, Thursdays, and Saturdays, 12 (winter and summer); and Dr. P. McBride, Mondays and Thursdays, 4 (summer); Diseases of the Eye, Dr. J. Robertson, Tuesdays and Thursdays, 4 P.M. (winter), and Mondays, Wednesdays, and Fridays, 3 P.M. (summer); Clinical Instruction, Mondays and Thursdays, 7 P.M. (winter and summer); and Mr. G. Berry, Tuesdays, Wednesdays, and Thursdays, 9 A.M. (summer); Vaccination, six weeks' courses in winter and summer, Dr. Husband; Diseases of Children, Dr. J. Andrew and Dr. J. Carmichael; Clinical Instruction through year at the Children's Hospital, lectures in summer on Mondays and Thursdays, by Dr. Andrew at 10, and by Dr. Carmichael, at 3; Practical Medicine and Diagnosis, Dr. Byrom Bramwell, daily, 9 (summer); Practical Midwifery, with clinical instruction, in February, March, and April, Dr. A. Macdonald, at 5; Practical Gynæcology, with clinical instruction, Dr. Halliday Croom, at 5 (winter), also in summer; Practical Midwifery, with clinical

instruction, Dr. C. Bell, throughout year. Practical Midwifery and Clinical Gynæcology, Dr. P. Young, Fridays, at 1 (summer and winter); Practical Gynæcology, Dr. D. B. Hart, 5 (winter); Diseases of the Skin, Dr. A. Jamieson, Tuesdays, Thursdays, and Fridays, 11 (summer); Insanity, with practical instruction, Dr. Batty Tuke, Mondays and Thursdays, at 2 (summer); Dr. Littlejohn and Mr. Aubrey Husband lecture on Public Health in conjunction with Medical Jurisprudence. Mr. Geddes and Mr. Beddard give instructions in Practical Natural History, at Minto House; Mr. Daniel gives a course of Medical Physics, at Minto House, at 3 P.M.

Fees.—For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual £5 5s. To those who have already attended a first course in Edinburgh, the perpetual fee is £2 4s. Practical Anatomy (six months), £3 3s.; Anatomical Demonstrations, £2 2s.; perpetual, £4 4s.: Practical Anatomy with Demonstrations, £4 4s.; Practical Chemistry, £3 3s.; Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months; Practical Materia Medica (including Practical Pharmacy), Diseases of the Eye, Diseases of the Ear, Diseases of Children, and Diseases of the Skin, each £2 2s.; Practical Physics, £3 3s.; Practical Zoology, £2 12s. 6d.; Vaccination, £1 1s. Summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including Demonstrations, Operative Surgery, and Medical Anatomy and Physical Diagnosis, each £2 2s.; Insanity, £1 1s. The minimum cost of education in this school for the double qualification of the Royal Colleges of Physicians and Surgeons of Edinburgh, including the examination fee, is £95, payable by yearly instalments; for the single diploma of either Physician or Surgeon, including the examination fee, £85.

Practical instruction in various subjects may also be obtained on payment of moderate fees at the Sick Children's Hospital, Royal Public Dispensary and New Town Dispensary, Royal Maternity Hospital, and the Edinburgh Eye Infirmary.

UNIVERSITY OF GLASGOW.—Fees, each course, £3 3s., except summer courses of Anatomy, Insanity, Diseases of Women, and Operative Surgery, each £2 2s., and Lectures on the Eye, £1 1s. In most of the courses for which £3 3s. is charged, the fee for a second session is £2 2s.; for a third session, £1 1s.

The Chemical Laboratory is open from 10 A.M. to 4 P.M. (fee £10 10s. in winter, and £5 5s. in summer); the Physiological Laboratory from 9 A.M. to 4 P.M., winter and summer; and the Botanical Laboratory from 9 A.M. to 4 P.M. in summer (fee £2 2s.). Demonstrations in the Botanical Garden are given in summer.

GLASGOW.—ANDERSON'S COLLEGE.—The following courses are given in addition to those at p. 494. In winter, Senior Anatomy, Dr. Buchanan, 4 P.M.: in summer, Osteology, Dr. Buchanan, as may be arranged; Public Health, Dr. Christie, 4 P.M.; Aural Surgery, Dr. Barr, Thursday, 3 P.M.; Practical Medical Chemistry, Mr. Dittmar, Tuesday, Wednesday, and Thursday, 4 P.M. The Chemical Laboratory is open daily from 10 to 5. Students of the College are admitted to the practice of the Ophthalmic Institution on the payment of a matriculation fee of 5s.

Fees.—Each course of lectures (except Anatomy), first session, £2 2s.; second session, £1 1s.; afterwards free. Anatomy (including Dissecting-Room), first session, £4 4s.; second session, £4 4s.; third session and perpetual, £1 1s.; summer (including Practical Anatomy), £1 11s. 6d.; Osteology, £1 1s. Students who have attended classes at other schools, will be admitted to such classes as they may have attended elsewhere at reduced fees. Fees for all the Lectures and Hospital Practice required of candidates for the diplomas of Physician and Surgeon, £48.

A Dispensary is connected with Anderson's College. Students have the privilege of visiting and treating patients at their own homes, being assisted by a specially appointed qualified practitioner.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—In addition to the subjects mentioned in the table at page 494, lectures are given in the summer on Aural Surgery, by Dr. Johnston Macfie at 4 on Thursdays, and on Mental Diseases by Dr. A. Robertson at 12 noon. The City Parochial Asylum under his charge is free to students of this school.

Fees.—For each course, first session, £2 2s.; second session and perpetual, £1 1s. Students who have attended a first course elsewhere can enter on the second course on payment of £1 1s. Anatomy: first winter session, £4 4s.; summer session, £1 11s. 6d.; second winter session, £4 4s.; afterwards, for Lectures and Practical Anatomy, £1 1s. per session. Lectures on Diseases of the Ear, £1 1s.; with Clinique to those who are not students of the hospital, £2 2s. Clinique on Dental Surgery free to students of the hospital; to others, £5 one year; perpetual, £10. Lectures on Diseases of the Eye, £1 1s.

GLASGOW WESTERN MEDICAL SCHOOL.—This school is situated near the Western Infirmary, where students obtain their hospital practice and clinical lectures. The class-rooms have been newly arranged and enlarged. The attention of students is directed to the facilities for the study of Practical Anatomy and Operative Surgery, the supply of subjects being practically unlimited. The Dissecting-rooms are open for work from the beginning of October till the end of July.

The lectures qualify for the University of Glasgow, the Faculty of Physicians and Surgeons of Glasgow, and the other Corporations.

Fees.—For each course of Lectures, first session, £2 2s.; second session, £1 1s. Students who have attended a first course elsewhere pay £1 1s. Anatomy, including Practical Anatomy, £4 4s.; summer session, £1 11s. 6d.

GLASGOW ROYAL INFIRMARY.—The number of beds is 532; 214 for medical and 318 for surgical cases. There are wards for the treatment of Diseases of Women, and of Venereal Diseases in Males. Dr. Eben Watson sees cases of Diseases of the Throat at the Dispensary at 10 A.M. on Tuesdays and Fridays. Dr. Macfie attends cases of Disease of the Ear at 3.30 on Thursdays and Saturdays. Courses of Clinical Medicine and Surgery are given by the Physicians and Surgeons, and *post mortem* examinations are conducted by the Pathologist. Operations on Wednesdays and Saturdays at 9.

Appointments.—Five Physicians' and five Surgeons' Assistants reside in the hospital at the rate of £25 *per annum*. These appointments can be held for twelve months, and are open to students who have passed all their examinations except the last, or to gentlemen who have a qualification in Medicine or Surgery. Clinical Clerks and Dressers are selected from the students without additional fee.

Fees for Hospital Practice and Clinical Lectures: first year, £10 10s.; second year, £10 10s.; afterwards free: for six months, £6 6s.; three months, £4 4s. To perpetual students of other hospitals where the perpetual fee is equal to that at the Infirmary, £2 2s. for six months. For Vaccination certificate, £1 1s.

GLASGOW WESTERN INFIRMARY.—Each course of clinical instruction extends over three months. Three courses are given in each year. No student must attend the same clinical teacher for more than two courses consecutively.

Fees, first year, £10 10s., giving privilege of admission and two courses of Clinical Instruction. A second year's payment of £10 10s. in addition, or the payment of fees to the amount of £21, confers a life privilege of admission to the Infirmary and clinical instruction. Hospital attendance and clinical instruction for six months, £7 7s.; three months, £4 4s. Students having a perpetual ticket for any other hospital pay £3 3s. for a year, or £2 2s. for six months. This does not include clinical instruction.

There is an out-door Obstetrical Department in connection with the Infirmary; fee, £1 1s.

GLASGOW LYING-IN HOSPITAL.[1]—This hospital contains twenty-four beds for in-patients. The students (granted when necessary by one of the accoucheurs) attend the women who are delivered at their own homes. Fees for six months, £1 1s.

GLASGOW EYE INFIRMARY.[2]—Fee, six months, £2 2s.; three months, £1 1s.

Instructions may also be obtained at the Dispensaries for Diseases of the Skin and Ear; and the Royal Lunatic Asylum, Gartnavel, is open to students on payment of a small fee.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR ADMISSION INTO THE ARMY, NAVAL, AND INDIAN MEDICAL SERVICES.

MEDICAL DEPARTMENT OF THE ARMY.

1. EVERY candidate for a commission in the Army Medical Department must be 21 years of age and not over 28 years at the date of commencement of the competitive examination. He must produce an extract from the register of his birth, or, in default, a declaration made before a magistrate by one of his parents or guardians giving his exact age. He must also produce a recommendation

[1] *Consulting Physician*, Dr. Leishman, *Consulting Surgeon*, Dr. G. Buchanan; *Physicians-Accoucheur*, Dr. Hugh Miller and Dr. S. Swan; *Assistant-Physician*, Dr. W. J. Brock; *Out-door Physicians*, Dr. J. Dunlop, Dr. J. Moir, Dr. T. F. Gilmour, Dr. W. Muir, Dr. A. Sloan, and Dr. H. B. Wilson.

[2] *Consulting-Surgeon*, Dr. G. Buchanan; *Surgeons*, Dr. T. Reid, Dr. T. S. Meighan, Mr. H. E. Clark; Dr. J. C. Renton, *Assistant-Surgeons*; Mr. D. N. Knox, Dr. J. Macfie, and Mr. A. F. Fergus.

from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits, and likely in every respect to prove creditable to the department if a commission be granted; and also a certificate of moral character from the parochial clergyman, if possible. 2. The candidate must sign a declaration on honour that both his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, nor has any hereditary tendency thereto, nor any imperfection or disability that can interfere with the efficient discharge of the duties of a medical officer in any climate; also that he does not hold, and has never held, any commission or appointment in the public services. His physical fitness will be determined by a board of medical officers, who are required to certify that his vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification, providing it does not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists. The board must also certify that he is free from organic or other disease, and from constitutional weakness or tendency thereto, or other disability of any kind likely to unfit him for military service in any climate. 3. Certificates of age, registration of diplomas, etc., and of character, must accompany the declaration when signed and returned. 4. Candidates will be examined by the examining board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows:—*a*. Anatomy and physiology, 1,000 marks; *b*. Surgery, 1,000 marks; *c*. Medicine, including therapeutics, the diseases of women and children, 1,000 marks; *d*. Chemistry and pharmacy, and a practical knowledge of drugs, 100 marks.—N.B. The examination in medicine and surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and examination of medical and surgical patients at the bedside. The eligibility of each candidate for the Army Medical Service will be determined by the result of examination in these subjects only. Examinations will also be held in the following voluntary subjects, for which the maximum number of marks will be: French and German (150 each), 300 marks; natural sciences, 300 marks. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The natural sciences will include comparative anatomy, zoology, natural philosophy, physical geography, and botany, with special reference to materia medica. The number of marks gained in both the voluntary subjects will be added to the total number of marks obtained by those who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences. 5. After passing this examination, every qualified candidate will be required to attend one course of practical instruction at the Army Medical School as a probationer on: (1) hygiene; (2) clinical and military medicine; (3) clinical and military surgery; (4) pathology of diseases and injuries incident to military service. 6. All candidates will be required to conform to such rules of discipline as the Senate may from time to time enact, and they will be required to provide themselves with uniform, viz.: the regulation undress uniform of a surgeon, but without sword. 7. They will be required to attend the Army Medical Department Mess at Netley, and to conform to the Rules and Regulations thereof.

Every candidate for appointment to the medical ranks of the Army Medical Department shall possess two diplomas or licences, recognised by the General Medical Council—one to practise medicine, and the other surgery, and shall be registered under the Medical Act in force in the United Kingdom at the time of his appointment. A public and open competition shall be held twice in the year for the admission of qualified candidates as probationers. The number of appointments so competed for shall be not less than half of the number of vacancies which shall have arisen in the last completed half-year ending on the 30th June or 31st December. Not less than half the number of vacancies shall be filled up by competition, and it shall be competent for the Secretary of State to fill up the remaining number from such qualified candidates as may be proposed by the governing bodies of public schools of medicine in the United Kingdom, or in the colonies, as he may think proper. Every candidate so proposed shall be certified by the governing body proposing him to be duly qualified according to a standard to be laid down by the Secretary of State, and shall be approved by the Director-General. The Secretary of State shall from time to time fix the order of precedence and the proportion in which the several schools of medicine shall be offered the nomination of candidates. A surgeon on probation shall on appointment be sent to some large station for instruction in ambulance and hospital corps duties, until the commencement of the next course of study at the Army Medical School. After passing through such course at the Army Medical School as the Secretary of State shall decide, the surgeon on probation, after passing a qualifying examination in the military medical subjects taught there, and satisfying the Director-General that he is a person of proper skill, knowledge, and character for permanent appointment in the Army Medical Department, shall be commissioned as surgeon. The surgeons on probation who pass out of the Army Medical School at one qualifying examination shall take precedence among each other as surgeons, as follows:—(*a*) Those appointed on nomination according to their date of joining on probation. (*b*) Those appointed on competition according to the last day of the competitive competition, and in the order of merit at such examination, with priority over any joining under subsection (*a*) on the last day of the competitive examination. A surgeon's commission shall bear the date of the day of his passing out of the Army Medical School.

INDIAN MEDICAL SERVICE.

1. ALL natural-born subjects of Her Majesty, between twenty-two and twenty-eight years of age at the date of the examination, and of sound bodily health, may be candidates. They may be married or unmarried. They must possess a Diploma in Surgery, or a licence to practise it, as well as a Degree in Medicine, or a licence to practise it in Great Britain or Ireland. 2. The candidate must subscribe and send in to the Military Secretary, India Office, Westminster, so as to reach that address at least a fortnight before the date fixed for the examination, a declaration, stating his readiness to engage for the service and to proceed to duty immediately on being gazetted; also that he labours under no mental nor constitutional disease; nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer. A schedule of the degrees or licences possessed by the candidate, with the sources and dates thereof, must be appended. 3. This declaration must be accompanied by the following documents: (*a*) proof of age, either by extract from the register of the parish in which the candidate was born, or, where such extract is unattainable, by his own declaration (pursuant to the Act 5 and 6 Will. IV, c. 62), form of which can be obtained at the India Office. A certificate of baptism, which does not afford proof of age, will be useless; (*b*) a certificate of moral character from a magistrate or a minister of the religious denomination to which the candidate belongs, who has personally known him for at least the two years preceding the date of the application; (*c*) a certificate of registration, in accordance with the Medical Act of 1858, of the degrees, diplomas, and licences possessed by the candidate. 4. The physical fitness of candidates will be determined previous to examination by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed. Every candidate must also be free from organic disease of other organs, and from constitutional weakness, or other disability likely to unfit him for military service in India. 5. On producing the foregoing qualifications, the candidate will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows: (*a*) Anatomy and Physiology, 1,000 marks; (*b*) Surgery, 1,000; *c*. Medicine, including Therapeuties, the Diseases of Women and Children, 1,000; (*d*) Chemistry and Pharmacy, and a Practical Knowledge of Drugs, 100. The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. 6. The eligibility of each candidate for the Indian Medical Service will be determined by the result of the examination in these subjects only. 7. Candidates who desire it will be examined in French, German, and Hindustani, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica. [Candidates desiring to be examined in any of these subjects must state the same in the declaration.] 8. The number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examinations by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowlege of modern languages and natural sciences. 9. The maximum number of marks allotted to the

voluntary subjects will be as follows: French, German, and Hindustani (150 each), 450 marks; Natural Science, 300. 10. The subjects for this part of the examination will be taken from the following books: *Animal Kingdom*, by W. S. Dallas, F.L.S.; *Outlines of the Structure and Functions of the Animal Kingdom*, by Rymer Jones; or *Cours Elémentaire d'Histoire Naturelle*, par Milne Edwards; Lindley's *School Botany*, Lindley's *Medical and Economic Botany*, Henfrey's *Elementary Course of Botany; Elements of Natural Philosophy*, by Golding Bird and C. Brooks; *Physical Geography*, by Mrs. Somerville. 11. The Examiners in London will prepare a list in order of merit, with the marks affixed in the different subjects, to be transmitted to the Director-General and communicated to the Professors of the Army Medical School. If any candidate is found to be deficient in any particular subject, this shall be stated, in order that he may receive special instruction on the point at Netley. 12. After passing their preliminary examination, candidates will be required to attend one entire course of Practical Instruction at the Army Medical School, before being admitted to examination for a commission, on—1. Hygiene; 2. Clinical and Military Medicine; 3. Clinical and Military Surgery; 4. Pathology of Diseases and Injuries incident to Military Service. These courses are to be of not less than four months' duration; but candidates who have already gone through a course at Netley as candidates for the Army or Navy Medical Service may, if thought desirable, be exempted from attending the School a second time. 13. During the period of his residence at the Army Medical School, each candidate will receive an allowance of eight shillings *per diem*, with quarters, or, when quarters are not provided, with the usual lodging and fuel and light allowances of subalterns, to cover all costs of maintenance; and he will be required to provide himself with uniform (viz., the regulation undress uniform of a surgeon of the British service, but without the sword). 14. All candidates will be required to conform to such rules of discipline as the Senate may from time to time enact. 15. At the conclusion of the course, candidates will be required to pass an examination on the subjects taught in the School. The examination will be conducted by the Professors of the School. The Director-General, or any medical officer deputed by him, may be present and take part in the examination. If the candidate give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a commission as surgeon. 16. The position of the candidates on the list of surgeons will be determined by the combined results of the preliminary and of the final examinations; and, so far as the requirements of the service will permit, they will have the choice of Presidency in India, according to their position in that list. The examinations for admission to the Indian Medical Service will usually take place twice a year—viz., in February and in August.

NAVAL MEDICAL SERVICE.

1. EVERY Candidate for admission into the Medical Department of the Royal Navy must be not under 21 nor over 28 years of age on the day that he presents himself for examination. He must produce a certificate from the District Registrar of the date of his birth; or, in default, a declaration made before a magistrate, from one of his parents or other near relative, stating the date of birth. He must also produce a certificate of moral character, signed by a clergyman or a magistrate, to whom he has been for some years personally known, or by the President or senior Professor of the College at which he was educated. 2. He must be registered, under the Medical Act in force at the time of his appointment, as possessing two diplomas or licences recognised by the General Council, one to practise Medicine and the other Surgery in Great Britain and Ireland. 3. He must be free from organic disease, and will be required to make a declaration that he labours under no mental or constitutional disease or weakness, or any other imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical Officer in any climate. His physical fitness will be determined by a Board of Medical Officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's Test-Types. He must also declare his readiness to engage for general service at home or abroad as required. 4. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics and the Diseases of Women and Children; Chemistry and Pharmacy, and a practical knowledge of Drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the Application of Surgical Apparatus, and the examination of Medical and Surgical patients at the bedside.) The eligibility of each Candidate will be determined by the result of the examination in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica, also in French and German; and their position on the list of successful competitors will be improved by the number of marks gained in Natural Science and Modern Languages. 5. Every Candidate, immediately after passing this examination, will receive a Commission as a Surgeon in the Royal Navy, and will undergo a course of practical instruction in Naval Hygiene, etc., at Haslar Hospital.

PUBLIC HEALTH OR STATE MEDICINE.

SUBJOINED are the regulations of the Examining Bodies which grant degrees or certificates in Public Health or State Medicine.

UNIVERSITY OF CAMBRIDGE.—Any person whose name is on the *Medical Register* of the United Kingdom may present himself for examination, provided he be in his twenty-fourth year at least when he presents himself for the first part of the examination, and have attained twenty-four years of age before he presents himself for the second part.

Part I comprises Physics and Chemistry; the Principles of Chemistry, and methods of analysis, with especial reference to analyses of air and water; application of the microscope; the laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage; construction of dwellings, disposal of sewage and refuse, and sanitary engineering in general.

Part II will comprise laws of the realm relating to public health; sanitary statistics: origin, propagation, pathology, and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water-supply and drainage in reference to health; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

The examination in both parts will be oral and practical as well as in writing. Candidates may present themselves for either part separately, or for both together.

Every candidate must pay a fee of £4 4s. before admission to *each part* of the examination.

Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a certificate testifying to his competent knowledge of what is required for the duties of a Medical Officer of Health.

Candidates (whose names must be on the *Medical Register* of the United Kingdom) should send their names to Professor Liveing, Cambridge.

The following suggestions have been drawn up as some guide to candidates preparing for the examination. *Part* I. Candidates will be expected to understand the application of the general laws of Chemistry to such cases as occur in the practice of an Officer of Health, but will not be expected to show an acquaintance with those details of Chemistry which have no direct bearing on sanitary questions. No importance will be attached to the use of any chemical notation. It is not expected that Officers of Health will in general be able to act as public analysts, but that they will know the methods of analysis, and be able to interpret correctly the results of professional analysts. The kinds of applications of the several sciences of which the candidates are expected to show a competent knowledge will be best understood by a perusal of Parke's *Manual of Practical Hygiene*. In the actual analysis of water and air, candidates will not be expected to make complete quantitative analyses, but to know how to apply ordinary chemical methods for the detection and discrimination of mineral and organic substances in the samples. *Part* 2. Candidates will be expected to show an acquaintance with the sanitary laws in force in England; but if any candidate has information respecting alternative laws in force in the metropolis or in Scotland or in Ireland, opportunity will be given him, alternatively, of showing his acquaintance with such laws. The rest of Part 2, besides the subjects expressly mentioned, is to be understood as including those of Vaccination, Disinfectants, the management of outbreaks of Infectious Diseases, with the construction of Hospitals, temporary or permanent; Endemic Diseases; Birth-rates and Death-rates; the qualities and suitableness of various Waters used for domestic purposes; the inspection of factories, mines, workshops, and common lodging-houses.

UNIVERSITY OF LONDON.—A special examination is held once in every year in subjects relating to Public Health, and commences on the second Monday in December. No candidate is admitted to this examination unless he have passed the second examination for the degree of Bachelor of Medicine in this University at least one year previously, nor unless he have given notice of his intention to the registrar at least two calendar months before the commencement of the examination. The fee for the examination is £5, which must be previously paid to the registrar. If, after payment of his fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, the fee is not returned to him; but he may enter for any *one* subsequent examination without the payment of any additional fee, provided that he give notice to the registrar at least one calendar month before the commencement of the examination. Candidates are examined in the following subjects: 1. *Chemistry and Microscopy*, as regards the examination of air, water, and food; 2. *Meteorology*, as regards general knowledge of meteorological conditions, and the reading and correction of instruments; 3. *Geology*, as regards general knowledge of rocks, their conformation and chemical composition, and their relation to underground water, and to drainage and sources of water-supply; 4. *Physics and Sanitary Apparatus;* the laws of heat, mechanics, pneumatics, hydrostatics, and hydraulics, in relation to the construction of dwellings, and to warming, ventilation, drainage, and water-supply, and to apparatus for these and other sanitary uses; the reading of plans, sections, scales, etc., in regard of sanitary constructions and appliances; 5. *Vital Statistics*, as regards the methods employed for determining the health of a community; birth-rate; death-rate; disease-rate; life-tables; duration and expectancy of life; present amount of mortality at the various ages, and its causes, in different classes and communities; practical statistics of armies, navies, civil professions, asylums, hospitals, dispensaries, lying-in establishments, prisons, in-door and out-door paupers, friendly societies, sick-clubs, medical and surgical practice; towns; 6. *Hygiene*, including the causation and prevention of disease. Reference shall be had to such matters as the following: parentage, temperament; morbid diatheses; congenital diseases and malformations; effects of close interbreeding; special liabilities at particular periods of life; physical regimen of different ages; earth and climate, and changes of season; dampness of soil; malaria; conditions of healthy nourishment; conditions of healthy lodgment; conditions of healthy activity; hygiene of particular establishments and particular classes of population; disease as distributed in England; particular diseases, as regards their intimate nature, causation, and preventability; processes of contagion in different diseases; incubation; particular dangers of infection, etc.; disinfectants, and establishments for disinfection; quarantine; hospitals for infectious disease; conveyance of the sick; vaccination; prostitution; diseases of domestic animals in relation to the health of man; rabies; diseases of the vegetable kingdom, and failures of vegetable crops in relation to the health of man; famine-diseases; poisons in manufacture, and commercial and domestic use; 7. *Sanitary Law*, as regards the Public Health Act, 1875; the Vaccination Acts; the Rivers Pollution Prevention Act; the Sale of Food and Drugs Act; the Artisans' and Labourers' Dwellings Improvement Act, 1875; the Acts regulating the Medical Profession and the Practice of Pharmacy; the Acts relating to Factories and Workplaces, and to the Detention and Care of Lunatics. The examination is written and practical, and extends over four days. Candidates are not approved by the examiners unless they have shown a competent knowledge in all the principal subjects. In the week following the examination, the examiners publish the names of the candidates who have passed, arranged in alphabetical order. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of £5. A certificate under the seal of the University, and signed by the Chancellor, is delivered at the public presentation for degrees to each candidate who has passed.

UNIVERSITY OF DURHAM.—Certificates of proficiency in Sanitary Science are granted under the following regulations.

Candidates must give at least twenty-eight days' notice to the Registrar, and send the fee and the necessary certificates.

A. *Certificate of Proficiency in Sanitary Science.*—1. The candidate must be a registered medical practitioner. 2. He must have attended one Course of Lectures on Public Health at the University of Durham College of Medicine, Newcastle-on-Tyne, during one winter session. 3. He must pass an examination in the following subjects: *a. Physics*—Laws of light, heat, hydrodynamics, and pneumatics; *b. Chemistry*—As applied to the detection of noxious gases and atmospheric impurities, analysis of air and water; *c. Sanitary Legislation*—Knowledge of the Acts of Parliament in force for the preservation and protection of health; *d. Vital Statistics*—Rates of births, deaths, and marriages; the methods of calculation, classification, and tabulation of returns of sickness and mortality; data and conclusions deducible therefrom; *e. Meteorology, Climatology, and Geographical Distribution of Diseases in the United Kingdom; f. Sanitary Medicine*, more especially in relation to epidemic, endemic, epizootic, and communicable diseases; diseases attributable to heat, cold, or damp, insufficiency or impurity of air, food, or drink; habitation, occupation, over-exertion, intemperance, heredity; preventive measures, vaccination, isolation, disinfection; the regulation of noxious and offensive manufactures and trades; the removal of nuisances; *g. Practical Hygiene*, in reference to site, materials, construction, lighting, ventilation, warmth, dryness, water-supply, and refuse-disposal of dwellings, schools, hospitals, and other buildings of public and private resort; action with respect to nuisances and outbreaks of disease; other duties of a medical officer of health.—The examination is by written papers, practical, and *vivâ voce*. In the practical examination, the candidate is required: 1. To report upon the condition of some actual locality; 2. To analyse liquids and gases; 3. To explain the construction and the uses of instruments employed in meteorology; 4. To make microscopic examinations. The fee is £5 5s. The next examinations will commence on October 9th, 1883, and April 23rd, 1884.

B. *Certificate of Proficiency in Sanitary Science for Medical Officers of Health.*—The candidate must have obtained a registrable qualification before January 1st, 1878, and must have acted as a medical officer of health for five years. He must not be under thirty years of age. He must pass the same examination as particularised under the heading A., and must write an essay upon some practical sanitary subject, and be examined upon the essay and upon other sanitary questions. The fee is £10 10s.

UNIVERSITY OF EDINBURGH.—This University gives the degrees of Bachelor and Doctor of Science in Public Health, under the following conditions.

Bachelor of Science.—1. The candidate must be a graduate in Medicine of a British University, or of such Colonial, Indian, or Foreign University as may be specially recognised by the University Court. 2. He must be matriculated for the year in which he appears for examination. 3. If the candidate have not passed an *annus medicus* in the University of Edinburgh, he must, before presenting himself for examination, have attended in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations. 4. There are two examinations for the degree of Bachelor of Science in the department of Public Health. A candidate who has passed the first examination may proceed to the second at the next period fixed for this, or at any subsequent examination. 5. The candidate must produce evidence that, either during his medical studies or subsequently, he has attended a course of lectures in which instruction was given on Public Health; and that he has studied Analytical Chemistry practically for three months with a recognised teacher. 6. The examinations are written, oral, and practical, and are conducted by University examiners selected by the University Court. 7. The subjects of the examination for the degree of Bachelor of Science in the department of Public Health are as follows.

First Examination.—1. *Chemistry.*—Analysis of air, detection of gaseous emanations and other impurities in the atmosphere; analysis of waters for domestic use, and determination of the nature and amount of their mineral and organic constituents; detection, chemical, and microscopical, of adulteration in articles of food and drink, and in drugs; practical examination, including at least two analytical researches. 2. *Physics*—Hydraulics and hydrostatics, in reference to water-supply, drainage, and sewerage; pneumatics, in relation to warming and ventilation; meteorology, and methods of making meteorological observations; mensuration, in reference to the plans and sections of public and private buildings, mines, waterworks, and sewers. The candidate must make figured sketches for models, and have a knowledge of mechanical drawing. 3. *Sanitary Law*—Knowledge of the leading Sanitary Acts of Parliament. 4. *Vital Statistics*—Knowledge of statistical methods and data in reference to population, births, marriages, and deaths. An oral examination, and an examination in practical chemistry in the laboratory, will take place a few days after the written examination.

Second Examination.—1. *Medicine*—Origin, nature, and propagation of epidemic and contagious diseases; prevention of contagion and

infection: endemic diseases, and the geographical distribution of disease: insalubrious trades; overcrowding; epizootics, including pathological changes. 2. *Practical Sanitation*—Duties of a health-officer in reference to water-supply; insalubrious dwellings and public buildings; removal and disposal of sewage and other refuse and impurities; cemeteries; nuisances from manufactories, etc.; bad or insufficient supplies of food: outbreaks of zymotic diseases; quarantine; disinfectants and deodorisers; construction of permanent and temporary hospitals.

The first examinations will take place on October 11th to 14th, 1883, and March 24th to 27th, 1884; the second on November 27th and 29th, 1883. Candidates must give notice and pay the fee on or before March 1st.

Doctor of Science.—A Bachelor of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same department, on producing evidence that he has been engaged in practical sanitation since he received the degree of Bachelor of Science, and on producing a thesis on some subject embraced in the department of Public Health. Every such thesis must be certified by the candidate to have been composed by himself, and must be approved of by the Examiners. The candidate for the degree of D.Sc. must lodge his thesis with the Dean of the Medical Faculty on or before January 31st in the year in which he proposes to graduate. No thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

The fees for the degrees in Science in the Department of Public Health are: for each examination for B.Sc. in Public Health, £5 5s.; for the degree of D.Sc. in Public Health, £5 5s. Every candidate must, before graduation, pay a regulation fee of £1 1s. The degrees in Science are conferred at the graduation ceremonial in April. The following are recommended as books to be studied in preparation for the above examination:—Parkes, E., *Practical Hygiene;* Wilson, George, *Handbook of Hygiene;* Smith, Edw., *Manual for Public Officers of Health*, and *Handbook for Inspectors of Nuisances:* Michael, Corfield, and Wanklyn, *Manual of Public Health*, edited by E. Hart; Eassie, *Healthy Houses;* Latham, Baldwin, *Sanitary Engineering;* Law, Henry, *Rudiments of Civil Engineering;* Monro, George, *The Public Health (Scotland) Act;* Buchan, Alex., *Introductory Text-Book of Meteorology.*

University of Glasgow.—A special examination will be held once in every year in subjects relating to Public Health, and will commence on the second Tuesday in April. This examination will consist of two divisions; and candidates may enter to one or both of these, provided that no candidate shall be admitted to examination in the second division who has not already passed the first. All candidates must be registered medical practitioners. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which special instruction was given on Public Health; and that they have attended a course of Analytical Chemistry specially bearing upon the subjects of examination, given by recognised teachers. Candidates who have not passed an *annus medicus* in the University of Glasgow must, before presenting themselves for examination, have attended as matriculated students in this University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations. The examinations are written, oral, and practical.

The fee for each division of this examination is £4 4s. The candidate must give notice to the Assistant-Clerk of Senate, and pay the required fee, at least one calendar month previous to the examination. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, the fee is not returned to him; but he may enter for any *one* subsequent examination without the payment of an additional fee.

The examination embraces the following subjects:—*1st Division.—Physics*—Pneumatics, hydrostatics, hydraulics. *Chemistry*—Analysis of air, water, and food. *Meteorology.*—Climate, topographical and seasonal: its influence in relation to health and disease. *Geographical Distribution of Diseases. 2nd Division.—State Medicine*—Duties of health-officer; ventilation; food and its adulterations; water and water-supply; sewage and drainage; construction of hospitals, public buildings, and dwellings; overcrowding; manufactories; insalubrious trades; cemeteries; nuisances; quarantine; disinfectants and deodorisers; outbreaks of zymotic diseases. *Sanitary Law*—Knowledge of leading Sanitary Acts of Parliament. *Vital Statistics.*

The following are recommended as books for study:—E. Parkes, *Practical Hygiene;* George Wilson, *Handbook of Hygiene;* A. H. Hassall, *Food and its Adulterations;* Lardner and Loewy, *Hydrostatics and Pneumatics.*

A course of lectures on Public Health is delivered in the University during the winter session.

Royal College of Physicians of Edinburgh.—The Royal College of Physicians of Edinburgh grants a certificate of qualification in Public Health under the following regulations.

Candidates must be already on the *Medical Register*, and possess a qualification in Medicine. They are not required to attend any special course of instruction; but their attention is directed particularly to courses of lectures on State Medicine, and to the practice of Analytical Chemistry. There are two examinations, which are written, oral, and practical. Rejected candidates are not admitted for re-examination till after the expiry of six months.

Examinations.—The first examination embraces—*a. Physics:* especially pneumatics, hydrostatics, hydraulics, and engineering, in relation to sanitary operations, including a knowledge of architectural and other plans, sections, etc.; *b. Chemistry:* especially analysis of air, water, food, including the biology of putrefaction and allied processes; *c. Meteorology:* including climate, topographical and seasonal influences in relation to health and disease.

The second examination embraces—*a. Epidemiology and Endemiology:* including the corresponding departments in the diseases of animals and plants—contagious diseases—diseases of periods of life, professions, trades, seasons, and climates; *b. Practical Hygiene:* duties of a health-officer; food; water-supply; sewerage and drainage; construction of hospitals, public buildings, dwellings, manufactories; cemeteries; nuisances; *c. Sanitary Law and Vital Statistics.*

Meetings for both examinations are held annually in April and October. The first examination is held on the second Tuesday of the month; the second examination on the immediately succeeding Thursday. Each occupies two days. Candidates may enter for both examinations in the same week, or for one only. The examinations must be passed in their order, first and second. Candidates must appear for the second examination not later than twelve months after having passed the first. A candidate remitted at his second examination may come up again after a further period of six months; but, if he then fail to pass, he must undergo the first as well as the second examination before obtaining the certificate.

The fees must be paid at least a week before the day of examination. The fee for the first examination is £3 3s.; for the second examination, £3 3s.; and for receiving the certificate, £4 4s. Candidates forfeit the fee for the examination which they have been unsuccessful in passing. If a candidate who has presented himself for both examinations fail to pass the first, he is not allowed to present himself for the second, and his fee for the second is returned to him.

University of Dublin.—Doctors of Medicine or Graduates in Medicine and Surgery who wish to obtain from the University a certificate of qualification in State Medicine, can do so on passing an examination in a limited course of the following subjects: 1. Law; 2. Engineering; 3. Morbid Anatomy; 4. Vital and Sanitary Statistics; 5. Chemistry; 6. Meteorology; 7. Medical Jurisprudence; 8. Hygiene.

Candidates are required to send in their names to the Medical Registrar at least a week before the first day of examination.

Royal University in Ireland.—This University grants a Diploma in Sanitary Science. It is conferred only on Graduates of Medicine of the University. Candidates must give notice in writing to the Secretaries of their intention to present themselves, and must pay the prescribed fee of £2 at least one month previous to the examination.

The examination embraces the following subjects: *Climate*—A general knowledge of meteorological conditions; the reading and correction of Instruments, and tabulating the results of meteorological observations. *Chemistry*—Constitution of the atmosphere; pure and impure waters; food. *Geology*—The character and structure of rocks, with reference to water-supply and drainage. *Physics*—Laws of heat; mechanics, pneumatics, hydrostatics, and hydraulics, or sanitary engineering. The construction of dwellings, barracks,

hospitals, schools, factories, etc., in accordance with the principles of warming, ventilation, drainage, water-supply, etc. *Vital Statistics—Hygiene*, including the causation and prevention of disease; sanitary law. The examination in Chemistry shall include a practical part on the chemical and microscopical examination of air, water, food, poisonous substances used in manufactures, etc. The examination in Physics shall embrace the reading of plans, sections, scales, etc., in connection with buildings, sanitary constructions, etc.

The fee for the diploma is £2.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—Stated examinations for Certificates in Sanitary Science are held on the Thursday and Friday following the first Friday of January, April, July, and October. Special examinations may be held at such other times as the President shall appoint. Every Candidate for the Certificate must be a Licentiate in Medicine of the College, and must return his name to the Registrar of the College a week before the Examination, and lodge with him a testimonial of character from a Fellow or Member of the College, or from a Fellow of the Royal Colleges of Physicians or Surgeons of London, Edinburgh, or Dublin. The fee for the Examination is £5 5s., which must be lodged in the Royal Bank of Ireland to the credit of the College before the Candidate is admitted to Examination. The Examination is conducted by five examiners, three of whom are selected from the censors and additional examiners of the College, and one examiner in Sanitary Engineering, and one in Sanitary Law. The Examination comprises the following subjects. 1. *Ætiology and Prevention of Disease:* Epidemiology, Infection, Hereditary Influence, Accommodation and Conveyance of the Sick, Hospitals, and their Management. 2. *Engineering:* Including Hospital and House Construction, Sewerage, Drainage, Ventilation, Water-Supply. 3. *Law:* The Acts relating to Public Health, Duties of Health-Officers. 4. *Chemistry:* with special reference to Air, Water, and Food. 5. (*a*) *Meteorology and Climatology;* (*b*) *Vital Statistics.* The following books are recommended, viz., Parkes, *Manual of Practical Hygiene;* Grimshaw, Furlong, Emerson Reynolds, and J. W. Moore, *Manual of Public Health for Ireland.* In addition to the foregoing, the following works on special subjects may with advantage be consulted. 1. *Engineering:* Corfield, *Dwelling-Houses, Their Sanitary Construction and Arrangements*, and *Treatment and Utilisation of Sewage;* Galton *On the Construction of Hospitals.* 2. *Law:* The Public Health Acts for England and Ireland; The Artisans' Dwelling Acts; The Artisans' and Labourers' Dwellings Improvement Acts; The Vaccination Acts. 3. *Chemistry:* Emerson Reynolds, *Elements of Experimental Chemistry;* Roscoe. *Lessons in Elementary Chemistry.* 4. *Meteorology:* R. H. Scott, *Elementary Meteorology.* 5. *Vital Statistics":* Article on "Medical Statistics; the *Cyclopædia of Anatomy and Physiology.* The examinations are conducted by a printed paper on each of the five subjects. One hour is allotted for the answering of each paper, which contains five questions. The Candidates are also examined on a second day in the reading of Engineering Plans, Sections, and Scales, and in Analytical Chemistry, with special reference to Air, Water, and Food. The admission fee is not returned to a Candidate in case of rejection.

THE districts affected by the action of the Government, in respect to the Contagious Diseases Acts, have taken steps to join in a representative deputation to Sir William Harcourt and Lord Hartington. Sir William Harcourt, however, has declined to receive such a deputation; but has intimated that he would be willing to receive a deputation, not exceeding six in number, on behalf of the Canterbury local authorities, with whom the request first originated.

SMALL-POX IN BIRMINGHAM.—At a recent meeting of the Birmingham Town Council, Alderman Cook, chairman of the Health Committee, announced that, in consequence of the alarming spread of small-pox in Birmingham within the last few days, the Health Committee had decided, at a special meeting, to spend £4,000 upon the erection of two new wards for the reception of patients. Within the last fortnight, small-pox had made such rapid strides that the Health Committee had lost control over it. Within the last fourteen days, they had had 46 new cases of scarlet fever, and 56 cases of small-pox. They had now at the hospital 78 cases of small-pox—a very much larger number than had been known since the great epidemic of 1875. To make matters still worse, they were confronted with an epidemic of scarlet fever. They had 95 cases of scarlet fever at the Borough Hospital; and ten beds, which had been placed at their disposal at the Children's Hospital, were already full. The two wards which they were compelled to erect would hold sixty patients.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 8th, 1883.

A FEW WORDS TO INTENDING STUDENTS.

THE medical periodicals of the present week contain, as is the custom at this season, information as to the sources whence the licence to practise medicine may be obtained in the United Kingdom, and also as to the means whereby preparation may be made for admission into the ranks of the medical profession. The regulations of the examining bodies, and the programmes of the medical schools, remain as they were last year, with but little, if any, alteration. The temporary arrest of medical legislation has secured to the nineteen licensing bodies another year's tenure of power; and the student who enters on his course of education next month will have to prepare himself under the same conditions as have prevailed with his predecessors. It may, however, be a matter of anxiety with some, how far any new legislation may affect their course of action. To this it may be pretty safely answered, that there is no doubt that, were a new medical Act passed, and a new order of things established as regards medical education and the obtaining of a licence to practise, provision would be made for the partial or total exemption from any inconvenient new regulations, of those who had already commenced study. For the present, we have to deal with matters of medical education and examinations as they have been, and as they will remain for another year.

The lecture-rooms of the medical schools will, as usual, on the first of October, contain throngs of the old pupils who are returning to their labours, and of new men who are entering on their course of study. Eloquent lecturers will set before them the dignity of medicine, the necessity of laying a good foundation of science as the only true base of practice, the importance of maintaining a high moral tone, the course to be followed in the curriculum of study, and other matters. This relieves us of the necessity of saying much on the points to which we have referred. Yet it will rightly be expected of us, as the representatives of a large and increasing number of members of the profession, and as being untrammeled in our opinions by official connection with licensing boards, or medical schools, that we should say a few words—especially to those who have just decided, or are about to decide, on adopting medicine as their calling.

Without descanting on the moral aspect of the question, we would say that the young man who, either of his own choice, or in compliance with the desire or suggestion of his parents or advisers, decides on the practice of medicine as his profession, assumes a position of the gravest responsibility. It is, we fear, often the case that a lad is sent to study medicine merely because his parents think that "they will make a doctor of him." No doubt, the motive is often the honourable one of making him a member of one of the most useful classes of society. In many cases, it is the less noble, but still legitimate and honest, desire of enabling him to earn a livelihood; but too often the question, whether he is fit for the profession, is made a matter of secondary consideration, or overlooked altogether. The statistics of the hospitals and of the examining

boards, if diligently searched out, would show that, in a considerable number of cases, men who have commenced the study of medicine have abandoned it, finding that they had mistaken their mission in the world. Might not this have been in many instances avoided, and much valuable time saved, if fitness for the work had been made a primary consideration? Some years ago, Sir James Paget analysed the statistics of the students of St. Bartholomew's Hospital; and his comments on the subject, in one of the volumes of *St. Bartholomew's Hospital Reports*, may be read and studied with advantage. The inaptitude for the profession of medicine often is not, and probably cannot be, discovered until the course of study has been entered upon some time; but, when it exists, the sooner it is recognised the better.

Those with whom we have here to deal, however, are the men who are at least fairly fit for the profession of medicine, and of whom there is ground for hoping that they will practise it with credit to themselves and the medical body, and advantage to the community. They will have already indicated, by passing one of the preliminary examinations, that they possess one of the essential requisites for entering on the medical profession—a good general education. When they come to view the prospect that lies before them, of four years of attendance on lectures, dissections, demonstrations, hospital practice, and all the accessories to the study of medicine, they cannot fail to be struck with its vastness. Many, no doubt, with the aid of their parents and other counsellors who have had experience in the matter, will be enabled to form a pretty accurate idea of the work to be done and the manner in which it should be attempted; while, in others, the fear will arise that the amount of knowledge required is too great for their mental or physical powers. The range of medical studies is indeed vast; but, if it be dealt with in an orderly and systematic manner, as indicated in the system of divided examinations required by the universities and medical corporations, much of the difficulty will vanish. The medical student should be aware that his course of study consists of two portions, the first embracing those sciences, an acquaintance with which is necessary as a foundation for the successful understanding of practical medicine in all its branches, and the second consisting of the study of the practical subjects, with the application thereto of the scientific knowledge previously obtained. All who are concerned in medical education in the present day, concur in advising and requiring that the scientific or elementary portions of medical study should be gone through before the student enters on those which have a more practical bearing; and that such matters as anatomy, physiology, and chemistry should occupy at least the main portion of the student's attention during the first two years. Whether he should, within that period, before passing an examination in the elementary sciences, attempt to obtain any practical knowledge by attending hospital practice, is a doubtful matter. If he do anything of the kind, it should not exceed an occasional visit, perhaps once a week, on a day when his other studies will be least interfered with, to the out-patient department, where he may become familiar with the aspect of disease, without attempting any such deep consideration of its nature and treatment as will be his duty at a subsequent period. Certainly, we think, until the primary examination is passed, the student should not undertake a clerkship or dressership even for out-patients. The mastery of the elementary sciences is quite enough to occupy his time; the visits to the out-patient department should perhaps be rather regarded as a relaxation than as a portion of serious study.

It is by attacking his work systematically and in detail, that the student will master it. Steady continuous application, relieved of course by the healthy recreation for which provision is made at most medical schools, is the true means of success. There are, besides the attempt to do too much at once—to study the practical subjects before he has a good knowledge of the theoretical—two things that the student must avoid. He must not put off his work until an examination is impending; nor must he work as if his only object were to pass the examination. He should work to obtain knowledge for its own sake—because it is necessary to enable him to become a practitioner of medicine; and if, acting on this principle, and guided by the advice and assistance of his teachers, he steadily and progressively accumulates knowledge, the examination need not be a source of dread to him at any time.

With regard to the schools, we do not propose to attempt the task, which would be a rather invidious one, of recommending any particular school. The course of instruction followed in each is indicated in previous pages. In some, the provisions for scientific instruction, in others, the arrangements for the practical study of medicine, are more complete; in most, there is ample provision for both scientific and practical instruction. Pecuniary matters and other considerations of convenience will have a large share in the selection. But, in all cases where it is practicable, we would advise that the place selected should be one where there are complete arrangements for both scientific and practical study. We have already referred to the preliminary examination as giving evidence of general education; and we would supplement our remarks by advising that all intending to become members of the medical profession, to whom the suggestion is practicable, should obtain an Arts degree from one of the Universities, such as London, Cambridge, or Durham. Such a degree is essential in the University of Dublin; and it is highly satisfactory to observe that it has, for several years past, become much more common to meet with medical men who can call themselvs "M.A." or "B.A." than was formerly the case. The University of Cambridge offers great and increasing facilities to men desirous of graduating both in Arts and in Medicine.

To sum up, we would say to the intending student of medicine: Do not attempt to enter the medical profession unless you are fit for it. If, after studying for some time, you find yourself unfit, leave it and seek another calling. If you have concluded to go through the course of study, do so steadily, without fear and without fuss, mastering the elementary subjects first, and the practical afterwards. And, above all, remember that the course of instruction which you will receive in the years of your pupilage will not be so much a means of preparing you for the examinations which you have to pass before a licensing body, as a means of setting you forth on the right path to be followed in the practice of that profession which you have adopted as the calling of your life.

CHANGES IN THE MEDICAL SCHOOLS.

THE following changes have taken place, during the year, in the hospitals and medical schools.

At St. Bartholomew's Hospital, Dr. Southey, having been appointed a Commissioner in Lunacy, has resigned the office of Physician. The vacancy has been filled by the promotion of Dr. Dyce Duckworth, the senior assistant-physician. There is a vacancy in the office of Assistant-Physician.

At Charing Cross Hospital, the retirement of Dr. Colquhoun has caused a vacancy in the offices of Assistant-Physician and Lecturer on Botany; and Dr. F. Willcocks has been appointed to both offices. Dr. Amand Routh has been appointed Assistant Physician-Accoucheur; and Dr. Garson *interim* Lecturer on Comparative Anatomy, in place of Mr. W. A. Forbes. Dr. Mitchell Bruce has succeeded Mr. Hind as Dean of the Medical School; and Mr. Cantlie has been appointed Sub-Dean.

At St. George's Hospital, Dr. Watney has retired from the office of Assistant-Physician, and the vacancy has been filled by the appointment of Dr. Isambard Owen. Dr. W. Ewart lectures on Physiology in place of Dr. Watney and Mr. Dent.

At Guy's Hospital, Dr. Braxton Hicks has retired from the office of Obstetric Physician, and has been appointed a Consulting Medical Officer. The vacancy has been filled by the promotion of Dr.

Galabin, who also becomes Lecturer on Obstetric Medicine; and Dr. Horrocks has been appointed Assistant Obstetric Physician, and will give practical instruction in his department. Mr. Price has succeeded Dr. Horrocks as a Demonstrator of Anatomy. Mr. C. E. Grove teaches Practical Chemistry in place of Dr. Debus.

In King's College, Mr. Royes Bell gives instruction in Diseases of the Throat in place of Dr. Curnow.

At the London Hospital, Mr. Jonathan Hutchinson, having completed the prescribed term of twenty years, has retired from the office of Surgeon, and has been appointed Consulting Surgeon, in which capacity he will give short courses of clinical lectures during the session. Dr. Herman has succeeded the late Dr. Palfrey as Obstetric Physician and Lecturer on Midwifery. Mr. J. E. D. Rodgers has retired from the lectureship on Forensic Medicine, and the office is now held by Dr. Tidy alone. Mr. F. J. B. Page will give a course of Experimental Physics.

At St. Mary's Hospital, Dr. S. P. Phillips has been appointed Assistant-Physician; and Mr. H. Juler, Junior Ophthalmic Surgeon. Mr. Malcolm Morris takes charge of the department of Diseases of the Skin, in place of Dr. Cheadle. Courses of instruction in Physics will be given by Dr. Alder Wright, and in Electricity, by Mr. De Watteville. Mr. Nall is appointed Demonstrator of Physiology; and Mr. A. Q. Silcock gives demonstrations of Pathology in place of Dr. Henderson.

At the Middlesex Hospital, the vacancy in the office of Assistant-Surgeon, caused last year by the death of Mr. R. Lyell, has been filled by the appointment of Mr. A. Pearce Gould. Dr. Edis lectures on Midwifery in the room of Dr. Hall Davis. Mr. J. B. Sutton lectures on Comparative Anatomy in place of Mr. Hensman. Mr. Storer Bennett has succeeded Mr. Turner as Dental Surgeon; and Mr. Claude Rogers has been appointed Assistant Dental Surgeon. Mr. Turner has become Consulting Dental Surgeon.

At St. Thomas's Hospital, Mr. B. Pitts has been appointed an Assistant-Surgeon. Dr. T. C. Charles gives instruction in Practical Physiology.

In University College, Mr. Schäfer, lately Assistant-Professor, has become Jodrell Professor of Physiology in the room of Dr. Burdon Sanderson, who has been appointed Waynflete Professor of Physiology in the University of Oxford. Dr. J. A. McWilliam has been appointed Assistant-Professor and Demonstrator of Physiology; Mr. W. D. Halliburton, Sharpey Scholar; and Messrs. W. M. Bayliss, C. F. Bright, H. H. Brown, R. Johnson, and E. H. Thane, Assistant-Demonstrators. Mr. D. Collingwood is Demonstrator of Anatomy in place of Mr. Silcock; and Messrs. E. T. Thring, H. H. Brown, E. Hudson, and J. M. Bradford, are Assistant-Demonstrators. Messrs. A. G. Browne and W. B. S. Barham are Demonstrators in the Classes of Zoology and Comparative Anatomy. Messrs. D. Collingwood and G. Stonham are Demonstrators of Practical Surgery. Dr. D. W. Buxton is Assistant to the Professor of Medicine; Dr. John Williams to the Professor of Midwifery; and Mr. V. A. Horsley to the Professor of Pathological Anatomy. In the Class of Chemistry, Dr. H. F. Morley, Dr. R. T. Plimpton, and Mr. Temple Orme, are lecturers; Messrs. E. C. Graves and S. Rideal are Assistants; and Mr. A. Potter is Lecture Assistant. Mr. S. J. Hutchinson has succeeded Mr. Ibbetson as Dental Surgeon and Lecturer on Dental Surgery.

At the Westminster Hospital, Dr. Fincham has retired from the office of Physician and has been appointed Consulting Physician. Dr. H. Donkin has been promoted to the office of Physician; and Dr. W. Murrell has been appointed Assistant-Physician. Mr. Boyce Barrow has been appointed Assistant-Surgeon in place of Mr. A. P. Gould, who has taken duty at the Middlesex Hospital. Dr. Heneage Gibbes has been appointed Lecturer on Physiology in place of Dr. Allchin and Mr. North. Mr. Black has succeeded Mr. A. P. Gould as Lecturer on Anatomy; and Dr. Sanderson has been appointed Demonstrator of Anatomy in place of Mr. Black. Dr. Allchin succeeds Dr. Fincham as the colleague of Dr. Sturges in the lectureship on Medicine; and Dr. De Havilland Hall lectures on Forensic Medicine in place of Mr. Bond.

In the University of Oxford, Mr. Moseley has been elected Linacre Professor of Physiology, in place of the late Dr. Rolleston; and Dr. Burdon Sanderson has been appointed Waynflete Professor of Human Physiology and Histology.

In the University of Cambridge, two new professorships, Physiology and Surgery, have been instituted. Dr. Michael Foster, who has for several years filled the office of Prælector in Physiology, has been appointed to the former. Dr. Humphry, for many years Professor of Anatomy in the University, has undertaken the duties of the Professorship of Surgery. He is succeeded in the chair of Anatomy by Dr. A. Macalister, lately professor in Trinity College, Dublin.

In Queen's College, Birmingham, Practical Surgery will be taught by Mr. Bartleet and Mr. Bennett May. In the Queen's Hospital, Mr. Jordan Lloyd, one of the Casualty Surgeons, has been made a full Surgeon in place of the late Mr. J. F. West. A vacancy in the office of Physician has been, this week, produced by the death of Dr. Hunt.

In the Leeds School of Medicine, Dr. E. H. Jacob takes the place of Mr. Horsfall as Mr. Wright's colleague in the Lectureship on Physiology; and Dr. Barrs is associated with Dr. Jacob in teaching Practical Physiology. Mr. Mayo Robson and Mr. McGill have been appointed Assistant-Surgeons to the General Infirmary; and Mr. Hewetson Surgeon to the Eye and Ear Department of the Infirmary, in place of Mr. Oglesby.

In the Medical Department of University College, Liverpool, Dr. Barron succeeds Dr. Greves as Demonstrator of Anatomy; and Dr. Creswell Rich has been appointed Pathologist to the Royal Infirmary, in place of Mr. F. T. Paul.

In Owen's College, Manchester, Mr. F. A. Southam has been appointed Assistant-Lecturer on Surgery; Mr. W. H. Waters, Assistant-Lecturer on Physiology and Histology; and Mr. Hurst, Demonstrator of Zoology and Comparative Anatomy. Dr. W. Roberts has retired from the office of Physician to the Royal Infirmary; the vacancy thus created has been filled by the promotion of Dr. Dreschfeld; who has been succeeded as Assistant-Physician by Dr Graham Steell. Mr. Lund has retired from the office of Surgeon and has been appointed Consulting-Surgeon. Mr. Hardie has been promoted to the office of Surgeon, and Mr. G. A. Wright has been appointed Assistant-Surgeon.

In the Sheffield School of Medicine, Dr. Sinclair White has become the colleague of Dr. Dyson in the Lectureship on Anatomy and Physiology. Mr. Pye-Smith teaches Practical Physiology. The Tutor, Mr. Lee, gives Anatomical Demonstrations in place of Mr. Pye-Smith and Dr. Davison. Mr. Russell has retired from the Lectureship on Surgery, which is now held by Mr. Arthur Jackson alone. Mr. Harrison lectures on Forensic Medicine, Mr. Bell having retired. Dr. H. J. Branson has retired from the office of Physician to the Sheffield Hospital.

In the University of Durham College of Medicine, Dr. Oliver has succeeded Dr. Drummond as Mr. Williamson's colleague in the chair of Physiology. The chair of Anatomy is occupied by Dr. Mears alone, Mr. Russell having retired. Dr. Drummond is associated with Dr. Gibb in teaching Pathology.

In the University of Aberdeen, Dr. A. Ogston has succeeded the late Dr. Pirrie in the Professorship of Surgery; and Dr. Matthew Hay has been appointed Professor of Medical Jurisprudence in place of Dr. F. Ogston, who has retired.

In the Edinburgh Royal Infirmary, Dr. P. McBride has been appointed to the new office of Surgeon for Diseases of the Ear, Throat, and Larynx.

In the Glasgow Western Medical School, Mr. F. Carter has been appointed Lecturer on Anatomy in place of Mr. Maylard.

In the Glasgow Western Infirmary, Dr. Joseph Coats, lately Dispensary Physician, has been appointed Assistant-Physician; and Dr. J. Christie has been appointed a Dispensary Physician. Dr. Renton,

Assistant Dispensary Surgeon, and Dr. Beatson, have been appointed Dispensary Surgeons in the places of the late Dr. J. G. Lyon and of Dr. J. Christie. Dr. D. Newman and Mr. A. E. Maylard have been appointed extra Dispensary Surgeons.

In the Glasgow Royal Infirmary, Dr. A. Macphee has been appointed an extra Dispensary Physician in place of Dr. Brock.

In Anderson's College, Glasgow, the office of Lecturer on Physiology is vacant.

A NEW CONFERENCE ON CHOLERA.

THE necessity of an International Conference upon cholera appears at length to be generally recognised. This need was urged in the JOURNAL before the outbreak of the Egyptian epidemic, on the ground that the results of scientific investigations by Indian sanitarians into the nature of cholera, and the most successful methods of dealing with it, had not been laid before the European nations. These investigations have been patiently carried on during many years by successive medical officers, who have availed themselves of opportunities which are elsewhere unattainable. Cholera has been observed among both English and Indian troops, in native villages and towns, at fairs and in caravans. Atmospheric conditions have been noted, and the influence of water-contamination has been examined. The possibility of transmission of the disease by clothing and merchandise has been far more extensively tested in India than in Europe, where epidemics occur only at unfrequent intervals. When the various official reports are compared, it may fairly be said that the preventive measures which are now carried out in India are more successful than any that have been employed in Europe. Since these measures were inaugurated in Egypt, on the arrival of Surgeon-General Hunter on July 26th, cholera has steadily decreased in that country, and is now almost suppressed.

From insufficient information, the conferences of Constantinople and Vienna failed to suggest any method for the prevention of the diffusion of epidemic cholera, which met with universal acceptance. The conference of 1866 had but the one recommendation—quarantine; and the conference of 1874 suggested medical inspection as an alternative in so half-hearted a manner, that it has never met with the recognition which it deserves. If, then, there is to be another conference, it ought to be held in London. The *Rassegna* says that the Italian Government has proposed to hold a conference on cholera in Rome: that the Turkish, Austrian, French, English, and Russian Governments have signified their assent; and that Spain, Germany, and the smaller Northern States are expected to join it. A forecast of the conclusions to which the conference ought to come has been thoughtfully provided by the same paper. An international sanitary code is to be issued, with regulations that can be simultaneously applied in all countries immediately upon alarm of the appearance of cholera being given. In effect, the proposal is that quarantine shall be more stringent and vexatious than hitherto. Cholera is to be met by universal cordons; and lazarettoes are to be instituted on islands at a sufficient distance from seaport towns, to prevent infection from being carried by the air. Cholera news is to be collected by a competent international information-office, which is to supply timely warning of suspicious indications of the appearance of an epidemic. Now, such conclusions as these would certainly not be in harmony with modern sanitary science. An information-office might serve an useful purpose; but, if France and England are to quarantine all vessels from India whenever the office reports a case of cholera at Bombay, the decadence of their commerce will swiftly follow.

The commerce of Italy is not one tithe of that of England. The quarantine has long been in abeyance here, while it has been enforced in Italy. Yet England is as free to-day from cholera as Italy. The lazarettoes of the Mediterranean littoral have been full of Egyptian refugees throughout the summer, but cholera has broken out neither within nor beyond them. Even M. Fauvel, as we have pointed out on a former occasion, has admitted that quarantine has been carried out with needless severity. But there has been no question of compensation. Hitherto there has been no redress for wrongful quarantine. The court of imposition has been supreme, and there is no court of appeal. Unless some court of arbitration is appointed it is not probable that the conference will be fruitful in results. If it be held in Rome it will be almost impossible to bring in evidence the labours of Indian sanitarians, and it is to be feared that it might degenerate into a pleasant scientific wrangle between the three commissions now investigating the cause of cholera in Egypt. But whether the dead oxen floating down the Nile, or the living bacillus be the true cause of the recent epidemic, there remains no doubt amongst practical men that immediate removal from infected quarters, rather than restriction of intercourse and an amount of cleanliness and isolation which cannot be obtained in a lazaretto, are the means by which the diffusion of cholera may be prevented. When the Anglo-Egyptian medical reports are complete, the members of the approaching conference, whether it be of London or of Rome, will find in them a surer guide than even the pages of the *Rassegna*.

OPENING OF THE MEDICAL SCHOOLS.

THE subjoined is a list of the Medical Schools in England and Scotland, with the date of their opening, and a statement of the ceremony, if any, which will take place on the occasion.

St. Bartholomew's Hospital—October 1st.

Charing Cross Hospital—October 1st.

St. George's Hospital—October 1st, 4 P.M.; address by Mr. Bennett.

Guy's Hospital—October 1st; *soirée* at 8.30 P.M.; distribution of medals and prizes.

King's College—October 2nd, 4 P.M.; address by Dr. H. W. Acland, F.R.S.; distribution of prizes.

London Hospital—October 1st. On October 9th, 8 P.M., distribution of prizes, and address, by Professor Huxley; *conversazione*.

St. Mary's Hospital—October 1st, 3.30 P.M.; address by Dr. Handfield Jones; annual dinner at Limmer's Hotel, George Street, Hanover Square, at 6 for 6.30 P.M., Mr. Spencer Smith in the chair.

Middlesex Hospital—October 1st, 3 P.M.; address by Mr. Pearce Gould; distribution of prizes; dinner at St. James's Hall at 6.30, Dr. E. Headlam Greenhow in the chair.

St. Thomas's Hospital—October 1st, 3 P.M.; address by Mr. Le Gros Clark; annual dinner in Governors' Hall at 6 for 6.30.

University College—October 1st, 4 P.M.; address by Mr. John Tweedy.

Westminster Hospital—October 1st, 3 P.M.; address by Mr. Boyce Barrow; distribution of prizes; annual dinner at the Holborn Restaurant at 7 P.M.

London School of Medicine for Women—October 1st, 3 P.M.; address by Dr. Donkin.

Birmingham Queen's College—October 1st: address by Mr. Bennett May; presentation of prizes.

Bristol University College, Medical School—October 1st.

Leeds School of Medicine—October 1st, 4 P.M.; address by Dr. Clifford Allbutt; distribution of prizes; annual dinner at 6 P.M., Dr. Clifford Allbutt in the chair.

Liverpool University College, Medical Department—September 29th, the Earl of Derby in the chair; address by Mr. Herdman; distribution of prizes.

Owens College, Manchester, Medical Department—October 2nd; address by Dr. Arthur Gamgee.

Sheffield School of Medicine—October 1st, 5 P.M.; address by Mr. Arthur Jackson.

University of Durham College of Medicine, Newcastle-on-Tyne—October 1st, 2 P.M.; presentation of scholarships and prizes by Mr. Joseph Cowen, M.P.

Aberdeen University—October 24th.
Edinburgh University—October 23rd.
Edinburgh School of Medicine—October 23rd.
Glasgow University—October 30th; address by Dr. Young.
Glasgow, Anderson's College—October 30th, 2 P.M.; address by Dr. A. Wallace.
Glasgow Royal Infirmary School of Medicine—October 30th, 1 P.M.; address by Dr. Stirton.
Glasgow Western School of Medicine—October 30th, 3 P.M.; address by Dr. Duncan.

THE Governors of the Newcastle Eye Infirmary, at a recent meeting, decided to build a new infirmary in the city, at a cost of £4,000.

Dr. John Allen, who was the first to render medical aid to President Lincoln at the time of his assassination, has lately died at the age of eighty-two.

THE Municipality of Genoa has determined to give gratis, to all those who present themselves at the offices to register the birth of a child, a small pamphlet containing brief directions for the healthy rearing of the new-born.

ADELAIDE REECE, midwife, convicted of concealment of birth at the assizes at Gloucester, has been sentenced to eighteen months' hard labour. In the garden attached to the prisoner's house, the bodies of eight children were discovered.

DR. HUGHES, superintendent of the *Hamadryad* Hospital-Ship, Cardiff, this week received a first-class gold medal of honour from the French Government, in recognition of his devoted services to French seamen who have been brought to that vessel from time to time.

RETURNS just published show that a great decrease has taken place in the consumption of strong drinks by the European soldiers in India. In the year 1877-78 the total consumption of rum among British troops in India was 253,254 gallons, whereas in 1881-82 it fell to 149,801 gallons.

NOW that the cholera is decreasing, the sanitary precautions, it is said by a correspondent at Alexandria, slide back to their normal disorganised state, though the disease is still present. A system recently adopted of emptying the soil-carts into lighters, which discharge their contents into the sea, has been stopped on account of the expense.

ON Saturday, at a meeting of the Durham guardians, Mr. Culley, the poor-law inspector, gave his experience as to fish-diet in the union. He stated that it was adopted principally at places where fish was cheap. At most places, whilst women and children considered fish a luxury, men who had to work declined it. A discussion followed, and eventually the question was referred to the visiting committee, who were requested to report on the matter at an early meeting.

SOCIAL SCIENCE ASSOCIATION.

THE programme of the forthcoming congress to be held at Huddersfield, from the 3rd to the 10th October, is now issued. Among the papers announced is one by Mr. A. Herbert Safford: "Is it desirable to provide for Criminal Children, whose ill-health renders them ineligible for Reformatory or Industrial Schools, some adequate training by boarding-out, or by a special industrial school?"; also papers by Dr. C. Meymott Tidy, and Mr. G. Latham Browne: "Can the Law regulating the Sale of Poisons be amended, so as more effectually to prevent their employment for Criminal Purposes?" In the Public Health Department, Dr. Clifford Allbutt and Mr. J. Hepburn Hume contribute papers on the question: "Is the Modern System of Education exerting any Deleterious Influence upon the Health of the Country?" The question of, "Is it desirable to take any, and what, further measures to Prevent the Spread of Zymotic Diseases through the Milk-supply of our Towns?" is to be discussed in papers by Mr. Francis Vacher, Dr. Britton, and Mr. Ernest Hart. Papers will be read by Dr. Norman Kerr and Mr. Samuel Knaggs, on the question, "Is it desirable to amend or extend the Habitual Drunkards' Act?"

A FEVER-BED AT THE WEST END.

MR. F. ST. GEORGE MIVART, in a letter to the *Times*, calls attention to the dangers to health attending an intolerable stench which he recently found to prevail in the immediate neighbourhood of St. Mary's Hospital, Paddington. He says that, on turning out of Oxford Terrace into Cambridge Place, where the hospital stands, there burst upon him what he would not hesitate to call the foulest stench that he ever smelt. As he proceeded further in a northerly direction, it became gradually worse and worse; and, on entering the building, he found the corridors and wards, particularly those on the north side, strongly impregnated with the same most nauseous odour. On making inquiries of the resident medical officers, he was informed that the smell proceeded from the Grand Junction Canal basin close by, and, moreover, that it was of frequent occurrence, especially at night, though it was some time since they had been favoured with so strong a dose. The secretary of the institution, Mr. Mitchelli, who has made inquiries on the subject, believes that, on this occasion, the basin was undergoing the process of so-called cleansing—*i.e.*, the water in it was allowed to run off—and that thereby the filthy mud at the bottom became stirred up. The medical superintendent, Dr. Stewart Brown, also states that, during the two or three days following this occurrence, there were several cases of tonsillitis among the patients in the hospital; while one poor woman who had undergone a most serious surgical operation, and progressed favourably for upwards of a week, has, since that night, shown symptoms of blood-poisoning, and been in serious danger of her life.

ENTERIC FEVER IN ST. PANCRAS.

ST. PANCRAS has been suffering from an outbreak of enteric fever, for which further explanation must be sought than in those influences which lead to an increase of the disease at this period of the year. In the early part of August, Mr. T. S. Stott, who, in the temporary absence of Mr. Shirley Murphy, was acting as medical officer of health, had his attention directed by Dr. Fletcher, of Camden Road, and other medical men, to the fact that they were in attendance upon a large number of patients suffering from enteric fever, nearly all of whom derived their milk-supply from one source. The milk-supply to this dairy was stopped; and an inquiry into the condition of the farms from which the milk was received was made by Dr. Edward Squire, at the request of the milk-vendor, but no evidence of the existence of enteric fever on the farms could be found. A full inquiry into all details of the outbreak is now being conducted by Mr. Murphy, who has returned to his duties; but we understand, from a communication made to the St. Pancras Vestry last Wednesday, that this investigation had not proceeded sufficiently far to enable any but a general statement to be made. There was, however, no evidence in the possession of the Sanitary Department to justify the opinion that the cause of the disease was still operative. A considerable number of cases have been admitted into the neighbouring hospitals, and there is every reason to believe that many persons have been attacked. The illness is of a severe character, frequently accompanied by hæmorrhage, and in several cases has already terminated fatally. Mr. Murphy has issued a circular letter

to all the medical men of the neighbourhood, asking for information concerning cases of this disease occurring in their practice; a request which, we trust, will speedily be complied with. The need for some system of notification of infectious disease is well exemplified by this and similar outbreaks. It is a fact almost without exception, that the medical officer of health never hears of any outbreak of disease produced by infection of a milk-supply until the cause of the outbreak ceases to exist. Even after his attention is drawn to the occurrence, an amount of time is necessarily lost while a circular is issued, and before replies are received; the tedious process of gaining evidence of the existence of cases of infectious disease in a large district by a house-to-house inquiry, renders such inquiry almost useless for any other purpose than that of affording explanation of the cause of the occurrence.

SCOTLAND.

BAZAAR FOR SICK CHILDREN'S HOSPITAL, ABERDEEN.

IT has been officially intimated that the bazaar in aid of the funds of the Sick Children's Hospital, Aberdeen, will be opened by H.R.H. the Princess Beatrice, in Aberdeen, on September 27th.

ROYAL EDINBURGH SICK CHILDREN'S HOSPITAL.

DURING the month of August, 29 new cases were admitted to the Sick Children's Hospital, Edinburgh, which, with the 56 in the wards on August 1st, gave a total of 85 patients treated in the hospital during the month. The number of outdoor dispensary cases was 1,088, while 31 children were vaccinated. An analysis of the localities from which patients came shows that 461 were from Edinburgh, 84 from Leith, and 23 from the provinces.

THE BRITISH ASSOCIATION INVITED TO ABERDEEN.

AT a representative meeting of the citizens of Aberdeen held last week, it was resolved to give a cordial invitation to the British Association to hold their annual meeting in Aberdeen in 1885. At the same time, it was resolved not to send a deputation to Southport in support of the claims of Aberdeen, as this had already been done at previous meetings of the Association.

HEALTH OF EDINBURGH.

THE state of public health in Edinburgh during the holiday months is of interest, considering the numbers of tourists who flock to that city during these months. During August, the death-rate was 16.52 per thousand *per annum*, the average for the five previous years being very slightly higher, viz., 16.74. In the subdivision of the municipality, the rates were: New Town, 12.30 per thousand; Old Town, 20.03; and southern suburbs, 15.90 per thousand. During the month, 344 cases of infectious diseases were intimated to the medical officer of health. Of these, 193 were of measles, 106 of scarlet fever, 30 of typhoid fever, 12 of diphtheria, and 3 of typhus fever. Last week, the mortality of the city was 16 per thousand; there were only four deaths from infectious diseases, two of these being from scarlet fever, one from measles, and one from whooping-cough, while three of the four occurred in the Old Town.

IRELAND.

DR. O'NEILL, of Athy, has, on the motion of the chairman of the Athy town council, been returned unopposed as coroner for South Kildare. Dr. O'Neill issued his address to the electors as a Nationalist.

THE ACADEMY OF MEDICINE IN IRELAND.

THE first volume of the *Transactions* of the body, which was contributed last year by an amalgamation of the medical societies of Dublin, has just been issued. It would be out of place to express, in this column, any critical opinion on the contents of the volume, or otherwise interfere with the province of the reviewer. But it may be stated that it presents a most creditable appearance, and that the typography and general get-up of the work is excellent. Although none of the presidential addresses or discussions on the papers read are printed, the volume runs to 382 pages. It contains several illustrations, the best of which we are sorry to see, were not done in Dublin, and a very complete index. Mr. Thomson, the General Secretary of the Academy, deserves praise for the way in which he has edited this first volume, and superintended its issue.

CHANGES IN ANATOMICAL CHAIRS IN DUBLIN.

IT is believed that Dr. D. J. Cunningham, one of the two professors of anatomy in the school of the Royal College of Surgeons in Ireland, will be elected to the professorship of anatomy and chirurgery, in the School of Physic, of the University of Dublin, vacated by the appointment of Professor Alexander Macalister to the chair of anatomy in the University of Cambridge. Should this be so, there would be a vacancy for a professor of anatomy in the College School, the election to which, by the Council of the College, would probably take place on November 1st. The emoluments of the professorship average, we believe, £600 yearly; and the professor is required to devote his entire time to the teaching of anatomy and practical histology. The Directors of the Carmichael College of Medicine have appointed Dr. Francis T. Heuston, who has been for some time senior demonstrator in their school, lecturer on anatomy, in the room of the late Dr. J. H. Loftie Stoney.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Council (Committee of Council) will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary*.

November 9th, 1882.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

A card and memorandum on Acute Gout is now ready, and may be had by application as above.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee,
161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

MIDLAND BRANCH.—A meeting will be held at the New Bath Hotel, Matlock, on Thursday, September 27th, 1883. Members having papers to read or matter to discuss will please communicate with Mr. SHARP, Honorary Local Secretary, 61, Osmaston Street, Derby.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at Hayward's Heath, on Wednesday, September 19th. Dr. Newth will preside. The chairman proposes to invite a discussion on "The Relation between Consulting Physicians and General Practitioners, with special reference to seeing Patients, Payment of Fees, and Abuse of Prescriptions." Mr. G. Abbott will read a short paper on the Treatment of Acute Nasal Catarrh. Dr. Ewart: A Case of Hypertrophy of the Nose, with Remarks on the Treatment. Dr. Lee will read a paper. Dr. Moore: Notes of a Case of Spinal Apoplexy.—T. JENNER VERRALL, 95, Western Road, Brighton.—September 4th, 1883.

CORRESPONDENCE.

PROPOSED MEDICAL PARLIAMENTARY ASSOCIATION.

SIR,—Surgeon-Major Alcock's suggestion to create a medical parliamentary association seems to me very valuable. He proposes, however, to go no farther than to defray the expenses of contested elections, and to refund actual outlay incurred in the performance of parliamentary duties. I am one of those who advocate payment of members. Were members of Parliament paid a moderate but sufficient stipend, one of the results would be to supplant many of those rich men whose leading notion seems to be that the House of Commons is the "best club in London," by useful hard-working members of scientific and literary distinction. Amongst these, it cannot be doubted, would be found a fair proportion of medical practitioners. But the chances of the adoption by the country of the practice of payment of all members of Parliament is, I dare say, remote. Meanwhile, I quite concur with Dr. Alcock in thinking that the profession cannot, under existing circumstances, "achieve political power without paying for it." I hope an association will be formed, and a fund obtained. But the payment, to be effectual for its purpose, must be carried a step further. Medical members of the House of Commons must not only have actual outlay re-imbursed; they must be adequately remunerated for their time expended, and for their parliamentary work and services. Precedents could be found for such a course in the present Parliament. While, however, I agree with Dr. Alcock in his views as to the formation of a society, I cannot fall in with his proposal to tax all the members of the British Medical Association for the purpose. Personally, I have no objection to it. I would gladly pay the required additional subscription, but I feel sure that the proposal would defeat its own ends. It would be viewed with so great disfavour by at least a large minority of our members, that, even if carried by the Council or by a general meeting, it could not be put into operation without causing great disunion, and seriously damaging the interests of the Association at large. I wish I could think otherwise. I wish the Association might be practically unanimous in determining to tax itself for so desirable an object. But I cannot imagine this as likely to be the case; therefore, I think those of us who may wish to see such a step taken, must be content, for the present, with an opportunist programme, and must advocate merely that which is, for the occasion, practicable.

For such reasons as these, I would urge upon Surgeon-Major Alcock the advisability of proposing not a compulsory tax, but the formation of a voluntary association for the laudable purpose he has set forth.—I am, sir, etc.,

G. F. BODINGTON.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 30th, 1883.

Davies, Henry Havelock, Snainton, Yorkshire.
Dodd, Arthur Herbert, Canonbury, N.
Gent, George Sidney, Chalcot Crescent, Regent's Park.
Turnbull, William, Gosforth, Newcastle-on-Tyne.

The following gentleman also on the same day passed the Primary Professional Examination.

Greenwood, Cecil Danforth, King's College.

MEDICAL VACANCIES.

The following vacancies are announced:

AYLESBURY UNION.—Medical Officer. Salary, £85 per annum. Applications to F. B. Parrott, 1, New Road, Aylesbury, by September 11th.

CASTLEBAR UNION.—Medical Officer, Castlebar Dispensary, North Division, No. 2. Salary, £125 per annum, and fees. Election on September 8th.

CAVAN COUNTY INFIRMARY.—Surgeon. Salary, £94 per annum. Applications by September 18th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant Surgeon. Applications by September 8th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

DURSLEY UNION.—Medical Officer. Salary, £80 per annum. Applications by September 12th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by September 19th.

GENERAL INFIRMARY, Leeds.—House-Physician. Salary, £100 per annum. Applications to Dr. T. Clifford Allbutt, the Infirmary, Leeds, by September 12th.

HARTLEPOOLS' FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to T. Twiddell, Commercial Terrace, West Hartlepool.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Applications by September 20th.

KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by October 1st.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to Dr. T. W. Measures, 4, Lion Street, Kidderminster.

PARISH OF CANISBAY, Caithness.—Medical Officer. Applications to Peter Keith, Esq., Barrogill Castle by Wick, Chairman of the Parochial Board, by September 19th.

PAROCHIAL BOARD OF KILLEAN AND KILCHENZIE.—Medical Officer. Salary, £150 per annum. Applications to the Chairman of Board, Glencreggan, Kintyre, Argyllshire, or to Inspector Gallowhill, Campbeltown.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon. Salary, £60 per annum. Applications by September 14th.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon. Salary, £120 per annum. Applications by September 20th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Junior Assistant House-Surgeon. Salary, £50 per annum. Applications by September 21st.

ST. BARTHOLOMEW'S HOSPITAL.—Assistant Physician. Applications to the Clerk by September 11th.

ST. GEORGE'S, HANOVER SQUARE, PROVIDENT DISPENSARY, 59, Mount Street, W.—Resident Medical Officer. Applications by September 29th.

ST. GEORGE'S UNION, Middlesex.—Assistant Medical Officer. Salary, £120 per annum. Applications by September 10th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden.—House-Surgeon. Appointment for six months. Honorarium, 25 guineas. Applications by September 25th.

WESTERN GENERAL DISPENSARY, Marylebone.—Honorary Physician. Applications by September 10th.

WALLASEY DISPENSARY.—House-Surgeon. Salary, £140 per annum. Applications by September 8th.

MEDICAL APPOINTMENT.

WILSON, G. B., L.R.C.P. and S.Ed., appointed Second Assistant to Resident Medical Superintendent to the Cork District Lunatic Asylum.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

PICKUP.—On the 1st ult., at Bishop Street, Coventry, the wife of William J. Pickup, M.B.Lond., of a son.

MARRIAGES.

GREEN—GARMAN.—On the 4th inst., at St. Stephen's, North Bow, by the Rev. J. P. A. Fletcher, Vicar, assisted by the Rev. H. D. Nihill, William Alford, eldest son of William Green, Esq., of Leyton, Essex, to Mary Ann Bennison, eldest daughter of H. V. Garman, Esq., M.R.C.S.E., L.S.A.L., of Kent House, Bow Road, London, E.

HUGHES—REES.—On the 28th August, at St. Gwendoline's Church, Talgarth, Breconshire, by the Rev. Rees Price, cousin of the bride, assisted by the Rev. John Brown, Vicar, Wm. Lewis Hughes, M.R.C.S.Eng., L.S.A.Lond., of Carmarthen, to Letty, third daughter of the late Valentine Rees.

No fewer than thirty-eight people were summoned before the Eastbourne magistrates, last week, for non-compliance with the Vaccination Act. Some of them had three children unvaccinated, and several had been previously convicted. After a long hearing, a fine of 21s. was imposed, including costs, in one case, and 11s. 6d. in another. Orders for vaccination were made in the remainder, with which they all declared they should not comply.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY......King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S, 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL PROVIDENT SOCIETY.

SIR,—I should esteem it a very great favour if "Caution" and some other correspondents whose cognomen I do not now remember would tell us the name of the company to which they subscribe towards weekly allowance in case of sickness. One correspondent (I noticed) said he actually did at the present time belong to such a society.

In writing about "provident clubs," I think we lose sight of one very important thing, viz., that the society about to be formed should be for weekly allowance in case of sickness only (and not connected with accidents or death), and for no other object. In this case, the annual premium would be small. There are a host of accidental insurance companies in which to insure in case of accident. There are a number of societies in which to insure in case of death. We do not want these objects amalgamated with our society. But a society in which we can insure for weekly allowance in case of illness only, and for no other object, we do want. I am sure a great many more would join this "Medical Provident Society" if it were started on this basis.—Yours truly,

EDWIN CHILD.

Vernham, New Malden

MR. T. J. EKIN.—1. The Matriculation Examination of the Royal University of Ireland is recognised by the General Medical Council as a Preliminary Examination. 2. Some of the most important and indispensable courses of instruction are given in many schools between 11 and 1; but our correspondent might, by examining the tables given in the present number, perhaps find a school which would suit his circumstances. We consider, however, that a student of medicine should not be engaged in other occupations. 3. The cost of the licences referred to can be worked out from the statements given in the present number of the JOURNAL.

DETERMINATION OF SEX.

SIR,—In answer to "M.D.," on page 456 of last week's JOURNAL, I have read that fecundation taking place midway between the menstrual periods produces female offspring. My last two children are girls; and I have reason to believe that impregnation took place in the one case two weeks, and in the other three weeks, after the end of menstruation.—Yours, etc.,

M.B.LOND.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. J. Macpherson, Wick; Mr. G. P. Field, London; Mr. Sidney Plowman, London; Mr. G. Padley, Swansea; Mr. R. Smith, Cobham, Surrey; The Secretary of the Midland Branch; Mr. G. J. W. Tatham, Hawkhurst; Mr. William Smith, Manchester; Mr. A. M. Bayliffe, Brent, Knowles; Mr. S. Job, Newark; Mr. C. G. Wheelhouse, Leeds; Dr. Fairlie Clarke, Southborough; Mr. Thomas Ribot, Jersey; Dr. Griffith, London; Mr. C. R. Illingworth, Clayton-le-Moors; Dr. Goldie, Leeds; Dr. Bree, Long Melford; Mr. J. Dallas Pratt, Dublin; Mr. A. H. Young, Manchester; Dr. Huggard, London; Mr. G. Hastings, London; Mr. G. B. Longstaff, Twitchen; Dr. Mackie Alexandria; The Secretary of the Apothecaries' Hall; Mr. Robert Jones, Worthing; Messrs. William Wood and Co., Castle; Dr. J. Waugh, Toddington; Dr. A. Haig, London; Mr. George Abbott, London; Mr. George Birt, Stourbridge; Dr. Tripe, London; Mr. James Nevin, London; Dr. Cowan, Dundee; Mr. A. Moos, London; Medicus; Dr. J. Stopford Taylor, Liverpool; Mr. E. Noble Smith, London; Dr. W. R. Cossham, Cirencester; Mr. J. B. Kenny, Killeshandra; Dr. Paul Boerner, Berlin; Mr. J. Ingleby Mackenzie, London; Mr. C. J. Radley, London; Dr. Atkinson, Surbiton; Mr. Coates, Salisbury; Dr. Dempsey, Belfast; The Editor of the Derby *Daily Telegraph*; The Secretary of the Social Science Association; Our Dublin Correspondent; Mr. De Burgh Birch, Newcastle-on-Tyne; Mr. Andrew Wilson, Edinburgh; Mr. Henry Greenway, Plymouth; Mr. T. M. Watt, Hovingham; Dr. Sawyer, Birmingham; Dr. Martin, Blackburn; Dr. Clifford Allbutt, Leeds; Dr. Arlidge, Stoke-on-Trent; Mr. James Death, jun., Cheshunt; Mr. Henry Morris, London; Dr. N. King, Glasgow; Mr. Thomas Bruce, London; Mr. R. J. Gilbert, Hammersmith; Dr. Thin, London; Mr. R. L. W. Sinclair, London; Dr. Manson Fraser, London; Our Aberdeen Correspondent; Mr. Hodgson, Brighton; Mr. Henry Robinson, Chesterfield; Mr. A. Bernard, Seaforth; Mr. E. C. Anderson, Walsingham; Dr. Bond, Gloucester; Messrs. Christiani and Co., London; Dr. A. H. Crespi, Wimborne; Dr. McVail, Kilmarnock; Mr. Edmund Murphy, Dublin; Mr. G. D. McNicoll, Southport; Mr. S. W. North, York; Mr. W. Roger Williams, London, etc.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

NOTES ON RHEUMATISM AND ITS ALLIES IN CHILDHOOD.

Introduction to a Discussion in the Section of Diseases of Children.

BY THOMAS BARLOW, M.D., F.R.C.P.,

Assistant-Physician to University College Hospital, and to the Hospital for Sick Children, Great Ormond Street.

THE fundamental difficulty in discussing rheumatism consists in defining what we mean by it. A systematic definition seems impossible, until we know more of the pathogenesis. The rough and ready classification of joint-diseases into those in which suppuration occurs, viz., the strumous and pyæmic, and those in which suppuration does not occur, viz., the rheumatic, is inaccurate with regard to adults, and carries us a very short distance with regard to children. For there are in children many affections of joints, and of structures around joints, which do not suppurate, and yet are not rheumatic; and there is much rheumatism in children which does not affect joints. In our present ignorance, it would appear that the best way of arriving at a clinical conception of rheumatism is, in the first place, to agree on what we consider a typical case of rheumatic fever; to study, in such a case, the relapses, the sequelæ, and the recurrences, especially the slighter ones, of that affection. Then we ought to compare such a typical case with a series of others; and, by keeping records of the life-histories, antecedent as well as subsequent to the febrile attack, and of the ailments which are unduly frequent, when compared with their average incidence on the whole population, we may hope to elicit not only what is common, but what is special to the cases investigated. Thus, although we may be ignorant of what some people are pleased to call the entity of the disease, yet we shall be able to say that such and such affections are prone to occur in a person who has had acute rheumatism; or, conversely, that one who has such ailments is prone, under certain conditions, to get rheumatic fever.

It is in this provisional sense that the term rheumatic affection is used in the following paper. But, even on the threshold of the subject, it seems desirable, on practical grounds at least, to enumerate some of the affections in children of bones and joint-structures which simulate rheumatism, but which are not strictly rheumatic at all. In young infants, it is not a very rare occurrence to have an insidious acute inflammation of one joint, especially the hip, but sometimes the knee or the ankle, which may go on to suppuration, but rapidly heal after evacuation. Such cases may, no doubt, occur, associated with suppuration along the track of the umbilical vein, of which I have seen at least one example; but very often there is nothing of the kind, and the source of infection remains a mystery. Most commonly, only one joint is affected. The distress and constitutional disturbance are often less than might be expected; the temperature may be not more than 100°; and yet the child often dies rather suddenly.

There is a characteristic affection of the ends of the shafts of the long bones in syphilitic children about three months old, in which there is inflammatory softening of the junction-area of the shaft and epiphysis, associated with a variable amount of perichondritis and periostitis. The extremities of the limbs in a typical case lie helpless and immobile, whilst there may be almost no actual swelling. The disease is often symmetrical, and successive bone-ends may be affected. In most cases, the lesion is confined to the regions above mentioned; but now and then there is a concomitant single or multiple arthritis, and the effusion may be either serous or purulent. I have known at least two cases of that rare disease of children, multiple periostitis of long bones, with some necrosis, mistaken for rheumatism. The successive implication of different bones, and the occasional involvement of the joint, give a certain parallelism; but the joint-affection, when it occurs, is always secondary.

In hæmophilia, there occur sometimes arthritic attacks, in which effusion takes place into joints, especially the knees. This effusion has been proved, in some cases, to be blood, and occasionally, after repeated occurrence, appears to seriously damage the joint-structures.

But sometimes there is effusion into the structures around the joint, which effusion is serous. The temperature may be elevated (I have known it as high as 102°), and slight sweating and pains in the limbs may occur. But morbus cordis, I believe, has never been known to occur in such an attack, or in the subsequent history of the disease; and there are, I think, some reasons for connecting it with gout rather than with rheumatism.

It would be foolish to mention simple rickets as a disease likely to be mistaken for rheumatism; but the curious spasmodic affection to which Trousseau gave the name tetany, and which, when it occurs in children, is almost confined to rickety children, deserves a passing reference: for this reason, that sometimes, at the onset of a sharp attack, there may, for twenty-four hours or so, be very decided swelling and some redness about the back of the wrist, associated with the characteristic so-called accoucheur's posture of hand. Swelling and redness may in like manner be found on the dorsum of the foot, when spasmodic contraction of the toes and the sole occur. To this occasional redness and swelling the term rheumatic has been applied by some German writers; but, whatever may be the explanation of this transient condition, there is nothing in the progress of the affection which will justify the use of the term rheumatic.

Some of the cases, described in Germany as "acute rickets," in which, with much general marasmus, there is a condition of immobility of limbs and more or less deep-seated swelling, extending for a varying distance along the shaft from the junction of the shaft with the epiphysis, have been regarded by other writers as rheumatic. The true nature of these cases, when associated with spongy gums, was pointed out by Dr. Cheadle as scorbutic; and I have been able to prove, on *post mortem* examination, that the swelling is due to subperiosteal hæmorrhage. It is doubtful, I think, whether the joint proper becomes involved in these cases; but, at all events, there is no justification for calling them rheumatic, in spite of the characters of tenderness, immobility, and successive involvement of different members which obtain in the clinical picture of the affection, and produce a *simulacrum* of rheumatism.

In the commencement of some cases of infantile paralysis, there is occasionally much to suggest an attack of rheumatism; and in not a few cases of the corresponding affection in adults, the mistake of confounding it with acute rheumatism has been made by able physicians. Early in the affection in a child, there may be great tenderness in the back and lower limbs, and intelligent mothers have assured me, in two cases, that there was swelling of one knee. I have now under treatment a child in whom, for more than a fortnight, there was extreme tenderness, a little redness and heat, and considerable swelling of the dorsum of each foot, in an unquestionable case of infantile paralysis; and I have had one example under my care of effusion into one joint in an adult spinal paralysis of this type.

About the foregoing there can be little difference of opinion; but we come now to consider an affection as to the nature of which there may be very great difference of opinion, viz., scarlatinal rheumatism. It is common to speak in the text-books of rheumatism as a sequela of scarlet fever; and it is true that not unfrequently, during the early days of convalescence, undoubted rheumatic fever supervenes. Such attacks I have known characterised by arthritis passing to successive joints, endocarditis giving rise to persistent murmurs, and followed by permanent damage to the heart; the attacks themselves being the first of a series recurring from time to time, and in no way distinguishable from ordinary acute and subacute rheumatism.

But scarlatinal rheumatism is more often a complication than a sequela. Towards the end of the first, or the beginning of the second week, but, as I can testify, occurring as early as the third day, swelling in the sheaths of the tendons on the back of the wrists may appear, with redness, tenderness, moisture, and swelling; and often along with or succeeding this there may occur pain and stiffness of the neck. Such mild attacks are not uncommon. But other joint-structures may be implicated, and there is a very definite subsidence under the influence of salicylate of soda, and a curious tendency in some cases to relapse.

In very rare cases, the effusion in one joint at least becomes purulent; and I have known cases of hip-joint disease develop as the result. Further, along with the joint-symptoms, there sometimes concur distinct cardiac murmurs both at the apex and at the base. It must, however, be stated that these murmurs sometimes develop

without any joint-symptoms. Probably some of them, especially in the albuminuric cases, are the result of cardiac dilatation; but I doubt whether all of them are so. It is remarkable how many of them disappear entirely within a few months' time.

There is also in scarlet fever sometimes an affection of serous membranes parallel to what we find in rheumatic fever—viz., pleurisy and pericarditis; but I do not think this is more common in the arthritic than in the non-arthritic cases. It is important to remember how often (contrary to what is found in ordinary rheumatism) these scarlatinal effusions become purulent; and, if empyema be detected after scarlatina, how necessary it is to bear in mind, the possible involvement, though perhaps in less degree, of the opposite pleura and of the pericardium. Now, with respect to the affections of the joints and serous membrane affections, two, if not three, views seem tenable. We may look upon the joint-trouble as a scarlatinal arthritis—the scarlatinal poison, whatever that be, affecting the joint-structures just as it may affect the throat, the skin, and the kidneys. Or we may consider that it is due to purulent absorption—a form of septicæmia, perhaps dependent on the state of the throat, etc. But it must be remembered, in passing, that it is by no means necessarily in accompaniment with severe throat-affection that joint-symptoms occur. Thirdly, we may consider that scarlatinal rheumatism is due, not to purulent absorption, but to accumulation and retention of some of the waste products of the scarlatinal process. This would bring it into some kind of parallelism with the doctrine of rheumatic fever, which makes acute rheumatic manifestations depend on an accumulation of so-called "fatigue-products" in the blood; and also with the remarkable observations of Dr. Foster relating to the appearance of arthritic manifestations during the administration of large doses of lactic acid.

To sum up, it seems possible that there may be at least two different forms; but, at all events, with regard to many of the cases occurring during convalescence, and with regard to the mild relapsing cases occurring towards the end of the first week, we must consider that, if not identical, they are indistinguishable from true rheumatism.

Let us now ask, what is meant by a typical case of acute rheumatism? By a typical case, I mean an illness lasting a fortnight or more, with temperature not generally more than 102°, with painful migratory effusions in the large joints, with profuse acrid sweating and eruption of sudamina and miliaria, and with variable implication of the pericardium and endocardium, of the lung and of the pleura. It is true that, occasionally, children suffer from such an illness; but, as a rule, it is quite otherwise. The duration of the fever is not so long; and, although in general pyrexia is more easily set up in children than in adults, yet, in the rheumatism of children, this gives cause for little anxiety. In spite, also, of their great arthritic susceptibility, the joint-effusions are much slighter in amount and in number, and there is less pain. The sweating is decidedly less marked, and often amounts only to a little moisture of palms and soles. The acrid smell of the perspiration is either very slight or absent. But the pericardium and endocardium suffer, as all acknowledge, to a much greater extent.

Thus much in general terms; but, in order to get a surer footing, let us return once more to the consideration of adults, and, by recalling from our experience a series of cases in which all will admit that acute rheumatism occurs, note some few of the variations in symptoms and groups of symptoms to be met with. First, let us note the frequent occurrence of tonsillitis, either ushering in the fever, or preceding it by a week or two; also, the severe muscular pains, which may precede, but almost invariably succeed it; the stiff neck, which gives rise to some suffering during the attack, and often to still more after it; and the deep-seated backache, sometimes associated with such absolute helplessness, and tenderness on pressure, as to suggest—though we cannot prove it—that the joint-structures of the vertebræ may themselves be involved. What may be called the unstable period, just after the pyrexia has subsided, is, indeed, most worthy of patient study. The proneness to relapse, it may be in less typical form, though sometimes with greater severity so far as the viscera are concerned, is very noteworthy.

In this unstable period, which might justly be styled the *status rheumaticus*, we may have an erratic pyrexia, an insidious pericarditis, a fresh endocardial murmur, without any joint-manifestation whatever. During the initial attack, we frequently note, in the neighbourhood of affected joints, circular red patches on the skin. Such patches are probably coincident skin-lesions, rather than inflammatory redness due to extension from the joint-trouble. In what I have called the unstable period, these erythematous areas may appear on the limbs and on the trunk, either as imperfect circles, or as round slightly elevated patches, without any concurrent joint-affection.

Further, in the course of a moderately severe case in adults, even in strong men, it is by no means rare to note, with the onset of pericarditis, the occurrence of distinct, though slight, choreic movements of the hands and face.

In the unstable period, and in early convalescence during the anæmia which is so striking a feature even after a slight attack of rheumatic fever, a slight degree of chorea affecting the fingers is not a rare condition in young women, and can often easily be found, if it be looked for.

Other nervous phenomena may become dominant during the course of rheumatic fever. They often precede or accompany the hyperpyrexial attacks; but they may occur without hyperpyrexia.

In some of the hyperpyrexial attacks, we have the most conspicuous examples of the alternation, or, as the old writers called it, the metastasis of symptoms; for the joint-affections may entirely vanish, the patient throwing his limbs about in the most violent fashion; and the skin, instead of being bathed in perspiration, may become dry and pungent.

The tendency to recurrence of rheumatism is almost as marked a feature as that to relapse, and the after-attacks of rheumatism are as worthy of our consideration as the relapses. How often these consist of a day or two's inconvenience only, with slight effusion into a joint or the structures round a joint, or some vague muscular pains!.

In the cases in which the heart has suffered, we are too apt to think of the patient's subsequent progress as depending on the mere mechanical considerations of cardiac compensation. But, in many of the febrile attacks of old rheumatic heart-cases, the solitary insidious intercalation of just one small joint-effusion may remind us that we have once again to deal with a rheumatic fever, the principal incidence of which is on valves or pericardium.

There are other recurrent attacks, and even primary ones, in which there may be acrid perspiration and pericarditis without any arthritis; and others in which slight pains referred to joints without any effusion are followed by pleurisy on one side, pneumonia on the other, and fresh heart-mischief.

Now I believe that a survey of the rheumatism of children will show, in addition to the general statements previously formulated with respect to the initial typical attack, that those manifestations which occur in adults as relapsing and recurrent forms, may appear in children as still more isolated and even as initial phenomena; but, when we study the entire life-history, subsequent as well as antecedent, we find very often that these are not really isolated phenomena, but only members of a series. Thus, without being unduly fanciful, we may, I think, regard the initial complete febrile attack occurring in an adult, as analysed into separate factors in a child, these factors being appreciable at different periods—some of them intensified, and others minimised.

It is only the life-history, and especially the succession or coincidence of symptoms, which will enable us to surmise that a given symptom, which by itself would be indeterminable, is in a child truly rheumatic. For example, again and again, cases of organic heart-disease in children are brought under our observation, and no rheumatic history is forthcoming. Excluding the cases due to congenital malformation, which it is generally possible to do, it is certainly wrong to rush to the conclusion at once that such cases of organic heart-disease are not rheumatic. When we recall how slight and brief the pain and swelling of a rheumatic joint may be in a child, we can readily understand how, especially amongst the poor, it may have escaped attention along with the concomitant initial heart-trouble, which gave but little sign of its existence. On watching the further progress of some of these cardiac cases, we may find evidence—slight, but indubitable—of rheumatism; as, for example, the occurrence in a febrile attack of a transient inflammation of a single joint.

In connection with these rheumatic inflammations of single joints, I may also note the proneness in the members of a rheumatic family, which sometimes is very striking, to a simple synovial effusion, either in a single joint or in a tendon-sheath after some excess of muscular exercise, without any actual strain or blow. It is interesting to observe how a long day in the country, in the shape of a school-treat, will pick out the rheumatic children in the direction of swollen ankles or swollen knees. In the absence of previous history, which is often more or less unsatisfactory, are there any signs which will help us towards establishing the existence of rheumatism?

In doubtful cases, I believe there are. I may, perhaps, refer to some observations made by Dr. Warner and myself on a form of subcutaneous nodules found in children and rarely in adults also, and which we take to be a rheumatic manifestation.

These small masses, which are generally inconspicuous and painless, occur mainly in the neighbourhood of joints. The back of the elbow, the malleoli, and the margins of the patella, are the commonest sites. But other spots where they ought to be searched for are the neighbourhood of the vertebral spines, of the spine of the crista ilii, along the line of the clavicle, the extensor tendons of the foot and hand, the pinna of the ear, the temporal ridge, the superior curved line of the occiput, and the forehead. In the last three mentioned situations they are sometimes very abundant, and here, as elsewhere, often more palpable than visible. The size of these nodules varies from that of a pin's head to that of an almond; they are sometimes discrete, and sometimes occur in groups. They are subcutaneous, the skin generally being freely movable over them, and in most cases they are slightly movable on the deep fibrous structures with which they are associated. They are rarely painful, for which reason the patient and the patient's friends are often unaware of their existence.

A solitary nodule may be present, or crops of nodules may appear simultaneously in different parts of the body. Some may grow whilst others subside, and they may all disappear in a few weeks, even in a few days, or may, in rare instances, persist for many months.

Successive crops, with more or less complete intervening subsidence, are not unfrequent. We have notes also of recurrence of such nodules after one or more years' interval in the same individual. We have found that, structurally, these nodules differ but little from the deep areolar tissue around the tendons and aponeuroses with which they are associated. From some sections of one of these nodules made by our friend Mr. R. W. Parker, it was found to consist of wavy bands of fibrous tissue, with caudate spindle-shaped nucleated cells and abundant vessels. Some others which we have since examined, are very slightly vascular, and much more fibrous.

With regard to the clinical associations of these lesions, we have found that they occur in the course of, or as a sequel to, unquestionable rheumatic fever, with typical effusions in joints, etc.; but we have not seen these nodules developed around a joint in which at that time there was actual effusion. Very often only the history of pain in the joint and limb can be obtained, without any evidence of swelling.

There has frequently been observed in these cases the occurrence of erythema marginatum, and several of the patients developed chorea. Out of twenty-seven consecutive cases investigated, there was reason to believe that some morbid cardiac condition obtained in every one. In several, pericarditis developed under observation; and in two the existence of old pericardial adhesion was subsequently established *post mortem*. In nearly half the cases, the cardiac disease was seriously progressive; that is to say, valvular murmurs altered, and dilatation increased, and the use of digitalis and the enforcement of rest seemed of no avail. Necropsies were obtained in five cases; in all these, there was mitral disease, with dilatation; in four, there was disease of the mitral and tricuspid valves; in three, of the mitral, tricuspid and aortic valves; in four, pericarditis.

From their connection with the fibrous tissues, from their spontaneous tendency to more or less complete subsidence, their proneness to relapse and recurrence, their clinical association especially with heart-disease, we think it will not be denied that these nodules are truly rheumatic lesions. It is probable that their recognition in a given case, where the history of joint-affection and even of pain is equivocal, may assist us by pointing out the tendency to rheumatism. Further, as their evolution is often unattended by pyrexia, they may be of interest, as forming a link between certain forms of rheumatoid arthritis on the one hand, and, on the other, the acute and subacute forms of rheumatism, which have this in common, viz., the proclivity to heart-complication. If it be permitted to speculate as to the homology of these nodules, I should like to suggest that, considering their structure and natural history, they may perhaps correspond with the inflammatory exudation which forms the base of a cardiac vegetation, on the top of which latter a cap of fibrine may or may not become deposited. If that be taken as a provisional hypothesis, I think it helps us to picture to ourselves the possibility of the occurrence of some thickening of the ostium of a valve, which may afterwards disappear, or may become the starting-point of a slow fibrosis. As a final observation, I may mention that, in one of my cases, the pericardial adhesions in some places had a distinctly nodular character; and that Dr. Angel Money has recently found, in a case of rheumatic nodules where there was extensive pericardial adhesion, a distinct nodule invading the heart-substance, extending from the pericardium inwards.

Having considered these subcutaneous lesions, let us pass to the skin proper. First, with regard to the erythema group. Erythema nodosum, it is well known, is associated with severe pains in the limbs and some fever, and is sometimes followed, as rheumatism is by considerable anæmia. But I have never been able to assure myself of the production of an organic cardiac murmur in this disease, nor of any intercurrent arthritis, however slight; and it seems possible that the pains in the limbs may be accounted for in great measure by the effusions which, though limited in amount, often occur in spots which do not readily yield, as on the front of the shin. There is certainly proneness to recurrence in the same individual. Nevertheless, until we get evidence of the initiation of heart-disease in an attack, or of the liability of persons who suffer from erythema nodosum to subsequent undoubted rheumatism, I think we ought to hesitate before saying that erythema nodosum is closely related to rheumatism, much less convertible with it, although in some respects it runs parallel with it. But, with respect to erythema marginatum and erythema papulatum, the case is, I think, often more satisfactory.

I have already referred to the occasional occurrence of these skin-affections in the adult acute attacks; and in children they are very common indeed, especially on the limbs, but on the trunk also. I have seen them several times appear simultaneously with pericarditis when the joint-affection has been slight or absent. A young lady who had had rheumatic fever some years previously, leaving a diseased mitral valve, had a subsequent illness, for which I attended her. This began with very slight pains, referred to the ankles, but there was no swelling and no tenderness on pressure. There were some patches of erythema on the lower limbs. The attack was attended with pyrexia, not ranging throughout higher than 103°. But her month's illness included some fresh endocarditis, some pleurisy on one side, and pneumonia on the other. Now, although no arthritis occurred and there was very slight sweating, there can, I think, be little doubt that this was an attack of acute rheumatism.

I may also refer to the case of a girl who had had previous rheumatic endocarditis, and who was admitted into hospital with erythema marginatum. Within three days there were developed subcutaneous nodules on the dorsal spines, subsequently others on the scalp; then she had chorea, and finally fatal pericarditis, but no joint-effusion.

Finally, I may quote the case of a boy who first came under observation with a number of subcutaneous nodules, and with extensive heart-disease, probably the result of a rheumatic attack. The nodules disappeared, and nearly two years afterwards he again came under treatment with erythema marginatum. This was the beginning of a fatal illness, of which the features were fresh pericarditis and fresh endocarditis, an insidious arthritis of one knee, and a new crop of minute subcutaneous nodules on the scalp.

There are some other skin-diseases which appear to have an occasional relation to rheumatism, and must be mentioned; but in so many cases they are entirely devoid of such relation, that they are of less value for our purpose than the erythema group. I refer to urticaria and purpura. Sir William Jenner was in the habit of quoting, in his clinical teaching, the case of a young subject who had pericarditis, with at first no clue to its cause. In a day or two an eruption of urticaria appeared, and then it was suspected that the pericarditis was rheumatic. This was proved to be so by the subsequent occurrence of sweating and typical joint-effusions, and the further progress of the case.

But besides its undoubted association with what may be called cases of acute food-poisoning—especially, I think, in children of gouty inheritance—we have to recall the occasional occurrence of urticaria in septicæmia. Hence, I think, we ought to be guarded in taking this skin-affection, apart from other manifestations, as a rheumatic symptom.

With regard to purpura, we must of course set aside a vast number of cases in which spots appear more on the trunk than on the limbs of anæmic children suffering from splenic enlargement and other causes of marasmus, in which rheumatism does not for a moment enter into consideration. Further, there are obscure cases of a more active type, in which, for several weeks, a child suffers from successive outbreaks of purpura, especially on the lower limbs, nearly always made worse by getting up, and sometimes accompanied by

severe gastro-enteritis, with hæmorrhage from the bowel, and occasionally by hæmaturia. In such cases, I have known children to complain of very severe pains, especially in the lower limbs, for a day before the purpura has appeared; and with the purpura, when extensive, there is often to be seen a slight general swelling of the lower limbs. It has appeared to me possible that the pain has been due to the overdistended small vessels about to rupture, and that the slight subsequent general swelling has been due to the presence of serum in the areolar tissue after the innumerable ruptures and minute extravasations have taken place.

Whether these cases be rheumatic or not, I cannot say; but there are some others, of which I have seen at least two, in children where the eruptions of purpura have been accompanied by distinct effusions into the sheaths of tendons and into joints. Occasionally, also, slight purpura appears near the joints during what has been called the unstable period of early convalescence from rheumatic fever, just exactly as erythema appears during this period; and in some cases it is difficult to say whether the spots are erythema or purpura.

I may, perhaps, so far digress as to mention the case of a young man, aged 23. Large purpuric patches about one knee, and small purpuric spots on the trunk, with a temperature of 101°, and a little hæmaturia, had been preceded by a fortnight's *malaise*, with pains referred to the knee and to one shoulder, and also by a little diarrhœa. He was kept in bed on expectant treatment for a week, and became a little worse. He complained of pains in the elbows, calves, and ankles, but there was no effusion. There was slight relapse of the purpura, and a little blood appeared in the stools. The temperature ranged about 100° to 101°. He was rather torpid, and once at least was delirious; he sweated somewhat, and for a day or two there was a sour smell about the perspiration. After a week's expectant treatment, he was given three twenty-grain doses of salicylate of soda; the next day his torpor had disappeared, and with it all his other anomalous symptoms; and in a day or two he was convalescent.

Let us now consider some other minor affections which have rheumatic affinities. I referred in the earlier part of this address to the occurrence of stiff neck as a frequent sequela of acute rheumatism in adults, and I believe it may often be taken in children, when occurring apparently as an isolated phenomenon, as an indication of rheumatism. For example: a girl of eight years was brought, complaining only of stiff neck. There was no pyrexia, no glandular enlargement, no tonsillitis, and no reason to suspect cervical caries. The suspicion that rheumatism might be at the bottom of it led to the examination of the joints and heart, and it was found that there was a slight latent effusion in the left knee, which had given the child no trouble, and of which she was not aware; and that she had mitral disease, probably left after a febrile illness from which she had suffered twelve months before. To this illness but little attention had been given; but, from the history, it was probably a slight attack of rheumatic fever.

The life-history of children who suffer from an attack of simple serous pleurisy, and in whom tubercle can be excluded, is well worthy of note, especially in regard to the question of the subsequent or antecedent appearance of typical or atypical rheumatism. A girl who, at thirteen, had an attack of rheumatic fever, at the age of fourteen developed fatal double pleurisy with considerable effusion, first on one side, then on the other. She had no arthritis, but had profuse perspiration. She had no pericarditis, and no valvular disease; but there was found, after death, some cardiac dilatation, probably of older standing than that of the fatal illness.

A child, six years old, whilst convalescing from serous pleurisy, developed a latent effusion in one knee, there being no bruise or strain to account for it. A boy, whilst suffering from serous pleural effusion, developed a copious eruption of erythema marginatum. These examples are not conclusive: they are mentioned only by way of suggestion, and are to be considered in conjunction with the well-known occurrence of serous pleurisy as one of the manifestations of adult acute rheumatism.

In regard to the mucous membranes, we are confronted with the question whether there is any real connection between catarrh in general and rheumatism. It is certain that there are many points of resemblance in their natural history; but, in the period of childhood, at all events, I doubt whether there is sufficient evidence of the interchange of catarrh with rheumatism, or of the subjects of catarrh in childhood being specially liable to rheumatism in later years, to justify us in saying that there is any actual connection. Thus far in regard to catarrh in general; but there is one catarrhal affection, viz., tonsillitis, which, in children as well as in adults, occurs so frequently at the onset of undoubtedly rheumatic attacks, or with a short interval before them, that some have been tempted to consider that it has a causal relation to the rheumatic attack. A similar hypothesis has been held with regard to scarlatinal rheumatism. It may perhaps obtain in some cases, but certainly does not in all; and, as we know that tonsillitis may arise from many causes, and as it sometimes occurs before or during rheumatism, it seems possible that, so far from starting the rheumatism, it may be one of the expressions of the rheumatic poison, whatever that may be. That many children who are prone to rheumatism are also prone to repeated attacks of acute tonsillitis, there can be no doubt; but the converse does not always obtain. Chronic enlargement of tonsils points often to struma, as Heberden noted long ago.

At length, we come to consider the relation, if there be one, between chorea and rheumatism. But let us admit, at the outset, that no explanation of chorea can be complete which does not take cognisance—as a physiological basis of the affection—of the mobile temperament of children, of the wider range in them than in adults of what may be called expression in the movements of the limbs, upon which Dr. Sturges has justly insisted. We must remember, too, its frequency in the middle and later periods of childhood, its predominance in the female over the male sex, its occurrence in bright intelligent children in greater numbers than in stupid ones. On the other hand, its occasional appearance as a very grave affection in young pregnant women, and also sometimes in young men, must be remembered. Also, we cannot ignore the abrupt and sudden onset of the affection, in some cases almost immediately after a severe emotional disturbance, and the fact that occasionally (I do not think it is common) there is to be found a marked tendency to neuroses in some members of the family of the choreic patient.

It seems possible that climate and race may each also take a place as factors. The association of chorea and rheumatism has been much more frequently observed in France than in Germany; and I believe that chorea, on the whole, is more common in France than in Germany. No large mass of English statistics is, I think, yet available; but it is certainly the fact that a considerable number of severe and fatal cases of chorea have occurred in the midland counties. How far this is exceptional remains to be seen; and we shall hope, on this as on many other points, for much enlightenment from the Collective Investigation returns.

With respect to the relation between rheumatism and chorea, let me say at the outset that, in my humble judgment, the embolic doctrine of chorea rather hampers than assists us in our inquiry. It does not explain satisfactorily some of the cases to which I have referred, especially what may be called *par excellence* the neurotic cases; and it leaves out of the reckoning certain cases which are important—viz., those in which chorea is the first event, and heart-disease and rheumatic fever occur subsequently.

For a while, it seems more satisfactory to go back to the lines of inquiry laid down by Roger and the French school, and ask ourselves, what evidence there is for the association of these two affections?

Now, first, with respect to acute rheumatism, the evidence appears to be very strong indeed.

Chorea is a very common sequel to the acute rheumatism of children. I do not know any other acute fever of childhood of which it is a sequel, except occasionally of scarlet fever, with which, significantly enough, rheumatism is apt to occur.

During the progress of acute rheumatism, even amongst adults, it may occur, especially at the onset of pericarditis; also, as Roger pointed out, it may precede the manifestations of acute rheumatism, either immediately or with a considerable interval. Further, manifestations of acute rheumatism may become associated with chorea, the chorea still persisting. The majority of cases of chorea are non-febrile—even very violent cases, when uncomplicated, are often non-febrile; but, now and then, a choreic case becomes pyrexial, even hyperpyrexial, with more or less delirium, dry skin, and endocarditis. When arthritis supervenes, we have no hesitation in saying that there is rheumatism; but, even if arthritis do not supervene, is it not the most reasonable view to suppose that the hyperpyrexia and endocarditis are due to an intercurrent, but latent, form of rheumatism, the counterpart of the adult hyperpyrexial rheumatism?

A girl aged 13 had tonsillitis, with patches of erythema; then most severe nocturnal muscular rheumatism, of the kind commonly called growing pains; then moderate chorea; then severe rheumatism, affecting many joints; then relapse of the chorea, with sudden

cessation of the arthritis, and the supervention of fatal hyperpyrexia; the whole illness being comprised within six weeks.

A boy, aged 10, had had pains, referred to large joints, for two months, for which he had attended a medical man. When admitted into hospital, there were multiple rheumatic nodules, slight effusion in one knee, mitral murmurs, and chorea. He was then non-febrile, but in a few days he became febrile, and he continued so for a fortnight; for two days there was hyperpyrexia. During this febrile attack he developed no arthritis, but there was a localised eruption of miliaria rubra, and there was some alteration in the cardiac murmur, besides a suspicion of pericarditis. The chorea and the nodules had almost subsided, when he got a subsequent fresh attack of fatal pericarditis. At the *post mortem* examination, besides pericardial lymph of different dates, and some thickening of the mitral valve, there were found vegetations on both mitral and tricuspid valves, and one of the rheumatic nodules was found. I do not think that there can be any doubt that the febrile attack, which supervened on the chorea, etc., was a true masked rheumatism, of which the crop of miliaria and the fresh endo-pericarditis were expressions, although there was no arthritis.

But, in the second place, there are a number of cases of chorea in which heart-affection exists, and no history of acute rheumatism can be obtained. It has been the fashion to call the choreic murmur functional or dynamic. Upon such murmurs in chorea I can give no opinion. Setting apart a few cases of cardiac irregularity, my strong impression is that the majority of the murmurs heard in chorea are such as in any other disease we should not hesitate to regard as truly organic, and related to the mitral orifice.

Sometimes there is most extensive heart-disease of both valves and pericardium, without our being able to get a history of typical rheumatism; and the cardiac disease may be rapidly progressive. Also it is not true to say that the choreic murmur always disappears; for, apart from the above cases, there is strong reason to suspect that many examples of mitral stenosis commence in a slow insidious rheumatic process, which accompanies the manifestation of chorea. Whatever view may be held as to the mode of production, it is certain that, in many cases of mitral stenosis which we come across in young women, no ordinary rheumatic history is forthcoming; but very often there is a history of one or more attacks of chorea in childhood. I can testify that, in a few cases of choreic children that I have watched over varying periods, the most careful auscultation has failed to detect a murmur at first; but by degrees this has become manifest and persistent. It is interesting to recall, by way of parenthesis, the preponderance of the female sex in cases of mitral stenosis, and to place this alongside the still greater preponderance of the female sex in cases of chorea. Happily, in a large number of cases of chorea, after a few months, the murmur entirely disappears. But I submit that we have no right to rush to the conclusion that the disappearance of the murmur proves that no organic change had existed. We have occasionally a similar experience even with regard to the murmurs developed in acute rheumatism. A *bruit* which appears in the early days of the fever, long before anæmia has become pronounced, may linger for months, and then pass away. It appears to me, as I have previously suggested, quite in harmony with what we know of rheumatism elsewhere, that some deep thickening of endocardium may have occurred, which by degrees undergoes absorption, but which, on the other hand, may give rise to a slow fibroid change, such as induces mitral and tricuspid stenosis.

I think also, with regard to the cases of chorea in which no cardiac murmur is to be heard, it is important to note that this by no means excludes possible cardiac disease. I can recal one fatal case in which no murmur was heard during life, and in which, on *post mortem* examination, a circle of minute vegetations was found, not at the free edge of the mitral valve, but just within the ostium in a situation that might very easily, if the child had lived, have initiated mitral stenosis.

And now it may be said, granted organic heart-disease is present in a given case of chorea, if the history of acute rheumatism be not forthcoming, what evidence have you to offer that the chorea is rheumatic? It was said in the old time, that no man is happy until he dies. Certainly, in the light of many cases in which chorea comes first, and after a considerable interval unquestionable rheumatism, it may be maintained that the subsequent as well as the antecedent history ought to be obtained before pronouncing a negative.

But in a great many cases we are not dependent upon the future, nor, indeed, upon the unsatisfactory statements of friends who are only too ready with answers to leading questions. If you admit the probable rheumatic character of some of the symptoms which I have discussed in the earlier part of this address, you cannot deny their value when present in a case of chorea. Now, careful observation will often establish the existence of some of these symptoms, either alone or in groups, in cases of chorea where no rheumatic fever history can be obtained. Such symptoms I may recapitulate as slight pains referred to limbs, but little complained of, perhaps for a day or two associated with effusion into one joint, or into tendinous sheaths near a joint; subcutaneous nodules appearing in crops; stiff neck and severe backache; erythema marginatum attended with a little pyrexia; intercurrent tonsillitis, during the existence of which the choreic spasms may remit; and finally, perhaps most definite of all, changing murmurs with signs of increasing dilatation, suggesting fresh endocarditis. When such symptoms as these occur separately, much more when they occur in groups, and still more when in successive groups, they lead us to the conviction that our choreic patient is truly rheumatic; and, unless their absence have been established, I do not think a negative ought to be admitted. In all statistics, doubtless, there is a personal equation, and I am somewhat reluctant to add my own to the different series which have been already published. But of seventy-five consecutive cases which I have extracted from my note-books, many of the earlier reports being exceedingly imperfect, I find that in forty-four there is sufficient evidence of rheumatism. I do not doubt that more careful examination in the remaining thirty-one would have established in a considerable number rheumatic phenomena; for in seventeen of the latter there was definite heart-disease often progressive, and some of them were postscarlatinal, in which cases it is by no means unlikely that some rheumatism might have intervened.

Of the evidence from family history, I have taken no account in this list, because the details, especially amongst the poor, are unsatisfactory; but, as a matter of fact, valuable evidence is often forthcoming of family inheritance of rheumatism, and this, in my experience, has been more abundant than a history of family neuroses.

Of the results of the investigation into the minute pathology of chorea, I have said nothing; for, although I am far from underrating their value, I do not think that as yet they are conclusive.

It is time that I should gather these tangled threads into a skein, and sum up my conclusions, which are sufficiently commonplace, with regard to chorea. I will submit that (1) chorea should be regarded as a symptom rather than a disease; (2) that we are no more justified in saying that chorea is always rheumatic, than in saying that delirium and hyperpyrexia are always rheumatic; but that (3) chorea occurs so frequently in connection with rheumatic symptoms, both in combination and alternation, that we are justified in provisionally regarding it as itself often a rheumatic symptom.

Having drawn chorea into the circle of the rheumatic symptoms of childhood, it remains for me briefly to summarise the gist of my paper. I have of set purpose, except in the introduction, limited the scope of my remarks to what I conceive to be the rheumatism which radiates round the typical acute febrile attack of a young adult, and of which one of the special features is the proneness to implication of the heart.

The type designated as rheumatoid arthritis is not without its examples in childhood, and sometimes such examples are rapid, extensive, and severe in their development. There are also rare instances to be met with in children of slowly progressive multiple ankylosing joint-affection without heart-disease, quite comparable with adult cases. But to discuss these rare cases would take too long, and I fear that their consideration would throw but little light on our difficulties as to assigning the true place of these affections in adults. I have already mentioned that I think rheumatic nodules may help us as an intermediate form between acute rheumatism and some cases of rheumatoid arthritis. This, however, carries us a very short distance, for it seems possible that there may be at least two distinct groups of rheumatoid arthritis. I have been anxious to show that the children's rheumatism which radiates round the central type of the adult acute febrile attack is extremely protean in its forms, but that, when carefully considered, these forms may after all be regarded as the several factors of the acute adult attack, which have, so to speak, been analysed in the child's life, and separately manifested at different periods.

I have endeavoured to point out that individual symptoms, which, when considered as isolated phenomena, are perhaps indeterminate, may nevertheless deserve to be considered rheumatic when taken in conjunction with the antecedent and subsequent life-history.

What I have to say about treatment can be summarised in a few words. I am far from wishing to disparage the use of the salicin

compounds in the rheumatism of childhood. But it must be remembered that the great clinical indications for the apparent beneficial employment of these compounds are joint-effusions with pain and fever. I have shown, however, that a great deal of the rheumatism of children is insidious, being attended with ill-defined joint-affection, slight pain, and little fever. The golden indications for treatment of the rheumatism of childhood are indeed homely enough. Let us not make light, nor allow parents to make light, of the minor manifestations, or of what may turn out to be the minor manifestations of rheumatism. Keeping a child in bed for a day or two for slight rheumatic symptoms may have a tremendous influence on his future; and, when once a tendency to rheumatism, however slight, has become manifest, careful avoidance of fatigue and the maintenance of good cutaneous circulation are of such vital importance, as to deserve the most emphatic directions that we are able to give.

FATAL CASE OF CHOREA IN A BOY, AGED TEN YEARS.

Read in the Section of Diseases of Children.

BY MARTIN G. B. OXLEY, M.D.,
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B. C., aged 10, was admitted into the Liverpool Infirmary for Children in January 1883. He began to have twitchings three weeks before admission. On admission, he had pretty constant though not violent twitchings, mostly on the left side. After admission, he had constant though not violent jactitations. On January 29th, the choreic movements became very violent after the house-surgeon had taken a little blood from his finger for investigation into its condition. He was very violent at night, contorting and swearing. The movements continued very violent for two days, and then grew less so. On February 1st, he was much quieter, taking twenty grains of chloral at a dose. On the 5th, he had no violent jactitations, and was able to answer questions. The patient became exhausted, and died unexpectedly. The heart-sounds were free from *bruit* from first to last.

Post mortem Examination.—The surface of the body had numerous bruises, especially over the prominent parts, as the elbows, knees, etc., and there was slight abrasion of the skin over the sacrum. The body was somewhat emaciated. The lungs were healthy. The left side of the heart was firmly contracted; the right side contained a fibrinous clot. Both aortic and pulmonary valves were competent. The aortic valve had a fringe of vegetations about the size of pins' heads (wart-like). The mitral valve had similar vegetations on its ventricular surface near the edge of the valve. The kidneys and spleen were normal. The brain was somewhat congested on its surface; no gross lesion could be detected in its substance, nor were the ventricles at all distended.

ON THE NATURE OF THE SO-CALLED SCARLATINAL RHEUMATISM.

Read in the Section of Diseases of Children.

BY HENRY ASHBY, M.D., M.R.C.P.,
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THE nature of the joint-affection which occasionally complicates scarlet fever has been from time to time a matter of dispute. Most of the text-books mention rheumatism as one of the sequelæ or complications of scarlet fever, presumably referring to true rheumatism. Trousseau apparently had no doubts upon the subject, speaking of the manifestations of the rheumatic diathesis as explaining the joint-affections and lesions of serous membranes occasionally seen in scarlet fever. He states that the joint-affection is an exceedingly common complication, and refers to chorea following the fever as evidence of the rheumatic state.

On the other hand, Jaccoud and most German authors have doubted the rheumatic nature of this joint-affection, or the influence of scarlet fever in exciting a rheumatic attack, and have leaned to the belief that the synovial membranes are especially liable to be attacked in scarlet fever, as the mucous membranes are in measles, or that the synovitis is a part of a more or less mild septicæmia, arising from the absorption of septic matters into the blood from some inflamed mucous membrane, resembling the similar affections seen in some surgical cases, gonorrhœa, or puerperal fever. In spite of Trousseau's assertion to the contrary, it is the experience of most authors that this complication is not a common one; this is certainly my experience as far as the scarlet fever of children goes, for, out of the last 500 cases of this fever admitted to the General Hospital for Sick Children, in Manchester, only twelve cases of joint-affection have occurred. It is, however, an undoubted fact, which is of some importance from an etiological point of view, that this complication occurs much more frequently in some epidemics than in others.

Before making any remarks on the subject, it may be interesting to analyse the symptoms in my own cases in as much detail as time will allow. In two out of the twelve, pus formed in the joints, one case proving fatal on the nineteenth day of the disease.

The first case occurred in a boy, aged 5 years, admitted January 1882, on the second day of the attack. The rash was well marked, the throat-symptoms severe, the tonsils at first ulcerating, and later the soft palate sloughed, with much glandular inflammation and cellulitis; the temperature continued high throughout the attack; albumen appeared in the urine on the sixth day; both ankles became swollen and tender on the thirteenth day, death occurring on the nineteenth. At the *post mortem* examination, both ankle-joints contained pus; the cartilages were found to be eroded; there was an infarct in the spleen. Minute hæmorrhages were present on the surface of the kidneys, lungs, and heart. There was no endocarditis.

The second case occurred in a boy, aged 2½ years, admitted to hospital in October 1882. The throat-symptoms were moderately severe; the temperature varied from 102° to 105° for the first twelve days, continued more or less remittent till the twenty-first day, and then intermittent till the fifty-fourth. On the tenth day, there was swelling and redness of the right ring finger, the other fingers of the same hand being more or less involved. On the twelfth, the right knee was swollen and tender, as were also the ankle and toes of the same side. On the fifteenth, Mr. Chaffey, the house-surgeon, opened (antiseptically) the knee-joint, two drachms of sweet pus escaping. On the twentieth, about two drachms of pus were evacuated from the palmar surface of the swollen finger, the synovial membrane of the flexor tendons in the palm of the hand being also involved. On the thirty-sixth day, an abscess in the neck was opened, an ounce of pus being let out. On the forty-fourth, the finger and knee having healed, passive movements were allowed. On the forty-ninth, an abscess, apparently connected with the hip-joint, was opened, and about four ounces of pus escaped; and another collection of pus at the back of the knee-joint, and extending into the calf, was also opened. On the seventy-second day, the child left the hospital, with all the sinuses healed. In July 1883, ten months after the commencement of the attack, he was quite well, and apparently strong, except some difficulty in flexing the injured finger, and a very faint systolic apex *bruit*. No dilatation or other evidence of cardiac disease was present; no *bruit* had been noticed on his leaving the hospital. It is worthy of note that his father had suffered from acute rheumatism four times, had also an affection of the heart, and had also had dropsy. There can hardly be a doubt that these cases were of a pyæmic nature, secondary to lesions of the throat; that they had nothing in common with rheumatism, despite the history of rheumatism in the father in the latter case.

In the remaining ten cases there was no suppuration of joints, and no fatal case. In most of the cases, the joints first became painful at the end of the first week, in one case as early as the fourth day, in another as late as the eleventh, but in no case did the joints become affected after this. For the most part, the joints only remained painful for four or five days; in three cases, seven and twelve and fifteen days respectively; and in one case, the effusion became chronic, the knee remaining swollen and painful for eight weeks. In no case was there any relapse; when once the pain left the joint, there was no return. The affected joints included the wrists and knees, elbows, ankles, and soles of feet; less often the shoulder, fingers, toes; and, in one case, the joints of the cervical vertebræ were affected.

The affection of the joints varied from slight pain and tenderness to complete immobility, combined with effusion, redness, and much pain; but, for the most part, the joint-tenderness was of a fugitive character, quickly appearing and then completely disappearing, without return. In all the cases, the fever itself was unduly prolonged and moderately severe, the temperature remaining elevated for twelve, twenty-four, thirty, or forty days, mostly with an intermittent character. The throat-lesions were mostly well marked; in several cases there was deep ulceration, more or less sloughing, and much glandular inflammation.

In five of the total cases, no abnormal cardiac sounds were heard

Analysis of Twelve Cases of Scarlatinal Synovitis in Children.

Name and Age.	Days of Disease on which Joints were Affected.	Joints Affected.	Condition of Heart.	Temperature and Course.	Nature of Throat Affection.	Previous or Post Chorea.	Previous or Post Rheumatism.	Remarks, etc.
Thomas McC., 5½ years, Jan. 16, 1882.	12th—19th.	Pus in both ankle-joints; cartilages eroded.	No endocarditis.	Severe course; T. remittent 102—105.	Much sloughing.	?	?	Death 19th day; infarct in spleen; septicæmic kidneys.
Joseph H., 2½ years, October 1882.	10th—60th.	Fingers, ankle, knees on 12th; pus evacuated from knee 15th; ditto from finger 20th; ditto from hip 49th.	1st sound not clear.	Severe course; T. touched normal 21st day, intermittent till 54th.	Tonsils moderate; abscess formed in neck.	No.	No.	Father has had acute rheumatism four times; patient seen July 1883; appears quite well and strong; first cardiac sound prolonged.
Mary A. E., 7 years, March 4, 1882.	5th—17th.	Wrists, elbows, knees, ankles, feet painful and swollen.	Faint systolic.	Course very severe; T. 102—104.6, T. reached normal 26th day.	Much sloughing.	No.	No.	Early albuminuria; *bruit* disappeared before she left hospital; well in every way six months later.
Emily A. W., 10 years, June 19, 1882.	7th—10th.	Elbows, shoulders, fingers, swollen and tender.	Faint systolic.	Moderate course; T. normal 16th day.	Moderately severe.	No.	No.	*Bruit* faint when left hospital; seen July 1883; no *bruit*; quite well. No acute rheumatic attack.
Arthur W., 7½ years, June 1882.	7th—10th.	Elbows, knees, shoulders, spine.	Faint systolic.	Moderately severe; T. normal 24th day.	Moderately severe.	No.	No.	*Bruit* disappeared by 40th day; well in every way July 1883. Mother has had acute rheumatism.
Elizabeth A. B., 7½ years, Aug. 24, 1882.	7th—11th.	Wrists, hands, and knees.	Nil.	Moderately severe; T. normal 12th day; intermittent till 22nd.	Moderate.	?	?	Lost sight of since leaving hospital.
Katie M., 11 years, Sept. 8, 1882.	6th—60th.	Cervical vertebræ, wrists, knees, hips; effusion became chronic in knees.	1st sound prolonged.	Moderately severe; T. reached normal 16th, intermittent till 40th.	Moderate.	No.	No.	Father had acute rheumatism when a boy; patient seen July, 1883; quite well, no *bruit*.
Alice A. T., 9 years, Oct. 3, 1882.	7th—11th.	Elbows, wrists, knees.	Nil.	Moderate; T. reached normal 12th.	Severe.	?	?	Lost sight of.
James L., 10 years. Oct. 11, 1882.	9th—12th.	Knees and shoulders.	Nil.	T. reached normal 13th, intermittent till 27th.	Moderate.	?	?	Lost sight of.
Clara D., 10 years, 1881.	4th—10th.	Wrists, knees, ankles.	1st sound faint ? fluid in pericardium.	T. reached normal 13th, intermittent till 27th.	Moderate.	No.	No.	Mother has had acute rheumatism; patient seen July, 1883; quite well, no *bruit*.
Mary G., 7½ years, April 14, 1883.	11th—17th.	Elbows, knees tender and swollen.	Nil.	T. normal 27th day.	Severe; much glandular inflammation.	No.	No.	Lost sight of.
Martha E., 10 years, June 1883.	7th—22nd.	Shoulders, elbows, wrists, knees, ankles, feet, cervical vertebræ.	? faint systolic 53rd day, 1st sound not clear.	T. normal by 21st.	Much swelling and suppuration of glands.	No.	No.	Mother dead, stated to have suffered from rheumatism.

in four, there was a faint systolic *bruit*; and in three, an indistinct or muffled first sound was reported. The *bruits* were in all cases faint, were heard at base as well as apex, and all disappeared, with one exception, either before the patients left the hospital or soon afterwards. When it is remembered how frequently basic or apical murmurs are heard during the course of an attack of scarlet fever, or other febrile disease, and disappear during convalesence, leaving no trace behind, it is not surprising that, in some of these cases, temporary *bruits* were heard. I satisfied myself that no real endocarditis existed in any of the cases, and that no permanent damage to the heart was sustained.

In eight of the cases, it was ascertained that they had not suffured from rheumatism or chorea before the scarlet fever, or subsequently, up to the time of inquiry; the remaining four were free during convalescence, but were subsequently lost sight of.

To sum up, the joints became affected for the most part on the seventh day; the wrists and knees, elbows and shoulders, became red, tender, and swollen in the course of a few days; this disappeared, with no tendency to relapse. The sweating was absent, or only slight. There were no erythematous rashes; the course of the exanthem was tolerably severe; if a *bruit* were heard, it was faint, and subsequently disappeared; there was no further rheumatism or development of chorea. Are these the characters of true rheumatism—a rheumatic attack excited by the exanthem? I certainly believe not. In the first place, there is the greater frequency of occurrence in some epidemics than in others; secondly, the regularity with which the joint-affection supervened at the end of the first week; thirdly, the severity of the scarlatinal symptoms and the lightness of the joint-affection in most cases; and the suppuration which took place in two of the cases; and lastly, the absence of serious heart-affections. All these help to give a special stamp to the complaint, and to distinguish it from true rheumatism.

It is true that a rheumatic history was obtained in six of the cases, a fact which must be allowed to have some weight in the other direction; but further observation is required before any definite conclusion is come to, especially when we remember how common rheumatism is among the working population of Manchester. It seems to me that the evidence points in favour of a multiple synovitis, the result of a form of septicæmia common in cases of scarlet fever. Anyone who sees much of malignant scarlet fever, with the sloughing throats, glandular inflammation, and cellulitis, drowsiness, diarrhœa, and albuminuria, and on the *post mortem* table sees the intense, sometimes purulent, bronchopneumonia, the minute hæmorrhages on the surface of organs, the large pale kidneys infiltrated with leucocytes and micrococci, will quickly come to the conclusion that septicæmia plays an important part in the severer cases of this exanthem. The synovitis of scarlet fever, involving as it does the joints and sheaths of the tendons, would seem to ally it with the so-called gonorrhœal rheumatism, and with the synovitis which sometimes goes on to suppuration in puerperal fever.

I have already referred to the absence of serious heart-complication in my own cases, and should infer that peri- and endo-carditis less often occur in scarlatinal synovitis than in true rheumatism, the heart-complication in the latter being especially common in children. Yet cases doubtless occur of the scarlatinal synovitis where endocarditis and mitral regurgitation take place, and are succeeded by chronic heart-disease, as in a case reported by Hillier, (*Charite-Annalen*, vii Jahrgang); and it it must also be remembered that cases of endocarditis have been reported complicating gonorrhœal rheumatism, (see Davies-Colley, *Guy's Hospital Reports*, vol. xli, 1883); and that endocarditis is by no means rare in pyæmia.

We must also remember that tonsillitis is not an unfrequent complication of true subacute rheumatic attacks; in this case, the tonsillitis preceding the pain in the joint. It is also certain that scarlet fever sometimes complicates acute rheumatism; such a case is now under my care. The attack began with tonsillitis, followed by pain in the joints, from which the patient had in part recovered, when, a week after the primary attack, a relapse took place, accompanied by endocarditis; then the tonsils again became inflamed, being much swollen and congested, accompanied by a fairly copious rash.

ON THE ALLIES OF RHEUMATISM IN CHILDREN.

Read in the Section of Diseases of Children.

By EDWIN RICKARDS, M.A., M.B.,
Physician to the General Hospital, Birmingham.

WHILE recognising chorea as an ally of rheumatism in children, I look upon chorea as a functional nervous disorder, and think we may group its cases into three classes, founding our classification on a causal basis:

1. Those which occur directly from shock to the nervous system;
2. Those which are associated with rheumatism;
3. Those which are unconnected with shock and rheumatism.

Of the first class, I have little to say, inasmuch as I think it is generally admitted that we frequently meet with chorea following a fright in individuals who, previously to the nervous shock, were well and strong. The result of my experience of such cases is that, while the attack is severe, it does not usually recur.

As regards the second class of cases, the most frequent sequence of events is rheumatism, heart-disease, chorea; but I do not consider that there is sufficient evidence to prove any causal relationship between the cardiac complication and the chorea. And we do get chorea following rheumatism without any sign of valvular lesion. Subsequent research may, however, show that the heart-disease is an exciting cause of chorea in such cases.

There can be no doubt that chorea is especially liable to occur in persons of a rheumatic diathesis; it is not necessary that the diathesis should have declared itself by rheumatic attacks. I have repeatedly admitted into the hospital patients with chorea, who have never had any symptom of rheumatism, and who had no signs of cardiac mischief; and yet, during their stay in the hospital, they developed acute rheumatism with and without cardiac complication. I have noticed in the out-patient room that a large proportion of the chorea cases have an organic mitral murmur; and yet, in many of these cases, there is no traceable history of rheumatism. I think the generally accepted explanation of the cases is the correct one; namely, that the rheumatic attack running a very short course, as it frequently does in children, escaped observation. I look upon the organic mitral murmur in such cases as proof of a rheumatic diathesis. I have never seen valvular disease develop during chorea without symptoms of rheumatism.

The alliance of chorea with rheumatism seems to me to be explained by the assumption that rheumatism is a very depressing disease; and children being very emotional, their minds, when thus depressed, require but a trifling exciting cause to bring about the mental condition which culminates in an attack of chorea.

To the third class belong those cases which arise from reflex irritation, as from gum-irritation during second dentition, or from uterine irritation when the uterus undergoes change, as it does at the time when menstrual life is about to be established, and during pregnancy. Last year, forty-six cases of chorea were treated as out-patients at my hospital; of these, thirty-five were females; and of these thirty-five, twenty-four occurred between the ages of 11 and 16.

To sum up, I believe we must look upon choreic movements as an external manifestation of a functional nervous disorder, which may be induced directly by mental shock or indirectly by reflex irritation; and, further, that it is a nervous disorder to which those of a rheumatic diathesis are predisposed. In treatment, I think our attention should be first directed towards removing any source of irritation, and then towards training the mind rather than drugging the body.

RHEUMATISM IN CHILDREN.

Read in the Section of Diseases of Children.

By JUDSON S. BURY, M.D.Lond.,
Assistant-Physician to the Clinical Hospital for Diseases of Women and Children, Manchester.

IT seems to me that, in studying such a common disease as rheumatism, great caution is necessary not to include too much under the notion, and to be very sceptical with regard to apparent allies; for, in the investigation of the nature of any disease, it is comparatively easy to view almost every other ailment as in some sort of way related to it, for transitional forms are constantly turning up; and the abrupt lines which at first sight seem to separate one morbid process from another gradually disappear, and we are apt to lose faith in all attempts at rigid definition. But, for the attainment of accurate knowledge, it is very helpful to start with typical cases which can be defined with tolerable precision; and then, as facts cluster round them, only to admit those that are often found in pretty close connection with the type. Thus, before pronouncing an ailment rheumatic, it ought, I think, to be found often associated with an inflammatory affection of the joints, of relapsing character. Looked at in this way, such terms as "laryngeal rheumatism," or "tracheal rheumatism," or "spinal rheumatism," seem a little premature; and, even with regard to so-called "muscular rheumatism," I am not sure that it has ever been shown that those who are subject to muscular pains, such as lumbago, pleurodynia, etc., are those in whom acute articular rheumatism or endocarditis is frequently met with. Certainly, in children, such muscular pains, with the exception of torticollis, are not common. But torticollis is not always due to a painful affection of the sterno-mastoid or trapezius; it is often a position of protection, in consequence of disease about the articulations of the cervical vertebræ, or, possibly, it may be both muscular and articular. It has been stated that heart-disease has followed a stiff neck, or torticollis; but one would like to know how far articular disease was excluded. In looking over the preliminary report on rheumatism, in the *Collective Investigation Record*, I find that, whilst neuralgias and sick headaches, and other nervous ailments, are noted amongst the common ailments of rheumatic people, a liability to the various forms of so-called muscular rheumatism is not once mentioned. The most frequent complication of acute articular rheumatism, in the child, is unquestionably heart-disease; and so close is the connection, that the presence of the ordinary form—namely, a mitral systolic murmur, with diffused impulse—may be taken by itself as sufficient evidence that the child is most probably a rheumatic subject.

I have notes of twenty-four cases of endocarditis in children; twenty-two with mitral, two with aortic disease; and there is clear evidence of acute articular rheumatism in eighteen—that is, in 75 per cent.—and of the remaining six, three or four have either rheumatism in the family, or give a history of obscure febrile illness with vague pains. But the reverse percentage—that is, the number of cases of rheumatism in which endocarditis occurs—is somewhat smaller. Thus, adding eleven children, the subjects of rheumatic fever without detectable heart-disease, to the above eighteen cases of endocarditis with rheumatism, we get eighteen out of twenty-nine, or 62 per cent., of rheumatism followed by endocarditis. I think it is highly probable that organic murmurs tend in many cases to disappear, and that the heart may return to a healthy condition. Thus, in a girl aged 16, who, when first examined a year ago, had a mitral systolic murmur and a diffused strong impulse, the murmur is now barely audible, and the impulse, though stronger than natural, is scarcely so strong as formerly. Again, I have accurate measurements of the distance of the maximum point of impulse from the mid-sternal line, in a very rheumatic boy aged 7. A year ago, there was a well-conducted mitral systolic murmur, with diffused impulse, the maximum point being 2.63 inches from mid-sternum; now, it is only 2.16 inches. It has thus moved nearly one-half inch towards the right. The murmur is still present. I may incidentally mention that, in most of my cases of uncomplicated mitral systolic murmurs, the apex-beat was heaving, or stronger than natural, indicating left hypertrophy; that this takes place probably much sooner and more rapidly in a child's than in an adult's heart; that there is a more vigorous attempt to overcome the defect, and the valvular trouble may entirely disappear, but the hypertrophy in most cases persists. Thus, we may examine a child's heart, discover a heaving impulse but no murmur, and, finding no kidney-mischief, may not clearly understand the hypertrophy. Is the explanation I have given the correct one in such cases, or, may hypertrophy of the heart develop in a child without any physical signs of valvular disease?

My experience of chorea in relation to rheumatism is as follows. Of forty cases, fourteen furnish clear evidence of an acute articular affection; in seven others, there is a history of pains of various kinds, together with a more or less strong history of rheumatism in the parents. In the remaining nineteen, the existence of rheumatism in the patient or family is doubtful or absent, or the notes are imperfect. Thus 50 per cent. of the cases of chorea were probably rheumatic, 35 per cent. being certainly so. These figures accord with general experience; thus, to quote some recent statistics, Dr. Stephen Mackenzie, in his paper read at the International Congress in London, gives an analysis of 172 cases of chorea, and concludes that rheumatism had pre-existed in nearly half the cases. In last year's abstracts of the Pendlebury Hospital, it appears that more than a third of the cases of chorea were certainly rheumatic. It is interesting

also to see that the returns of the Collective Investigation Committee, obtained from family practice, give 30 per cent in which chorea and rheumatism were associated. In only five of the forty cases of chorea were there distinct organic murmurs; in five others, the sounds were modified, being reduplicated, or murmurish; or the impulse of the heart was stronger or more diffused than normal; so that ten out of forty—25 per cent.—had an abnormal condition of the heart. The *Collective Investigation Record* reports 27.34 per cent., but Dr. Stephen Mackenzie and others find organic murmurs in fully half the cases. Although my proportion of cases of rheumatic chorea does not much exceed a third, I cannot help thinking that there is a closer connection between the two diseases than the figures indicate, and for the following reasons. 1. Most of the cases were out-patients, and it is obvious that the short duration of hospital observation, together with imperfect knowledge of family ailments, can scarcely exclude such a disease as rheumatism. 2. Unless a choreic child be very carefully examined, the slighter signs of rheumatism are easily missed. Drs. Barlow and Warner have shown the importance of looking for subcutaneous nodules, which are usually attached to tendons. I should like to point out, too, that the tendons at the wrist and in other places are sometimes very tender when pressed or rubbed, when there is no sign whatever of joint-implication; sometimes, a little effusion into the sheaths of the tendons can be detected, *but there may be acute tenderness without the slightest swelling*. As every little thing of this sort is a help in diagnosis, perhaps I may be allowed to very briefly report such a case.

W. B., a boy aged 7 years, admitted December 6th, 1881, was hit on the back of the head with the buckle-end of a strap two months previously; he had twitched three weeks. A week after the twitching began, he had pains in the hands and feet, which were also stated to be swollen. He was never ill before. Both sides were affected with chorea. The first sound of the heart was rather weak; there was no murmur. There was much tenderness over the spines of the seventh cervical and first and second dorsal vertebræ; none of the joints were swollen, but the backs of the hands and wrists were very sore; friction over the extensor tendons at the back of the wrist was very painful; there was not a trace of swelling, and bending the wrist did not cause any pain. A fortnight later, he was in much the same condition. He was not seen again till April 1882, when I was told that he had been pretty well in the interval, but that, a few days before, he came home crying, complaining of his spine. His heart was normal; there was no chorea. In May, right chorea was noted, and it was found that there was much tenderness along the flexor tendons in the lower part of the forearm, also over the seventh cervical and first and second dorsal spines. The heart was still normal, that is, on May 30th. On June 9th, it was noted for the first time that there was a slight very soft systolic apex-murmur; also that friction over the anterior aspect of the left wrist gave great pain, and that there was doubtful evidence of slight swelling in the sheaths of the tendons, but no swelling of the joint, and no pain on flexion. The subsequent history of the case I need not give, except to mention that the boy had subsequently an attack of acute rheumatism, which was followed by pain and stiffness of the knee. The stiffness continued for some weeks. He has now, that is, a year later, a well conducted mitral murmur and a little hypertrophy of the left ventricle, but is in other respects fairly well.

Of course, in this case we were told that there was pain and swelling of joints at the outset; but, if one had seen the case later, as a case of chorea, and without a satisfactory history of rheumatism, the tendinous inflammation might have been easily overlooked, for there was no complaint of pain except the spinal, and no swelling of joints; and yet, two months after the commencement of the second attack of tendinous and spinal tenderness, an organic murmur showed itself. It may easily be said that the vertebral articulations were affected, and constituted the only reliable evidence of rheumatism; but I have notes of two or three other cases, in which the tendons were solely affected in children who were undoubtedly rheumatic.

In two cases of heart-disease, one with, the other without, a rheumatic history, I have observed the slightest possible twitching of one hand; and one would like to know how often, during attacks of rheumatic fever or of subacute rheumatism, slight choreic movements occur, the patients never having had St. Vitus's dance previously, nor developing it subsequently.

Finally, with regard to the immediate antecedents of chorea, Dr. Sturges says that in more than half the cases fright or other mental disturbance is stated to be the exciting cause. This is perfectly true, but it does not exclude a predisposing rheumatic condition of body. My notes afford at least two suggestions in this matter. In the first place, in twelve out of the forty cases in which fright was given as the exciting cause, five of the twelve belonged to the certainly rheumatic class, two were probably rheumatic, and in only one could rheumatism be excluded. That is, about half the cases of chorea with fright given as the exciting cause were distinctly rheumatic; and secondly, may not fright occasionally bring on an attack of rheumatism? One case suggested this possibility, a girl, aged nine years, with organic mitral disease and a heaving impulse, whose mother gave the following account. Three years ago, there was a fire in the parlour, and the girl's necktie got on fire, and her face was somewhat scorched, but was not properly burnt, and there were no blisters; she was very much frightened. A week afterwards she had pains all over her, pains in the shoulders and knees; the joints were not swollen; she was in bed a fortnight; she was pale and sickly; she had never ailed anything before. The mother had had rheumatic fever. May we not equally say in such a case that shock started rheumatic fever in one hereditarily predisposed to rheumatism? It is beyond all doubt, too, that excessive fatigue is often an immediate antecedent to rheumatism. Other causes, too, which occasionally excite rheumatism are also given as antecedents to chorea. Thus I have notes of six cases in which falls or blows were apparently the exciting causes of chorea.

In the families of choreic patients, I have more often been able to trace a history of rheumatism than of epilepsy or other nervous disease. For the reasons given, then, it seems difficult to avoid regarding chorea as, in a large number of cases, a rheumatic manifestation.

Dr. Goodhart, in a paper in *Guy's Hospital Reports* on the rheumatic diathesis in childhood, mentions various neuro-muscular derangements found in those of rheumatic strain, and amongst these incontinence of urine, or, as Sir James Paget calls it, the "stammering bladder." Some time ago, I met with a moderately severe case in a girl, the subject of rheumatic endocarditis; and since then I have had thirteen other cases of nocturnal incontinence of urine, and the following figures may be taken for what they are worth. Four of the fourteen give a clear history of rheumatism, in three others there is very fair evidence of rheumatism, and in four others a doubtful history; so that, probably, half the cases occurred in rheumatic children; of the other half, where rheumatism was doubtful, one child had erythema nodosum, another had chorea, and another heart-disease.

Before concluding, I should like to ask those who are interested in skin-diseases, whether they have observed any connection between herpes zoster and rheumatism in children. Trousseau mentions, in his clinical lectures, that M. Bazin recognised two kinds of zona, one which he called herpetic, most frequently met with in elderly people, the other arthritic, of a rheumatic nature, and the commonest form in childhood. The reason I allude to the subject is that three years since I attended a girl, aged twelve years, the subject of chorea and herpes zoster. There was much anæmia; the chorea was slight; I was told it had existed for about two months. The zona affected the distribution of two or three of the upper intercostal nerves on the right side. The heart's action was irregular, and occasionally intermittent; there was no murmur, no pain or swelling of joints, no spinal tenderness. At the end of a week death occurred quite suddenly, the mother stating that she seemed to die in a sort of faint. A *post mortem* examination could not be obtained. Dr. Lesser, in Virchow's *Archiv* for 1881, reports two cases of zona in elderly people, in which death occurred somewhat suddenly through collapse, and he found extensive disease of the spinal ganglia which gave origin to the affected nerves. I have notes of another case of herpes zoster in a girl, the subject of mitral disease; and in two other cases the existence of rheumatism was probable.

Dr. SANSOM (London) said that Dr. Barlow's communication had shown the difficulty of defining rheumatism. It would rather seem that rheumatism might be regarded less as disease than as the expression of a series of disturbed conditions—morbid states, however, manifest in decided relationship one to the other, and presenting phenomena which, though sometimes existing in an isolated manner, are oftentimes grouped together. It would seem most probable, at the outset of the inquiry, that the first cause was not a *materies morbi* initiating and producing a series of phenomena in a defined order, but a disturbance of nutrition whereby the blood was caused to retain products which induced, within certain limits, various morbid changes. What such first cause was likely to operate in children? Exposure to cold and improper nutrition might be among such agencies; but there was one other probable cause which might be entirely overlooked—the occurrence of zymotic disease, evi-

denced by an ulceration of the throat analogous to that observed in cases of scarlatina. From what he had witnessed in cases of scarlatinal rheumatism, Dr. Sansom was convinced that he could not distinguish these, in the stage of articular troubles, from acute rheumatism in children as observed under simple or non-zymotic conditions. He believed, first, that a zymotic disease attended with ulceration of tonsils—a disease closely allied to scarlatina—might often occur in children unnoticed and unknown. He had observed cases of renal disease in children where there had been no evidence whatever of a previous illness, nor any complaint at all referred to the throat. Nevertheless, an examination of the throat had in many cases revealed ulceration either in existence or in various stages of cicatrisation. In some of these cases, rheumatic phenomena were manifest. He did not suggest that these zymotic ailments induced rheumatic phenomena in a direct, but rather in an indirect manner. Like scarlatina, they were associated with a disturbance of renal excretion; and thus the balance of nutrition was disturbed, and products of perverted retrograde metamorphosis were retained. As regards the relation of endocarditis to rheumatism, he would urge the probability that, just as the occurrence of Dr. Barlow's subcutaneous nodules taught—fibrous swellings which caused no disturbance, and which often required a careful examination to discover them—inflammation of fibrous tissues in rheumatism was more widely spread than was generally believed, so the inflammatory affection of the endocardium existed over a far wider area than that indicated by the folds which constituted the valves. Inflammatory exudation could be demonstrated in and amongst the muscular fibrillæ; and it would seem very probable that such inflammation might impair the muscular closure of the aorta, and so give rise to a murmur of mitral regurgitation from adynamia. Murmurs in rheumatism were not unfrequently evanescent, but not so in the sense of those which accompanied other fevers; they lasted much longer than those, though they might ultimately pass away. Such might be explained by the circumstance to which he had alluded—that the murmur had been adynamic, ceasing when muscular power had been completely restored. He was convinced by experience that it might be that an actual alteration of the valve-curtains—swelling or outgrowths—might have occurred; and yet there occurred such return to the *status quo ante* as gave rise to no murmur of inadequacy. It must not be forgotten, however, as proved by Dr. Oxley's case of chorea, by Dr. Stephen Mackenzie's cases detailed before the recent International Medical Congress, as well as by other isolated experiences, that endocarditis might exist with alterations of the valves, and yet give no manifestation of murmur.

Dr. Mahomed (London) while feeling great difficulty in dealing with such an exhaustive paper as that which it had been the privilege of the Section to hear from Dr. Barlow, would venture to take exception to the recognition of rheumatism as a distinct pathological entity, although it was true that it presented well marked clinical symptoms. He pointed out that those symptoms which were recognised as rheumatic were present in various other diseases, especially in septicæmia. Thus exactly similar joint-affection to that seen in acute rheumatism was present in septicæmia, scarlatina, gonorrhœa, intermittent hæmaturia, and several other conditions. So also acute endocarditis, apart from rheumatism, was seen notably in septicæmia, acute Bright's disease, chorea, anæmia, and occasionally in scarlatina. Again, certain skin-diseases were said to be characteristic of rheumatism, notably purpura, erythema, and urticaria, but these also were frequently seen in septicæmia. Where, then, could rheumatism be said to end and septicæmia begin? Dr. Mahomed disagreed with Dr. Ashby with regard to the rarity of rheumatism after scarlatina. Dr. Ashby stated that he had only seen twelve cases of joint-affection out of five hundred cases of scarlatina in children. Dr. Mahomed explained this by two facts; first, that acute rheumatism affecting the joints was much less common in children than in adults, whether after scarlatina or in other cases; secondly, muscular rheumatism was much more common after scarlatina than synovial, and yielded immediately to the salicylates. He also pointed out that the duration of scarlatinal rheumatism was usually short, and this probably explained the rarity of endocarditis, which probably developed slowly during the antecedent and subsequent conditions associated with rheumatism. Dr. Mahomed especially insisted on the fact that it was in the mild cases that postscarlatinal rheumatism occurred, and not in the severe well marked septicæmic cases. He stated that he had frequently seen remarkably severe secondary sore-throat follow postscarlatinal rheumatism. Finally, he pointed out the necessity of studying most carefully the form of rheumatism following scarlatina, which, being transient and slight, and brought about under well known conditions, was very likely to throw light upon the pathology of acute rheumatism.

Dr. Bury (Manchester) made some remarks, which are published in full at page 516.

Dr. Byers (Belfast) thought that no more interesting subject could have been selected for discussion than that of Rheumatism and its Allies in Childhood. There was no one better fitted to introduce such a subject than Dr. Thomas Barlow. In the very suggestive memorandum which Dr. Goodhart and Dr. Barlow had drawn up, at the suggestion of the Collective Investigation Committee, many of the points had been referred to on which previous speakers had dwelt. He would base his observations on experience acquired at the Belfast Hospital for Sick Children, as well as in private practice. With reference to the rheumatism that occurred in connection with scarlatina, the cases that he had observed among children might be grouped in two classes. In one, the rheumatic pains came on early, just at the time of the greatest development of the rash; in the other set of cases, the arthritic symptoms occurred at a later period, about the third week. It was among the cases of this second group that heart-complications were found specially to occur; and it was among them that the association of chorea with scarlatinal rheumatism was most frequently observed. He had met with rashes occasionally among children the subjects of rheumatism. There had been erythema and purpura. In those cases in which purpura occurred, it appeared at a time when the patients were weak and anæmic, and seemed to be due to the impoverished condition of the blood, the result of the rheumatic attack. In one instance, a child was admitted into hospital with an attack of chorea. There was a loud systolic mitral *bruit*. As she was getting better, pains came on in the joints, accompanied with extreme anæmia and general œdema, and then purpuric spots appeared all over the trunk and extremities. He had been on the look-out for the "subcutaneous nodules" since the appearance of Dr. Barlow's paper, but he had not met with them as often as he had expected; but in those cases in which they were present, the heart-affection was severe and progressive. He had notes of one case in which, during the progress of an attack of acute rheumatism with endocarditis in a boy, a crop of these nodules formed in the neighbourhood of the knee-joints, the heart-mischief gradually increased, and death took place a few weeks after the first appearance of the nodules. With reference to the question of the relationship of chorea to rheumatism, opinion was still very far from being unanimous. In certain cases, he thought that there was some undoubted connection between the two affections; while, in others, where there was an obscure history of rheumatic pains, the connection between the two diseases was, at least, doubtful. But even in those cases in which the chorea set in suddenly during an attack of acute rheumatism, should the relationship be regarded as one of cause and effect? Might the arthritic symptoms, the cardiac complications, and chorea, not depend on some common cause? He would suggest that the nervous system might be the part primarily at fault, as he stated in a former paper (*Transactions of the International Congress*, vol. iv). That there was a connection between rheumatism and the nervous system had been held by many pathologists, and was supported, as Dr. Barlow and Dr. Goodhart had stated in their memorandum, by the following evidence. 1. The clinical features of the hyperpyrexia attacks would seem to indicate some disturbance of the nervous centres. 2. Severe nervous shock at times occurred immediately before a rheumatic attack. 3. The fact that certain joint-affections had been shown to depend on disease of the spinal cord (ex. q. tabes dorsalis, Charcot's joint-disease, and poliomyelitis anterior acuta) was worth noting. The rashes (erythema and purpura) occasionally observed in acute rheumatism, might also depend on a nervous origin. It was worth remembering that patches of erythema occurred in another disease of children (tubercular meningitis), where there was no dispute as to their nervous causation.

Dr. Stephen Mackenzie (London) thought that the chief value of Dr. Barlow's paper was the wide conception he took of rheumatism, and of the importance of recognising the conditions, other than arthritis, which occur in frequent, and in some cases undoubted, relationship with it. He agreed with Dr. Barlow as to the connection of tonsillitis and some skin-eruptions with rheumatism; especially, he thought, erythema papulation was a rheumatic expression in some cases, being febrile and leading to endocarditis. He thought Dr. Barlow's statement as to the ill-defined characters of the arthritis required to be strongly impressed on all, as many only recognised as rheumatism cases of the disease with well-marked joint-affection. He thought with Dr. Barlow that subse-

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quent conditions were as important as antecedent, in explaining the nature of disease. On this point, great value was expected from the Collective Investigation. It had been emphasised during the discussion that absence of murmur was no proof of absence of valvular disease; and that the murmur, organic in character, might disappear owing to subsidence of the valvular swelling. As regards scarlatinal rheumatism, his experience was opposed to that of Dr. Ashby, and he thought many of the cases of postscarlatinal arthritis were rheumatic.

Dr. STEWART (Clifton) said that Dr. Waters had remarked that we were ignorant of the nature and pathology of rheumatic fever, and Dr. Barlow's paper had thrown considerable light upon the nature of this obscure affection.

Dr. HADDON (Hawick) regretted he had not heard the papers read, but he should like to mention the opinion his observations had led him to form as to what was well put down as so-called scarlatinal rheumatism. From his observation, the symptoms to which that name was applied had no resemblance to what was known as acute articular rheumatism. In ulcerating endocarditis, which was known to be a septic disease, there were pains in the joints, but they were not like those of acute articular rheumatism. In cases of rheumatic fever, according to his experience, the heart was invariably the part which the disease affected first, and the joint-affection followed. In scarlet fever, it was in severe cases generally that any so-called rheumatic symptoms were seen; and the heart and blood might always be found to be in an abnormal state where such symptoms were met with.

Dr. BARLOW, in reply, said that, with regard to scarlatinal rheumatism, there was probably more than one variety; some of the cases relapsed, and were relieved by salicin compounds; and in others suppuration occurred, allied to septicæmia.

TOTAL OR PARTIAL EXTIRPATION OF THE UTERUS FOR MALIGNANT DISEASE.

Introduction to a Discussion in the Section of Obstetric Medicine.

BY J. WALLACE, M.D.,

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I HAVE the honour of commencing the proceedings of this Section by introducing the first of the special discussions expected to take place—namely, that on the important and still unsettled proposal to extirpate totally or partially the uterus for malignant disease. I regret to announce that our distinguished colleague, Dr. Schroeder of Berlin, has written me stating that he cannot be here in person to forestall me in this introduction; but we are, nevertheless, to have the benefit of his observations founded upon practical experience. Although Blundell[1] was the first in this country (1828) to propose and carry out successfully total extirpation of the diseased uterus,[2] the subject has been the centre of great variety of opinion and dispute amongst gynæcologists ever since; and it is only by the consideration of the methods of operative procedures introduced by Breisky, Freund, Rydygier, Martini, Kochs, Olshausen, Veit, Spiegelberg, Kuhn, and, lastly, Schroeder, that we feel compelled to again take up a subject which practically we had tacitly almost agreed to leave alone.

With reference to partial extirpation, our practice has been limited to the few suitable cases of cauliflower-excrescence, papilloma, or epithelioma, which were lucky enough to fall into our hands before cellular infiltration had so involved the neighbouring organs as to render radical surgical interference impossible. Let me now formulate the subjects of inquiry.

I. Under what conditions would extirpation of the (*a*) cervix uteri and (*b*) of the uterus be justifiable, and *vice versâ?*

II. The operative surgical methods most likely to lead to success.

In the first place, it is necessary to remember the pathology of malignant uterine disease, and particularly the form of it generally accepted by Schroeder and others of the German school—namely, that which has been described by Waldeyer—for it has a practical bearing upon the conditions which would lead us to a diagnosis as to whether we should adopt or reject operative interference. Waldeyer "refers the origin of all forms of cancer to true epithelia, considering them all as epithelial tumours, which develop, without exception, from actually existing epithelium," or from "abnormally distributed remnants of the epithelial blastodermic membrane."[3] Sarcomata, on the other hand, are tumours composed purely of connective tissue. The glandular epithelial cells ramify in and penetrate the deep tissues, force aside the connective tissue-fibres, forming for themselves spaces or alveoli surrounded by a more or less dense stroma. "According, now, to the preponderance of either this connective tissue framework—which is also partly a new formation from the irritated connective tissue—or the nests of cancerous epithelium, we distinguish the harder and softer forms of carcinoma; soft cancer being characterised by a predominance of cells, hard cancer by that of connective tissue."

For surgical diagnosis, we may therefore shortly classify malignant uterine lesions as follows.

1. *Carcinomata.*—*a.* Scirrhus (slow); *b.* Medullary or encephaloid (acute); *c.* Papilloma or epithelioma.

2. *Sarcomata.*—In amputations or excisions of the cervix for papilloma we have three points to bear in mind; first, the superficial area of vaginal mucous membrane implicated; second, the depth of epithelial glandular cell-infiltration towards the rectum and bladder; and, third, the depth of extension of the papillomatous growth along the cervical mucous membrane towards the uterus and uterine cavity. This latter can only be determined surely by an examination of the part removed, and the naked eye is generally sufficient to do so, at the time of the operation. Prognosis will be confirmed, but not with absolute certainty, by a microscopic examination; for time is the only element which can prove the completeness or incompleteness of removal of the whole of the malignant structures. Papilloma, or epithelioma, the so-called cauliflower-excrescence or cancroid, is the form of disease the early removal of which results in complete cure; but, when left to follow its course, the termination is precisely similar to carcinoma. The former begins on the surface, the mucous membrane, while the latter has already made extensive progress in the deeper tissues before it reaches the surface and ulcerates, or fungates. By the time it has done so, adjacent organs have been invaded, and extirpation is of no avail, perhaps worse than useless, according to some authorities; while, according to others, it at least checks the fœtid discharges, stops hæmorrhage, and certainly greatly, if not entirely for a time, relieves pain. The operative work of every surgeon is experimentally progressive. I may therefore merely mention in passing, that I have used the *écraseur*, and that it is so frequently followed by hæmorrhage, is so dangerous to the peritoneum and adjacent organs, and so often produces shock, which at least once in my practice has proved fatal, that I have discarded it for amputation of the cervix. The scissors in suitable cases, that is when the disease is not extensive or of long duration, I have found more useful. The galvano-caustic wire I have never used, nor can I imagine, with such large vessels as the lateral uterine arteries sometimes are, that it would control hæmorrhage; we might as well discard the ligature, and fall back upon the actual cautery as the hæmostatic, in amputation of the limbs!

The operation which I now prefer is conducted as follows. The patient is anæsthetised, and placed in the lithotomy position, with the buttocks well raised and projecting over the edge of the table, and the pelvis well flexed upon the abdomen. The perinæum is then retracted, and the diseased cervix brought into view. It is seized with vulsellum-forceps, and dragged downwards and forwards, so as to expose the posterior reflexion of cervico-vaginal mucous membrane. With a scalpel, a semicircular incision is carried round through the healthy membrane, at as great a distance as possible from the infiltrated diseased margin. With the handle of the knife and the finger, the posterior surface of the cervix is to be denuded of its coverings, mucous membrane and peritoneum, as high as is necessary. This done, the cervix is next to be depressed backwards, and an anterior semicircular incision made, and the uterus detached from the bladder. The lower margins and insertions of the broad ligaments, with the uterus, can now be felt by the fingers, and the pulsation of the uterine arteries detected. A curved needle is now passed, as high as can be reached, through the ligaments on each side, and the vessels ligatured about half an inch from the uterus. With a pair of scissors, the ligaments are now severed midway between the ligatures and the uterus. The latter is then still more dragged upon, and the cervix is severed with the knife from before backwards, care being taken to grasp the anterior part of the cervix or uterus-stump, left behind, by a vulsellum-forceps. The excision

[1] Recamier performed the operation in 1829, the patient living two months; Santa in 1822, the patient living four months after operation.

[2] The patient lived one year.

[3] In abnormally placed cancer.

is then completed, and the removed portion examined, to see if the whole of the disease has been included. The stump and flaps are now washed with iodised water; a sound is passed, *in utero*, as a guide, and the flaps of mucous membrane are brought together by four or five sutures, one or more on each side being passed through the stump of the uterus. The uterus is then steadied by the vulsellum-forceps, and the vagina plugged with pledgets of cotton soaked in dilute acetic acid. The vulsellum is then fixed outside the vulva, so as to keep up pressure upon the vaginal plug.

In some cases, where there was difficulty in passing the ligature round the uterine arteries in the broad ligaments, or in securing the vessels and controlling hæmorrhage, I have clamped both with Spencer Wells's forceps, and left them *in situ* for thirty-six or forty-eight hours. The forceps lie in the outer angles of the flap-line of sutures—the latter adjusting in apposition the flaps of vaginal mucous membrane.

Although the operation of amputation of the cervix uteri is now recognised as well established in surgery, it is by no means free from the opprobrium of a high mortality. This has been so throughout its history, from the days of Osiander, Huguier, Lisfranc, Dupuytren, Simpson, and others, up till now; and why? Simply because cases are not seen by operators in the early stages of the lesion. This is a point of supreme and vital importance to the poor patient, which cannot be too strongly impressed upon the medical profession, in the almost forlorn hope that they may educate the public, and so lead those who suffer to call for early aid. The mighty importance of this is seen in the following statistics.

From January 1879 to June 1883, four and a half years, I have been consulted by seventy-one patients, suffering from cancer, in the Thornton [ward; and, out of that number, only twenty-six cases were admitted in the hope that some form of operative interference would at least give relief, if not cure. In these twenty-six cases, only six were considered fit for what was but a tentative operation at best, for they were all advanced in disease; and, out of six amputations of the cervix, two died and four were discharged, one relieved, three cured, but one of which I saw a year afterwards with the cancer returning in the right extremity of the cicatrix.[4] In private practice, within nearly the same period, I excised the cervix with scissors, and, three days afterwards, applied potassa fusa, in a patient of Dr. Miller, of Birkenhead, who had carcinoma with ulceration. She recovered, became pregnant, was delivered easily, and has since kept free from recurrence. A second case I saw in consultation with the late Dr. Lynn; I amputated the cervix in the same manner, and she was permanently cured. A third case, in consultation with the late Dr. Baker, was the subject of amputation for epithelioma by the wire *écraseur*. The Douglas's pouch was opened, closed by wire sutures, and the patient recovered, to die within twelve months from recurrent cancer. A fourth case I was called to treat, in consultation with Dr. Barfoot of Birkenhead, had the cauliflower-excrescence, and advanced deep cervical deposit, excised after the plan of operative procedure I have described, nearly two years ago, and she remains so far free from recurrence. I could go on, but it would be tediously unnecessary, to recount many other cases seen and operated on long years ago, failures and successes, the whole of which lead me to reiterate, again and again, the vital importance and necessity of seeing and operating upon cases in their initial stages, if women are to be rescued from untold misery and suffering, and death.

I have already pointed out that epithelioma of the cervix is the most favourable form of cancer for operation and cure. So it is with papilloma of the cavity and fundus of the uterus, with reference to total extirpation of that organ. The deeper tissues of these parts are not involved so early as in scirrhus and medullary carcinoma. Hitherto, in this country, "the unanimous voice of the profession has pronounced it to be overbold, and has rejected it from among the legitimate operations of surgery" (West). When fixation of the organ exists, and when the ilio-inguinal lymphatics are involved, operative interference would only bring surgery into discredit, and should therefore be declined. Under favourable conditions, locally and constitutionally, I submit that the question of extirpation has again been fairly forced before the profession for its reconsideration by the labours of Breisky, Freund, Schroeder, and others. Ovariotomy had a long and uphill struggle before it was finally accepted as one of the most brilliant operations in surgery. The operation of extirpation of the uterus for uterine fibroids we are now in the midst of seeing established in legitimate surgery; and I hope there is the prospect that extirpation of that organ for cancer will also soon take its place upon an equal footing with operation for that disease in other parts of the body. The one will live or die with the other, and both are still *sub judice*.

There are two methods of operating for total extirpation, the one vaginal only, and the other, the combined vaginal and abdominal. The first is simply a continuation of the operation I have already described for excision of the cervix. Hæmorrhage can be controlled by clamping the broad ligaments from twenty-four to forty-eight hours, and the vaginal flaps are brought together as usual, sufficient drainage-space being left. The combined operation is the performance of abdominal section in addition to the vaginal operation for excision of the cervix. The fundus uteri is fixed, and the cervix is clamped by forceps specially arranged for the purpose. (Instrument shown, devised by Dr. Wallace.) The broad ligaments are now clamped from above, in addition to the clamping by the vagina. The uterus is then severed from them by scissors or knife, and the vessels picked up in detail and ligatured. After all hæmorrhage has ceased, the abdominal clamps are removed, and the peritoneal cut edges are brought together. The vaginal part of the operation is next completed, care being taken to permit free drainage. All abdominal sections are performed in the Thornton wards antiseptically, but the spray is not arranged to play upon the abdominal cavity. An iodoform pessary placed in the vagina, eucalyptic ointment applied to the vulva, and iodoform cotton, complete the external dressings, by means of which the vagina is rendered and kept aseptic.

This operation is much simpler than Freund's, and less likely to be followed by hæmorrhage from slipping of the three ligatures with which he ties the broad ligaments. What modifications, or advances, Professor Schroeder has made, I will now give place to, by a careful attention to the reading of his paper; and I will trust to your generous feelings to forgive any errors or imperfections in the manner in which I have brought this subject before you for discussion.

[4] Osiander, twenty-eight times; Dupuytren, twenty times; Lisfranc, fifty times; mortality, about one in six. (Vulpian, *Op. Med.*, vol. ii, p. 26.)

THE VAGINAL EXTIRPATION OF CARCINOMA OF THE UTERUS.

Read in the Section of Obstetric Medicine.

BY CARL L. E. SCHROEDER, M.D.,

Professor of Midwifery in the University of Berlin.

THE operative removal of cancer of the uterus is always indicated when it is thought possible to remove all the tissue involved by the neoplasm. If this seem possible, or even probable, the only reason for abstaining from the operation ought to be severe constitutional diseases threatening life in a measurable space of time, such as tuberculosis or Bright's disease.

The question whether it is possible to operate radically may sometimes be very difficult indeed to answer, and it would be an illusion to suppose it possible to decide it with the utmost certainty. It is possible, however, to distinguish under not too unfavourable circumstances, with perfect certainty, very small infiltrations, such as occur principally along the lymphatic vessels. For this purpose it is absolutely necessary to narcotise the patient, and to examine her in the dorsal position by the bimanual method. By pulling down the uterus with a volsella, and introducing two fingers into the rectum, the different organs of the pelvis and the pelvic cellular tissue are thoroughly investigated by letting the tissue pass, piece by piece, between the examining fingers. If the uterus be found to have lost its normal mobility, this must give rise to suspicion, although it may be the result of adhesive perimetritis. Hard infiltrations along the sides of the uterus, diminishing in thickness towards the broad ligaments, or small round nodules in the recto-uterine ligaments, are very characteristic of malignant infiltration. Finally, unusual inflation of the cervix shows that the neighbouring cellular tissue has already participated in the carcinomatous process. On the other hand, it is easy to decide by digital examination, as well as with the speculum, how far the neoplasm has extended on to the vagina.

A very important question is, how far up along the mucous membrane of the cervix, and of the corpus uteri, the carcinoma reaches. I believe that we can derive valuable information upon this point from the study of the form in which the neoplasm presents itself. For instance, in the most frequent form, cancroid of the vaginal

portion (cauliflower-excrescence) we see these mucous membranes either not at all involved, or only involved at a very late stage of the disease. This is very characteristic, for we often find the cancroid extending far up into the wall of the cervix, excavating the tissue by ulceration, while a piece of the mucous membrane of the cervix, in a state of catarrhal inflammation, but not malignantly involved, hangs over the ulcerated cavity. On the contrary, the cancroid attacks first the mucous membrane of the vagina, next the pelvic cellular tissue, after that the tissue of the cervix, and finally the mucous membrane of the latter.

The second form in which carcinoma occurs, is the primary carcinoma of the cervical mucous membrane (encephaloid). It progresses just in the contrary order. Ulcerating first the wall of the cervix, and then that of the uterus, it extends relatively late beyond the external os, on to the mucous membrane of the vagina, and on to the pelvic cellular tissue.

Between these two forms we must place primary cancer of the wall of the cervix (scirrhus). It involves, at an early period, the body of the uterus and the cellular tissue of the pelvis. Besides this, it often perforates through the top of the vaginal portion into the vagina, or towards the cervical canal, attacking the mucous membrane of the cervix very late. Cancroid of the vaginal portion thus leaves the uterine mucous membrane intact, while the cancer of the cervix spares, for a length of time, the pelvic cellular tissue. Besides these forms, the cancer is found primary on the mucous membrane of the body of the uterus, extending thence on to the cervix.

We now come to speak of the removal of the diseased parts. It is always possible to remove the uterus, even if the whole of this organ be diseased. The adjacent parts of the vagina can also be removed if they be involved. I have even performed total extirpation of the vagina successfully on account of superficial primary cancer of the vagina, although a recurrence followed later. Thus the possibility of removing even extensive parts of the vagina must be admitted. It is, however, another question whether it is advisable to undertake extirpation under such circumstances; for, where extensive parts of the vagina are attacked, the deeper tissue will always be found diseased, and the operation will, most probably, not be radical. Admitting that it is possible to remove small nodules situated above the cervix, or behind the vaginal fornix, there will generally be more germs lying deeper; and to follow these up like the extirpation of the axillary glands after the amputation of the mamma, would be a matter of impossibility. Even when the infiltrated cellular tissue seems to be limited to the parts close to the cervix, an operation in healthy tissue will not be possible; for in pulling down the ulcerated cervix with the volsella, it will tear, and render the operation impracticable.

It is often possible, however, to remove cancroid of the vaginal portion radically, and, under favourable circumstances, also cancer of the wall of the cervix, if they be discovered at an early period. If they be found not to extend higher up than to the internal os, or a little further (for it is possible to perform partial excision above this point), supravaginal amputation can be performed. Cancer of the cervical mucous membrane, and of the body of the uterus, always necessitates total excision of the uterus.[1]

The supravaginal amputation is performed in the following manner. A Museux's volsella is attached to each lip, and the uterus drawn firmly downwards. In some cases, it is then advisable to divide the cervix on both sides up to the vaginal fornix. The knife is now carried around the vaginal mucous membrane, dividing it all around in healthy tissue, and about one centimètre distance from the diseased parts. After this, I push the anterior vaginal fornix, and with it the bladder and its peritoneal duplicature, upwards above the level of the internal os. Then, always dragging the uterus firmly downwards, I cut off the anterior lip transversely, taking care to make the incision in healthy tissue. The hæmorrhage is then arrested by suture, deep stitches being taken to unite the vaginal with the cervical mucous membrane, and these being pulled over the stump. The same proceeding is repeated with the posterior lip, during which manipulation the peritoneum of Douglas's pouch is generally torn. Finally, the bilateral incisions are closed, deep sutures uniting the fornix with the sides of the uterus.

Should it be necessary to perform total extirpation of the uterus, this is executed in the following manner. Two volsellæ are again applied to the lips; these pull the uterus as far down as possible. A circular incision is then made in healthy tissue around the cervix, and the vaginal mucous membrane pushed back and upwards, as in the previous operation. Next, Douglas's pouch is opened by a transverse incision, and the uterus is then turned over, so that its fundus appears in this opening. This is not always an easy manipulation. I generally first produce a retroflection of the uterus, then catch the fundus with a volsella, and pull the body of the uterus through the incision in Douglas's pouch. After this has been done, it is easy to separate the peritoneum of the vesico-uterine pouch, leaving the uterus now only attached to the broad ligaments. These are ligatured either with a single ligature, or separately in different portions. Finally, the uterus is cut off close to its side, leaving a broad piece of tissue between the ligatures and this incision, in order to prevent the ligatures from slipping off, a most disagreeable event, which otherwise is likely to occur. After having performed this on one side, it is repeated on the other side in the same manner, this being generally much easier. The wound in the peritoneum is now closed. In stitching it, I generally attach the ligatured broad ligaments to the corners of the wound. They thus form two pedicles, turning their stumps outside, enabling me to stop any hæmorrhage that might occur later on. Between both stumps, I leave a small opening for a T-shaped drainage-tube, the end of which, protruding out of the introitus, is wrapped up in salicylated cotton. This cotton is removed as often as it is soaked; otherwise the patient is left quite to herself. The sutures are removed after a fortnight.

The technical execution of this operation is certainly not to be called easy. In order to perform it with skill, the operator must be accustomed to cervical operations, and to the manner of using the knife and ligatures in the depth of the vagina. Above all, it is necessary to take all the possible advantage of the mobility of the uterus, drawing it far down towards the introitus.

The principal danger of the operation consists in the ligatures slipping off the broad ligaments. It is then very difficult to stop the hæmorrhage from the uterine or the spermatic arteries, for the stump generally retracts in such cases, and the blood flows upwards into the abdominal cavity.

The operation is very difficult when the vagina is narrow. Thus it is not easy to perform on nulliparæ, and is often impossible on very old women. Besides, it will scarcely be found possible to perform it when the uterus is very much enlarged; for instance, when it has reached the size of the pregnant uterus in the third month. In such cases, it may be necessary to perform Freund's operation—the total removal of the uterus by laparotomy; but this latter operation, as experience has shown, is much more dangerous than the excision through the vagina.

As to the success obtained by the vaginal extirpation, I must admit that it is not yet to be called satisfactory, especially as far as the question of recurrence is concerned. I have lost 7 out of 23 patients operated upon. This I consider a very bad result, for the operation, although a difficult and a dangerous one, ought to make us expect better results. We certainly may hope that it will follow the lead of the other large gynæcological operations, showing a better prognosis as fast as the technical methods become more perfect.

The supravaginal excision is much less dangerous. I have operated on 64 patients with 8 cases of deaths. Unfortunately, in a great number of my patients I have seen recurrence, in some cases after two or three years. Other cases have withdrawn from my observation, and only very few have remained until to-day quite without recurrence. This might also be a reason for discouraging us. We have, however, the consolation that the operation is performed according to correct principles, and that the prognosis will no doubt improve by-and-by, especially if the operation be performed early and radically. Besides, even if a recurrence take place, the patient suffers little towards the end of her life, compared with the dreadful sufferings produced by ulcerating cancer, for the disease generally does not recur on the cicatrix in the vaginal fornix. It spreads upwards on to the pelvic cellular tissue, and saves the patient from the dreadful symptoms of cancer, from hæmorrhage and ulceration. Let it thus be our object to endeavour to improve the prognosis of the operation, and let us bear in mind that the fate of these patients is such that, if only one out of twenty be radically cured, this ought to be considered as a good result, and as a consolation for many cases treated unsuccessfully.

Sir SPENCER WELLS (London) read a letter received from Professor Olshausen, recording modifications in the published description of his operations up to 1881. These consisted of not ligaturing

[1] In a case of cancer of the uterus, complicated with prolapse, I only removed the body of the uterus, sparing the cervix, which was not diseased. The patient made a good recovery.

the broad ligaments until late in the operation, and then using elastic ligatures, which prevented hæmorrhage. The elastic ligature was applied by means of a bent aneurysm-needle round the broad ligaments. It was essential to leave a considerable amount of cellular-tissue to form a long stump, to prevent retraction and slipping off of the ligatures. The operation was performed under an irrigation of a two per cent. solution of carbolic acid. After the operation, Douglas's pouch was washed out with a four per cent. solution of boracic acid. A large drainage-tube was introduced, the peritoneum being now stitched together. The vagina was packed with loose iodoform gauze. This gauze was generally removed between the fourth and eighth days, and the drainage-tube about the same time. The elastic ligatures, however, remained two or three weeks. This operation he deprecated when the uterus could not be drawn down as low as the vulva. He had performed, or attempted to perform, the operation twenty-eight times during the last two and a half years. In three cases, he had to be satisfied with the supravaginal operation; the patients recovered, but one had vesico-vaginal fistula. In the twenty-five remaining cases, the operation was completed; seven of the patients died: two on the day of operation; three of septicæmia on the second and third days; one of carbolic poisoning on the second day; and one of iodoform poisoning on the sixth day. Besides these, one died suddenly of embolism of the pulmonary artery on the twenty-sixth day. (A similar case had also recently occurred in his practice within the last few days, where he had performed myotomy.) Of the seventeen remaining cases: in two, no return took place for one year; in two, two years had elapsed without a return; in four or five, a recurrence had taken place. He then proceeded to criticise the operation, and to express a guarded opinion as to its desirability. In one case, he had removed the uterus in a pregnant woman; she lived only eighteen months. He called special attention to the danger of injury to the ureters, which appeared to have escaped in the mode adopted by the Germans, in pushing up and stripping with the finger the loose cellular tissue which surrounded the supravaginal portion of the cervix. Such success had not attended other operators. He strongly deprecated any one attempting the extirpation of the uterus, without previously performing the operation on the dead body.

Dr. W. R. ROGERS (London), while regretting the little success which had followed the complete extirpation of the uterus, either in this country or on the Continent, as brought now before the Section by Sir Spencer Wells and Mr. Thornton, yet could not but remember that this operation had been successful in some cases; and this might be the forerunner of greater success in the hands of operators who, guided and warned by the failures, might have greater success in the future at least. Remembering the cloud that long lay over ovariotomy, and its success at the present day, Dr. Rogers had not yet lost all hope of success attending the complete removal of the uterus for cancer. In partial removal, he had had very marked success, especially where he had been able to follow up extirpation by the application of chloride of zinc and bromine. In the large number of cases in which he had removed the cervix by the wire *écraseur*, he had the accident of opening Douglas's pouch once; but had had but one death, and this followed the use of the electric cautery wire, which brought on large hæmorrhage. Doubtless the wire had been too heated; the death, however, was not from the hæmorrhage, but from septicæmia, two weeks afterwards.

Mr. KNOWSLEY THORNTON (London) had looked forward with much interest to the announcement of the results obtained, in extirpation of the cancerous uterus, by the German surgeons, because to them belonged whatever credit was due to its modern revival; and their results were known to be much ahead of those in this country, where they had been simply disastrous. He was profoundly disappointed with the results given by Schroeder and Olshausen, who admitted a mortality of thirty-four and twenty-eight per cent. respectively, the results of the latter being made quite as bad as those of the former by the three incomplete operations, one of which had left the patient in miserable plight with an urinary fistula. In face of such mortality, he was not at all prepared to accept the dictum contained in the opening of Dr. Schroeder's paper. It was true that the results of ovariotomy were as bad in the early days, but there could be no comparison between the two operations. Look at the number of patients restored to perfect health by ovariotomy, and look at the number dying miserably with recurrence shortly after extirpation of the cancerous uterus. Dr. Schroeder said that, if one case in twenty could be cured, it was worth the general results. He could not agree with this; for what certainty was there, that the one patient who was cured really had malignant disease at all? It was very difficult, in the epitheliomatous forms, to be quite certain, even after microscopic examination, that the disease was malignant; and he altogether distrusted examination by touch for defining the limits of the disease. It was well known to every microscopist how these malignant epitheliomata sent out long processes of cells into the neighbouring healthy tissues, often single rows, stretching for long distances up the lymphatics, far beyond the apparently diseased parts. The immediate results must be totally different from those at present obtained, and the after results also, before the operation could be admitted to a place among the legitimate operations in surgery. With present experience, he infinitely preferred the partial operations on the cervix, with the addition of the application of chloride of zinc. He was astonished to find Dr. Schroeder placing the mortality of these operations so high; he had not operated very often, but he had never lost a patient, and several had had long periods of freedom from recurrence. He believed that the operations for the complete extirpation of the cancerous uterus would soon drop out of surgical practice, as they had done in a past generation. The vaginal method appeared to be the best, but it was a poor best in immediate and after results, and usually necessitated leaving the tubes, or a great part of them, lest the pedicles on each side should slip; and what probability was there, that organs, so continuous in structure with the uterus as these were, would be free from the disease?

CANCER OF THE NECK OF THE UTERUS, AND ITS TREATMENT.

Read in the Section of Obstetric Medicine.

BY A. WYNN WILLIAMS, M.D.,
Senior Physician to the Samaritan Free Hospital.

I WILL just remark that there appears to me to be little or no difference between epithelioma of the neck of the uterus and those forms of cancer known as medullary tumour growing from the same organ; the difference, if any, depending solely on the nature of the texture of the organ whence originating; the medullary tumour having its origin from the inner textures of the cervix; epithelioma, or the cauliflower-growth, from its external covering.

I wish to impress upon the members of this Association that, whenever they have any suspicion that such a disease as cancer exists, no time should be lost in ascertaining whether or not such is the case. Thus, whenever a patient complains of continuous pains in the back, extending down the thighs, especially the left, with irregular and profuse discharges from the uterus, together with discharges coming through the vagina, of a watery, sanious, and offensive character, she should be made to understand the absolute necessity there is to ascertain with certainty the nature of her malady, and of what vital importance it is to her, as the only hope of cure is in the early stage of the disease. Its approach is often insidious, and often exists for months without the knowledge of the patient or her medical attendant. Alas! how often are patients sent to the hospital, in the last stage of the disease, taking long journeys when they are incapacitated through the great losses, pain and debility, from leaving their beds, only to be told that their case is hopeless.

Whenever the disease has extended to the adjacent parts, such as the mucous membrane of the vagina proper, or to the neighbouring glands, or when the uterus is firmly fixed, you must not expect to do more than palliate the patient's sufferings; when, however, the uterus is partially fixed, without ulceration of the mucous membrane of the vagina, much may be done to prolong life.

When we have satisfied ourselves that a patient is suffering from cancer of the neck of the uterus, whether of an epitheliomatous or medullary character (practically there is no difference in the treatment), and the disease is confined to the uterus, we should proceed at once to get rid of as much of the diseased parts as is possible. This I do by means of the *écraseur*, cautery-knife, scoop, scissors, and scalpel; the patient reclining on her back, and under the influence of some anæsthetic.

In cases of epithelioma, or the cauliflower-growth, I remove the neck of the uterus with the *écraseur*, taking as much off as I possibly can without cutting into Douglas's pouch. Having done this, I introduce a large-sized speculum into the vagina, and apply the cautery to any bleeding points; removing at the same time, if necessary, with the cautery-knife, scissors, or scalpel, all diseased portions within reach—preferring the cautery-knife. I then apply a flat cautery freely to the whole of the raw surface, to prevent hæmorrhage, and also for the purpose of causing a certain amount of slough. I then apply a plug of cotton-wool smeared over with a

solution of perchloride of iron and glycerine, fill the vagina with cotton-wool, and apply a T-bandage. These plugs may be left in for two days, then removed, and the vagina syringed with a weak solution of tincture of iodine and water three or four times a day until the slough has separated. When this has taken place, I apply to any suspicious-looking part a strong spirituous solution of bromine (one drachm of bromine to three of spirit of wine), by means of a small pledget of cotton-wool. This is left in contact with the wound for three or four hours. By this time, the bromine will have all evaporated. Care must be taken to prevent the contact of the bromine with the wall of the vagina, which is best done by thin pledgets of wool saturated with a solution of carbonate of soda. After passing down the speculum a plug of simple wool, I place over all a piece of gutta-percha tissue, made into the shape of a ball with cotton-wool.

The separation of the slough, or melting away of the diseased tissues, is not completed under a week or nine days. I may observe that bromine does not act as an ordinary escharotic by simply charring, but dissolves animal matter when saturated with it. Whilst this sloughing or melting is going on, the vagina is syringed out three or four times a day with a weak solution of the tincture of iodine. When this is completed, a solution of bromine is substituted; two or three drops of the strong solution to half a pint of water. This process must be repeated again and again until all vestige of the disease is removed.

In the medullary form of cancer, the disease is not so easily diagnosed, or brought under the notice of the physician so early, as in the epithelial form, owing to the absence, in the early stage of the disease, of the peculiarly thin, watery, offensive discharge. The discharge is often supposed to be merely leucorrhœal, and the hæmorrhage due to excess of menstruation. The physician is thus often not called in until the diseased mass is ulcerated and broken up into shreds. If a patient come to me when the disease exists only as a tumour in the neck of the uterus, I remove the neck of the uterus with the *écraseur*, and then dissect out any portion which might exist beyond the reach of the *écraseur*. It is truly marvellous, what a quantity of diseased tissue may be removed from within the uterus without any serious loss of blood.

Having removed all diseased portions as far as practicable, I then treat the case, in the usual way, with bromine. Should the tumour be broken up into shreds, and the mucous membrane of the vagina still unimplicated, the case should not be given up as hopeless. By careful manipulation with the instruments before mentioned, I have cut away such a large portion of the diseased tissues as has enabled me to apply the strong bromine solution with success. In many of these cases, again, they only come before us as the raw bleeding surface of a broken-up medullary or epitheliomatous tumour. Indeed, I am inclined to think that the so-called corroding ulcer is often nothing more. These ulcers are to be treated in the same manner as those caused by our own manipulations. Occasionally, when treating these cases, you will come on a hard solid portion. A few years ago, I was in the habit of injecting these with the bromine solution; but I rarely do this now, as it is not altogether unaccompanied by danger. I now proceed in a different manner; I pass a straight cautery-knife right through the hard mass; and, when the slough has separated, introduce a small pledget of cotton-wool saturated with the strong solution of bromine, or introduce it by means of cotton-wool wrapped round a vulcanite stem or sea-tangle. It is not very often that true scirrhus attacks the neck of the uterus; whenever it is met with, the tumour must either be injected with bromine or the neck of the uterus amputated, and then any stump that may be left treated with bromine in the usual way. The syringe used by me for injecting cancerous growths was made for me by Hawksley, in Oxford Street.

A PLEA FOR THE MORE PERSEVERING TREATMENT OF UTERINE CANCER IN CASES IN WHICH REMOVAL BY OPERATION IS IMPRACTICABLE.

Read in the Section of Obstetric Medicine.

By J. E. BURTON, L.R.C.P., M.R.C.S.,
Physician-Accoucheur to the Ladies' Charity and Lying-in Hospital, Liverpool.

In commencing this paper, I wish it to be distinctly understood that I do not, by any means, bring a charge of neglecting these cases against all medical men. There is no doubt whatever that numbers of surgeons do all that lies in their power to afford relief, all the relief that can be given, to those unfortunate beings who are the victims of uterine cancer. But although so much is conceded, I feel convinced that great numbers of practitioners lose their interest, for the reason that in cases of dead hopelessness, they lose heart, and their active treatment ends in narcotic to relieve pain, and a deodorising vaginal injection and tonics. When they feel they can do so little—and the almost sickening consciousness of their impotence is never absent—they sometimes neglect to do the little they might do. I must plead guilty to having acted in this manner myself; and it was possibly with a view of encouraging myself to persevere in the treatment of these depressing cases, that I set myself the task of considering what little could be done to benefit them. The cases embraced in this paper are all those in which the disease cannot be removed by the ordinary operative procedures.

If we consult the various authors who have written on this subject, we find a spirit of hopefulness which, although we may carry it with us for a time, too often leaves us on our first examination of a patient. When we meet a case in too advanced a stage for removal of the diseased structures, the first thing we should bear in mind is something we should not do. We should not tell the patient she is suffering from cancer. It is well known that the mind exercises an immense influence over the vital processes; and if we tell our patients that they are suffering from such a loathsome and fatal disease as cancer of the uterus, we shall, almost to a certainty, shorten their lives. This we have no right to do. For our own protection, we may tell the next friend, but we should do it with the caution that to let the patient know would probably do harm.

Let us now turn to what is usually termed treatment. Although we cannot cure the patient or prolong life for any great length of time, something can yet be done to relieve pain and lessen discomfort. We may perhaps do even more than this, if we try; and I think I shall not be wrong in saying that, if we do not attempt something, we are never likely to achieve anything.

In regard to local treatment, there are four things we can do; and if our efforts in these directions are only partially successful, our labours will not have been altogether in vain.

1. We can attempt to bring about a more healthy action in the parts
2. We can relieve pain.
3. We can check, or rather moderate, discharges, especially those of blood.
4. We can remove the fœtor of the discharges.

1. With regard to the first, I should give the first place to a plan carried out, I believe, in Calcutta, and more recently in France. It has been observed that lupus and epithelioma have been temporarily stayed in their progress, when other diseases, such as erysipelas, have attacked the part.[1] This may have given rise to the idea of surrounding the cancerous mass by a cordon of ordinary inflammation, set up by the interstitial injection of an irritant. I believe iodine, or iodised phenol has been employed. M. Duplouy, of Rochefort, reports in the *Progrès Médical* that, after observing the effects of the injection of various drugs made in this manner, he has come to the conclusion that concentrated acetic acid is the one from which he observed the best results. He has had two cases in which the diseased portion sloughed off in a mass, the result being the cure of his patient in both instances.

The next place in point of value I should assign to the actual cautery. Gallard speaks very highly of this plan of treatment. He recommends that the cautery should be applied freely about once in three weeks. It will naturally commend itself as an adjunct to amputation of the cervix, as it can be employed to destroy any cancerous mass remaining above the line of excision. This is a plan of treatment I have employed, I believe with benefit, in some cases. Then follow the whole class of caustics—nitric acid, acid nitrate of mercury, bromine, sulphuric acid, bichromate of potash, nitrate of lead, chlorate of potash, resorcin, etc. I have employed all these repeatedly, and my impression is, that it is better to employ any of them than nothing at all.

It is questionable whether the dabbing of caustics on to the top of coarse exuberant granulations will be of much benefit. These should always be removed as a preliminary procedure as much as possible by excision or scraping, so that the application can be made near the healthy structures.

Having seen a case of epithelioma of the lip cured by the local application of bichromate of potash, I made several applications in

[1] In June last, Herr Christeller proposed to inoculate a huge carcinoma of the breast with the poison of erysipelas, in a patient in a Jewish hospital in Berlin, as the only proceeding that offered any chance of doing good.—*Deutsche Medizin. Zeitung*, 1883.

an out-patient at the Dispensary of the Hospital for Women. Every application was followed by vomiting and diarrhœa. I discontinued the use of this drug, as the patient was seen only once a week, and I thought this was not often enough to give it a fair trial. All who are conversant with cancer of the cervix, will agree that the employment of the vaginal speculum is often a painful procedure, and will certainly be so unless great delicacy of manipulation be observed. My opinion is that the duck-bill speculum is the only one that should be used, and the only suitable position for the patient to be in is that known as the genu-pectoral. Of course, the light ought to be good. In this position, the uterus falls away from the posterior vaginal wall, and the speculum has only to open the vulva to allow a good view of the diseased parts. If the speculum be used with sufficient care, and not entrusted to a nurse, the applications may be made with very little discomfort to the patient.

2. Pain is not always a prominent symptom; in fact, so far as my own observations go, I should say that severe pain is rare. It should not be neglected, however, and, when present, should be treated by morphia-suppositories or rectal injections of laudanum, in preference to opiates by the mouth.

3. In regard to lessening vaginal discharges, astringent injections are of service. Every case demands some form of local application in addition to the caustics. I have used alum, mercuric chloride in solution, carbolic acid, chloroform-water, salicylate of soda, chlorate of potash, and many others. All these have the effect of answering to the fourth indication, more or less, but they do not do this so effectually as a drug I shall mention in its place. If hæmorrhage be great, it will be most likely due to exuberant fungating friable granulations that bleed on the slightest touch. These should be scraped off as far as possible; and, as a rule, there will be no difficulty in doing this completely, and with little pain. The finger-nail has always answered the purpose very well with me, so that I have never felt the want of the curette, or any other instrument specially designed for the purpose. A caustic, or the actual cautery, should be applied freely after the removal of the granulations. The subcutaneous injection of ergotine I have found a very reliable remedy in these cases; much more so than in some other affections of the womb accompanied by hæmorrhage. If these means be employed, bleeding may almost always be kept within bounds. It is a rare thing for me to see excessive hæmorrhage.

4. Of the many things I have made use of for the correction of fœtor, the most effective by far I have found to be pessaries of iodoform placed in the vagina night and morning, and retained *in situ* till they melt by a small pledget of cotton. It is true that one odour is thus replaced by another, but the patients themselves very much prefer the iodoform odour to that of the disease. Hazeline was tried in one case, but after a week the patient was very glad to return to the iodoform pessaries. Medicines appear to have little or no power. It has seemed to me that Chian turpentine has lessened to some extent the discharges and tendency to hæmorrhages; and for want of something better I have continued to give it. Patients also generally say they feel well whilst taking it; and I am thankful for small mercies in this complaint, when greater are not procurable.

There is a difference of opinion in regard to diet. Some say it should be ample and stimulating; others, again, that it should be meagre and unstimulating. Bearing in mind the fact that cancer almost always attacks those who have been robust and unusually blooming and healthy-looking, it is more than likely that a full habit of body may be intimately associated with the origin of the disease. If this be so, we should naturally conclude that the disease would be likely to progress more slowly if the patient's diet were spare than if it were full. At the same time, in avoiding one danger, we must not shut our eyes to the fact that cancer is an exhausting disease. The question of diet is, indeed, a difficult one, requiring great watchfulness. On the whole, I think, a spare diet, where possible, is the one to be preferred.

I have now reached the limit of my paper. It is mainly the outcome of my own observations, and as such I offer it with more diffidence than appears in the paper itself.

Mr. A. H. CAMERON (Liverpool) related the following case. The patient, a stout healthy woman, about 40 years of age, sent for him under the impression that she had a miscarriage. She stated that she had married a few years before, but had had no children. There had been a considerable discharge of dirty-looking fluid, which came on suddenly, and gave her the impression that a miscarriage was imminent or had occurred. On examination, the os and cervix uteri were found to be affected with cancer, the disease spreading up the interior of the canal, and thus precluding the possibility of cure by excision. Mr. Bickersteth saw the case with Mr. Cameron, and it was decided to treat it with caustics. Chloride of zinc was freely and frequently applied, and on one occasion potassa fusa was pushed quite into the internal os. This caused much pain, which continued all night after the operation, but apparently saved the patient. The treatment was persevered in for about two months. Subsequent examination proved all the tissues to be healthy, and the patient had continued well ever since, a period of more than seven years, following an active occupation. The case was the more significant, from the fact that a sister of the patient died of uterine cancer complicated with pregnancy, the Cæsarean section having been performed with a fatal result. One important point in this case is the fact that Mr. Cameron was called to it on the first appearance of the symptoms, while in most cases matters were allowed to go on for some months before advice was sought.

Dr. W. R. ROGERS (London) wished to make an addition to what he had previously stated, when speaking on extirpation by operation. Even in some cases where he had not been able to remove by operation the whole of the cancer, he followed it up by cautery, bromine, or chloride of zinc; and in many cases he had most satisfactory results. Some of his patients had lived for years without a return of the disease, and he never despaired of being able to benefit greatly—restraining hæmorrhage and fœtid discharges, and easing pains and suffering in a great degree, and making the remainder of life endurable.

Dr. MURPHY (Sunderland) mentioned a case in which the cervix uteri was removed for epithelioma by the galvanic *écraseur* in 1875; and the patient was in good health in May 1883.

ON CHEMICAL DISEASES OF THE BRAIN AND SPINAL CORD, AS CONDITIONED BY THE CHEMICAL CONSTITUTION OF THESE ORGANS.[1]

BY J. L. W. THUDICHUM, M.D., F.R.C.P.Lond., etc.

IT is my wish in this communication to bring before this Society certain facts and considerations bearing upon some diseases of the nerve-centres, which are at the present time either misunderstood and uninterpreted, or not at all recognised. As some of the data on which I shall have to rely are relatively new acquisitions of science, I cannot assume my hearers to be acquainted with them to such a degree as would enable them at once to follow my argument without some previous exposition of these data. But in this I intend to be so short and practical as not to go beside my subject; and I hope the more that no listener may find the subject abstruse, as I shall apply the principal considerations arising from theoretical data to diseases which are well known in practical life, amongst them chronic alcoholic intoxication, softening of the brain, locomotor ataxia, and arsenical poisoning; and I shall bring under your notice only one new form of disease, namely, cerebral diabetes—or, better, glycosuria—arising from immediate cerebral derangement.

Those who were present at the November meeting of this Society will have observed with the greatest interest the remarkable cases of locomotor ataxy, complicated with diseases of various joints, which were brought under our notice. In these cases, we observe distal effects of central nerve-lesions, these effects varying much more in form and severity than the nerve-lesions in which they originate. I suppose it will be admitted that no treatment of this disease could be termed rational, which did not apply itself directly to the central nerve-lesion. And any physician desirous of initiating such treatment would, of course, have to compound his practical measures out of the knowledge of the normal condition of these organs, and of their abnormal changes. And if the changes were found to be mainly chemical, he would have to emphasise his consideration of the normal chemical constitution of these organs; and his remedies would of course have all to be chemical, for by such only could he hope to counteract abnormal chemical processes.

Now, I submit that locomotor ataxy is, in the first instance, an affection of white nerve-matter, mainly in the spinal marrow; it consists essentially of a gradual destruction of colourless fibres, which is accompanied by the formation of microscopic bodies, having the shape of wheat-starch, and a chemical reaction with iodine which is not that of starch, but of lignin; for starch becomes immediately blue with iodine, while these bodies require to be changed by prolonged contact with dilute sulphuric acid before they

[1] Read before the West London Medico-Chirurgical Society.

assume a blue colour with iodine. These bodies were by their discoverer termed amyloid bodies; and the disease of which they were diagnostic was termed amyloid degeneration. It is not essential to discuss in this place whether or not this destruction of nerve-tubes is preceded by hypertrophy of connective tissue, as is assumed by Rokitansky; it may be in some cases, but is certainly not in all, so caused; for there are cases in which, besides the chemical result of the destruction of the nerve-fibre, no other lesion can be perceived.

Unfortunately, morbid anatomists have included under the term "amyloid degeneration" a number of chronic parenchymatous lesions, particularly of the liver and spleen, which have nothing in common with the disease of the nerve-tissues truly called amyloid. These false amyloid deposits do not give a blue reaction with iodine however treated, but only a mahogany-brown coloration, which is not diagnostic of any well-known chemical principle.

This initial error of pathologists has engendered another, this time on the part of chemists, by which the effect of this important discovery of amyloid matter has been well-nigh destroyed. A so-called amyloid liver was submitted to analysis by Professor Kekulé; the process consisted in extraction with caustic alkali, and precipitation of the dissolved matter by an acid; the precipitate, naturally and necessarily, as I should say, had the composition of albuminous matter. I believe that not even a second case was submitted to analysis, either by Professor Kekulé or any other inquirer; nevertheless, at the present time, you find in the works on physiological chemistry, with few exceptions, the dogmatic statement that so-called "amyloid" matter is not a carbo-hydrate, but an albuminous matter. This is one of the most deplorable errors, which should be rectified as soon as possible. Amyloid matter is closely related to, perhaps identical with, cellulose; it is insoluble in caustic alkali, and contains no nitrogen. It has no similarity in appearance or reaction with the exuded matter in the liver and spleen, which becomes mahogany-coloured with iodine. True amyloid matter may, indeed, occur in many tissues, but only sporadically, so to say, and not massively; in the latter form, it occurs solely in the spinal marrow and brain.

Now let us cast a glance at a class of immediate principles of the brain, which I have termed *cerebrosides*. The principal one is *phrenoin;* the second in order of quantity is *kerain;* together they form about 5 per cent. of the weight of the brain. From the table exhibiting the chemical constitution of phrenoin, you will see that it contains the elements of a sugar, *cerebrose*, ($C_6 H_{12} O_6$); of a fatty acid, fusing at 84° C., *neurostearic acid* ($C_{18} H_{36} O_2$), an isomer of the ordinary stearic acid, which fuses at 69.5° C.; and of an alkaloid, *sphingoin* ($C_{17} H_{35} N O_2$). These three products are actually obtained by the chemical cleavage, so-called chemalysis, of phrenoin. Of phrenoin, 25 per cent. belongs to the cerebrose radicle; so that the brain contains actually between 1 and 2 per cent. of this carbo-hydrate.

Amyloid matter, or cellulin, commonly termed cellulose, is closely related to sugar. It can be transformed into a sugar in the laboratory; but the transformation of sugar into cellulin has not yet been effected in the laboratory, although it occurs largely in plants, and perhaps in those lower animals in the tissues of which true cellulin is met with; probably also in the crustacea and insects and arachnids, which are covered by a body so closely related to cellulin, that it might be called a nitrogenised cellulin—namely, *chitin*. Now, it is the most natural, I might say the most necessary hypothesis, derived from the contemplation of the constitution of the cerebrosides, that, in the course of their decomposition, which occurs along with the disintegration of the white nerve-fibres, the cerebrose radicle is set free under circumstances which favour a withholding or a slow abstraction of water; and that thus it passes directly into its cellulin ($C_6 H_{10} O_5$)—that is, *amyloid* of the nervous centres. This amyloid degeneration is a slowly progressing disease. It not rarely ascends the spinal marrow gradually, and does rarely destroy its victims in shorter periods than are measured by years. The quickest case of this disease which has come under my observation was that of a gentleman who died in less than a year, after complete paralysis of the motor and pressure nerves, while the sensory nerves of pain and temperature were intact. In this case, the spinal marrow was crowded with amyloid bodies, appearing exactly like wheat-starch; the central canal, with particles; the dorsal region was filled, I might say distended, with them. The longest duration which I have known to be presented by the disease was in the case of an Irish lady—namely, thirty years; in the case of a riding-master, between eleven and twelve years; in the case of a riding stud-groom, fourteen years. In both the latter cases, the occupation was suspected to have led to physiological strains of function; but in the second and third cases I was able, by a diagnostic chain of evidence, to find the remote cause of the disease to be distinctly specific and inherited.

The peculiar constitution of the *cerebrosides* (or cerebral amylosides, or, as they may be termed, cerebrin bodies) gives the opportunity for another remarkable chemical disease of the brain, namely, a kind of *acute glycosuria, cerebrose diabetes*. This accompanies certain injuries of the brain, and is, itself, always accompanied with fever. The cerebrose, which is liberated in the brain and nerves, may appear in the urine, but it is always small in amount. It can be isolated by precipitation with basic lead acetate and decomposition of the precipitate. Cerebrose rotates the ray of polarised light to the right, and reduces cupro-potassium—tartrate solution. It is thus sharply distinguished from *inosite*, which does not affect polarised light, and does not reduce the alkaline copper tartrate solution, but gives a characteristic rose-pink reaction with mercury nitrate. Inosite also occurs frequently in the urine in disease, but is then supposed to be derived from the muscles. I have, at present, no evidence of inosite from the brain taking part in this *inosuria*, but the possibility must be borne in mind. These appearances of peculiar sugars, not being the ordinary dextron, or diabetic sugar, in the urine in acute stages of disease, are well illustrated by the condition termed *lactosuria*, in which the lactose, or sugar of milk found in the breast, owing to the impediments to the flow of milk, *e.g.*, by inflammation, passes into the blood, and is excreted by the kidneys.

Of course, it may be supposed that the other constituents of cerebrosides, which are decomposed under the influence of a morbific process, namely, neurostearic acid and sphingoin, also produce their own peculiar effects, of which those of the acid are probably mechanical, namely, deposition in a granular state, giving the microscopic appearance of fatty degeneration; while those of the alkaloid may be potential and poisonous, interfering with the action of adjacent unchanged nerve-fibres, or even influencing, by way of the blood, paramount ganglia of animal or sympathetic action.

I now beg you to direct your attention, for a moment, to the phosphorised and nitrogenised principles of the brain. My researches have established the fact that there are at least three genera, and in one genus at least three species, of these bodies, which are no less remarkable by their chemical constitution, than by their physical properties. By their faculty of assuming and maintaining the colloid state, they build up, so to say, the nerve-fibre and massive accumulation of fibre termed nervous centres. It is they which enable so tender a material as brain to maintain its accurate distribution in the cavity of the skull. To the physiologist Moleschott, is ascribed the winged words "no thought without phosphorus." It is certainly true; but a great many equally true sayings might be put on the wing with equal justice, and that ingredient of the brain which is present in the smallest quantity, might, perchance, be the most indispensable of all. But the phosphorised substances have their unmistakable function in the physical and chemical economy of nerve-matter. They are present in all nerve-matter; particularly in the grey tissue they outweigh the cerebromides in quantity, while in white matter, the cerebromides prevail in quantity. In short, they are deposited in every centre of life-action; in the nuclei of the ganglionic cells, no less than in those of all other cells, or bioplastic particles, blood-corpuscles included.

Now, consider that these substances in the water-swelled colloid state combine with almost all chemical reagents with which they may be brought into contact, as long as these combinants are in relative excess, and that they part again with those with which they have combined by a simple process of dialysis; and you have the key to the comprehension of a vast amount of brain-disease, and, indeed, of disease in general, not confined, and perhaps not even referred, to the brain.

I must be aphoristic, to be able to give you a coherent representation of these ideas; for an exhaustive proof of their experimental basis would be practically impossible within the time during which I may speak to you. For the purpose of this moment, lay aside all you may know about the anatomy of the brain, its parts and appendages. Consider it as a lump of matter endowed with certain unerring chemical properties; these are maintained by its own life, for which it receives the materials from the blood. Or, better still, consider the brain, for this present purpose, as a colloid septum, on one side of which is arterial blood, while on the other side of it is cerebro-spinal fluid and venous blood.

If the blood bring a lead-salt to the brain or nerve, kephalin and

myelin immediately combine with it, the former more loosely, the latter very firmly; lecithin, apomyelin, and anilin, on the other hand, do not combine with the lead-salt. In kephalin and myelin, the acid character prevails; myelin, indeed, behaving as a dibasic acid; while in lecithin, apomyelin, and anilin, the alkaloidal character prevails, so that these bodies combine more easily with such alkaloidal reagents as cadmic chloride and platinum chloride. From these typical reactions, you may with great certainty derive hypotheses as to the bearing of these bodies with a great number of substances.

Lead-poisoning, or poisoning by lead, is principally nerve-poisoning, or poisoning of nerves; its main symptoms are pain and paralysis. We clear the body of lead by evacuants of all kinds; but for the more remote parts, we rely on potassium iodide, this being not only a highly diffusible solvent, but also a stimulant of liquid excretion. And the medicine will act the better the more liberally it is diluted with water; these large doses in large quantities of vehicle have been the cause of success in many cases, in which the theory, on the basis of which they were given, could have inspired no confidence.

Again, consider arsenical poisoning, or what is somewhat analogous to it, poisoning by phosphorus. Arsenious and arsenic acid precipitate the phosphorised colloids of the nerves. So does phosphorus in its initial stages of oxydation, and causes death of paramount ganglia. What kills is direct chemical combination of the poison with the nerve-ingredient.

The most remarkable combining power is exhibited by nearly all specific nerve-principles with regard to alcohol. Chronic alcoholic intoxication is such a state of combination of alcohol with phosphorised principles and cerebromides. It is curable by dissociation, or, more correctly, the washing of the alcohol out of the brain and nerves by great volumes of watery blood free from alcohol, as introduced by the digestive organs. Some of the cerebral principles retain alcohol *in vacuo* over sulphuric acid for a fortnight, and in boiling water lose it only gradually and slowly. Nevertheless, the alcohol, in the living as well as in the dead matter, can be completely supplanted by water.

Unfortunately, the victims of chronic alcoholism frequently can not digest large quantities of watery liquid. If they can bear beef-tea, tea, coffee, carbonated waters, waters with fruit-syrups, they may quickly be brought into a state of diuresis, under which the brain-symptoms rapidly abate. But the heart may require some stimulant; and, under these circumstances, I give natural wine, not exceeding in strength eight per cent. alcohol by weight in volume, in quantities not exceeding eight ounces in twenty-four hours. I have never known a case of delirium tremens from the use of natural wine; this form of nerve-disease is a product of the abuse of distilled spirits only. It matters not whether the distilled spirits be in the shape of sherry, or of port, for I have seen cases of delirium tremens in persons who drank one or other of these so-called wines only. I put it as a thesis to my audience, that it follows from the affinities of brain-matter for spirit, that, if spirit drunk and intended to be digested exceed a certain limit of concentration on entering the stomach, it will combine with brain-matter, and alter its nature and function; the restoration to a healthy state is best effected by a prudent diuretic treatment, which, if due regard be had to the strength of the heart, which is the second factor in diuresis next to the kidneys, so to say washes out the brain, and leaves it impressionable by tonic treatment. Tonics and narcotics, too often used in these cases, are, in my experience, not admissible before the nerve-tissue has been cleared of combined alcohol.

The phosphorised principles give rise to decomposition products in several forms of brain-lesion, but more particularly in acute and chronic so-called softening. In these cases, glycero-phosphoric acid is found free in the softened matter, and the fatty acids form, in fact, an emulsion; cholesterin is deposited in minute crystals; when the process has lasted long, the liquid, with the acid, is absorbed, and a cheesy mass remains, surrounded by a cerebral cicatrix.

Cholesterine, an alcohol by function, plays a much more important part in the chemistry of protoplasm and of brain-tissue than is commonly believed. Its occurrence in the bile, by the side of biliary acids on the one hand, and of phosphorised principles on the other, shows that its functions have some relation to both these classes of immediate principles. In short, I believe there will be found some cohesion between the chemistry of the liver and the chemistry of nerve-matter, on which we can now form some surmise or hypothesis, but the exact definition of which must be left to the future. The large amount of cholesterine deposited in all degenerated tissues, *e.g.*, in common atheroma of the arteries, by the side of calcic phosphate, shows that the matters which kept it in solution, namely, the phosphorised and nitrogenised principles of nerve-tissue, were decomposed and absorbed; once divorced from the bioplastic centre, cholesterine remains isolated, loses the colloid state, assumes the crystallised condition, and henceforth is a dead material, of no use to the economy, and perhaps dangerous, by the possibility of the increase of its particles under crystalline attraction.

Lactic acid is found in the brain to the extent of 0.10 per cent., and prevails in the protoplastic or grey tissue. It is the same acid as that which occurs in muscle, namely, the paralactic or optically active acid. Some writers on physiological subjects have brought this acid in connection with brain-function, by the hypothesis that its production in the brain was the result of work (as it is supposed to be in muscle); that its accumulation caused sleep, as the consequence of fatigue. I have no more means to discuss this hypothesis than the gentlemen who started it.

There are some who suppose that the lactic acid in the brain is the result of a *post mortem* change, of the decomposition of inosite in particular. But it seems that inosite, under fermenting influence, yields commonly optically inactive lactic acid, and therefore the hypothesis is not at once supported by experiment.

Faulty excretion has a most disastrous influence upon the chemistry of the brain, as can be seen in renal and in all acute febrile diseases. The cerebro-spinal liquid then becomes a good indicator of the impure condition of the brain. In the fatal delirium of cholera I have found the cerebro-spinal liquid to contain more urea than healthy urine, *i.e.*, above two per cent.

The brain is the most marvellous chemical laboratory of the animal economy; in it the albuminous, phosphorised, nitrogenised, oxygenated principles, which perform function as acids, alcohols, alkaloids, or bases, or, as ethers, are brought into the most varied relations, for the production of power of the most refined nature. The inorganic ingredients and constituents are as varied and necessary as in any other part of the body; and, in some portion of the brain at least, a selective faculty causes the potash-salts to prevail over soda-salts, as they do in muscle. This brings about the same contrast between the sodically alkaline blood and those parts of the brain, as exists between the blood and muscle. The contrast is one which favours reaction.

It is surprising to find how little the chemical relations of the brain are understood by physiologists, and chemists of profession. They ignore the broadest facts, and maintain the most absurd fallacy which has ever disfigured animal chemistry, namely, the so-called doctrine of protagon. They thereby impede the progress of science, and confuse the minds of those who are desirous to learn and to work. On these matters I have spoken with most earnest candour, in several articles of the *Annals of Chemical Medicine*, to which I take the liberty of referring in this connection.

Every protagoniser has hitherto promised to teach us its rational constitution. I believe sixteen years have elapsed since the most able of them, Liebreich and Bayer, made their last announcement. But it has not been followed by any publication. There was not only much cry and little wool, but no wool at all. Similarly, with later advocates of protagon; they have not brought a single new fact, and have not disproved a single fact of the numerous points of evidence by which their doctrine is opposed. And they will never be able to prove any part of their contention. For what they call protagon is a mixture of phrekosin, kerasin, apomyelin, and sundry other matters, the existence of which, as independent immediate principles, is now so certain, that it does not admit of doubting discussion.

In his discourse at the International Medical Congress, Sir William Gull said that, as the human brain had taken an immeasurable time to become developed, so its investigation would absorb an immense amount of time and attention. I have experienced this only too plainly; the work to be done is vast, and requires the co-operation and interest of our entire profession. It is to the medical profession that I look for the continuance of the edifice, towards the rearing of which I have fashioned a few stones.

DONATIONS AND BEQUESTS.—Mr. J. Griffith has given £500 to University College Hospital.—Mrs. Lovegrove of Park Street, Grosvenor Square, and Weston-super-Mare, has given £500 to the hospital and dispensary at the latter place.—Mr. Edward Wood of Rugby bequeathed £500 to the Birmingham and Midland Eye Hospital.—Mr. George Case of Wimpole Street bequeathed £100 to the General Infirmary, Gloucester.—M. H. D. has given £50 to Miss Mary Wardell's Convalescent Home for Scarlet Fever Patients.

THE TREATMENT OF THE SAC IN HERNIOTOMY.

By A. F. McGILL, F.R.C.S.,
Assistant-Surgeon to the Leeds General Infirmary.

UNTIL a comparatively recent date, the sac of a strangulated hernia has been treated, during herniotomy, in one of two ways; it has either been opened and then left to take care of itself, or it has not been touched, the stricture being divided externally to it. The latter extraperitoneal operation has certain obvious advantages, but, unfortunately, it is found that it cannot, as a rule, be practised; either prolonged duration of the strangulation, or inability to reduce the gut, or the presence of omentum, which requires removal, or some other cause necessitates, in a large majority of cases, the opening of the sac before the completion of the operation. This being so, the question arises, what is the best thing to do with the sac when it has been incised and the hernia reduced in the usual manner? There are two courses open to us. (1.) We may leave it alone, or (2) we may fasten it up, and thus seal the peritoneal cavity. That first mentioned is the one usually taught and always described in the surgical text-books. After completion of the operation, we are told to bring the lips of the wound together, and leave the sac untouched. This was the natural thing to do at a time when the peritoneum was looked upon as a membrane, the wounding of which was fraught with danger to the patient, and not improbably led to his death. Then the insertion of a suture through the peritoneum was looked upon as a rash proceeding, and one which, if possible, should be avoided. Now, fortunately, abdominal surgery has reached a further stage of development, and we know that there is no part of the body more tolerant of surgical interference than the abdominal cavity. We know also that it is highly advantageous, in all operations involving the opening of the abdomen, to carefully close the cavity by bringing peritoneum into contact with peritoneum, and thus prevent the entrance of pus or any other inflammatory product. This being so, there seems no sufficient reason why herniotomy should be an exception to the general rule; and we may conclude that the peritoneal cavity should be occluded in every case.

The methods by which this may be effected are four in number. 1. The sutures may be inserted through both skin and sac, both skin and sac being approximated at the same time. 2. The margins of the sac may be separated from the tissues external to it, and brought together by catgut, the skin being united by a second row of sutures. 3. The neck of the sac may be ligatured and the sac removed. 4. The neck of the sac may be ligatured and the sac left in position.

1. The sutures may be inserted through both skin and sac at the same time: in other words, the wound may be treated like any other abdominal wound, and stitched up in the same manner as the incision after ovariotomy or other abdominal section. This method of completing the operation is one which would, I suppose, naturally occur to any surgeon whose surgical experience is of recent date, and may be considered the first step towards an improved method of procedure. Though inferior to methods to be described further on, it is still applicable in certain cases. When the sac and skin are closely adherent, and make what is, in fact, one thin covering to the hernia, as is sometimes found in umbilical cases, it may be treated in this manner with advantage. The following case is illustrative. A man aged 52 had, in February 1879, been suffering from an umbilical hernia for fifteen years. He did not wear a truss, for the rupture gave him little inconvenience. Five days before I saw him, subacute symptoms of obstruction had commenced without apparent cause, and the day before Mr. G. S. Taylor had visited him for the first time. On examination, we found an umbilical hernia about the size of a cocoa-nut, which we were unable to reduce. Though the symptoms were not very urgent, we determined to operate; this I did by opening directly into the sac, dividing the stricture, and returning the contents. The operation was completed by bringing the inner surfaces of the sac into contact by numerous sutures introduced through the skin. The patient recovered without a bad symptom, and is still alive; the hernia is of smaller size than it was before the operation, and is easily retained in position by a truss.

2. The sac may be separated from the tissues external to it till a free margin is obtained. These may be brought together by means of catgut-sutures, and the skin afterwards approximated by another row placed more superficially. This method is, I think, preferable to that already described, as a more perfect closure of the sac can be effected. It may be adopted when complete separation of the sac is impossible, as in the following case. On June 27th, this year, Mr. Charles Richardson asked me to see with him a middle-aged married woman, who was suffering from obstruction of the bowels, caused by a large strangulated umbilical hernia. On examination, the sac was seen to be as large as a child's head. The skin over the upper half being inflamed and ulcerated, we determined to operate, and opened the sac over its lower half; the stricture being divided, the protruding gut was returned, and a large portion of omentum, previously ligatured with catgut in several places, was removed. The sac was then partially separated, but the upper inflamed portion was so firmly adherent to the ulcerated skin, that separation was at this part impossible. The peritoneal cavity was closed by carefully stitching the sac with catgut, and, after the insertion of a drainage-tube, the skin was approximated by another row. Recovery was delayed by suppuration and ulceration continuing in the upper inflamed part; but this rather adds to the interest of the case, as, owing to the careful closing of the abdominal cavity, no symptoms of peritonitis supervened. It is worth considering whether, in another case of this kind, it would not be advisable to remove the inflamed skin and sac, and thus lessen the chance of complications arising from its presence.

3. The sac may be dissected out, ligatured at its neck, and removed. This, in my opinion, is the best course to adopt; it presents two great advantages. It most effectually closes the abdominal cavity, and it to a certain extent prevents the recurrence of the rupture; in other words, it diminishes the risk of the operation, and it improves the result. The separation of the sac from the surrounding tissues is sometimes a tedious, sometimes a very simple, proceeding; speaking generally, we may say that, in cases of femoral hernia, the separation will be effected with little trouble; whereas, in inguinal hernias, especially if of long standing, and of large size, some difficulty may be expected. When separated, a stout No. 3 catgut-ligature is applied, and the sac is removed with scissors. I select the two following cases as exemplifying this treatment, because they are of interest in other ways. In December of last year, Dr. Coleman asked me to see a man aged 56, who had been suffering from severe symptoms of strangulated hernia for eighteen hours. He had worn a truss for years, but had left it off the day before, and, the rupture having descended suddenly, he was seized with violent pain, soon followed by vomiting. It having been decided to operate, the sac was reached and opened in the usual manner, and the stricture, which was very tight, was divided on a director; a coil of intestine about three inches in length was seen, and an attempt was made to reduce it. After applying taxis direct to the gut for about a minute, some fluid fæces were seen in the wound: the intestine was then drawn down, and a transverse rent, about three-quarters of an inch in length, was discovered at the part which corresponded with the seat of stricture. It was evidently caused either by the hernia-knife which had been used to divide the stricture, or, as I believe, by pressing the already ulcerated gut against the sharp fibrous edge, which prevented reduction. As the gut was in fairly good condition, I determined to stitch up the opening. This was done with fine catgut-sutures passed between the serous and mucous coats, thus bringing the peritoneal surfaces into apposition; some omentum was next tied in several pieces, and removed. The sac was stripped from the surrounding tissues without difficulty, its neck ligatured, and the operation completed by bringing the skin together with a few points of suture. The patient had no bad symptoms, and made a good recovery. The second case I saw last week with Messrs. Glaister and Hurtley of Rothwell. The patient was a man aged 60, who had been unable to work for four days; during that time, he had vomited a little, and had complained of some abdominal pain. He had not sent for medical aid till the morning of the day on which I saw him; Mr. Hurtley then found that he had a right inguinal hernia of considerable size, which, however, could be reduced with ease; in the left groin was a small lump, hardly of the size of a walnut, which it was thought was probably a small hernia. When I saw him, we determined to cut down on this lump, and ascertain its nature. It was, as we expected, a small hernial sac, protruding the femoral ring. Inside the sac was a small piece of intestine, which implicated only part of the circumference of the gut; it was protruding through an opening so small, that it would not admit the tip of my little finger; it was easily reduced, and the sac, which did not require any separation from the surrounding tissues, was ligatured at its neck, and the operation completed. Mr. Glaister told me that, if anything

[1] Read before the Leeds and West Riding Medico-Chirurgical Society.

went wrong, he would let me know; as I have not heard from him, I presume the patient is by this time convalescent.

4. The neck of the sac may be ligatured and the sac left in position. I am unable to give any case in which this has been done, as I have not as yet had an opportunity of putting it in practice. It is a plan which I think might prove useful in cases of congenital hernia. In these cases, as the sac is the tunica vaginalis, it is plain that it cannot be removed. I would, therefore, propose, after carefully separating the cord, to ligature the neck, and in this way effect artificially the division which should exist naturally between the cavity of the peritoneum and that of the tunica vaginalis.

The value of any novel method of procedure can best be tested by results; unfortunately, operation statistics to be of value must be large in number, and this is more particularly the case with herniotomy, as in this operation many factors contribute to a successful or fatal result. The following facts are given for what they are worth. During last year, herniotomy was practised seventeen times in the Leeds General Infirmary; in all cases, when practicable, the peritoneal cavity was occluded. Of these cases, three died; in two of these the gut was found to be gangrenous at the time of operation; in the third case, a child, five months old, death resulted from subsequent bursting of the gut within the abdominal cavity. During the last four months I have operated ten times by one or other of the methods described in this paper; of these operations, two were fatal. The first was a woman in whom strangulation had existed for seven days; four inches of gangrenous bowel were excised, and the bowel stitched together with catgut; the patient, who was extremely collapsed at the time of the operation, died a few hours after its completion. The second was a woman, aged 76, with a large strangulated umbilical hernia; she did well for a fortnight, when diarrhœa supervened, and she gradually sank and died in the fourth week. Taking these two series of cases together, we find twenty-seven cases with five deaths; but it is evident that the five deaths would in all probability have occurred whatever method of operating had been adopted. These statistics are, therefore, as far as they go, satisfactory, and lead me to think that surgeons who occlude the sac in all cases of operation for strangulated hernia will in the future have more successful results than they have had in the past.

ANÆSTHETICS.[1]

By T. G. DOUGLAS KERR, M.B., C.M.

[HAVING gone very thoroughly into the history of anæsthetics, and traced the blind gropings of the ancients in all directions in search of some agent which would relieve patients of pain during operations, I ran over in review the various agents in present use, and continued as follows.]

The time at my disposal is so short, that it is impossible for me to enter at any length into the rival claims of the various agents now in use; I will, therefore, limit myself, in the few minutes which remain, to say something in favour of the anæsthetic which I myself invariably employ.

I am aware that chloroform has fallen from the high place which it formerly held in the opinion of those who are the most capable of forming a judgment concerning it; but if we examine closely and honestly the causes of this loss of favour, I think we will find that the fault lies much more with those who employ it, than in any want of efficiency or safety in the agent at their disposal. In proof of this statement, I would point to the fact that chloroform is, almost without exception, the only agent used in Scotland for anæsthetic purposes, both in surgery and in midwifery, and that, proportionately to the number of cases, there are much fewer deaths from it in the north than, unfortunately, we have in the south, the ratio being something like eight to eleven. One naturally asks the reason of this. In my opinion, it is greatly to be found in the different modes of administration practised in the two countries. In England it has been the fashion to bring to the aid of the administrator machines or mechanical appliances of various form, and differing in degree of intricacy, from the elaborate apparatus of Clover to the simple nosebag of flannel stretched over a framework of wire, which is in common use. Now, I hold that by a mere association of ideas, and even against his will, the operator intuitively shunts a certain amount of responsibility on to his machine which should rest with him alone. Nor is this the worst feature of these mechanical appliances. They one and all, without exception, so far as I have seen of them, cover up the lower part of the face, hiding the lips, from which we get the earliest indication of approaching danger. So long as the lips retain their normal colour there is nothing to fear, but so soon as they pale or become congested, take warning and remove the chloroform, even though the pulse shows no change, either in frequency or in force. By the method of administration invariably taught in Scotland, by means of a towel or folded napkin placed over the patient's face, and held about two inches from it, a fair view of the lip is obtained, and a wider passage is left for the admission of atmospheric air.

Another point of paramount importance, is the bold and free use of the chloroform in the early stages, so as to get the patient fully under its influence as soon as possible, and then to use only the smallest quantities at such intervals as the case may demand. In this way the effect of the chloroform, which always remains in the lungs, and is still to be absorbed after the towel is removed, can be better appreciated, and the moment of danger, should it arise, does not find you with a surplus fund to aggravate the evil. The plan of administration by continuous dropping of small quantities on a flannel nosebag, which completely covers the mouth and nostrils and excludes all air, unless impregnated with chloroform-vapour, is, in my opinion, the very worst that can be adopted.

Many medical men when dealing with a patient whose heart is weak, fear to push the anæsthetic to its fullest extent; but when chloroform kills, it usually does so by depressing still further a circulation already enfeebled by some structural change in the valves or muscular walls of the heart itself. If to this lowering influence we add the shock produced by partial sensibility, we augment instead of lessening the danger to our patient. No operation should ever be begun till the patient is quite unconscious. It is frequently brought forward at an inquest as a proof of the care which has been exercised, that only two or three drachms, or some such trifling quantity, has been given; but as it is with stimulants, where a single glass will intoxicate one man while another may empty the bottle with impunity, so it is with chloroform. No minimum amount can be fixed as the standard of safety. Each individual case must be judged on its own merits, and the quantity regulated accordingly. The precaution of measuring the amount given thus becomes a needless formality, unless with the fear of having to answer for your actions before an ignorant coroner's jury. The knowledge that you have only a very small amount on the inhaler engenders a confidence and security which, if it leads to carelessness in watching the patient, is only too frequently rudely dispelled. I fear a large percentage of fatal cases occurs from the practice of not having one person whose sole duty is the administration of the anæsthetic. The more you have to do with it, the more is the responsibility of the situation forced upon you. No one would ever dream of withdrawing the attention of the actual operator, and yet the immediate danger to the patient from such a course is slight compared with that so frequently employed of giving the administrator of the anæsthetic some second duty to attend to.

It might be thought unnecessary at this date thus to urge the very fundamental principles of anæsthesia, but from the published records of fatal cases it would hardly seem so. I will cite only one or two cases which seem to me specially striking, and in doing so I wish it to be understood that I in no way criticise individuals, but choose these cases from the many as bearing on the points I have been speaking of.

The first to which I will draw your attention is one reported in the BRITISH MEDICAL JOURNAL, where a patient of tender years was put under chloroform for some trifling operation. At the inquest, it was specially stated that very little of the anæsthetic had been administered, not more than one or two drachms; that the patient struggled at first, but, becoming quiet, the operation was begun, when the patient again struggled violently, and succeeded in sitting up in bed, almost immediately falling back dead, the heart having ceased to act. The usual remedies were applied in vain. At the *post mortem* examination, the heart was found to be very thin-walled, the other organs normal. In this case, it is evident that the child was never properly under the chloroform at all, and that the weakened heart had to bear, besides the chloroform, the shock of partial sensibility, and also the strain of violent struggling. If the anæsthetic had been pushed to its full effect, I think the result might have been different.

The next case is from a recent number of the JOURNAL of our Association. I will give it in the words there used.

"This patient was a stout, well built, florid man, aged 37, rather above the usual height. He was in a robust state of health at the

[1] Read before the Bath and Bristol Branch.

time of the fatality, and had previously been of moderately temperate habits. He was sent from the out-patient department to the operation-theatre to have a small piece of dead bone removed from the end of the stump of his right forearm. The limb had been amputated a little below the elbow-joint, about a year previously, for a bad crush involving the hand, wrist, etc., and anæsthesia had been induced without any trouble by the gas-and-ether method with Clover's apparatus.

"For an operation of such a trifling nature, gas alone was sufficient, and he was nearly under its influence, when it was thought that the supply in the reservoir was exhausted. Chloroform was now sent for, and during the delay thus involved, the patient completely recovered consciousness, and said he thought he had been for a ride in a train. About a drachm of the chloroform having been poured, without measurement, on to a piece of folded lint, the administration was effected by holding this rather closely over the patient's mouth and nose. To prevent the dissipation of the rising vapour, a large towel was thrown over the patient's face, as well as over the administrator's hand. By this means, after a well marked stage of muscular excitement, sufficient anæsthesia was induced in less than three minutes. Immediately after the first incision, it was noticed that the patient had stopped breathing, and that the face was livid, and that the pulse had ceased to beat. The face then rapidly became pallid, but subsequently resumed much of its duskiness. These symptoms supervened suddenly, without stertor or any other warning. Artificial respiration failed to revive him.

"The *post mortem* examination showed no sufficient cause of death; the organs were healthy; the heart was rather large, its consistence flabby, and its valvular apparatus healthy. Externally it was laden with fat, and in section, the muscular substance appeared to have undergone slight fatty changes."

This case is so glaring, gentlemen, that I will refrain from making any remarks upon it, leaving each of you to form your own opinion on it as I have done. The hour is so late that I cannot say more in defence of chloroform at this time; but I would ask you, as honest men, if this is an example of the mode of administration in cases which prove fatal, is it just that it should be blamed for the result?

In conclusion, I would point to the fact that Professor G. H. B. Macleod, who for twenty-five years has been attached as surgeon to one of the largest Scotch hospitals, and who now stands among the first rank of our profession, has, during that long period, both in public and in private practice, used chloroform and no other agent for anæsthetic purposes, and never refuses it to any patient, and that, up to the present time, he has had not one fatal case. I hold that if there is one man living who can show such statistics, it conclusively proves the statement with which I began, and with which I would wish to conclude—that the fault is not so much with chloroform itself as with its mode of administration. When this is better understood and practised, it will rise once more to its place in public estimation as the safest and best anæsthetic which science has as yet placed in our hands.

SURGICAL MEMORANDA.

A RARE FRACTURE OF THE LOWER JAW.

THE following case, I am assured by an eminent hospital-surgeon, is rare, if not unique, and worth recording.

On July 9th, the foreman over the restoration of a neighbouring church was brought to me with a gaping cut right down to the bone, about one inch and a half long, and running directly backwards from under the lower jaw below the left incisor. A joist had given way under him, and, on their reaching the ground together, after a descent of twelve or thirteen feet, had struck him under the chin. Beyond one or two trifling contusions on the chest, this was his only injury, and he complained of nothing about the jaw but the cut, which I closed with two wire sutures and collodion. It healed by first intention, and gave him so little trouble that, though working but two miles off, only on the 24th did he present himself to have the stitches removed. His real reason for appearing even then was that, when at tea on the evening of the 22nd (the fourteenth day), he heard a sudden snap in his jaw, and felt as if he had been suddenly struck a hard blow on the seat of injury. He was chewing nothing very hard at the time, but from that moment he experienced, for the first time, some pain in chewing; and, in the interval up to his coming to me, he had confined himself to spoon-meat. He had observed in the looking-glass, since the snap, that the simple opening and closure of his mouth produced a visible movement of his teeth just where he felt the pain. I most carefully examined his jaw (as I need scarcely say I had done on the day of the accident), but there was nowhere the slightest detectible inequality of surface, though the bone presented special facilities for discovering it on its inner aspect, nor could I elicit appreciable mobility of fragments. I was sceptical as to the alleged movement, and most ignorantly, as it turned out, ridiculed his notion of a fracture, but asked him to demonstrate the movement. I was astonished and puzzled to find that, as he widely opened and closed his mouth, the left canine and lateral incisor closed and opened quite unquestionably, something like a pair of scissors. I then got him to bite firmly on a stick with the molars, first of one side and then of the other, and I could see a distinct elevation of the teeth on the disengaged side; at the same time, he volunteered the statement that he heard, with the biting, a harsh grating sound, which he had never noticed before. I may say that the patient was a most intelligent man, and had measured the significance of all his symptoms with remarkable accuracy. There could no longer be any doubt of the existence of a fracture.

Here, then, it would appear, had been a fractured, or, if it be possible in an adult, a cracked bone in constant use for a fortnight, held together only by its proper integuments and such soft parts as were attached to it, and then producing no pain. Suddenly, under no special strain, some of its connections snaped, and there were the usual signs of fracture (except deformity), but to a very limited extent. What "snapped," and what still held the fragments in such excellent apposition that, under only mucous membrane and periosteum, no line of fracture could be felt?

My treatment was the simplest. I left well alone, with the conviction that well would become better. He was ordered to continue his use of food that required no chewing; to avoid all unnecessary, *e.g.*, curious movements of the jaw; and, if it did not get worse (having in my eye the possibility of a further solution of continuity) he might rest assured it was getting better. If it became worse, he was to come to me. I have seen nothing of him since, and conclude that no news is good news.

THOMAS M. WATT, Hovingham, York.

THERAPEUTIC MEMORANDA.

A NOVEL METHOD OF BLEEDING.

ANY ONE who has read the recent discussions reported in this JOURNAL, cannot fail to have noticed the reaction in favour of some of the older methods of treating disease, which has taken place in the minds of some of the foremost thinkers as well as practical men of the profession. With reference to the occasional advantage of the abstraction of blood, this is notably the case. A large section of the public are strongly prejudiced in this matter; and a medical man who, now-a-days, resorts to such an apparently hazardous procedure as "bleeding," is often liable to be distrusted or censured, if the case should terminate unfavourably. The following serves to illustrate the position, and, at the same time, suggests a novel means of avoiding one at least of the difficulties that are encountered.

I was asked, some time ago, to visit a lady in the country—a fat full-blooded person, over fifty years of age, who had been complaining of various nervous affections. Twenty-four hours previously to my visit, she had, without anything which could be called "a fit," dropped into a state of stupor. When I saw her, she was asleep and breathing heavily; but she could be roused by speaking to her, and made to answer questions in a stupid fashion; after which, she relapsed into sleep. She presented all the symptoms of high arterial tension, and an overloaded vascular system; and the treatment seemed clearly indicated. She was induced to swallow a strong purgative; and, as leeches could not be procured without great delay, the advisability of blood-letting was recognised by the local medical man in attendance and myself. The friends of the patient, however, who were ladies, seemed greatly surprised at the idea. They stated that the lady had been in the same condition before, and recovered; and also that an eminent physician had attributed all her symptoms to weakness, prescribing the most nourishing food, etc. They consented to the "operation," but they were obviously horrified at the idea.

Under the circumstances, I determined to adopt the following device, the accomplishment of which was facilitated by the fact that the patient chanced to have been treated, a short time before, for

hemicrania, by hypodermic injections of morphia. She was roused up, and told that "the needle" was to be inserted into the skin of her neck, to which she at once consented. The needle, not of a hypodermic syringe, but of an aspirator, was then introduced into her left external jugular vein, which was much distended, and four ounces of blood were withdrawn without difficulty. The result was so satisfactory that, after half an hour, I repeated the puncture, and drew off in the same fashion the full six ounces which the aspirator was capable of containing.

The patient recovered, and neither she nor her nervous lady friend in the room had any idea that she had been bled, until the matter was subsequently fuliy explained to them.

I mention this novel mode of relieving an overburdened circulation, because it seems to me a method which can occasionally be resorted to with great advantage.

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REPORTS OF SOCIETIES.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, JULY 6TH, 1883.

G. M. HUMPHRY, M.D., F.R.S., President, in the Chair.

A Fatal Case of Purpura Hæmorrhagica.—The PRESIDENT related this case. The patient, a gentleman, 43 years old, consulted him on June 13th about a slight swelling in the region of the ankles. For some time past, his general health had not been very good; he was in the habit of sitting in close rooms, and had not taken much exercise. Lately he had been over-anxious, and working too hard. Last May, he had a polypus removed from his nostril, but without much bleeding. His complexion had always been sallow, and latterly anæmic; his skin was naturally dark and blotched; that of the scrotum and penis deeply pigmented. There was some œdema about the ankles; and a few days afterwards some petechial spots appeared near the swelling and on the legs, and there was some local effusion into the tissues on the outer side of the thigh. He was ordered nourishing diet, and tincture of perchloride of iron was prescribed. His condition, however, became worse; and troublesome vomiting came on, with occasionally a little blood, so that it was necessary to feed him by the bowel. His pulse was always below 100, and the temperature never above 98° or 99°. The urine was slightly albuminous. The vomiting improved by degrees; but on June 20th he began to have hæmorrhage from the bowels, at first slight, but afterwards very profuse, and causing considerable prostration. For this he was ordered gallic acid and ergot with opium; but, although the hæmorrhage diminished, the abdomen became distended and tender, and he was much troubled with flatulence and hiccough. Since the vomiting ceased, he had been able to take some nourishment by the mouth. On June 23rd, he was seen in consultation with Dr. Wilson Fox, and turpentine was tried. The weakness, however, increased; and there was a copious black watery discharge from the bowel, but very little blood. He began to have attacks of faintness, and his voice became hoarse and feeble. On the morning of the 27th, he expectorated some dirty brown mucus from his throat, and died early on June 28th. At the *post mortem* examination, made the day after death, rigor mortis was strongly developed. There were one or two small petechial spots about the ankles and legs, but no extensive extravasations into the subcutaneous tissue. The gums were not spongy. The lining membrane throughout the trachea and bronchi was deeply stained with blood, and there was extensive extravasation of blood beneath. The surface was ragged, and the epithelium in parts denuded. The heart was rather dilated; the valves natural; beneath the endocardium were a few hæmorrhages. There was very little blood in the heart and large vessels, but there were one or two well-formed clots. The liver, spleen, and suprarenal capsules were natural. There were several petechiæ in the mucous membrane of the stomach, and the walls of the larger vessels were deeply stained with blood. The intestines appeared in distended coils of deep red colour, almost black in parts; but the colour was sharply limited above the pylorus; below by the ileo-cæcal valve, where the colour was natural. The same abrupt line of demarcation was seen on cutting open the bowel, the mucous membrane of the whole of the small intestine being of a dark blue colour, and the seat of extensive hæmorrhage into the submucous tissue. The kidneys were a little enlarged and congested; the lining membrane in the pelvis was marked with petechial spots. Microscopic sections of the parts affected showed the vessels distended with blood, and the blood effused copiously into the tissues.—Mr. Laurence Humphry, Dr. Paget, Dr. Bradbury, Dr. Smith, Dr. Baker Stephens, Mr. MacAlister, and the President, took part in the discussion which followed.

Unusual Rapidity of the Heart's Action.—Dr. LATHAM related the case of a lady aged 34, married, the subject of remarkable palpitation of the heart. The attacks would come on rather suddenly after fatigue or exhaustion, with pain over the præcordia, and palpitation. During the attack, the pulse could not be counted at the wrist; and the number of the heart's beats, counted with the stethoscope, was about 196 per minute. The paroxysm usually terminated suddenly, the pulse going down to about 76; vomiting occasionally took place afterwards. The attack would sometimes not last more than twenty-four hours. At first, the treatment adopted had been tincture of digitalis, half a drachm at a dose, and fifteen minims repeated in three hours. This was ineffectual. Bromide of potassium and valerian were useless. Finally, a sixth of a grain of morphia was injected hypodermically night and morning. She slept part of the night, and the palpitation ceased about five in the morning. There was some vomiting after the morphia. Dr. Latham regarded the case as an illustration of the ganglionic system passing beyond the control of the cerebro-spinal. He alluded to the physiology of the medulla, vagus, and ganglia of the heart.

A Suggestion for the Treatment of Puerperal Eclampsia.—Dr. RANSOM read the notes of this case. Mrs. H., aged 24, primipara, was attacked with convulsions nine hours after an easy delivery of twin children. The convulsions were violent, and the intervals brief. She was packed in a warm wet sheet, and enveloped in blankets. After six hours, as there had been no convulsions for the last three hours, and perspiration was profuse, she was unpacked. There was no return of the convulsions. The urine next day was loaded with albumen. She made a perfectly good recovery, and has since gone through a second confinement without convulsions or albuminous urine.

NOTES ON BOOKS.

The Cholera and its Prevention, Pall Mall Gazette "Extra," No. 5.—The *Pall Mall Gazette* has taken the unusual but very laudable course of circulating at the low price of twopence, a quarto pamphlet of 24 pages, giving a variety of very interesting information about the history and behaviour of cholera, as well as practical suggestions for its limitation. The writer seems to have imperfect knowledge of some points of sanitary practice; his references to cesspools, by which he apparently means privy-pits, being especially mystifying. And curiously enough, he omits all reference whatever to the labours, as regards cholera, of Mr. Netten Radcliffe, who must in effect be regarded as the historian of the disease in its European relations. Cholera plague-spots and their removal are descanted upon, and the preventive measures to be adopted on the occurrence of the disease described. A succinct history of Asiatic cholera in its home and in Europe, contains two capital cholera-maps of England and Wales, and the metropolis, and an exposition of the absurdities of quarantine concludes a work which in its general aim is entirely praiseworthy, and which certainly is wonderfully cheap at the price charged.

A Guide to Therapeutics. By ROBERT FARQUHARSON, M.P., M.D., F.R.C.P., late Lecturer on Materia Medica at St. Mary's Hospital Medical School. (London: Smith, Elder, and Co. 1883.)—It is with much pleasure that we notice the appearance of a third edition of Dr. Farquharson's excellent work on therapeutics. His book has now been before the public for over six years, and is so well known, both to students and to practitioners, that any detailed account of its scope or object would be superfluous. He has, as he says, endeavoured to keep thoroughly abreast with scientific progress: and it is no empty boast to say that in his pages we may hope to find some reference at least to everything that can be expected to be known about the action of drugs. A great deal of very useful information is given in the smallest possible compass, in a systematic form, and unencumbered by botanical or pharmaceutical detail. We cordially recommend the work, and congratulate the author on the success which it has attained.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 15th, 1883.

THE SOUTHALL PARK CATASTROPHE.

THE coroner's jury on the inquest on the body of the housemaid at Southall Park, have appended to their verdict a rider, "that the laws which give power to confine lunatics should provide efficient means for their protection from fire;" and the jury follow this opinion up by a direct censure on the action of the Lunacy Commissioners as regards this particular asylum. We very much doubt whether the facts proved justify the course taken by the jury in regard to the Commissioners; but what, beyond question, weighed with the jury, and what we hope will dwell in the mind of the public is, that securities against fire in buildings which by their size, the number of their inmates, or the nature of their use, are out of the category of ordinary dwelling houses, are strangely neglected. This is the important fact which a series of calamities have, for a time at least, impressed upon the public, and the jury at Southall were anxious that the impression should not pass away in an aspiration for better things, or a pang of regret, but should leave some permanent result in a distinct improvement of administration whenever buildings of the class we mention come under public control. Ready means of access to mother earth are the necessary conditions of safety for the occupation of large buildings; but without proper securities against fire, corridors and staircases may become, not means of escape, but traps for suffocation. In proportion to the size of the building and the number of the inmates, precautions against fire should be systematically increased. This we take to have been the view of the jury at Southall; and in this, we think, they will have the support of the public, although their general proposition is somewhat illogically stated, and their censure of the Commissioners in Lunacy does not appear to be supported by the evidence.

In the case of this fire at Dr. Boyd's establishment, happily the number of lives lost was small, if we compare this calamity with the great fires of recent years; but there was the terribly pathetic incident in this case that some of those consumed in the fire were in confinement, deprived, by the conditions of their abode, of that liberty of action which they might have been able to use for their rescue. The probability is, that neither Captain Williams nor the other patients who perished would have had any opportunity of using means of escape, had such means been provided. They were apparently suffocated by the smoke, and died without a struggle. The man who alone could have informed us as to what the regulations were in each particular part of the asylum, Dr. Boyd, the proprietor, is one of the victims of the disaster. When wakened by the servant, Phœbe Hobbs, his first thought seems to have been of his patients, and he disappeared in the smoke to seek them; but the central part of the vast building had already become a furnace. Among the few charred bones that have been discovered in the ruins, it was impossible to identify any remains. One of the servants had leaped from the roof, and died of the injuries she sustained in her fall. She was the only victim of the catastrophe whose body could be identified so as to enable the coroner to hold an inquest.

It appears, from the evidence of Mr. Frere, one of the Commissioners in Lunacy, that, some time ago, the danger of fire was noticed by the Commissioners, and certain means of escape, in the way of external ladders and staircases, were suggested. This suggestion was not persevered in, for, as Mr. Frere pointed out, the object of an asylum is not to provide means of exit, but to secure the custody of the patients. Dr. Boyd, able and distinguished in psychological medicine, and experienced in the custody of the insane, thought the proposed alterations would endanger the primary object of the asylum; and the Commissioners in Lunacy seem to have yielded to his opinion. As we have said, in the particular circumstances of this fire, it seems very improbable that any number of staircases or exits would have diminished the loss of life. The fire, however it originated, had proceeded too far before the inmates were aroused. But, if staircases and special doors might have been of no use, a watchman on the premises might probably have secured some help a little earlier. It is true that watchmen are not always attentive to their duties, but it is an undisputed fact that the habit of retaining watchmen in large establishments is a great protection to life and property; and this brings us to the main lesson of this calamity at Southall as regards lunacy law—the urgency of substituting public for private asylums. The abilities and professional zeal of Dr. Boyd are admitted on all sides. Southall Park was maintained with great liberality and diligent attention to the well-being of the patients; but the maintenance of a watchman was regarded as an unnecessary expense in this domestic asylum of twenty or thirty patients; and, as the system of private asylums is still permitted by our Legislature, the Commissioners in Lunacy acquiesced in the objections of Dr. Boyd.

It is more than four years since Parliament recognised the advisability of getting rid of the private asylums; but some question arose as to the amount of compensation to be given to those who had invested large sums of money in these institutions licensed by the State. Instead of boldly facing this subject of compensation, and settling it resolutely, with a view to the main object of public interest—an equitable consideration of individual rights—our administrators have seized on this controversy as an excuse for adjourning all legislation on the subject of private lunatic asylums; and such disasters as that at Southall Park occur, and will occur again, unless a systematic policy be adopted, and the treatment of the insane in asylums, where treatment in an asylum is necessary, be recognised as distinctly a matter for the care of the State, irrespective of any private intervention.

The jury at Southall found that the laws which gave power to confine lunatics should provide "efficient means" for their protection from fire. This proposition seems somewhat to ignore the purpose of confining lunatics. The people responsible for the confinement of a lunatic are evidently regarded by the makers of this phrase as persons who are bound to stand on their defence. But why are afflicted persons kept in confinement? Not to gratify the pleasure or serve the interest of their keepers, but because their condition renders them dangerous to themselves or to the Queen's peace. This is the only justification for the whole system of lunacy law; and, if abuses have been committed, they will not be best guarded against in the future by ignoring the fundamental principle on which our whole system of lunacy jurisprudence rests. To say that, because a man is detained for his own protection, his detainers are bound to give him security against being burned in his bed, means, if it means anything, that people who take the responsibility of detaining a lunatic are damaged characters whom the law and its administrators must regard with suspicion. That special precautions should be taken in the case of people who are detained against their will, and that adequate precautions can only be taken in a public asylum, seems to us clear; but that is

not the same thing as saying that detention of a lunatic implies the duty of protecting him from fire at all hazards, and that unless the precautions taken do so protect him, they can hardly be called "efficient."

The largeness of the proposition to which the Southall jury have committed themselves, and the sternness with which they have arraigned the Lunacy Commissioners, should not induce us to overlook the general lessons which this terrible accident conveys. As regards buildings outside the general category of dwelling-house—and this exception includes workhouses, hospitals, gaols, religious houses, as well as asylums—we have one more illustration showing how little the danger of fire is provided for. As regards lunacy administration, we have, in the details of this disaster, and the statements of Mr. Frere, a very strong addition to the great mass of evidence that the transfer of the custody of lunatics from private to public asylums is a matter of great urgency.

OVERCROWDING AND CRIME.

Dr. Alfred Carpenter of Croydon, whose useful activity in a variety of subjects connected with the public health is well known to our readers, appears to have been recently moved to take up his parable and to discourse to the Board of Guardians of that large union on the evils of overcrowding, *apropos* of a regrettable incident which has lately occurred in the borough, in the shape of a case of homicide. It has been pointed out that so far, however, as is apparent, the crime in question has no distinct causal relationship to overcrowding. The appropriateness of Dr. Carpenter's exercitation has been contested on that account. Overcrowding is, however, a sufficiently flagrant evil at all times to make it desirable to keep its existence as much before the eyes of the public as possible. We would only express the hope that the Croydon Board of Guardians are not greater sinners in regard to it than other guardians. The poor we shall have always with us; and, so long as the producers of overcrowding abound, we may be pretty sure that the evil to which they give rise will not be far to find, either in Croydon or elsewhere.

Meanwhile, it may not be out of place to improve the occasion from an outside point of view, and to suggest a few considerations in regard to it which do not appear to have been very prominently before the mind either of this able sanitarian himself when delivering his homily, or of the various commentators on it in the public press. The Croydon Board of Guardians, offering a very obvious *torso* for castigation, are likely to be belaboured, but, meanwhile, will not other offenders escape scot free? What have the Croydon Board of Guardians to do with the abatement of overcrowding in their borough? They are not the sanitary authority, for the town is governed by a Corporation, and this latter body is, on the face of the statement, engaged in making by-laws to deal with overcrowding, so that it would seem that it is this latter body who should be held the more responsible for default of any measure by which James Cole's domestic miseries and his indifference to moral propriety could have been dealt with before they culminated in the hideous crime with which he is now charged. But it appears that this is not the first time that Dr. Carpenter has endeavoured to excite public interest in the subject of overcrowding in Croydon. Two years ago, he called the attention of the Local Board of Health, who were the predecessors of the present Corporation, to the localities in their district in which overcrowding existed, and urged them to deal with it. The Board pleaded a *non possumus*, on the ground that they had no power to deal with this evil in the houses in which it was said to occur, because they were not lodging-houses. Now, here, we venture to think that the Board, in attempting to justify their inertia, were confusing two totally different matters. They ought to have known that the Public Health Act gives them ample power to deal with overcrowding wherever they might find it. That they could not keep these houses under the sort of inspection, or subject them to the by-laws to which common lodging-houses are amenable, is possible; but they ought to have known also that, even in regard to this latter difficulty, they were not entirely devoid of resource, since the Act in question provides powers by which sanitary authorities can make by-laws for the regulation of houses that are let in lodgings; and it is to the drafting of such by-laws that we presume Dr. Carpenter refers, when he states that the Corporation of Croydon are at present engaged in making by-laws to prevent overcrowding, since we are not aware of any other power under which sanitary authorities can make by-laws by which overcrowding can be repressed.

This naturally leads us to ask how much further it can be anticipated that the possession of such by-laws as those which the urban sanitary authority of Croydon are now incubating, will advance this difficult question? The object of a by-law is not, as is often very erroneously supposed, to give new powers to deal with overt evils, but to systematise penalties, and to give precision to their adjudication, by laying down, as exactly as can be done, the limits which shall determine when the law is infringed and when it is not, and thus to prevent the growth of evils so far as it is possible to do so. To take the case in point: the Public Health Act, in effect, says that no house shall be so overcrowded as to be a nuisance or injurious to health; not, be it observed, to *morals*, about which, for obvious reasons, this Act does not concern itself. Now, if the rooms which James Cole occupied were so overcrowded as to come within the definition propounded by the Act, it is difficult to see why the sanitary authority should not have proceeded against him, and why, if they had unreasonably neglected to do so, reproof should not be addressed to them rather than to the Board of Guardians. They needed no by-laws in order to set the law in operation; they had only to institute a prosecution, and if they had established the fact, they ought to have had no difficulty in obtaining a conviction. We cannot, therefore, help thinking that there must be some little confusion in Croydon as to the relative functions of the destitution and sanitary authorities, and as to the way in which overcrowding should be dealt with.

Beyond this, it is desirable that it should be recognised by philanthropists, who are not always very logical in this matter, that people do not as a rule overcrowd because they are vicious, but because they cannot afford to provide themselves with better accommodation. Whether their inability in this respect is not in the majority of cases their own fault, is a different question altogether, and one which we are not called upon to discuss; all that we need here to point out is, that if vice and overcrowding run in couples, it is often because the vicious are as a rule poor, rather than because overcrowding makes a man vicious. What we may presume Dr. Carpenter to have had in mind was, that if houses which are occupied by more than one family, as the one in question was, could be put under a system of continuous inspection, as common lodging-houses are, the means of detecting overcrowding would be considerably enlarged. And this is no doubt true; but it is often a long step from the detection of an evil to its abatement, and this is particularly the case where the evil is the result of an inability to do well rather than of a desire to do evil, as it is in overcrowding. If house-rent were cheap in Croydon, there would be little or no overcrowding. And here again, a reading might be suggested of the opinion that "one reason why cottage-rents were so high, was that the landlords found that they could overcrowd their houses." It would be very much to the point to say that the reason why occupiers overcrowd is that they cannot generally afford to pay higher rents, nd that rents are high because houses are scarce.

It is, of course, little better than a truism to urge that overcrowding is one of the most difficult of social problems to deal with. In the first place, it is often not by any means an easy thing to estab-

lish its existence. In rural districts, where neighbourly *espionage* is practised as one of the virtues of life, it is generally not difficult to discover when an occupier has more inmates in his house than he ought to have; but, in urban populations, it is otherwise, and there nothing but the practice of systematic inspection will bring overcrowding to light. The practicability of such a system is, no doubt, much promoted by the adoption of by-laws under the eightieth and ninetieth clauses of the Public Health Act, because such by-laws carry with them the right on the part of the sanitary authority to enter the premises at all reasonable times for the purposes of inspection, and this, of itself, is a preventive of considerable value. The operation of this provision would be still more facilitated if less doubt existed as to the definition of the term "common lodging-house;" since it is much easier to bring the powers of the clause relating to common lodging-houses into effect than those connected with lodging-houses generally, which, apart from intrinsic difficulties involved in working them, require certain formalities to be observed before they can be enforced, that somewhat detract from their availability. Unfortunately, however, the Public Health Act itself does not define what a common lodging-house is; and, although there are opinions and *obiter dicta* of the courts on record in regard to the point, it is not so clear what is included under the term as it should be. What is wanted is a statutory provision putting all houses which are either sublet in tenements, or in what may be called common warren, *ipso facto*, under the supervision of the sanitary authority. We are, of course, aware that such a provision will be looked upon with objection by those who are inclined to maintain the respectable superstition that every man's house is his castle, and that the law has no right to force his threshold unless he has committed some actual crime; but we have advanced too far by this time in the direction of recognising the fact that the public have rights as well as the individual, to think that this is an objection that will carry much weight. So long as an occupier restricts himself to using his premises for the purposes of his own family, he may have some claim to enjoy the privacy which is considered to be the palladium of British liberty; but, directly he lays himself out to make a gain out of them by taking in lodgers, the public have a right to require that he shall only do so under conditions which will ensure that he does not do it to the public harm. And what applies to occupiers is equally applicable to owners. If a man choose to enhance the value of his property by subletting what is to all intents and purposes a single house in tenements, he should be dealt with as the owner of a common lodging-house. To do this may possibly lead to some unexpected extensions, if the principle is to be carried out to logical extremes; but in this, as in other matters of the kind, we must subordinate logical consistency to common sense and practical needs, and trust that the discretion of local authorities will prevent them from misapplying a power which is much more likely to be used beneficially than otherwise. We believe that, if they were fortified by such a power as this, they would be in a much better position, both to discover overcrowding and to check its early growth, than they are at present. But even then they would still be in face of the difficulty that the discovery of the evil is, in a large number of cases, but a very small step towards its abatement. How to effect this, is too large and too complicated a question to discuss here, as it clearly involves measures which, if they are to be carried out successfully, strike at the roots of some of our most cherished political and economical beliefs. A man who cannot or will not house his family properly is in much the same position as one who cannot or will not feed them, and it is not less difficult to know how to deal with him in the one case than in the other. What we want is an adequate examination of the whole question from a sufficiently broad standpoint, and the suggestion of measures which are practically applicable to abate the evil. Dr. Carpenter's observations will have served an useful end if they lead up to such an effect.

MANUFACTURE AND USE OF POISONOUS COLOURS IN GERMANY.

SINCE 1879, there has existed an imperial law which, though contained in four pages of less than foolscap size, covers the whole range of our Sale of Foods and Drugs, Sale of Poisons, Petroleum, and other Acts, and imposes the severest penalties on conduct injurious to the public health; besides this, there are, in the several states, other local Acts dealing with the details of the subject. The imperial law is couched in general terms, but Section 5 empowers the Emperor and Bundesrath to issue, from time to time, decrees, corresponding to our Orders in Council, which must be submitted to the Imperial Parliament, if sitting, or if not, at its next session, prohibiting the use of particular substances, or of particular methods of manufacture; these decrees they may accept or reject, but cannot modify.

In virtue of this provision, an order was issued in May 1882, prohibiting the use of certain colours altogether in foods, drinks, or the wrappers, etc., in which those are packed, and in painted toys; and also forbidding the employment of "colours prepared with arsenic" in wall-papers and all kinds of dress-materials.

This order provoked much opposition in Parliament, it being felt by all that a law so far in advance of that of other countries would place the German manufacturers at a disadvantage in competition for foreign trade. It was, therefore, referred to the consideration of a Special Committee, who published their report in February last, recommending the suspension of Articles 2 and 3, relating to the colours used in the wrappers or packing of articles of food and drink, and in the manufacture of toys. They also expressed a wish that the Chancellor would take into consideration certain petitions on the subject, and enter into negotiations with other countries with a view to an international agreement as to what colours should be deemed injurious in the manufacture of toys, so as not to press unfairly on the German export trade.

The provisions of Section 4 had long been enforced in most of the individual states, and were now merely extended to the whole empire. The Committee, however, expressed their approval of the phrase "prepared with arsenic," since it would render illegal those methods of manufacturing aniline colours in which arsenic, though used as a reagent only, is but imperfectly washed out, while it would not affect those cases where minute quantities only of arsenic are present from unavoidable impurity.

The order, in the form recommended by the Commissioners, passed the House, one member only opposing Article 4, on the ground that it would exclude fuchsin, which was quite harmless and pure, though nearly always containing traces of the arsenic with which it was prepared.

This order was based on the existing Prussian law, each state having previously had its own local regulation; but in all, the greens containing copper and arsenic had long been illegal. Indeed, in 1854, when no impediment, whether legal or of public opinion, stood in the way of the use of arsenical colours in wall-papers in any other country, the Prussian law was, in compliance with the representations of manufacturers that their total prohibition would be simple ruin to the export trade, relaxed on the most rigid condition that such colours and papers should be, from first to last, manufactured and stored in separate buildings; that they should be for exportation only; and that minutely prescribed precautions, for the health of the workpeople, be observed. The manufacturers, however, were not slow in relieving themselves from their burdensome restrictions, by finding non-arsenical and harmless greens.

More recently, in three, at least, of the largest chemical works in Germany, the Wohler process of obtaining aniline fron nitro-benzol has been superseded, and not only that base, but its derivatives, magenta, fuchsine, rubine, etc., are produced without the aid of

arsenic in any form. Aniline factories, however, cannot be opened without a licence; and the internal arrangements of those in which the arsenical processes are still employed, are subject to stringent regulations and inspection.

DR. WALDEYER of Strassburg has been appointed Professor of Anatomy in the University of Berlin, in place of Dr. Reichert.

THE twenty-fifth anniversary of Professor Du Bois-Reymond's appointment to the chair of Physiology in the University of Berlin will be celebrated on October 15th.

DR. COLCOTT FOX has been appointed physician in charge of the Skin Department, and Mr. Morton Smale dental surgeon, at the Westminster Hospital.

THE Riberi prize of 20,000 francs has been awarded to Professor Bizzozero of Rome, for his researches on the physiology and pathology of the blood.

WE learn from a private source that Dr. Strauss has sent to M. Pasteur, from Alexandria, after having performed forty necropsies of, and made upwards of one hundred visits to, cholera patients, a telegram to the following effect: "Only ignorant persons and perverse individuals, or those holding partial views on the question, can deny the existence of Asiatic cholera in Egypt."

A DINNER of old and present students of the Faculty of Medicine, of University College, will be held at the Freemason's Tavern on October 1st, at 6.30 P.M. Mr. Erichsen will preside, and a large gathering is expected. Dinner tickets (£1 2s. 6d., inclusive of wine) may be had of the honorary secretaries, Dr. Poore, 30, Wimpole Street, and Mr. Stonham, 28, University Street. Applications for tickets must be made before September 25th.

WE note, with regret, the death, by drowning, of Harry, the second son of Mr. R. H. B. Nicholson, of Hull. It seems that two of Mr. Nicholson's sons, the deceased and a brother, were returning from a sailing excursion, when a sudden gust of wind upset the boat, and both brothers were precipitated into the water. One lad was rescued by some workmen who saw the accident, and though quite insensible when brought to land, was brought back to consciousness by the usual means. The body of the drowned youth has not yet been recovered. He was in his eighteenth year, and had passed in the first class of the matriculation examination of the University of London, in June last. Great sympathy is felt for Mr. Nicholson by a large circle of professional and private friends.

ASSOCIATION OF GERMAN NATURALISTS AND PHYSICIANS.

THE fifty-sixth annual meeting of this Association will be held at Freiburg next week, commencing on Monday and ending on Saturday. Among the Sections will be Sections of Anatomy, Physiology, Medicine, Diseases of Children, Psychiatry and Neurology, Aural Surgery, and Diseases of the Larynx and Nose. Tuberculosis and Syphilis will be prominent subjects of discussion in the Section of Diseases of Children.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.

THE new school buildings will be ready for occupation by the 1st of October, and large additions have been made, especially in the laboratories for physiology and chemistry. The new school buildings and students' club will be opened with an introductory address by Dr. Handfield Jones. The Mary Stanford Wing, which will add seventy additional beds to the hospital, is nearly finished; and we understand that over £30,000 has been spent this year on the improvements in the hospital and school.

THE PROPAGATION OF SMALL-POX.

SMALL-POX has re-appeared in Leicester. Seldom has an outbreak of the disease been traced to carelessness more reckless or culpable than that which determined the propagation of contagion in the instance in question. A young woman working at Leicester went to Birmingham, where small-pox is rife, to visit her mother, who is engaged as a nurse in the small-pox hospital there. The mother gave her daughter a dress which she had worn while working in the small-pox hospital. The daughter took the dress to Leicester, and began to unpick it; but, before she had completed her task, she fell ill of small-pox, from which she died. Two other cases of small-pox have since arisen in the house where the deceased girl lived.

EASY RIDING IN THE CAVALRY.

IT is good news for man and horse that the old, ugly, bumping style of riding at a trot, so long in vogue in our cavalry, is to be abolished forthwith. The *Army and Navy Gazette* informs us that, owing to the many representations made by a cavalry officer who was on Lord Wolseley's staff in Egypt, the objection hitherto entertained at the Horse Guards against the British cavalry being allowed to rise in their stirrups in trotting has been overcome, and that orders will be issued directing all recruits and soldiers to rise in their stirrups in the manner practised by civil equestrians. This new and salutary regulation, which we understand is in force, without a single exception, in all foreign armies, will confer a very great boon both on the horse-soldier and on the troop-horse. The men will become better riders, and the horses will bear their burdens more easily.

PUBLIC MORTUARY FOR KENSINGTON.

THE provision of a mortuary is the latest addition to the sanitary appliances of the parish of Kensington. Its erection has for some years past been constantly urged upon the vestry by their indefatigable health-officer, Dr. Orme Dudfield, who has now the satisfaction of chronicling its completion. Shortly after the opening of the mortuary three bodies were received in a sad condition of decomposition from over-long delay of burial. The incident is significant as a strong illustration of the necessity which existed for the accommodation now at length provided. Measures have been taken to notify to medical men, clergymen, and others, the opening of the mortuary, and to solicit their co-operation in encouraging the poor to allow their dead to be deposited when they cannot be retained near the living with decency, or without injury to health.

MAGNESIA IN BEER.

AS a custom of adding magnesia to beer to preserve it is now becoming general, a word in time from the medical profession may avert what threatens to become a danger to health. Formerly, to preserve beer, only salts of lime and the alkalies were used; these imparted harsh and soapy tastes respectively. As magnesian compounds are not so perceptible (when in beer) to the taste, their use in brewing is replacing that of lime. Pure beer itself contains more magnesia than can be taken with impunity by many constitutions, the addition of further quantities under names known to the trade as "antacid," to correct beer, "C and D," to preserve it, "concentrated Burton water" to harden brewing water, may easily increase the amount to an injurious quantity. Brewers do not inquire into the nature of the chemicals now largely used by them, and cannot be aware of their effects. It is time that they were reminded that the continual drinking in a popular dietetic of salicylic acid, magnesia, vegetable bitters, etc., is a question which concerns the public health quite as much as their own profits. Drinking-waters containing excessive quantities of magnesia are frequently condemned; beer can disguise more, and should be closely watched. In obscure cases of purging, it will be well for the medical adviser to bear in mind the possible, but hitherto unsuspected, presence of excessive quantities of magnesia in beer.

THE SANITARY CONDITION OF RAILWAY STATIONS.

OUR attention has lately been directed to the unsanitary condition of certain railway-stations. The chief railway-stations of large towns are kept, as a rule, in good order; but the condition of many smaller stations, as to their water-closets and urinals, is disgraceful. The public conveniencies in question are so dirty as to be practically unusable, and with water-closets, long strangers to water, and choked with filth, and urinals overflowing with decomposing liquid, they are foul smelling and indecent nuisances to all who are brought in their vicinity. From this neglect many persons suffer hardships. It is clearly the interest of railway-companies to keep the latrines and urinals, in all their stations, in a cleanly, comfortable, and efficient condition. If railway-authorities fail to see their interest in this respect, and so fail to perform one of their duties to their passengers, it is possible they might be opportunely corrected if local sanitary authorities made it a rule always to include the railway-stations of their districts within the sphere of their jurisdiction, and especially insisted on their cleanliness in the particulars noticed.

MEDICAL LIFE-HISTORIES.

IN the *Fortnightly Review* for August 1st, appears an article on Medical Life-Histories by Mr. Francis Galton. In it he announces a plan for obtaining from members of our profession medical genealogies having the special aim of tracing the hereditary character both of mental and of bodily qualities. Mr. Galton has already tried the same plan on a large scale among eminent scientific men, with very valuable results. The points on which he wishes information are: race, conditions of life, form and feature, health and disease, vigour, sensation, artistic capacities, intellect, and character. He intends to give £500 in prizes for the best returns, and to publish the conditions of competition in October next. The competition will be open to all medical men. There is no question that Mr. Galton is starting a most important movement. We all know that a family history is almost as important, in most cases, as the clinical features of the present illness. We all know, too, that it is almost impossible to obtain. Now, the first step towards getting such histories out of lay people is for medical men to be willing to show the way. If this call be responded to, and if the profession show such interest in it as its importance deserves, it will go a long way to persuading laymen that it may be worth attention, and that it may be to their advantage to be able to tell the medical man as much, instead of as little, as possible. Nor is it only from the practical point of view that the movement is so valuable. The physician will find in this method the surest way to solve those vast questions of disease-kinship which have been as yet hinted at rather than investigated; indeed, the subject might almost as well be called the "family history of disease" as the "history of family disease."

THE CASE OF DR. STORY.

SIR WILLIAM HARCOURT has yielded to repeated and influentially signed memorials, addressed both to the Queen and to himself by Mrs. Story, late of Linsdale, for the release of her husband, William Story, a medical practitioner, who, at the Bedfordshire winter assizes of 1881, was sentenced, by Mr. James Mathew, to five years' penal servitude. The charge against Dr. Story was that he had set fire to the house occupied by him at Linsdale, near Leighton Buzzard, on August 10th in that year, with intent to defraud the West of England Fire Assurance Company, with whom he had insured his furniture for £500. It was shown at the trial that the house was found to be on fire at a time when all the inmates were out of it, and only a quarter of an hour after Dr. Story himself had gone out; and on the door being forced, it was seen that fires had been made in four different places up and downstairs. The fires were extinguished before much damage was done. The prisoner, who was at the time 68 years of age, denied the charge of incendiarism; and it was pleaded also that even if he had been guilty, he was not responsible for his actions at the time, evidence being called to prove that he had been three times sunstricken abroad, and had been injured about the head so as to produce cerebral excitement and fits of temporary insanity. Dr. Story is to be liberated next month.

ENTERIC FEVER IN ST. PANCRAS.

WE understand that, with a view to assisting in the inquiry into the cause of the outbreak of enteric fever in St. Pancras, the Vestry of St. Pancras have engaged the services of three gentlemen at University College Hospital. A house-to-house visitation has been made, under the direction of the medical officer of health; and a large amount of information has been obtained, which will shortly be laid before the vestry. At a meeting of the Collective Investigation Committee of the Metropolitan Counties Branch of the British Medical Association held on Monday last, when, in the absence of the President of the Branch, Dr. Norman Kerr was chairman, it was resolved that a card of questions applicable to the present outbreak of typhoid fever should be drawn up by a small subcommittee, and a copy of the card forthwith sent to every member of the Branch residing in or near London. The subcommittee, consisting of Dr. Mahomed, Dr. J. M. Bright, Mr. W. W. Cheyne, and Mr. G. Eastes, the honorary secretary to the committee, afterwards met and arranged a card which is expected to be in the hands of those whom it may concern in the early part of next week. All practitioners who are in charge of cases of typhoid fever are requested to furnish reports of them, and to send in their cards as soon as completed. We learn that there are some peculiarities about the symptoms characteristic of the present epidemic. Many cases have commenced with severe pain in the back, and diarrhœa and hæmorrhage from the bowels have been more than usually marked.

CHOLERA IN CALCUTTA.

IN a recent report Dr. McLeod gives some interesting details as to the prevalence of cholera in Calcutta during the second quarter of the present year. As compared with the previous decade, the number of deaths from the disease during this period amounted to more than double the mean, and the quarter's aggregate was higher than that of any single year of the decennial series, and higher by sixty-one than the unusually large figure of the preceding year. The disease has been true to its habit in reaching its maximum of prevalence in April, for the progressive increase which commenced in the third week of February reached a climax of 145 in the third week of April, and since then a gradual abatement has occurred. The greatest fall was from the week ending May 19th to that ending the 26th, a period of storms and showers. A fall of 33 in the week ending May 5th occurred under similar circumstances, and the gradual decline in June took place coincidently with more constant and heavy rain. This abatement of cholera-prevalence in association with, and probably under the influence of, increasing rainfall, is a circumstance of annual occurrence, and happens through Lower Bengal. It has, Dr. McLeod observes, been more marked this year than usual, because the disease, for some reason at present difficult of explanation, attained higher dimensions than usual. The sanitary condition of the town was by no means less favourable than in former years; on the contrary, it was in numerous respects better than in many previous years when cholera was less rife. Dr McLeod has so far been unable to obtain particulars of the prevalence of the disease in the suburbs and surrounding districts, but he hopes to supply these data in his annual report, which will under the circumstances, be looked for with more than usua interest.

INFECTIOUS HOSPITALS FOR CHILDREN.

THE committee of the Manchester and Salford Sanitary Association has addressed a memorial to the council of Manchester on the subject

of the provision of accommodation for the isolation of cases of infectious disease amongst children. The memorial points out that, on numerous occasions since the year 1865, the committee has urged the corporation to provide these houses in such districts of the city as from the crowded and bad condition of the dwellings appear to be most in need of such provision. In January 1881, Mr. Leigh, the health-officer of the city, reported: "It is impossible to overcome the spread of scarlet fever and whooping-cough but by isolation, and this means the provision of hospitals or the construction of additional wards to hospitals now in existence. In the last three years, 984 children died in Manchester of scarlet fever, and 940 from whooping-cough—a total of 1,924 from these two diseases alone. Surely any expense is justifiable in an attempt to check such a 'slaughter of the innocents.'" There is practically no other provision for the reception of children affected with infectious disease but the wards of the remote Pendlebury Hospital. Although, as represented by the committee in 1874, there is nothing in the law to prevent the corporation from providing out of the rates what buildings may be requisite, there seems to be at present an opportunity of obtaining the use of hospital premises already existing. The state of abeyance of the ample accommodation for in-patients at the Ardwick and Ancoats Hospital seems to warrant the hope that the authorities of the latter may be willing, if lawful for them, to assist in the furtherance of such provision. The memorialists urge the council to open negotiations with the authorities of that institution with a view to secure accommodation in it for cases of scarlet fever, whooping-cough, and other infectious disorders of childhood.

THE NORFOLK AND NORWICH HOSPITAL.

WE noticed recently the opening of the new buildings of the Norfolk and Norwich Hospital by the Duke and Duchess of Connaught. The energy and enterprise which the Building Committee have shown are deserving of the highest praise. Among other means which they have adopted to interest their neighbours, is the publication of a pamphlet entitled *The Birth and Parentage of the Norfolk and Norwich Hospital*. This little work is got up in the most elegant and artistic way, and records the origin of the hospital in the year 1772, the various enlargements it has undergone at different times, and the circumstances which made it necessary to undertake the entire reconstruction of the buildings. Among provincial hospitals, there are few which hold a higher place than the Norfolk and Norwich Hospital. Many distinguished physicians and surgeons have served upon its staff, and much good professional work has been done in its wards. All those who are interested in the prosperity of the institution will be glad to know that it is now housed in a splendid range of buildings, constructed according to the best principles of sanitary science, where it will have great facilities for carrying on the beneficent work which it has already maintained for more than a century.

WASP-STINGS.

THIS summer, two or three persons are said to have died from wasp-stings. A writer, signing himself "F.R.C.S.," announces in the *Times* that much alarm prevails just now as to the possibility of a fatal result proceeding from a wasp-sting; and he observes that death can only arise from such a cause when fear makes the subject of the sting faint away, in which case, if the heart be weak, recovery, as in all cases of fainting, may be impossible. It is not the wasp's poison, we are informed, which kills, but the fainting which terror induces. Of course, it is conceivable, though highly improbable, that a person stung by wasps might immediately fall, through fright, into fatal syncope; but this is certainly not by any means the only or the usual way in which the stings of those insects have been known to prove deadly. It is a common experience that the stings of wasps, though painful, seldom produce any serious, much less dangerous, consequences. Yet the records of surgery show that they have proved fatal in a variety of ways. For example, wasp-stings have caused death by inducing erysipelas of the head, in consequence of intense local irritation arising from a large number of stings; and even one sting has been known to kill by exciting fatal erysipelas in a porson of unhealthy constitution, and especially prone to that affection. Again, the sting of a single wasp may be dangerous or fatal because of the importance or position of the injured part. This has been shown in cases in which the eye, or the interior of the mouth, or the pharynx, has been stung. Many fatal wasp-stings of the inside of the throat have been recorded, in instances in which a wasp has been accidentally swallowed when concealed in fruit.

DR. BROWN-SÉQUARD.

DR. BROWN-SÉQUARD, who will be remembered as having been some years ago resident for a time in London, and as having delivered courses of lectures at the Royal College of Physicians and St. Bartholomew's Hospital, is now a candidate for the seat in the Académie des Sciences, left vacant by the death of M. Cloquet. His varied and valuable researches prove that he merits the honour, though he cannot command it. They have, perhaps, contributed more than those of any other experimental physiologist to establish that proper appreciation of pathological phenomena which leads naturally to accurate diagnosis. Dr. Brown-Séquard is the first physiologist who demonstrated the constriction of blood-vessels when the nerves that innervate them are submitted to the influence of electricity, and who explained vascular dilatation and increased local temperature by paralysis of the parieties of the vessels. This explanation was verified by Claude Bernard, who discovered that on dividing the cervical branch of the sympathetic, these phenomena are present on the corresponding side of the head. Neither must it be forgotten that Dr. Brown-Séquard has especially elucidated the question of the pathogeny of epilepsy by his researches, and has furnished evidence that it is hereditary; also that spontaneous lesions may be inherited. Latterly, Dr. Brown-Séquard has especially studied phenomena manifested by the nervous system. It is to these researches that science owes the discovery that when a portion of the nervous system is irritated, or in a state of lesion, it exercises on distant organs an influence which Dr. Brown-Séquard calls inhibition. Thus, a lesion of the encephalon can determine an arrest of the functions of the spinal cord, or a lesion of the cord may arrest the functions of the brain. Before mentioning Dr. Brown-Séquard's investigations in another field of research, we must call attention, though they are well known, to those on the transmission by the spinal cord of sensory impulses from which the principal conclusions to be drawn are that sensory impulses pass along the posterior and lateral columns, and are transmitted by the grey matter to the brain, which is the principal conductor of sensory impulses. Dr. Brown-Séquard's interesting researches on generalised anæsthesiæ resulting from irritation of the mucous membrane of the larynx by carbonic acid or chloroform, also those on a special kind of syncope resulting from the application of anhydrous chloral to the skin, may be classed among many others he has made with successful results, and will tend to solve many pathological problems, as they earn for him the right to all honours his French brethren can bestow on him.

THE DEAD POOR IN HOSPITALS.

WITH reference to the question as to the liability for the burial of the bodies of persons dying in Guy's Hospital, on which we lately commented (page 343), a correspondent reminds us that last year Dr. Steele of Guy's Hospital brought the matter before the Local Government Board, with a view, if possible, to the settlement of the question. The Board then stated (see JOURNAL, vol. i, 1882, page 953) that, having regard to the opinion expressed by

Lord Denman in the case of Regina *v.* Stewart, 12 A and E 773, in the event of a person dying in a hospital in such a state of indigence as to leave no fund applicable to the payment of the cost of interment, the primary obligation to bury the body devolves upon the hospital authorities, and that the guardians of the union of the parish in which the deceased resided prior to admission in the hospital, are not legally bound to bear the expense of such interment. The statute of 7 and 8 Vict., cap. 101, section 31, however, enables the guardians of any parish or union to bury the body of any poor person which may be within such parish or union. The opinion expressed by Lord Denman, to which the Board refer, was as follows: "It would seem that the individual under whose roof a poor person dies, is bound to carry the body, decently covered, to the place of burial. He cannot keep him unburied, nor do anything which prevents Christian burial. He cannot, therefore, cast him out so as to expose the body to violation, or to offend the feelings or endanger the health of the living, and for the same reason he cannot carry him uncovered to the grave." Much as it is to be desired that the parochial authority should assist poor persons so circumstanced, it is obvious that the expenditure incurred by guardians in this case of the St. Olave's Union, would be of considerable magnitude, and one which they may fairly hesitate to incur. The question is admittedly one of great difficulty, and, so far, but little has been suggested towards its solution. The Local Government Board, when the matter was before them some time since, proposed that the hospital authorities should, when possible, make arrangements with the subscribers or persons sending or bringing patients to the institution, for the removal of such patients when they shall have been discharged from medical treatment, or, in the event of death, for the removal or burial by the Board. An undertaking of this kind is required by the authorities of some of the London hospitals, and its adoption at Guy's might go far to meet the difficulty which is now felt. Of course, no such arrangement would be possible in the case of persons brought to the hospital without an order, in consequence of sudden accident.

THE CASE OF WILLIAM MARWOOD.

We publish on another page an account of the appearances observed at the *post mortem* examination of the late executioner Marwood. The notes have been supplied to us by Mr. Jalland, of Horncastle, who made the necropsy by direction of the coroner for the district. The condition of the lungs indicated the presence of pneumonia, the fatal action of which was aggravated by disease of the liver and kidneys. The stomach, also, had the appearance of that of a man who had been addicted to drink; and it is said that for some time before his death he had contracted habits of intemperance. In a pathological point of view, there is little or nothing of importance in the *post mortem* appearances. The interest of the case lies in the circumstances under which the inquest was held. It appears that a mischievous rumour—originating, perhaps, in some idle remark—had become current to the effect that the death of Marwood had been brought about by the Irish "Invincibles," the inference being that this was done through the agency of the medical men who attended the deceased, Dr. Hadden and his assistant, Dr. Chambers, both of whom are Irishmen. Dr. Hadden has been in practice in Horncastle during seventeen years, and enjoys the full confidence and respect of his fellow-townsmen, among whom no credence was given to the rumour. The report, however, was spread in other localities; and it was mainly for the purpose of vindicating Dr. Hadden's character and the honour of the medical profession, that the inquest was held. The result has been to show the absence of any ground for the scandalous insinuation to which reference has been made. Probably, had the affair been purely local, Dr. Hadden could well have afforded to trust to the good sense of his neighbours, and treat the report with contempt; but the case being one of public interest, and the scandal having been uttered elsewhere rather than in Horncastle, he acted quite rightly, both for his own sake and for that of his profession, in desiring that an inquiry should be made. For any annoyance that may have been caused to him, he received at the inquest an expression of the sympathy of the coroner and jury; and we are sure that he has the sympathy of his brethren in the medical profession, as well as their approval of his conduct.

DUST-BINS.

The decay of animal and vegetable matters in dust-bins which are not frequently emptied, is doubtless often the cause of ill-health, and is especially a danger during the summer and autumn months of the year, when decomposition of such refuse takes place very rapidly. There can be no doubt that the best possible remedy for this nuisance would be the daily destruction of all the animal and vegetable refuse of each house upon the kitchen fire, under which circumstances nothing but innocuous dust would (or should) be left for deposit in the bin, and no harm could result, however long the receptacle remained unemptied. We have personal experience of the working of this plan, but at the same time we must admit that in many houses, and especially among the poor, the adoption of this mode of dealing with the refuse is either practically impossible, or very difficult. Efforts have been made by the National Health Society to induce the metropolitan vestries to establish a more efficient system of "dust" removal than any of those which they have hitherto practised. These efforts have not been exerted in vain. A subcommittee of the Society collected evidence upon the subject, and submitted to the vestries several suggestions based upon that evidence. The most important of these suggestions consisted in a recommendation that the refuse should be collected systematically and frequently, and that the regular removal should not depend upon the attention or wish of the householder, his servants, or the "dust-men," but should be obligatory upon them. The Society also suggested that, when practicable, metal tubs should be substituted for dust-bins. These tubs are more easily emptied, and are more easily cleaned than are dust-bins; so that, even when the collection is irregular and uncertain, less harm is likely to arise than with dust-bins; because in the latter, which are often situated in dark recesses of the area or cellar, particles of decaying matter are not cleaned away, but are left for weeks or months at the sides and in the corners of these receptacles. The majority of the vestries approved of these suggestions, and expressed their desire to act upon them, but they seem to find many difficulties in the way of doing so thoroughly. The Hampstead Vestry was foremost in its expressions of a wish to effect a complete reform in this matter, and they have taken the lead by instituting the forced house-to-house collection of refuse. We believe this to be a very valuable sanitary reform, and we hope to hear of other similar authorities rapidly following so excellent an example.

THE CONSUMPTION OF HORSEFLESH IN FRANCE.

The following statistics with reference to the consumption of horseflesh in Paris may be found interesting. The municipal statistics of the city of Paris show that in 1881 the Parisians consumed 9,300 horses, and 400 asses or mules, which amounts to about two million kilogrammes of meat. The *Hygiène Pratique et Gazette Hebdomadaire des Sciences Médicales de Montpellier* regards this form of food as a valuable resource, when it is considered that many French people scarcely ever touch meat, in consequence of the enormous disproportion between the production of cattle and the population of the country. The same journal observes that science has long demonstrated the excellent quality of the flesh of the horse. This animal is essentially herbivorous, and no noxious element is elaborated in its animal economy; whilst its organic resistance to disease is such, that out of 3,000 horses which were cut up, M Pierre, a well known veterinary surgeon, did not find one in which the viscera showed any traces of morbid lesions. Like veal and

young beef, the flesh of a young horse is white, and its nutritious qualities are in direct relation with the age of the animal which furnishes it; but when the colt is three years old, its meat, already deep coloured, is very nourishing. When the horse has attained full age, its flesh contains, in a maximum quantity, all the nutritive principles which are necessary. Liebig and Moleschott have pointed out that horseflesh contains more creatine, that is to say, more albuminous matter, than ox-beef, which makes it largely nourishing. It has, in fact, been demonstrated that four kilogrammes of horseflesh are as nourishing as five kilogrammes of beef. The colour is not displeasing, nor is the smell unpleasant: and its use in the treatment of diseases for which raw meat has been recommended, does not present the inconveniences which are often met with in the raw flesh of beef or mutton; in fact, every day large numbers of oxen, cows, and sheep are killed which are known to be diseased, and of which it is feared to lose the sale. This can never be the case with regard to the horse, for most horses used for food are sent to the slaughter-house simply because they have become old or incapable of working, or because some accident has disabled them.

THE DROWNING SEASON.

THE sea-bathing season of 1883 has been marked by an exceptionally large number of disasters. Every week has brought its sad record of fatalities on our shores. Much of this unfortunate mortality is clearly preventable. We have lately pointed out some of the precautions which bathers in the sea ought to practise; we have commented on the chief circumstances which render sea-bathing dangerous; and we have endeavoured to explain the nature and causation of the fatal cramp which has cost so many bathers and swimmers their lives. But a study of the details of the disasters of the recent drowning season suggests some further precautions, which the public must fully appreciate, if bathing on our coasts is to become less hazardous in the future. For example, there is the danger, which many deaths this year have emphasised, of bathing in the sea in unusual and unfrequented places. Many people have lost their lives because they have been tempted into the water in some secluded spot, where, with no help near, they have perished because of some local and unknown peculiarity of beach or tidal flow. It may be difficult to prevent such disasters, for the foolhardy are with us always; but something might probably be done to warn the public of the peril of choosing unusual places for bathing, if local authorities would mark by some visible sign the spots on our coasts where bathing fatalities have already happened. Of late years, much has been done at some popular seaside resorts, in the places where bathers are wont to congregate, to guard against the occurrence of fatal accidents. Boatmen, specially selected and trained for the work, kept at hand and on the alert, and armed with suitable appliances, have rescued many bathers from imminent death; but this kind of assistance must be greatly developed and more widely organised, if our sea-bathing fatalities are to be substantially reduced. There are now numerous popular resorts on our shores where no help of this kind is to be found, and there are many busy bathing-places where the provision of men and life-saving appliances is as yet altogether inadequate. Such assistance ought to be furnished on a systematic and sufficient basis. A national service of aid to bathers might be organised, which might embrace, at least at the outset, all the better known places of public resort on our shores. Such an organisation would probably be popular, and it would be likely to attract the aid of volunteer workers. It would open a new and fruitful field for philanthropy, promising opportunity for great and widespread public usefulness.

PASSENGERS' COMMUNICATION IN RAILWAY TRAINS.

A PAINFUL incident which happened recently has a double interest for railway travellers, in that it again shows the need for increased care as to the security of the fastenings of the doors of railway-carriages, and especially because it emphasises once more the urgent want, which many disasters have made manifest, of suitable means of communication between the passengers and the drivers and conductors of railway-trains. An excursion train was returning from London to Worcester, when a carriage-door, against which a passenger was leaning, flew open, and he was thrown violently out on the six-foot way, the train running at the time at full speed. The poor man's fellow-passengers at once endeavoured to attract the attention of the guard or engine-driver, but were unable to do so, and the accident could not be reported to the railway officials until the train stopped in ordinary course at the next station. Then a tender was sent back, and it was found that the man was still living, though his head had been gravely injured, and one foot had been severely crushed. It is supposed that as he lay, stunned by his terrible fall, one of his feet projected over a rail of the up-line, and was thus run over and crushed by the wheels of a passing train. This accident again warns railway travellers that they cannot safely take it for granted that the doors of railway carriages are securely fastened. One of the most frequent forms of accident on railways arises from passengers falling out of carriages by leaning against unfastened doors, especially on the off-side of trains. It ought not to be difficult to adapt to railway-carriage doors some form of automatic fastening which should render the repetition of such disasters practically impossible. The second question to which this accident so pointedly and so painfully directs attention is by far the more important of the two circumstances on which we comment. If we remember rightly, an Act was passed some years ago, making it compulsory for railway companies to provide in every railway train which travels more than twenty miles without stopping, efficient means of communication between passengersand the officials in charge of the train. We have repeatedly insisted on the need for such communication; and numerous cases within recent experience, such as the burning to death of a member of our profession in a Pullman car last October, have shown that fire, serious illness, sudden death, violence, robbery, outrage, and murder, have given just occasion for promptly bringing a train to a standstill, and it has been found, in the moment of necessity, that passengers were not supplied with the means of communicating their peril to those who alone could control the movement of the train. In the case before us, if the theory of the way in which the poor man's foot was crushed be correct, this part of his injuries might almost certainly have been prevented if his fellow-passengers could have signalled to the officials at the time of his falling from the carriage.

NEW INDUSTRIAL DWELLINGS.

IN London and in many other populous centres in the kingdom, new dwelling-houses, especially designed for the accommodation of the working classes, are being erected on a very extensive scale. In some places, these new buildings are being raised by private enterprise; but, for the most part, they are being built by public funds, and under the special powers of recent legislation as to the demolition of unhealthy dwellings, and the treatment of unsanitary areas; and their promoters ostensibly aim at the provision of healthy homes for the artisans of towns. It is high time to ask seriously whether these new industrial dwellings are likely to accomplish any hygienic advantage either for their inhabitants or for their neighbours. It is true that, in many instances, the old buildings which the new erections are replacing were irredeemably bad, and condemnable by every canon of sanitary experience. But we are afraid it will be found that some of the new buildings fall far short of modern hygienic requirements. For instance, there is much to be said in support of the public complaints which have lately been pressed against the plan of industrial dwellings now in course of erection at the bottom of Greek Street, Soho. The particular buildings in question are huge blocks, five stories high, with only *culs-*

de-sac dividing them from each other. The English artisan has hitherto been accustomed, in the main, to reside in a house of which he has been the sole occupier, however small and however unhealthy his home has been. It remains to be seen how far his sanitary condition will be ameliorated or otherwise by placing him, with a colony of his fellows, in one of the colossal buildings which are now being provided for him, where he will have to learn to live on something like the "flat" system, which is so much in vogue, with such well-known sanitary disadvantages, in the larger cities of Scotland. The economical consideration that these huge aggregations of compound houses, erected at a great outlay on costly sites, will have to be very full to "pay," certainly does not tend to improve their sanitary promise. In some of the larger towns of the country, the experiment of rehousing artisans and their families in crowded centres has been in operation longer than in London; and we are informed on good authority that experience has shown that many families carry with them into their new homes their love of drink and their abomination of cleanliness, the result being that, in a short time, the new dwellings, in all but their more modern structure, fall into a worse condition than the old. The further a man lives from his fellows, the better his individual chance of health and life, is a proposition which must be taken with obvious practical limitations; yet it is an assertion embodying a great truth which all sanitary experience supports, and a practical principle which is of universal application in the construction of dwellings for artisans, or for any other people. By all means let unsanitary dwellings in towns be destroyed, and let new and healthier homes be provided for their inhabitants; but, so far as possible, let artisans and their families be housed in separate homes, so that they may be protected from the manifold evils which are inseparable from the aggregation of several families under one roof. It may be urged that the value of land in crowded centres of population is so high, that separate homes for artisans cannot be furnished in such places at reasonable or practicable cost, and that new dwellings for workpeople can only be provided in these localities by the erection of such very high buildings as those in Greek Street, in which the high cost of site is reduced to the means of their tenants by the superimposition of several habitations upon each other. To his it may be answered that no admissible defence can be offered for the construction of homes for artisans, or for any other people, on any principles but those which give their inmates fair chances of health and life. The remedy is to be found in the relative cheapness of land in suburban districts. There suitable, separate, and healthy artisans' dwellings may be erected at reasonable cost. The objection of distance from work, and consequent expenditure of money and time, has been much reduced of late years by the considerable improvements which have been effected in the provision of cheap and rapid means of locomotion.

SCOTLAND.

THE Glasgow Town Council have decided to make arrangements for a *conversazione* to be held in the Corporation Galleries, to which the members of the Sanitary Congress, about to meet in the city, are to be invited.

EXTIRPATION of the larynx was performed on the 8th instant, in the Western Infirmary, Glasgow, by Dr. Newman. The patient was a man, aged 55, who was suffering from a tumour of the larynx, involving chiefly the epiglottis. The operation lasted two hours. Death resulted about thirty-six hours subsequently.

THE CRYPTOGAMIC SOCIETY OF SCOTLAND.

THE Cryptogamic Society of Scotland, which numbers among its members a good many of the profession, held its ninth annual conference in Dumfries this week, under the presidency of Dr. Gilchrist. The president delivered an address, and Professor Traill, of Aberdeen, and others, took part in the proceedings. An interesting museum of fungi, lichens, ferns, etc., has been arranged; there were also various excursions.

COUNTY HOSPITAL, ALLOA.

AT the annual meeting of the supporters of the Alloa County Hospital, held on Tuesday, the Earl of Mar and Kellie presiding, a favourable financial report was submitted. It appears that the hospital is now free from debt, and with a substantial balance to its credit, this satisfactory condition having been attained by the liberality of the executors of the late Mr. Miller, in bestowing on that hospital the sum of £200.

FATAL OCCURRENCE AT A LUNATIC ASYLUM.

AN unfortunate affair occurred at the Haddington District Lunatic Asylum on Thursday, September 6th. A patient named Buchanan, and another named White, were together in a lavatory, and, during the temporary absence of an attendant, Buchanan attacked White savagely, knocked him down, and beat him severely. Alarm was given by another patient, but, before the attendant could interfere, White was dead. Buchanan had only been an inmate a few weeks.

DUNDEE ROYAL INFIRMARY.

ARRANGEMENTS have been made by the managers of the Dundee Royal Infirmary to open the children's wards as soon as possible. This will be rendered easier by the handsome gift of £1,000, intimated this week, by Mr. Thomas Bell, manufacturer, in aid of the children's ward. At a meeting on Monday, it was agreed to get the stonework in the east wing of the infirmary renewed at a cost of about £1,200.

THE BEN NEVIS OBSERVATORY.

THE erection of the permanent observatory on Ben Nevis has commenced, and with favourable weather it is hoped that the building will be completed by the end of next month. The post of superintendent of the observatory has been given to Mr. R. T. Omond, who enters on his duties at once, and, with the aid of two assistants, will carry on, during the coming winter, the necessary observations and physical researches. Mr. Omond is well known as a distinguished student of Edinburgh University, and his appointment has been very well received.

WEATHER IN SCOTLAND IN AUGUST.

THE meteorological reports of the weather for the past month show that the early days were, like those in the end of July, unseasonable, and even in some places cold, with an absence of sunshine. During the last fortnight of the month a very gradual change set in, fine dry weather prevailing, with temperature much higher than had been experienced for some time. As a consequence, all fears about the harvests were allayed, and the cereal crop has now been very generally secured in good condition, the quality of the grain being excellent.

ABERDEEN BRANCH OF THE EDUCATIONAL INSTITUTE.

PROFESSOR STIRLING gave a lecture on Saturday last in Marischal College to the members of the above association. The subject of lecture was "Simple Facts in Physiology, and How to Demonstrate Them." The object of the lecture was to show to teachers how they might very easily, and at little expense, make their teaching of physiology demonstrative and objective. The lecture was chiefly devoted to exhibiting a large number of simple experiments on the circulation and respiration, the simplest possible apparatus being used to illustrate the subject.

FIFESHIRE MEDICAL ASSOCIATION.

THE Medical Association of Fifeshire held its second annual meeting on Saturday, September 8th, in Kirkcaldy. The chair was occupied by Dr. Lumgair of Largo, President of the Association, who delivered an instructive address. Afterwards, a matter which affects almost the whole profession was discussed, namely, the great inconvenience experienced by medical men by the inconsiderate way in which they received notice of their services being required, and which frequently led to much unnecessary journeying. Office-bearers for the ensuing year were then elected as follow. *President:* Dr. Archibald, St. Andrew's; *Vice-President:* Dr. Dow, Dunfermline; *Secretary:* Dr. Douglas, Cupar; *Treasurer:* Dr. Macdonald, Cupar; *Council:* Dr. Lumgair, Largo; Dr. Moir, St. Andrew's; and Dr. Spence, Burntisland.

ABERDEEN ROYAL INFIRMARY.

THE quarterly general meeting of the managers of this institution was held on Monday. Dr. Francis Edmond intimated a subscription of £1,000 from the executors of the late Mr. George Edmond, while Mrs. Allan's trustees handed over a sum of £2,000 towards the extension of the Infirmary. It was resolved, in accordance with the wishes of Mrs. Allan's trustees, that the professor of medicine in the University should be put on the same footing as the professor of surgery as regards the hospital staff, viz., that in the event of a vacancy occurring in the hospital staff, it shall always be in the power of the managers to appoint the professor of surgery, for the time being, in the University, to be a visiting hospital surgeon. It was also announced that the sum necessary to free the institution from debt had been raised, and that there was a balance of over £3,000 towards the £7,500 which are required to extend the Infirmary. Dr. Thomas Collins, of Elgin, was elected superintendent, *vice* Dr. Robertson, deceased.

HEALTH OF GLASGOW.

FROM the report of the medical officer of health for the fortnight ending September 1st, it appears that there were 511 deaths registered, as compared with 461 in the preceding fortnight. This is an increase of 50, and represents a death-rate of 26 in place of 24 per 1,000 living. Compared with the corresponding fortnight of last year, there is an increase of nearly 5 per 1,000, and this difference does not arise from the excessive fatality of any single class of diseases, but from a very uniform increase all round. In this report, Dr. Russell makes some remarks on the population of Glasgow, and he points out that the growth of the city population is far in excess of the census rate. Thus the population, as estimated by the Registrar-General from the rate of increase between 1871 and 1881, is 515,590; but Dr. Russell, calculating from the number of occupied houses, and multiplying them by the average number of inhabitants per house in 1881, makes the population 541,428. This is a point of some importance, as it will make a difference in the death-rate, according as it may be calculated on the one basis or the other, of between 1 and 2 per 1,000.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General, for the week ending September 1st, state that the death-rate in the eight principal towns during the week was 22.1 per 1,000 of estimated population. This rate is 1.0 above that for the corresponding week of last year, and 1.0 above that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 13.6 per 1,000, and the highest in Glasgow—viz., 26.9 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.3 per 1,000, or 0.9 above the rate for the previous week. Diarrhœa and whooping-cough were the most fatal epidemic diseases, the mortality therefrom being most marked in Glasgow. Acute diseases of the chest caused 59 deaths, or 8 less than in the previous week. The mean temperature was 52.7°, being 1.2° below that of the week immediately preceding, but 1.9° above that of the corresponding week of last year.

IRELAND.

DURING the month of August, the average death-rate in Belfast from all causes was 21.5; from zymotic diseases, 3.7; and from lung-affections, 8 per 1,000 inhabitants.

ROYAL HOSPITAL, BELFAST.

THE quarterly meeting of the general committee of this charity was held in the extern department on August 27th. The report showed all the affairs of the institution to be in a very satisfactory condition, except the financial. The treasurer reported that he was unable to pay the July accounts, which amounted to upwards of £1,100, and that, at the end of the financial year, which terminated with the month of August, a sum of £1,200 would be required to pay all the accounts due up to that date. The donations and bequests during the current year were £400 less than in the previous year; but there was an increase in the subscriptions, especially from the *employés* of the various firms in town. From the latter source a sum of £734 13s. 10d. was paid to the treasurer; and the board look with confidence to these contributions from the working classes for a substantial increase in future to the funds of the hospital.

HEALTH OF BELFAST.

From the Registrar-General's returns for the four weeks ending August 25th, it appears that 62 cases of zymotic diseases were registered as fatal in Belfast—viz., small-pox, 1; scarlet fever, 25; diphtheria, 2; whooping-cough, 8; typhus, 6; typhoid, 3; simple fever, 2; and diarrhœa, 15 deaths. The deaths of children under one year for the same period were 50; and of persons at and above sixty years of age, 57. From lung-diseases, there were registered 132 deaths during the four weeks. The average death-rate from all causes was 21.5; the death-rate from zymotic diseases, 3.7; the death-rate from lung-diseases, 8 per 1,000. The highest temperature during the month was 70°, and the lowest 60°. The average reading of the barometer was 30.16. The rainfall amounted to 5.15, which fell on fifteen days of the month.

IRISH "WAKES."

RECENTLY, at Athlone petty sessions, a man was fined ten shillings for allowing a "wake" to be held upon his child, who had died from scarlet fever. The penalty for this offence under the Public Health Act is £5; but as this was the first case which had come before the magistrates at Athlone, the fine was reduced, although the police had warned the man not to hold the wake. We fear that the imposition of small fines will not put a stop to this very pernicious custom; as, unless very strong pressure be brought to bear upon the Irishman, he will not miss so favourable an opportunity for indulging in excitement. At the same time, it would be well if these people could be better instructed, and induced to believe in sanitary laws. Doubtless it will be a very difficult matter to put down so old-established a custom; and if they could be persuaded to postpone their festival until after the burial of the deceased, and perhaps until after the disinfection of the house or cottage, the chief danger of the practice would be avoided.

A MORGUE FOR QUEENSTOWN.

THE Queenstown Town Commissioners, acting as the urban sanitary authority, recently resolved to erect a mortuary in the new cemetery ground, and stated that they would prosecute all parties bringing dead bodies from the sea, harbour, or river, into their jurisdiction

until the cause of death had been determined by inquest. Last week they were informed by the Local Government Board that the object in view should be to provide a place on shore in which bodies found in the Queenstown waters can be deposited when so found. They further pointed out that the cause of death cannot be inquired into and ascertained whilst a body is still floating in the water, as must be the case if such a resolution as that referred to were to be carried into effect, if, indeed, it could be lawfully done. A large number of bodies are, from time to time, brought on shore at Queenstown from the harbour, some of them in an advanced stage of decomposition; and a building for the reception of such bodies at a distance of a mile and a quarter from the water, appears rather a strange arrangement to be proposed by the commissioners. At the time the boat-harbour was being constructed at Queenstown, an arch was built in the retaining-wall for the express purpose of utilising the site as a mortuary for the reception of dead bodies found in the water; and the cost of excavating, fitting with gates, concreting the floor, and putting up a few slabs for coffins, would probably not amount to more than the erection of the proposed building in the new cemetery; and there would then be a permanent structure in a suitable place, which would be a remedy for the scandal so often complained of. The commissioners, however, have formed their own opinion in reference to the matter, and have informed the Local Government Board that they will not build a morgue, and, at the same time, have forwarded plans of the proposed mortuary. We await with interest the result of this disagreement between the board and the commissioners.

CHOLERA IN EGYPT.

[FROM A CORRESPONDENT.]

ALEXANDRIA, SEPTEMBER 3RD, 1883.

CHOLERA may now be said to have all but disappeared from Lower Egypt; but it still keeps a hold on Upper Egypt, from Cairo to Keueh. No cases have yet been officially reported higher up the Nile than Keueh. The number of deaths in the last twenty-four hours, for the whole of Egypt, is fifty-six. Five of these were in Alexandria; the rest in the provinces of Upper Egypt: Minich, Girgeh, and Assiout. Although the number of deaths in Alexandria is small, there are still a goodly number of attacks; but the cases are mild, and mostly recover. The provinces of Upper Egypt have suffered severely, though not to such an extent as the Delta; and it was long before extra medical help was sent. Two of the medical men who came from England, and who might have been useful there to the population and to themselves, were left in Alexandria, which is filled to overflowing with European and native medical men, most of whom had little to do, a large part of the population having run away. Why two men, brought out from England specially for the epidemic, should have been kept here, while the larger towns of Upper Egypt were almost without medical aid, is difficult to understand. The sanitary inspectors from India arrived last week, and have proceeded, with their Indian hospital attendants, to Upper Egypt. The other medical men are to be allowed to return to England, the object for which they were brought out being now accomplished.

In the JOURNAL of the 25th ultimo, your Cairo correspondent makes an important observation, which I understand is to be considered in any future reorganisation of the Egyptian Sanitary Service. The reason he assigns for the members of the Medical Commission, sent to Damietta at the outbreak of the epidemic, having quitted the place so abruptly, was, that most of them had large private practices to attend to; and this, with regard to most of them, is quite true, and it was impossible for many of them to absent themselves. Dr. Grant Bey, for instance, had not only his private practice, but public appointments to attend to; and I dare say the others may have had the same. The question raised now is, whether men holding chief sanitary appointments are to be allowed to have private practice to interfere with their sanitary work? There is certainly enough sanitary work in Egypt to occupy several able men's whole time, talents, and energies for the next fifty years; and even then I have little hope of much being accomplished, so great are the difficulties to be contended with.

It was told to me some time ago that a well-known Minister, on being asked, *àpropos* of reforms in Egypt, when the reform of the Egyptian medical and sanitary services was to be begun, replied, "We don't begin at that end." Without wishing to push medicine forward into the domain of politics, I am none the less convinced that at that end reforms must begin. A healthy mind in a healthy body is essential for self-government, and a healthy body is essential for a healthy mind. Living in an atmosphere poisoned by sewers and cesspools in their private houses and public offices, built on unhealthy, undrained soil, the Egyptians almost universally suffer from the effects of chronic poisoning by sewer-gas. They are languid and lymphatic, wanting in energy and power of continued application; often stout, but not muscular; their circulation is weak; they suffer from flatulent indigestion, headache, hæmorrhoids, ophthalmia, and enlarged spleen. Their brain-power is weakened from the same cause, though other causes, arising from the customs of Orientals, have also their effect. The children are pot-bellied, weakly, and lymphatic, and only the strongest survive. Until they are taught by sanitary medicine to improve their health and raise healthy children, to establish sanatoria for Egypt, and use them to refresh themselves and recruit, their brain-power will remain deficient, and self-government for the Egyptians—a government such as is necessitated by the political position of Egypt—is, in my humble opinion, a thing of the far future, though diplomatists have fixed it as a thing to be looked forward to at a very early date. I speak from a long and extensive medical experience amongst all classes of the population—a population which has my fullest sympathy. Schools may be established; but healthy bodies and minds must be raised, capable of receiving, benefiting by, and using, the instruction; else it will only amount to a system of teaching parrots. Visitors to Egypt, who take their type of the Egyptian from some of the swarthy fellaheen seen in the fields, and boatmen on the Nile, will not accept my medical description without criticism; but they must remember that these are not the men who are likely to govern Egypt; and that they are only a few of, and the strongest of, the population.

To return to cholera: the daily papers here are engaging in a lively polemic as to the origin of the present epidemic. Many theories are put forward, the chief of which are these:

1. Local origin *de novo* at Damietta, under similar circumstances to those existing in its home on the banks of the Ganges.

2. Evolution at Damietta from other diseases, such as typhoid fever, said to have been extensively prevalent. Typhus, human and bovine, is also included in the category. The chief advocate of this theory is Dr. Dutrieux Bey, who is preparing a report.

3. An epidemic form assumed, under favouring circumstances, from a sporadic form of cholera existing endemically in Egypt since 1865.

4. Importation of germs by the pilgrims from Mecca last year, which have been inert till circumstances this year favoured development into an epidemic.

5. Importation of germs by our Indian troops from Bengal last summer, with behaviour as above.

6. Direct importation from Bombay by some steamer (British, of course), by means of a Mohamed Halifa or a Bombay merchant.

7. That it is not true epidemic cholera, but a "choloroid disease." The author of this theory is Dr. Abbate Pasha; but he has not yet enlightened the press as to what his "choloroid disease" is.

The last theory may be excluded from the list, as no one who has seen the disease denies that it is cholera as it is observed in India—I use only the word "cholera" to designate it, as the qualifying adjectives used here are so numerous, that one does not know which to choose. One hears the names applied of "Asiatic cholera," malignant cholera, epidemic cholera, malignant Asiatic, and malignant epidemic cholera; also cholera foudroyante, cholerina, and choleriform, according to intensity. Those who wish to convict England of having knowingly, willingly, and of malice aforethought introduced it from India, stick to the name "Asiatic," which sounds as if it carried conviction with it. That cholera has its home in India, and starts on its travels, no one denies; but no one who holds the "direct" importation theory here seems to attach the least importance to the fact that never, in the history of cholera, has it been introduced "directly" from India into Egypt—and its stages and stepping-stones this time have still to be found; nor am I aware, but I may be wrong, that it has ever been imported and lain inert for nearly a year. It is true that, after the country was saturated by an epidemic in 1865, it lay dormant during the winter, and reappeared in the summer of 1866. In 1872, Lower Egypt seemed to narrowly escape being visited by an epidemic of cholera, which

travelled through Soudan into Nubia and Upper Egypt, but was arrested at Assouan at the first Cataract, in the month of November. There can be no doubt that a considerable amount of choleraic or "choloroid disease," to use Abbate Pasha's nomenclature, existed in Upper and Lower Egypt previous to the outbreak at Damietta last June. The following is an extract from a letter received to-day from Upper Egypt. "The summary of my inquiries up to the present is, that vomiting and diarrhœa is a frequent illness every summer here; and I have the name and address of one who died last December, under the care of Dr. Q——; but this year it has been much more frequent here and in all the villages round, for some time before they heard of anything at Damietta. It began towards the end of May. A female relative of the Omdé of Assiout died in twenty hours of a sudden attack of vomiting and purging, cramps, coldness, and blueness, in the end of the month of Rajab, which corresponds to the beginning of June. At El Wasta, another died with the same symptoms, and two others were attacked and recovered. Towards June 20th, this disease became much more frequent; and I have the names of many families of 'notables,' in which several members were attacked by vomiting, diarrhœa, cramps, collapse; and I have taken note of one or two who are said to have died about this date, which I shall inquire into."

Such cases are called by medical men here cholerina, or choleriform, and are not regarded as allied to epidemic cholera, nor capable of giving rise to epidemic cholera, though the mild cases occurring now towards the end of the epidemic are called also cholerine, and are regarded as just as infectious and as capable of producing epidemic cholera as the more intense form. This is another instance either of confusion in medical nomenclature, or of distinction without great difference. If they be really different, and incapable under certain circumstances of producing or developing into epidemic cholera, it would be well that the name should be changed, so as to avoid misapprehension.

[FROM ANOTHER CORRESPONDENT.]

DR. HUNTER has done good service in Egypt. His energy, administrative skill, and experience have proved of great practical value. The epidemic of cholera is passing away, and his work, as far as that is concerned, it seems probable, will soon be at an end. His stay in Egypt need not be protracted, unless, indeed, his services be retained there for the purpose of reorganising the medical and sanitary departments, which have been shown to be lamentably defective.

Dr. Hunter's investigations, which have been very searching, seem to prove that cholera existed in Egypt long before the outbreak in Damietta, and that there are grounds for believing that, under the names of cholerine, cholera nostras, etc., it has been endemic in Egypt since 1865; and that diarrhœa is a very common and fatal malady in Egypt, and that under this heading cases of cholera have been recorded; that peculiar atmospheric phenomena have been frequently observed during previous and existing epidemics. Facts seem to be accumulating in support of the above views. Cases of cholera, it appears probable, have been recorded under the heading typhoid fever. So impressed are some observers with the "importation from the valley of the Ganges" theory, that the first proposed explanation of its importation by a Bombay vessel have failed. The Indian contingent is suggested as a possible medium by which cholera entered Egypt.

Dr. Hunter's researches will probably show that the disease, being endemic in the country, was roused into activity without energetic local causes, the nature of which has been so graphically described by many recent observers, that it is needless to repeat them. If the experience gained by these epidemics only lead to removing these causes, and so protecting Egypt for the future, it may again, perhaps, have to be said that cholera may sometimes save more lives than it destroys, and that Dr. Hunter's mission has been a success.

STATISTICS OF OLD AGE.—Dr. P. V. Schenck (*St. Louis Courier Med.*) says that, out of 102,831 individuals who have passed the age of ninety years, 60,303 are women, and only 42,523 are men. In Italy, 241 centenarian women are found for 141 men of the same age. During 10 years, 72 deaths of centenarian women were recorded in the New York statistical tables, and only 19 males. In Sweden, the number of old women who exceed eighty years is to that of the old men as 33 to 19. The last United States census shows that, of those over eighty years, the females exceed the males by twelve thousand.

THE POST MORTEM EXAMINATION OF WILLIAM MARWOOD, THE EXECUTIONER.

IN consequence of the various rumours which have been circulated of unfair play to the late William Marwood, the public executioner, Mr. Jalland, of Horncastle, was requested by Dr. Sharpley, the coroner for that division of the county, to make a *post mortem* examination of his body, and report at the inquest, which was held on Friday, September 7th. Mr. Jalland has sent us the following notes of the examination, in which he was assisted by Mr. J. B Berry

On external examination, Marwood was seen to be a stout-looking man, 63 years of age, 5 feet 7 inches in height. He was deep-chested; the girth beneath the armpits was 42 inches; he had long muscular arms and powerful shoulders. Rigor mortis was present in the legs, absent in the upper limbs. The skin throughout was deeply jaundiced; hypostatic congestion of the depending parts was present. There was a large scrotal hernia on the right side.

In making the incision for opening the thorax and abdomen, one inch and a half of fat was found in the abdominal wall. The pericardium was distended with clear sanguineous fluid. The heart was of large size, and perfectly healthy throughout; the left ventricle was full of clotted blood; the aorta was filled with a clot fourteen inches in length. The left pleura was thickened and closely adherent; the lung was densely hepatised, and in parts caseous and yielding to pressure; the right pleura was not adherent; the lung was congested throughout. The stomach was distended with flatus, and contained about two ounces of grumous fluid; the mucous membrane was congested in parts; in short, it was the stomach of a person of intemperate habits. The surface of the liver was smooth; the capsule stripped easily; the whole organ was enlarged. On section, it was found to be congested in every part; there was no nutmeg appearance, and no cirrhosis to the naked eye. The gall-bladder contained an old gall-stone of the size of a bean, and about one drachm of dark fluid. The spleen and the intestines were congested, but otherwise healthy; the pancreas was normal. The capsule of the right kidney was adherent; the surface of the organ was rough, and in parts there were puckerings, apparently the cicatrices of cysts; one cyst remained large enough to admit the tip of the finger. Although large, the organ was very light in weight. On section, the anatomical structure of the kidney was quite indistinguishable, probably masked by the great amount of congestion. On pressing the section between the thumb and finger, crepitation could be felt, resembling that of healthy lung-tissue. The left kidney was imbedded in a large amount of fat; it was slightly congested, otherwise healthy. There was a right scrotal hernia of the size of the head of a young child; it could be readily returned into the abdomen. The lining of the sac was smooth and shining; the brain was of large size; the dura mater was strongly adherent to the skull-cap. On removing the dura mater, the brain was seen to be congested on the surface, but was otherwise perfectly healthy. The ventricles contained a normal amount of fluid. The stomach, with its contents, and portions of the other viscera, were placed in sealed jars in the event of an analysis being required.

From the above examination, Mr. Jalland stated at the inquest that William Marwood died from acute pneumonia, accelerated by the diseased conditions of his liver and kidney; and that no evidence existed of death having been caused by other than natural causes. A verdict was given in accordance with the above opinion.

THE NEW SYDENHAM SOCIETY.

THE twenty-fifth annual meeting of the New Sydenham Society was held in Liverpool on August 3rd, 1883. There were present Mr. Mason of Bath in the chair, Dr. Herman, Mr. Nicholson of Hull, Mr. Sympson of Lincoln, Dr. Wigg of Derby, and others.

The following report, prepared by the Council, was read and considered, and, by unanimous vote, ordered for publication, as usual.

"In presenting their report for the past year, the Council has little to state beyond the record of the works published, and the announcement of those in preparation. The production of the Lexicon of Medical Terms has been continued with as much speed as circumstances have permitted, and two numbers have, as usual, been issued during the year. The issue for the current year will probably consist of—A Fasciculus of the Atlas of Pathology; Selections from the Works of Duchenne (of Boulogne), edited by Dr. Vivian Poore; Two or more Parts of the Lexicon of Medical Terms;

The first volume of Hirsch's work on Historico-Geographical Pathology, translated by Dr. Creighton; A Volume of Selected Monographs, of which Senator on Albuminuria and Landau on Movable Kidney will form part. The works which have been issued during the past year are the following: Stokes on Diseases of the Chest; Atlas of Portraits of Skin-Diseases: Fasciculus XVI; The Collected Works of Dr. Warburton Begbie; Lexicon of Medical Terms, Parts VII and VIII; Charcot on Localisation of Cerebral Disease. Amongst those which are in preparation are the following: A Fasciculus of the Atlas of Portraits of Skin-Diseases; The Collected Works of Dr. Peacock, with Memoir and Portrait; One or more Volumes of Selected Clinical Lectures, from German sources.

A ballot having been taken, the following officers were declared to be elected for 1883-4. *President:* William Bowman, Esq., F.R.S., LL.D. *Vice-Presidents:* Henry W. Acland, M.D., F.R.S., LL.D; E. R. Bickersteth, Esq. (Liverpool); Sir G. H. Porter (Dublin); James Russell, M.D. (Birmingham). *Members of Council:* Richard Barwell, Esq.; J. Crichton Browne, M.D.; W. B. Cheadle, M.D.; T. F. Grimsdale, Esq. (Liverpool); G. H. Kidd, M.D. (Dublin); S. W. North, Esq. (York); E. R. Townsend, M.D. (Cork); C. Whipple, Esq. (Plymouth).

Thanks were voted to the retiring officers for their services during the past year; to the honorary local secretaries, upon whose zealous services the success of the Society has largely depended; and to Mr. Mason for his conduct in the chair.

DENTAL SURGERY.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND grants a Diploma in Dental Surgery under the following regulations.

Candidates must produce certificates: 1. Of being twenty-one years of age. 2. Of having been engaged during four years in the acquirement of professional knowledge. 3. Of having attended not less than one of each of the following Courses of Lectures: Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica. 4. Of having attended a Second Winter Course of Lectures on Anatomy, or a course of not less than twenty Lectures on the Anatomy of the Head and Neck. 5. Of having performed Dissection during not less than nine months. 6. Of having completed a Course of Chemical Manipulation. 7. Of having attended, at a Hospital or Hospitals in the United Kingdom, Surgery and Clinical Lectures on Surgery during two Winter Sessions. 8. Of having attended two Courses of Lectures upon each of the following subjects: Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one Course on Metallurgy. 9. Of having been engaged, during not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner. 10. Of having attended at a Dental Hospital, or in the dental department of a General Hospital, the Practice of Dental Surgery during two years. The courses of instruction and hospital practice must be by lecturers or in institutions recognised by the College.

All candidates who commence their Professional Education on or after July 22nd, 1878, must, in addition to the certificates enumerated above, produce a certificate of having, prior to such commencement, passed a Preliminary Examination in General Knowledge recognised by the General Medical Council.

Candidates who were in Practice as Dentists, or who had commenced their Education as Dentists prior to September 1859, and who are unable to produce the certificates required by the foregoing regulations, must furnish the Board of Examiners with a Certificate of Moral and Professional character, signed by two members of the College, together with answers to certain inquiries. In the case of candidates practising in, or educated in, Scotland or Ireland, the certificate of moral and professional character may be signed by two licentiates of the Royal College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, or of the Royal College of Surgeons in Ireland.

The examination is partly written and partly oral. The written examination comprises General Anatomy and Physiology, and General Pathology and Surgery, with especial reference to Dental Practice. The oral practical examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc. Members of the College, in the written examination, have to answer only those questions set by the Section of the Board consisting of persons skilled in Dental Surgery; and in the oral examination are examined only by that Section. A rejected candidate is not admitted to re-examination within six months, unless the Board otherwise determine. Examinations are held in February, June, and October. The fee for the Diploma is £10 10s., over and above any stamp-duty.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The Examinations are written and oral, and consist of two separate sittings. Candidates must apply to the Secretary of the College on or before the Saturday preceding the ordinary examination, and must produce all the required certificates.

Candidates who commenced their professional education on or after August 1st, 1878, must produce evidence of having attained the age of twenty-one years, and of having passed the Preliminary Examination in General Education required for the ordinary Licence in Surgery, or an equivalent examination. They must also produce certificates of having been engaged during four years in the acquirement of professional knowledge, and of having been during that period, or at some time previous to their examination, engaged for not less than three years in the acquirement of a practical knowledge of Mechanical Dentistry with a registered dental practitioner.

The following Lectures and other courses of instruction must have been attended at a recognised medical school or schools: Anatomy, one winter course; Dissection and Demonstration, nine months; or Dissection, nine months, and Anatomy of Head and Neck, one course of twenty lectures; Physiology, one course of not less than fifty lectures; Chemistry, Surgery, Medicine, each one winter course; Materia Medica, and Practical Chemistry and Metallurgy, each one course of three months; Clinical Instruction in Surgery at a recognised Hospital, one course of six months, or two courses of three months; also the following special courses by recognised teachers: Dental Anatomy and Physiology, Dental Surgery and Pathology, Dental Mechanics, one course of each; two years' attendance at a Dental Hospital, or the dental department of a General Hospital.

Licentiates of the College, or registered medical practitioners, must produce certificates of attendance on the special subjects only, and are examined in these only.

Anatomy, Chemistry (with Metallurgy), and Physiology, will form the subjects of the first Examination; Surgery, Medicine, Materia Medica, and Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics, those of the second.

The fee is £10 10s. Each candidate for the first Examination must pay to the Secretary of the College £4 4s. not later than 9 A.M. of the Saturday preceding the Examinations; and, if the candidate be unsuccessful, £2 2s. are returned to him. Each candidate for the second Examination must pay £6 6s. not later than 9 A.M. of the Tuesday preceding the Examination; and, if he be unsuccessful, £3 3s. will be returned to him. No unsuccessful candidate will be remitted for less than three months.

Examination sine Curriculo.—Candidates who were in practice before the first day of August 1878, or those not in practice but who had commenced their apprenticeship as Dentists before the first day of August 1875, and who are unable to furnish the Board of Examiners with the certificates of lectures and hospital attendance required by the foregoing regulations, must produce: 1. A certificate of moral and professional character, signed by two registered medical practitioners, together with the full name, age, and address of the candidate. 2. The date of commencing practice or apprenticeship as a Dentist, and whether, if in practice, such practice has been carried on in conjunction with any other business, and, if so, with what business. 3. Whether he has any degree or diploma in Medicine or Surgery, and, if so, from what College or University, or other body, and at what time it was obtained. 4. The particulars of professional education. The President's Council shall determine whether the candidate is entitled to be admitted to Examination; and such Examination shall, with the exception of the Preliminary Examination, and the exemption in favour of registered medical practitioners, as before explained, be passed on the same subjects and in the same manner as is required for other candidates, and will confer the same privileges.

Every candidate, before being admitted as a Licentiate, must subscribe a declaration engaging not to advertise or pursue any other unprofessional mode of attracting practice.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The regulations as to certificates, curriculum, number of examinations, fees, and examinations *sine curriculo*, are in effect similar to those of the Royal College of Surgeons of Edinburgh. A special course of Metallurgy is required, unless included in Practical Chemistry.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The Dental Board of Examiners consists of three Fellows of the College, three Registered Dentists, and the President, Vice-President, or other Member of the Council of the College (summoned in rotation).

Examinations are held at such times as the Council may direct. Every candidate must lodge with the Registrar of the College, at least a fortnight previous to Examination, the following certificates. 1. Of having attained the age of twenty-one years; 2. Of having been engaged during four years in the acquirement of professional knowledge; 3. From two Fellows or Licentiates of any College of Surgeons in the United Kingdom, and from two Dentists of repute, testifying that the candidate is of good character; 4. Of having passed the Examination in Preliminary Education of one of the Examining Bodies recognised by the General Medical Council; 5. Of having lodged in the Bank of Ireland, to the credit of the College, the fee of £10 10s., half of which shall be returned to any candidate, if rejected; and no candidate can present himself for re-examination for six months; 6. Of having attended in a recognised school one course each of lectures on Anatomy and Physiology, Surgery, Chemistry, Practical Chemistry and Metallurgy, and Materia Medica; and two courses each of Dissections with Demonstrations, and Dental Surgery, including Dental Mechanics; 7. Of having attended General Hospital Practice for two winter sessions, and the dental department of a General Hospital, or a Special Dental Hospital, for a further period of nine months; 8. Of having been engaged during at least three years in acquiring a practical knowledge of Dentistry, under the instruction of a Registered Licentiate in Dentistry.

The Examinations are partly written and partly oral; preparations, microscopes, and other appliances, being used. Licentiates in Surgery, or Fellows of any College in the United Kindom, and Graduates in Surgery of any University recognised by this College, are examined only in subjects special to Dentistry.

Every successful candidate, previously to receiving the Licence, shall declare that he will not advertise, or pursue any other unbecoming mode of attracting business, so long as he holds the Licence in Dentistry of the College.

The following provision is made for instruction in Dental Surgery.

NATIONAL DENTAL HOSPITAL AND COLLEGE.—Consulting Physicians: Dr. B. W. Richardson and Dr. W. H. Broadbent. Consulting Surgeons: Sir Spencer Wells, Mr. Erichsen, and Mr. Christopher Heath. Consulting Dental Surgeon; Mr. J. Merryweather. Dental Surgeons: Mr. F. H. Weiss, Mr. G. Hammond, Mr. G. A. Williams, Mr. A. F. Canton, Mr. T. Gaddes, Mr. H. Rose. Assistant Dental Surgeons: Mr. W. Weiss, Mr. H. S. Bradshaw, Mr. A. Smith, Mr. D. Curnock, Mr. W. R. Humby. Lecturers: Dental Anatomy and Physiology: Mr. Gaddes, Tuesdays and Thursdays, 7 P.M., in October, November, and December. Operative Dental Surgery: Dr. St. George Elliott, Wednesdays, 7 P.M., in November and December. Dental Mechanics: Mr. H. Rose, Mondays, 7 P.M., in January, February, and March. Demonstrations in Dental Mechanics: Mr. Humby, Wednesdays, 7 P.M., in January, February, and March. Dental Metallurgy: Mr. A. Tribe, Tuesdays, 9 A.M., in January, February, and March. Mr. W. Weiss will lecture on Dental Surgery in the summer.

Clinical Lectures and Demonstrations are given from time to time.

Dresserships in the extraction-room are held for three months by six senior and six junior students of the hospital.

Prizes.—Five Prizes in Medals are open for competition at the end of each course of lectures required. Certificates of Honour are given in each class. The Rymer Medal for General Proficiency, value £5, with books or instruments, is awarded annually to the most meritorious student.

Fees.—General Fee for Special Lectures required by the curriculum of the Royal College of Surgeons of England, £12 12s. For the Two Years' Hospital Practice required, £12 12s. Total Fee for the Special Lectures and Hospital Practice required, £25 4s. Single courses: Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics, each, one course, £2 12s. 6d.; two courses, £4 4s.; Dental Metallurgy, one course, £2 3s.; two courses, £5 5s.; Operative Dental Surgery, £2 2s.; Demonstration of Dental Mechanics, £1 1s.; Hospital Practice, to Registered Practitioners, six months, £7 7s.; twelve months, £9 9s.

Information respecting the Hospital Practice and the College may be obtained from the Dean, Mr. Gaddes, at the Hospital, Great Portland Street.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY.—Lectures are given at this School, in the Winter, on Mechanical Dentistry, by Dr. Walker, at 5 P.M. on Wednesdays; in the Summer, on Dental Surgery and Pathology, by Mr. A. Coleman, at 8 A.M. on Tuesdays and Fridays; on Dental Anatomy and Physiology (Human and Comparative), by Mr. C. S. Tomes, at 8 A.M. on Wednesdays and Saturdays.

The staff of the Dental Hospital of London consists of Consulting Physician: Sir J. Risdon Bennett, M.D. Consulting Surgeon: Mr. Christopher Heath. Consulting Dental Surgeons: Mr. S. Cartwright; Mr. John Tomes. Dental Surgeons: Mr. Hepburn; Mr. R. Woodhouse; Mr. Gregson; Mr. S. J. Hutchinson; Mr. Moon; Mr. A. Hill. Assistant Dental Surgeons: Mr. F. Canton; Mr. A. S. Underwood; Mr. Truman; Mr. Storer Bennett; Mr. G. Parkinson; Mr. C. E. Rogers.

The Saunders Scholarship of £20 *per annum*, and Prizes, are open for competition.

Fee for two years' hospital practice or lectures, each £15 15s. Fees for lectures and practice, £31 10s. Additional fees for a General Hospital for the two years to fulfil the requirements of the curriculum vary from £40 to £50.

Further particulars may be obtained on application to the Dean, Mr. T. F. K. Underwood, at his residence, 11, Bedford Square, W.C.; or at the Hospital.

QUEEN'S COLLEGE, BIRMINGHAM.—The teaching of Dentistry is undertaken by the Queen's College, acting in association with the Birmingham Dental Hospital and the Birmingham Clinical Board, so that students may fully qualify themselves for the dental diploma of the Royal College of Surgeons. The Dental Hospital is situated near the College, and is open daily (Sundays excepted).

Lectures on the special subjects are delivered as follows: Dental Anatomy and Physiology, by Mr. F. R. Batchelor, Thursday, 5 P.M.; Dental Surgery and Pathology, Mr. T. Howkins. Friday, 5 P.M.; Dental Metallurgy, Dr. Tilden, at the Mason College; Dental Mechanics, Mr. C. Sims, Wednesday, 5 P.M., in summer.

The Birmingham Dental Hospital is open daily at 9 A.M. The staff is constituted as follows: Consulting Physician: Dr. James Sawyer; Consulting Surgeon: Mr. Furneaux Jordan; Consulting Dentists: Mr. T. R. English and Mr. Adams Parker; Dental Surgeons: Mr. C. Sims, Mr. H. B. Neale, Mr. F. R. Batchelor, and Mr. F. E. Huxley.

Clinical Demonstrations are given from time to time by the staff on cases of particular interest; also upon the preparing and filling of cavities, and other operations upon the teeth and contiguous structures.

Dresserships in the Extraction-room are held for three months by senior and junior students of the hospital.

The fee for each of the special courses in Queen's College is £4 4s.; for Dental Hospital practice, two years, £14 14s.; one year, £8 8s.; six months, £5 5s.

BRISTOL GENERAL HOSPITAL.—Mr. Parsons gives practical instruction in Dental Surgery, at 9 A.M., on Mondays and Thursdays.

MANCHESTER ROYAL INFIRMARY.—Mr. G. W. Smith gives instructions in the operations of Dental Surgery and the management of the teeth, in the out-patient department, at 9 A.M. on Wednesdays.

UNIVERSITY COLLEGE, LIVERPOOL.—The lecturers in the School of Dental Surgery in connection with this institution are as follows: Dental Surgery, Mr. E. J. M. Phillips; Dental Mechanics, Mr. R. E. Stewart; Dental Anatomy and Physiology, Mr. F. T. Paul; and Dental Metallurgy, Mr. E. A. Councell. Lectures are given once or twice weekly, by arrangement. The fee for each course is £3 3s.; for a second course, £2 2s.

The curriculum in Dental Surgery includes Lectures and Demonstrations on all the subjects required for the Licences in Dental Surgery of the Royal Colleges of Surgeons of London, Edinburgh, and Dublin, and of the Faculty of Physicians and Surgeons of Glasgow.

Practical instruction in Dentistry is given at the Dental Hospital in Mount Pleasant. The fee is £10 10s. for the two years' course.

ANDERSON'S COLLEGE, GLASGOW.—Dental Anatomy (in summer), Dr. D. Taylor, Wednesday and Friday, 8 A.M.; Dental Surgery (in summer), Mr. J. R. Brownlie, Tuesday and Thursday, 8 A.M.; Mechanical Dentistry (winter), Mr. W. S. Woodburn, Thursday, 8 P.M. Dental Practice in Dental Hospital, 8 to 10 A.M. *Fees:* Each course of lectures, £2 2s.; Hospital Practice, two years, as required for the Licence in Dental Surgery, £10 10s.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—Dr. J. C. Woodburn gives a course of Dental Surgery, at the Royal Infirmary, at 3 P.M., on Mondays, Wednesdays, and Saturdays, during the summer. The fee for the course is £2 2s.

[Information respecting the arrangements for teaching dentistry in the medical schools, and the fees, was given in last week's JOURNAL.]

INSTRUCTION IN HOSPITALS.

THE following are some of the General and Special Hospitals in London and the provinces, in which instruction is given, in addition to those mentioned in last week's JOURNAL.

WEST LONDON HOSPITAL.—*Consulting Physician:* Dr. Henry Maudsley. *Consulting Physician-Accoucheur:* Dr. W. O. Priestley. *Consulting-Surgeons:* Mr. Samuel A. Lane, Mr. William Bird, Mr. William F. Teevan. *Physicians:* Dr. G. Goddard Rogers, Dr. J. C. Thorowgood, Dr. D. W. C. Hood. *Physician for Diseases of Women:* Dr. A. Wiltshire. *Surgeons:* Mr. Alfred Cooper, Mr. C. B. Keetley, Mr. F. Swinford Edwards. *Surgeon for Diseases of the Eye:* Mr. B. J. Vernon. *Assistant-Physicians:* Dr. F. D. Drewitt, Dr. W. P. Herringham. *Assistant-Physician for Diseases of Women:* Dr. A. J. Venn. *Assistant-Surgeons:* Mr. W. Bruce Clarke, Mr. A. Boyce Barrow, Mr. C. A. Ballance. *Surgeon-Dentist:* Mr. A. S. Underwood. The hospital contains 100 beds. There are two appointments of House-Surgeons, each tenable for six months; salary £80 *per annum*, without board. A Registrar is appointed, with a salary of £25; and a limited number of Clinical Assistants are received.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.—*Physicians to In-Patients:* Dr. Hope, and Dr. Chapman Grigg. Medical Pupils are received at all times of the year. Pupils enjoy unusual opportunities of seeing Obstetric Complications and Operative Midwifery, on account of the very large number of primiparous cases—upwards of three-fourths of the total admissions. Clinical Instruction is given on the more important cases that present themselves. Certificates of attendance at this hospital are received by all Universities, Colleges, and Licensing Bodies; and a Diploma in Midwifery is granted. Monthly Nurses and Midwives are received for training. *Fees.*—Medical Pupils, from £3 3s. for one week, to £26 5s. for three months, exclusive of board and lodging; Pupil Midwives, £26 5s. for three months; and Pupil Nurses, £10 10s. for two months, both inclusive of board and lodging. For further particulars, application should be made to the Secretary, at the hospital.

HOSPITAL FOR SICK CHILDREN.—*Physicians:* Dr. Dickinson, Dr. Gee, Dr. W. B. Cheadle. *Assistant-Physicians:* Dr. R. J. Lee, Dr. O. Sturges, Dr. Thomas Barlow, Dr. D. B. Lees, Dr. Montague Lubbock. *Surgeons:* Mr. T. Smith, Mr. Howard Marsh, Mr. Edmund Owen, and Mr. J. H. Morgan. *Ophthalmic Surgeon:* Mr. R. Marcus Gunn. *Surgeon-Dentist:* Mr. A. Cartwright. There are 121 beds in the hospital, Great Ormond Street, and 52 beds at the country branch, Highgate. The practice at the hospital is open gratuitously to the pupils of the hospitals and medical schools of London, on conditions which may be ascertained of the Secretary.

SEAMEN'S HOSPITAL, GREENWICH.—*Consulting Physicians:* Dr Robert Barnes, Dr. Richard Quain. *Visiting Physicians:* Dr. John Curnow, Dr. R. E. Carrington. *Consulting Surgeon:* Mr. George Busk. *Visiting Surgeon:* Mr. G. R. Turner. *Medical Officers:* Mr. W. Johnson Smith, and Mr. E. M. Little. The hospital contains 300 beds. Apartments are provided in the house of the surgeon for students and others who may be desirous of studying diseases incidental to tropical climates before entering the services or going abroad. There are resident House-Physicians and House-Surgeons.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, BROMPTON.—*Consulting Physicians:* Dr. C. J. B. Williams, Dr. W. H. Walshe, Dr. Richard Quain, Dr. James E. Pollock. *Consulting Surgeon:* Mr. John Marshall. *Physicians:* Dr. E. Symes Thompson, Dr. C. Theodore Williams, Dr. R. Douglas Powell, Dr. John Tatham, Dr. Reginald E. Thompson, Dr. Frederick Roberts. *Assistant-Physicians:* Dr. T. Henry Green, Dr. J. Mitchell Bruce, Dr. J. Kingston Fowler, Dr. Percy Kidd, Dr. Cecil Y. Biss, Dr. David A. King. *Pathologist and Curator:* Dr. Percy Kidd. *Dental Surgeon:* Mr. Charles J. Noble. There are 331 beds in the two buildings constituting the hospital. The Clinical Practice of this Hospital is open to Students of Medicine and Practitioners. *Fee* for three months, £3 3s.; six months, £5 5s.; perpetual, £10 10s. A course of Clinical Instruction in Auscultation will be given by the Medical Officers. Certificates of attendance on the Medical Practice of this Hospital are recognised by the University of London, the Apothecaries' Society, and the Army and Navy and Indian Boards.

ROYAL LONDON OPHTHALMIC HOSPITAL.—*Consulting Surgeons:* Mr. J. Dixon, Mr. W. Bowman, Mr. J. Hutchinson. *Surgeons:* Mr. Streatfeild, Mr. Hulke, Mr. Lawson, Mr. Couper, Mr. J. E. Adams, Mr. Waren Tay, Mr. Nettleship, Mr. Tweedy, Mr. Gunn. There are 100 beds for in-patients. Operations are performed daily at 10.30 until 12.30. Students are admitted to the Practice, and to Lectures and Demonstrations in the Winter Months. *Fees*, for six months, £3 3s.; perpetual, £5 5s. Students of the Hospital are eligible for the Office of House-Surgeon, and may be appointed Clinical Assistants.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—*Surgeons:* Mr. Power, Monday and Friday; Mr. Rouse, Tuesday and Saturday; Mr. Macnamara, Monday and Thursday; Mr. Cowell, Wednesday and Saturday. The Hospital contains 50 beds. The Practice is open to Students. Operations daily at 2 P.M. Special demonstrations and Lectures will be given. *Fees*, six months, £3 3s.; perpetual, £5 5s. Students of the Charing Cross Hospital are admitted without additional fee.

CENTRAL LONDON THROAT AND EAR HOSPITAL.—*Consulting Surgeon:* Mr. Sydney Jones. *Surgeons:* Dr. Lennox Browne, Monday and Thursday, 2.30 P.M.; Mr. Llewelyn Thomas, Wednesday and Saturday, 2.30 P.M.; Mr. F. Hamilton, Tuesday, 6.30 P.M., and Thursday, 2.30 P.M. *Assistant-Surgeons:* Dr. A. W. Orwin, Friday, 6.30 P.M., and Wednesday, 2.30 P.M.; Dr. J. Dundas Grant, Monday and Saturday, 2.30 P.M. *Dental Surgeon:* Mr. G. Wallis. The Hospital contains accommodation for twenty In-patients, and has an extensive Out-patient Department, which is open to all Medical Practitioners and Students for the purpose of Clinical Demonstration and Instruction during the hours of the Surgeons' visits. Fee for Three Months' attendance, £2 2s.; for Six Months, £3 3s. A Course of Lectures on the Special Diseases treated at this Hospital will be delivered during the winter months by members of the staff. These Lectures will be free to qualified Practitioners and advanced Students of Medicine.

ROYAL ORTHOPÆDIC HOSPITAL.—*Surgeons:* Mr. B. E. Brodhurst, Mr. H. A. Reeves, Mr. C. Read, Mr. W. H. Balkwill. Operations are performed at 2 P.M. on Mondays. The Hospital is open to all legally qualified practitioners; and students are admitted on payment of the following fees: six months, £3 3s.; twelve months, £5 5s.; perpetual, £10 10s.

ROYAL UNITED HOSPITAL, BATH.—*Consulting Physicians:* Dr. Davies and Dr. Coates. *Physicians:* Dr. Goodridge, Dr. Cole, and Dr. Long Fox. *Surgeons:* Mr. Stockwell, Mr. Fowler, Mr. Freeman. *Assistant-Surgeons:* Mr. Green, Mr. Scott, Mr. Ransford. *Medical Officers for Out-Patients:* Dr. Field, Mr. Cowan, Mr. Craddock. *Dental Surgeon:* Mr. Gaine. *Pathological Registrar and Curator:* Mr. H. Culliford Hopkins. The Hospital, which contains 120 beds, is recognised by the Royal College of Surgeons, and is licensed for Dissection. It has a good Library, and an excellent Museum, containing a large number of interesting specimens both in Pathology and Comparative Anatomy. A year spent at the Hospital counts as one out of the four required before qualifying for practice. *Fees* for attending the Hospital Practice: six months, £5 5s.; twelve months, £10 10s. Instruction in Practical Pharmacy, £5 5s. Pupils entering in October can, if desired, be instructed in the subjects required for the First Professional Examination of the Royal College of Physicians, which can be passed during the year spent at the Hospital. The subjects are Chemistry and Chemical Physics, Materia Medica and Pharmacy, Medical Botany, and Osteology. For further particulars, apply to the Registrar and Curator.

LIVERPOOL NORTHERN HOSPITAL.—*Physicians:* Dr. Dickinson, Dr. Caton. *Consulting Surgeons:* Dr. Chalmers, Mr. Manifold, and Mr. H. Lowndes. *Surgeons:* Mr. C. Puzey, Dr. W. M. Campbell, Mr. D. Harrisson. *Dental Surgeon:* Mr. Lloyd. The hospital contains 147 beds. There is a special ward for the treatment of children. Clinical lectures are delivered by the physicians and surgeons during the summer and winter sessions. Clinical clerkships and dresserships are open to all students without additional fee. *Fees.*—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to the medical or surgical practice separately on payment of half the above fees. Practical pharmacy, three months' fee, £2 2s.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—*Physicians:* Dr. Cameron, Dr. Carter, Dr. W. Williams. *Surgeons:* Mr. Hamilton, Mr. Little, Mr. Paul. The hospital contains 200 beds. Clinical lectures are given by the physicians and surgeons during the winter and summer sessions. Clinical clerkships and dresserships are open to all students. There are special wards for accidents and diseases of children; also rooms for a limited number of resident students.

Fees for hospital practice and clinical lectures; Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. The practice of the hospital is recognised by all Examining Bodies.

GENERAL HOSPITAL FOR SICK CHILDREN, PENDLEBURY, MANCHESTER.—*Physicians:* Dr. H. Ashby, Dr. H. R. Hutton. *Surgeon* r Mr. G. A. Wright The hospital contains 140 beds, including 28 fo scarlet fever. The staff visit the wards daily at 10 A.M. Special classes for clinical instruction are held on Saturday afternoons during the winter months. Out-patients are seen daily at Gartside Street, Manchester, at 9 A.M.

NORFOLK AND NORWICH HOSPITAL.—*Physicians:* Dr. Eade, Dr. Bateman, Dr. Taylor. *Surgeons:* Mr. Cadge, Mr. Crosse, Mr. Williams. *Assistant-Surgeons:* Dr. Beverley, Mr. Robinson. The hospital contains 150 beds. One year's attendance is recognised by the examining boards. *Fees:* Physicians' practice, six months, £5 5s.; perpetual, £10 10s.; surgeons' practice, including dressership, three months, £10; six months, £15; one year, £20; two years, £30; perpetual, £40. Pupils, resident and non-resident, are admitted.

NORTH STAFFORDSHIRE INFIRMARY.—*Physicians and Medical Officers:* Dr. J. T. Arlidge, Dr. C. Orton, Mr. Ashwell, Mr. J. G. West. *Surgeons:* Mr. W. H. Folker, Mr. J. Alcock, Mr. W. D. Spanton. The new Infirmary has accommodation for nearly 220 patients, including detached fever wards, children's wards, and special ovarian wards. The attendance of pupils at this Infirmary is recognised by all the examining boards. Particulars as to fees, etc., may be obtained from the secretary, Mr. R. Hordley, Hartshill, Stoke-on-Trent.

NORTHAMPTON GENERAL INFIRMARY.—*Physicians:* Dr. Buszard, Dr. Jones. *Surgeons:* Mr. Kirby Smith, Mr. G. H. Percival. There are 144 beds. Out-pupils are received, and have every opportunity of acquiring a practical knowledge of their profession. Instruction is also given in Anatomy and Materia Medica, and Practical Pharmacy. *Fee:* One year, £25; perpetual, £50.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—*Consulting Physician:* Dr. Topham. *Consulting Surgeon:* Mr. Newnham. *Physicians:* Dr. Millington, Dr. Totherick. *Physician to Out-Patients:* Dr. Malet. *Surgeons:* Mr. Vincent Jackson, Mr. Kough, Mr. F. E. Manby. The hospital contains 210 beds, and is a preparatory school of Medicine and Surgery. The pupils see the whole of the practice of the physicians and surgeons, and are trained in clinical work by the medical and surgical staff. Attendance at this hospital is recognised by all the examining boards. *Fees:* Six months, £6 6s.; twelve months, £10 10s.; perpetual, £21.

COLLECTIVE INVESTIGATION OF DISEASE.

LIST OF RETURNS RECEIVED IN JULY 1883.

I.—PNEUMONIA (33).

C. E. Abbott, Esq.; W. Hamilton Allen, M.B.; Andrew Boutflower, Esq.; Frank W. Cooper, Esq.; G. H. Davis, Esq.; C. Harrison, M.D. (2); Jas. W. Harrison, Esq.; Charles F. Hodson, Esq.; Edwin Jackson, Esq. (4); Boyd Joll, M.B.; Duncan J. Mackenzie, M.D.; W. Mortimer, M.D.; Frederick S. Palmer, M.D.; Ed. B. Reckitt, Esq.; Amand Routh, M.D.; E. F. Scougal, M.B. (5); W. B. Sellers, Esq.; W. D. Sheppard, Esq. (2); Edward Skinner, Esq. (2); Wm. White, M.D. (3); M. M. Williams, Esq.

II.—CHOREA (10).

G. M. Edmond, M.D.; D. McFadyen, Esq.; Robert Gray, Esq. (2); Jas. W. Harrison, Esq.; Sydney Haynes, Esq.; C. E. Oldman, M.D.; Frederick S. Palmer, M.D.; Robert S. Peart, M.D.; W. D. Sheppard, Esq.

III.—RHEUMATISM (19).

H. J. Benham, M.D.; J. Mackenzie Booth, M.D. (2); W. F. Brook, Esq.; G. M. Edmond, M.D.; R. T. Hales, M.D.; Sydney Haynes, Esq.; Edwin Jackson, Esq.; Boyd Joll, M.B.; Elias W. Kerr, M.B.; G. Herbert Lilley, M.D. (4); R. M'Donnell, M.D.; G. S. Mahomed, Esq.; H. M. Morgan, Esq.; Herbert Parsons, Esq.; Edward Skinner, Esq.

IV.—DIPHTHERIA, CLINICAL (9).

Frank W. Cooper, Esq.; Duncan McFadyen, Esq.; T. Maxwell, M.D. (6); J. A. Sharp, Esq.

IVa.—DIPHTHERIA, ETIOLOGICAL (4).

Edw. Casey, M.D.; Frank W. Cooper, Esq.; T. Maxwell, M.D.; J. Mitchell Wilson, M.B.

V.—SYPHILIS, ACQUIRED (1).

Herbert Parsons, Esq.

Total number of cards received during July, 76.

The Committee beg also to acknowledge a sample note-book received from Shirley Deakin, Esq., F.R.C.S., Allahabad.

LIST OF RETURNS RECEIVED IN AUGUST 1883.

I.—PNEUMONIA (29).

J. E. Adkins, Esq.; C. A. Cattle, M.D.; T. Eyton-Jones, M.D. (3); A. Eyton-Lloyd, Esq. (2); J. Farrant Fry, Esq. (3); T. W. H. Garstang, Esq.; A. R. Graham, M.B.; S. Griffith, M.D.; James Holmes, M.D.; W. Jones-Morris, Esq.; F. W. Jordan, Esq.; Duncan J. Mackenzie, M.D.; L. W. Marshall, M.D.; H. V. Palin, M.B.; D. M. Williams, Esq. (5); Edw. Williams, M.D.; E. Williams, Esq.; Owen Williams, Esq. (3).

II.—CHOREA (15).

H. M. Barker, M.B.; C. H. Cattle, M.D.; James Crawford, Esq.; T. W. H. Garstang, Esq.; S. Griffith, M.D.; H. Handford, M.D.; James Holmes, M.D.; W. Jones-Morris, Esq.; W. Vawdrey Lush, M.D.; C. Meeres, Esq.; C. H. Milburn, M.B.; M. D. O'Connell, M.D.; John Roberts, M.D.; E. West Symes, M.D.; J. W. Warburton, Esq.

III.—RHEUMATISM (19).

H. M. Barker, M.B.; C. Boyce, M.B.; E. MacDowel Cosgrave, M.D. (4); A. Eyton-Lloyd, Esq. (2); A. P. Fiddian, M.B. (3); W. E. Green, Esq.; James Holmes, M.D.; Duncan J. Mackenzie, M.D.; G. Mahomed, Esq.; S. E. Maunsell, Surgeon-Major A.M.D. (2); C. H. Milburn, M.B.; John Roberts, M.D.

IV.—DIPHTHERIA, CLINICAL (13).

G. Browning, Esq.; J. Farrant Fry, Esq.; W. E. Green, Esq. (3); W. Hammond, Esq. (2); W. Vawdrey Lush, M.D.; C Meeres, Esq.; James Neal, M.D.; A. G. Ward, Esq. (3).

IVa.—DIPHTHERIA, ETIOLOGICAL (5).

W. Hammond, Esq. (2); C. Meeres, Esq.; James Neal, M.D. (2).

V.—SYPHILIS, ACQUIRED (1).

J. Farrant Fry, Esq.

Total number of cards received during August, 82.

The Committee beg also to acknowledge two communications from Surgeon-Major Maunsell, relative to epidemics of pneumonia in the Punjab.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Council (Committee of Council) will be held on Wednesday, October 17th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

November 9th, 1882.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

A card and memorandum on Acute Gout is now ready, and may be had by application as above.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee
161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

MIDLAND BRANCH.—A meeting will be held at the New Bath Hotel, Matlock, on Thursday, September 27th, 1883. Members having papers to read or matter to discuss will please communicate with Mr. SHARP, Honorary Local Secretary, 61, Osmaston Street, Derby.

NORTH OF ENGLAND BRANCH.—The autumnal meeting of this Branch will be held at West Hartlepool on Friday, September 28th, 1883. Gentlemen intending to read papers, show specimens, etc., are requested to communicate as soon as possible with the Secretary.—DAVID DRUMMOND, M.D., Honorary Secretary, 7, Saville Place, Newcastle-on-Tyne.—September 1st, 1883.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Station Hotel, Hayward's Heath, on Wednesday, September 19th, at 3.30 P.M. Dinner at 5.30 P.M. Charge, 6s., exclusive of wine. Dr. Newth, of Hayward's Heath, will preside. The chairman proposes to invite a discussion on "The Relation between Consulting Physicians and General Practitioners, with special reference to seeing Patients, Payment of Fees, and Abuse of Prescriptions." Mr. G. Abbott will read a short paper on the Treatment of Acute Nasal Catarrh. Dr. Ewart: A Case of Hypertrophy of the Nose, with Remarks on the Treatment. Dr. Lee will read a paper. Dr. Moore: Notes of a Case of Spinal Apoplexy. Mr. Hodgson: On Some Forms of Nervous Deafness.—T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton.—September 9th, 1883.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING of this district was held on September 7th, 1883, at St. Bartholomew's Hospital, Chatham, Mr. F. Spurrell in the chair.

Next Meeting.—It was resolved unanimously that the next meeting be held at Gravesend in November, and that Dr. Pinching, senior, be requested to take the chair.

The Honorary Secretary.—The resignation of Mr. A. H. B. Hallowes, honorary secretary of the district, was accepted, and the meeting, whilst regretting his resignation, desired to place on record its high appreciation of his valuable services, and of the zeal and unfailing courtesy with which he has discharged the duties of his office. Mr. A. W. Nankivell, St. Bartholomew's Hospital, Chatham, was elected honorary secretary to the West Kent District in place of Mr. Hallowes.

SOUTH-EASTERN BRANCH: EAST AND WEST KENT DISTRICTS.

A CONJOINT meeting of the East and West Kent Districts of the above Branch was held on Friday, September 7th, 1883, at St. Bartholomew's Hospital, Chatham, Brigade-Surgeon Watts, senior medical officer, Station Hospital, Chatham, in the chair.

Next Conjoint Meeting.—It was proposed by Mr. RIGDEN, and agreed to unanimously, that a conjoint meeting of the two districts should be held at Canterbury in September or October, 1884. The honorary secretaries of the districts were instructed to confer as to the exact date.

Papers.—The following papers were read:

1. Dr. Allchin read a paper on the Physical Basis of Disease. Some discussion took place.
2. Mr. H. L. Bernays read notes of a case of Traumatic Tetanus which recovered. The treatment consisted mainly in the free administration of stimulants.
3. Mr. C. Firth brought before the meeting a report of two cases of Impermeable Structure of the Urethra, in which tapping of the bladder above the pubes and perineal section was performed. Want of time prevented an adequate discussion.

Dinner.—Twenty-three members and visitors subsequently dined at the Bull Hotel, Rochester.

CORRESPONDENCE.

CHOLERA IN EGYPT.

SIR,—You were kind enough to publish a report of mine dated July 28th on the cholera epidemic in Egypt. In that report I stated that "in my knowledge no cases of cholera had occurred in Egypt since 1866, with the exception of two choleraic cases in the summer of 1881, one of which nearly proved fatal."

When I wrote that, I depended entirely on memory, having lost all records and documents by the events of last year. Since then I have been enabled to recall to memory at least three or four cases (one of which proved fatal) which presented all the symptoms of cholera, and were pronounced by me at the time to be "cholera." These cases to which I refer came under my own observation in the summers of 1872, 1873, 1881. I find on inquiry that almost all my colleagues have had similar cases, extending over many years, some of them ending fatally. Not attaching any importance to these sporadic cases, and not believing that true cholera could exist without importation from India, they had escaped their memory, or been thought little about. As to the value to be attached to them, I offer no opinion at present. I simply state the facts as a correction of my report, but such facts seem significant, and may have a value with regard to the origin of the present epidemic.—I am, etc.,

Alexandria, August 28th, 1883. J. MACKIE.

THE POLITICAL POWERLESSNESS OF THE MEDICAL PROFESSION.

SIR,—I am glad to see many indications that Dr. Balthazar Foster's address is rousing our profession from its political lethargy, and though it must, perforce, be a very long time before we can hope to wield such an influence as the lawyers do, if indeed we ever can, yet I do not despair of, ere long, accomplishing something towards the attainment of equal rights with other labourers in the vineyard. Will it be said we have equal rights now? This cannot be true while our freedom is fettered by the mixture of a quasi-philanthropy with our right to the fruits of our labour. The pressure of a public opinion which is always against us, compels us to a large amount of gratuitous work, which acts powerfully to the prejudice of our remuneration for work that has no claim to be considered gratuitous. This reaches its climax in the salaries of appointments, none of which pay handsomely, few reasonably, and many scandalously unreasonably.

But I hope we have entered on a new era. With the reforms in progress, we ought to be able to make an impression on public opinion.

I hope Mr. Reginald Harrison's suggestion in the JOURNAL of August 11th will commend itself to our leaders, and be translated into action.

I hope Surgeon-Major Alcock's proposal, in the same number, will be accepted with warmth, and am disposed to add that, if the profession be not willing to do that or some such thing, it is not worth a man's enthusiasm. They who will not help themselves are not worth helping.

I would go further if necessary, and subscribe towards an income for a fit man who might not have the wherewith to live without it.

I thank Mr. Alcock for his letter. I hope our regenerated council will look to it; and I close this catalogue of hopes with the offer of my half-guinea, or as much more as may be needed for so worthy a purpose.—I am, etc., JAMES MILWARD, M.D.

Cardiff.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

PORT SANITARY APPOINTMENTS.

THE Local Government Board have issued a series of important orders relating to the appointment, tenure of office, duties and salaries of medical officers of health and inspectors of nuisances appointed by port sanitary authorities. The order dealing with medical officers of health, whose salaries are partly repaid from the parliamentary grant, contains some considerable additions and amendments to former orders. It prescribes the qualification of health officers, and makes provision for the filling up of vacancies, and the renewal of appointments. Every applicant must be registered under the Medical Act of 1858, and must be qualified to practise both medicine and surgery. A saving clause is introduced by which the Local Government Board may, upon the application of the port authority, sanction the appointment of any officer if he is duly registered and qualified to practise either medicine or surgery. In the event of an appointment being renewed, the port authority may dispense with the usual advertisement, and it will be considered sufficient if the authority at a meeting held after notice given at one of their two ordinary meetings, next preceding such meeting, pass a resolution renewing the appointment on the expiration of the period for which it was made. Such resolution must be sanctioned by the Local Government Board. The order affecting medical officers of health, no portion of whose salary is repaid by the Government, contains the same provision as to qualification, and requires all officers to notify the outbreak of any infectious or epidemic disease to the

central board, and to prepare an annual report on their proceedings under the Public Health Act. The general duties required of port medical officers of health are very similar to those required of urban and rural officers, the only difference being that their functions have reference to ships and crews only. The Local Government Board have now exercised to the full the powers granted to them by section 191 of the Public Health Act to prescribe the qualification and duties of medical officers of health other than those whose salaries they repay, though it is at least doubtful whether the Board's orders in this respect have been properly complied with. With respect to inspectors of nuisances, a portion of whose salary is repaid out of the Government grant, the order prescribes the conditions of appointment, tenure of office, salaries, and duties. It contains the same provision as regards renewal of appointments, and is contained in the order relating to medical officers of health. The orders take effect as from August 1st, 1883, and relate to all officers appointed or re-appointed on or after that date.

DISQUALIFICATION BY PARTNERSHIP.

OUR attention was recently directed by a correspondent to the case of a medical man, the legality of whose continuance as alderman of a borough was questioned on the ground that his partner was the medical officer of health of the corporation. As it seemed desirable to settle the point thus raised, we have made inquiry of an authoritative source, but are unable to learn of any case in which a decision has been given on the question. The Act governing the qualification of councillors or aldermen is the 5 and 6 William IV, cap. 76, section 28 of which runs as follows: "No person shall be qualified to be elected, or to be a councillor or an alderman of any such borough, during such time as he shall hold any office or place of profit, other than that of mayor, in the gift or disposal of the council of such borough, or during such time as he shall have directly or indirectly, by himself or his partner, any share or interest in any contract or employment with, by, or on behalf of such council." The Local Government Board, who have been approached from the other side of the question—viz., as to the effect of the Act upon the appointment of a medical officer of health whose partner was an alderman, have expressed their opinion that "the enactment quoted does not disqualify the partner of the alderman for the office of medical officer of health, whatever effect it may have upon the latter's right to continue to act as the alderman in the event of his partner's appointment as medical officer and his having any pecuniary interest in that appointment."

It would appear from these last words, that everything must depend upon the nature of the monetary arrangements of the partnership. If, as is often the case, the emoluments of appointments are taken exclusively by the partner who performs the duties of such appointments, the Act would not apply; otherwise, when all the receipts of the partnership are put into a joint purse, it would seem that it has operation.

THE POOR-LAW MEDICAL SERVICE.

SIR,—I trust that the able letter of Surgeon-Major Pratt, which appeared in the JOURNAL of August 11th, will not be overlooked, and that the question of the improvement of the Status of the Poor-Law Medical Service will be taken up by the British Medical Association. There must be many members of the Association who hold Poor-Law appointments, and I would earnestly appeal to them to combine with a view to enlisting the powerful aid of the Association on our behalf.—Yours, etc., M. B.

PAYMENT FOR NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—Will you kindly answer the following question? A local board gave notice that they would give 2s. 6d. for every certificate of infectious disease sent to their medical officer of health by the practitioners in the neighbourhood. I accordingly, in the course of time, sent twenty-five, including measles, scarlatina, typhoid, and probably something else. However, they send me a cheque for seven, stating that they do not pay for certificates for measles. Now, do you think I could recover the remainder of my bill in the County Court? All other local boards that I know, pay for measles being pointed out.—Yours very truly, M.R.C.P.

*** Everything would depend upon the wording of the notice sent out by the local board. If they did not define "infectious disease," they were certainly unwise; but we should doubt the propriety of taking the matter into the County Court. As a rule, payment for voluntary notification of infectious cases is for certain specified diseases only.

SUPERINTENDENTS OF WORKHOUSE INFIRMARIES.

SIR,—I should esteem it a favour if you will furnish me with the names of any union infirmaries which have a medical superintendent and matron, but without any other official corresponding to the master of a workhouse.—I remain, sir, yours faithfully, G. H.

*** All the metropolitan sick asylum hospitals, founded under the provisions of the Metropolitan Poor Act (1867), are governed by a medical superintendent, who is aided by a student and a matron, but these sub-officers are under the control of the medical superintendent. We do not know of any provincial cities which have made any similar provision.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ST. MARYLEBONE.—During 1881, this district was visited with a general epidemic of small-pox and a localised outbreak of typhus fever. Small-pox began to assume serious proportions in February, reached its maximum in May, and declined at the close of the year; the total number of cases officially reported amounting to 219. The outbreak of typhus, which spread rapidly from person to person over a small area, has been already dealt with from the monthly reports issued by the health-officer. The number of persons reported was 54; but it is certain, Mr. Wynter Blyth remarks, that in the early part of the epidemic many cases of typhus were neither diagnosed nor reported. The other statistics call for little comment. The probable birth- and death-rates are returned at 20.0 and 29.0 per 1,000 respectively. An useful and detailed account is given of the mode adopted for the removal of fever-cases to hospital, and of the provision for securing such removal. Mr. Blyth's heart is evidently in his chemical work as food-analyst. He gives some interesting details as to the samples which he analysed during the year, and describes certain original investigations which he undertook in his laboratory.

The report for 1882 contains a special account of a systematic investigation into the condition of the milk, the butter, the bread, and the spirituous liquors sold in the parish. Seven samples of milk were collected one day, six of which were found to be adulterated with water. The bread-samples were scarcely so satisfactory as those of milk; but an examination of the malt liquors failed to detect, notwithstanding that the hop was both scarce and dear, anything save the ordinary constituents of fermented malt and hop-extract. The report, like previous ones, deals with a variety of subjects, the meteological summary of the year being especially noteworthy. The total deaths due to the parish were 3,237, representing a death-rate of 20.8 per 1,000. Fortunately, there was but little epidemic prevalence of infectious disease, the most serious malady being diphtheria, which, during the past year, visited not only St. Marylebone, but the whole metropolis.

ST. PANCRAS.—Not the least interesting portion of Mr. Shirley Murphy's excellent report is that which he devotes to an account of the hospital provision made in the parish for small-pox patients, in view of the epidemic of 1881. The vestry wisely decided not to contract with the Metropolitan Asylums Board for the treatment of the cases, and erected at Finchley a temporary hospital of their own. This consisted of a central kitchen, made of brick and iron, a wooden shed for laundry purposes, and canvas tents for patients and the resident staff. The greatest care was taken in the management of the institution to prevent it being a source of danger to the district in which it was placed; and it is satisfactory to state that there is not the slightest evidence that the hospital gave rise to a single case of small-pox at Finchley. The staff, who were all revaccinated before entering on their duties, escaped without exception, while a number of workpeople, who were engaged in erecting the kitchen in close proximity to the tents, also escaped; a result doubtless due to the fact that the opportunity for revaccination was freely offered and accepted by them. Mr. Murphy has every reason to be satisfied with the result obtained by treating cases of small-pox under canvas during the months the hospital was occupied. As many as 134 patients were treated in it, with a mortality of but 9: many of the cases were very severe; and it is worthy of especial note, that not a single case of erysipelas occurred, and that pulmonary complications were unfrequent. During the year, 547 cases of small-pox were reported to the vestry, 376 of which were removed to hospital. That the removal of these cases from their homes was the means of limiting the further extension of the epidemic there cannot be the least doubt. As evidence of what might have happened in many houses if the infectious sick had not been early removed, a case is instanced by Mr. Murphy, where a patient suffering from small-pox was compelled to remain in his house during the short period when there was no hospital accommodation for the

parishioners; in this house, eight other persons were subsequently attacked, one of whom died. There were altogether 84 deaths from small-pox during 1881, and 58 of those who died were removed to hospital before their death, leaving 26 who died in their own homes. This mortality represented 16.7 per 1,000 of the total deaths in St. Pancras, against a rate for the whole of London of 29.2. The total deaths attributed to the seven zymotic diseases were 914, giving a rate of 3.8 per 1,000, the highest recorded in any year since 1871. Scarlet fever was somewhat prevalent, and caused 180 deaths, measles accounting for 172, and diarrhœa for 211; 195 of these latter being children under one year of age. Diphtheria destroyed 70 lives, being twice as fatal as in the previous year. The desirability of isolating cases of this infectious disorder in separate wards has been discussed in these columns (see BRITISH MEDICAL JOURNAL, February 2nd, 1882), and, in 1881, was the subject of special inquiry in St. Pancras. A circular was addressed to every metropolitan health-officer, with a view of ascertaining whether persons suffering from this disorder should not be placed in a separate ward; and, of twenty-three replies, twenty-one condemned the practice. The vestry, however, wisely decided to send cases of diphtheria to the London Fever Hospital for treatment. There was but one death from typhus; but enteric fever caused 66 deaths. Pulmonary diseases other than phthisis were fatal to 919 persons, and tubercular diseases to 607. From all causes, the total deaths registered in St. Pancras amounted to 5,211, giving a death-rate of 22.05; but, deducting the deaths of non-parishioners which happened in public institutions, this rate is reduced to 21.16. An enormous amount of sanitary work was performed during the year under the auspices of Mr. Murphy, who refers concisely to the progress of sanitation in his district. He regrets, however, to report that St. Pancras is still unprovided with a public mortuary, and urges upon his authority the urgent necessity of their providing their large and thickly populated district with this important sanitary adjunct.

ST. GEORGE, HANOVER SQUARE.—Dr. Corfield has the satisfaction of reporting that, with one exception, the death-rate for 1881 was the lowest on record. The corrected number of deaths due to the parish was 1,514, with a death-rate of 16.91 per 1,000, but as the report is made up to the close of the parochial year, Dr. Corfield's statistics are difficult of comparison with other districts. The mortality of children under one year of age was 134 to every 1,000 births, a rate surpassed only by Bristol and Brighton, and equalled by Plymouth. In persons aged 60 years and upwards there were 582 deaths, representing 30.12 per cent. of the total mortality. There was a considerable diminution in the fatality from zymotic diseases, the total deaths, 136, being less than the number reported in either of the ten preceding years. The district was not free from the small-pox epidemic which prevailed throughout the metropolis, and there were 9 deaths attributed to the disease in St. George's. Scarlet fever, which was so prevalent during the previous year, was fatal to 18 persons, measles being credited with 21 deaths, diarrhœa with 33, and diphtheria with 14. Of the sanitary condition of his district, Dr. Corfield has little to say, and generally the report is a somewhat colourless one.

NEWINGTON.—Dr. Iliff will doubtless be the first to lament the deplorable delay in the appearance of his report for 1881. But while it takes the form of an appendix to the record of the whole work of the parish, much of the delay seems unavoidable. The death-rate during 1881 was 22.6 per 1,000, being higher by 1.4 than the rate for all London. Small-pox was rife during the first half of the year, and of some 232 cases that came under notice, 19 terminated fatally. In April an attempt was made to erect a temporary shed on the site of Horsemonger Lane Gaol, for the treatment of these cases, but the efforts of the Vestry were frustrated by the unfavourable decision of the Surrey magistrates. From zymotic causes there were 471 deaths registered, measles and small-pox showing an increase, and scarlet-fever, whooping-cough, and diarrhœa, a decrease. Dr. Iliffe complains of the overcrowded condition of his district, and opines that the time is fast approaching when domestic legislation must no longer be neglected, and when the evils of an overcrowded city must no longer be passed by as a subject inconvenient to consider. Comment is also made in the report on the condition of the water supplied from the Thames, which, with all its faults, Dr. Iliff regards as "capable of great healthful improvement by efficient filtration after storage-settlement." There are also details of the current sanitary work carried on in the district; special mention being made of the value of the depôt in securing the regular removal of refuse, etc. Nothing can, however, justify the language in which the Vestry-clerk permits himself to indulge, in the report preliminary to Dr. Iliff's, with regard to the action of the Vestry and its members on the question of this depôt and the removal of manure.

LIVERPOOL.—The persistent and fatal prevalence of typhus in Liverpool occasioned much anxiety during 1881. No fewer than 143 deaths were registered from this disease in the course of the year, a mortality which reflects very unfavourably on the character of the city. Dr. Taylor observes that the question may naturally be asked, why does typhus find a home in Liverpool? Are not its causes well known, and can they not be removed? He points out, however, that "there is a large and growing class which appears to be beyond the pale of enlightenment; they are left to themselves and forgotten, but disease fostered by their habits is apt to break through the boundaries of the unhealthy districts, and spread its lethal shadow far and wide. The public should bear in mind that, as the strength of a chain is its weakest link, so the health of a community is that of the weakest member; and, as long as unhealthy areas are allowed to continue, so long will the public health suffer." Some typical illustrations are given of the sanitary circumstances of the greater number of cases that came under notice. In one house where a death occurred, the tenant was a gasfitter, who earned plenty of money, but spent it in drink; his wife and children were poorly clad and ill nourished, the deceased being one of his daughters. The house was stoved on the removal of the body, and the bedding disinfected, a portion, however, being so filthy, that it had to be destroyed. The family gradually sickened, and, on April 5th, the wife and two children were taken to the hospital suffering from typhus, where all three subsequently died. The man was too ill for removal, and died on the following day. In another case, where four deaths happened, the people were intemperate and the house in a filthy condition, a greater portion of the bedding having to be destroyed on account of its foul state. These illustrations might be indefinitely extended, but these should be sufficient to arouse the better feelings of the inhabitants to the necessity of lifting their weaker brethren from the wretched condition into which they have fallen. The total deaths attributed to fever amounted to 292, representing a rate of 5 per 1,000 of population. The mortality from typhoid was much below the average. Scarlatina occasioned 435 deaths, measles 756, diarrhœa 508 and whooping-cough 402. Two cases of small-pox were reported in January, but the disease did not spread until six cases were landed in the city from shipboard. Zymotic diseases were, in all, fatal to 2,816 persons, representing 19.1 per cent. of the whole mortality registered in the city, while the death-rate from all causes was 26.6 per 1,000, the average for the past ten years being 28.5. Dr. Taylor gives some interesting details of the progress of sanitary work in the city, and he states that £5,000 has been voted by the town council for the purchase and demolition of unsanitary property. During the year, no fewer than 1,283 persons were removed to the infectious hospital; and the total number of articles disinfected at the apparatus amounted to 28,991.

NEWCASTLE-ON-TYNE.—Mr. Armstrong's excellent reports on this borough are always conspicuous for the elaborate details they contain of the prevalence of zymotic disease, and the report for 1881 is no exception to the rule. From the miasmatic order of these diseases, there were 447 deaths registered, diarrhœa accounting for 149, whooping-cough for 70, scarlet fever for 52, enteric fever for 38, and measles for 35. There were ten deaths from small-pox out of 80 cases recognised. The first four cases occurred in March, and the outbreak seems to have been spread by neglect of vaccination or revaccination, and by direct contagion from the infected to the non-infected. In two houses, where the diseases prevailed, the excuse of the parents for neglecting the vaccination of their children was that they were "too delicate." In one of these, the result of this mistaken kindness was that the child contracted a severe form of small-pox and died. Cases of typhus appeared during the first half of the year on three different occasions and in separate localities, and during the outbreak twenty persons succumbed to the disease. Destitution as usual was amongst the predisposing causes of the outbreak, but overcrowding does not seem to have been to any marked degree a cause, either direct or indirect. A house-to-house inspection of one portion of the district revealed much squalor and various sanitary defects, but no overcrowding in the legal acceptation of the word. Enteric fever was more prevalent in 1881 than in the previous year, but Mr. Armstrong could find no special cause for the extended prevalence of the disease. Although in many instances the occurrence of the fever in particular households was associated with special defects of domestic sanitary arrangement

the preponderance of cases in certain localities indicated a general rather than a purely local cause. Mr. Armstrong is inclined to believe that the general causes of enteric fever in Newcastle are the drainage and privy midden system. Of the 169 cases of scarlet fever which came to notice, 52 proved fatal, against 141 in the preceding year. From diarrhœa there were 149 deaths, against 172 in 1880; the fatal cases during the autumn quarter being 85 and 133 respectively. Mr. Armstrong thinks that the heavy rainfall and low temperature of the autumn of 1881 account for the lessened mortality. To diseases of the respiratory organs 474 persons succumbed, and to local diseases 1,300. The death-rate from all causes was 21.7 per 1,000, which is the lowest ever recorded in the borough. The rate of infantile mortality also participated in this decline, the deaths of children dying before the completion of their first year being 820, as compared with 927, 784, and 888, respectively, in 1880, 1879, and 1878. The fever hospital admitted 187 patients, and was of considerable utility, but it seems in need of extension. Mr. Armstrong gives an account of the sanitary work carried on in the borough, and brings into special prominence his examination of building plans, a large number of which were rejected.

LEICESTER.—During 1881, there was a considerable reduction in the mortality from diarrhœa in this borough, the deaths being 193, against 398 in 1880, and 269, the annual average in the twelve years 1869-1880. Of the 193 fatal cases registered, 169 were infants under one year, 17 were children between one and two years, and only 7 were over five years of age. There is little doubt that, as Dr. Johnston observes, the diminution in the fatality of this disease was owing to the cool and moist character of the weather that prevailed in the summer quarter of 1881. The diminution in the total deaths from the principal zymotics, is accounted for in some measure by the reduced fatality from diarrhœa and measles. In 1881 there were 548 deaths from the seven principal zymotic diseases, against 779 for the previous year, representing an annual death-rate of 4.45 per 1000 of the estimated population, and equal to a percentage of 20.6 of the corrected total mortality. Measles were fatal to 7 persons, while in the previous year this disease was credited with 166 deaths. There was also a diminution in the mortality from fever and from diphtheria, but whooping-cough and scarlet fever were unusually prevalent and fatal. In all, there were 184 deaths registered from scarlet fever, 155 of which happened in the borough and 29 in the hospital. Bearing in mind that the hospital was extensively used during the year, this increased mortality is far from satisfactory, and seems at first sight difficult of explanation. The cause, however, is not far to seek; for, during the year, no fewer than 1,045 houses were certified to have been visited with the disease, and in only 388 instances would the parents consent to the removal of their children to the hospital. Thus, there were 657 houses left, in which and from which the disease was allowed, practically speaking, to run its course unimpeded. The great majority of cases occurred in houses of the artisan class, having from two to six rooms; and the scanty space which such dwellings can afford, together with the inability of the parents to provide a separate nurse for the sick, render it quite impossible either to properly isolate the sick, or to prevent the extension of the disease. Whooping-cough occupies the third position in order of fatality, having caused 122 deaths. This number exceeds the deaths from this cause in 1880 by 95, and is, both actually and relatively to population, larger than any recorded in the previous thirteen years. Sixty-one of the deaths were those of children under one year of age. From all causes, the total number of deaths registered in the borough amounted to 2,677, with a death-rate of 21.56 per 1000, which was lower by 3.14 than that recorded in 1880. To constitutional diseases 332 deaths are referred, 205 being caused by phthisis. Heart-disease was fatal to 148 persons, and diseases of the respiratory organs to 435. On the whole, the report for 1881 comes closely up to the usual standard of interest of Dr. Johnston's reports.

SALFORD.—Dr. Tatham has a pleasant task in reporting that during 1881, the state of the public health in Salford was more satisfactory than in any previous year, with respect to which reliable statistics are available. Not only was the general rate of mortality considerably lower than in any previous year, but there was also an encouraging diminution in the prevalence and fatality of the zymotic group of diseases. While congratulating his authority upon this improvement in the death-rate of the borough, Dr. Tatham points out that in other districts similarly circumstanced, a like reduction has taken place; and with this in view, it would be absurd to claim, as the result of improved sanitary condition exclusively, the considerable reduction in the death-rate, which is probably, to a great extent, due to the favourable meteorological conditions which prevailed during 1881. From all causes, there were 4,000 deaths registered, representing a death-rate of 22.5 per 1,000, against a mean rate of 28.0 in the previous six years. Zymotic diseases accounted for 597 deaths, 367 being attributed to the miasmatic group. After an almost complete immunity from small-pox, extending over four years, the borough was again threatened with an epidemic in the last quarter of the year. Sixteen cases were reported in quick succession, the first of which was imported from outside; and although the disease proved excessively fatal at the time, no fewer than 6 deaths being registered, the efforts of Dr. Tatham were successful in staying the spread of the disorder. Measles destroyed only 36 lives, against 134 in 1880, and 139 in the preceding year. The borough also enjoyed an unusual immunity from scarlet fever, which was fatal in 84 instances, as compared with 279 and 203 in the years 1880 and 1879 respectively. To whooping-cough 160 deaths were referred, the corrected average for the ten years, 1871-80, being 164. Diphtheria proved fatal in 20 cases, and various forms of fever in 58; typhus accounting for 7, and enteric for 42. Dr. Tatham notes with satisfaction the cessation of epidemic of typhus, which destroyed so many lives in the previous year. Of the total deaths, no fewer than 1,122 occurred in infants under twelve months, and the health-officer thinks there is little ground for hoping that in 1881 infantile neglect formed a less important factor as a cause of mortality than in former years. In previous reports, Dr. Tatham has persistently advocated the establishment of day nurseries, and in his present report he states that one of these places has now been established by the members of the Manchester and Salford Sanitary Association. The deaths from diarrhœal diseases were much below the average, for while during 1881 but 164 were recorded, the average number in the ten years, 1871-80, was 349. A carefully prepared diagram, which accompanies the report, indicates very clearly the relation of certain meteorological conditions to the fatality of this class of disease. There is also a special account of the influence of an atmosphere charged with smoke upon the mortality from lung-disease. In Salford 598 of every 100,000 of population succumb from this cause, while, in the neighbouring districts of Mid-Cheshire, where the conditions of life are not superior to those of Salford, the rate is only 334. Dr. Tatham thinks the devotion of the whole time of the smoke-inspector to his work would be productive of good results, and urges upon his authority the adoption of such a course.

MIDDLESEX AND HERTFORDSHIRE.—This important combination of sanitary authorities is fortunate in being served by so capable an officer of health as Dr. Saunders. In the report for 1881, much attention is devoted to the sanitary condition of the district, and Dr. Saunders again comments on the great importance of establishing hospitals for the isolation of cases of infectious disease. He refers in severe terms to the uncleanly habits and surroundings of many of the lower classes, and observes that, with all the vaunted excellence of our educational system, it is no less surprising than disappointing that nothing has been done to teach children some of the elementary principles of cleanliness and decency. The circumstances, as quoted by Dr. Saunders, are, indeed, distressing; and these, together with the inherent gossiping habits and recklessness of neighbours, the outcome of ignorance and curiosity, should be a sufficient reason for the provision of that isolation accommodation which Dr. Saunders has repeatedly advised. The difficulty of providing suitable accommodation in emergencies was felt in several cases during the past year; and, from the want of an infectious hospital, serious consequences have arisen. Referring to the notification of infectious diseases, Dr. Saunders thinks that the imposition on the medical attendant of the duty of reporting cases is an unjustifiable interference with the confidence which has always existed between the public and the medical profession. The duty of reporting should, he observes, devolve on the householder or person in charge of the patient, the nature of the disease having been certified to him by the medical attendant. The adoption of by-laws by the rural authorities has for the most part worked extremely well; but it is necessary, as Dr. Saunders points out, to watch closely that the requirements of modern house-drainage are intelligently carried out; for, if this be not done, the source of danger from a drain-pipe is only transferred from one place to another, and a false security is given by an altogether unreliable contrivance. Particular reference is made to the size and situation of ventilating pipes. Dr. Saunders has found these of all sizes, from half an inch to four inches, and variously placed, not unfrequently under windows, but, on one occasion, ingeniously turned over the water-cistern. In addition to a decline in the general mortality (which is the lowest ever recorded by Dr. Saunders), there was an encouraging decrease of the infan-

tile death-rate, which fell from 30.4 per cent. to 20.6. The diminished mortality from summer diarrhœa largely accounts for this, and it is held, not improperly, as a satisfactory indication of the cleanliness of the district. Having regard to the conditions under which so large a proportion of our labouring population dwells, and especially in a district like this, where female labour is so much employed, it is only surprising, Dr. Saunders thinks, that a greater number of infants do not succumb to the influence of dirt, damp, and disease. A noticeable feature, also, of the mortality returns is the large number of deaths from cancer, these being in excess of former years—viz., 68 in number, against 44, the mean of the preceding six years. This increased mortality has been reported and commented upon by health-officers in other parts of the country; and it would be interesting if Dr. Saunders could include in his next report the result of any inquiries he may have made into the subject. Estimating the population of the district at 95,591 persons, birth- and death-rates of 31.0 and 14.6 per 1,000 respectively are returned. Zymotic disease was more or less prevalent throughout the combined district, and caused 7.3 per cent. of the whole mortality.

A noteworthy feature of the report for 1882 is the summary which it contains of Dr. Thorne's report on the Use and Influence of Hospitals. Dr. Saunders urges upon the various authorities the importance of at once securing provision for the isolation of cases of infectious disease. He regrets that no progress has of late been made in this direction; and he points out that this inaction delays that period of education which is necessary for people to become accustomed to anything like an innovation; for until every authority has its appropriate place for isolating infectious sick, the fashion of removing patients from their homes will be postponed. The general death-rate represented 15.6 per 1,000, and that from zymotic causes 1.6 or 10.3 per cent. of the whole mortality. At Barnet, there was an outbreak of small-pox, which at one time threatened to assume alarming proportions. Every effort was made to stamp out the disease, but it was not got under until 20 persons had been attacked, and five deaths had occurred. Small-pox also appeared at Hemel Hempstead, the sufferers being workers at a paper-mill. Widely-prevailing epidemics of measles and whooping-cough accounted for 17 deaths in the rural district of Berkhampstead, and at Hendon the prevalence of diphtheria caused some anxiety. Dr. Saunders speaks in grateful terms of the increased willingness, if not desire, on the part of managers, to close the parochial schools on the outbreak of infectious disease. He has also a word to say in favour of the sanitary aid societies, whose successful efforts elsewhere render their establishment in these districts very desirable. The general condition of the combined area continues to improve, but nuisances from defective refuse-removal, which are removed only to recur, still prevail. The present report, like its predecessors, leaves little to be desired, except, perhaps, a collective analysis of the zymotic mortality.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE BOARD OF SUPERINTENDENCE OF DUBLIN HOSPITALS.

THE twenty-fifth report of the Board of Superintendence of the Dublin hospitals was recently presented to Parliament. The chairman, Viscount Powerscourt, was anxious that the report should be published during the session of Parliament in which the inspections were made, instead of in the following year, as was formerly the practice. No small difficulty was experienced in obtaining all the information in time, but the earlier publication will, no doubt, make it a much more useful document.

The superintendence of the board extends to nine hospitals in the city of Dublin, which receive Parliamentary grants. Some of these are general hospitals, and some are special. The hospitals have all been visited, and carefully inspected, during the year; and the report enters fully into the state of the buildings, the extent of the accommodation, the management, the condition of the wards, and the attention bestowed upon the patients. Indeed, the superintendence of the board extends to the whole range of hospital administration and management. Good plans, such as the use of carbolic vapour in the lying-in ward of the Rotunda, are commended; while structural defects, such as those which exist at the Richmond, are fully explained. But this is done in a friendly spirit, and with a view to obtain Government aid in the reconstruction of the hospital. Altogether, the board seems to perform an useful work. In the difficulties which at present beset many of the London hospitals, and in the obvious defects which exist in the provision for the sick poor, it may be asked whether a somewhat similar board of superintendence for the metropolis would not have a very beneficial effect.

MILITARY AND NAVAL MEDICAL SERVICES.

COMBATANT AND MEDICAL OFFICERS.

SIR,—The article on "The Combatant and Medical Officers of the Army," appearing in the JOURNAL of July 14th, describes the position accurately, but appears to be unable to explain the causes of the estrangement said to exist between the two branches of officers. I can tell you some of the causes.

The principal one is *jealousy*. The removal of medical officers from regiments has taken them away from the control of commanding officers. Thus the authority of the latter over the former, a much-valued privilege in old days, is lost; and no commanding officer approves of a diminution of his power over others, especially over his "doctor," who used to be much on the same footing as his adjutant, to be ordered here, there, and everywhere. These officers hate our new state of independence.

Next, the rank of captain, given to young surgeons on joining, has been cause of much heart-burning. In all cases, as on troopships, in barracks, etc., where it is possible for questions of relative rank to arise, the precedence of the young captain-doctor over the subaltern, of perhaps eight or ten years' service, has been a source of extraordinary irritation; and I am bound to admit that many of the young surgeons have borne their honours of precedence in anything but a spirit of conciliation, thus accentuating the irritation.

The combatant officer also is jealous of our pay, which is justly and necessarily higher than his own. The colonel commanding a regiment is not at all happy in the thought that the humble doctor who has sanitary charge of his barracks is paid better than he is. An officer commanding a regiment once told me, "no colonel commands a regiment now-a-days; you doctors all do that." This was in reference to the sanitary rules which empower a medical officer to decide the hours for parade, the capability of men for duty, of prisoners for punishments, the fitness of men for invaliding, etc. His remark sheds a good deal of light on this subject.

Again, many men look on the doctor much in the light of a creditor whom they do not want to see again. They are under obligations for skilful and kindly treatment during illness; but the danger over-past, the services are no longer needed, the sense of gratitude soon dies a natural death, but the sense of obligation does not. I do not for a moment say this feeling is universal, but it is very general. Very often a lifelong friendship has resulted from this association of patient and doctor, but this result is distinctly the exception, and not the rule.

Finally, the Army Medical Department consists of about 900 members. Amongst such a large body there are many men whose parentage has been distinctly the reverse of aristocratic. As a matter of fact, some of our brethren are descended from very lowly stock indeed; their want of manner and education (not professional) are so self-evident as to mark them as being different from the majority of combatant officers, with whom they are brought much into contact; and thus many of the latter are apt to form impressions very unfavourable to the bulk of the medical department. Thus a feeling antagonistic to the medical officer is formed, which it takes years to live down. I will conclude with an example. Last season a troopship took out to India a surgeon of rough and uncouth aspect. His cabin fellows soon saw that his dislike of water was remarkable; he never bathed, and he slept in his clothes. This state of things went on till the ship nearly reached Malta, ten days out. Remonstrances proving useless, the cabin was visited at midnight by a noisy crowd of subalterns, and the "dirty doctor" was kindly but firmly carried away to the bath-room, and there comfortably washed.

The above was one of the first experiences of the young subalterns of the medical department. Will it be easy to eradicate first impressions? Does it account in any degree for the "estrangement" which exists?—I am, etc., SURGEON-MAJOR, A.M.D.

NAVAL MEDICAL APPOINTMENTS.—The following qualified candidates for the Naval Medical Service have been appointed to be surgeons:—Francis J. Lea, Thomas C. Rowland, M.B., Edward J. Morley, Hugh Winckworth Macnamara, Joseph Henry Whelan, M.D., Percy William Bassett-Smith, John Patrick Joseph Coolican, Robert Walter Doyne, Edgar Ralph Dimsey, Joseph Reville M'Donnell, M.D., Denis William Donovan, Hamilton Meikle, and Herbert Canton.

SIR EDWIN SAUNDERS, Dental Surgeon to Her Majesty the Queen, has presented the leasehold premises, No. 39, Leicester Square, adjoining the Dental Hospital of London, value £2,400, to the authorities of that institution for the purpose of its enlargement.

MEDICO-LEGAL NOTES AND QUERIES.

INCOME TAX.

DEAR SIR,—Would you kindly give, through your correspondence column, a list of the abatements which a medical man can legally claim in making a return under Schedule (D) of the Income Tax Acts, and oblige,

Yours very truly, INCOME TAX.

*** A professional man is liable to pay income tax on the full amount of the balance of the profits of his profession, calculated on an average of three years next preceding the year in which the payment is made. From this he may deduct money exclusively laid out for the purposes of his profession, and rent or value of the part of the house or premises used for the purposes of his profession. In the case of a medical man, these deductions would include rent of surgery or consulting-room, cost of horses and carriages *exclusively* used for the purpose of carrying on the practice, wages of servants kept *exclusively* for the same purpose, salary of assistant, and other similar outlay; they would also include an allowance for bad debts, but would not include such items as cost of a handsome carriage kept for the purpose of display, and used by the doctor's family as well as himself, or the rent of a house in an expensive situation where the exigencies of his practice make it convenient for him to reside. A medical man is, of course, entitled to the general deductions allowed to every one, such as for premiums paid for life-assurance, or to payment on a reduced amount in case his total nett income does not amount to £400. But such deductions are separate from those which are properly incident to his profession, and should be calculated after the other deductions have been arrived at.

ALLEGED UNSKILFUL TREATMENT OF FRACTURE OF THE OLECRANON.

OUR attention has been directed to a report, in the *East Anglian Daily Times*, of an action brought by Mr. Meadows, surgeon of Otley, Suffolk, against the Hon. Delap Tollemache, to recover the sum of £21 for surgical attendance in the autumn of 1880. The plaintiff in this case, who had been the ordinary attendant of Lord Tollemache, was summoned to Helmingham Hall, at a distance of upwards of two miles from his residence, to attend Mr. Tollemache, who had fallen from a bicycle, and fractured the left olecranon. The elbow, which is reported to have been much bruised, was kept at rest on a pillow until the second day, when a straight splint of thin wood, ten inches and a half in length, was applied to the injured limb. Mr. Meadows intended to have replaced this with a longer splint after an interval of ten days or a fortnight, but, on the tenth day after the injury, the patient, who had hitherto been advised to remain at rest within the house, without communicating his intention to his medical attendant, drove to Ipswich, a distance of nine miles, and then consulted Dr. Bartlet. As might have been expected after such neglect of ordinary precautions, the patient, on his arrival, found that he could move his injured arm in any direction, and the splint, it is reported, was broken in two places. Dr. Bartlett put on a fresh splint, and wrote at once to Mr. Meadows; but, though asking this medical attendant to continue looking after the case, he himself, without the knowledge of Mr. Meadows, saw the patient on eight subsequent occasions. Mr. Meadows, in the ordinary course, sent in his account, charging twenty guineas for attendance, including fifteen visits and two consultations at his own house. No part of this was paid, and the defence consisted in a counter-claim of £200 for malapraxis, and an allegation of overcharge. The judge, after having heard much evidence, decided that the charge of unskilfulness and negligence was not proved, and on this point he gave judgment for the plaintiff. Mr. Luther Holden stated in evidence that he did not consider that there had been either negligence or unskilfulness in Mr. Meadows's treatment, and Dr. W. A. Elliston expressed his approval of the treatment that had been adopted. There can be no doubt that Mr. Meadows treated the case very properly and carefully, and that the course taken by Mr. Tollemache in making a counter-claim and suggesting negligence, was a very ill-advised one. Considering the weight of the medical evidence on the side of the plaintiff, and the self-evident strength of his case, we can hardly imagine how any different decision with regard to the charge of malapraxis could have been given by the judge. We regret much, however, to find that his Honour had grounds for stating that Dr. Bartlet had given evidence which would have led him to have given judgment against the plaintiff, had Dr. Bartlet not been contradicted by the other medical witnesses. With regard to the charges made by Mr. Meadows, the judge allowed two guineas for setting the limb, and seven and sixpence for each visit. This judgment seems to us to be very unfair. No medical evidence was given in support of the allegation of overcharge, whilst three witnesses of high repute—Mr. Luther Holden, Dr. Elliston, and Dr. Caleb Rose—were called for the plaintiff, and all stated that, considering the importance of the practice, the charge was a reasonable one.

CORONERS AND HOSPITAL MEDICAL OFFICERS.

FROM a report recently published in *The Northern Echo*, it appears that at an ordinary meeting of the managers of the Hartlepool Hospital, a letter from Mr. J. Settle, the county coroner, was read, in which he called attention to a misunderstanding between himself and Dr. Ainsley, with respect to the payments of his (Dr. Ainsley's) fee as a medical witness at an inquest lately held on the body of a patient who had died in the hospital. The coroner had ruled that Dr. Ainsley was not entitled to his fee because he attended as the acting house-surgeon, and he held to his ruling. At the inquest in question, Dr. Donkin, the house-surgeon, had not received the usual summons to attend the court, but Dr. Ainsley, who, in conjunction with Mr. Rawlings, the visiting surgeon, had assisted in the treatment of the case, in the absence of the house-surgeon, was present, and was sworn to give evidence in the usual way. He afterwards, however, declined to do so on being informed by the coroner that no fee would be payable to him, as his evidence would be received as if given by the house-surgeon.

After a long discussion, the managers of the hospital passed the following resolution:—"That the letter of Mr. Settle having been read, he be informed that Dr. Ainsley was not specially appointed by resolution to act as house-surgeon in Dr. Donkin's absence, as alleged; and this committee is of opinion that if Dr. Ainsley's evidence was required, he was entitled to the usual fee for giving medical evidence, and further, that when Mr. Settle requires evidence from this institution under the Medical Witnesses Act, he be requested to issue the proper summons."

The real question in dispute appears to be as to whether the medical officers (other than the house-surgeon) of a public infirmary or hospital are required to give evidence at the coroner's court without fee for so doing. The Act of Parliament which regulates the payments to medical witnesses provides, that the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution (viz,, any public hospital or infirmary, etc.) shall not be entitled to the fees and remuneration usually paid to medical witnesses. Therefore, by the simple reading of the Act, it would appear that any medical officer attached to a public hospital, whether resident or otherwise, who may have attended there a patiert upon whom an inquest is subsequently held, can be summoned by the coroner to give evidence at the court, and that no fee is payable to him for so doing. Such being the law, Mr. Rawlings, the surgeon, who attended the deceased, had he been summoned to give evidence, would have been entitled to no fee; Dr. Donkin, the house-surgeon, had he been summoned, would have received no fee. With regard to Dr. Ainsley, although "not specially appointed by resolution to act as house-surgeon," if he did act as such he would properly be considered, by the coroner, as one of the medical officers of the hospital for the time, and hence could claim no fee for attendance and evidence at the inquest.

Many disputes have arisen on the same subject, and many questions bearing on it have been asked and replied to in our columns; but, so long as the law remains as it is, the coroner has no other choice than to strictly and impartially observe its directions. With regard to the summoning of medical and other witnesses, the practice varies in different counties; sometimes verbal notice is given by the coroner's officers, but there can be no doubt that a printed or written summons should be served as the law provides, otherwise no penalties could be inflicted for the non-attendance of a witness at the court.

SIR,—I should feel obliged by your opinion on the following case.

A member of a benefit club, aged 73, is disabled from work through senile decay, especially manifesting itself in a condition of heart indicating fatty degeneration. The rules of the club provide for the relief and maintenance of its members in sickness and disease only. It is argued that, fatty degeneration of the heart being a "disease," the club is therefore liable for the maintenance of the man. The man has been for some time past an inmate of the workhouse; and the board of guardians, having applied to the club to refund them for his maintenance, is the cause of the question of liability being raised.—Yours truly,

Cirencester. W. R. COSSHAM, M.D.

*** The decision might, we think, vary according to circumstances. It would seem, however, that, if the fatty degeneration of the heart is only one among various indications of senile decay, the view taken by the managers of the benefit club is probably correct.

DR. J. C. GILMORE could, on referring to Churchill's *Medical Directory* (the first few pages) have found all his questions answered. 1. A medical man recovers his charges by the common law of the land, and not under any particular statute; the Medical Act, 1858, only made it a *sine quâ non* that a medical man must be registered at the time of trying the action for recovery. 2. The second question is not intelligible. Why should the *prosecutor* be cast in damages? The medical man applying the "new remedies" might, if death ensued, be liable to an action for negligence or malapraxis. A medical man guilty of *gross* negligence, or a *gross* want of knowledge, is liable to criminal proceedings. We italicize the words to show that a mere slip would not render him criminally, though it might render him civilly, liable. 3. The Common Law of England is wholly distinct from the Statute Law, but both are law; and fees recoverable at Common law are legal fees.

OBITUARY.

HENRY J. HAYLES BOND, M.D., F.R.C.P.

DIED at Cambridge, on September 1st, in his eighty-second year, Henry J. H. Bond, M.D., for twenty-one years Regius Professor of Physic in the University. He graduated as M.B. in 1825, and as M.D. in 1831; was elected F.R.C.P. in 1835, and was one of the original members of the General Medical Council, representing for five years the University of Cambridge. After taking his M.D. degree, he settled as a physician in Cambridge, and was for many years one of the physicians of Addenbrooke's Hospital. In 1851, he was appointed Regius Professor of Physic; in 1872, he resigned the office, and retired at the same time from the practice of his profession. He was an able and accomplished physician, and for many years had an extensive practice in Cambridge and its neighbourhood. In his profession, as in other matters, he was a man of honour and integrity, and enjoyed the confidence and esteem of his medical brethren. He discharged the duties of his professorship with exemplary diligence and ability, and from the time of his appointment the Medical School of Cambridge began to revive. He deserves to be remembered for the early and important part he took in a work which, in the face of many difficulties, has raised the school to its present large proportions. Considering his ability, experience, and habitual exactness of observation, it is much to be regretted that he published little beyond a very excellent syllabus of his lectures.

In June 1882, he accidentally fell and fractured the neck of his thigh-bone. The fracture was impacted, and he regained some use of the limb, but from this time was a complete invalid.

BENJAMIN HUNT, M.D., M.R.C.P., BIRMINGHAM.

WE record, with much regret, the death of Dr. Hunt, one of the honorary physicians of the Queen's Hospital, Birmingham. The youngest son of the late Rev. Thomas Maxwell Hunt, vicar of Oulton, Norfolk, and born in the year 1828, Benjamin Hunt was educated at University College, London. Shortly after being admitted a member of the Royal College of Surgeons of England, in 1849, he was appointed house-surgeon to University College Hospital. In 1857, he went to Birmingham, and was elected senior house-surgeon at the Queen's Hospital, in succession to the late Mr. J. F. West; after holding this office for about two years, he became an honorary officer of the hospital in the capacity of ophthalmic surgeon in the newly formed department for diseases of the eye. Pursuing general practice in Birmingham, Mr. Hunt became one of the surgeons of the Ear and Throat Infirmary. He held this appointment for several years, and applied himself with energy and success to the treatment of the special disorders which came under his notice. Having taken the degree of M.D. in the University of St. Andrew's, Dr. Hunt relinquished general practice, was admitted a member of the Royal College of Physicians of London in the year 1875, and was appointed, in 1878, upon the resignation of Dr. Mackey, one of the honorary physicians to the Queen's Hospital. This latter office he held until his death. At the Queen's Hospital, Dr. Hunt applied himself, with unremitting diligence and regularity, to his duties as a physician and a clinical teacher; and he took an important share in the administration of the charity, as Chairman of the Medical Committee, and in the management of the Birmingham Medical School, as a member of the Clinical Board of the General and Queen's Hospitals. Modest and retiring in disposition, conscientious in the performance of duty, courteous in bearing, with kindliness of heart and manner, and solid reliability of character, Dr. Hunt was popular with his colleagues, beloved by his pupils, and widely respected by his professional brethren and a large circle of friends. Until a fortnight before his death, he discharged his hospital and private professional duties with his accustomed fidelity, and he appeared to be in his usual good health. His useful life was abruptly terminated in its prime by an unfortunate illness, which proved rapidly fatal, and which supervened upon the performance of a comparatively trivial surgical operation, for the relief of hæmorrhoids, after which procedure he unwisely failed to rest from work, but pursued his arduous practice as usual. Rigors and febrile disturbance became manifest, and it was soon too clear that Dr. Hunt was sinking from severe pyæmia, marked by the usual articular complications. He died at his residence in George Road, Edgbaston, on the morning of September 3rd.

JOHN ALEXANDER SMITH, M.D.

DR. JOHN ALEXANDER SMITH died on Friday, August 17th, and in his death the profession has lost an admirable member, while zoology, physics, and archæology have suffered to a still greater degree. He was born in 1818, was educated in Edinburgh High School and Edinburgh University, in which he graduated M.D. in 1840; in 1865 he became F.R.C.P.E., and was treasurer to his College for many years. He was an able practitioner, and successful as such, but his tastes directed him more powerfully into the fields of archæology and zoology, in which he did much valuable work, which was recognised as such. He was vice-president of the Scottish Society of Antiquaries, and was for several years editor of its *Transactions*. He was for twenty-one years secretary of the Royal Physical Society, and, during his tenure of office, was associated with many notable men (whose names are now revered in science), and in much valuable work done by the Society. As a member of the Royal Society, Dr. Smith was also well known and honoured, as his work on its *Transactions* will show. He was also a contributor to the *Journal of Anatomy*, to the *Edinburgh New Philosophical Journal*, and to other scientific publications. In his personal and private life, Dr. Smith was highly esteemed for his courtesy, straightforwardness, and kindly demeanour, and the simplicity of his character and Christian bearing won him the respect and goodwill of all. He was buried in Melrose Abbey, his remains having been sent there from Edinburgh, where he died, and was followed to the grave by many representative men as well as personal friends.

P. MACPHERSON GRANT, M.B., SURGEON, BENGAL ARMY.

THIS deserving young officer, at the age of 34, has fallen one of the first victims to the recent outbreak of cholera in India. In the district of Western Malwah, where Dr. Grant was stationed as medical officer to the First Central India Horse, the disease had made its appearance by the beginning of July, at which time there seemed to be little indication of the outbreak assuming a serious form. On the 16th of that month, he was called on to attend a case occurring in the regiment, while he himself was suffering from the effects of an attack of malarial dysentery; and, on the following day, he experienced some of the premonitory symptoms of cholera. These symptoms for a while passed off, but recurred with renewed violence on the morning of the 18th, and the disease ran its course to a fatal termination, which took place early on the morning of the 22nd. Dr. Grant had been in the Indian Medical Service since 1877, and, during his short career, had earned for himself, in a high degree, the respect and affection of his fellow-officers and the men of the various regiments to which he had been attached; as much on account of the untiring attention he bestowed on those under his care, whether native or European, as on account of his professional skill and attainments.

He received his education at the University of Edinburgh, in which city, after taking the degrees of M.B. and C.M. in 1870, he held various hospital appointments. He afterwards spent some time in Berlin and Vienna, in order to perfect his knowledge of the diseases of the larynx, with the view of devoting himself specially to that department of medical practice. He was, however, subsequently induced to turn his attention to the public service; and, accordingly, entered himself for the Indian Medical Competitive Examination in 1876, when he passed fifth on the list. On leaving Netley, he gained one place in the final examination, and now stood fourth, being, at the same time, first in the department of hygiene. Before leaving for India, he took the B.Sc. degree in Public Health at Edinburgh in 1877. His first station in India was at Meean Mir, and, towards the end of 1877, he accompanied the troops against

the Jowaki Afridis, where he served with distinction. On the cessation of hostilities, he took duty on the Cashmere frontier, among the fugitives from the famine at that time existing in the Cashmere valley; and, while engaged on this service, contracted typhus fever, to which he nearly succumbed. On his recovery, he was attached to the Central India Horse, and, in 1880, during the war in Affghanistan, served for some time as surgeon on General Roberts's staff; and afterwards received the respective medals for this and for the Jowaki campaign.

During his career in the service, Surgeon Grant established a reputation with his superior officers, both in the medical and military departments, for abilities of a high order, and for a thorough devotedness to every call of duty. He had the happiness of gaining the esteem and affection of those with whom he was brought into contact for his genuine goodness of heart and never failing considerate attention to all.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 6th, 1883.

Fisher, Walter Mulrea, Angel Road, Hammersmith.
Hadley, Wilfred James, Clapham Common.
Hart, Arthur Herbert, The Hall, Harborne, Staffordshire.
Humphreys, Charles Evan, Llanfair, near Welshpool.
Linnell, Edward, Falmouth Road, S.E.
Praeger, Emil Arnold, Walsworth Road, Hitchin.

The following gentleman also on the same day passed the Primary Professional Examination.

Taaffe, John Ferdinand Hugh, Mercer's Hospital, Dublin.

MEDICAL VACANCIES.

The following vacancies are announced:

BOLTON INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications to Mr. Kevan, 12, Acresfield, Bolton, by September 26th.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum. Applications to Mr. Kevan, 12, Acresfield, Bolton, by September 26th.

CAVAN COUNTY INFIRMARY.—Surgeon. Salary, £94 per annum. Applications by September 18th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by September 19th.

GRANTHAM FRIENDLY AND TRADE SOCIETIES MEDICAL INSTITUTE.—Resident Medical Officer. Salary, £150 per annum. Applications to John Hancock, 16, North Parade, Grantham, by October 1st.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Applications by September 20th.

JOINT COUNTIES ASYLUM, Abergavenny.—Senior Assistant Medical Officer. Salary, £150 per annum. Applications to Medical Superintendent by October 1st.

KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by October 1st.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to Dr. T. W. Measures, 4, Lion Street, Kidderminster.

LEITH HOSPITAL.—Assistant-Surgeon. Salary, £60 per annum. Applications to Mr. G. F. Mann, 33, Bernard Street, Leith, by September 17th.

PARISH OF CANISBAY, Caithness.—Medical Officer. Applications to Peter Keith, Esq., Barrogill Castle by Wick, Chairman of the Parochial Board, by September 19th.

PAROCHIAL BOARD OF KILLEAN AND KILCHENZIE.—Medical Officer. Salary, £150 per annum. Applications to the Chairman of the Board, Glencreggan, Kintyre, Argyllshire.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Assistant-Physician. Applications by October 6th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Surgeon. Applications by October 6th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Pathologist. Applications by October 6th.

ST. GEORGE'S, HANOVER SQUARE, PROVIDENT DISPENSARY, 59, Mount Street, W.—Resident Medical Officer. Applications by September 29th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden.—House-Surgeon. Appointment for six months. Honorarium, 25 guineas. Applications by September 25th.

ST. MARY ABBOTTS, Kensington.—District Medical Officer. Salary, £100 per annum. Applications by September 20th.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon. Salary, £120 per annum. Applications by September 20th.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.—Junior Assistant House-Surgeon. Salary, £50 per annum. Applications by September 21st.

MEDICAL APPOINTMENTS.

COLEMAN, G. E., L.R.C.P.Ed., appointed Medical Officer of Health to the Hemsworth Rural Sanitary Authority, *vice* F. H. Wood, L.R.C.P.Ed., resigned.

THOMSON, D. G., M.D., Assistant-Physician to Camberwell House Asylum, late Assistant Medical Officer to the Derby County Asylum, appointed Senior Assistant Medical Officer to the Surrey County Asylum, Cane Hill.

GORDON, Robert, M.B., C.M.Ed., appointed House-Surgeon to the Weston-super-Mare Hospital.

LINDSAY, James Alexander, M.A., M.D., M.Ch., appointed Assistant-Physician to the Belfast Royal Hospital.

SHAW, William, M.D., appointed Medical Officer to the Maidstone Fever Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BATEMAN.—On the 12th instant, at Whitchurch, Oxon., the wife of Francis Bateman, M.B.Lond., of a son.

BRIGHAM.—On September 11th, at Argyll House, Forest Hill, the wife of J. K. Brigham, M.A., M.D., of a son, prematurely.

MARRIAGE.

HINE—BLOXHAM.—September 5th, at the Parish Church, Halesowen, Worcestershire, by the Rev. J. F. Howson, Harry Hine, M.R.C.S., L.R.C.P.Lond., of South Cave, Yorkshire, youngest son of Thomas C. Hine, Esq., of Nottingham, to Mary, eldest daughter of the late Charles W. M. Bloxham, Esq., of Halesowen.

DEATHS.

HARMAR.—On September 7th, at Oak Cottage, Monument Road, Birmingham, Frances Charlotte, the beloved wife of J. Raffles Harmar.

NICHOLSON.—On September 3rd, drowned, whilst boating on the Humber, Henry Fitzgerald, aged 17, second son of R. H. Bourchier Nicholson, Surgeon, Hull.

STATISTICS OF SUICIDE.—From some statistics of suicides in great cities, just published, it appears that suicides are relatively more numerous in Paris than in any other capital. In the French metropolis, the ratio of suicides for every million of inhabitants reaches yearly the high average of 402. The ratio for other cities is stated to be as follows: Stockholm, 354; Copenhagen, 302; Vienna, 287; Brussels, 271; Dresden, 240; St. Petersburg, 206; Florence, 180; Berlin, 170; New York, 144; Genoa, 135; London, 87; Rome, 74; Naples, 34.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending 8th inst., that the death-rate recently averaged 33.4 in the three principal Indian cities; it was equal to 21.5 in Calcutta, 34.2 in Madras, and 37.8 in Bombay. Cholera caused 98 deaths in Bombay and 8 in Calcutta, while 34 fatal cases of small-pox occurred in Madras; "fever" showed the greatest fatality in Bombay. According to the most recent weekly returns, the average annual death-rate in twenty-two large European cities was equal to 25.5 per 1,000 of their aggregate population; this rate exceeded by 5.5 the mean rate last week in twenty-eight of the largest English towns. The rate in St. Petersburg was equal to 26.7; the 475 deaths included 111 from diarrhœal diseases and 14 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate did not exceed 18.4, and the highest rate was 19.4 in Copenhagen; diarrhœal diseases, however, still showed excessive fatality in Copenhagen and Christiania. The usual return from Paris does not appear to have come to hand. The 170 deaths in Brussels were equal to a rate of 21.1, and included 9 from small-pox and 28 from diarrhœal diseases. In Geneva, 28 deaths were returned, equal to a rate of 20.8. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 19.7, the highest rate being 21.2 in Amsterdam; one fatal case of small-pox was recorded both in Amsterdam and Rotterdam. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 27.4; it ranged from 23.2 both in Vienna and Hamburg, to 34.1 in Trieste and 37.5 in Munich. Small-pox caused 23 of the 144 deaths in Prague, and the fatality of diphtheria and of diarrhœal diseases showed an excess in most of these German cities. In three of the largest Italian cities, the mean death-rate was 24.3, the highest rate being 25.8 in Turin; 8 deaths were referred to malarial fever in Rome. The 121 deaths in Lisbon included 5 fatal cases of scarlet fever, and were equal to a rate of 31.6. In four of the principal American cities, the death-rate averaged 25.5, and diarrhœal diseases continued to show a marked excess, especially in New York and Brooklyn. The rates ranged from 17.2 in Baltimore to 27.3 in New York. Typhoid fever caused 15 deaths in Philadelphia.

THE CONSUMPTION OF INTOXICATING LIQUORS.—The report of the Commissioners of Inland Revenue, recently issued, shows that, during the year ending March 31st last, the revenue from excise duties upon spirits decreased £62,296, and upon beer £130,451. The quantity of spirits charged with duty during the year was, in England, less than in the previous year by 280,617 gallons; but as there was an increase in Scotland of 108,944 gallons, and in Ireland of 261,834 gallons, the report shows a net increase for the United Kingdom of 90,161 gallons charged with duty. The quantity of spirits consumed as a beverage decreased in England by 294,270 gallons; and in Scotland by 46,254 gallons; but, in Ireland, there was an increase of 245,667 gallons; and thus the net decrease for the United Kingdom was 94,857 gallons. The percentage of decrease in England was 1.73, in Scotland it was .70, and the increase in Ireland was 4.79. The quantity consumed per head of the population was—England, .642; Scotland, 1.729; Ireland, 1.009; and for the whole of the United Kingdom, .811. With reference to the decrease in the consumption in England and Scotland, the Commissioners say it appears comparatively small; "but it becomes more significant of altered habits when considered in connection with the natural increase which must have taken place in the population. There cannot be any doubt that, in some localities, the spread of temperance principles has already caused a marked diminution in the consumption of intoxicating liquors, and the tendency is still increasing. On the other hand, it is remarkable to find in Ireland, in spite of an estimated decrease of population, an increased consumption of 245,667 gallons."

ENLARGEMENT OF THE BRONCHIAL GLANDS AS A CAUSE OF IRRITATION OF THE PNEUMOGASTRIC NERVE.—Dr. Edward T. Bruen, in the July number of the *American Journal of the Medical Sciences*, discusses the effects of enlargement of the bronchial glands in producing reflex irritation of the pneumogastric nerve. The difficulty in the diagnosis of such cases consists in separating them from cases of early phthisis. One must rely mainly on the absence of the combination of physical signs required to render the presence of incipient phthisis certain. These are impaired percussion-resonance, some form of bronchial breathing, possibly fine moist *râles* and increased vocal resonance. The last two physical signs are not present in cases of bronchial enlargement. Pain in the back and disturbance in the respiratory rhythm are not often present in phthisis. Hysteria, uterine, or spinal disorder may be eliminated by careful examination. Finally, the beneficial results of treatment may be appealed to to sustain the theory of the etiology of the cases.

THE Okehampton guardians and rural sanitary authority recently decided to pay the medical officer of health by fees instead of salary; but, as the Local Government Board object, the resolution is to be rescinded, and an advertisement issued, inviting applications, stating salary required, but not to exceed £50 *per annum*.

DONATIONS AND BEQUESTS.—Mrs. Cumberland recently gave £700 to the Warneford, Leamington, and South Warwickshire Hospital, for the endowment of a bed in the women's ward, in memory of her late husband. The money has been invested in Great Eastern Preference Extension Stock; and a brass plate affixed to the wall, over the head of one of the beds, bears the following inscription: "This bed was endowed on May 9th, 1883, in perpetual and loving memory of the late Lieutenant-Colonel Bentinck Harry Cumberland, of Enham Lodge, Lillington, by his sorrowing widow, Margaret W. T. Cumberland."—Mr. Henry Matcham, of West Kensington, has bequeathed £500 to the Ramsgate and St. Lawrence Royal Dispensary, and £500 to the Royal Hospital for Incurables.—Dame Anne Helena Winnington, of No. 116, Queen's Gate, has bequeathed £100 to the Worcester General Infirmary, and £60 to the Torquay Convalescent Hospital.—Mr. J. F. West has bequeathed £100 to the Queen's Hospital, Birmingham.—Mrs. Mary Built, of Hertford, has bequeathed £100 to the Infirmary there.—The Dorset County Hospital has received £100, under the will of Mr. St. John, of Oakley.—"George" has given £100 to the Special Repairs Fund of the Bristol General Hospital.—The Middlesex Hospital has received £1,000 from the executors of the will of Mr. John Bizo, being part of the "residue" of his estate, which was divisable at their discretion.—Mrs. Berrows has given £1,000 to the Midland Counties Home and Hospital for Chronic and Incurable Diseases at Leamington.—Mrs. Mary Ledbrook bequeathed £500 to the Stratford-upon-Avon Infirmary.—The Halifax Infirmary has received £250 under the will of Mr. Adam Lowe.—Mr. J. Bullivant, of Mount Vernon, Exeter, has bequeathed £100 to the Devon and Exeter Hospital, £50 to the Exeter Dispensary, and £50 to the West of England Eye Infirmary.—The Northampton General Infirmary has received £100 under the will of Mr. William Dash of Kettering.

DEATH FROM CHLOROFORM.—A case of death occurred at the Public Hospital at St. John, New Brunswick, on August 1st. The chloroform was administered previous to extirpating the eyeball. About half an ounce of chloroform was administered. In about fifteen minutes after the first inhalation, respiration became embarrassed, and then the pulse became affected, the patient became livid, and in five minutes respiration had ceased. Subcutaneous injections of brandy, ether, and a solution of strychnia, and electricity were administered, and artificial respiration practised without avail. The *post mortem* examination showed a healthy condition of the organs.

HEALTH OF ENGLISHMEN ON THE GOLD COAST.—The Gold Coast Mining Company have received from their medical officer the following report. "The health enjoyed at these mines has been exceptionally good during the past month, insomuch that my usual tri-weekly visits were curtailed to about one visit per week. The Europeans, beyond an occasional exhibition of diminished tone, have participated in the improved health noted during last month. On the part of the native *employés*, there has been a marked absence of fevers, rheumatic and catarrhal affections, which are not unfrequent generally during the wet season. With the exception of one or two minor accidents, the majority of their complaints were of a trivial nature.

DR. BORCHARDT of Manchester has had a very gratifying and unusual expression of gratitude, by the bequest of a legacy of £1,000, under the will of one of his patients, Mr. Thomas Agnew of Pendleton.

MEDICAL MAGISTRATES.—Mr. Thomas Pridgin Teale has been placed on the commission of the peace for the borough of Leeds, and Mr. Samuel Job for the borough of Newark-upon-Trent. The name of Mr. Samuel Woodman, of Ramsgate, has been placed upon the list of justices of the peace for the Cinque Ports by the Right Hon. the Earl Granville, the Lord Warden.

THE NORTH STAFFORDSHIRE INFIRMARY.—The addition of the new Victoria Wards for Women to the group of buildings constituting the North Staffordshire Infirmary is an important step, supplying as it does a building where special cases may be safely treated quite apart from the infirmary wards and their surroundings. This was a want much felt; and Mr. Spanton, one of the honorary surgeons, who first proposed to the committee the erection of this building, has largely assisted in raising the necessary funds for the undertaking. The total expense is estimated at £950, of which we believe £896 14s. has already been subscribed; Sir Smith Child, Bart., the generous donor of the Children's Hospital, having contributed £200.

THE IBRAHIM HOSPITAL.—The hospital founded by Prince Ibrahim Hilmy at Boulak has recently been opened, his Highness having provided the means to establish and maintain fifty beds, while his father, the ex-Khedive Ismail, has contributed the funds for an equal number, so that the hospital will receive 100 inpatients. Dr. Sonsino, physician to the hospital of Kasr-el-Ain, attached to the laboratory of the Khedive, has been appointed head physician, and will be assisted by Dr. Rabeseh and by Désirello Bey, a member of the Permanent Executive Committee; and M. Ismalum, director of the Khedivial laboratory, will devote the greater portion of his time to the hospital—the services of these gentlemen being gratuitous. Two European and ten native hospital assistants have been appointed, under the charge of an experienced practitioner, M. T. Muller. A special ward has been reserved for Europeans; another for convalescents; and a third hall will be allocated for the dead. The arrangements have been carried out under the personal inspection of Count Lavison.

CHLOROFORM NARCOSIS DURING SLEEP.—Dr. Hunter H. Powell, of Cleveland, Ohio, sends to the *New York Medical Record* the following case bearing upon the subject of chloroform narcosis during sleep. On June 15th, 1883, he was called to see a boy four years of age, who had fallen upon a piece of glass, and cut the palm of his right hand badly. He found him asleep, and determined to try the experiment of chloroforming in that state. He found no difficulty in getting him fully under its influence, examined the wound for bits of glass, put in necessary stitches, and put on the required dressing before he became conscious. Dr. Powell believes this will become a popular method for administering chloroform to children. By it, the little ones are saved from the fright, with accompanying excitement, experienced by many of them at the first approach of chloroform.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annua and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

LIFE-INSURANCE.

SIR,—I would respectfully suggest that your correspondent in the JOURNAL of September 1st ("A. Ll. J.") should obtain for himself the reliable information on the above subject which he seems to desire, and then act upon his own judgment; when I believe he will have no reason for repenting.

1. By investing one shilling in the purchase of White's *Insurance Register*, he will possess an ample source for the information; the book furnishing all particulars of all British Insurance Associations, as compiled from the annual reports rendered by them to the Board of Trade, from which may be learned the age of the Society, the amount of business done (and whether done extravagantly or economically), the financial position, etc. Moreover, he may there learn whether any particular society is a "mutual" one (*i.e.*, dividing the whole of the profits amongst the assured), or whether a body of directors or shareholders will have to be paid out of the profits before they can be shared amongst the assured. To guide his inquiries for economical management, he may compare the details given of the "Clergy Mutual" with those of various other offices, as it spends nothing on agents or commission; but then it admits only the clergy and their near relatives; and probably other offices consider that they are recouped for such expenses by the extra business they bring in. There are, of course, many other thoroughly sound "mutual" offices, and the features of several of them will have to be studied, as by no means does every office transact every kind of insurance business; some of them, for instance, not granting annuities, either immediate or deferred. About the last third of the above-mentioned pamphlet consists of advertisements of most of the leading offices, useful for reference.

2. A candidate for life-insurance need not confine his inquiries to British offices, as the New York Life-Insurance Company has an agent in nearly every large town in this country (in London, at 76, Cheapside); and it offers, in addition to undoubted soundness, some peculiar advantages not common with English offices. The Americans seem well up in life-assurance business.—I am, sir, yours, etc., G. F. HODGSON, M.R.C.S.Eng.

September 1st, 1883.

P.S.—Let me urge that every member of the profession whose means are limited should earnestly endeavour to "insure" in at least three ways, viz., against accidents; against death; and against old age (say, an annuity, however small, after sixty); and, of course, all the eggs should not be laid in one basket. Further, even horses and vehicles can be insured.

EMPTYING OF CESSPOOLS.

SIR,—Can you give me any information respecting a French plan of emptying cesspools by means of an air-tight receiver, and where one is to be obtained?—Believe me, yours very truly, A. S. BOSTOCK.

North Pallant, Chichester.

*** Our correspondent evidently relates to the "Tallard process," which has been worked for some considerable time in France at various places; for instance, at Paris, Rheims, St. Denis, and Metz. By this process the entire contents of a cesspool can be extracted without smell, dirt, or annoyance of any kind, in the daytime as well as by night, at the rate of about 20 cubic yards per hour; so that, instead of the operation taking one or two entire nights as at present, it is done, in the case of ordinary cesspools, in about half an hour.

The process consists in pumping the excreta by the natural pressure of the atmosphere into a receiver, from which all air has been exhausted. A steam vacuum pump is attached to a portable locomotive engine to exhaust the air from the receiver, the pipes between this and the engine never being so much as soiled. The receivers are made of light steel plates, and of a capacity of about 3½ cubic yards. It is mounted on framework on four wheels, being easily moved from place to place by a couple of horses; it is fitted with a glass indicator at one side to show how full it is, and has a large full-way valve at the lower end to which the flexible tube is attached. On the cesspool being opened, a strong flexible five-inch tube is plunged to the bottom of the contents, the other end of this tube being connected to the valve of the receiver; this has already been connected to the engine by a smaller tube from the upper part. The engine being started, the noxious gases are first extracted from the cesspool, and burned; the air is then exhausted from the receiver, and on the valve being opened, the contents of the cesspool rush up, filling the vacuum in about four minutes. The valve is then closed, the pipes disconnected, and the receiver taken away to be replaced by others, until the cesspool is entirely empty. In France the price paid for extraction is regulated by the Municipality at about 3s. 6d. per cubic yard. With us the cost is about 10s. per cubic yard. We do not know where such an apparatus can be obtained; but any engineering firm in Paris would be able to say this. A system of emptying cesspools was patented during the present year in England. Any Patent Agent in London would obtain it, and forward it on application.

SNORING.

SIR,—Dr. Wolseley asks for a cure for snoring. Allow me to draw his attention to the fact that, in the stertor of apoplexy, immediate relief is given by a careful change of the patient's position, which immediately causes the apoplectic snoring to cease. It is a fair inference that the same treatment would relieve snoring, as the physiological cause is the same.—Your obedient servant, C. R. BREE, M.D.

Hill House, Long Melford, September 3rd, 1883.

Lawn-Tennis Elbow.

Sir,—Your correspondent, "A Member," asks for information as to the condition produced in the tissues surrounding the joint, and the treatment most efficacious in obstinate cases of "lawn-tennis elbow."

I have pointed out, in a short paper on "Rider's sprain," in the *Lancet* of July 29th, 1882, what subsequent experience has confirmed, that the condition is due to a sprain of the pronator radii teres muscle, and the fascia and intermuscular septum on the inner side of the humerus, from which its greater head arises, by the rapid and forcible pronation of the forearm which constantly takes place in lawn-tennis. Lawn-tennis is not the only exercise in which these structures are sorely tried. After long and vigorous sculling, owing to the action of "feathering," the tissues about the inner condyle of the humerus ache, and subsequently become stiff, so that even slight movements of the forearm, as well as pressure just above and below the inner part of the elbow, cause pain. In rowing, however, the pronation and supination are rhythmical and deliberate; and, though the strain is great, the fibres are not so likely to be sprained as in the sudden and more jerky movements of tennis. Hence, in the case of sculling, the soreness passes off with the stiffness, but, in the case of tennis, the ill effects remain much longer; and for a considerable time, in some instances, fresh movements of the same character tend to keep them up, or even aggravate them.

The treatment I have found efficacious is, the application of a well-fitting elastic armlet, or an India-rubber bandage about the elbow; and restriction in the movements of pronation and supination for a few weeks.—I am, sir, yours faithfully,

Henry Morris.

2, Mansfield Street, Portland Place, W., September 1st, 1883.

Sir,—I was glad to see the letter of "A Member" in the Journal of September 1st, and I trust we shall get some advice which will enable us to effect a speedy cure in this, to say the least, very inconvenient affection, "tennis elbow." I may say that I have found no benefit from treatment hitherto; and you only have to drive a pulling horse, draw a tooth, or even handle the bottles in the surgery, to find the full force of the annoyance. The parts principally affected in my case would appear to be the annular ligament around the head of the radius and the triceps muscle. It has occurred to me whether most of the cases will not be found to occur in persons past middle life, and of a gouty or rheumatic diathesis.—Yours, etc.

High Street, Hungerford. Harry P. Major, M.D.

An Instance of Fecundity.

Sir,—I have just come across a somewhat remarkable, well authenticated instance of fecundity. The lady, who was of good position, married at sixteen years of age and died at sixty-four. She had thirty-nine children (all by the same husband, whom she survived) thirty-two daughters and seven sons, and they were all single births except two, which were twins. An interesting point is that all the children lived to attain their majority.—I am, sir,

Surbiton, September 1st, 1883. F. P. Atkinson.

The Conveyance of Cholera.

Sir,—In the eighteenth annual report of the Sanitary Commissioner with the Government of India—1881—occurs the following remark, at page 127, para. 142.

"The experience of fairs and other gatherings in this country has again and again testified to the truth of the conclusion that cholera is not carried by persons from one locality to another, so as to cause persons not themselves exposed to the necessary local influences to become affected by the disease. Coincidences certainly can be cited in which the arrival of persons from a cholera-affected district has been closely followed by an outbreak of the disease; but even these coincidences are far fewer than is generally supposed."

Such a decided opinion, from no less a person than Dr. Cunningham, Sanitary Commissioner with the Government of India, is, of course, entitled to great consideration. May I ask, through your pages, if it is an opinion shared by other Indian sanitary and medical officers? or in accordance with received views in Europe?—I am, sir, yours faithfully,

Bangalore, August 4th, 1883. An Indian Medical Officer.

*** In reply to the above important question, we have no hesitation in affirming that the views of the Sanitary Commissioner are not in accordance with facts as observed by competent authorities in this country, on the Continent of Europe, and in the United States. They are notoriously opposed to the Netley teaching by the late Dr. Parkes, and by Professors Maclean and De Chaumont—all three men of Indian experience, who have seen the disease in its home, have had to deal with it elsewhere, and have probably given as much attention to the laws governing its propagation as any authorities living or dead. If the innumerable examples in which the propagation of cholera has been traced to human intercourse—and, we may add, water defiled by cholera excreta—can be dismissed as "mere coincidences," there is an end to all medical evidence. This is a question quite independent of "epidemic influence,' whatever that may be, a means of propagation the activity of which no one denies.

Medical Etiquette.

Sir,—Will you kindly inform me on the following points. Is there any medical etiquette which prevents me from charging a patient whose son is a doctor? Also, is the enclosed form of bill correct, or should I drop the Mr.? (Mr. —— to Mr. X. Y.—For professional attendance, etc., £ .) My qualification is L.R.C.P.Edin., and on my door-plate I have no affix to my name, having simply plain Mr. ——, and no title whatever.—I am, sir, yours truly,

September 3rd, 1883. Member British Medical Association.

*** To our correspondent's first question, we would remark that there is not, so far as we are aware, any rule of medical etiquette, or, indeed, any just reason to prevent such a patient from being charged in the ordinary way. Though the prefix of Mr. is not usual, there can, we think, be no objection to it.

Determination of Sex.

Sir,—Your correspondent "M.B.Lond." apparently holds that the sex of the human embryo is determined by the period following menstruation at which the ovum is impregnated; but, unless the sex of the higher vertebrates be determined by a physiological law totally different, certain facts are opposed to this theory. How, for example, can we explain the fact that, in the sow, a single coitus results in a litter of both sexes? Should we not expect that, according to the period, the litter should be all of one sex?

As a matter of fact, in all domestic animals, the period of "heat"—during which alone the female will permit coitus—is extremely limited; and no breeder of thoroughbred stock, so far as I am aware, has ever been able to arrange the service of a mare so as to secure the production of a colt-foal.

The physiological facts of the question are hardly within the bounds of demonstration, but I venture to suggest the following mere hypothesis. The spermatozoa of one individual either are of exactly the same potentiality, or they are not. The same may be said of the ripe ova. If, then, there be degrees in the potentiality of both, may it not ensue that an ovum impregnated by a spermatozoon of greater relative potency than itself, will develop a male embryo, while an ovum of potentiality relatively greater than the spermatozoon which impregnates it will develop a female? A litter composed of a number of both sexes is quite consistent with this view.

We sometimes see a large family of one sex only. Is it more reasonable to suppose, in such a case, that impregnation invariably occurred at exactly the same period, before or after menstruation; or to suppose that the potentiality of the ovum had had to yield in every instance to that of the spermatozoon, or *vice versâ?* In some families, a majority of sons appear in successive generations; in others, daughters. In the first case, it would seem that the male element was usually all-powerful; in the second, that it was usually overpowered by the female.—Yours truly, C. M. Campbell, M.D.

31, Hereford Square, S.W.

Sir,—I have noted with much interest the query of your correspondent "M.D.," who, in your issue of September 1st, desires to know whether "any steps" can be taken to secure the birth of a female child. I have been for some time engaged in preparing a paper on a Theory of the Origin of Sex; and if "M.D." will accept a suggestion which I have been led, from my investigations, to make regarding his inquiry, I should recommend him to advise the lady to take steps to procure the *post menstrual* fertilisation of an ovum. The ovum, which is ripened and discharged at each menstrual period, should, in other words, be impregnated as soon after the period is past as possible. If this advice be followed, I feel assured, as a matter of scientific reasoning—the grounds for which I hope shortly to publish—the result will be a female child. —I am, yours obediently, Andrew Wilson.

Edinburgh Medical School, Surgeon's Hall, September 3rd, 1883.

Sir,—In reply to "M.D." at page 456, I would direct his attention to section 577, i, of the *Medical Digest*, where a large number of theories and papers are recorded regarding the "Production of Sex." An additional communication has appeared in the Journal, May 1883, p. 971, since the publication of the last edition of the *Digest*, of some experiments made by M. Pflüger on frogs.—Obediently yours, Richard Neale, M.D.Lond.

Sir,—At page 118 of *The Law of Sex*, just published by Messrs. Churchill, *Human Temperaments*, by Dr. Powell, is mentioned, but neither the date, publisher's name, or place of publication; and as Messrs. Churchill, after consulting several catalogues, could find no such work, I shall be greatly obliged by information from any member that may enable me to procure it for perusal or purchase.—I am, etc., A. Stewart.

A "Military Medicine" Section at the Annual Meeting of the British Medical Association.

Sir,—During the meeting of the International Medical Congress in London in 1881, there was a distinct "Military Medicine" Section at work. It brought together many individuals who thus had an opportunity of discussing questions connected with the sickness of soldiers, the diseases of tropical countries, and the working of medical aid in fleets and armies. It practically amounted to a collection of specialists to discuss their speciality—for such we are in the naval and military services. We are as much specialists as oculists, aurists, or obstetricians are specialists; but the fact is, that it is only of late years we have begun to devote ourselves thoroughly to our speciality. Our training, our discipline, our drill, our graduated rank, allotted to define status and command, are all part and parcel of our special work, without which our system would tumble to pieces in a month. To foster this speciality of ours is a work of great difficulty, as we have no special journal dealing with it, nor any annual or periodic meetings to discuss the subject.

I now write to ask you whether, as you have a very large body of naval and military surgeons in the Association, it is not possible to have a distinct Section allotted to them for Military Medicine, to include all naval questions at the annual meetings. The presence of army and navy doctors at your meetings would be a valuable addition to your gatherings, for their varied experiences of foreign diseases, and the enormous opportunities they have of watching life amongst crowds of units living under defined rules and exact discipline, ought to furnish new elements of progress in the study of health and disease. A closer contact with the civil profession would doubtless react on the military surgeons also in a favourable manner.

The cause we are working for in civil and military life is actually identical, and union will be good for both.

I beg you will say what steps should be taken to have such a Section formed in the annual meetings, in order that the question may be brought forward. I need hardly say that all militia and volunteer surgeons would have some interest in such a Section.—Yours,

Woolwich. George J. H. Evatt, M.D., Surgeon-Major A.M.D.

J. McV.—Hillary, Haygarth, Percival, and Heysham seem to be scarce, and probably (Haygarth certainly) can only be got at in medical libraries (*e.g.*, Royal Colleges of Physicians and Surgeons, or the British Museum.) Much interesting information from Heysham will be found in Lonsdale's *Life of Heysham*, published a few years ago. With the last exception, these authors have not, so far as we are aware, been quoted at length in any modern book. They are quoted, however, at some length (as regards figures) in a paper on Vaccination in the *Sanitary Record* for April 1883, and also in the Howard Essay for 1882 (which has not been published, but which could probably be seen through the courtesy of the Statistical Society). The latter also quotes other authorities of the kind required.

A Case for General Sympathy.

SIR,—On April 14th last, you were good enough to publish a letter from myself containing a statement of the sad case of Dr. Cedric H. Hurford, who is suffering from general paralysis; and from time to time you have acknowledged the contributions received. Up to the present date, we have collected altogether £617 10s. towards the sum of £1,000 which it is absolutely necessary to obtain to provide for Mrs. Hurford. I hope, therefore, that further contributions may be entrusted to me, especially as, since the date of my last letter, the Earl of Derby, as Colonial Secretary, has recognised the special urgency of this case by sanctioning a special and further grant of £50 towards the Hurford Fund. I annex a list of recent contributions which I have received, and I beg you will accept my cordial acknowledgments for the valuable assistance you have rendered those who are interesting themselves in the Hurford Fund.

	£	s.	d.		£	s.	d.
Dr. Jervis	3	0	0	J. Benson Cooke, Esq.	1	1	0
Dr. Sutton	2	2	0	Dr. J. Tasker Evans	1	0	0
Dr. Everett	1	1	0	Surgeon R. J. Taaffe	1	0	0
W. Thorn, Esq.	1	1	0	P.O.O.	1	0	0
and the following per Dr. Savage—							
John A. Nollis, Esq.	5	0	0	Dr. Alfred Hall	1	1	0
Henry Stear, Esq.	2	2	0	Dr. Geo. H. Savage	1	1	0
Dr. W. G. Bacot	1	1	0				

—I am, sir, your obedient servant,
HENRY C. BURDETT.
39, Gloucester Road, Regent's Park, N.W., August 29th, 1883.

Stewart of Canisbay Fund.

SIR,—In acknowledging the following subscriptions to the above appeal, I take this opportunity of sincerely thanking those gentlemen who have, up to the present, so generously subscribed. I may mention that the appeal has been made on behalf of the widow of the late Dr. Stewart, of Canisbay, Caithness, to the members of the medical profession.

Dr. Stewart, as previously stated, laboured in an extensive, but very poor, parish in the extreme north of Scotland. Having been attacked with double pneumonia, he died after a few days' illness, leaving a wife and six children almost destitute.

Subscriptions will be received by the Editor of the BRITISH MEDICAL JOURNAL, and by the Rev. James McPherson, Canisbay, Caithness, N.B. The following is a list of subscriptions to date.

	£	s.	d.
Already published...	69	6	0
Since last appeal to the BRITISH MEDICAL JOURNAL, the Rev. J. McPherson has received	9	13	0
The Editor of the BRITISH MEDICAL JOURNAL	6	4	0
Total	85	3	0

—I remain, yours faithfully,
ALEXANDER MITCHELL, M.D.
Burton House, Great Yarmouth, September 6th, 1883.

M.D.—Parke's *Practical Hygiene* (J. and A. Churchill) is the standard work on the subject. Dr. George Wilson's *Handbook of Hygiene* (also published by Churchill) is a smaller and less pretentious work, and would probably serve your purpose.

Question Regarding A Sea-Voyage.

SIR,—May I be allowed to ask, through your columns, if any of our medical brethren will give me the benefit of their experience of the relative advantages of a voyage to and sojourn at the Isle of St. Helena, or at the Cape, for a lady who is suffering from extreme nervous debility, with almost constant neuralgic headaches, and consequent great weakness? There is no organic disease, and there seems to be a decided opinion that a temporary, but a thorough and complete, change would enable the patient to regain her strength, and break the continuity of the attacks. My question resolves itself into these two points: which of the two places would be most bracing and suitable for the patient, and what part of the year would be most favourable to make the voyage. A reply would be esteemed a great favour by

AN ANXIOUS INQUIRER.

MR. THOMAS RIBOT (Jersey).—Apply to the Dean of the Faculty of Medicine' University of Brussels.

Medical Book-keeping.

SIR,—I send for publication another system which I have used for some years, and find it work admirably; by its use, a month's work of over £100 can be posted in ledger in two hours, or the twelve months' work of a practice of over £1,200 posted in twenty-four hours, and the year's accounts made out in less time. To any who abominate keeping accounts as much as I do, its adoption will prove a boon.

I have a book made of five quires, of the size of an open sheet of note-paper, each page ruled horizontally for twenty-five lines for patients, and vertically for thirty-one lines for the days of the month, with a wide space to the left for the name and address, and a smaller space on the right for the number of visits and remarks, so that each line shows a month's account for one patient. Cost of book, 4s.

I make no charge for medicines; consultations at surgery and ordinary visits are charged the same; special visits double, marked 2; night-visits, one guinea, marked at end of line.

In commencing a month, which is written on the top of the page and dates on each line, all the patients on the list are entered with fresh entries from the day-book every morning. A mark is put to each patient for visit or consultation on that day (with any other symbol required), and reckoned up at the end of the monthly line, so that any account required can be made up in a few minutes, and reference made to the day-book for the prescription.

In the ledger, only twelve lines are required for twelve months' account of each patient. Say a patient has had eight visits or consultations each month during the year $8 \times 12 = 96$, say at 5s., divide by 4, which gives £24; make out the account, date of year only, professional attendance £24. If there be an uneven number of visits each month, only twelve lines have to be reckoned up, with addition of fees. In making out the daily visiting list, I mark those required seeing in the book described, and copy it on a folded half sheet of note-paper; this is convenient to carry in the ticket-pocket, and notes can be made on the same. It is unnecessary to use or carry about the ordinary visiting diary.—Yours faithfully,

PROFESSIONAL ACCOUNTS.

Marriage of Cousins.

SIR,—The book alluded to is probably A. H. Huth's *Marriage of Near Kin* (Longmans).—I am, etc.,

G. B. LONGSTAFF.

The Increase of Cancer.

SIR,—The letter of Dr. Thompson, published in the JOURNAL for August 25th, is hopeful of the good results which might follow a general investigation into the question of the increase of cancer. Few there will be who will not be ready to admit the great significance of this matter. It can scarcely be denied that the time will come, is coming indeed, when something more will be required of us than a casual admittance that cancer is increasing. Now that we have proved that which sophistry would have us believe is not the case, it is clearly time to take action in the matter, and endeavour to arrange, upon a scientific basis, all the facts of which we have knowledge in connection with the subject. United action then, on the part of the profession, is the only means by which this can be accomplished. I would suggest, therefore, to the Collective Investigation Committee, that cancer should form one of the subjects of inquiry. If this were confined as much as possible to a record of facts which have come under the immediate observation of the surgeon, much information might be forthcoming; for instance, under the heading of hereditary transmission. The value of this could not be denied in cases in which an acquaintance with a cancerous family had extended over two or more decades; for most of our knowledge of the hereditariness of cancer must necessarily be derived from the observation of those amongst whom the disease exhibits a collective virulence, such as those cases in which it appears respectively in parent and offspring. In my article, published in the JOURNAL in April, I drew attention to the data obtained by Charles Moore by means of private inquiries amongst his friends. Surely, if a limited investigation of this nature was productive of good results, we might reasonably hope for a rich return by instituting a general inquiry upon this question.—I am, sir, yours faithfully,

HUGH P. DUNN, F.R.C.S.
London, August, 1883.

MR. T. M. WATT (Hovingham) desires to thank the gentleman who sent him a postcard, with initials alone appended, answering his inquiry about a home for a crippled girl.

COMMUNICATIONS, LETTERS, etc., have been received from:

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BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON THE IMMEDIATE TREATMENT OF FRACTURES BY PLASTER-OF-PARIS BANDAGE.

Read in the Section of Surgery.

BY CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery in University College, London.

Two years ago, Mr. John Croft read a paper at the Royal Medical and Chirurgical Society on the Immediate Treatment of Fractures of the Leg by Plaster-of-Paris Splints, as practised by him at St. Thomas's Hospital, and of which he will, I understand, give a demonstration to-day. The object of my paper is to point out that many other fractures besides those of the leg may be most conveniently and satisfactorily treated by plaster-of-Paris bandages or splints, though I prefer the former.

A late American surgeon and friend of mine, Dr. Cowling of Louisville, published, shortly before his death, three years since, a little book entitled *Aphorisms on Fracture*, of great value from its shrewd common-sense, from which I will venture to make a few brief quotations.

"*Aphorism* 38.—Carved and manufactured splints generally fit nobody, and are to be rejected, as not only expensive, but damaging."

"*Aphorism* 41.—The application of the roller bandage immediately to the skin, whether as a protective or to prevent muscular spasm, has resulted in such disaster, that it is one of the curiosities of surgery how it could be repeated at this day. When cotton is placed *over* such a bandage, it forms an absurdity scarcely credible in a man of ordinary sense."

"*Aphorism* 44.—Continued extension and counter-extension are, as a rule, not necessary to prevent shortening in fractures. This is best done by removing the causes which lead to muscular spasm: first, by early and as complete reposition of the fragments as possible; second, by the smooth application of cotton batting to the limb; third, by the equal pressure of a bandage extending from the distal end of the limb to a point beyond the joint above the fracture; fourth, by the accurate fitting of the splints or plastic material for support; fifth, by as little interference afterward as possible."

Mr. Gamgee has for so long advocated in this country the advantages of fixation and compression in the treatment of fractures, that it may appear superfluous to go at all over the same ground again; but my object is to induce surgeons to have more faith in the early treatment of fractures by plaster-of-Paris than appears as yet at all general, and thus to save their patients and themselves an infinity of trouble.

Let me take, as a good example of the treatment, an ordinary case of fractured patella. Every one knows that the joint soon fills up with blood and synovia, which take many days for their absorption; but every one apparently does not know that, if the case be seen before effusion has occurred, it may be entirely prevented by wrapping the knee-joint up in cotton-wadding, and applying a plaster-of-Paris bandage firmly over all. I have treated many cases in this way with only a couple of days' confinement, and believe that I have in some got osseous union between the fragments, so firmly are they knit together.

But, if effusion have already taken place, it is easy to get rid of it, if coagulation of the blood have not already occurred, by the use of the aspirator; and, the wadding and plaster being at once applied, no further effusion takes place, and the patient begins to walk about with a stiff knee as soon as the plaster is dry.

Unless a fractured tibia be very much comminuted and bruised, I look upon plaster-of-Paris, applied as soon as possible, as the ordinary treatment to be adopted; and certainly, in Pott's fracture of the fibula, with or without fracture of the internal malleolus, nothing is so comfortable to the patient, or of so little trouble to the surgeon, as a boot of plaster properly applied, with the foot carefully held at a right angle to the leg.

In the fractured thighs of children, I believe better results can be got by the immediate application of plaster-of-Paris over cotton-wadding than by any other method—even than by Hamilton's double thigh-splint with cross-bar, which is very convenient. And here let me venture to controvert a part of one of Dr. Cowling's aphorisms and the routine teaching of most surgical works, viz., that the joints above and below a fractured bone should be included in any apparatus and kept quiet so long as the fracture is under treatment. If a fracture be close to a joint, and *a fortiori* if it involve the articulation, then of course its fixation is essential; but why, with a fracture in the middle of a long bone, we should insist upon crippling a patient by doing our best to give him two stiff joints, I fail to see. With imperfectly fitting splints, it may no doubt be desirable to fix approximately the neighbouring articulations in order to obviate movements which would disarrange the fracture; but how incomplete the fixation is, anyone may see who will watch a case of fractured thigh treated with the long splint. To enclose joints unnecessarily with plaster-of-Paris, is to provide cases for the "bone-setter;" and I should never include the knee or hip-joints in any ordinary case of fractured shaft of the tibia or femur. Many surgeons have exaggerated ideas of the tendency of muscles to produce displacement. They have some tendency to contract spasmodically immediately after an accident; but this soon passes off, particularly when they are firmly and equally compressed.

The apparatus for the treatment of fractured clavicle are too numerous to mention, and perhaps the simplest and best is Sayre's method with three strips of plaster. But I will venture to say that better results will be got by encasing the patient, with his ordinary jersey on, thoroughly in a plaster-of-Paris bandage, than by any other method. The clavicle being a short bone, it is of course necessary to fix the shoulder-joint by encasing the humerus and fixing it to the side; but it is quite unnecessary to fix the elbow-joint, which should be left exposed, the fore-arm being carried in a sling and used with moderation.

Fractures of the neck of the humerus may be similarly treated, if the axilla be thoroughly padded with cotton-wadding, and without a shoulder-cap, which latter is always cumbersome and very apt to gall the patient.

Fractures of the shaft of the humerus may be treated with plaster from the first, alone or combined with three splints; but fractures low down, and separation of the lower epiphysis in young children, I find best treated by thoroughly flexing the fore-arm upon the chest and maintaining it there with ordinary bandaging.

Fractures of the fore-arm are the only ones which seem to me unsuited for treatment with plaster-of-Paris, and for the obvious reason that there would be great danger of drawing the two bones together. Two simple splints, not too wide, should be applied while the forearm is supinated, and then brought by the surgeon into the position between supination and pronation: these answer every purpose, while for Colles' fracture Carr's splint is the best. In fracture of the olecranon, I am heterodox enough to flex the arm to a right angle and let the patient wear it in a sling, and the result is as satisfactory as if a front straight splint were applied for a month.

PLASTER-OF-PARIS SPLINTS FOR IMMEDIATE TREATMENT OF FRACTURES OF THE LEG, ETC.

Read in the Section of Surgery.

BY JOHN CROFT, F.R.C.S.,
Surgeon to St. Thomas's Hospital.

IN June 1881, I read a paper on this subject before the Royal Medical and Chirurgical Society of London, and that paper is published in the Society's *Transactions*. Since the period to which that paper referred, I have continued the practice of applying these splints immediately for fractures, and many other injuries of the lower extremity.

The practice is as much approved by my colleagues as when I wrote the paper. Mr. Battle, the registrar of St. Thomas's Hospital, has kindly ascertained for me that, during 1881 and 1882, 403 fractures were treated in this way, and none but good results ensued. No instances of gangrene, or bad or delayed union, or splint sores occurred. This number, with that already reported, viz., 498, makes up a total of 901 cases treated with the best results.

I would take this opportunity of again advocating the immediate setting of fractures, and their treatment by such splints as these.

The chief obstacles to their use seem to be the lingering ol

prejudice in favour of waiting until swelling has subsided before finally setting the fracture, and covering up the seat of fracture with bandages. A second obstacle is unwillingness on the part of the surgeon to put it out of his power to see, touch, and tell of the changes taking place in the external appearances of the injured spot. Another obstacle is in obtaining and manipulating plaster-of-Paris.

With regard to the first, I would impress upon those who look upon the swelling as an obstacle, that the equable support given by the splints and muslin bandage is the proper remedy for the swelling. I am speaking of the swelling ordinarily met with in simple fractures, and not the exceptional swelling encountered about once in twenty-five cases. The absolute rest and support form the natural remedies for the extravasation and consequent swelling.

With regard to the second obstacle, I can only ask, How long are we to take in learning that swelling and inflammation are not necessary to the repair of wounds of bone, as they are not essential for the repair of wounds of the soft parts? Subcutaneous, experimental, and antiseptic (or, rather, aseptic) surgery have taught us that much. If these appearances or signs be not needed to enable the surgeon to measure the progress of healing, what need is there for keeping the seat of fracture uncovered and exposed to the ill consequences of unequal support? I beg him to have the courage of his knowledge, and to act upon it. The excuse that he cannot from inspection report how the fracture is going on, is a very lame one. If the fracture have been properly set and fixed in the splints, he may rely upon it that the process of repair will go on to its termination as surely as an acorn, dropped into suitable soil, will develop into an oak. If healthy repair be not going on, symptoms of it will not be wanting in uneasiness, pain, severe throbbing, obstinate starting, and feverishness.

As to the last obstacle mentioned, the difficulty of obtaining and manipulating plaster-of-Paris, that, I must admit, is a real obstacle to some country practitioners, though it is none whatever to a surgeon resident in a town. I hope that some day a plastic material will be found, which will combine the useful qualities of plaster-of-Paris and poroplastic, without their disadvantages.

I still hold that for the immediate treatment of fractures the splints are superior to the plaster-of-Paris bandages; and for the reasons stated in my original paper, that the bandages form a thick case which is comparatively difficult to remove. It is most desirable, in the cases under consideration, to put on an apparatus which, in case of accident, such as rapid unusual swelling, pain, or misadventure in application or manipulation, can be easily taken off with the least possible disturbance of the broken limb. To remove the complete case made by plaster-of-Paris bandages, it must be cut open, and then the limb extracted from it; another case must be built up. These steps cost the injured limb much disturbance and some pain. When the splints have to be removed for some accidental cause, the process is a very easy one. The muslin bandage is easily cut up by scissors; the splints can be removed or turned aside, one at a time, so that the limb is not left without support. In the majority of the few instances in which this change has to be made, the same splints may be reapplied with fresh muslin bandages.

The apparatus consists of: firstly, inside and outside splints made of common house-flannel and plaster-of-Paris; and, secondly, of muslin bandages. The splints for fractures below the knee are shaped somewhat like the old short outside splint; the footpiece is, however, wider. The splint for the inside of the leg is similar in length and width to that for the outside. The splints should be long enough to extend from above the knee to the middle of the metatarsus, and together they should be in width about one inch less than the circumference of the limb at the corresponding part. A rough guide to the shape of the splint may be found in the injured person's stocking when it is laid flat on a table. Each splint is constructed of two layers of the flannel; the outer layer carries the gypsum; the inner layer forms a dry, warm, elastic lining, and protects the skin. These splints are applied by means of the muslin bandages. The bandage is put on like any other, from the toes to the knee; one thickness is enough. Two bandages of five or six yards in length are more convenient than one of ten or twelve yards.

To Make the Splints.—1. A piece of house-flannel, or an old shrunk blanket, or any suitable substitute, is selected. The pieces may be shaped by measurement, taking the circumference of the limb above and below the knee, at the biggest part of the calf just above the ankle-joint, from the front of the ankle-joint round the heel to the front again, and at the middle of the metatarsus. The flannel of each splint should be in width half an inch less than half the circumference at any of those points. The width of the two splints should be one inch less than the circumference of the limb at any corresponding part; it should be long enough to extend from above the knee to the middle of the metatarsus. Four pieces are required—two for each splint. 2. Two bandages of common muslin are prepared, each five to six yards long, and two inches and a half in width. 3. A handful or two of good dry plaster is mixed with water to the consistence of thin cream. 4. The inside pieces of flannel may be laid on the table or bed, the outer surface being upwards. 5. The outside pieces are to be soaked in the plaster separately, and laid out on their respective inside pieces.

Application.—Whilst traction is kept up, and the ends of the broken bones are maintained in apposition, the splints are to be applied and smoothed; then the bandage is to be put on. Traction is to be maintained during the hardening of the plaster. The latter takes place in about three minutes. Next the limb should be laid on a large soft pillow, the toes directed upwards, and the knee a little bent. In the application of the bandage, great caution should be observed that it is not drawn tightly anywhere, and that no one turn of the bandage is tighter than another. The support is to be equal everywhere. The two splints should not meet by about half an inch either down the front or back. The intervals are spanned by the dry porous muslin; at the sides, the bandage is fixed to the splints by the plaster, which oozes into it from the outer layer of flannel. If it become necessary next day, or later, to ease the splints, or to inspect the limb at any spot, the bandage can be slit up with scissors along the middle line in front. One or both of the splints can then be eased from the limb, and readjusted by the addition of another bandage. It is undesirable to wholly remove the splints. They are hinged together at the back by the muslin bandage which spans the interval there. The trimming of the apparatus may be done as soon as the plaster shall have hardened. Should the surgeon be short-handed with regard to assistance, he may apply the outside splint first, and lightly bandage that on; and, when that splint has nearly hardened, he may put on the inside one. As swelling subsides, and the splints become more or less loose, an additional bandage should be put on. At the end of ten days, if the patient be convalescing, the outside bandage may be gummed, or a fresh gummed bandage rolled on. That apparatus will last until splints are no longer needed. At the end of a fortnight, or three weeks, as the case may be, the patient may leave the hospital for his own home.

This mode of treatment is admirably adapted to oblique fractures, accompanied by displacement of the tibia, to cases of Pott's fracture, and to comminuted fractures.

[The author read letters from Mr. Davies-Colley of Guy's Hospital, and Mr. Berkeley Hill of University College Hospital, in favour of this plan of treatment.

A demonstration of the mode of treatment was given by Mr. Croft, in which he was kindly assisted by Mr. Laimbeer, House-Surgeon of the Liverpool Royal Infirmary.]

Dr. GEO. W. GAY (Boston, U.S.A.) said that the primary treatment of fractures by plaster-of-Paris bandages or splints had been in use for some years at the Boston City Hospital, with very satisfactory results. In fractures of the lower extremity, a favourite appliance was the "plaster posterior" splint or tray, which was applied as follows. The limb was first wrapped in cotton-wadding, not batting, and then a pattern of the splint was made by laying the limb upon the gauze, and fitting the latter to the leg. The gauze was then saturated with the wet plaster, applied to the limb, and secured with an ordinary bandage. The layers of gauze did not meet in front by about an inch, and the case could be sprung open at any time, removed, and re-applied. Put on in this way, it made an immovable support, and there was no danger of strangulation and gangrene. In cases of Pott's fracture with much deformity, this splint was not, as a rule, used, nor was it considered the best appliance in any fracture attended by a strong tendency to deformity. Plaster bandage was an excellent appliance after tenotomy for club-foot. Dr. Gay's practice in these cases was to cut the necessary tendons, place the foot in its natural position at once, and keep it there with a case of plaster-of-Paris, which is worn for a month at least. He cordially agreed with Mr. Heath, that plaster-of-Paris should receive more general attention in the primary treatment of fractures, both simple and compound.

Dr. MCCOLL (Michigan) said that, in reference to the treatment of fractures by plaster-of-Paris splints, he would remark that his

method of applying plaster-of-Paris differed from that of Dr. Gay, in that he made his plaster splints after the method of Dr. Sayre, of New York. Making the splint by rolling the bandage in plaster, and merely dipping in hot water before applying, he enveloped the limb in flannel, using cotton-batting freely over the seat of fracture, made necessary extension, applied his bandage, and in ten to fifteen minutes he had a firm support to the limb. His practice was to apply the splint as soon after the injury as possible; and, as his practice was in the country and in the vicinity of the lumber woods, he often had to transport his patients a long distance on the first or second day. He put them on crutches as soon as possible, and he did not remove the bandage for three or four weeks, unless something arose to call for it. He used it in almost all cases of fracture, and had never seen any bad results.

Mr. RUSHTON PARKER (Liverpool) agreed with Mr. Christopher Heath that fracture of the olecranon was well treated by slinging in the flexed position, at a right angle or acute angle, when it could be borne. He had treated fractures of the olecranon this way with unvariable satisfaction ever since 1876, had recommended it also to the house-surgeons of the Liverpool Royal Infirmary, and had seen nothing but the best results in their hands. As to fracture of the patella, he concurred with most of the remarks of Mr. Heath on the subject of separation of the fragments.

KNEE-HÆMARTHROSIS: ITS NATURE, DIAGNOSIS, AND TREATMENT.

Read in the Section of Surgery.

BY JOHN FAGAN, F.R.C.S.I.,

Surgeon and Lecturer on Clinical Surgery to the Belfast Royal Hospital; Surgeon to the Belfast Hospital for Sick Children; Consulting Surgeon to the Ballymena Cottage Hospital.

THE subject of the following paper is, "The Nature, Diagnosis, and Treatment of Knee-Hæmarthrosis." You will observe that I specify the knee-joint in connection with this affection; and I do so because, owing to its anatomical construction, it is the only joint in which this condition can be found in its typical form. That it is an affection of comparative frequency will appear from the fact that in our hospital, with about eighty surgical beds, as many as twenty well-marked cases have been observed and subjected to special treatment during the past five years.

I fail to find in any of our surgical text-books or systems of surgery (if I except a passing allusion to it in Billroth's *Surgical Pathology*) a notice of this important condition as an affection *per se*; and, when it is mentioned as a complication of fracture or some other serious injury to the joint, there is no special guidance as to its diagnosis and treatment.

By overlooking or making light of this condition, either in its simple or in its complicated form, convalescence from joint-injury is often unnecessarily prolonged; and, if immediate mischief be not produced, very often the foundation is laid for future articular disease.

It is now about five years since the consideration of this subject was forced upon me by a striking illustration of it that I am about to describe, and, up to the present time, I have had experience of about fourteen others. About two years ago, I read a short paper on this subject before the members of the Ulster Medical Society; and, since that time, my colleague Dr. Browne has observed five well-marked cases.

The following histories will, I hope, sufficiently illustrate what I have to say on this important subject.

CASE I.—This occurred about five years ago, and was unique in all the circumstances attending it. I witnessed from my dining-room window the accident that gave rise to it. A young farmer was dashed with great violence against an iron railing opposite my house, while endeavouring to restrain a runaway horse. He was immediately conveyed to the hospital by the police. I happened to be the surgeon on duty at the time, and, anticipating the house-surgeon's summons, arrived at the hospital just as the man was placed in bed, about twenty minutes after the receipt of the accident. He said he was not much hurt, and complained merely of a stiffness in one of his knees. I found his left knee much swollen, and distended with fluid. He had scarcely any pain in it. I asked him if he had ever noticed anything wrong with this knee; he said that he had not; that it was in every way like its fellow, which was quite normal.

Here was a joint rapidly distended with fluid. What was the nature of it? and what was to be done for it? These were the questions that presented themselves to me. It could not be due to an excessive secretion of the synovial fluid; the accident was too recent to produce synovitis, and there was no pain. It was clear, then, that it must be owing to extravasation of blood from ruptured vessels into the synovial membrane. Viewing the case in this light, and seeing a train of possible serious consequences following from its presence there if I had recourse to the usual methods of treatment, I resolved on its immediate removal. By means of the aspirator, I drew off five ounces of pure blood. The swelling at once collapsed. I put on a bandage, placed the limb on a back-splint and applied an ice-bag, gave the patient a brisk cathartic purge, and put him on low diet. Two days afterwards, there being slight swelling, but no pain, I again used the aspirator, and drew off two ounces of a dark-red syrupy fluid. There was no further trouble. In twelve days after receipt of the injury he left the hospital, there being scarcely any perceptible difference between the knees in appearance or in function. I told him to let me know if he ever experienced any pain in his joint. I have not heard from him since.

CASE II.—A policeman, under the care of my colleague Dr. Browne, was jumping over a ditch, when he lost his balance and fell backwards. He felt something crack in his left knee-joint. The joint became swollen and somewhat painful within a few minutes. He was admitted to hospital six hours afterwards. In twenty hours, he was seen by Dr. Browne, who diagnosed the case to be one probably of hæmarthrosis. The joint was aspirated, and four ounces of blood were removed. A Martin's band was applied at once. The patient left hospital well in three weeks.

CASE III.—A slater, aged 54, sustained a fracture of the lower end of the femur, extending into the knee-joint, by a ladder falling on him. When he was seen by me, about twenty-four hours after the accident, there was great swelling and some tenderness of the joint. The limb was placed on a back splint, moderate extension was kept up by weight and pulley, and ice-bags were applied to the knee. At the end of a fortnight, seeing no appreciable diminution of the swelling, and there being scarcely any pain, I used the aspirator and drew off four ounces of a dark bloody fluid. The swelling became greatly diminished. Three days afterwards I again aspirated, but did not get quite one ounce of fluid. The man regained the full use of his joint, a slight enlargement of it being the only difference from the healthy one.

CASE IV.—A healthy man, aged 30, fell into the hold of a vessel, striking his knee with some violence against a chain. The joint became swollen immediately afterwards, but the pain was very slight. He walked about all day, but late at night, experiencing considerable pain, he sought admission to hospital. A back-splint and ice-bags were applied. I saw him the second day after the accident; the pain, but not the swelling, had subsided. I ordered the same treatment to be continued; and, on the ninth day after the accident, as there appeared to be no diminution of the swelling, I aspirated the joint, removing between three and four ounces of dark bloody fluid. No more swelling appeared, and the man left hospital, quite well, in twenty days after the receipt of the accident.

CASE V.—A lad, 13 years of age, fell "down a hoist," a distance of about twelve feet. He cut his chin severely, and came to hospital to have it dressed. When walking out, he was noticed to limp a little; he was called back, and on examination his right knee-joint was found to be somewhat swollen, and fluctuation quite distinct; he did not know that his knee was hurt, as he had scarcely any pain in it. He was retained in hospital, and the joint attended to. I did not see him for eight days after the accident. The swelling remained undiminished, and there was no pain. I diagnosed the case as one of hæmarthrosis, used the aspirator, and removed between two and three ounces of bloody fluid. Cold and pressure were applied, and the lad left hospital quite well in a fortnight.

Before making any comments on the above cases, it may be well to dwell for a moment on the anatomical character of the joint in its relation to the injury under consideration. The knee-joint is the most superficial, and probably least protected in the body. The capsule is not well defined, it is stronger at one point than another, and is intimately connected with the muscles passing over it by tendinous or aponeurotic expansions. Within the capsule are a number of important ligaments, together with the synovial membrane, which is a more or less complete sac shut off from the other structures within the capsule. It is the largest synovial sac in the body, and is adherent to, and continuous in the greater part of its extent with, the capsule of the joint. A number of folds or reduplications of the membrane project into its cavity after the manner in which the layers of the peritoneum form the mesentery. Within these

folds are loose cellular tissue, fat-cells, and numerous blood-vessels forming a rich capillary plexus at their free ends.

Having regard to its anatomical character, it is not to be wondered at that sudden muscular strains, severe contusions and wrenches of the articulation, should produce hæmorrhage, by laceration of those rich vascular fringes that are so closely connected with the capsule and periarticular tissues, and project into the synovial sac after the manner described. When hæmorrhage occurs outside the synovial membrane it is limited, owing to the close textures of the tissues; but when the blood flows into the synovial sac its smooth and expansive character favours its accumulation.

It has occurred to me that the following classification may serve to show more clearly the pathological features of this injury.

Extravasation of blood about an injured joint may be: 1. Extracapsular (with this form we are not here concerned); 2. Intracapsular (this constitutes the condition known as hæmarthron).

Of the second class there are three forms: 1. Extravasation of blood outside the synovial sac; 2. Extravasation of blood within the synovial sac; 3. A combination of both these forms.

The first form may be produced by wrenches or contusions, causing extravasation of blood and laceration of some of the ligaments within the capsule, without affecting the synovial sac. This form of the affection, while it is of serious import, does not call for the mode of treatment suitable to the second form.

The second or typical form is one where, after the injury, there is laceration of the ligamentum mucosum or some of the other vascular fringes, followed by effusion of blood into and distension of the synovial membrane. After a little time the edges of the rent become adherent, and the blood is then contained in an inclosed sac. This form, which I believe to be rare, is well illustrated in cases one and two.

The third form is usually associated with serious injury to the joint; it varies in degree from that accompanying a simple fractured patella, or a fissured fracture of the femur into the joint, to that of a compound fracture or dislocation. In the last two cases (compound fracture and dislocation) the hæmarthrosis is only of secondary moment, and need not be furthered considered. In the case of simple fracture of the bony walls of the joint, the extent of separation varies from a fissure to wide gaping of the fragments. In certain forms of fracture of the patella and through the condyles, the fragments remain in close apposition, so that blood effused into the synovial cavity is retained in it. Such cases virtually belong to the second form. When there is wide separation of the fragments, or much laceration of the synovial membrane, blood is extravasated both within and outside the sac; and, while this condition modifies the symptoms and prognosis, it does not in any way alter the special mode of treatment.

Professor Volkmann, of Halle, a few years ago drew attention to this subject of effusion of blood into the knee-joint, and he put the following pertinent questions.

1. Does the blood effused into the injured joint coagulate, or does it not?

2. If it do coagulate, when and under what conditions does this coagulation take place?

3. When and under what conditions is blood absorbed?

He does not propose to answer these questions further than by stating facts observed by him in connection with this inquiry. He found the blood fluid when he punctured between the third and eighth days. In a case of transverse fracture of the patella, with much effusion into the joint, three ounces of blood mixed with synovial fluid were removed on the second day. In another case, where there was wide separation of the fragments, all the effused blood was found coagulated on the fifth day.

My experience, gained from all the cases I have yet met with, leads me to the conclusion that in most, if not all, cases of uncomplicated hæmarthrosis, the blood remains fluid in the joint for an indefinite period. I have found it so at intervals varying from half-an-hour to fourteen days after the receipt of the injury. What it is that keeps the blood fluid, I am not prepared to state. Can it be owing to the fact that it is merely transferred from one cavity (the vessels) to another (the synovial sac), the lining membrane of which resembles that of the vessels in its structure, and that the synovial fluid possesses certain properties favourable to sustaining the life of blood?

To the second question of Volkmann I am also unable to reply, further than to make some suggestions based on the observation of certain facts. From the reports of cases bearing on this subject, I find that, where coagulated blood was found in the joint, it was always associated with bad forms of transverse fracture of the patella, or with some such serious injury to the joint as leads to amputation. In one of Volkmann's cases of fractured patella, where he punctured two days after the injury, he got fluid blood, but he does not mention the extent of separation of the fragments. In another case, where he punctured on the fifth day, and found the blood coagulated, he says there was wide separation of the fragments.

I have had a case of fractured patella and one of the lower end of the femur into the joint, and have removed fluid blood from both joints; in the first, four days, in the second, fourteen days after the injury. In both cases, there was scarcely any separation of the fragments.

Now, from these facts, may we not infer that coagulation is associated with serious injury, causing fracture of patella, femur, or tibia, with a wide separation of the fragments, or with an extensive laceration of the synovial membrane, allowing the blood poured out to communicate freely with the tissues outside the sac, and favouring its coagulation by coming into contact with their rough irregular surfaces?

Regarding the third question of Volkmann, when and under what conditions is the blood absorbed, I will not dwell on it further than to say that I think surgeons talk too lightly of the absorption of this fluid. That it does take place in many cases, where after contusions there is synovitis with some extravasation of blood, I am prepared to admit; but when it forms the bulk of the swelling, as in the second form of hæmarthrosis, I do not think it can be so easily got rid of as is generally supposed. The swelling, after a varying period, may be considerably diminished, but does not entirely disappear; and portions of the organic constituents of the blood remain, modifying the synovial structure in such a way that serious mischief may at any time be developed from slight exciting causes.

The diagnosis of this condition should not be difficult, if attention be paid to the following points: 1, the nature of the injury; 2, the time when the swelling appeared; 3, the character of the swelling; 4, the pain.

If a person sustain an injury to the knee, followed by swelling of the joint, it might be well to ascertain if there existed, prior to the injury, a hydrarthrosis, or any other form of enlargement. If swelling follow rapidly the receipt of an injury to a normal knee-joint, and this be limited to the synovial sac, as will be indicated by swelling of the pouch under the quadriceps muscle, and floating of the patella, I think the case may safely be diagnosed as one of hæmarthrosis.

I have noticed that very often there is but little pain on manipulation, sometimes there is no pain; the rule is, the pain is not severe. Very frequently accompanying hæmarthrosis there is a smart attack of synovitis. If the case have not been seen early, and there be no satisfactory history, it is difficult to determine which condition predominates. The doubt, however, will be cleared up by the progress of the case. If the case be one of synovitis alone, the swelling disappears under appropriate treatment; if it be due to blood in the joint, the pain and inflammation may disappear, but the swelling will remain. These facts were well established in some of my cases. Even without a history of enlargement rapidly following injury, if the swelling persist, and be not accompanied with much pain, one usually finds it to be due to the presence of blood in the articulation. Its distinctive characters, as compared with synovitis, are these.

Hæmarthrosis.	Synovitis.
Swelling rapidly following injury.	Swelling after a varying interval.
No heat; little, if any, pain.	Heat and pain.
Joint can be moved.	Joint usually fixed.
Absence of fever.	Fever, more or less.
Swelling does not subside under ordinary treatment, or does so only to a moderate extent.	Swelling subsides under appropriate treatment.

Regarding the treatment of this affection, we are told in those surgical text-books that take any notice of it, that we should treat the case with the view of promoting absorption of the effused fluid. Since I gave this subject consideration, and gained any experience in connection with it, I say, without hesitation, that the proper treatment of the affection is to remove at once the fluid by puncture of the joint; by this means the foreign body is immediately got rid of, thereby preventing the possible train of serious symptoms that might follow its presence in the joint.

Up to the present time, I have treated fifteen cases in this manner, using the aspirator two and three times in the same case,

and on no occasion has it been followed by the slightest unpleasant result. The way in which I carry out this treatment is to puncture the joint with the large needle of the aspirator, a little above and to the outer or inner side of the patella, whichever is the more prominent; the needle is then directed obliquely under the patella. After the fluid is completely removed, I place a small pad of lint, saturated in friar's balsam, over the point of puncture, put a bandage firmly round the joint, place the limb on a back-splint, and apply ice-bags. After a few days, if the swelling do not entirely disappear, I puncture again; and unless the case be complicated with some other form of injury, the joint is usually restored to its normal condition within a fortnight or three weeks.

Puncture of the knee-joint was looked upon as a hazardous practice some years ago. Now it is of frequent occurrence, and, in the proper cases, is followed with the most satisfactory results; and I expect that, after a little time, opening the joint to dispose of coagula that cannot be got rid of by the aspirator will be more frequently practised, and that this heroic but rational mode of treatment will cause less anxiety than puncturing did a few years ago.

OBSERVATIONS ON PRIMARY VENEREAL SORES.

Read in the Section of Surgery.

BY ARMAND BERNARD, M.B.,
Surgeon to the Liverpool Lock Hospital.

IN asking your kind attention to the following subjects, I am mindful that the matter is not altogether new, and no doubt has frequently been discussed at the meetings of the various medical societies; still, an interesting subject cannot be reviewed too often; new matter and fresh ideas invariably result from each succeeding debate, throwing further light, and adding increased interest to the study of syphilography.

I shall first allude to the most usual situations of the primary syphilitic lesion; and, whilst paying my tribute of grateful acknowledgment to the distinguished syphilographers, Fournier, Clerc, Hill, and others, who have carefully recorded the most usual sites, I trust I may not seem presumptuous in being a little more exacting in distinguishing different parts of the male genital organ, and in avoiding grouping sites, as is more especially the case with Fournier and Clerc. The latter omits the urethra, makes no special mention of cases occurring on the corona glandis, and does not distinguish the sheath from the outer surface of the prepuce. Hill makes no special mention of the sheath or body, neither does he separate the corona from the glans. Fournier also does not allude to the corona, and omits the frænum. He does not distinguish between the different parts of the prepuce; added to which, he combines the prepuce and glans.

The following 250 cases were carefully noted at the Lock Hospital and from other sources, with the annexed result. The primary lesion occurred in the furrow in 71; inner surface of the prepuce, 118; outer surface of the prepuce, 23; free border of the prepuce, 4; corona, 45; glans, 21; sheath, 26; meatus, 10; frænum, 11; urethra, 1.

It will thus be seen that the inner surface of the prepuce was the most usual site in the cases recorded. The furrow, next in order, claimed a large proportion. The corona was found to be attacked oftener than the body of the glans. The sheath or skin of the penis and outer surface of the prepuce show an almost equal proportion, the former situation being a little ahead. The free border seemed an unusual site. The meatus and frænum contained ten and eleven chancres respectively; whilst only one chancre was found in the urethra.

In a short paper contributed to the *Liverpool Medico-Chirurgical Journal*, in January last, on the same subject, in which the sites of the chancre in 120 individuals were recorded, I remarked that the size of the foreskin will greatly influence the situation of the lesion. A long foreskin will be more prone to favour the retention of an injurious secretion than a short one, or almost none at all, as in the Jew. The virus, being retained, attacks, under circumstances favourable to its abrasion, the most delicate part, viz., the inner surface of the prepuce or the furrow. On the other hand, when the glans is habitually uncovered, the sheath or the meatus is the more common site.

I shall now allude to the period of incubation of the primary syphilitic lesion. This period is one of the most perplexing subjects in connection with the study of syphilography. The statements of patients, fixing their notice of the first appearance of a chancre, are so confusing in the majority of cases coming under the surgeon's observation, that the greatest caution must be exercised in accepting the information obtained thereby.

That there is such a period, has been fully established by the experimental inoculations of such eminent observers as Waller, Rinecker, Von Bärensprung, and others. It is by no means to be wondered at, that the first manifestation of a syphilitic lesion is so often overlooked; its characteristic painlessness, together with the conditions attendant on the uncleanly habits of many patients as to their genital organs (especially in those troubled with long foreskins, where the cheesy-like secretion, accumulating from want of attention in the matter of soap and water, is looked upon by them as a disease), deceiving them as to its actual presence. On the other hand, we find cases in which, owing to particular circumstances, the dreaded lesion has been detected after days of anxious watching. The sixty-nine cases recorded by me, which I annex, have been obtained from this source, and may fairly be assumed to be tolerably reliable.

Period of Incubation.	Cases.	Period of Incubation.	Cases.
56 days	1	17 days	2
44 ,,	1	14 ,,	13
42 ,,	3	15 ,,	1
36 ,,	1	12 ,,	1
35 ,,	5	10 ,,	2
30 ,,	2	9 ,,	2
28 ,,	7	8 ,,	4
26 ,,	1	7 ,,	7
24 ,,	5	5 ,,	2
19 ,,	1	1 ,,	1
21 ,,	7		

The figures are certainly bewildering. It will be noticed that the figures vary from one to fifty-six days; probably the former represents a mixed inoculation, the chancroid appearing in twenty-four hours subsequently becoming the seat of the more serious affection. One point will be observed on glancing at the figures (I give it for what it is worth), viz., the preference given to the multiples of seven as the most usual dates on which the lesions first appear. This, I find, holds good with the cases recorded by Fournier, in which the multiples of seven occurred twenty times out of forty-five inoculations. My colleague, Mr. Lowndes, has furnished me with the records of forty-seven cases, in which this fact occurs twenty-five times. My own records show forty-three such multiples out of a total of sixty-nine. It would be interesting to hear the experience of members present on this point. No doubt a careless patient, for convenience sake, on being asked for particulars, may say "a week," "a fortnight," "three weeks," and so on; but I may observe that doubtful cases have been intentionally omitted. Only those have been recorded with which there was reason to be satisfied.

The case occurring after forty-four days' incubation was that of a married man, a master mariner, who narrated the facts in a most intelligent manner. He stated that he discovered the lesion in its earliest stage on an outward voyage, after six weeks' daily examination. He was quite certain that it appeared at the time mentioned; in fact, he anticipated my query by telling me that he could not believe that it was a venereal sore, after such a long period from the date of impure intercourse.

The average period of incubation has been found by the experimental inoculations of distinguished syphilographers to be as follows:

Diday	14 days	Wallace	24 days
Chabalier	15 to 18 ,,	Léon Le Fort	19 ,,
Clerc	14 to 16 ,,	Rollet	25 ,,
Fournier	26 ,,	Anonymous Physician of the Palatinate	20 ,,
Sigmund	28 to 35 ,,		
Hill and Cooper	24 ,,		

That of the sixty-nine cases recorded by me was a little under twenty days. Considering that the information was obtained from the statements of the patients, there is a remarkable agreement with the experimental observations of the syphilographers above mentioned. My colleague, Mr. Lowndes, informs me of the case of a surgeon who positively assured him that a primary sore appeared on his genitals after fifty days' incubation. Fournier relates a case which extended over seventy days.

In this connection, it will not be out of place to lay particular stress on the obligation placed on the surgeon, when asked by patients contemplating an early marriage if there be any risk in doing so, owing to a recent impure intercourse. My advice in such a case would be to postpone the marriage, at all hazards, for at least six weeks from the date of exposure. Cases are recorded, and no

doubt have come under your own notice, where the neglect of this wholesome precaution has been followed by lamentable consequences.

The period of incubation varies so much in different cases, that the question naturally arises, How can these differences be explained? To do so is not in my power. I think it is generally acknowledged that it is determined more by the peculiarities of the individual, than by the source from which the virus is derived. In experimental inoculations from a mucous patch, the incubative period, in some cases, has been shorter than that obtained from a primary inoculation. Consequently, the theory asserted by some that an infection from a secondary source has a longer period of apparent quiescence than that derived from a primary one, does not hold good in all cases.

I will conclude this paper with a few remarks on the different forms of induration accompanying syphilitic lesions. In the male, in my experience, it is best marked when the sore is situated on the inner surface of the prepuce and furrow, where, owing to the conformation of the parts, it feels like a piece of cartilage when taken hold of by the fingers. When it occurs on the glans, it feels tough, scarcely amounting to hardness, more to a thickening of the part. At the free border of the prepuce induration is nearly always well marked, though not possessing the elastic feel met with on the inner surface of the foreskin. Absence of induration is a frequent characteristic of a syphilitic lesion situated on the sheath or body of the penis. When induration is present, it then feels like parchment. In the female, it is best marked on the nymphæ. When found on the labium majus, it feels very like that in a similar affection on the glans penis. Induration is not always well marked in the fourchette.

To generalise, this accompaniment of a syphilitic lesion is always best marked when it involves a mucous membrane, the reasons for which are obvious.

In writing this paper, I have been actuated by the desire of confirming the observations of more experienced practitioners, rather than of enunciating new theories, which often prove delusive. It has also been my object to direct attention to matters which, though well known to those who make a special study of this branch of the profession, may yet elude the observation of the busy and hard worked general practitioner.

VENEREAL AND SEXUAL HYPOCHONDRIASIS.

Read in the Section of Surgery.

By FRED. W. LOWNDES, M.R.C.S.Eng.,
Surgeon to the Liverpool Lock Hospital.

I HAVE two reasons for bringing the subject of this paper before you. The first is, the very large number of men suffering from these imaginary complaints; the other is, the difficult question: What is the proper mode of dealing with them? Imaginary complaints come before all practitioners—whether physicians, surgeons, specialists of any kind, or general practitioners; and they do not present any great or special difficulties. But those imaginary complaints which come under the names I have given as the title of this paper, present many special features and difficulties, which will be so obvious to you all that I need not stop to notice them. Those who have large experience in venereal diseases will see from time to time persons who believe themselves to be suffering from some form of these diseases, when, in fact, they have nothing whatever the matter with them. Most writers are silent on this subject of fanciful ailments; but, in the fourth edition of that excellent and well-known work, *The Pathology and Treatment of Venereal Diseases*, by Bumstead and Taylor, a separate chapter is devoted to Sexual Hypochondriasis. This combines what I propose to separate—taking, first, the case of persons who are, so to speak, venereal hypochondriacs; and, afterwards, those who believe themselves to be suffering from some deficiency of sexual power, which makes them more or less impotent; these we will call sexual hypochondriacs.

The following is, I think, a typical case of the first. A man has impure intercourse, and, being of an anxious temperament, especially if it be his first indiscretion, he imagines that he is suffering from that disease, of which, thanks to advertising quacks, he has heard so much. He points to a slight abrasion, an enlarged vein, an excoriated condition of the furrow or glans, or some other abnormal appearance. Or, it may be that a tight foreskin has been for the first time fully retracted, and has revealed the furrow plastered all over with smegma, on removing which will be found the condition known as balanitis. Now, except perhaps in the case of the enlarged vein, a very cautious and guarded diagnosis is desirable. The abrasion or excoriation may be the commencement of a chancre, simple or indurated; which, however, may not be fully apparent for some weeks. The balanitis may disappear, and yet gonorrhœa or chancre may supervene. But we will suppose that, after seeing our patient several times, all lesions have disappeared; ample time has been given for even the latest appearance of gonorrhœa or chancre; and still our patient is not satisfied that he is quite well. He complains of some unusual appearance of the urine, so slight as to be of no consequence. Or he complains of an unusual heat in the penis and scrotum; or, it may be, a slight mucous discharge from the urethra at intervals, which troubles him, and he persists in regarding this as proof of disease. Now, I fully grant that every patience and kindness must be shown in these cases. We must make every due allowance for ignorance and anxiety. We must also put ourselves for a moment in the place of our patient, and try to realise what might have been our conduct under similar circumstances, had we not been professional men, fully acquainted with the normal and abnormal conditions of the genital organs. I will assume that we have done all this, and assured our patient, over and over again, that he has nothing whatever the matter with him. Now comes the question: When ought there to be an end of the farce? Or, in other words, When does legitimate practice cease, and, "not to put too fine a point upon it," quackery commence? I have heard some of my professional brethren argue that we are never justified in giving such patients up, and virtually driving them to the quacks. I cannot agree with such a dictum. After we are thoroughly convinced that our patient's ailment is purely imaginary, it appears to me that we are perfectly justified in saying: "I am satisfied that you have nothing the matter with you, and that there is no necessity for you to see me any more. If you have not confidence in me, and do not believe this, you had better consult some other practitioner." That appears to me the more dignified and honourable course than a continuance of the farce, even if it be a pecuniary loss to us; and I hope that most, if not all present, will agree with me.

Coming now to the sexual hypochondriacs, I will quote an extract from Bumstead's work, which gives a more racy and exact description of these patients than any I could attempt. "With some," he says, "the complaint is almost ludicrous; as, for instance, that one testicle hangs lower than the other—a condition which obtains with the great majority of men; or the patient thinks that his penis and testicles are smaller than they ought to be, even when they are of very fair dimensions; or he complains of an itching or crawling sensation in the parts, which is not strange while his thoughts are constantly directed upon them. Again, it is the cheesy excretion which forms in the furrow at the base of the glans; a few herpetic vesicles appearing from time to time, or a slight eczema of the penis, or the eczema marginatum, which is so often developed in the inguinal fold, that makes him unhappy.....Again, enlargement of the scrotal veins or varicocele is a fruitful source of terror to many men.....But nocturnal emissions are the complaint of most of the subjects of sexual hypochondriasis." All this must be admitted to be true by most surgeons, especially those who make venereal diseases their speciality. But the cases which have given me most trouble are those of men who suffer from slight urethral discharges, purely natural, but which they will persist in believing and asserting to be semen. The general appearance of these patients is so characteristic, that one diagnoses them almost intuitively. They have too frequently been the victims of previous excessive sexual intercourse or self-abuse; and, thanks again to the advertising quacks, they imagine that they are suffering from 'spermatorrhœa" or "nervous debility." Here, again, I freely admit that every patience and kindness must be shown, and especially must we be careful to improve in every way the patient's general health. We will assume that all this has been done, and that we have fully satisfied ourselves, after frequent visits from our patient, that his is a well-marked case of sexual hypochondriasis; what is now to be done? We will also suppose that we have verified our diagnosis by a consultation with a brother surgeon, specially skilled in all that relates to venereal diseases and the sexual organs; but that, in spite of all, our patient persists in believing that he is labouring from some sexual disablement. I have in my mind's eye the cases of several men who have actually been going to one surgeon for two years for literally no ailment whatever. I have seen patients who have consulted surgeons by the dozen, and been told by each that there was nothing the matter with them, but who have still persisted in their own belief, making their lives a burden to themselves. Here,

again, it seems to me that there must, sooner or later, be an end to this farce; for it is scarcely a justification to say that we are to retain the patient, and continue the farce, rather than that he should be driven to the quacks, unless we are prepared to acknowledge that, in certain cases, we are justified in practising quackery ourselves—which I, for one, never will admit.

In conclusion, there is a still more delicate matter—one which I approach with much hesitation, but which, as it often comes to our notice, had better be boldly met. I allude to the circumstance that some of these sexual hypochondriacs, being anxious to set at rest their doubts as to sexual disability, propose resorting to illicit sexual intercourse, and endeavour to obtain our sanction to such a proceeding. There can only be one proper answer to such a question; and I should not have alluded to this, had I not known for certain that some of our brethren have been unwise enough to sanction, and even recommend, such a proceeding. Now I do not see that special practice in venereal diseases requires a lower standard of moral rectitude or professional honour; and to such of our patients as are open to such an argument, we may quote the excellent words of Sir James Paget, who, in a lecture on this very subject, says: "Many of your patients will ask you about sexual intercourse, and some will expect you to prescribe fornication. I would just as soon prescribe theft, or lying, or anything else that God has forbidden. If men will practise fornication or uncleanness, it must be of their own choice, and on their own responsibility. We are not to advise that which is morally wrong, even if we have some reason to think a patient's health would be better for the wrong doing. But, in the cases before us—and I can imagine none in which I should think differently—there is not ground enough for so much as raising a question about wrong doing. Chastity does no harm to mind or body; discipline is excellent; marriage can be safely waited for; and, among the many nervous and hypochondriacal patients who have talked to me about fornication, I have never heard one say that he was better or happier for it; several have said they were worse, and many I know have been made worse." But, it may be urged, to many of our patients, such a line of argument would be little short of a mockery. This is unhappily too true; but I think that, without descending a step from the same moral altitude, we have other cogent arguments. We might urge on our patient that it would hardly be 'janak' (to use a Lancashire phrase) to recommend a course which might bring our patient back to us suffering from something infinitely worse than sexual disability, even assuming the latter to be real, and not fanciful. We might also urge that, to sanction such proceeding might involve many awkward questions, not the least of which would be as to how often the prescription was to be repeated. I forbear to say more, and would only add, as a last word, that we are not justified in saying in the quiet of our consulting-rooms what we should not venture to say before an assembly of our professional brethren.

ON EARLY TAPPING IN CASES OF ASCITES.

Read in the Section of Medicine.

BY AUSTIN FLINT, M.D.,

Professor of Medicine in Bellevue Hospital Medical College, New York.

MOST writers on practical medicine at the present time, as in the past, recommend tapping in cases of ascites, as a last resort, when the dropsy occasions an alarming interference with respiration, and when other measures of treatment have proved ineffectual.[1] The practice of most physicians now, as hitherto, I suppose to be in accordance with this recommendation. Many years ago I was led by reasoning, and by clinical observation, to advocate tapping early in cases of ascites. In 1863 I communicated for the *American Journal of Medical Sciences* an article entitled "A Clinical Report on Hydroperitoneum, based on an Analysis of Forty-six Cases." The histories of these forty-six cases I had recorded. The results of the analysis seemed to show the utility of tapping early, and as often as the dropsy returned. Since the publication of that report, in the cases which have come under my observation in hospital and in private practice, I have pursued this course of treatment, and the results have appeared to confirm its utility.

The objections brought against tapping early, and, it may be, repeatedly, in cases of ascites, are these. 1. It is liable to be followed by alarming prostration, and it may even prove fatal in subjects greatly enfeebled. 2. It sometimes proves fatal by inducing peritonitis. 3. Relief procured by tapping is usually but temporary, the dropsy, as a rule, speedily returning. 4. With every return of the dropsy, a large quantity of albumen is withdrawn from the blood. The vital forces are thereby impaired; and, although temporary relief may be obtained, the duration of life is shortened.

In no instance under my observation has either a fatal result or alarming prostration followed tapping. On the contrary, relief, immediate and pronounced, has been invariable. I have met with but a single instance of peritonitis induced by tapping. In that instance, ascites, from cirrhosis of the liver, was associated with general dropsy from chronic Bright's disease; the latter, as is well known, involving a predisposition to inflammation of serous structures.

Danger in the direction either of exhaustion, or peritoneal inflammation, is probably avoided if, instead of the ordinary mode of tapping, aspiration be employed. The slowness with which the liquid is withdrawn by aspiration obviates any risk of exhaustion, and the insignificant puncture, with a very small trocar, can hardly give rise, in any case, to peritonitis. Two objections may be raised to aspiration. One of these is the length of time required, and the fatigue on the part of the operator in removing, by this method, a large quantity of liquid. It is an answer to this objection, that the manual part of aspiration does not call for a skilled hand; and, therefore, the assistance of a nurse or an attendant may be made available. The other objection is, the inconvenience of having at hand an aspirator. This objection is met by substituting for the beautiful, but cumbersome, apparatus of Dieulafoy, or the adaptation of stomach-pump by Bowditch, a very simple arrangement which I devised many years ago. The instrument used is that known in the United States as Davidson's syringe. It consists of an India-rubber hollow ball, of a size to be readily grasped by the hand, connected with which are two India-rubber tubes. By the introduction, within the central ball, of movable valves, one of the tubes is made afferent, and the other efferent. At the end of the afferent tube is an attachment for connecting with it a small cannula. The aspiration through this tube is effected by the expansion of the central ball, and the latter, by compression with the hand, is emptied through the efferent tube. For thoracentesis, and all other applications of aspiration, this simple instrument is all that could be desired, except from an æsthetic point of view. Its advantages are its cheapness, its portability, its durability, and its being always in order for immediate use.

The more important of the objections to tapping early and repeatedly in cases of ascites are, that the relief which it may afford is but temporary, and that life is shortened by the impairment of the vital forces consequent on the loss of nutritive constituents of the blood. Regarding these objections from a rational standpoint, the measures employed by those who delay as long as possible tapping are to be contrasted with the advantages of the latter method of treatment. Measures of treatment other than tapping generally have for their object the removal, or, if this be not attainable, the diminution, of the dropsy. The measures are sudorifics, diuretics, and hydragogue cathartics. Sudorifics accomplish so little, that nothing is to be said in their favour; very little can be said in favour of diuretics. The instances are rare in which much is accomplished by this class of remedies. Hydragogue cathartics are more efficient. Elaterium, the *pulvis purgans*, the sulphate of magnesia or of soda, and other saline cathartics, sometimes diminish considerably, and they may even remove, the dropsy. Their uncertainty, however, must be admitted; and, when more or less effective, the object is usually accomplished slowly, not a little depression and perturbation being caused by them.

Now, is it not a rational conclusion, inasmuch as, by tapping, the removal of the dropsy is effected with certainty within a few hours or even minutes, the operation being harmless and giving very little pain, that this method of treatment is to be preferred? And, in view of the advantages of tapping, why waste time in an endeavour to effect the object by drugs?

Here, as in regard to all therapeutical questions, an appeal must be made from reason to experience; and in deductions from experience, as well as from rational conclusions, the different affections of which ascites is a symptom are to be taken into account. If the ascites be symptomatic of malignant disease, and when it depends on persistent occlusion of the portal vein from thrombosis, embolism, or the pressure of a tumour, tapping, as well as other measures for the removal of the dropsy, cannot be expected to furnish more than temporary relief. But, in the cases falling in this category, life has seemed to me to be prolonged by tapping, repeated as often as need

[1] As an exception to this statement, the *Handbook of Medicine*, by Dr. Frederick T. Roberts, may be mentioned.

be; and on the other hand, life has seemed to me to have been shortened by the use of depressing and perturbatory drugs. In the great majority of cases, as is well known, cirrhosis of the liver is the affection having a causative relation to the dropsy. Now, in a certain proportion of these cases, the dropsy is dependent on auxiliary causes co-operating with the hepatic lesion. Anæmia, anorexia, impaired digestion, etc., the effects of alcoholism or of other agencies, are more or less involved in the causation of ascites. Without these auxiliary causes, dropsy would not have occurred, and the cirrhosis perhaps would have been well tolerated. These co-operating causes are often, to a greater or less extent, removable. The discontinuance of spirit-drinking alone may sometimes suffice for their removal. These statements are based on the study of cases which I have recorded. Let tapping be resorted to as soon as the dropsy occasions notable inconvenience; let auxiliary causes be removed as far and as soon as practicable; let the patient be placed on a tonic and analeptic treatment; let depressing and perturbatory drugs be avoided; let tapping be promptly repeated if the dropsy return; and, notwithstanding the existence of a certain amount of cirrhosis, there may be a restoration to fair general health, and its continuance for an indefinite period. My collection of recorded cases furnishes illustrations of the correctness of this assertion. It may be that the dropsy will not return after a single tapping. More frequently, the tapping has to be repeated. The intervals between the repetitions in different cases differ greatly. Even if tapping be repeated many times, and after short intervals, I believe the rule to tap as early and as often as the dropsy occasions inconvenience, to be better than to let the dropsy remain, or to undertake to lessen it by hydragogue cathartics. In one of my recorded cases, the patient was tapped thirty times within eighteen months. He had come to regard this measure as a trivial affair; and on one occasion, surgical aid not being at hand, he tapped himself, using the blade of a pair of scissors instead of a trocar, and introducing a common clay pipe-stem as a cannula. He was accustomed, the day after a tapping, to go about his business as usual. This was a dispensary case, and was lost sight of after the thirtieth tapping. At that time, he was anæmic, but able to take pretty active exercise. There are some cases of ascites in which a causative lesion may remain permanently innocuous, at least when not associated with auxiliary causes, as shown by the recovery and continuance of perfect health. Of my recorded cases, a few are in this category.

In concluding my clinical report on ascites twenty years ago, I used the following language. "Unpromising as are the majority of cases of ascites, I cannot but believe that, as regards prolongation of life, and as much improvement as is compatible with existing structural disease, the success of medical practice would be enhanced by employing less than has been the custom of physicians, diuretics, hydragogue cathartics, and other depressing remedies, by resorting earlier than is usually done to tapping, and by a greater reliance on tonic medication, together with hygienic measures to invigorate and strengthen the system."

In conclusion, now, after the added experience of twenty years, I hold to the same belief, with a stronger conviction of its correctness, as based on reason and clinical facts.

Supplement.

In illustration of the practical points embraced in the foregoing paper, the following cases are appended. Details in the histories not relating to these points are omitted.

Case I. *Repeated Tappings after short intervals; the Patient at the time of the first Tapping greatly prostrated; Progressive Improvement.*—A woman aged 36, who had been employed in a liquor-shop, was admitted into hospital on August 13th. She was confined to the bed, and greatly prostrated. She was jaundiced. The abdomen was very tense. A pailful of liquid was removed by tapping. Ten days after this tapping, it was noted that her condition was much improved. At that time, the following note was added to the record. "When this patient came under observation, she was extremely prostrated. I felt sure that active hydragogues would have been dangerous, and I felt equally sure that she would have succumbed under the disturbance caused by the dropsy. I am persuaded that the continuance of life in this case was due to the tapping."—September 3rd. The dropsy had returned, and the patient was again tapped.—September 16th. She was again tapped, and again on October 30th. Shortly after the last tapping, she left the hospital. She progressively improved, notwithstanding the repeated tapping after short intervals. There were no renal nor cardiac complications in this case. The spleen was much enlarged.

Case II. *Tapping once, and no Return of the Dropsy, the Patient apparently well two months after the Tapping.*—A woman, aged 35, was admitted into hospital in January. Enlargement of the abdomen had existed for ten months. The enlargement at the time of her admission was very great, and attended by great suffering. She was confined to the bed. Tapping was at once resorted to, and a bucketful of liquid removed. Notable relief immediately followed. Subsequent improvement was rapid. A month after the tapping, she was attacked with sporadic cholera. There was no return of the dropsy. After recovery from the cholera, she left the hospital, reporting herself quite well.

Case III. *Tapping after Ineffectual Treatment by Hydragogue. Three months after the Tapping, the Dropsy had not returned.*—A man, aged 50, a spirit-drinker, was admitted into hospital in September. The abdomen began to enlarge three weeks before his admission. Elaterium was given repeatedly, causing only a temporary diminution of the dropsy. He was tapped in December. The abdomen was then greatly distended, and the lower limbs œdematous. There was considerable emaciation. On March 30th, it was noted that there had been no return of the dropsy; that the patient reported himself quite well; and that he had a healthy aspect.

Case IV. *Ascites, followed by Phthisis: No Return of the Dropsy after three years: Notable Enlargement of the Abdominal Veins.*—A man, aged 46, had ascites three years before his admission into hospital. It is not noted what treatment he received. The dropsy disappeared in seven weeks. He gave up spirit-drinking in a great measure afterwards. There had been no return of the dropsy. He regained good health, and was able to do full work as a ship-carpenter for several months, when the symptoms of pulmonary disease began. On his admission, he had pulmonary phthisis and chronic laryngitis. He noticed enlargement of the superficial abdominal veins first at the time of the disappearance of the dropsy. On his admission, the appearance of the abdomen was described in the record as follows. "The abdomen presents a very remarkable spectacle. The abdominal veins are greatly dilated and varicose. This appearance is most marked on each lateral part of the anterior aspect of the abdomen, the veins extending upward nearly to the level of the nipples without the mammary line. An enlarged vein extends along the median line, and, on each side of this line, the blood flows in all these veins from below upward."

Case V. *No Return of Ascites, after a single Tapping, for two years.*—A seaman, aged 22, formerly a spirit-drinker, was admitted into hospital with typhoid fever, from which he recovered. Two years before his admission, he had ascites, and he was tapped. He gave up the use of spirits, and there had been no return of the dropsy. There was great enlargement of the superficial veins of the abdomen in this case.

Case VI. *Cirrhosis of the Liver in a notable degree, Ascites not having existed.*—A woman, aged 33, when admitted into hospital, was feeble and anæmic. She had had several attacks of hæmatemesis. She was progressively improving, when, four months after her admission, she was seized with pneumonia, which proved fatal. There had been no ascites. The necropsy showed, in addition to the pneumonia, a hob-nailed liver, weighing only ten pounds; also disease of the kidneys.

Case VII. *Ascites: the Patient Tapped Twice, and no Return of the Dropsy a month after the last Tapping.*—A woman, aged 40, a spirit drinker, was admitted into hospital with ascites, in October. She was tapped at once, with immediate relief. Early in December she was again tapped. A month afterwards there had been no return of the dropsy. The patient was then discharged, reporting and looking well.

Case VIII. *Ascites treated ineffectually with Elaterium. Tapping Twice, and no Return of the Dropsy two months after the Second Tapping.*—A woman, aged 25, applied at a College Dispensary, in April, with ascites, which had existed for four months. Some diminution of the dropsy was effected by elaterium, but the diminution was temporary. She was then tapped, and after two months the tapping was repeated. Two months afterwards there had been no return of the dropsy, and the patient was reported quite well.

Case IX. *Ascites treated by Tapping, and Return of the Dropsy repeatedly after long intervals.*—A man, whose age is not noted, a spirit-drinker, was admitted into hospital with ascites which had existed for two months. It was developed after intermittent fever. He gave the following history. Eight years prior to his admission he had ascites, and after four months he was tapped. The tapping was repeated after ten weeks. There was no return of the dropsy, and he had good health for six years. The dropsy then returned, and he had also hæmatemesis. Five weeks afterwards, he was tapped The dropsy returned, but disappeared under the use of medicines.

and he remained free from it for about two years. He had continued to drink spirits more or less freely. The subsequent history was not noted.

CASE X. *Ascites referable to Thrombus of the Portal Vein; Tapping ten times within three months; No Return of the Dropsy, and the Patient in fair health eleven years afterwards; Diet of Milk and Gingerbread.*—In this case, the patient, a man aged 45, came under my observation in private practice eleven years ago. He had been ill for several weeks, his symptoms having been supposed to denote thrombosis of the portal vein. I may mention that the wife of the patient, a very intelligent woman, had endeavoured to study her husband's case by reading medical books; and the reason of my being called in consultation was the advocacy of tapping in my work on the *Practice of Medicine*. The abdomen was greatly distended. Owing to the feebleness of the patient, tapping had been considered as hazardous. This measure, however, at my suggestion, was at once employed, and it was followed by notable immediate relief. Within three months, the patient was tapped ten times. The aggregate amount of liquid removed was 350 lbs. After the last tapping, there was only a moderate accumulation of liquid, and this gradually disappeared. The patient slowly recovered, and for the past ten years has had fair health. His aspect is healthy, and he is accustomed to walk from four to six miles daily. During the period when the tappings were repeated, and for more than a year afterwards, this patient confined his diet strictly to milk and gingerbread. These articles have constituted the bulk of his diet ever since. He has taken neither fish, fowl, nor meat of any kind. He is accustomed to take rice, oysters, eggs, and asparagus. On one occasion, he was led to indulge for several days in the luxury of eating boiled green Indian corn. This was followed by a moderate return of the ascites, which disappeared under the use of diuretics. After this experience, he resolved to stick to the diet to which he had become habituated.

CASE XI.—*Ascites probably from Thrombosis of Portal Vein; Great Prostration and Emaciation; Ten Tappings; Recovery, and Patient well two years after the Date of Illness.*—This case came under my observation in private practice. The history was not noted at the time, and the following details have been furnished by the sister of the patient. At the time of my visit, the patient was greatly prostrated, and much emaciated. The patient was a man aged 48, of good habits as regards spirit-drinking and in other respects. He resided in Kansas, and was taken ill in December 1880, with chills and local symptoms, which the physicians in attendance considered as denoting inflammation of the liver and spleen. Between December 8th and 27th, he had three attacks of hæmorrhage from the stomach. The last hæmorrhage was profuse, leaving him for several days unconscious. The prognosis of his physicians was extremely unfavourable. At this time there was notable intolerance of the stomach for any form of ingesta. Ascites now occurred, together with œdema of the lower limbs. On February 3rd, he was tapped for the first time by Dr. Malin of St. Joseph, Massachusetts, and twenty quarts of liquid removed. On February 17th, he was tapped by Dr. Simlay of Atchison, Kansas, and seventeen quarts removed. Dr. Lutz tapped again on March 2nd, and removed nineteen quarts. On March 3rd, he left Kansas in a Pullman car, and arrived at the home of his sister in Hoboken, New Jersey, on March 8th. During this journey, serum flowed freely from the puncture made at the last tapping. I saw him in consultation with Dr. T. R. Varich, of Jersey City. He was tapped by Dr. Varich on March 20th, and 120 ounces of liquid removed. He was again tapped on April 3rd, and 344 ounces removed. The tapping was repeated on April 25th, May 9th, June 6th, and July 10th. The aggregate amount of liquid removed by the four last tappings was 1,356 ounces. The whole number of tappings wss ten. In addition to the tappings while under Dr. Varich's care, he took diuretics, and of the tincture of iodine from eight to ten drops three times daily for several weeks. After the last tapping (July 10th), he progressively recovered; and under date of May 31st, 1883, his sister states that he is in better health than for several years before his illness.

CASE XII. *Ascites from Fibrous Thickening of the Peritoneum: Eleven Tappings; Death and Necropsy.*—A man aged 50 was admitted into hospital on July 11th, 1881. He declared that he was not an habitual drinker either of spirit or of other alcoholics. Enlargement of the abdomen was first noticed in the spring of 1878. He had at that time jaundice. The treatment and the progress of the case are not noted in the previous history. He was in hospital in April 1879. The abdomen was then considerably enlarged; but the liquid diminished, and in a short time he was discharged. In August 1879, he was readmitted, and he was then tapped for the first time. He left the hospital, but was again admitted on November 28th; and between this date and April 12th he was tapped six times. He then returned to his occupation—that of a watchman; and he did not again enter hospital until July 11th, 1881. The ascites was now great; and he was tapped on July 13th, 1881. The tapping was repeated on October 6th; on June 2nd, 1882; and in October 1882. Up to this time, his general health had been fair. In November 1882, it was noted that he had pleurisy with effusion, and that the abdomen was much distended. The tapping was repeated on November 21st; the liquid withdrawn, for the first time, being sero-purulent. Death from exhaustion occurred on November 21st, 1882. The necropsy showed thickening, adhesions, and solidification of the pericardium. The heart was somewhat dilated; there were no valvular lesions. The lungs were œdematous, and the right pleural cavity contained about two quarts of sero-fibrinous liquid. The left pleural sufaces were adherent, and the pleura greatly thickened. The capsule of the liver was much thickened, and there was slight cirrhosis. The gastro-hepatic omentum was about an inch in thickness, and compressed the hepatic artery to the portal vein. The hepatic duct was not compressed, being situated above the thickened omentum. There was universal fibroid thickening of the peritoneum. Recent peritonitis was shown by the presence of exuded fibrine, and the peritoneal cavity contained sero-pus. The capsule of the spleen was much thickened. This organ was six inches in length, four inches wide, and three inches in thickness. The kidneys showed some fibroid degeneration.

Mr. EDDOWES (Market Drayton) was pleased to see Professor Flint recommend such a simple instrument for aspiration. The speaker was in the habit of using a similar syringe for a stomach-pump, and recommended it to others. He mentioned a case of ascites from malignant disease. He tapped and relieved the case, and in a few weeks tapped again. The second time, the wound did not heal. So great was the relief from the constant drainage, that he thought that in some cases the introduction of a drainage-tube might be worth considering in future.—Dr. MAHOMED, Dr. LEECH, Dr. PADLEY, Dr. EDDISON, Mr. YATES, and Dr. GOWANS made some brief remarks; and Dr. FLINT replied.

ON HYSTERICAL MALINGERING.

Read in the Section of Medicine.

BY A. HUGHES BENNETT, M.D.,

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I BEG to bring the following case under your notice, as it affords a text for some reflections on the hysterical condition, and the many protean phenomena accompanying that disorder.

History.—Eliza L., aged 45, widow, sick nurse, stated that she was in good health till November 5th, 1877. On that day, while driving with an invalid, she was suddenly seized with numbness in her right forefinger. This sensation passed off in half an hour, but returned during the same evening, when it was accompanied by weakness. This rapidly spread over the entire right side, so that in half an hour all power of motion and sensation was lost. During the night she became unconscious, and remained so for some hours; and she stated that she was delirious. For a considerable time afterwards her mind was deranged, and it did not quite recover its normal condition for about three months; then she found that the right side was still paralysed. She remained thus for more than a year, spending her time in various hospitals, when in March 1879 she was suddenly seized with some kind of "fit," in which she said she was unconscious for several days. On recovering from this, her condition was much the same as before, that is, hemiplegic and hemianæsthetic. Shortly afterwards, contraction of the right limbs was noticed, and this continued to increase since. For some months past, the patient had been subject to a repetition of these attacks, during which it was stated she bit her tongue, and that there was sometimes bleeding from the right ear; otherwise, her condition had remained the same till the present time.

Her Condition on December 14th, 1879, was as follows. The patient was a quiet, respectable looking woman, who answered questions with intelligence, and who complained chiefly of severe pain in the head. Her general health was fairly good, although she was somewhat anæmic and depressed with suffering. The organs and functions were healthy, except those about to be described.

Motility.—There was slight ptosis on the right side, but both eyelids would be closed equally and completely. There was a little external strabismus of the right eye, but the voluntary movements

of both eyeballs were equal and normal. The pupils were dilated, equal, and acted sluggishly to light. At rest the face was straight, but, on the mouth being opened, its right angle was depressed. On frowning, both sides of the face were wrinkled equally. The tongue was protruded straight, and articulation was unaffected. The movements of the head and neck were normal. The patient could not walk or even stand; and, when she was placed upright, her legs sank beneath the weight of the body. The right leg was contracted, so that only the extreme tips of the toes touched the ground. When she was lying in bed, the movements of the left limbs could be performed, but in a weak and hesitating manner. On the right side the voluntary motions were very limited, as the leg and arm could only be abducted for a few inches, and the thumb and fingers partially flexed and extended; otherwise, there were no other movements. All the joints, including the shoulder and hip, were in a state of great contracture, and required considerable force to overcome it. When passive flexion or extension was forcibly practised, the pressure being removed, the limb flew back to its original position, and these attempts appeared to increase the rigidity. When at rest, the right arm, wrist, thumb, and fingers were all strongly flexed. The thigh was adducted, the foot and toes were inverted, and in a state of talipes equino-varus. The plantar reflexes were equal and normal. The tendon-phenomena were difficult to ascertain, owing to the rigidity of the limbs; but, if not absent, they were not increased. There was no ankle-clonus. The functions of the bladder and rectum were normal.

Sensibility.—The patient stated that she felt as if only one side of her body existed. The entire right side, exactly limited by the middle line, was in a state of complete anæsthesia and analgesia. The roughest handling or manipulation of any kind apparently produced no sensation. There was no sense of pain, and a variety of methods were employed to test this condition. Pinching, pricking with a pin, a needle thrust down to the bones, and behind the finger nails, a heated iron to the skin, and the current from a very powerful faradic battery were stated to be absolutely unfelt, and no signs were exhibited of emotion or distress. The same existed in the mucous membranes of the eye, nose, mouth, and fauces on the right side. Touching and irritating the conjunctivæ, the nasal passage, the throat, induced no reflex or other unpleasant sensation. The only feeling experienced was when rough and forcible attempts were made to overcome the rigidity of the joints, when the patient stated she experienced an uneasy sensation. The sensibility of the left side was everywhere normal.

Special Senses.—The sense of smell was abolished on the right side, and no odour could be detected, the other nostril being healthy. The sight of the right eye was defective, everything appearing dim; and the patient was unable to read with it. There was also partial achromatopsy. Most colours appeared of a greenish hue. White was called yellow; lilac, brown; and pink, brown. All the other colours were stated to be green. With the left eye, all were named correctly. The fundus in each eye was normal to ophthalmoscopic examination. The sense of hearing was much impaired on the right side, both at a distance and to contact. On this half of the tongue and mouth, taste was apparently absent, and a variety of sapid substances could not be detected. The so-called muscular sense was totally abolished on the right side of the body, and the patient could not distinguish the difference between an ounce and a pound weight.

Nutrition.—There were no apparent trophic changes; and, although the patient was somewhat thin, there was no special muscular wasting, both sides of the body being alike. There were no visible vaso-motor changes; and when both sides of the body were pricked with a needle in the same way, they bled equally.

Electrical Conditions.—The electrical reactions to nerve and muscle were normal, and practically the same on both sides, although the effects differed somewhat, owing to the rigidity of the joints. The electro-sensibility was completely abolished throughout the right side.

Attacks.—During observation, the patient had frequent convulsive seizures. These lasted an hour or more, and consisted of a succession of irregular spasmodic, tonic, or clonic movements of the limbs, and chiefly on the right side. These were sometimes of great violence, and accompanied by prolonged opisthotonos. The consciousness seemed to be blunted, but was not entirely lost. Sometimes the tongue was bitten, and occasionally there was stated to be bleeding from the right ear. On several occasions after the attacks, the skin on the right side was found covered with an erythematous eruption.

Progress of the Case.—For some weeks after admission, the patient continued in the condition already described. It was determined to try the effects of the external application of metals to the skin, according to the precepts of M. Burq.

Experiments with Metalloscopy.—During these observations, the eyes of the patient were bandaged, and care was taken to give her no clue as to what was going on around her. Discs of various metals were procured, each about the size of half-a-crown, and these were simply tied to a limb with a strip of bandage. January 15th, 1880.—Two sovereigns were applied to the arm; and, although left there for an hour, there was no result. January 16th.—Two shillings were applied in the same manner, without effect. January 17th.—Two copper discs were applied, without result. January 18th.—Two iron discs were applied at 11.45 A.M. At 12.5 P.M., there were distinct traces of pain, and sensation to touch in the neighbourhood of the metals. The patient said she felt tingling in the arm. The joints also had become less rigid. This partial restoration of feeling subsequently spread all over the side, except the head and face. A touch or pinch could be felt, but not with normal acuteness. There was no loss of sensibility on the left side. January 21st.—The above condition remained until to-day, when it was found that the former state had returned, namely, that of total anæsthesia and analgesia. To-day a series of strong galvanic shocks were passed through the head, an electrode being placed behind each ear. After the lapse of half an hour, it was found that the anæsthesia and analgesia had disappeared, the sensibility of the entire body to touch and pain being apparently normal, and the same on both sides. January 22nd.—The patient had to-day resumed her ordinary state, and there was complete loss of feeling throughout the right side.

These experiments were from time to time repeated, and always with the same results, namely, a temporary return of sensibility to the anæsthetic parts after the metallic applications. It was also observed that, subsequently, all the metals had the same effect, even those which at first had failed to induce any result. Finally, it was found that the same changes ensued when a simple bandage was tied round the limb, without the application of any metal at all.

The patient was under observation for about eight months. After the experiments just described, she remained for a time under general treatment, but with little change in her condition. A new series of experiments was instituted. All the metals, as formerly, were in turn applied to the anæsthetic parts, but in no single instance was any effect produced, and no procedure of any kind had any influence in modifying the sensibility to pain or touch.

After these experiences, the patient was left undisturbed for some weeks without treatment. On her condition being investigated one day in the middle of August, it was found that the sensibility of the entire body was perfectly normal to all forms of stimuli, and remained so till she left the hospital about a month afterwards. When discharged, on September 15th, the sensibility of the skin was everywhere intact. In all other particulars, although the condition of the patient had somewhat improved, the other symptoms remain much the same as has already been recorded.

COMMENTARY.—The subsequent career of this individual may be stated in very few words. Some weeks after leaving the ward, she was arraigned before a magistrate, on account of a series of frauds which she had committed during the interval. When arrested by the police, there was no trace of paralysis or other ailment, but Eliza L. was apparently in perfect health, and sufficiently vigorous to have robbed many of the patrons and sympathisers she had accumulated during her long invalid condition. In short, the woman turned out to be a swindler and a thief, and she confessed to one of her friends that all her ailments while in the different hospitals had been wilfully produced, and that she had purposely imitated illness in order to deceive the doctors. The motive for this conduct is not stated, nor is it apparent. The fact remains that, for upwards of two years, she professed to be paralysed; and a few weeks after leaving the hospital she was found in perfect health.

I conclude the history of this ingenious female by admitting that all the efforts of the medical faculty, even with the assistance of metallotherapy and a prolonged residence in many hospitals with sedentary habits and easy surroundings, have failed to effect a cure in this case. I can only hope that, however reluctantly Mrs. L. may have adopted the new regime, she will find permanent relief from her sufferings, under the seclusion, the active exercise, and the wholesome discipline, provided in another kind of institution, and at the expense of Her Majesty's Government.

I have met with several other cases very similar to this one, in some of which the symptoms were even more extensive and severe. Although in these there was no actual confession of duplicity, this

was strongly suspected, which inference was further supported by the ultimate sudden recovery of the patients under auspicious circumstances.

Although, by her own confession, the woman under notice was a malingerer, and wilfully produced the symptoms already detailed, the case in my opinion presents many features of interest worthy of discussion. At the onset, it must admitted that all the symptoms were subjective in character, there being no single definite objective phenomenon. This, however, is by no means uncommon in many of the most serious organic nervous diseases. The position I propose to maintain with regard to this case is, that, while admitting the symptoms to have been originally excited by voluntary effort, when thus induced they were genuine, and thus independent of volition, and that the malingering was itself the outcome of disease. This apparent contradiction I believe to be reconciled in the following manner. All the facts of the case seem to warrant us in placing it in the category of those described by Professor Charcot under the name of hystero-epilepsy. Now, in the hysterical temperament, as is well known, there is often developed a moral obliquity, in which the subjects of it indulge in attempts to deceive and distress their fellow-creatures, and often not only without reason or profit, but frequently, on the contrary, at the expense of much inconvenience and suffering to themselves. The woman before us, for example, prior to her illness, was a highly respected, well-paid nurse, in unusually favourable circumstances for her condition in life. All she apparently gained by her symptoms was a prolonged sojourn in different hospitals, but chiefly in the poor-house infirmary, where certainly she was not overburdened with sympathy or luxury. The actual crimes she committed benefited her little, and were absurdly out of proportion to the risk she ran of detection, consisting as they did of pilfering the pence and worn-out clothing of her fellow-patients and friends. It would therefore appear that, although the intelligence in its ordinary sense remained intact, there existed a mental deformity, of which the duplicity and offences she committed were a part, and in themselves, therefore, constituting symptoms of disease. If this view be taken, it is obvious that important medico-legal problems must arise, a solution of which is attended with great difficulty. While it is important that the community should be protected by the suitable punishment of crime, at the same time justice is not fulfilled when such offences are the results of disease. There can be little doubt that hundreds of persons have been incarcerated, and otherwise ill-treated, whose departures from morality were independent of their own healthy volition. Other mental faculties being intact, the thinking and reflective powers being acute, it is, however, difficult to convince a hard-headed judge, or a practical-minded jury, of the subtle distinctions of psychological science. I do not for one moment maintain that all hysterical culprits are to escape punishment. On the contrary, in most cases it is probable that judicious chastisement is likely to prove the best cure for the malady. In the present instance, I saw no reason to interfere with the visitation of the magistrate, whose administration will doubtless prove efficacious.

Admitting, then, that the original impulse towards the production of abnormal symptoms may first emanate from an unhealthy condition of the moral faculties, it must be granted that the actual production of these is still under the dominion of the voluntary efforts of the individual. This is evidenced not only by the confession of the patients, but by the results of observation, and the effects of moral treatment. Accompanying this mental aberration is an intense impressibility of the entire nervous system, and the former acting on the latter, gives rise to innumerable protean phenomena. There is, therefore, a great distinction between the malingerer properly so called, and the hysteric who imitates diseases. In the first, there, is some definite object to be gained, the portrayal of symptoms is probably unnatural and exaggerated, and is, as a rule, easily detected; nothing is performed that every other healthy person could not accomplish with equal facility. With this hysterical malingerer the case is different. She may, it is true, in every respect follow the other, and either exaggerate a slight disorder, or artificially manufacture a new one; but, in addition, symptoms are present of a nature which she could scarcely have devised, which no one in health could imitate with fidelity, and which, when fully developed are beyond her volition. For example, a woman might pretend to have a fit, and display certain representations of one which, if seen, would almost certainly be detected not to be genuine. But no healthy person could, as in this case, sustain the frequent and violent attacks she experienced, accompanied with intense convulsions, tetanic spasm, and opisthotonos, all lasting for several hours at a time. It is incredible that such prolonged and violent efforts could voluntarily be maintained by any woman except under abnormal impulses. Again, an ordinary person might portray immobility of one side, but it is scarcely likely that she could devise the complete series of symptoms observed in such hysterical cases. The ptosis, strabismus, depression of the angle of the mouth, the contraction and muscular rigidity, the adduction of the thighs and the other deformities, are a sequence of events not only perfectly in accord with disease, but a series of changes which we hardly anticipate would be initiated or sustained in health for so prolonged a period. It would also be easy for any one to say that she did not feel, but could any ordinary mortal submit to the ordeals through which this woman successfully passed? The anæsthesia and analgesia was complete. The sensibility was tested in every conceivable manner, and, short of material mutilation of the body, every means was taken to induce the sensation of touch and pain, but without effect. It seems impossible to believe that a healthy woman could, by mere force of will, restrain the emotions caused by thrusting needles down her finger-nails, and applying red hot irons to her skin, or the most powerful faradaic battery to her body. Yet, when these proceedings were practised, the patient declared she felt nothing, and, on the most careful scrutiny, and tested in a variety of ways, failed to evince any signs to the contrary. Again, the distribution of the anæsthesia was universal throughout the side, as not only was the loss of feeling in the skin, but in the muscles; it involved mucous membranes, and all the special senses. An ordinary malingerer could scarcely evolve such a complete series of changes in physiological order, and if she did, she certainly could not maintain it. The loss of both motion and sensation involves more or less completely the entire motor and sensory tracts, causing an exact imitation of what we see in organic disease, producing all the results of a structural lesion of their appropriate centres. Moreover, such conditions may become permanent, and entirely beyond the control of the patient, as is often seen in chronic cases of hysteria; but even in these, fortunate impressions are followed by rapid recovery, as in the case before us, indicating that there was no serious organic change.

I do not at present propose to enter into the various hypotheses advanced to explain these remarkable phenomena, a consideration of which would involve us in endless speculation, and lead to no practical result. The facts, however, remain, and should be studied and rightly appreciated by the physician, as ignorance of their true nature has led to irreparable disaster.

This hysterical condition is clearly allied to the so-called mesmeric or hypnotic state. In this we find certain individuals who, when their powers of attention have been fatigued by an appeal to their senses, can be thrown into such a condition that the merest suggestion induces phenomena which are genuine, and cannot be imitated by other persons. Although this has been taken advantage of by the charlatan, those who have investigated the matter have come to the conclusion that this is a true physiological condition. There are individuals made to perform feats unattainable by others, and to develop symptoms about the reality of which there can be no doubt. Permanent alterations are not as a rule induced, but temporary exaltation or abeyance of natural function ensues, and that in a manner, although primarily excited by volitional efforts, not in themselves capable of imitation in the true sense of the term. Without going further into the matter, we may for all practical purposes sum up this argument by this assertion, that in the hysterical temperament there exists a peculiar mental state, accompanied by over-impressibility of the whole nervous system, of the nature of which we are ignorant. Either by suggestion from without, or idiopathically impelled from within, the former so influences the functions of the latter, as to augment, depress, or otherwise modify its ordinary action. This frequently takes place in strict physiological sequences, and the symptoms are produced after a fundamental type. They may remain permanent, and when fully developed are beyond the voluntary control of the patient. This explanation would account for the extreme similarity which many hysterical disorders bear to organic diseases. Ulcer of the stomach, symptoms of phthisis, disease of the heart, calculus in the kidney, and other affections, have been so exactly simulated in all their details as to have deceived the most erudite of physicians. May not these have been produced by a modification of the appropriate centres, through which the organs in question receive their innervation, thus accounting for the apparent accuracy of abnormal distribution?

Such conditions are called functional, not because minute molecular alterations are denied, but because the modifications of health are merely exaggerations or abeyance of natural energy, unaccompanied with (gross) structural lesion, and capable of rapid restoration to the normal state. Instances are known to everyone of the influence which

even the healthy mind possesses over the body, in the production of pain, vomiting, palpitation, and other functional phenomena. These, if persisted in, become a habit, occur independently of volition, and remain in spite of, or even opposed to it. Thus religious enthusiasts have wilfully developed temporary convulsions, which have ended in the acquirement of epileptiform attacks for life. The Fakirs of India cause their bodies to become rigid in various postures, which after a time become thus fixed, whatever their desire may be to the contrary. All these conditions are further increased in the hysterical temperament. Whether, in such chronic aberrations of functions, perceptible structural changes ensue, we do not know. Pathology is silent on the question. It does not, however, appear to me that this is necessary. The performance of any action, or the perception of any sensation, may be hypothetically assumed to be the result of molecular notion. When the effects persist, we can reason that such unseen changes have remained permanent, without the existence of new products, constituting functional disorder as opposed to organic disease.

If the foregoing suggestion be adopted, we need not seek far to find an explanation for the success of the treatment by the so-called metalloscopy and metallotherapy. In the case before us, a variety of metals were in turn applied to the patient, without result. Suddenly, on a certain occasion, one of them caused the anæsthesia to disappear. Afterwards, the metals which had formerly failed caused the same potent effects. Finally, a galvanic current to the head, and a bandage, without any metal, secured to the arm of the patient, had precisely the same results. After a space of time, neither metal, electricity, nor bandage caused any change, and ultimately the anæsthesia permanently disappeared by itself. Exactly the same phenomena ensued in another case, the details of which I published some years ago in the JOURNAL of this Association. In these two typical instances, which were accurately and impartially observed, not only by myself, but by many other medical men who watched the experiments, we surely do not require to search for mysterious emanations from the metals themselves to account for the changes which ensued after their application. In these, at all events, the conviction seems irresistible that the effects are not the result of the magnetic or electrical virtues of these substances, but due to their influence on the impressionable mental condition of the patient, and through it on the other hyper excitable functional centres. The complicated researches of observers who have endeavoured to show that electrical currents of great delicacy ensue from such proceedings, may be perfectly true, but there is no evidence that these, if produced, cause special effects on the human body. If this were so, we could not eat or drink, touch or even approach anything, which would not materially influence our constitutions. I confess this theory appears to be little else, as Velpeau has already expressed it, than a "wild chimera." On the other hand, admitting the genuine nature of the phenomena, a study of the influence the mind possesses over the body, a knowledge of its exaggerated effect in hysterical temperament; seem to lead to a far more plausible and scientific conclusion, namely, that the effects of the external application of metals in modifying functional activity is of psychical rather than of physical origin.

CASE OF COMPLETE PARAPLEGIA WITH RIGIDITY, TERMINATING IN RECOVERY.

Read in the Section of Medicine.

BY T. R. GLYNN, M.D.,
Physician to the Royal Infirmary, Liverpool.

A GIRL, aged 15, was admitted under my care into the Royal Infirmary in March 1882, *i.e*, about sixteen months ago. Four months before admission, she was attacked with pain between the shoulders, and soon after gradually lost power in the legs. In a few weeks, there was complete paralysis, and she took to bed.

On admission, there was distinct angular curvature in the upper dorsal region, and great pain on any attempt to move the head. There was absolute loss of power of the lower extremities, paralysis of the bladder, loss of tactile sensation, and analgesia as high as the third dorsal vertebra. She could distinguish between heat and cold. The patellar reflexes were very much exaggerated, and there was ankle-clonus. The legs were much wasted, flexed at the knees, and drawn up; there was marked rigidity; there was some inertness of the right arm. The breathing was entirely diaphragmatic, and there was a good deal of bronchitis. She had, moreover, three large bed-sores.

It was not considered that, in her condition, any form of support to the back would be of benefit, so that we contented ourselves by treating the most urgent troubles, the bronchitis and bed-sores, and nursing her carefully. At this time, and for weeks afterwards, it seemed likely that she would die from the one or the other.

After her admission, the legs became more flexed, adducted, and perfectly rigid. Under careful nursing, however, the bed-sores healed. Sensation began to return about six months after her admission, that is, in September 1882. A little improvement in muscular power was noted three months after the return of sensation, when she was able to move the toes, first of one foot, then of the other, the legs all the while remaining rigid and flexed. She gradually regained power; the rigidity and extreme irritability of the muscles disappeared; sensation was perfect in six months; she also regained power over the bladder.

She has now so far improved, that she can walk by means of a chair. There is a little rigidity, perhaps, of one leg; the patellar reflex on one side is now absent, and on the other very slightly exaggerated. Over the front of one knee-joint are marks due to linear atrophy from the long flexion of the legs.

We believed that the case was one of vertebral caries, with pachymeningitis leading to compression of the cord, and transverse myelitis with descending changes, or secondary sclerosis of the lateral columns.

It seemed improbable that she would recover, not because the paralysis was so complete and extensive, but because the exaggerated deep reflexes and rigidity seemed to point to the existence of lateral sclerosis.

The following questions suggest themselves for consideration. Was there destruction of the cord at a particular spot, or only compression? I am of opinion that there was more or less destruction as well as compression. Was I justified in concluding that there was "lateral sclerosis?" Do the symptoms I have described, the exaggerated deep reflexes and rigidity, invariably point to the existence of lateral sclerosis? If there was lateral sclerosis, then has it either been recovered from, or now exists, without giving rise to the usual symptoms? If there was destruction of the nervous elements of the cord by the primary troubles—compression and inflammation, and by the secondary descending changes, the lateral sclerosis—then is there reason to believe that the recovery has been due, if not to the reproduction of nerve-fibres, to the restoration of damaged and disabled fibres; and it is easier to understand how this could happen in the limited area of compression than throughout the length of the sclerosed lateral columns.

Recovery in cases similar to the one before us, though uncommon, occasionally occurs. Charcot alludes to several cases, and attributes the recovery to the use of the actual cautery. In this case, no active measures of any kind were resorted to. I was satisfied with the steady progress made, and did not care to interfere.

Dr. DYER (Ringwood) asked what was the progress of the vertebral caries, and in what condition was the diseased vertebra at this time. Was it not probable that the paraplegia was due to pressure, a result of active mischief at one stage of local disease, which, as recovery of this progressed, would gradually diminish, until more or less recovery of such effect had resulted?

Dr. A. H. BENNETT, Dr. DRUMMOND, and Dr. ROSS also made a few remarks; and Dr. GLYNN replied.

AN UNUSUAL CASE OF LOCOMOTOR ATAXIA.

Read in the Section of Medicine.

BY DAVID DRUMMOND, M.A., M.D.,
Physician to the Newcastle-on-Tyne Infirmary.

LIVING in the centre of a district which abounds as prominently, from a professional point of view, in nervous, tubercular, and cardiac affections, as it does commercially in coal and ship-building, it has fallen to my lot to see a large number of cases of locomotor ataxia, some of which were well-marked, while many others, though undoubted examples of posterior sclerosis, were comparatively free from ataxia. The patient, whose case I am about to relate is, *par excellence*, the most interesting ataxic I have met with, nor have I come across the record of a more striking example of inco-ordination in the literature of spinal disease.

CASE.—Charles T., aged 42, a tall, strongly-built labourer in an iron yard in Darlington, was sent to me by my friend Dr. Middlemiss, of that town, as a "strange case" of locomotor ataxia. His father suffered from a severe headache for a considerable time before his death, which occurred after he had passed the age of sixty; the remainder of the family history was unimportant. He had a severe attack of typhoid fever eighteen years ago, and contracted syphilis when he was twenty-eight years of age. He was accustomed to drink whiskey freely, and he also indulged in sexual excesses.

The patient, whose intelligence is much above the average of his class, gave the following history of his case. In March, 1882, he discovered a numbness in the big toe of the right foot, and very soon afterwards he noticed that he scraped the right toes along the ground when he walked, so that, ere long, he wore the sole of the right boot through at one particular spot. He then noticed that the right foot, in walking, was raised much too high, whilst it was brought to the ground again with force, so that he appeared to have "a heavy and a light foot." To these symptoms were soon added the sensation as if the sole of the right foot were swollen, or, to employ his own words, he felt "as though something were between the sole of the foot and the boot," along with a sense of cold and numbness in the same foot and leg. Before long, the left foot and leg became similarly affected, except that it was not dragged in walking, but, from the commencement, was raised high above the ground. Now shooting pains began in both legs, and a most painful feeling of constriction in the situation of the symphysis pubis was complained of, which "felt like being fixed in a vice." Not unfrequently the pains shot up the back to the shoulders, and down both arms to the tips of the fingers. The constricting sensation soon affected the abdomen, giving rise to the feeling as if several cords were tied tight round the body at different levels, the lowest at the pubes and the highest a little above the ensiform appendix. These girdle-sensations afterwards disappeared, the lowest being the last to go. By degrees the gait became more and more ataxic, and in walking he not only lifted his feet too high, but he became unsteady and staggered about like a drunken man. Twice, when perfectly sober, he was taken up, brought to the police-station, and charged with being drunk and disorderly, the policeman remarking on one occasion, "Ha! I have been watching you, and have got you this time."

His fantastic gait was the wonder of the neighbourhood. On one occasion, in November 1882, he was going by train, and having got his ticket, he was making his way as best he could along the platform, when a porter informed him that he would lose the train if he did not look sharp. My patient describes the exploits of the next few minutes in graphic terms. Being very anxious to catch the train, he grasped his stick by the middle, and set off running as fast as he could; he felt convinced that he was running fast, for his knees rose up to his chin, and his arms performed marvellous evolutions around his head. After running a-while, he became aware that the people on the platform and in the train were laughing at him, when he suddenly perceived that he had never left the spot from which he had started, but was still beside the porter who had advised him to hurry, and who now was greatly astounded at the extraordinary display of misdirected agility. To his description of this incident, he adds that he has never ceased to wonder how he had managed to keep upon his feet, so violent and unsteady were his movements.

Shortly before his admission into the Newcastle Infirmary, which was on February 1st, 1883, ten months after the commencement of the symptoms, he lost control over the bladder-sphincter; his arms became numb; and he complained of neuralgia of the upper branches of the fifth nerve on the right side, with diplopia.

When he first presented himself he was still able to walk, but only when aided by two friends, and it required very careful manœuvring to get him along the hospital corridor and into the ward, as the movements of his legs were most erratic and almost uncontrollable. The legs were slightly wasted in comparison with their former bulk, but there was no motor weakness, for every attempt to control his voluntary movements utterly failed. On such occasions, it was obvious that the efforts the patient put forth to overcome the restraint imposed upon him were grossly misdirected. When, for example, the attempt was made to keep the knee flexed, though endeavouring from the commencement of the experiment to surmount the repressing force, as was evident by his grimaces and the efforts he made to increase his purchase, by grasping the sides of the bed, yet, as if waiting a favourable opportunity, for a few moments a tremor was the sole indication of muscular contraction, when suddenly the leg was shot down to the foot of the bed and the observer with it.

The patellar tendon-jerk was completely absent. Westphal's paradoxical contraction was marked in the right leg, but only feebly present in the left. Idio-muscular contractility was pronounced in the quadriceps femoris, gastrocnemius, soleus, and tibialis anticus on both sides, fibrillary movements following the contraction which the stroke produced. The plantar reflex was apparently very much increased in both feet; but, on carefully investigating this point, it was observed that the movements which the plantar afferent impulses excited were rather the result of misdirected voluntary effort than true reflex action; or, more correctly speaking, they were partly reflex and partly voluntary; the patient's desire to lessen the sense of tickling, to which there was hyperæsthesia, by inhibitory efforts, resulting in irregular jerking movements of the legs. Nearly the same results were obtained by tickling the dorsum of the foot and lower part of the leg. The cremasteric reflex was almost absent; and it was impossible to estimate the degree of abdominal and epigastric reflex action as tickling here also, gave rise to irregular movements of a semi-voluntary character. The pupils were contracted, and presented the Argyll-Robertson phenomenon in a typical manner, the strongest light inducing no change, while contraction occurred as the result of efforts of accommodation. The sympathetic intra-ocular reflex was also absent, *i.e.*, irritation of the skin of the neck failed to enlarge the pupil. Shooting pains were complained of from time to time, though they were now less severe than formerly; they often shot down the flexor aspect of the left arm. The girdle-sensation was almost gone. Patches of hyperæsthesia to tickling, temperature, and pain were found on the legs and abdomen. In other places, the skin of the lower extremities was entirely analgesic. In various areas, there was very marked retardation in the conduction of sensory impulses. A pin, for example, inserted deep under the skin, was felt as a tactile sensation for several seconds, when suddenly the patient would cry out; and immediately both legs, and often the arms, were thrown about in a violent and inco-ordinated way. Thermal stimuli, both heat and cold, were especially prone to excite these wild ataxic movements. When investigating this point one day, I took the ink-bottle from the hand of the nurse, and placed it against the outside of the middle third of the right leg. At once both legs were jerked about, and the contents of the bottle bespattered over the bed. These movements were certainly not reflex, but, as indicated above, were in a great measure voluntary. The upper extremities, especially the left, were numb and anæsthetic, and precisely the same feeling of padding or "furry" sensation was felt in the palms as was noticed early in the case in the soles of the feet. Objects placed in the hands could not be distinguished by the fingers when the eyes were closed. The patient often described a curious sensation in the left hand, as though he were grasping a hard body like a penknife.

The inco-ordination, the most prominent symptom, and that which prompted me to record the case, was most pronounced. In addition to the ataxic phenomena to which reference has already been made, it was found that it was quite impossible for him to place either leg, when directed to do so, in any position to which he was at all accustomed. For example, when lying on his back, blindfolded, an effort to place the heel of one foot upon the toes of the other, resulted generally in the limb which he was attempting to poise being flung up into the air in a violent way, endangering the by-standers; then, after several erratic flourishes, it was brought forcibly down across the other, and finally both legs became ridiculously involved, the patient being quite at sea when asked to describe their relative position. Even with the aid of his eyes he could not place the heel of one foot upon the toes of the other, as the jerking movements still interfered, nor could he describe the position of his arms, which were also very ataxic, the left being more so than the right; he was unable to touch any given point on his face with either index finger when the eyes were closed. One morning he was searching for his left hand, having lost it under the bed-clothes, when suddenly, to his great astonishment, the missing member flew up and struck him a severe blow on the face, almost giving him a black eye. This arm, he stated, often moved about by itself, being almost entirely beyond his volitional control. These irregular movements resembled chorea, and were not unlike the tremor of multiple sclerosis. They were invariably set up when hyperæsthetic parts of the skin were irritated. The nurse remarked that she noticed that the left hand sometimes moved about when the patient slept.

Every attempt to test the muscular sense of his lower extremities

by hanging different weights from the ankle, and inviting him to distinguish between them, failed, owing to the exaggerated ataxic movements to which the effort to support the leg in the air gave rise. But, in the case of the arms, it was observed that, with the right, the steadier of the two, he was unable to discriminate between a weight of a few ounces and one of two pounds, calling the lighter one "about two pounds heavier than the other."

There was marked incontinence of urine. At first, it did not dribble away continually, but was passed involuntarily in considerable quantities several times in the day; but later, it was impossible to keep the bed dry, as it ran away almost incessantly. In consequence, a catheter was passed into the bladder, which was irrigated by Chiene's method. The catheter, which had to be passed every third or fourth day, gave rise, even though it did not always excite pain, to the most remarkable jerking movements of the legs and left arm, these limbs being thrown about violently.

The optic discs, after the pupils had been atropised, were seen to be slightly hazy, and of a greyish pink colour, though apparently free from degeneration. The retinal veins were engorged, especially in the left eye.

A week or two after his admission into hospital, the inco-ordination had increased so markedly, as to render fruitless any attempts at walking. Even when supported by two people, one at each side, he was unable to walk a few steps, the effort resulting in a series of most absurd kicks and sprawling movements, which resembled the struggles of an energetic individual on skates for the first time, only they were much more violent in their execution. The ataxia was, indeed, striking, for, whilst it was evident that there was no true loss of power, it was equally apparent that, even with the aid of sight and ample support at each side, the power of directing muscular efforts in a combined way was quite gone. It was also impossible for him to stand alone, notwithstanding he assumed the most favourable attitude. The attempts to walk were always followed by great prostration, the outcome of the violent but purposeless and nugatory muscular efforts.

This patient is still in the Newcastle Infirmary; and, though much thinner and considerably weaker since his admission, the ataxia appears to be on the increase. The lightning-pains are occasionally very severe, requiring morphia hypodermically for their relief. The muscles show a slight, but not material, decrease in faradic contractility.

THE USE OF ANTIMONY IN CERTAIN SKIN-DISEASES.

Read in the Section of Medicine.

BY MALCOLM MORRIS, F.R.C.S.Ed.,
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CONSIDERING the close chemical affinity of the three important drugs, phosphorus, arsenic, and antimony, it is somewhat surprising that little use should have been made of the last in the treatment of diseases of the skin. Of the three, arsenic is the one which has gained the greatest notoriety. It has passed alternately through the phases of great popularity—being considered by some a specific for every form of skin-affection—and of equally undeserved disrepute. Now, however, we are forming a more rational estimate of its value; and, while acknowledging its utility in a few certain well defined conditions, I have thought it might prove useful to bring before this Section some of the results observed during the administration of its near ally. A certain share of attention has also been paid to phosphorus, but antimony has hardly been noticed. The probable reason for this is that antimony has been looked upon as a drug to be avoided, on account of the dangerous symptoms produced by even apparently moderate doses. But the same argument that applies to arsenic, and strychnia, and other drugs, applies with equal force to antimony—that the action depends entirely on the dose employed. We find in text-books that it has two actions, in the smaller pharmacopœial dose depressant or antiphlogistic, in the larger dose emetic. But no mention is made of its alternative action in repeated small doses. The sulphide, in combination with mercury and guaiacum, is the only preparation which has been used for this purpose.

Tartar emetic, or tartarated antimony, is the preparation I have used in these investigations, the largest dose being $\frac{1}{32}$ of a grain, or $7\frac{1}{2}$ minims of the vinum, only half of the minimum dose of the *British Pharmacopœia*. I must mention that, in all cases in which the effect of the drug has been watched, little or no local treatment has been used.

I will state now, in as concise a manner as possible, some of the more important diseases in which I have used the drug, leaving a more complete and detailed account for another opportunity.

Eczema.—It is now several years since my colleague, Dr. Cheadle, pointed out to me the value of antimony in the treatment of the acute form of this disease. In the majority of the cases which have come under my care, its beneficial effect has been both marked and rapid. In the acute general eczema of adults, which usually commences somewhat suddenly by heat and burning on the flexor surfaces, and on other characteristic positions, and is soon followed by abundant exudation of clear fluid, and in the form known as eczema rubrum, I generally begin with four or five minims of the vinum antimoniale three times a day, increasing the dose gradually up to seven minims. After a few doses the exudation ceases, and the local irritation is much relieved; but, in order to prevent a relapse, it is necessary to continue the treatment until all traces of the eruption have disappeared. In acute eczema of children, the dose should be in proportion to the age of the child—half a minim or less up to six months, and one minim or less up to a year. As a rule, I have found both children and adults bear these quantities well, neither sickness nor diarrhœa being produced. In the case of aged persons, however, the dose should not exceed three or four minims to begin with, as diarrhœa may result from the administration of a greater amount.

In the subacute forms, both of children and adults, similar doses, but continued for a longer period, are necessary. In chronic eczema, especially when localised, the use of antimony is less often successful; but even in this troublesome form, it relieves the acute exacerbations, and is occasionally followed by cure when other methods of treatment have failed.

In eczema impetiginodes of children, I have noticed little benefit from the drug till the scabs have been removed, and formation of pus checked by local treatment. Simple impetigo contagiosa from a local cause is not included in this category.

In the various forms of so-called lichen that occur in children, I have found antimony in the previously mentioned doses of the greatest value in relieving the irritation—a feature in which it resembles arsenic.

Erythema.—In most of the cases of erythema met with in practice, the eruption disappears without any special treatment; occasionally, however, when the disease is continued by fresh outbursts, antimony is of great service in modifying the course and relieving the burning and heat. There is a condition which is not clearly described either in special books on the skin or in those on general medicine, that I have found to be greatly benefited by antimony, whereas it is aggravated by arsenic. The attack usually commences suddenly, with heat and burning of the skin of the face, which is followed very rapidly by great swelling, that often involves the eyelids. The smarting is severe, and pain is experienced when the part is touched. Occasionally, vesicles or bullæ are formed on the swollen and inflamed skin. The patient feels ill, but there is no special rise of temperature. The disease usually runs its course in from three or four to ten or even twenty days. The chief feature of the disease is that it is almost certain to relapse. By some authorities, this is considered to be idiopathic erysipelas—the public always call it so; by others, it is looked upon as a peculiar form of eczema, and said to be associated with gout. I have seen several cases, and am inclined to think it may be called relapsing erythema, as it has none of the dangerous qualities of genuine erysipelas. Antimony acts in this disease as in acute eczema, by shortening the attack and diminishing the severity of the symptoms. It should be continued for a considerable time after recovery, to prevent, if possible, a relapse.

Prurigo.—In this troublesome affection, frequently met with in our out-patient rooms—the relation of which to the severe form known on the Continent as Hebra's prurigo, Mr. Morrant Baker pointed out at the International Congress of 1881—antimony is of great use. Three or four minims of the vinum, continued over a long period, allays the itching to a large extent, and often prevents the relapses of eczema. In several cases, after arsenic, iron, iodide of iron, cod-liver oil, and numberless other tonics had been tried, antimony was the only drug that produced any benefit whatever. When given in the before-mentioned doses continuously for more than a year, I have never seen sickness, diarrhœa, sweating, or debility; but, on the contrary, the appetite improves and the weight increases. I have not had the opportunity of trying the remedy in a patient older than $18\frac{1}{2}$ years suffering from this disease; but in one particular case of that age, the benefit was most marked while the drug was being taken.

Sycosis.—I have given antimony in five well-marked cases of this disease; in four, it did not seem to produce any effect, either beneficial or otherwise; in the fifth, there was considerable improvement after the vinum had been taken a fortnight in seven-minim doses. It seemed to relieve the pain and burning; but, although the remedy was persevered with for over three months, the improvement was only temporary. The local treatment while the drug was being administered was olive-oil or vaseline. In none of these cases was there any bad effect; no depression, diarrhœa, sickness, or sweating.

Urticaria.—In a few cases of chronic urticaria, I have found antimony, like arsenic, of service in checking attacks, so long as the remedy was continued.

Psoriasis.—Though, in the majority of cases of psoriasis, arsenic is to be preferred to antimony, I have elsewhere called attention to the fact that, in certain persons, arsenic not only fails to relieve, but even aggravates the disease. I have, in some of these cases, tried antimony, and have noticed in a few instances that improvement took place, while in others it seemed to have no effect.

I have been obliged to condense the facts in this paper into very brief space, but two points I wish especially to lay stress on; first, that tartar emetic—in doses of $\frac{1}{240}$ to $\frac{1}{30}$ of a grain, according to age—can not only be tolerated, but seems to have a decided tonic action; secondly that it proves useful in those acute forms of skin-disease that are usually aggravated by arsenic.

ON THE TREATMENT OF CHRONIC METRITIS ASSOCIATED WITH RETROFLEXION.

Read in the Section of Obstetric Medicine.

BY ARTHUR W. EDIS, M.D., F.R.C.P.,

Assistant Obstetric Physician to the Middlesex Hospital; Physician to the Chelsea Hospital for Women, etc.

THE frequency with which cases, such as are here indicated, are met with in practice, and their intractability to treatment, unless properly conducted, leads me to believe that a few practical remarks may prove of interest to many a hard worked practitioner, and thus enable him to deal successfully with otherwise incurable cases.

Chronic metritis associated with retroflexion is a condition frequently met with in patients who have borne one child within a twelvemonth or so of marriage, and then cease to have more children.

Such patients generally give a history of having been in good health up to the time of their confinement, but never well since. They complain of a feeling of weight, discomfort, or bearing down or dragging in the pelvic region, pain in the sacral or lumbar region, not unfrequently described as if their backs were broken, inability to stand for long at a time, or even to sit upright, and much distress in getting about. Associated with these symptoms we often find more or less menorrhagia, leucorrhœa, constipation, anorexia, nausea, and other indications of local mischief. The general health becomes seriously impaired from the patient's inability to take exercise or a proper amount of food; and chronic invalidism, with great depression of spirits, not unfrequently ensues.

On examining such a case, retroversion or retroflexion of the uterus is readily detected, and the insertion of a Hodge's, or other similar form of pessary, promptly suggested. In place, however, of relieving the symptoms, these latter are considerably aggravated. The instrument, after a longer or shorter interval, is removed, and the patient, discouraged by the added suffering, refuses to submit to further local treatment, and remains more or less a confirmed invalid, unfitted to fulfil her social or domestic duties.

It is to this class of case I wish to direct attention, believing there are many such. If the condition of the uterus, and not merely its position, be properly recognised and appropriately dealt with, much may be done to restore the organ to a normal state, thus curing the acquired sterility, and relieving the distressing symptoms previously enumerated.

If a careful bimanual examination of the pelvic organs be made, whilst the patient is lying in the dorsal position, with her knees well drawn up, all tight articles of clothing being loosened, we shall generally find that the uterus is not only retroverted or flexed, but also greatly augmented in bulk, more sensitive than normal, less mobile, the cervix enlarged, the os uteri unusually patulous, and the cervical canal markedly granular, giving exit to a thick mucous discharge.

Displacement and congestion, or inflammation of one or other both ovaries, is frequently associated with the retroflexion, and often increases considerably the difficulty experienced in dealing with the uterine condition.

In attempting to treat such cases, our first care should be to confine the patient to bed, in any case for a week or two, see that the bowels are regularly and properly relieved, and regulate the diet, giving only the simplest forms of nourishment, and abstaining altogether from stimulants. In place of lying always on the back, the patient should be encouraged to lie over in the semi-prone position, or even to adopt the knee-posture from time to time. Let the nurse be instructed to give the vaginal douche, with hot water, morning and evening, for ten minutes or a quarter of an hour each time.

Some few days after the catamenial period is over, the uterus still remaining bulky and tender, abstraction of two or three ounces of blood by leeching, or by means of puncture or scarification, will generally prove of much service. The vaginal *cul-de-sac* should then be packed with one or two tampons of cotton-wool saturated in glycerine. A copious watery discharge is thereby produced, which serves to still further deplete the uterus. These tampons should be removed the following morning, the hot-water douche employed, and then more tampons introduced.

A repetition of the depletion will generally be requisite within a few days, depending upon the amount of blood obtained, and the effect produced.

The bulk and tenderness of the uterus having been lessened, the propriety of inserting a soft India-rubber ring, after first replacing the uterus, so as to prevent its falling back into the hollow of the sacrum, may now be considered. Instead of inserting an ordinary Hodge's pessary, which presses unduly upon the fundus uteri, and often causes much discomfort, an elastic ring of about $2\frac{3}{4}$ to $3\frac{1}{4}$ inches diameter is much more likely to be tolerated; and, by its uniform distension of the posterior vaginal *cul-de-sac*, is less likely to press unduly upon the tender fundus uteri than the posterior limb of a Hodge's pessary.

If there be much granular degeneration of the cervix uteri, the application, once or twice a week, of a saturated solution of carbolic acid, of liquor iodi, of the two combined, or even of nitric acid in severe cases, will serve to expedite recovery, and prove of much service.

In those cases where the bulk of the uterus is greatly increased, and of long standing, the application of potassa fusa, or of the potassa cum calce, so as to produce a small eschar upon the cervix, lessens materially the bulk of this latter.

If the ring be borne comfortably, and the patient's condition generally such as to warrant it, she should now be allowed to get up for a few hours daily; and, as soon as deemed prudent, should be permitted to get out-door exercise, either in the form of carriage-drives, rowing on the river, or sitting on the beach at the seaside.

Walking exercise must be commenced with care, and the patient enjoined to avoid overfatiguing herself. Improvement of the general health usually ensues; and, in comparatively a few weeks, a patient who for years has been unable to get about, or fulfil her ordinary social or domestic duties, is enabled to resume her place in society, or become again a working member of the community.

The narration of a case successfully treated on the plan indicated may prove interesting to many.

CASE.—A. B., aged 29, married four years, mother of one child, three years old, consulted me in January, 1883, complaining of severe pain in her back, bearing-down, inability to walk or stand about, and other similar symptoms. Marital relations were attended with such an amount of pain and discomfort, that she was compelled to lead a single life. The catamenial periods were regular, profuse, and painful. She suffered also from copious vaginal discharge. Her general health was very much impaired, and her spirits very depressed. She was unable to attend to her domestic duties, and her continued ill health had served to make her home miserable, and her life a burden to her. She had never been well since her confinement; but of late the pain and discomfort at her period had increased so much, as to "make her almost out of her mind for the first two or three days." The flow generally lasted at least the week, and made her feel fit for nothing for at least a week afterwards.

There was always considerable discomfort on defæcation, the bowels generally being very constipated, the pain being of an aching, agonising character, lasting over an hour.

On examination, the uterus was found to be retroflexed, very bulky, and excessively tender to the touch. The left ovary was considerable enlarged, exquisitely sensitive on pressure, prolapsed,

and more or less fixed in Douglas's pouch. The cervix was bulky, the canal somewhat granular, giving exit to a viscid muco-purulent discharge. On placing the patient in the knee-shoulder position, it was found to be impossible to restore the organ to its normal position on account of adhesions on the left side.

The necessity of resting and submitting to appropriate treatment was insisted upon. On January 18th, within a few days after her next period, she came under my care, and was at once sent to bed. Leeches were applied, on four separate occasions, at intervals of about four or five days. The hot vaginal douche was employed morning and evening, followed by the insertion of a tampon saturated in glycerine. A five-grain pill of mercury and rhubarb was given alternate nights with a saline aperient draught in the morning. A mixture of bromide and iodide of potassium was ordered thrice daily. The diet was simple, farinaceous for the most part; porridge for breakfast, light custard pudding and beef-tea for the midday meal, and no stimulant of any kind. A suppository of one-sixth of a grain of morphia was employed for the first few nights to relieve pain and procure sleep, but was soon discontinued.

On February 1st, the local tenderness was so much less that a No. 8 uterine metallic sound was passed, and attempts made to redress the uterus, the patient being urged to assume the prone position whenever practicable. An India-rubber ring was inserted, and the patient still confined to bed. Nitric acid was lightly applied to the lower portion of the cervical canal on two occasions. The glycerine tampons were persevered with, as also the vaginal douche.

On February 8th, the patient was allowed to get up for a short time; the diet was increased, but no stimulant allowed. Carbolic acid was applied to the cervix on two or three occasions, and a lotion of borax employed.

On February 15th, the catamenia appeared, one month exactly from the last period, a longer interval than had occurred for some years. There was scarcely any pain in the back or down the thighs, as usually experienced; the flow was considerably less; and, altogether, there was a very marked improvement in her general condition. The patient returned to her home in the country shortly after this, the ring being left in, and instructions given not to attempt doing too much at first.

On April 26th, she reported herself in town. She stated that she felt perfectly well now. The catamenia recurred regularly every month, lasted only four days (in place of seven, as before), and there was scarcely any pain or inconvenience beyond slight aching in the left iliac region. The bowels acted regularly, better than they had done for years; and there was no pain whatever on defæcation. Sexual relations were unattended by any discomfort, and she was enabled to get about without any inconvenience.

Her general health was markedly improved; the appetite good. She slept well, and was altogether a different being from what she was in January. On examination, the uterus was found to be much less bulky, only slightly retroverted, and scarcely at all tender. The left ovary could hardly be detected. The cervix was slightly granular, and to this nitric acid was carefully applied. The ring was *in situ*, and caused no inconvenience whatever.

Mr. DONOVAN (Whitwick) said that there were before the Section two methods of treatment of enlargement, flexion, or version of the uterus—a scientific and a mechanical method, a modern and an antique method. There was a flexion or version without hypertrophy; that was best treated as recommended by Dr. Edis. He expressed a hope at the annual meeting in Worcester that intra-uterine stem-pessaries were being improved off the face of the earth. He was sorry to see that Dr. Wynn Williams had brought forward another, and he regretted that Dr. Henry Bennet was not present to join him in protesting against the intra-uterine pessaries.

Dr. WALLACE (Liverpool) could hardly agree with the sweeping statements made by Dr. Donovan with reference to the stem-pessary. There were cases where the stem could be borne. With reference to the paper by Dr. Edis, he would mention that ten minutes' vaginal douche was not enough; it required at least twenty to thirty minutes three times daily. Dr. Wallace objected to leeches. The application of solution of carbolic acid and scarification were superior, and more easily carried out by the medical attendant himself, who could note the amount of blood abstracted. He objected to the use of common soft rubber pessaries, on account of the offensive discharge and smell to which they gave rise. This the practitioner would soon detect. He asked how Dr. Edis would treat old chronic cases that resisted the treatment he had detailed.

Dr. EDIS, in reply, thanked those present for the kind attention they had given to his brief communication. In his paper, he recommended leeches or scarification, not either one or other exclusively. Patients would not always remain sufficiently long under treatment to enable one to rely upon rest and reposition alone. In sketching out a typical case, it would at once be seen that the plan of treatment was not intended to apply to all chronic cases, though at the same time it was merely a question of degree and perseverance. As to Dr. Wallace's remarks upon the length of time the douche was applied, Dr. Edis found, in practice, that patients were not able to continue its application for half an hour consecutively. The objection urged, as to the elastic rings becoming offensive, was not found to hold good in practice. He quite agreed in the advantage of using Ferguson's specula when local applications of acids, etc., to the cervix were needed. The employment of copper wire was scarcely suited for the application of nitric acid.

DISPLACEMENTS OF THE UTERUS, AND THEI TREATMENT.

Read in the Section of Obstetric Medicine.

BY A. WYNN WILLIAMS, M.D.,
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IT is not my intention to enter upon any description of the anatomical relations of the uterus, or to discuss the various ligaments and textures which are described as holding this or that part of the uterus in its position. You will find a most accurate and faithfully delineated description of those structures in the work by my colleague, Dr. Henry Savage, and other authors. I shall content myself by observing that displacements of the uterus are, in the main, due to a relaxed condition of the various structures supporting and surrounding the uterus, not only of the ligaments, but also of the floor of the vagina, on which it rests. The uterus may, however, be displaced by concussion—that is, by a fall; and you can form a pretty sure guess what the nature of the displacement is by ascertaining in what position the patient fell, whether backwards or forwards. If backward, as on the ice, the displacement will be backward. If forward, as falling off steps, the displacement will be forward. You may also have a congenital malposition of the organ, and this is almost invariably an anteversion or anteflexion. The symptoms due to displacement are so well and accurately described in the various works on diseases of women, especially that by our President, that it would be futile in me to attempt to add anything thereto. I shall proceed at once to the consideration of the various displacements as we find them on examination.

I will, in the first place, treat of prolapsus uteri, complete and incomplete. In the incomplete, on the introduction of the forefinger into the vagina, instead of having to pass it its whole length before you reach the os and cervix, you may find them just within the vaginal orifice, or at varying distances. Now, this can only be prolapsus uteri, or an elongated cervix, unless there should happen to be a tumour, which is beside the subject. In cases where there is considerable elongation, I remove a portion with the *écraseur*. The only objection to this procedure is the difficulty which occurs in keeping the os pervious, but this can be overcome by a little perseverance in the use of dilators and a short vulcanite stem. In the treatment of partial prolapse, I prefer the French ring-pessary, made of a watch-spring, covered with India-rubber. In complete prolapse, also, by the continuous use of this flexible ring-pessary, you may often succeed in accomplishing a complete cure. This, as Dr. Savage observes, "depends chiefly on the elastic qualities of the subperitoneal pelvic tissue, which will very often enable it to return to its normal condition, if relieved for a sufficient period from the weight of the prolapsus."

In severe cases, you cannot hope to succeed in keeping up the prolapsed organ without having recourse to some surgical operation. The same remark applies to cystocele and rectocele, with or without rupture of the perinæum. In these cases, you must by some means or other contract and strengthen the inlet and floor of the vagina. I have seen again and again pieces of mucous membrane of various shapes and sizes dissected off a cystocele and a rectocele, but the results have always been most disappointing. The plan I adopt is this. Supposing there is a rupture of the perinæum, extending into the rectum, I perform the usual operation for rupture of the perinæum, removing, however, the mucous membrane from the inner surface of the labia farther back than is usual. I then dissect from the floor of the vagina the perineal body sufficiently high up, as when put on the stretch its extremity shall reach as high as the upper raw surface

of the labia, in which position it is held by the assistant. I then insert the necessary stitches through the rent in the rectum, leaving the cut ends in the rectum. I then pass a long curved needle armed with silkworm gut through the ruptured sphincter, then across through the perineal body and back through the other end of the sphincter, leaving the ends loose for the present, hanging out of the anus. I then pass strong silver wire sutures through the labia by means of a large curved needle fixed in a handle, taking care to bring the point of the needle through the raw surface a little short of the mucous membrane. The needle is then passed through the flap or perineal body, and out in the same manner through the right labium; as many sutures are introduced as may be deemed necessary to draw together and close the labia. The reason I bring the point of the needle out short of the mucous membrane is, that both the edges and the flat surface of the perineal body may be in close contact with the raw surface of the vagina and labia. Having inserted the necessary number of sutures, I twist the ends together in the usual way, commencing with the upper one and finishing with the ligature left hanging out of the anus, the assistant pressing at the same time the perineal body against the rectum and labia. The silkworm sutures may be left to themselves. The silver sutures are removed on or about the sixth day. This same operation, with some slight deviations, I perform for complete persistent prolapsus without rupture. In this way you form a firm strong buttress. Often nothing more is required than the wearing of a perineal pad. But if the formerly protruded parts press severely against the new perinæum, the ring-pessary as before described will very generally be found sufficient to retain the uterus in its normal position. In one case of prolapsus with rectocele and cystocele, which had been previously operated upon many years before by the late Mr. Baker Brown without any permanent benefit, I was obliged to have recourse to an instrument of this kind. It is, I may say, a double Hodge's pessary, but is introduced into the vagina in the reverse position. The ends that are joined together are introduced first; the fine ends may be bent into any shape that may be required. In this case, the lower blade was made to rest against the recto-vaginal wall, the buttress, the other with the bars against the cystocele. This instrument was worn by the patient for some months, when the part so contracted that a ring was able to be substituted for it, and the patient now moves about in comfort.

We now come to the consideration of retroflexion and retroversion. Of the latter I need say very little: an ordinary Hodge's pessary, made of any material according to fancy, if properly adjusted, will answer every purpose. I generally introduce the sound, a very light one, and pass the Hodge's pessary over the handle and under the uterus. If the handle be balanced, and do not turn round, I feel sure the uterus is properly adjusted.

In cases of retroflexion, the fundus of the uterus will be found bent downwards, resting on the rectum with the os and cervix turned in the same direction, the uterus being bent upon itself. As regards the treatment of retroflexion, I fear some of my hearers will not agree with me. I make bold to assert that no severe case of retroflexion was ever permanently cured by the employment of a simple Hodge's pessary. I have discarded it; I find the ring of much more service. A ring, however, will not cure a flexion. The only instrument I have found capable of maintaining a retroflexed uterus in a normal position long enough to effect a permanent cure, is an intra-uterine stem combined with a Hodge's pessary. To introduce it, I in the first place screw a light vulcanite stem on a stilette, adjust the uterus by introducing a sound. I hold it there for a few minutes before withdrawing it, and, before the uterus has had time to return to its flexed position, I pass the vulcanite stem into it, insert the handle of the stilette into the hole in the depression in the shield, and pass the pessary down the handle into the vagina, the Hodge end first, behind the uterus. I then draw the button on the stem into the depression in the shield, and unscrew the stilette. The fundus of the uterus is thus supported, and the canal kept straight. So much play is permitted to the stem when fixed in the India-rubber diaphragm, that very rarely indeed is there anything like serious mischief set up, nothing more than will subside after the removal of the instrument if thought absolutely necessary. I have witnessed far more mischief set up by the rough introduction of the sound. Of course, should there be any inflammation or congestion, it must necessarily be removed by appropriate treatment before introducing this form of pessary.

Lateral versions are not, as a rule, productive of any very serious consequences. They are generally the result of some old adhesions. They are best treated by Dr. Graily Hewitt's cradle-pessary, the horn on one side being made longer than that of the other.

I now pass on to the consideration of anteflexions and anteversions. The latter are an exaggeration of the natural position of the uterus, and are very rarely productive of much inconvenience. When necessary, they are best treated by the cradle-pessary.

Anteflexion, on the other hand, is more distressing and more troublesome than any other displacement, and gives rise to far greater suffering, dysmenorrhœa, sterility, and their evil consequences. This displacement, as a rule, is confined to the virgin or sterile, and, indeed, is one of the chief causes of sterility. The position of the uterus in cases of anteflexion is exactly the reverse of that in retroflexion, both the fundus, and os, and cervix being bent forward and pointing to the symphysis pubis. In the case of virgins, it is advisable that the preliminary examination should be made by the rectum: a pretty accurate diagnosis of the position of the uterus can be made in this way. Having come to the conclusion that there is anteflexion, it must be verified by the vagina, first with the finger, then with the sound. I invariably endeavour to make out with my finger the exact curve of the uterus. In this examination, I first of all come upon the os and cervix, the latter being most frequently flattened; I pass my finger over the anterior surface of the neck, between it and the bladder; it then falls into a depression with a more or less acute angle. I introduce my finger a little further, when I find it pass over the body and fundus forward and upwards. I then withdraw my finger, and introduce a small Ferguson's speculum, and through it pass a fine flexible sound into the os, having first given it the proper curve. I introduce the sound with the point downwards, as far as it will go, then very gently turn the point upwards, and so on to the fundus; I now reverse the sound again, and so depress the fundus into the hollow of the sacrum, keep it in that position for several minutes, then withdraw the shield with the point downwards, and introduce a vulcanite stem before the uterus has had time to return to its abnormal position, withdraw the speculum, pass the handle of the stilette through the diaphragm in the shield, fix the button of the stem, and unscrew the stilette when all is complete. Occasionally I find it necessary to warm the point of the stem in a spirit-lamp, and curve it. This facilitates its introduction; and, after it has been worn for a few weeks, it can be removed and a straight one easily substituted. I wish to point out that the narrow end of the shield should be introduced first. This instrument patients often wear for many months, without the slightest inconvenience beyond the syringing the vagina with Condy's fluid, or some other deodoriser, for the purpose of cleanliness. Now and then the curvature is so great, and the canal so narrow, that the stem cannot be introduced, as no force must ever be used. When such is the case, I introduce a sea-tangle or sponge tent, which may have to be done two or three times before the canal is sufficiently dilated and strengthened to enable me to introduce the stem. It is scarcely necessary to observe that, whenever there is any inflammation or congestion, it must be subdued by rest in bed, leeching, and other appropriate remedies. After the introduction of the stem and shield, the patient should be kept in bed for three or four days. Should any symptoms of metritis appear, the stem must be withdrawn, and reintroduced in a fortnight or three weeks.

CASE OF BASILYSIS.

Read in the Section of Obstetric Medicine.

BY J. HALLIDAY CROOM, M.D.

Physician to the Royal Maternity Hospital, and Lecturer on Midwifery and Diseases of Women, Edinburgh.

AMONG the recent improvements in operative midwifery, the operation of Basilysis, as a means of comminuting the fœtal basis cranii, deserves to occupy a prominent place. Devised by Dr. A. R. Simpson, some years ago, and carried out by him in practice, it has, in my opinion, quite fulfilled the expectations he formed of it. I gladly take an opportunity of a recent case, which occurred under my care in the Maternity Hospital, to bring this operation under the notice of the Section. The case was as follows.

S. W., a primipara, aged 26, was sent to the Maternity Hospital on the forenoon of Sunday.

At the time of her admission, she was well advanced in the second stage of labour; the membrane had ruptured early in the morning, and a loop of the cord had prolapsed in advance of the head. I saw her shortly after admission, and found the conditions as described; and further found, on abdominal palpation, a very prominent uterine tumour; the head at the brim, but unengaged, and back to the left. There were no fœtal heart-sounds to be heard.

On vaginal examination, the head was presenting, the membranes rup-

tured, and a loop of cord prolapsed and pulseless. The occiput was to the left, and the sagittal suture transverse. The conjugata vera diameter, gauged by the diagonalis, measured slightly less than two and a quarter inches. The pelvis was a distinct rickety one. The indications, therefore, for reducing the head were obvious. This I did with the basilyst in the following way. With the assistance of Dr. Barbour, the head was steadied thoroughly at the brim, and the basilyst introduced at the most centrally presenting part of the right parietal bone. The cranial vault was easily pierced, and the instrument pressed down through the cerebral substance to the base of the skull. While Dr. Barbour kept the head perfectly steady, I screwed the basilyst home into the base, and, closing the handle, easily effected separation of it. The head immediately collapsed, and was pushed by Dr. Barbour through the brim, with slight aid on my part with the crotchet. Indeed, the use of the crotchet was almost unnecessary, as, after the collapsed head was well pushed into the brim, its extraction was mainly accomplished by the hands *per vaginam*, aided by suprapubic pressure.

On examination of the head after birth, it was found that the basilyst had entered the right parietal bone, and then passed down to the basi-occipital, just behind the foramen magnum, and the base was found to be splintered both laterally and anteroposteriorly. The disintegration of the base of the skull was remarkably complete, as the recent preparation which I now exhibit shows; and the great diminution in the bulk of the head is obvious from the fact that suprapubic pressure was of itself sufficient, with but little aid from the crotchet, to push the head through the brim.

REMARKS.—The introduction and working of the instrument are simple enough, but there is one point which, in a former case, offered some difficulty; namely, the doubt, after the basilyst has pierced the vault, as to whether it goes directly to the base. This is more apparent than real, for, if the head be well steadied, and its position distinctly made out, there can be but little risk in pushing the instrument straight on in the proper axis. Of course, in cases of extreme flexion, it will be easier to strike the centre of the base than in a case of flat pelvis, where marked Naegele obliquity is combined with extension.

This is illustrated in the case I have just recorded, where the basi-occipital bone was struck instead of the sphenoid; but, as the case shown, the result was none the less satisfactory. In any case, the risk of missing the base is very slight. It has been urged against this method of communication and delivery, that some instrument for extraction in addition to the basilyst is required. First of all, let me point out that, in the case in point, with a head perforated at the occiput, and with a two inches and a quarter brim, suprapubic pressure was almost enough to effect delivery, and secondly, it must be kept in view that a second perforation of the base can always be performed when necessary, reducing the whole head to a veritable pulp, and allowing it to pass through the pelvis with the aid of the hands and suprapubic pressure alone. It has, therefore, the advantage over cephalotripsy and other forms of embryulcia, that delivery is accomplished without the application of any instrument external to the head.

Dr. FANCOURT BARNES (London) considered the operation of basilysis essentially a scientific proceeding. He had, however, after carefully studying the operation as described by Dr. Simpson, its chief advocate, hesitated to resort to it for two reasons. In the first place, he had feared the possibility of the instrument after piercing the cranial base, lacerating the uterine wall. In the second place, he had always succeeded in delivering heads through markedly contracted pelves by means of the craniotomy-forceps.

Dr. HALLIDAY CROOM, in reply, said that he quite sympathised with Dr. Barnes's difficulty; indeed, it was a difficulty he himself encountered in a former case. He wished to point out to Dr. Barnes that, if the head were thoroughly steadied at the brim, and the instrument introduced in the proper axis, no such accident was likely to occur. The operation had been performed now repeatedly, and in no case was there any mischance of the kind Dr. Barnes mentioned.

AMBULANCE SERVICE IN PHILADELPHIA.—The Committee on Medical Charities of the Philadelphia Society for organising charity, says the Philadelphia *Medical Times*, announced, at a recent meeting, that steps had been taken to supply all the police-stations with hand-ambulance wagons, and, before very long, every station-house will be supplied. In some of the stations, they have been already in active use for nearly two years.

REPORT TO THE SCIENTIFIC GRANTS COMMITTEE OF THE BRITISH MEDICAL ASSOCIATION, ON METHODS AND APPARATUS FOR OBTAINING GRAPHIC RECORDS OF MOVEMENTS OF THE LIMBS, ETC.,

AND ENUMERATING SUCH MOVEMENTS AND THEIR COMBINATIONS PROBLEMS TO BE INVESTIGATED BY THESE METHODS.[1]

Read in the Section of Anatomy and Physiology.

BY FRANCIS WARNER, M.D.Lond., F.R.C.P.,

Assistant-Physician and Lecturer on Botany at the London Hospital; Assistant-Physician at the East London Hospital for Children.

MOST of the movements of the body are the outcome of the action of the central nerve-mechanism; hence those movements produced by the hidden central organ are the signs of the action of that organ; and movements of the limbs, head, etc., may be studied with advantage as the indices of the brain. On these grounds, the following postulate may fairly be granted. "If we see some spontaneous nerve-muscular action often repeated in the same and in different subjects, there is some portion of the nerve-mechanism corresponding which can act independently of the rest." Hence I believe that each separate nerve-muscular movement indicates the conditions of activity of some portion of the nerve-mechanism (however diffused that special portion may be); and it follows that lines recording the movements indicate the frequency and coincidence of the activity of portions of the nerve-mechanism corresponding to the movements.

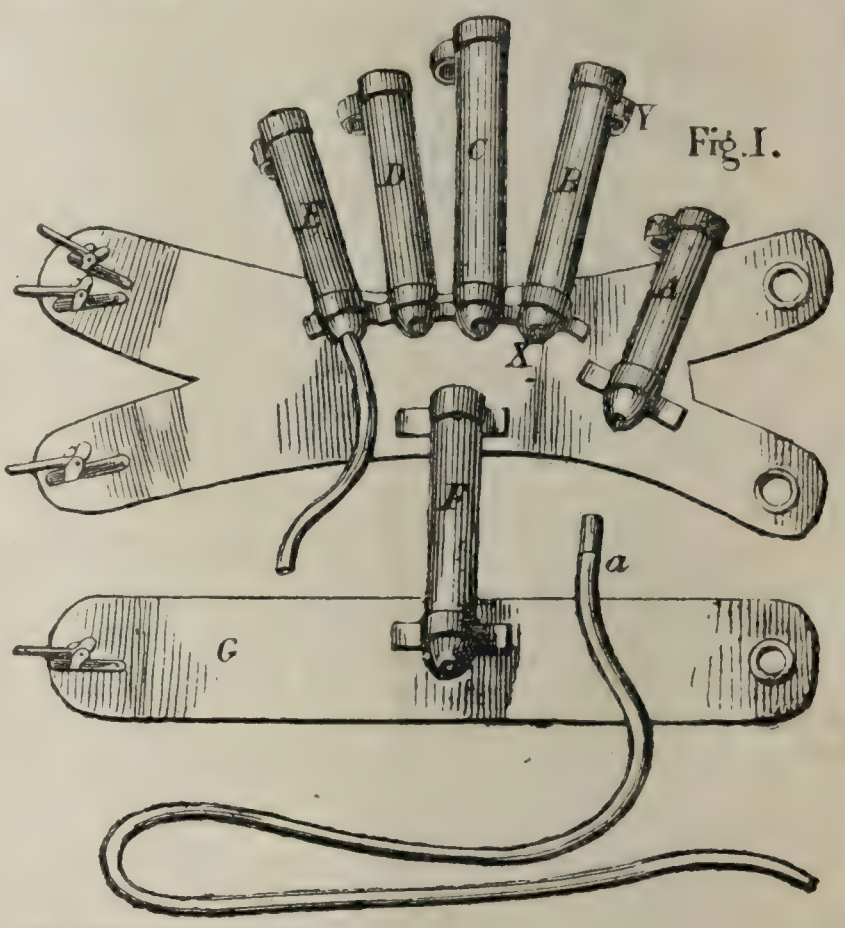


Fig. I.

The apparatus employed consists of:

1. A "motor" made of India-rubber to be attached to the hand, one tube to each finger, or moving part (Fig. I, A, B, C, etc.). From these, pieces of thin conducting-tube (*a*, *b*, *c*) carry air to a set of recording tambours.

2. A frame supporting the recording tambours, and electrical signals (Fig. II):

3. A new "electrical contact-making tambour" (Fig. III). It is a modification of the Marey tambour adapted to the purpose of actuating an electrical counter:

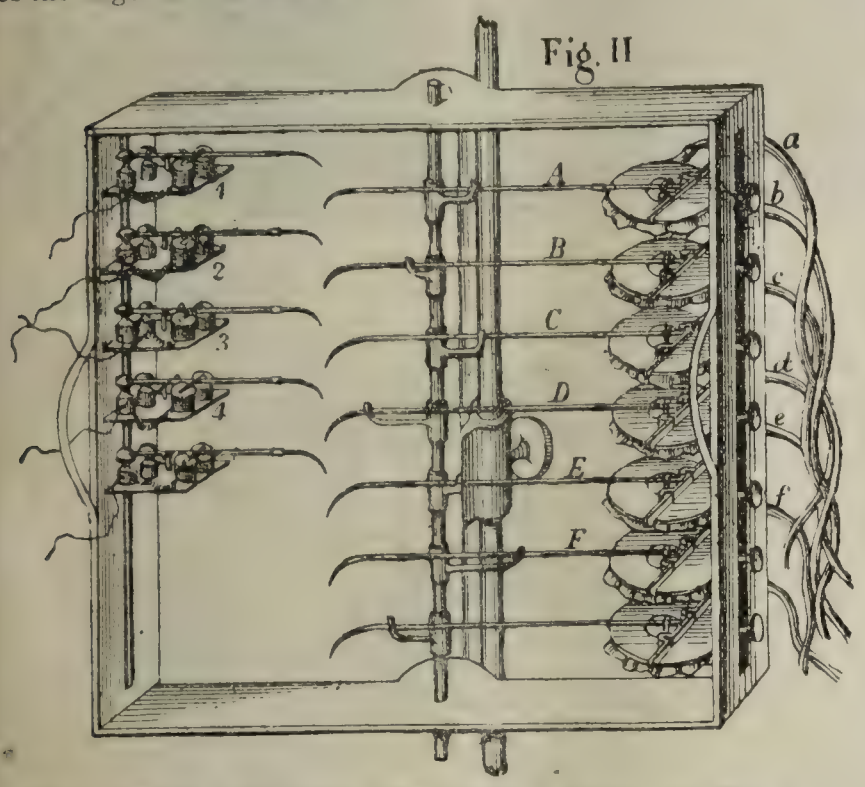
4. An electrical counter (Fig. IV):

Now, as to the further details of each piece of the apparatus, and its uses. In the motor which is attached to the hand (Fig. I), the principle employed is as follows. When a cylindrical tube closed at one end is bent, flattened, or compressed, its capacity is lessened,

[1] Towards the expenses of this apparatus, a grant was made by the British Medical Association on the recommendation of the Scientific Grants Committee.

and therefore air is pressed out of it and driven into the tambour with which it is connected. The needle of the recording tambour is thus moved by the bending of the tube of the motor attached to the finger, the movement of the recording needle corresponds to the movement of the finger and the activity of that part of the central nerve-mechanism which moves the finger. These tubes are moulded for me in soft red rubber by Messrs. Warne and Co.; they are $7\frac{1}{3}$ millimètres in external diameter; one end of the tube, *x*, is pointed and pierced, the other end, *y*, is closed by a moulded cap (Fig. I, *y*); and a band moulded to the cap gives the means of fastening the tube to the finger. These tubes are mounted on a "foundation" of sheet red rubber, which is fastened round the hand like a glove (see (Fig. V). The arrangement represented in Fig. VI, *a* and *b*, is convenient in the case of adults, in whom the thickness of the finger makes a considerable drag upon the upper surface of the tube during flexion of the finger. It consists of a pair of moulded caps mounted on a ring back to back; the septum between the two is divided halfway down, and the lower portion is pierced, allowing air to pass from one cap to the other. The band is fastened to the middle of a phalanx, and, the finger-tube being cut at this point, the divided ends are inserted one in each cap. The whole is thus rendered air-tight, and the tension of the upper surface of the tube during flexion of the finger is thus relieved.

Fig. II

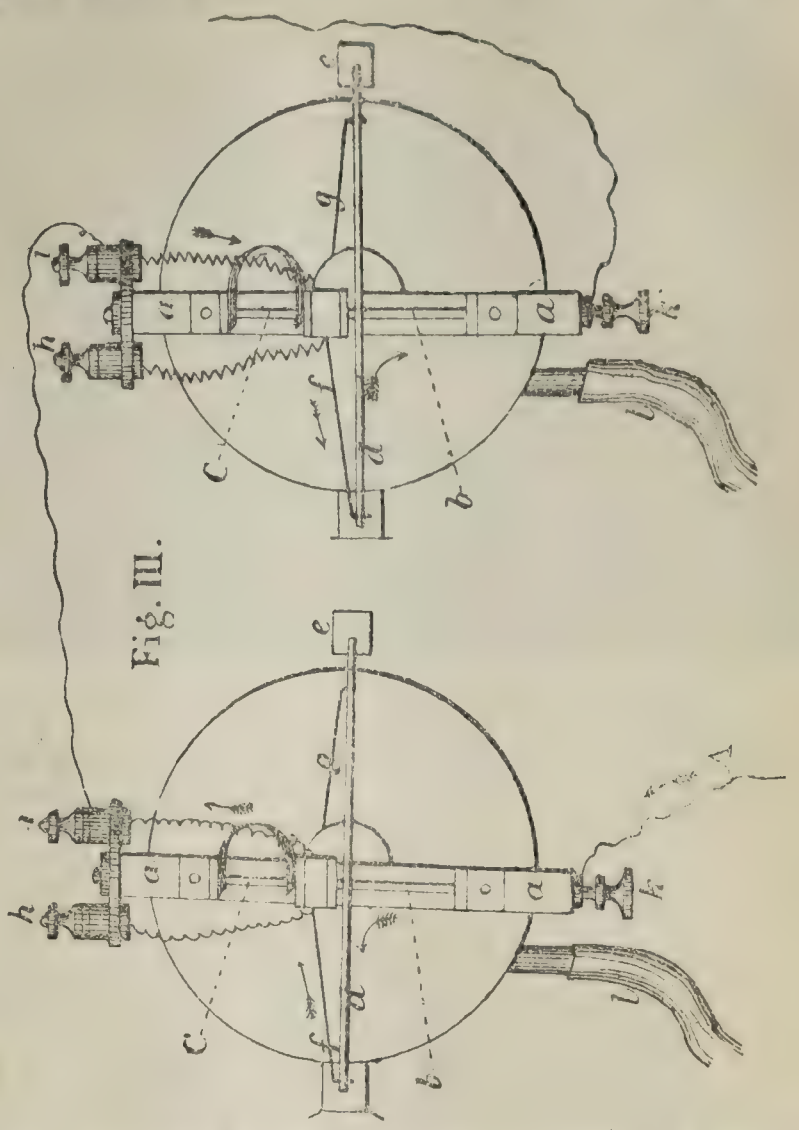


The recording tambours mounted in a frame (see Fig. II) give tracings upon a revolving cylinder, showing the frequency and coincidence of the various movements. The electrical signals give the means of marking time, indicating events, etc.

"The electrical contact-making tambour" is represented in Fig. III. Across the ordinary shell of a Marey's tambour, a main bracket, *a a*, is fixed, to which three smaller ones are screwed, having holes in them to take two arbors. One arbor, *b*, has a beam, *d e*, with a small weight at one end, *e*, and is connected by a short link with the India-rubber head of the tambour. To the other arbor, *c*, a block of ebonite is fixed to insulate two wires, *f g*, with platinum ends, which lie under and nearly touch the beam, *d e*. Each of these wires is connected with terminals, *h* and *i*, by a coil of thin copper wire. A light bent blade-spring is inserted between the ebonite block and the bracket, to resist the motion of the arbor, *c*. The beam, *d e*, has platinum soldered on the part where the platinum ends of the wires are to touch. A terminal, *k*, is fixed to the main bracket. Increase of air-pressure in the tambour raises one end of the beam, *e*, and depresses the other, *d*, which thus comes in contact with its insulated wire, *f*, completing a circuit through the terminal, *i*; diminished air-pressure allows the beam to move in the opposite direction, completing a circuit through the terminal, *h*.

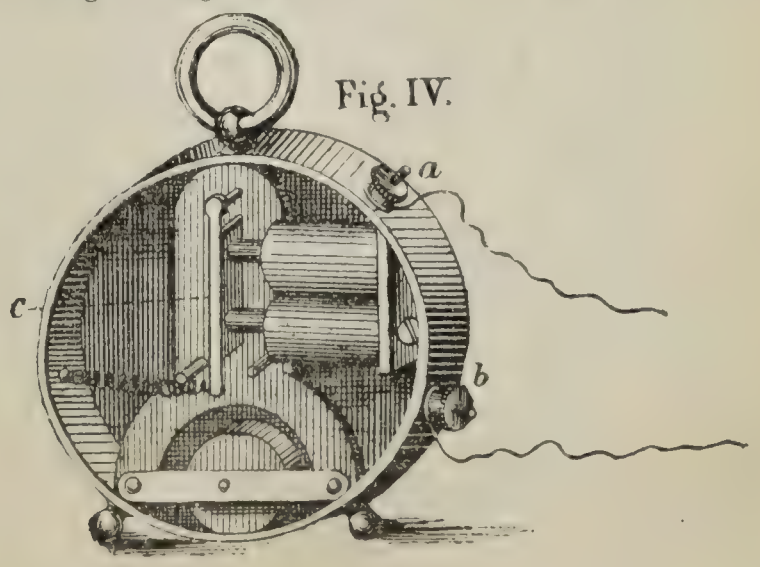
The instruments are made for me by Mr. W. Groves, 89, Bolsover Street, W. The electrical counter (Fig. IV) consists of a clock, to the pendulum of which a small piece of soft iron, *c*, is attached, opposite an electro-magnet, *d*. In use for counting the movements of a finger, the conducting tube (Fig. III, *l*) from the finger is attached to the electrical contact-making tambour. One pole of a Leclanché battery of four cells is connected with *k*, and a wire connects *i* with *a* in Fig. IV, while *b* is connected with the other pole of the battery. Each flexion of the finger thus allows the escapement of the clock to pass one tooth, and the hands indicate on the dial the number of finger-flexions, and the number of times the portion of the nerve-mechanism connected with the finger-flexion has been in activity.

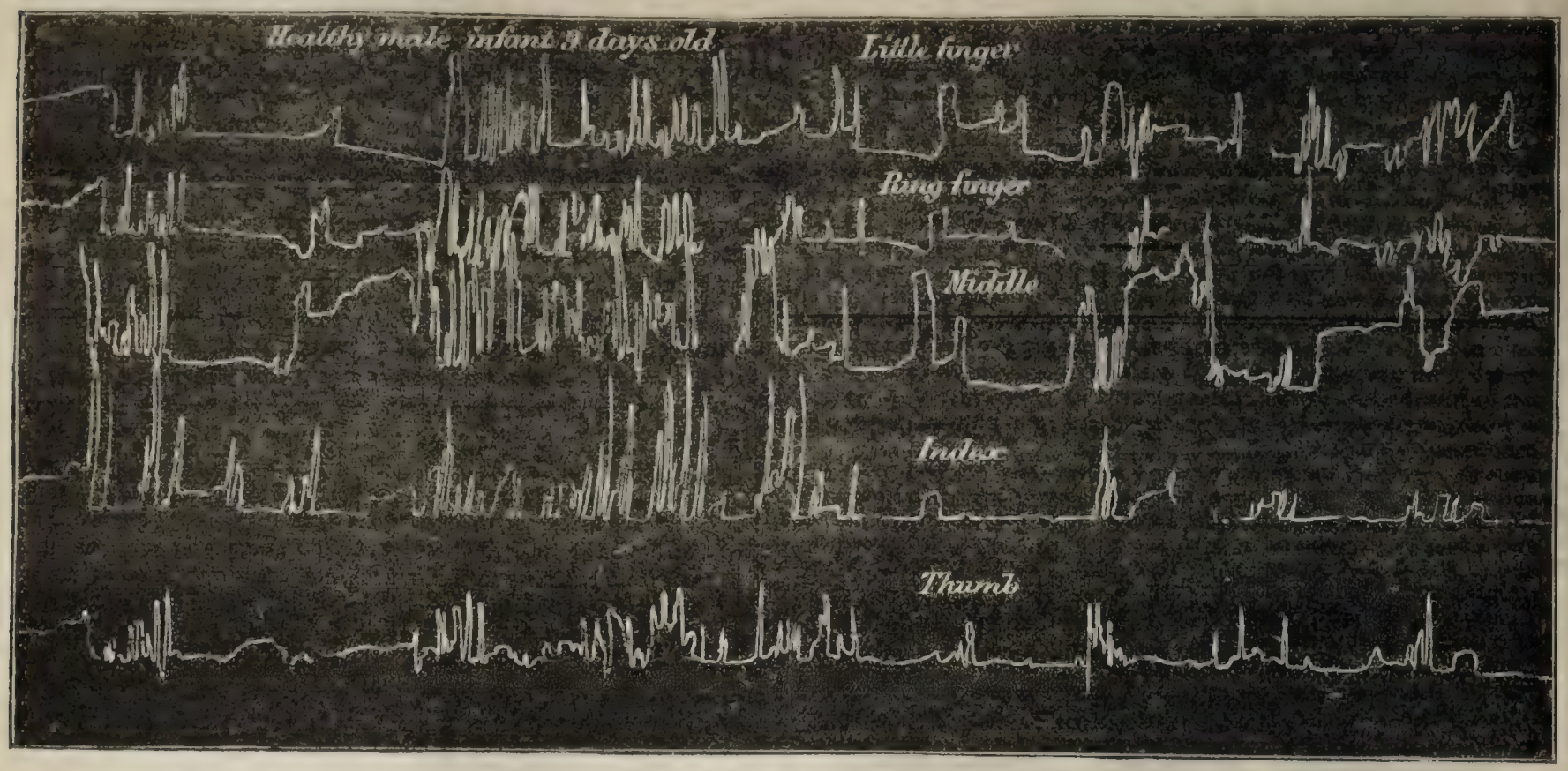
Fig. III.



If it be desired to record by figures the number of times that certain special movements (coincidences of movement) have been made, we may proceed as follows. Let us consider only flexor movements of the fingers. There are five digits; it is required to count how many times each of the possible combinations of flexion of the five digits occurs. There are thirty-two such possible combinations of flexion. Let the digits be called A, B, C, D, E; there are thirty-two possible combinations of these five factors, viz.: A, B, C, D, E—A, B—A, B, C—A, B, C, D, E, etc. Now, by the following method, it is possible to show, on thirty-two counters, how many times each of these possible combinations of finger-flexion has occurred in a given length of time.

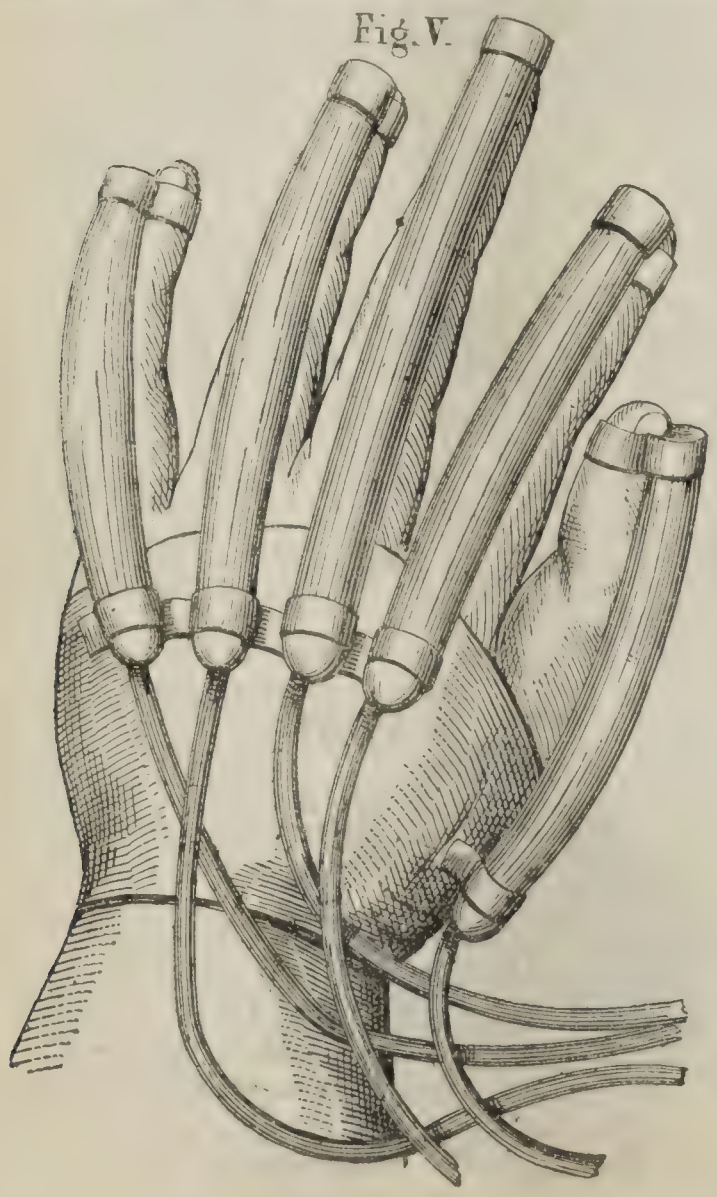
Fig. IV.





Say it is desired to make a counter enumerate how many times the digits A and B have flexed together. The conducting tubes from the fingers A, B are to be connected each with a contact-tambour, then by making the electrical connection between these as indicated in Fig. III, and including the counter in the circuit, that counter will be actuated every time that the fingers A, B bend together, and will enumerate how many times this special combination of movements has occurred.

Fig. V.



As to the problems to be investigated, and the uses of these methods.—Among the signs of "nervousness," or the neurotic condition, I have found finger twitching[2] so frequent and characteristic as to form a physical sign of a mobile (exhausted?) condition of the nerve-mechanism. These twitching movements can be recorded and enumerated, and thus coincident facts can be accurately ascertained.

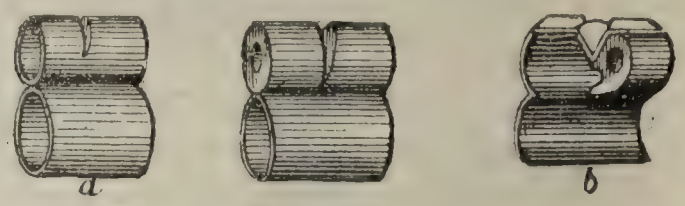
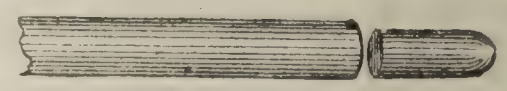


Fig VI.



It will be interesting to try to find out in what manner the co-ordination of movements in the growing infant is brought about. A very little observation shows that the apparently purposeless movements of the infant soon become succeeded by co-ordinated movements. Thus, at birth, the movements of the fingers appear quite irregular, there is much uncertainty as to what movements will occur together, and external circumstances often appear to produce but little change in the movements, except when mechanical pressure or irritation sets up movements by reflex action. At six months of age "the sight of a doll" has some effect in co-ordinating the movements of the hand and fingers, so that they touch and grasp the doll; "the sight of the doll," *i.e.*, the light reflected from the doll, brings about a temporary co-ordination of movements. Perhaps it is in the study of these temporary co-ordinations of movements that we may learn the methods by which permanent co-ordination is brought about. So complicated a problem as the consideration whether the action of light is a factor in building up the co-ordination of the nerve-centres, needs for its investigation accurate logical argument, and exact methods and apparatus.

In studying chorea by these methods, it has been possible to show that cases differ from one another in the character of the

[2] See paper on "Headaches," BRITISH MEDICAL JOURNAL, December 6th, 1879.

movements; in some cases the movements are singularly simple, in others each gross movement is compounded of several smaller ones. Again, it has been possible to show what causes increase or diminish the amount of movement in a limb; the effects of talking to the patient, keeping her in darkness, making her sit up in bed, etc., in as far as these circumstances affect movement can be investigated. Tracings have been taken showing ankle-clonus; senile tremor; movements of the sternum in health and in chorea; the movements of athetosis, and those due to the sucking of an infant, etc.; the movements of the limbs due to pulsation.

MEDICO-METEOROLOGY OF EPIDEMIC DIARRHŒA IN LONDON FOR 1876-82.

Read in the Section of Public Medicine.

By MONTAGUE D. MAKUNA, M.R.C.S.Eng., L.R.C.P.Lond., M.S., etc.

Having made the subject of the medico-meteorology of zymotic diseases in the metropolis my special study, and, as it is my intention to pursue it year after year, I might be permitted to consider here the relations of meteorological conditions to summer diarrhœa, for the period of 1876-82, inclusive. I have fully stated my views, why I have selected London, and the period commencing with 1876, for the special study, in a paper of mine in the *Midland Medical Miscellany* for April 1883. It would suffice here to state that London has an immense population, living under the same meteorological conditions, and on a comparatively small area; also, that the health and meteorological returns of this vast metropolis are regularly kept, and made available to the public; it is from the year 1876 that we find that the various meteorological conditions are more comprehensively embodied in the weekly returns of the Registrar-General.

First, on taking an average of seven years, 1876-82, we find that the 72 per cent. of the mortality is among infants under one year; 17.2 per cent. among children between one and five years; one per cent. between five and twenty years; and 9.7 per cent. among twenty years and upwards, or among the adult population. Hence it is that it is called by some infantile diarrhœa.

Secondly, it prevails almost entirely during the fifth of the six climatic periods, characterised by heat, and extending from the summer solstice to the end of August. During six of the seven years under consideration, it assumed an epidemic form about the last week of June. During the year 1879, the summer weather was exceptionally mild; consequently, the severity and the extent of the disease were also low, and the epidemic curve did not commence till the thirty-second week of the year. From the table published by the Scottish Meteorological Society, I find that it was epidemic from the twenty-seventh to the thirty-eight week, on an average, for the years 1845-74. Its prevalence during the same heat-period, governed by the same meteorological conditions, has been testified by many observers, the time of the year varying with the geographical positions of the places of investigations. Under these conditions, it can safely be called summer diarrhœa. A small mortality, or an average of ten to twenty a-week, does take place throughout the year; but this must be due to a variety of causes I need not state here.

Thirdly, when we come to examine more closely the mortality in proportion to births, in the several districts and subdistricts of the metropolis, we find that it is much higher in the poorer and overcrowded parts. Here the individual experience of practitioners is valuable. Those who practise in the poor urban localities have a larger number of cases than those who practise among the well-to do classes. Again, it is observed that it is least among the rural population.

Having established the facts, that the epidemic diarrhœa is infantile, summer, and most frequent among the poorer classes of the urban population, from the data before us, and those given by Dr. Ballard, in his excellent paper some years ago, and recently by Dr. W. Johnston and Dr. G. Turner, I shall now treat of the meteorological conditions in relation to the epidemic curves during these years, in order to draw some conclusions, or verify the statements of some of the previous observers.

During 1876, it was epidemic for eleven weeks, from the twenty-eighth to the thirty-eighth. The curve attained the maximum of 522 on the thirty-first week. The average mean temperature of the period was 62.6°; that of the highest readings, 75.5°; that of the lowest readings, 52.8°. The mean humidity of the air was 71; rainfall, 0.36 inch; sunshine, 47.9 hours; sun above the horizon, 103.3 hours; velocity of the winds, 1,800 miles; ozone, 19.9.

During 1877, it was epidemic for fourteen weeks, from the twenty-sixth to the thirty-ninth. The curve attained its height of 194 on the thirty-third week. The heat-conditions were much milder than in the previous year, although more prolonged; consequently, we had an epidemic of less severity, but of longer duration. The average mean temperature of the period was 58.8° Fahr.; mean of the highest readings, 63.0°; mean of the lowest readings, 50.6°; mean humidity, 74; rainfall, 0.46 inch; sunshine, 35.2 hours; sun above the horizon, 101.2 hours; velocity of the winds, 1,904; ozone, 26.6.

During 1878, it was epidemic for fourteen weeks, from the twenty-sixth to the thirty-ninth. The curve attained the height of 470 on the thirty-first week. The meteorological conditions for the production of epidemic diarrhœa were more favourable than in the previous year, although less so than in 1876. The mean temperature was 61.6° Fahr.; mean of the highest readings, 72.9°; mean of the lowest readings, 53.1°; mean humidity, 77; rainfall, 0.56; sunshine, 36.6 hours; sun above the horizon, 102.2 hours; velocity of the winds, 1,651; ozone, 30.

During 1879, it was epidemic for ten weeks, from the thirty-second to the forty-first, when the weather was much milder than in the previous year, and consequently the mortality from diarrhœa was also less. The curve rose only to 209 on the thirty-fifth week. The mean temperature was 57.9°; mean of the highest readings, 66.2°; mean of the lowest readings, 50.2°; humidity of the air, 85; rainfall, 0.80 inch; sunshine, 27.0 hours; sun above the horizon, 91.9 hours; velocity of the winds, 1,725 miles; ozone, 28.2.

During 1880, it was epidemic for seventeen weeks, from the twenty-sixth to the forty-second. The curve attained a height of 367 on the thirty-first week. The mean temperature was 58.8° Fahr.; the mean of the highest readings, 68.0°; the mean of the lowest readings, 51.5°; mean humidity, 83; rainfall, 0.82 inch; sunshine, 27.0 hours; sun above the horizon, 96.3 hours; velocity of the winds, 1,654 miles; ozone, 18.1.

During 1881, it was epidemic for ten weeks, from the twenty-sixth to the thirty-fifth. The curve attained the height of 495 on the thirtieth week. The meteorological conditions during the period were favourable for the severity of the disease. The mean temperature was 61.7° Fahr.; the mean of the highest readings, 72.9°; the mean of the lowest, 52.8°; humidity of the air, 77; rainfall, 0.61 inch; sunshine for 38.7 hours; sun above the horizon 106.8 hours; velocity of the winds, 1,920; ozone, 24.0.

During 1882, it was epidemic for twelve weeks, from the twenty-seventh to the thirty-eighth. The curve rose only to 164 on the thirty-third week. The heat-producing conditions and the disease were never severe. The mean temperature was 59.3° Fahr.; mean of the highest readings, 69.0°; mean of the lowest readings, 51.0°; humidity of the air, 80; rainfall, 0.42 inch; sunshine, 32.7 hours; sun above the horizon 101.9 hours; velocity of the winds, 1,959 miles; ozone, 33.0.

The time and space allotted for the consideration in detail of the medico-meteorology of this disease are too limited. Again, the data have not yet extended over a sufficiently long period to draw correct conclusions. My principal object in the study of this subject in relation to epidemics is to prognosticate the likelihood of their outbreaks with the increasing verification of weather-prognostications, and thus advance preventive medicine a stage further. Many conclusions, drawn by several observers from data bearing on particular periods, are not applicable for other years.

The only conclusions I feel myself justified in drawing from the special tables referred to above, and from the several charts and tables bearing on the medico-meteorology of zymotic diseases, are as follows.

1. That this infantile summer diarrhœa is most prevalent among the poorer classes of the urban population.

2. That the meteorological conditions act both as predisposing and exciting causes of the malady.

3. As an exciting cause, they act as a constitutional irritant, the heat-producing conditions tending to local organic congestions and nervous depressions. The languid circulation through the portal system induces a catarrhal condition of the intestines, giving rise to diarrhœa. I have known several such cases.

4. As a predisposing cause, they act through unsanitary surroundings and articles of diet. It is sufficiently proved that whatever tends to the rapid propagation of micro-organisms also tends to the epidemic of diarrhœa in direct proportion. I have repeatedly observed that dryness of the atmosphere and heat cause decomposition and putrefaction of articles of diet, especially fruits, milk, and

baby's sweets, etc.; they also cause rapid emanations of miasms from all decayed products, whether scattered on the sandy banks of a river, or in a sewer, or in crowded rooms, or dust-bins, etc.

5. The determining temperatures are the continued lowest readings above 50° Fahr., and the mean temperature 58°. Other conditions being equal, the higher the temperature, the greater the severity of the disease.

6. The less the quantity of rainfall and the humidity of the air, the greater the severity of the epidemic, provided the temperature is high. High temperature and dryness of the atmosphere cause rapid evaporation followed by rain and lowering of temperature; consequently, the latter, as a rule, precede the decline of the curves of diarrhœa-mortality.

7. The greater the height of the curve of the epidemic, the nearer the heat-producing conditions are to the summer solstices. Consequently, long, dry, bright, and hot days, giving lengthened sunshine and sun above the horizon, are favourable for the production of diarrhœa. It has been conclusively demonstrated that the direct effect of the sun's rays on the micro-organisms is to paralyse their vitality or to impede their propagation. But it is also true that the heat-element of the sun's rays penetrates denser masses and causes putrefaction, while the light plays on the surface only.

8. Stagnation and slow movements of the air facilitate the production of diarrhœa, by impeded diffusion, dilution, and oxidation of the emanations from putrefying masses.

9. The less the quantity of ozone in an atmosphere, the less is its purifying and oxidising property; consequently, a greater accumulation of diarrhœa-causing particles in the air. The quantity of ozone varies a great deal over different parts of the metropolis, which would preclude us from drawing any conclusion, as long as a better means of ascertaining its quantity is not devised.

CASE OF ASTHMA CURED BY GALVANISING THE NECK, AFTER FAILURE OF OTHER REMEDIES.[1]

By PETER EADE, M.D.Lond., F.R.C.P.,

Senior Physician to the Norfolk and Norwich Hospital, etc.

For every reason, my communication to-day will be short. Were there no other, the crowded state of our agenda paper would urgently suggest it. I shall, therefore, almost confine myself to the one point in the treatment of suitable cases of asthma which gives the title to this paper.

I have said suitable cases, for the term asthma is, unfortunately, a most elastic one; and, doubtless, numerous cases are classed under this heading which in no sense correspond to our idea of the disease, as being one of the respiratory organs, which either is essentially, or was at its commencement, of neurotic character.

This grouping of many allied affections under the head of asthma, doubtless explains what is euphemistically called the uncertainty of the action of remedies in this disease, and the caprice of its symptoms. I apprehend that no such thing as caprice does really exist in disease, or in health; but that all events, whether healthy or morbid, occur according to definite causes producing definite results; and that, although these may be varied and numerous, yet they are not only definite, but uniform in similar circumstances; the only uncertainty lying in our limited knowledge, and our limited capacity for appreciating the small differences of physiological or pathological condition.

This is theory. In practice, we are still compelled to call many affections asthma, which are probably not so essentially; and to speak of remedies for asthma, which are only useful in merely allied affections of the air-tubes. What an unscientific chaos this leads to may be seen in the fact, that I find no fewer than thirty-one different remedies mentioned, under the heading of asthma, in one of our most popular and valuable therapeutic works of the present day.

The case which I will now shortly describe is one of tolerably true neurotic disease, which, by long continuance, had led to a free secretion from the bronchial tubes—in fact, had almost become what is termed asthmatic bronchitis. As this patient recovered, there will not be much objection to adding a thirty-second remedy to the above-mentioned list.

Case.—S. C., aged 49, married, a joiner, was admitted to the Norfolk and Norwich Hospital for "asthma," with much expectoration, for which he had been treated, for several weeks before admission, by one of our best Norfolk surgeons.

His statement was: that he had been ill for seven months; that this was his first attack; and that his family was not subject to asthma. His complaints were: of cough, with thick mucous expectoration; of noisy wheezing; and of great shortness of breath, which latter was always much worse at night, and prevented lying down or sleep.

On examination, the chest was found to be resonant, full of wheezing *râles*, with some small amount of moist *râles* at the base of the lungs; and the expiration was markedly prolonged and dyspnœal. No other diseased signs were observed, except a constantly flushed face. The heart was normal. The liver was not enlarged. The urine was free from albumen, although the phosphates were in considerable excess. The temperature was subnormal (but it may be mentioned that, during the progress of the case, it not unfrequently rose to 99°, or even a little higher).

This patient remained in the hospital for about ten weeks, and the case and its treatment may be well summed up as follows.

On February 21st, he was put upon mineral acids, with a view to check the excessive discharge of phosphatic salts in the urine; and, in a day or two, a nightly dose of chloral and bromide of potassium was added.

On March 7th, he was treated with full doses of compound sulphuric ether and an aromatic, on account of faintness and great respiratory distress.

On March 10th, as he was still unrelieved, he was ordered to take repeated doses of chloral, with iodide and bromide of potassium; and he was also ordered to inhale steam medicated with carbolic acid and tincture of conium.

On March 20th, the symptoms were unchanged. He was now ordered to smoke stramonium cigarettes.

On March 28th, a mixture of lobelia, ipecacuanha, and chlorodyne was tried.

On April 4th, thinking that, possibly, a gouty diathesis might be keeping up his asthma and copious bronchial secretion, I put him upon the ordinary white magnesian mixture, with colchicum. Still he did not improve.

On April 14th, dilute phosphoric acid was tried.

On April 21st, all medicines were omitted, and he was ordered to inhale the fumes of nitre-paper every night. From this he distinctly derived a little benefit, and it was the first form of treatment from which he appeared to have obtained any advantage.

On April 24th, remembering Dr. Burney Yeo's paper on this subject, I had him galvanised, for several minutes, through the upper part of the neck and throat, according to the method therein advised; and this process was repeated daily (with the exception of two days) until May 5th, when he left the hospital.

The effect of this treatment was immediate and decided. He was distinctly better after the very first time of being galvanised, and he steadily and rapidly improved from that day—so that, by May 5th, a period of eleven days, the wheezing was nearly gone, the expectoration had become very slight, and, in fact, he was nearly convalescent. It is worthy of mention that, on the two days when the galvanising process was omitted, his asthmatic symptoms were distinctly worse.

I saw this patient several weeks after this date, when he told me that he felt quite well and comfortable.

Note.—I need not take up much of your time with references to Dr. Yeo's paper, seeing that you all have read it, or can read it, in the *Lancet* for November 13th, 1880. But the result of the galvanic current in this case was so marked and so decided, and, in fact, cured the patient so satisfactorily, when I was beginning to feel that I must give up the case as hopeless, that I cannot but think this short record may be interesting.

In the paper alluded to, Dr. Yeo refers to the experience of Dr. Schmitz of Neuenahr, and of Dr. Max Schäffer of Bremen; and also mentions a case of asthma which he himself saw treated in this manner in Germany, and which was cured after a duration of six years. He says (and I doubt not we all agree with him): "Asthma is probably an irritative and reflex pulmonary neurosis; and in this disease there is often swelling of the laryngeal, or pharyngeal, or nasal mucous membrane, which may cause pressure upon the vagus or other nerves in connection with the respiratory tract." He adds: "The current must be the induced one (the constant current being of no use), and it must be of good strength, so that it can be felt. It should be applied to the throat in the situation of the great nerve-trunks, the vagus or sympathetic, each pole being applied just below the angle of the jaw, and in front of the sterno-mastoid, and must be felt as passing through the soft palate from one side of the throat to the other."

[1] Read before the East Anglian Branch.

In my case, related above, the foregoing method was pretty closely adopted, and was well carried out by Mr. D. Day, our house-surgeon, with the result that, after being ill seven months before admission to the hospital—without any marked impression having up to that time been made upon his symptoms, by any of the very numerous methods of treatment adopted—the patient was at once relieved by galvanising of the throat, and was nearly cured in eleven days; whilst he was able to report himself as completely recovered in two or three weeks more.

REMARKS ON APHASIA.

By ALEXANDER ROBERTSON, M.D., F.F.P.S.G.,
Physician to the Town's Hospital and Asylum, Glasgow.

I HAVE read with great interest the report of the very able discussion on aphasia at the late meeting of the Association. I regretted much that I could not be present to contribute my little quota towards the elucidation of the subject; but, even yet, a brief contribution, more particularly on an aspect of the question not much adverted to by any of the speakers, may not be considered out of place.

A question of primary importance is, Are we warranted in considering, with the late Professor Trousseau and others, that the intelligent aphasic has for the most part lost the power of remembering words?[1] This suggests the other and more fundamental inquiry, Is it possible to think, in the sense of reasoning, without words or their equivalents, such as the finger-symbols of the deaf-mute? We need be at no loss to answer this question, if we homologate the views of metaphysicians and philologists. Thus Hegel says: "It is in names that we think;" Schelling, "Without language, it is impossible to conceive any philosophical, nay, even any human, consciousness;" Dugald Stewart, "We think as well as speak by means of words;" Mill, "The idea and the name have a mutual power over one another.....the name actually forms a part of the complex idea;" Descartes, "All our ideas become associated with the words in which we express them, nor do we ever commit them to memory without their accustomed signs;" Max Müller, "Thought, in one sense of the word, *i.e.*, in the sense of reasoning, is impossible without language," etc.[2]

If we, then, adopt the view which is supported by so great a weight of authority, and seems to commend itself to one's own consciousness, that thought—reasoning—is indissolubly associated with language, it only remains to be shown that aphasics do reason, in order to establish the conclusion that words, "the accustomed signs" of thought, are really in their minds, though they are unable to express them by articulate sounds, or, it may be, by any other means.[3] Now, I think it must be granted that in many, probably in most, cases, there is but little thought; the reasoning faculty is deeply impaired; more so than the expression may indicate; for the countenance in aphasia, as in insanity, often to a considerable extent retains the lines and general aspect of an intelligence once possessed but no longer present, and perhaps irretrievably lost. According to our argument, if there be but little thought in the minds of these patients, then the amount of language is proportionately small. But, while I believe this deficiency of thought and words exists in the majority of aphasics, it can scarcely be disputed that there are many—Lord Denman's case, referred to by Professor Gairdner, is a good illustration—in whom the indications of sound and abundant thought are quite clear. I have seen a number of similar, though less striking, cases; and it is obvious that speechless patients who can express their ideas in writing think by means of words. There seems, therefore, little doubt that intelligent aphasics do possess the mental use of language.

Physiologically, there is no ground for anticipating that aphasics would lose language, though unable to speak; for the inlets by all the senses to the mind are in no way blocked; notably, Eyegate and Eargate—to use John Bunyan's quaint but expressive terms—are wide open. Impressions on the senses are, therefore, free to travel right on to the highest cerebral terminations of their respective nerves—perceptive centres of Charlton Bastian—where they probably enter into consciousness. Take the case of the auditory perceptive centre; an organic record is produced on it by spoken words, and this re-enters into consciousness as words, from time to time, according to the laws of association, at the same point. In fact, there does not appear any reason to expect, because the way out (Hughlings Jackson) is damaged at some point, and the sufferer cannot express his thoughts in articulate language, that the thinking power itself should suffer severely, or that words, the instrument of thought, should be lost. It is very conceivable, however, that when the third left convolution or its neighbourhood is destroyed, and consequently the stimuli for speech are not produced, a backward inhibitory influence may be exerted on the perceptive centres which are specially associated in their function with that convolution, so that the reproduction of words within the sphere of consciousness is not so clear and complete as it ought to be. The effect of such an influence on the functions of these centres might thus be equivalent to a direct lesion of their substance.

[1] "The understanding is less injured than the memory of the acts for producing words, and this latter faculty less impaired than that of remembering words."—Trousseau's *Clinical Medicine*, vol. i, p. 273 (Bazire's translation).

[2] It is right, however, to state that this nominalistic view of the union of thought and language is not universally received.

[3] I have discussed this question at considerable length in a paper published in the *Journal of Mental Science* for January 1867.

TWO CASES OF LAPARO-ENTEROTOMY.

By EDWARD MALINS, M.D., C.M.,
Obstetric Physician to the General Hospital, Birmingham.

THE interesting case reported in the JOURNAL of May 26th by Dr. Alder Smith has induced me to place on record the following cases of intestinal obstruction. Too much stress cannot be laid upon the importance of (1) an early operation if any is resorted to, as greatly facilitating the patient's chance of recovery; and (2) the avoidance of purgatives. I cannot go so far in my belief of the efficacy of so much opium, "both before and after the operation," tending, as I think it does, so much to mask the symptoms we are anxious to differentiate clearly.

As far as my experience goes, the healing of the wound in abdominal sections is much more likely to take place by "first intention" without than with the use of carbolic spray; but I have found it not uncommon to have complete union under both plans, without any pus forming; and have, in several instances, never had occasion to take off the dressing until the stitches were removed in a week or nine days after the operation.

CASE I. *Obstruction of the Bowel from Pelvic Inflammation: Laparo-Enterotomy: Recovery.*—Mrs. G., aged 42, married, was admitted into the General Hospital on October 12th, 1881.

History.—She had had thirteen children, and five miscarriages: her last pregnancy was seven years ago, with tardy convalescence, since which time she has never been so well as previously. She had been under treatment at the Hospital for Women and the General Hospital for irregular and profuse menstruation, with pain in the lower part of the bowels and back. Eight weeks ago, she was seized with cramp-like pains in the bowels, which yielded gradually to opiates and fomentations. Four weeks ago, the pain came on again suddenly, with vomiting; she had not passed any solid motion since. The vomiting had been like bile for the last three days; and on one occasion resembled and smelt like fæces. The pain had been intense, and the sickness continual.

State on Admission.—The face was pinched and anæmic-looking. Pulse 110; temperature normal. The tongue was brown, dry, furred; the abdomen was generally distended and tympanitic. At intervals, she had severe attacks of pain, during which the movements of the intestines could be traced on the abdominal wall. She had persistent vomiting of watery fluid and bile.

Treatment.—She was ordered a quarter of a grain of extract of belladonna every four hours; a large enema of warm water and soap; with hot fomentations to the abdomen.

October 14th. The enema returned alone, but she afterwards passed a small quantity of hard pale fæces. The vomiting continued. Pulse 110. She was ordered to continue the belladonna, and to have an enema of castor-oil and thin gruel. There was no result from this, and the condition remained much the same until

October 18th. She now vomited a large quantity of fluid, decidedly stercoraceous. She passed no fæces nor flatus. The pain at times was severe. Pulse 120.

October 19th. I opened the abdomen in the middle line, and explored the pelvis. The intestines were distended and hyperæmic. There were adhesions in the pelvic cavity between the small intestines, sides of the pelvis, and broad ligaments. The uterus was larger than usual. One ovary was cut, tied, and adherent with its tube; the remaining one was free. Two fibrinous bands stretching across the pelvis were tied with fine silk, and divided; the wound was then brought together with silk sutures.

October 21st. The symptoms not being relieved, and the patient losing ground, I opened the lower part of the incision, caught up a piece of small intestine, sewed it carefully to the edges of the wound, and then opened it. A large quantity of fæces escaped, and relief of the pain and sickness followed.

Subsequent Progress.—On several occasions afterwards, the rectum was found to contain a quantity of hardened fæces, which was removed by enemata; but it was not before October 7th that the bowels were moved spontaneously *per anum*. The aperture in the abdomen continued to discharge freely. The rectum was emptied every few days by injection of warm water. She left the hospital on February 4th, 1882; the abdominal opening was much smaller, but still discharging fæces; the edges were less sore, and the general health was improved.

March 28th. She complains of occasional colicky pains, and of difficulty in keeping the lower bowel empty.

April 28th. The external aperture was nearly closed. She had two formed motions every day by the natural channel.

May 26th. She had been at Rhyl for three weeks, during which time she gained 6 lbs. in weight. The opening in the abdomen had completely closed; the bowels were moved naturally. She had menstruated twice, and felt very well.

May 25th, 1883. She brought her grandchild to the hospital; and, with regard to her own health, reported that for a long time past she had never felt so strong and well in her life, and that she suffered no inconvenience from her former illness.

CASE II. *Obstruction of the Bowels from Pelvic Inflammation: Removal of Ovaries and Tubes: Return of Obstruction: Laparo-Enterotomy: Recovery.*—Miss B., aged 38, thin, wiry-looking, emotional, had been an invalid for fifteen years with chronic ovaritis and pelvic inflammation. She had had two bad attacks of obstruction of the bowels, from which she nearly died. She had undergone an enormous amount of varied treatment from various medical men. She had had her cervix excised; had worn several kinds of stem and other pessaries; had taken large quantities of morphia; and stated, almost triumphantly, that she "had baffled the mechanical ingenuity and highest skill brought to bear upon her case."

Treatment.—On July 31st, 1882, I removed both ovaries and Fallopian tubes by abdominal section; they were adherent and friable. She made a good recovery; but there was always some difficulty in getting the bowels moved afterwards. She left town seven weeks afterwards much improved in general health, the morphia habit having been completely broken.

On October 7th, she was seized with great pain in the abdomen, with bilious vomiting. Hot baths and large enemata were given, and she was put fully under the influence of opium. There was no passage of fæces or flatus. Temperature, 99°; pulse, 120.

On October 14th, the bowels not having been moved for nine days, and the sickness and distension of the abdomen continuing, I opened the abdomen to the left of the former incision, passed my hand inside, and separated some adhesions among the coils of intestine to the left of the pelvis and sigmoid flexure. Tracing the small intestine downwards as far as possible, I caught a piece near the cæcum, brought it to the opening, and stitched it there with fine silk sutures. The intestine was then opened; much flatus and fæcal matter passed. The sickness and distension of the abdomen slowly diminished.

There was much discomfort and soreness from the passage of the intestine-contents over the surface of the abdomen. Occasionally a bit of hardened dry fæces was found in the lower bowel. Each day a few ounces of warm olive oil was injected into the rectum, and three times in six weeks the bowels were moved naturally. There was gradual improvement in general health: and, at the end of the time named, she went into the country.

She was seen on May 25th, 1883. The external opening had not yet closed, but she was able to go about by keeping it protected, and talked of going to the seaside. The bowels moved about once a week, hardened fæces passing. She ate and slept well, and looked forward with confidence to the complete closure of the outer opening, which was apparently gradually taking place.

DEATH FROM CHLOROFORM.—A coloured man, aged 32, died suddenly in Olean, New York, while under chloroform, which was being administered to him for amputation of the toes. From the evidence at the coroner's jury it appears that every care was used to guard against a fatal result. But a very small quantity of the drug was used. Death is attributed to failure of the heart.

SURGICAL MEMORANDA.

COMMINUTED FRACTURE OF THE TIBIA FROM INDIRECT VIOLENCE; THE FIBULA NOT BEING BROKEN.

THE following case may be considered interesting. I was sent for on July 5th to see a man named A. C., aged 50. He stated that he was getting a sail-cloth off a rick, and was pulling at a rope, when the rope broke, and he fell backwards, and his right leg, on which the weight of his body was, doubled up under him. I found a comminuted fracture of the right tibia at the lower third. The fracture was an oblique one, and the sharp upper fragments of the tibia were pressing against the soft parts. There was, apparently, a loose fragment of bone, and great swelling over the tibia above the seat of fracture. There was no fracture of the fibula, and the leg maintained the proper position. The ankle was not dislocated.

This case appears to me interesting for two reasons: 1, the serious nature of the injury to the tibia, considering the cause of the accident; and 2, the fact that the fibula was not broken at the same time.

C. H. WATTS PARKINSON, M.R.C.S.

A RARE FOREIGN BODY IN THE EYE.

As senior medical officer of the military escort which proceeded with King Cetywayo to Zululand, an uncommon case came under my observation. A native driver (Cape boy), one day, whilst lying down under a wagon, became conscious of the existence of a foreign body in his left eye. Having tried all the usual methods of removing it himself without success, he presented himself at the field-hospital, where, upon everting the lower eyelid, a foreign body was plainly visible on the surface of the cornea, which, on closer examination, turned out to be a living tick (*Ixodes*), common in South Africa. The tick was tightly fixed to the cornea, but was compelled to relinquish his hold by being grasped between the blades of a very fine forceps. After removal, the insect was placed on my hand, and appeared as vigorous as possible. No inflammation ensued. I mentioned this case to all the local practitioners here, but none of them had ever heard of such a case.

HARVIE SCOTT, M.B., Surgeon A.M.D.

TOXICOLOGICAL MEMORANDA.

CASE OF POISONING BY CARBOLIC ACID, WITH RECOVERY.

ON Tuesday, July 10th, between eleven and twelve o'clock in the morning, I received an urgent message to attend Ella H., aged ten years, who was reported to me as having drunk, at 11.20 A.M., a fluid ounce of No. 5 Calvert's carbolic acid, in mistake for a dose of cough-mixture. Instantly perceiving her error by the burning sensation in her mouth and throat, she ran into the back-yard, and, putting her mouth under the water-tap, freely washed out her mouth and drank some of the water. She then re-entered the house, and informed her mother of the circumstance, and about two drachms of castor-oil were immediately given to her. At the same time, she complained of being giddy and blind, and, had she not been caught, would have fallen to the floor. She had to be supported across the room to an easy-chair, and by that time she had become quite unconscious. In the meantime, messengers had been sent off for medical assistance. Taking the stomach-pump with me, I arrived at the house in a few minutes. I found the patient perfectly unconscious, with very short, rapid breathing; pulse uncountable, small and weak: The face and lips were very pallid, with a slight bluish tint round the lips and eyes. A faint white line along the upper lip marked the level of the acid while being drunk, which deepened to a reddish-brown colour during the succeeding two or three days. The upper eyelids drooped over the cornea, but were not quite closed. The eyeballs seemed fixed, the pupils rather contracted, but not markedly so, and insensible to strong light. The countenance was expressive of a great calm. No time was lost in introducing the stomach-pump, which was done cautiously for fear of penetrating the charred mucous membrane, and the stomach was well washed out with warm water for five or six times until the returning fluid ceased to give off the peculiar odour of the acid. Once or twice the tube had to be withdrawn, on account of a little food getting into it and obstructing it. A thick solution of heavy magnesia was then thrown in and left. As soon as possible after the use of the stomach-pump, she was conveyed to bed, and bottles of hot water

and hot plates were applied all round her body. Just before she was moved to bed, I exposed the pupil of the left eye to a strong light, and, after perhaps fifteen seconds, I distinctly observed a very slight movement in the iris, more like a faint wave along the edge than any act of contraction or dilatation. After being in bed some time and getting into heat, this action was more distinctly observable, and, shortly afterwards, the eyeball gave a slight roll to the right, as if to avoid the light, and the same recurred as often as the eyelid was raised. A little later, the same movements took place in the right eye. A slight movement was observed in the left leg, and gradually she was able to draw it up a little. This was followed, after a while, by the same movement in the right leg. The respirations were not so rapid, and the pulse at the wrist 140. There were one or two vomitings of a white frothy substance, and once a little blood with it. Her attention seemed now to be arrested when she was spoken to in a loud voice, but there was no response by any movement on her part. I left her at 1.30 P.M., with the conviction that she would recover, or rally at any rate for a time. I visited her again about 4 P.M., and found her under the influence of great excitement, almost beyond control, trying to get out of bed, and striking at those about her when restrained from doing so. She was not yet conscious. She was given a little ice, iced water, and iced milk, but only in quantities sufficient to wet her mouth and throat. She was now ordered to have an enema administered every four hours, consisting of beef-tea, beaten-up egg, and milk, in quantities of about two tablespoonfuls, and she was not to have anything by the mouth, except as above recorded. Up to the 22nd, she had not the slightest desire for food; all the enemata, with one exception, were retained, and proved quite sufficient for the sustenance of the body. The bowels were moved every day, the motions presenting nothing particular in colour; while the urine, for the first two or three days, was very dark, though never black, and micturition was very frequent, but painless. At my visit in the evening, she was more calm and more under control; the pulse was still 140, the respirations rather less frequent. The mucous membrane of the mouth and tongue was very white. Both lips were swollen, and a little everted. She was now quite conscious, and recognised all about her.

July 11th. She had slept fairly well, though somewhat restless at times. She complained of dryness and soreness of the throat, and frequently herself applied iced water to the swollen lips and tongue by means of a camel-hair brush. There was a short hacking cough, which troubled her very much, and continued to do so for three or four days. Injections were ordered to be continued, and in larger quantities. July 12th. She had a good night's sleep, and was free from pain. Up to the 20th, she continued steadily to progress, and she was cautiously allowed to drink a little beef-tea, and milk and egg and bread-sop; at the same time only two enemata were given each day, and, by the 25th, she was entirely fed in the usual way. She is now quite convalescent.

I have great pleasure in acknowledging the able assistance rendered in the case by my professional friends, Messrs. G. Welford, E. A. Maling, Whitehouse, and W. Maling.

JAMES BARRON, M.R.C.S.Eng., Sunderland.

NOTES ON BOOKS.

Materia Medica: a Manual for the Use of Students. By ISAMBARD OWEN, M.D., Lecturer on Materia Medica and Therapeutics to St. George's Hospital. (London: J. and A. Churchill. 1883.)—This is an extension of the author's *Tables of Materia Medica*, and is apparently intended for students preparing for examination. It contains a Synopsis of Compound Preparations, a list of Latin Phrases employed in Prescribing, a Synopsis of Doses, a Table of Non-officinal Drugs, and a good deal of information of a similar character. It has evidently been carefully and laboriously compiled; and we trust it will serve the purpose for which it is intended.

The Newer Materia Medica. Designed and issued to the Medical Profession by PARKE, DAVIS and Co., Detroit, Michigan, U.S.A., 1883.—This useful and compact little volume contains a great deal of valuable information concerning many remedies which are gradually taking a place in our list of medicinal agents. *Convallaria majalis*, *Rhamnus purshiana*, *Piscidia erythrina*, *Myrtus Chekan*, *Yerba santa*, and *Berberis aquifolium* are names familiar enough to most of us; but there are few who would not be glad to obtain further information concerning their uses and properties. The work issued by Messrs. Parke, Davis and Co. is of very great value, and will be read with interest.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 15th, 1883.

THE WALTHAMSTOW MURDER.

THE case of William Gouldstone, who now lies under sentence of death for the murder of his five children at Walthamstow on the 8th ultimo, is one which will require the careful consideration of the Home Secretary; for, notwithstanding the absence of any hesitation on the part of the jury in finding their verdict, and the observations of the learned judge who tried the case, many thoughtful persons who read the evidence will doubt whether the convict was of sound mind, and legally responsible for his actions, at the time when he committed the crime for which he is condemned to suffer. When a young man of sober and industrious habits, who throughout five years of married life has been undeviatingly kind to those dependent on him, returns home and deliberately kills his five children, the act itself is calculated to excite suspicions as to his sanity. When it is found that the only motive for this slaughter of innocents, who can have given no offence, and whose death brought no profit, was the desire of the slayer to free himself from the burden of their maintenance, and to translate them to heaven, or at least to spare them the trials and sorrows of this troublesome world, these suspicions are considerably deepened; and when it further appears that the perpetrator of this wholesale infanticide is a member of a family in which insanity abounds, and has by his conduct and expressions led his fellow-workmen to regard him as a madman, there are certainly good grounds for believing that he was not a rational being, and capable of controlling himself, when he took the lives of his children.

The account which William Gouldstone himself gave of the murder, in expressions used to his wife, to Mrs. Hamilton, the person who was waiting on her, and to the police, and which was relied on by the prosecution as proving deliberation, and a knowledge of the quality of the act and its consequences, strongly suggests to the medical mind the workings of a disordered brain. Having just drowned the three eldest children, of whom he had been very fond, and battered in the skulls of the two infants as they lay on their mother's breast, he remarked to Mrs. Hamilton, with a callousness of feeling which is scarcely human, but very characteristic of lunacy, "Now I am a happy man." To his prostrated weeping wife he said, "I have killed all your children; now you will be single again, and I shall be hanged"; and to the policeman who took him to the station, he explained: "When I took my money last week I thought of buying a revolver to do it with; but I altered my mind, as I thought it would make too much noise. I had a hard job with the two biggest. I thought it was too hot to have five kids in about three years and a half, and thought I would put a stop to it." Now, there can be no doubt that William Gouldstone knew the consequences to himself of killing his children, for he referred more than once to the fate which awaited him. He knew that his act would forfeit his own life, but he knew this just as the insane suicide knows

that water will drown and a knife cut. The knowledge had lost its deterrent effect upon him, and became, indeed, an inducement to the crime; for it is clear that he desired to compass his own death at the same time that he removed his children from the earth. He attempted no concealment, the avoidance of the revolver and its noise being due evidently not to the risk of detection which it involved, but to the fear that he might be interrupted before the completion of his holocaust. He made no effort to escape, but met the officers of justice with satisfaction, and dwelt with complacency on his own inevitable end. It is conceivable, of course, that a sane man, overwhelmed by misfortune and resolved on suicide, might plan to sacrifice those whom he loved best, removing them from the calamities which he had found intolerable, and at the same time insuring his own death at the hands of the executioner. It is conceivable that a murder, or plurality of murders, might be committed under the influence of such an abnormal but still rational state of mind; but it is certainly scarcely probable, for he who would murder under such conditions and motives would almost inevitably prefer death self-inflicted to death in process of law. But it is to be noted that the circumstances necessary to the development of that extraordinary but rational frame of mind, in which a murder with a view to execution might be committed, did not exist in the case of William Gouldstone, for he was not overwhelmed by misfortune, nor had any calamity befallen him. He had regular work, and was earning wages which enabled him to live in as much comfort as men in his station are accustomed to. He had suffered no loss nor wrong, and was not stung by remorse for intemperance and debauchery. His trouble was a prospective and an imaginary one. On the 2nd of August his wife had given birth to twins, and so he had one child more than he had calculated on to provide for. The unexpected addition to his family caused him no immediate embarrassment. To a prudent and thrifty man, such an event might have given rise to a moment's chagrin and some anxious forebodings; but the gulf between such feelings, and the determination to murder not only the intruder, but all his brothers and sisters, is simply impossible in a well constituted, or even in a criminal mind, so long as reason is retained. It is not so, however, in the morbid mind. There, the transition from a trivial emotion to a horrible outrage is easy enough; and the facility with which such a transition was effected in the case of William Gouldstone, suggests that his mind was essentially morbid at the time. From the moment when the birth of the twins was announced to him a change was noticed in his demeanour. He seemed strange in his manner, and on two occasions he was seen crying. The shock of hearing that two instead of one had been added to his flock of "kids," as he called them, opened the flood-gates of hereditary despondency in this moody and morose man; and from this point it is not difficult, by aid of our common experience of the insane, to trace his progress towards the sanguinary catastrophe in which his melancholy ended. His difficulties grew as he brooded over them, by day and night (for he was probably sleepless), until they seemed insufferable. Blackness and despair were around and before him, and every trifling occurrence was exaggerated into a great misfortune. Life was made wretched by mental and physical pain, for constant headaches now distressed him, and existence must be got rid of at any cost; so he thought of throwing himself down the lift at the place where he was employed, or of precipitating himself before a passing train. But, as he contemplated suicide, a thoughtless exclamation of his wife opened up to him a more excellent way. She said she wished the children were dead. Why should he not gratify her and take them with him into the other world? This idea possessed and over-mastered him. No compunctions or visitings of pity or affection ever came to him. He had to do it. He kept thinking of the deed, and the thought of it was the only solace in his dejection. He made his preparations and carried out his plan, not in a frenzy of brutal passion, but with cool unfeeling hardihood; and then he had a sense of relief and almost of triumph. The true quality of his act never occurred to him. He had done his duty "like a man," and made everybody concerned happy. The children were happy, for they were in heaven; he was happy, for he would be hung; and his wife was happy, for she would be left a widow and childless, and might marry again. Thus, with the inconsequential reasoning and confused notions of madness, did William Gouldstone exult over his crime.

But if the theory of William Gouldstone's crime here indicated is correct—and it is hard to see what other theory is reconcilable with all the facts of the case—the question next arises, whether he could be held responsible by the law of this country for a crime committed under such circumstances and incentives. We certainly think not. Dr. Savage, the only specialist examined at the trial, expressed his belief that Gouldstone was of unsound mind when he murdered his children; but he would have been justified in going further, and declaring that he did not know the nature and quality of his act when he did so. No doubt he knew that he was killing his children, and that he would be hanged for it; but he did not know that he was doing wrong, but was as fully persuaded of the righteousness of his proceedings as is the lunatic who kills at the command of God. He knew that he was acting illegally, but not that he was acting wrongly; and neither was he capable of refraining from the murders, for he had, by no default of his own, but by reason of disease, lost the power of controlling his own conduct, and was helpless in the grip of a dominating impulse as clay is in the hands of the potter.

It is certainly regrettable that Mr. Justice Day, in laying down the law to the jury in this case, adhered to the old and narrow interpretation of the law, which can never be brought into harmony with scientific experience, and said nothing of that broad and luminous exposition of it which has been published lately by Mr. Justice Stephen in his masterly *History of the Criminal Law of England*, and which has been hailed by medical men with so much delight, as going far to remove the differences which have often heretofore arisen between them and the legal profession in cases in which insanity has been in question. "The proposition which I have to maintain and explain," says Mr. Justice Stephen, "is that, if it is not, it ought to be the law of England, that no act is a crime if the person who does it is, at the time when it is done, prevented, either by defective mental power or by any disease affecting his mind, from controlling his own conduct, unless the absence of the power to control has been produced by his own default. No doubt, there are cases in which madness interferes with the power of self-control, and so leaves the sufferer at the mercy of any temptation to which he may be exposed; and if this be shown to be the case, I think the sufferer ought to be excused." "Can it be said that a person so situated knows that his act is wrong? I think not; for how does anyone know that any act is wrong except by comparing it with general rules of conduct which forbid it; and if he is unable to appreciate such rules, or to apply them to the particular case, how is he to know that what he proposes to do is wrong?"

But instead of adopting this sound and logical position in the case of Gouldstone, Mr. Justice Day seems to have instructed the jury, that the only question for them was whether the prisoner knew the nature and quality of the act he was committing, and knew that it was wrong. Nothing seems to have been said as to the significance of the word "wrong," and the different meanings that may be attached to it, nor was any allusion made to the effects of an enfeebled or paralysed will. It might be argued that, even on the strictest and most old-fashioned version of the law, William Gouldstone was entitled to an acquittal, as he did not truly know the nature and quality of his act, nor its heinous character; but, under the more liberal construction of Mr. Justice Stephen, his prospects of being dealt with as a lunatic would have been vastly increased. The medical men in the case would have testified em-

phatically that he was deprived by disorder of the brain of the power of passing a rational judgment on the moral character of the act which he meant to do, and of his full measure of self-control, so that he fell an easy prey to the temptations presented to him by his disordered imagination.

It is much to be hoped that the case of Gouldstone will be reviewed by Sir William Harcourt, with the assistance of some eminent medical men skilled in diseases of the mind. Too much caution cannot be observed in such cases, and too much medical acumen cannot be brought to bear on them. Only a few weeks ago, a prisoner died in one of our convict establishments who was sentenced, at last summer assizes, to a long term of penal servitude for a murderous assault on his wife; and, on an examination of his body, a large abscess was found in his brain. But an abscess of the brain does not form in a day; and it seems probable that this terrible lesion, or the pathological changes antecedent to it, which necessarily involve mental impairment, were the explanation not only of the man's death, but of his crime. He had apparently been tried and condemned to a severe and ignominious punishment when practically in a dying state, and perhaps comprehending very little of his own situation. Now, suppose that the murderous assault committed by this man had proved fatal, and that he had been tried on the capital charge. Is there not every likelihood that he would have been condemned and executed for a crime committed when the organ of his mind was hopelessly disabled? The errors and futilities of jurisprudence in this country seem to us to be attributable mainly to the disinclination of its professors to profit by experience. In this matter of insanity, they keep discussing the *dicta* of the judges in 1843, and ignore the march of science since that time. Medical evidence is jeered at and disregarded, but no steps are taken to test its truthfulness. Let us suggest one such step. In scores of cases, during the last twenty years, medical men have intervened to save from the gallows convicts tried by the aid of eminent counsel, and condemned to death by eminent judges, but whom they have regarded as insane; and, in a large number of cases, their intervention has been successful, the capital sentence having been commuted, often amidst loud protests and severe strictures on the eccentric notions of mad-doctors. Now, let a return be obtained of the subsequent history of all these cases in which the capital sentence has been commuted on the ground of insanity. If, in any considerable proportion of these cases, it should appear that the medical men have been wrong, and that the convicts whose lives were spared were not really insane, then there will be good grounds for receiving medical testimony with increasing caution and diminishing authority. But if, on the other hand, it should appear, as we confidently predict it would, that in every instance, without exception, in which the death-penalty has been set aside, in consequence of medical representations regarding insanity, the most indisputable symptoms of madness have been subsequently exhibited—symptoms recognisable, not only by medical men, but by the governors, chaplains, and lay officers of the establishments in which the convicts have been confined—then there will be grounds for concluding that many insane persons have been executed in this country; for medical representations of the strongest character have sometimes been disregarded in cases in which insanity was alleged. There will also be grounds for asking for greater deference to medical opinion than has hitherto been accorded to it, in so essentially medical a question as the existence or non-existence of an obscure disease; and for demanding a better system of examination of prisoners who are supposed to be insane than that which now prevails. Dr. Savage saw William Gouldstone on one occasion, for between a quarter and half an hour; and, after this one brief interview, he had to form a judgment as to his mental condition. Only after a prolonged course of observation, and some experiments, can a thoroughly trustworthy conclusion be arrived at, in so difficult and abstruse a question as that of mental unsoundness.

HOSPITAL ACCOMMODATION FOR INFECTIOUS DISEASES IN LIVERPOOL.

THE want of adequate hospital accommodation for non-pauper cases of infectious disease has for a long time been felt in Liverpool; and circumstances of a somewhat peculiar character having lately given special prominence to this want, the entire subject has been considered at various meetings of the City Council and Health Committee; and in consequence of a resolution passed by the latter body on the 9th of August, a report has been drawn up by the medical officer of health on the present amount of accommodation and the necessity for making further provision by hospital construction or otherwise. The circumstances which have led up to this report are briefly as follows.

Typhus fever had been for so long a time prevalent in some of the streets of Toxteth Park, without any apparent amelioration, that at length certain of the guardians of that parish made an independent personal investigation, and, as the result of this investigation, expressed opinions which were thought to reflect injuriously on the action of the Liverpool Health Committee in the matter. The medical officer of health for that city being referred to for an explanation, in effect charged the guardians themselves with being in a great measure responsible for the continuance of the disease, in that they allowed patients to remain in their homes instead of having them promptly removed to hospital. "So far as my powers go," he wrote, "I have done all that is possible; but I would suggest that your"—*i.e.*, the guardians'—"staff should remove the cases more expeditiously, and not leave them in their homes infecting others." On this serious countercharge being made, a further inquiry was instituted, which resulted in showing that, during a few months immediately preceding the issue of the report in which that charge was embodied, no fewer than six hundred cases of fever had been removed to the hospital in Smithdown Road; while in only one case, where the patient had been willing to go and a medical certificate of fitness to travel had been granted, had the removal been delayed a single day. It was alleged, moreover, that such methods had been adopted by the medical officer of health for promoting the indiscriminate removal of patients to the parochial hospital, as would have been likely to bring the guardians into legal difficulties unless they had exercised timely caution, and had determined in no case to allow their officers *ultra vires* to pauperise the people in order that the city of Liverpool might postpone the consideration of the question of hospital construction. The method seems to have been pretty much as follows. A report having been forwarded to the medical officer of health that an infectious disease existed in a given house, that gentleman appears to have often taken it for granted that the accommodation was inadequate, and that the people were of the class who should be removed to a parochial hospital; and hence he sent a report to the relieving officer, who, acting upon this, endeavoured to obtain removal, until at length complaints grew so loud and threatening as to compel the guardians to insist on the practice being put a stop to, and on their officer in future proceeding only by recognised and legal methods. The following letter will serve as an indication of a wide-spread feeling.

"89, Warwick Street, June 13th, 1883.

"*To the Chairman and Members of the Board of Guardians*,—Sirs,—The relieving officer came to my house a few days ago, and spoke about removing my children, who have recently been ill, to the workhouse hospital. I always thought the duties of a relieving officer were to concern himself with paupers only. Now, gentlemen, as I am not a pauper, and never was one, the visit from your officer, who, I presume, acted on your directions, gave me much surprise and disgust. I request that you will at once remove me from your list of paupers, and I think you will not consider I am taking a liberty in asking you to inform me on what grounds you sent your officer to my house.—I am, etc., DAVID WAINWRIGHT."

To this letter the following reply was sent by the clerk to the guardians.

"15, High Park Street, Liverpool, June 14th, 1883.

"Sir,—The visit of the relieving officer, of which you complain, was in consequence of a report made to him by the officer of the Health Committee of the City of Liverpool, that some members of your family had typhus fever.—Yours, etc., J. MOULDING."

The house in question, 89, Warwick Street, is an eight-roomed house, fronting on a street between forty and fifty feet wide, and by its side-wall forming part of another narrower street which runs at right angles to the first. It is, moreover, tenanted by a highly respectable family, whose last thought would have been to apply for parochial assistance in times of sickness. There was no lack of air-space, either within or without; and the assumption formed without inquiry, that there was not sufficient lodging and accommodation within it for those who were ill, backed up by the highly practical proceeding of the relieving officer in the shape of a visit for the purpose of removing them to the workhouse hospital, caused no little astonishment, and led to the first of the two letters just quoted.

The guardians of Toxteth insisted then that their hospital should be devoted to the reception of genuine paupers only; and a considerable diminution in the number of beds practically available for non-paupers under the lax method which had been in vogue being thus effected, the question of hospital accommodation for infectious diseases was necessarily forced upon the Liverpool Health Committee; and hence the medical officer's report on the subject. This report states that there are four hospitals available for the reception of cases of infectious disease, viz., Netherfield Road Hospital, with accommodation for 70 cases; Mill Road Hospital, for 98; Brownlow Hill Hospital, for 160; and the Toxteth Hospital, for 50; total accommodation, 378 beds. But the first of these is intended for patients who can pay from half a guinea to two guineas a week, a certain proportion (25) of the beds in its large wards being available for patients sent by the City Council on the payment of seven shillings each weekly, in consideration of a yearly grant made from the Corporation funds.

The report very properly lays stress on the objections frequently felt by patients to being removed to a workhouse hospital. It might have gone still further, and pointed out the discredit attaching to a large and very wealthy corporation for having hitherto made no provision for the reception of patients of the non-pauper class when attacked by infectious disease, except such as should attach to them the stigma of pauperism, and involve the sacrifice, for a time at any rate, of cherished civil and political rights. When, not to mention the larger corporations of Birmingham, Glasgow, Manchester, Leicester, etc., we find such comparatively small boroughs as Carlisle, Cheltenham, Goole, and others, provided with special non-pauper hospitals for infectious diseases, and most decided in their testimony to the advantage to the public health of such institutions, it seems strange that Liverpool, probably the most liable of any to the inroads of infectious disease, should have no provision of the kind. From the earnest manner in which the subject has, however, at length been taken up, it is obvious that this defect in sanitary administration will not much longer exist. Recommendations of a general nature, founded on the medical officer's report, were agreed to by the Health Committee on August 30th, and confirmed by the Council at its meeting on September 5th. They were, firstly, to the effect that further hospital accommodation is necessary; and, secondly, that a site of sufficient extent be acquired to admit of the construction of separate pavilions for the reception of such cases of infectious disease as may require isolation one from the other; and that the Committee be authorised to take the necessary steps to obtain such a site.

The medical officer, framing his calculation on the infectious sickness of 1882, advises "that sufficient land should be bought for the erection of a hospital on the pavilion principle, with ample space for isolation from any dwelling-house or public road, and that 150 beds for small-pox, and 500 beds for the other infectious diseases, should be immediately provided, and be extended in the future as required." He suggests further the retention of the Netherfield Road Hospital for paying patients. The Committee and Council have acted very wisely in passing a general resolution only. It is to be hoped that, with the light shed by the accumulated experience of the past fifty years, they will not be led into the fatal error of constructing a single large permanent hospital for infectious diseases capable of accommodating 750 patients, or even half that number. It is to be hoped also that the mortality of an epidemic year will not continue. It seems unreasonable to estimate the necessities for hospital provision from an altogether exceptional year like 1882, when the mortality from fever was more than double what it was in 1881, itself a more than average year for that class of disease. Surely, it is not too much to anticipate that improved sanitation will deal more and more effectually with the causes of infectious disease as time goes on, and thus render the necessity for hospital accommodation proportionately less. The crest of each recent typhus wave has been below the level of that which immediately preceded it; and it requires no spirit of prophecy to state that the next will be still lower than the one which is now rapidly receding, or that at no very distant date typhus fever will be almost unknown, even in Liverpool. Any calculation of the kind in question should be either based on actual averages, or, still more correctly, on such an estimated progressive diminution, year by year, of infectious disease as increased sanitation might reasonably lead us to anticipate If this were done, the total number of beds thought to be required for the future would be greatly reduced. Whatever ultimate conclusion the Liverpool Sanitary Authority may adopt, it is most desirable that they should weigh well the following words uttered in their city only a few weeks ago by Captain Douglas Galton. "The conclusion to which these various considerations would lead us is, that, for fever and small-pox hospitals, temporary structures, to be renewed at frequent intervals, are desirable for the reception of the sick, the only permanent buildings being those for administrative purposes, and for the use of the hospital attendants." It has been estimated that such temporary structures, destined to periodical destruction by fire after a few years' use, could be erected for less than the interest of the money devoted to the construction of large palatial permanent buildings, which are certain, after a time, to become more or less impregnated with infection, which no temporary closure of wards and disinfection will effectually purify, but which are yet far too costly to destroy.

It is to be hoped, moreover, that a valuable suggestion thrown out by one member of the Council, Mr. P. H. Rathbone, when this matter was discussed, will not be lost sight of—viz., the utilisation of hulks for infectious cases. No town is so favourably situated as Liverpool for carrying out this plan, strongly recommended by the Royal Commission on Small-pox and Fever Hospitals for the Metropolis.

One other fact strongly brought out in the discussion—a fact which it behoves the sanitary authority most seriously to consider—is, that there are certain well-known streets in which fever dwells undisturbed year after year. In the words of one of the members of the Health Committee, Mr. Stephens: "In the streets he had named"—fourteen in number—"there were now more cases of fever than existed eighteen years ago. There had only been a small diminution of fever in five of these thoroughfares during the space of eight years, and he thought it was high time that attention should be called to these matters." In reply to a proposition that a specific report on those streets should be made by the medical officer of health and engineer, the former gentleman is reported to have said that "certain districts in the city were in themselves unhealthy, and

the inhabitants of such places were more liable to disease than in other streets." But, surely, one of the principal functions of a sanitary authority and its officers is to take such measures as shall convert "districts in themselves unhealthy" into districts which are healthy; and, when this function is fulfilled, the other causes which were mentioned, and which unhappily exist only too largely—viz., carelessness and intemperance—not only diminish in themselves, but in the intensity of their effect in spreading disease, even when they continue. In view of the fact—if fact it be— that for eighteen years fever has always been present in those streets, it seems somewhat absurd for the medical officer of health to reply that "it was a matter of impossibility for himself or for a dozen medical officers to find out cases of fever in the town, unless notice were conveyed to them of its whereabouts." If the alleged notorious fact that fever has been permanently present in certain well-known streets for eighteen years be not notice enough on which to found energetic action, it is not likely that any other will be. Instances are numerous enough where, fever having been reported to medical officers of health in unsanitary districts, they have, as the result of thorough personal investigation, initiated action which has completely altered the character of the dwellings and permanently banished the disease; and possibly it is not too much to hope, now that attention has been prominently and publicly called to the condition of Carlton and other streets by Mr. Stephens, that such radical measures will be taken as will make them cease to be any longer a source of permanent danger to the whole of a great city by serving as a perennial nursery of one of the direst, and yet most easily exterminated, scourges of mankind—typhus fever.

INTEMPERANCE AND CHOLERA.

SOME valuable remarks have been made by Dr. Norman Kerr, relative to cholera, particularly in reference to the mode in which indulgence in alcoholic drinks affects the mortality from the disease. Happily, just at the present moment there does not appear to be much reason to fear an epidemic of cholera in this country, as the news from Egypt seemed to suggest some time ago. Still, it is well to be prepared for its arrival if it should appear; and Dr. Kerr's remarks are interesting, even if it should turn out that they have less practical importance than was recently expected. As to the causes of the disease, perhaps some germ, whose characters are as yet not definitely defined, is at the bottom of the malady. In accordance with the general laws governing the propagation of epidemic diseases, this germ will be stimulated to acting, grow, and spread through the body by the assistance of filth, overcrowding, improper food, and particularly by over-indulgence in alcoholic drinks. Evidently none of these causes singly is sufficient to produce an epidemic of cholera, for all these causes are separately existent in many conditions where cholera does not arise. But, given the existence of the germ, say by importation in some infected ship, the presence of these conditions wonderfully assists its growth and spread. The special facts regarding the influence of alcohol in conducing the spread of cholera are striking. First, many of the authorities offer the most unhesitating testimony to this effect. Sir Thomas Watson; M. Quetelet; the facts of the epidemic in Warsaw, where it was observed that ninety per cent. of the deaths occurred amongst those who used alcohol freely; Professor Macintosh, in Edinburgh; the Canadian medical men in 1832; M. Hubert, in Paris; and Dr. Adams, in Glasgow—the testimony of all these and of others is, with one voice, to the same effect. Dr. Adams actually went so far as to say that, if he had the power, he would have every dram-shop labelled—"cholera sold here." Again, cholera has become much less deadly among the soldiers of the English army serving in India, as sanitation has been better attended to, and as temperance has increased among the men. Professor Lee, of New York, expresses an opinion to a like effect; so that we may take it there is no substantial doubt that alcoholism very strongly predisposes to a fatal issue in those attacked by cholera, and probably also that alcoholism renders persons more susceptible to the incidence of the disease, than they would otherwise be.

But not only does alcohol drinking predispose to the infection of cholera, and render the patient less able to fight with the disease; it is also, in Dr. Kerr's opinion, one of the most dangerous agents that can be used for the cure of the disease. In the first stage, it is very apt to cause a loss of valuable time by numbing the pain and leading to the conclusion that there is little wrong. In the second stage, it prevents the elimination of the poison by congesting the vessels; and in the third stage, it is particularly dangerous by increasing the febrile reaction. There can be no doubt that, in the main, Dr. Kerr's advice is sound; and that, if we are no longer to fear a disease which in the epidemics of 1831, 1848, 1854, 1866, and 1873 carried off over 100,000 victims, our best course is to have abundance of fresh air, to foster habits of personal cleanliness, to eat wholesome food, and that not to excess, and to abstain from alcoholic drinks.

SURGEON-GENERAL HUNTER leaves Egypt for England by the next steamer.

THE library of the Royal Medical and Chirurgical Society was reopened on Thursday, the 13th instant.

PROFESSOR HEINECKE of Erlangen performed the operation of removal of cancer of the stomach some weeks ago. The patient, who was in the surgical clinic of the University, was doing well last week, and appeared likely to make an early recovery.

THE Duke of Bedford has sent a donation of £200 to the Metropolitan Provident Medical Association, in aid of the £5,000 fund for the Extension of Provident Dispensaries in London in districts outside the circle occupied by the medical charities of old standing.

THE twentieth annual meeting of the British Pharmaceutical Conference was opened in Southport on September 18th. The president, Professor Attfield, delivered an introductory address on the Relation of the State to Pharmacy.

THE examination for certificates in sanitary science by the University of Cambridge will begin on Tuesday, October 2nd. The names of candidates, who must be on the *Medical Register* of the United Kingdom, should be sent to Professor Liveing, Cambridge, on or before September 28th.

IN the present number of the JOURNAL, an editorial notice will be found of M. Vulpian's full report of the case of the Comte de Chambord, which proved to be a most remarkable instance of non-malignant ulceration of the œsophagus, simulating cancerous disease of the stomach so closely as to mislead several physicians of great experience.

M. SAPPEY recently communicated to the Academy of Sciences in Paris, a case observed at the hospital at Quimperlé (Brittany), in which, at the *post mortem* examination of a woman aged 84, a well formed fœtus, apparently about six or seven months old, enclosed in a calcareous envelope, was found in the uterus. It must have lain there fifty-six years, pregnancy having been diagnosed when the woman was 28 years of age.

QUEEN'S COLLEGE, BIRMINGHAM.

THE Council of Queen's College, Birmingham, have appointed Dr. Edward Malins, obstetric physician at the General Hospital, Ingleby lecturer for the present year. He will give two addresses in the theatre of the College, on October 11th and 18th, at 4 P.M., on the

subject of pelvic hæmatocele. The Ingleby lectures have been much appreciated by our brethren in the midlands. They are given in memory of the late Dr. Ingleby, of Birmingham, are limited to subjects in gynæcology and pædiatrics, and are open to members of the profession.

THE WOLVERHAMPTON GENERAL HOSPITAL.

AT the last meeting of the committee of the Wolverhampton General Hospital, it was announced that Mr. J. E. Briscoe had given the handsome donation of £1,000 to the hospital. The committee, in accordance with the wishes of the donor, and to supply a want which the managers of the hospital had long experienced, have expended Mr. Briscoe's gift in securing improved accommodation for the nurses of the institution. Two houses, close to the charity, have been purchased and suitably fitted up, and they have been named "The Briscoe Home for Nurses."

REVACCINATION IN FRENCH SCHOOLS.

AT the present time, when there are not wanting fanatics to cry out against the compulsory revaccination of recruits, it is interesting to note that in France, the Education Department are taking steps to render the vaccination of all pupils admitted to the lycées and colleges compulsory. The Minister of Public Instruction issued a circular to the rectors of these institutions on August 30th, in which he points out that since revaccination of every new pupil had been made obligatory at the Lycée Louis-le-Grand, not a single case of variola or varioloid had occurred. The Minister, therefore, directs that every resident pupil at every school in France shall be revaccinated on admission.

ENTERIC FEVER IN ST. PANCRAS.

WE understand that considerable progress has already been made in the investigation of the cause of the outbreak of enteric fever in St. Pancras, and that, although no official statement has been made, it is now sufficiently clear. In St. Pancras alone, over two hundred and fifty persons have been attacked, and about thirty deaths have occurred. The Vestry of St. Pancras have acted very wisely in authorising the medical officer of health to obtain assistance in such a crisis. In the investigation of an epidemic, so much time would be lost by the medical officer having to act without assistance, that the prospects of success would be greatly lessened. At a meeting of the sanitary committee held last week, it was stated that Mr. Murphy would shortly present a report upon the whole subject.

GUY'S HOSPITAL.

AMONG the recent improvements that have been made at this hospital for the better accommodation and convenience of students, is the formation of a club and refreshment-room, which enables the industrious student to obtain a midday meal without wandering out to one of the various dining and coffee-houses in the neighbourhood. The entrance fee is merely nominal, and the food is cheaper and better served than that to be obtained elsewhere. It was at first thought that a refreshment-room of this kind might become a lounge for idle men; but experience has shown that those who chiefly frequent the club are the industrious men, who desire to save the time lost in going outside the walls of the hospital. The club was opened as an experiment last winter, but its popularity has gradually increased, and a very large proportion of the students now avail themselves of the advantages it offers.

THE OVERCROWDING OF STEAMERS.

THE overcrowding of steamers constitutes a public peril, which is especially rife during the excursionist season. The Board of Trade has lately done good services, establishing a series of prosecutions of captains of steamers which have been found carrying more than their authorised number of passengers. Last week, the captain of an Isle of Man steamer was fined a total of £27 15s. In this case, a vessel certified to carry 154 passengers was found to have had on board 69 more than that number, or 223 in all. Numerous disasters have shown that a human cargo, from its liability to "shift," is one of the most dangerous freights a ship can carry. In a vessel laden with human beings, the burden to be borne is peculiarly liable to become unequally distributed, and to lead to serious peril by passing beyond control. During the summer and autumn seasons, overcrowding of coast and river pleasure steamers is the rule rather than the exception. No regular supervision appears to be exercised to check this grave public danger. We hope the Board of Trade will not relax its efforts to put down the evil.

THE ACTION OF ANTISEPTICS.

M. GOSSELIN has communicated to the Academy of Sciences, in Paris, the result of his researches on the action of antiseptic substances, such as a solution of carbolic acid, weak solution of alcohol, and camphorated brandy. He examined under the microscope a membrane submitted to the influence of these substances, and he observed that solution of carbolic acid at 5 per cent. arrested the circulation of the blood in a few seconds; at 2½ per cent. it produced the same effect. After three applications, and at 1½ per cent., after an interval of ten minutes, alcohol at 86° (Gay Lussac) produces the same effect as a solution of carbolic acid at 5 per cent. The effect of camphorated brandy is also similar. The arrest of circulation was not accompanied by vascular contraction, but was due solely to coagulation of the blood. If antiseptic agents of a suitable strength be used, they cauterise the surface of wounds and prevent the development of germs.

THE TRAPPINGS OF TROOP-HORSES.

WE announced last week that the authorities at the Horse Guards had decided that "easy riding" should henceforth be adopted in the British cavalry. While the spirit of reform is active, we hope our poor troop-horses will not be forgotten. Can nothing be done to lighten the ponderous trappings of these unfortunate animals? Like the orthodox garb of civilised mankind, the regulation gear of the cavalry horse is laden with numerous and useless survivals of the unfit. The bulky breastplates and unnecessary cruppers still worn by the horses of many of our regiments are relics of the time when war-horses were armoured, and might now disappear with advantage. The hussar saddle might be reduced several pounds in weight. The Duke of Wellington had a favourite aphorism to the effect that battles are won by boots; the principle which underlies this truth might find further expression in lightening and simplifying the trappings of troop-horses, with the obvious effect of economising the endurance and increasing the activity and speed of our cavalry.

CREMATION.

M. BROUARDEL, in a report on cremation to the Paris Council of National Health, states that he considers cremation to be opposed to the interests of justice. Crime would rest undetected, and the wrongly accused could not be exonerated. During epidemics, the danger to public health would be increased rather than lessened by the practice of cremation, inasmuch as the different processes require longer personal contact than does simple burial. The council has adopted M. Brouardel's views, and voted against cremation. M. Kœchlin-Schwartz, president of the Society of Cremation, has addressed to the prefect of police the following objections to M. Brouardel's statements. "After cremation, traces of mineral poison are detected in the ashes, and these are always preserved. Vegetable poisons would escape detection; but equally so after inhumation, when the body would be decomposed. In cases of cremation, personal contact is not more prolonged than in ordinary burial. The chief difference

lies in the fact that in one hour the body is destroyed by fire, instead of undergoing slow decomposition, and giving off pestilential miasmata to poison the neighbouring population."

THE REGENT'S CANAL.

THE condition of the Regent's Canal has again become a subject of public discussion, and already letters have appeared attributing to it the present outbreak of fever in North London. One of the chief accusations made against it is that it receives the effluent from the Zoological dens, which is supposed to contain the sewage from the whole of the Gardens. This is, however, altogether incorrect; the dejecta of the animals is removed in the straw from their lairs, which soaks up the fluid as well as the solid portion. The only fluid which finds its way into the Canal from this source, is the water which is used for washing the dens, together with that in which the hippopotamus and bears bathe. The latter is necessarily fouled by the animals, but all solid matter is precipitated by sulphate of iron before the fluid is allowed to escape. As a result, the effluent of the Gardens is found on analysis to be considerably purer than the Canal water itself. We do not wish by these remarks to imply that the present condition of the Canal can be justified, and we are of opinion that the vestry of St. Pancras, who, we understand, are taking action in the matter, would be acting wisely if they at once constructed a sewer for the purpose of preventing the Garden's effluent from continuing to discharge itself into the Canal. By adopting such a course, they would be in a far better position to compel the Canal Company to maintain the Canal in a more cleanly condition than they can be under present circumstances.

THOMSEN'S DISEASE.

THIS singular affection, called by the name of the physician who first observed it in himself and his family, can at present, thanks to the investigations of Thomsen, Leyden, Seeligmüller, Westphal, etc., be considered as a distinct disease, whose nature, however, still remains to be found; for, until now, microscopical researches have given a negative result. According to Thomsen, it is of psychical nature; but Westphal considers it as a congenital disorder of the muscular tonicity, and Jacusiel as a congenital muscular hypertrophy. The disease is essentially hereditary, and follows other abnormal nervous manifestations. All the cases were congenital. The chief symptom is a spasmodic stiffness of certain muscles, appearing at the beginning of a movement. After the muscles of the legs have been at rest for some time, and the patient tries to get up, he feels suddenly a stiffness in the articulations of the legs, which are fixed by a tetanic contraction. This same stiffness shows itself also after violent muscular exercise, after certain complex movements, dancing, etc.; or after an unexpected sensation: when the patient is running, for example, if his foot comes into contact with a stone, it becomes rigidly fixed, and the patient stumbles, sometimes before he is able to save himself with his hands. M. Greffier, in the *France Médicale*, insists upon the important fact that the contraction only comes on at the beginning of a movement. When the movements have been repeated a certain number of times, the contraction disappears. It may be observed, also, in muscles supplied by cranial nerves, as in those of the tongue, face, and orbit. According to Thomsen, imagination and cold can produce the spasm, which disappears by a repetition of the movements. The sphincters are never implicated. The muscular hypertrophy may be absent; the muscular power, tendon-reflexes, sensibility of the skin, and electrical irritability of the muscles, are normal. It is, therefore, difficult to mistake this disease for locomotor ataxy or pseudo-hypertrophic paralysis; the latter is a true paralysis, and the former is characterised by permanent stiffness, abnormal excitability, excess of the patellar tendon-reflex, and, finally, by symptoms of spinal epilepsy.

THE SWINEY PRIZE.

THE Cou of the Society of Arts give notice that the next award of the Swiney prize will be in January next. Dr. Swiney died in 1844, and in his will he left the sum of £5,000 Consols to the Society of Arts, for the purpose of presenting a prize, every fifth anniversary of the testator's death, to the author of the best published work on Jurisprudence. The prize is a cup value £100, and money to the same amount; the award is made jointly by the Society of Arts and the College of Physicians. The cup now given is made after a design specially prepared in 1849, for the first award, by D. Maclise, R.A. Any person desiring to submit a work in competition, or to recommend any work for the consideration of the judges, should do so by letter addressed to the secretary of the Society. The following is a list of recipients up to the present time: 1849. J. A. Paris, M.D., and J. Fonblanque, for their work, *Medical Jurisprudence;* 1854. Leone Levi, for his work on *The Commercial Law of the World;* 1859. Dr Alfred Swaine Taylor, F.R.S., for his work on *Medical Jurisprudence;* 1864. Henry Sumner Maine (now K.C.B.), D.C.L., member of the Legislative Council of India, for his work on *Ancient Law:* 1869. William Augustus Guy, M.D., for his *Principles of Forensic Medicine;* 1874. The Right Hon. Sir Robert Joseph Phillimore, D.C.L., for his *Commentaries on International Law;* 1879. Dr. Norman Chevers, for his *Manual of Medical Jurisprudence for India.*

CHOLERA HOSPITALS FOR THE METROPOLIS.

THE Local Government Board and the Metropolitan Asylum Managers have lost no time in taking action on the Diseases Prevention (Metropolis) Act of last session. On the very day that the Act received the Royal assent, the Local Government Board addressed a letter to the Managers on the subject of it; and, before adjourning for the holidays, the Managers decided to send a circular letter to the London hospitals and workhouse infirmaries, asking what accommodation they were likely to have available for the purpose of cholera hospitals. This circular sets out that, in the event of a visitation of cholera to this country, the Managers will probably be called upon by the Local Government Board to make, ascertain, and define provision for the treatment of persons of both sexes suffering from cholera; such provision to be so distributed throughout the metropolis as to be uniformly accessible for the reception of cases from all parts thereof; and due regard being had (*a*) to the varying density of the population in the several parts of London, and (*b*) to the possibility of removing persons afflicted to any considerable distance. Should the hospitals be generally willing, in the event of an emergency arising, to place at the disposal of this Board a certain number of beds for the treatment of patients suffering from cholera, the Managers anticipate that the expensive course of providing and maintaining a large number of special cholera hospitals may, to a great extent, be obviated. In such districts, however, if any, where the disease may necessitate provision beyond that made by the Managers, special hospitals will have to be provided by the local sanitary authorities. With regard to the management of such portion of the hospital as may be set apart for the purposes indicated, the Managers are of opinion that this should be left in the hands of the Governors and their medical staff, supplemented by such extra assistance as may be found necessary. The treatment of the patients will, of course, also remain in the hands of the hospital authorities, and will in no wise be interfered with by the Managers.

FISH DIETARY.

THE advantage of a more general use of fish as an article of diet, not only among the poor, but among the patients in our hospitals, is a question which is, at the present moment, receiving considerable attention. For nearly two months past, the patients of the Bristol Royal Infirmary have, with the sanction of the medical staff, been given a "fish dinner" once a week as an experiment;

and, up to the present, this weekly change in the dietary has been satisfactory, and highly appreciated by the patients; while the saving to the infirmary has been considerable, being nearly £4 daily in favour of fish. Mr. Trenerry, the secretary of this institution, recommends that the weight of fish to be provided should be twice that of meat; that is to say, should the diet list demand 150 lbs. of butcher's meat, 300 lbs. of fish should be ordered. It has been found that the change gives no additional trouble in the cooking department, but rather the reverse. The advisability of making an alteration in the diet given to the inmates of our workhouses, and of varying the ordinary meat-soup and pudding diet which prevails throughout the year, by the introduction of a substantial and nourishing meal of good fish one day in each week, is being discussed. Before the Ampthill Board of Guardians, it has been strongly urged by Mr. Thomson, who, with much reason, expressed his opinion that fish, as an article of diet, is too little used and too much neglected, and regretted that, in view of the boundless supply of such nourishing and wholesome food, cheaply obtained, it should not be utilised to a greater extent than it is, more especially by the guardians of the poor, and by the prison authorities in this country. The chairman stated that at Wrexham the paupers struck and would not eat it. On appealing to the medical officer for his opinion, Dr. Holland said he saw no objection to a fish dinner, provided it could be carried out satisfactorily. If it were adopted, he should rather it be on a pudding-day. He thought there would be some danger to the old and imbecile people unless the bones were taken out, and said, "if he spoke his own experience, he would say they would soon want something after it." After a discussion, Mr. Thomson's proposal to introduce a fish diet on one day of the week was negatived, there being, on a show of hands, eight for the amendment and six for the original proposition.

THE DEPTFORD VACCINATION CASE.

A STRANGE story comes to us from Deptford. Dr. Kavanagh, the Public Vaccinator at Deptford, had vaccinated twenty-one children from one child's arm, with the result that seventeen presented arms of normal character, while four suffered from eczema. Mr. Fisher, a district medical officer, at the request of the Antivaccination League, certified that the four children were suffering from syphilis, and Dr. Kavanagh brought his conduct to the notice of the Local Government Board and of the Deptford Board of Guardians. Dr. Stevens, from the Local Government Board, examined the children, and found there was no truth in the allegation. In a letter to Dr. Kavanagh, Dr. Stevens writes: "I think his (Mr. Fisher's) conduct truly scandalous; and he is, in my opinion, on that ground alone, totally unfit to hold his present office; not for siding with the anti-vaccinators, which he has a perfect right to do if he likes, but for his statement respecting the infant, whose disease he entered as syphilis. This was either knowingly false, or believed to be true; if the latter, his ignorance shows him to be quite unfit for his post; if the former, dismissal is not enough punishment. I wish the parents were in a position to indite him for perjury." At a meeting of the board of guardians, Mr. Fisher again stated that the children were suffering from syphilitic eczema; and the guardians, after hearing evidence which, among other points, showed that the eruptions disappeared after three days' treatment by Dr. Kavanagh, determined to refer the matter to the Local Government Board for further inquiry. Subsequently, one of the children died; and, an inquest having been held, death was found, after a *post mortem* examination, to be due to double pneumonia, and not to syphilis or to anything wrong in the vaccination. The jury, however, returned a verdict with the following rider: "We regret the loose manner in which Dr. Kavanagh appears to perform his duties as public vaccinator." The evidence on which this rider is based is not apparent. It is stated that a second child has also died, and that the inquest will shortly be held. As the whole case is still *sub judice*, we reserve our comments for the present.

DOMESTIC QUARANTINE.

THE resolution passed at the Trades Union Congress with regard to the compensation of persons in whose houses infectious disease exists, comes curiously *à propos* of a discussion raised in the columns of a daily contemporary as to the powers of sanitary authorities with regard to domestic quarantine. Under the existing Public Health Act, the authorities have no power to isolate people in their own houses when infectious disease breaks out therein. All they can do is to remove the sufferers to a hospital, and evolve noxious chemical fumes in the infected house. So long ago as 1878, Jarrow took powers to itself by a local Act to do that which the Trades Union Congress has now instructed its Parliamentary Committee to use its influence in securing, viz., the isolation of persons in whose houses infectious diseases exist, and the compensation of the inmates for any loss incurred thereby. These powers were somewhat greedily adopted by a dozen other towns in the three following sessions; but they did not find favour with Mr. Sclater Booth's Committee of last year, and were consequently expunged from the local Bills of 1882. The object aimed at is no doubt a laudable one, but there are so many practical difficulties in the working of such a system, that it is impossible to accept its principle without a great many reservations. The whole question of the general statute law with regard to infectious diseases will probably be referred to a Select Committee of the House of Commons next session, and this will be one of the matters that the committee may usefully consider. The clauses in the Public Health Act dealing with infection are admittedly its weakest part, and if some intelligent basis for strengthening them, without going to extremes, can be arrived at, it will be a great boon to the nation.

THE ADULTERATION OF PHARMACOPŒIAL PREPARATIONS.

LAST week, several chemists were summoned to appear at the Marylebone Police Court, on the charge of adulterating certain official pharmacopœial preparations. The prosecution was undertaken by the Vestry of Hampstead, in the public interest. The samples of drugs examined by the analyst for the prosecution were specimens of spirit of nitrous ether and of quinine wine. In both instances, the preparations were found grossly deficient in their active and essential ingredients. Convictions were obtained, and small fines were inflicted. According to the *British Pharmacopœia*, which is recognised in the law courts as an authoritative standard, it is laid down that spirit of nitrous ether shall contain two per cent. by volume of pure nitrous ether; in several of the cases proved by the prosecution, nitrous ether was found to be almost non-existent in the specimens tested. In the first case, the chemist, when informed of the object for which he had been asked to sell a sample of spirit of nitrous ether, stated that he would not guarantee his preparation as being in accordance with the requirements of the *British Pharmacopœia*, as he kept two varieties of the drug in stock, and his assistant had served the wrong article; on this plea the charge was dismissed by the magistrate, although, in the instance in question, the spirit only contained a half per cent. of nitrous ether. In another case, in which the proportion of nitrous ether was less than one-half per cent., a nominal penalty was imposed; and a question of adulterating quinine wine was referred to the arbitrament of the public analyst at Somerset House. In another case, in which the defendant was charged with adulterating both spirit of nitrous ether and quinine wine, nominal penalties were imposed, the view of the stipendiary magistrate evidently being that the defendant had erred through inadvertence. These convictions will tend to shake the confidence of the medical profession and of the public generally in the fidelity of dispensing chemists. The prescriptions of our

brethren are necessarily based on the formulæ of the *British Pharmacopœia*; and public safety, no less than the success of medical practice, requires that the preparations supplied as official drugs shall be absolutely reliable. Public opinion will unhesitatingly condemn the sophistication of such articles, and demand that such nefarious adulteration shall be rigorously punished and stringently prevented. The Vestry of Hampstead have done good service in directing attention to the subject, and we hope their action will quicken the consciences of dispensing chemists to a due sense of duty and responsibility.

THE HEARING OF SCHOOL-CHILDREN.

In an article on the results of an examination of the ears and the hearing of 5,905 school-children, in the *Archives of Otology*, vol. xi, No. 1, Dr. Weil makes some very sensible remarks. He considers, for instance, that every inattentive child should have its ears examined—so convinced is he of the fact that children who are simply hard of hearing are often misjudged and considered inattentive. Of course, it would be much better, he says rightly, if every school-child underwent such an examination once or twice every year. It is not necessary that such examination should be made by a medical man, since the teachers could do it, but of course not so well as the physician. It does not require much time or trouble, certainly not more than one hour for each class. The test could be made in the school-room itself if there be no other room convenient. The teacher could place the pupil in one corner of the room, then retire to the other himself, and test each ear separately by whispering. He should cause the words and sentences used to be repeated by the pupil, and could thus easily find out which of them are hard of hearing. This would have the further advantage of calling the attention of parents to the condition of their children, thus preventing injustice from being done to them, and making them profit by early treatment. The author believes that, in the great majority of cases, the children whom he examined could be much benefited by proper treatment, and many of them could be entirely relieved in a few minutes. Probably the great majority, he says, will never be submitted to proper treatment, or at least not until after some years, when the disease will have caused changes which can then be but little benefited. The author thinks that many of the children will be neglected by their parents, even after they become informed of their condition, simply on account of the cost of treatment; and he therefore recommends the appointment of a proper surgeon to be responsible for the health of schools, and whose duty it would be to examine the ears of every child whom the teachers find inattentive, and, when necessary, to give the proper advice.

THE SANITARY REGULATION OF DAIRIES.

Mr. H. E. Armstrong, in his report on the sanitary history of Newcastle-on-Tyne during 1882, records some striking, but unfortunately only too common, instances of the association of persons suffering from infectious disease with public milk-supplies. The first case notified to the health-authorities was that of a dairyman, who was found to be ill with small-pox. The patient, who with his wife and seven other persons occupied two rooms, declined to be removed to hospital, but volunteered to cause the dairy business, which was carried on at some distance from the house, to be kept separate from the infected premises. The inspector, under the Dairies' Order, was, as usual, charged to see, as far as possible, that the undertaking was fulfilled. Two cases (one fatal) of enteric fever occurred at a small shop from which milk was sold. As the removal of the non-fatal case was not allowed, the discontinuance of the sale of milk was advised and agreed to. In another instance, it was learnt that milk produced in a neighbouring district, at a dairy-farm on which there were several cases of scarlet fever, was being sold in Newcastle. In May, thirteen persons, in six families, were suffering from the same disease, and several of the infected families were being supplied with milk by a dairyman in whose house the disease existed. Later in the year, a case of scarlet fever was notified in the family of a milkman occupying a single room tenement. It would not be difficult to multiply indefinitely instances of this kind; and it is evident that more stringent powers over the milk trade are needed by sanitary authorities. The subject of the further measures required for the protection of the milk-supplies of our towns is, we are glad to see, down for consideration at the Congress of the Social Science Association, to be held at Huddersfield next month; and it may be hoped that an useful basis for future legislation may be obtained from the discussion which the question is sure to excite.

THE DESIGNS FOR THE NEW WAR-OFFICE.

The throwing open of the competition for the designs of the new War Office and Admiralty has doubtless caused a flutter of excitement amongst architects of every degree. We note that of the judges of designs to be appointed by the Commissioners of Works, one, at least, will be an architect. Is it too much to hope that there will also be placed on the committee a medical man of experience in hygiene and a sanitary engineer? In the conditions of competition, it is indeed laid down that "particular attention must be given to the general sanitary arrangements," which intending competitors will infallibly take to mean that the drains must not be forgotten, that the water-closets must be sufficient in number, and reasonably inodorous, and that the sewage must at any rate have somewhere to go to. But "sanitary arrangements" in a pile of buildings such as is contemplated means much more than this; and if there were sanitary experts on the committee of judges—say, for instance, Dr. Buchanan, the chief medical officer, and Sir Robert Rawlinson, the chief sanitary engineer of the Local Government Board, whose services would cost nothing—we might feel some confidence that the hideous blunders of the new Government offices in Parliament Street would not be repeated. "Sanitary arrangements" in reality involve the whole scheme of the buildings. They comprehend the disposition of the rooms as regards light and ventilation, the area and height of the rooms, the position and construction of the staircases, and other details that may affect very importantly the health and comfort of the inmates. Government officials, even if they be not the hardest worked of beings, have the right to demand reasonable comfort in their work. Moreover, it is a positive economy to the State to keep them in good health, since in their absence their duties must of necessity be provided for. In the new Government offices everything—light, ventilation, and other trifles—was sacrificed to an imposing façade; and as to the drainage, that was a matter not dreamt of in the architect's philosophy. Experience does not, unfortunately, seem to teach Government departments in the same bitter fashion that it does less-favoured mortals who have only their own money to play with; and it may therefore be useful once more to point the moral of the previous Board of Work's undertaking of this kind, and to insist upon the necessity of the plans being critically examined by experts in sanitary science.

STIMULANTS IN WORKHOUSES.

If proof were needed of the powerful influence exerted by the British Medical Association and by the various movements associated therewith, that proof is to be found in the sudden and extraordinary advance in the effort to reduce the consumption of alcoholic stimulants in workhouses. Hardly has the echoes of the Poor Law Medical Officers' discussion, during the Liverpool meeting, died away, ere in two important workhouses action has been taken, founded on the resolutions agreed to on that occasion. The Toxteth Board have resolved on the discontinuance of the allowance of intoxicants to the officers, on and after January next; but we regret

to find no announcement of pecuniary equivalent. It is not exactly the most persuasive inducement to the increased sobriety of the staff to simply discontinue the liquor ration. This is practically to make the officials pay for their temperance. It is surely wise to render the change as attractive as possible, and medical officers are not so well paid for their services as to warrant their contempt for, or rejection of, a fair compensation. We trust that the Toxteth Board will remedy this injustice by a reasonable payment in cash. Such has been the action of a Board; we have now to note the initiative of a medical officer, Dr. Joseph Rogers, who presided at the discussion in Liverpool. He lost no time in intimating to the Westminster guardians that he intended to cease legalising the allowance of intoxicating drink to paupers not under medical treatment, for services rendered to the guardians. It may not be generally known, medical men continually being credited with a desire to promote drinking habits among their patients, that it is an usual practice for guardians to present rations of alcoholic liquor to healthy paupers, on the plea of labour. As to this custom, the medical officer has not been consulted; but, to prevent the guardians from being surcharged with this expenditure on alcohol, he is expected, as a matter of course, to sign the entries, in order to comply with the letter of the law. Dr. Rogers, who regarded that he had thus been called upon to certify for stimulants for no fewer than 120 pauper helpers, very properly and courageously gave notice to the guardians that he could no longer legalise the issue of stimulants to the able-bodied. In this, as on many other occasions, he has acted as clearly in the interests of the poor themselves as of the ratepayers. The presence of intoxicating drink is ever a disturbing element in a community, and a workhouse is no exception to this rule. Whenever the supply of liquor to the able-bodied poor has been withdrawn, the health, happiness, and comfort of all the inmates have been considerably increased. This has been notably observed in such large workhouses as that of St. Marylebone, where there is a daily average of 1,550 inmates. So improved was the appetites of the Marylebone paupers, that the exclusion of alcohol put an end to waste food, and the hog-tub became valueless. Dr. Rogers was ably supported by the Local Government Board, who justly remarked that exceptional indulgence should not be granted as an inducement to work, a course which can only tend to increase pauperism, idleness, and a prolonged free and luxurious residence at the public expense. We are glad to observe that the guardians, with but one dissentient, resolved to strictly observe the order of the Local Government Board. Dr. Rogers deserves great credit for his prompt and decided action; and we trust that the praiseworthy example which he has set will be speedily followed by his colleagues in the Poor-law service throughout the kingdom.

STILLBORN CHILDREN.

AT an inquest recently held at the Middlesex Hospital on the body of a newly born child, the following singular facts were elicited. It appeared that, about three weeks before the inquest was held, the wife of a German kitchen-porter was confined in Greek Street, Soho, and was attended by a Mrs. Giles, a midwife, who was also occasionally employed by the authorities of Middlesex Hospital. The child was born alive, and lived eight hours, and died, according to the midwife, in convulsions. On the question of the burial arising, the midwife arranged with the father to obtain the necessary certificate, and procure the interment of the child for the sum of five shillings. She was paid the money, and then took away the body of the child. The father and some of his friends, afterwards desiring to know how the body had been disposed of, and where the interment had taken place, closely questioned the midwife, and, after various prevaricating replies, they elicited that the body had been taken to Middlesex Hospital, and left there. On this, the father made further inquiries, and ascertained that the body of the child, though supposed to have been buried a fortnight, had been received at the hospital as a still born child; that it was still there; and that the head only had been opened. The resident medical officer, in his evidence at the inquest, stated that the bodies of stillborn children were occasionally received there for the use of the medical school; that the body of the deceased was brought to the hospital by the midwife, who gave it to one of the nurses to take to the School of Anatomy in the usual way. He had since made a *post mortem* examination, and found that the child had been born alive, and had died from weakness and exhaustion from debility from birth. And he further believed that it died from natural causes. When children were brought to the hospital, the word of the midwife was relied on as to the deceased being stillborn. No bodies other than those received under the Anatomy Act were admitted into the dissecting-room, except it were an occasional stillborn child. The Dean of the Medical School said he was unaware of the practice of receiving stillborn children; but it was very important the students should have the opportunity of examining such bodies with a view of ascertaining, if possible, the causes which led to stillbirth. He would cause special inquiry to be made into the circumstances connected with the admission of the deceased child to the hospital, and would institute precautions to prevent, if possible, a similar occurrence. The midwife then made a statement to the effect that she had accepted the sum of five shillings for the burial of the child; that she had taken it to the hospital for the purpose of obtaining Dr. Williams's opinion and certificate; but that she afterwards forgot all about it. After some consideration, the jury returned the following verdict, in accordance with the medical evidence: "That the death arose from natural causes," adding the following rider. "The jurors, having heard in evidence that the midwife accepted the sum of five shillings to undertake the burial of the said child, and, instead of so doing, disposed of it to the authorities of Middlesex Hospital as a stillborn child, consider that she is amenable to the law for the illegal disposal of the body; and further, they would suggest that more stringent measures should be adopted at the hospital to ascertain whether or no such children brought there are stillborn or otherwise." Several inquests have lately been held in the central district of Middlesex on the bodies of children who had been born alive, and where attempts to bury them as stillborn had been made; and, in more than one case, evidence was given that it was not an uncommon practice for a midwife to certify as stillborn a child that had lived in some instances a few hours, in others a few days. In one case, the father of a child, a sailor, wrote out a certificate of stillbirth, on which the deceased was interred. We have often drawn attention to the necessity of some system being adopted for the registration of stillborn children. If the registrars of births and deaths kept special forms of certificates for this purpose, which could be had on application by a duly qualified medical man or certified midwife, they could be filed at the various cemeteries and burial-grounds, and returns made periodically to the Registrar-General's office. Some information might then be obtained as to numbers, sex, etc.; and it would tend to lessen the number of cases in which children born alive are treated as stillborn, besides doing something to close the door against the too common crime of infanticide.

SCOTLAND.

GLASGOW: THE SPREADING OF DISEASE.

JAMES and Mary Neil, residing at Springburn Road, Glasgow, were brought before the sheriff last week charged with contravening Section 49 of the Public Health (Scotland) Act, 1867, by having, on the 16th, 19th, and 21st July, 1883, exposed their son William, twenty years of age, who was suffering from small-pox, in a public omnibus in Springburn Road. Mr. Paterson, who appeared for the prosecution, explained that the boy became ill of what was said to be

measles. The defenders would not allow any medical officer to go into their house, or see their boy. Two cases of small-pox broke out, one in the flat above and one in the flat below; and it was only by compulsion that an entrance was effected into Neil's house. The son was afterwards found going about in an omnibus, and was then taken to the hospital, where he was detained three weeks. The agent for the defence stated that he had been informed that the disease was first communicated to William Neil by a patient from the hospital, who had been returned before he was perfectly cured. The sheriff imposed a fine of fifty shillings.

THE REPORT ON SCOTCH PRISONS.

Of the many and varied details embodied in the fifth annual report just issued by the Prison Commissioners, there are one or two to which we would draw attention. We observe that in the criminal lunatic department a radical change has been made during the past year. Formerly, the inmates were under the sole charge of a superintendent, whose only necessary qualification was that he should have had the training of an ordinary asylum attendant; but with the increasing number of this class of criminals, the medical officer of the prison has been especially made superintendent of this department, the former superintendent being retained as the warder in charge. This is as it should be; and, no doubt, such an arrangement will be found, in the future, to work beneficially. Of the eighty-six inmates in this department, only one was placed during the year under mechanical restraint. Every precaution seems to be taken in the case of lunatics recovered and conditionally liberated. They are visited twice every year by the medical superintendent; and, in addition, a report is received from their guardians on the first of each month. With the object, apparently, of showing how prisoners are fed during their confinement, and how prison fare suits them, we have, in the supplement to the report, a table showing the results in the case of 1,472 prisoners who were weighed, from which it appears that 69 remained stationary, 1,111 gained weight, and 292 lost weight. In the very minute table given of all the diseases from which prisoners suffered, it is very significant to find that of the 75 various diseases, the one with the largest number attached to it is delirium tremens, a very strong proof of the connection between drink and crime.

THE PROPERTIES OF ALGIN.

In a recent communication to the Philosophical Society of Glasgow, Mr. Edward Stanford drew attention to the very varied and useful properties which belong to a substance which can be obtained from the commonest species of marine algæ, and to which he has given the name of algin. Its method of extraction seems simple, and when evaporated to dryness it produces scales resembling albumen, or perhaps more in form like gum tragacanth. It differs, however, from albumen, in that it does not coagulate on heating, and it differs from gelatine in that it gives no reaction with tannin; neither does it give any reaction with iodine, and unlike dextrine and the gums, it is insoluble in dilute alcohol and mineral acids. While not limiting the uses to which eventually it may be put, Mr. Stanford gives a long list of those in which it may be found of service, and he claims for it that as a stiffener of fabrics, algin is better than starch, inasmuch as it is not so rigid, fills the cloth better, is tougher, more elastic and transparent. When treated with acid it becomes glossy and insoluble, hence it may be useful as a mordant in dyeing, and from its richness in nitrogen he regards it as likely to become valuable as a food-supply, especially for cattle. Another feature about it is its great agglutinating power, it being able to convert into solid blocks many substances which otherwise are difficult to be made to cohere. A perusal of Mr. Stanford's paper will show that this by no means includes all the properties and uses of this new substance, the discovery of which is likely once more to direct our thoughts to those great stores of wealth in the seaweeds of the ocean, which as yet we have done little to utilise.

HEALTH OF THE PRINCIPAL SCOTTISH TOWNS.

In the eight principal towns in Scotland, there were registered during the month of August 1883 the deaths of 2,204 individuals, of whom 1,102 were males, and 1,102 were females, a correspondence in numbers which is almost unique. After making due allowance for proportional increase of population, this number is 51 under the average for the same month during the preceding ten years. The respective death-rate of each town per 1,000 of its inhabitants *per annum* was—in Perth, 15: in Aberdeen, Leith, and Dundee, 16; in Edinburgh, 17; in Glasgow, 25; in Greenock, 26; and in Paisley, 27. Of children under five years of age the deaths of 906 were registered, or 41 per cent. of the entire mortality, and the respective percentages were—in Perth, 25; in Edinburgh, 33; in Paisley and Dundee, 34; in Aberdeen, 35; in Greenock, 43; and in Glasgow and Leith, 47 per cent. Zymotic diseases contributed 18.6 per cent. of all the deaths. In Glasgow and Greenock, however, this rate was exceeded. Of 40 deaths due to fever, 10 were registered as typhus, 29 as enteric, and one as simple continued fever. Of the ten deaths due to typhus fever, six were in Glasgow, and one each in Edinburgh, Dundee, Greenock, and Leith. To diarrhœa were ascribed 141 deaths, or 6.4 per cent. of the whole; in Glasgow and Greenock, it caused 7.7 per cent of all the deaths. Whooping-cough was also very fatal in Glasgow, having caused 5.4 per cent. of the entire mortality; altogether, 73 deaths were due to it; to scarlet fever, 59; to measles, 50; to diphtheria, 22; to croup, 9; to dysentery, 3; to British cholera, 3; and to metria, 2 deaths. Apoplexy caused 62 deaths; paralysis, 54; cardiac diseases, 136; hydrocephalus, 63; and premature birth debility, 69 deaths. Phthisis pulmonalis contributed 261 deaths, or 11.8 per cent. of the entire mortality; while inflammatory affections of the respiratory organs (other than those already alluded to) caused 290 deaths, or 11.8 per cent. of all. There were 73 deaths due to violent causes, and 2 of these were of suicidal origin; while of 9 deaths due to the direct effects of intemperance, 5 were from delirium tremens. Only 3 persons died who were over ninety years of age; they were all females, and the oldest was a nurse, aged 97. During the same month, the births of 3,544 children were registered, of whom 1,816 were males, and 1,728 were females. Of these 3,544 children, 7.6 per cent. were illegitimate. As to meteorological conditions there was nothing particularly noticeable, there was more wind and west wind than usual, and the barometric pressure had a greatly extended range. As to details, the mean barometric pressure was less by 0.005 inch, and its monthly range greater by 0.222 inch, the mean temperature was less by 0.4°, the mean lumidity less by 3, the rain in number of days less by 3, and in depth of inches greater by 0.29 inch, and the wind pressure greater by 0.60lb. than the average of the same month for the preceding twenty-six years, while the mean daily range of temperature was 13.7°, which is the average. The highest mean temperature, 58.2°, was at Dundee, the lowest, 56.6°, was at Greenock. The greatest humidity, 82, was recorded at Dundee, and the lowest, 74, was at Paisley. The greatest depth of rain, 6.12 inches, was at Greenock, and was 19 days in falling, and the lowest, 2.90 inches, was at Dundee, with 10 days of falling.

IRELAND.

A boy named O'Keefe died this week near Tipperary from hydrophobia, the effects of a bite received from a rabid dog a few weeks since.

A special meeting of the general committee of the Belfast Royal Hospital was held last Monday to elect a house-physician in the

place of Dr. James Lindsay, appointed assistant in the extern department. Dr. Strafford Smyth, being unopposed, was duly elected.

DR. LINDSAY, who was house-physician to the Belfast Royal Hospital has been appointed assistant-physician in the room of Dr. Workman, who has resigned.

SCARLET FEVER IN THE LURGAN UNION.

DR. BOYD of Aghalee has reported to the Lurgan guardians that an epidemic of scarlet fever has broken out in his district, in spite of every exertion to suppress the disease. The people, he added, appeared to be indifferent about the disease spreading, and altogether disregarded the danger of infection. The outbreak of the same affection in the town of Lurgan is gradually disappearing.

CORK FEVER HOSPITAL.

A DEPUTATION waited recently on the Corporation of Cork to support an application for the usual half-yearly presentment for £800 for the maintenance of the Fever Hospital. An amendment was moved to the effect that the presentment be reduced to £600, on the grounds that a good many of the inmates might be treated in the workhouse, where the expense was much less, and that a great portion of the expenses of the hospital was made up of establishment charges. After a good deal of discussion, the presentment for £800 was agreed to.

LOUGHREA UNION.

AN inspector of the Local Government Board recently held an inquiry into the charges made against Dr. Burke, medical officer of this union, that he had neglected to give proper attendance to a man named Burke, who ultimately died. The Board now stated, as a result of the evidence adduced, that they regarded Dr. Burke's conduct with great dissatisfaction, but before coming to any decision, they requested the Dispensary Committee to inform them in what manner Dr. Burke had previously discharged his duties, and whether they can repose further confidence in him.

GASTROSTOMY.

MR. FAGAN, surgeon to the Belfast Royal Hospital, has successfully performed gastrostomy on a patient, the subject of malignant stricture of the œsophagus. The operation (which was performed towards the end of August) was followed by great relief to the patient, who is still as well as the nature of his disease could warrant. About the same time, Mr. Fagan removed the entire tongue by scissors, after Whitehead's method. He thinks highly of this operation, as being expeditious and almost bloodless. He followed the mode of dressing observed by him in Billroth's clinic, viz., iodoform gauze carefully packed into the floor of the mouth. This, he believes, is a most effectual means of preventing septic infection, while it keeps the mouth quite sweet during the process of healing. The patient left for her home on the twelfth day after the operation, able to take her food well, and to talk with wonderful distinctness.

RETIREMENT OF PROFESSOR REDFERN.

DR. REDFERN, who for twenty-three years occupied the Chair of Anatomy and Physiology in the Queen's College, Belfast, has tendered his resignation, and it has been accepted with great regret by His Excellency the Lord Lieutenant. In the resignation of Dr. Redfern, the Belfast Medical School has sustained a serious loss, because its success in no small measure was due to the ability and reputation of the Professor of Anatomy and Physiology. He retires with a pension of about £600 a year, under the Irish Universities Act. Dr. Anderson, who for the last eight or nine years was the Demonstrator of Anatomy in the College, is a candidate for the Chair. The position is worth between £1,200 and £1,400 *per annum*.

MEDICAL SCHOOLS AND HOSPITALS IN IRELAND.

SCHOOL OF PHYSIC IN IRELAND.—This school is formed by an amalgamation of the medical schools of Trinity College and of the King and Queen's College of Physicians; the King's Professors of Institutes of Medicine, Practice of Medicine, Materia Medica, and Midwifery, and the Professor of Medical Jurisprudence, being appointed by the latter. The departments of Medicine and Surgery are presided over by the Regius Professor of Physic, Dr. J. T. Banks; and the Regius Professor of Surgery, Dr. W. Colles. The teaching staff is as follows. University Professor of Anatomy and Surgery (vacant), junior, Tu., Th., S., 1; senior, M., W., F., 3. University Professor of Chemistry, Dr. J. E. Reynolds, Tu., Th., 2; S., 11. University Professor of Botany, Dr. E. P. Wright. Professor of Surgery in Trinity College, Dr. E. H. Bennett, M., W., F., 1. University Anatomist, Dr. T. E. Little, Tu., Th., S., 12. Professor of Comparative Anatomy (vacant), Tu., Th., S., 3. University Lecturer in Operative Surgery, Dr. R. G. Butcher. King's Professor of Institutes of Medicine, Dr. J. M. Purser, M., W., F., 12. King's Professor of Practice of Medicine, Dr. J. M. Finny, Tu., Th., S., 1. King's Professor of Materia Medica and Pharmacy, Dr. W. G. Smith, W., Th., F., S., 12. King's Professor of Midwifery, Dr. J. R. Kirkpatrick, M., W., F., 4. Professor of Medical Jurisprudence, Dr. R. Travers, M., W., Th., F., 3. Erasmus Smith's Professor of Natural Philosophy, Mr. G. F. Fitzgerald, M., W., F., 2.

The Winter Session commences on October 1st by the opening of the Dissecting Room. Lectures commence a month later. The Winter Courses consist of fifty-six Lectures each. Attendance on at least forty-two Lectures in each Course is required. The Summer Session commences April 1st. The Courses in the summer (except those of Materia Medica and Medical Jurisprudence) consist of Laboratory Instruction and Practical Demonstrations.

The Dissecting Room is open from sunrise to sunset, under the superintendence of Professor Macalister; by whom, and by the University Anatomist and four Demonstrators, instruction is given daily. The new Laboratory of Practical Histology and Physiology is under the direction of Professor Purser. Students can enter for the study of Pathological Histology at any time; and a complete course of instruction in Animal Histology is given in the summer. The Chemical Laboratories are open daily, under the supervision of Professor Reynolds. Professor Bennett gives a complete course of Demonstrations in Operative Surgery during April and May. Professor Fitzpatrick gives Demonstrations in Obstetric Medicine and Surgery on Thursdays and Fridays. Practical Botany is taught in the Botanic Garden and the Herbarium by Professor Wright.

The Museum of Anatomy and Zoology, of Pathology, of Materia Medica, and of Midwifery; and of Botany, are open to the students of the School of Physic.

Scholarships, Prizes, etc.—Two Medical Scholarships, value of each £20 *per annum*, tenable for two years, are awarded annually. A Medical Travelling Prize and a Surgical Travelling Prize, value of each £100, are also awarded in alternate years. The Professor of Chemistry gives Prizes amounting to £10; and the Professor of Botany Prizes amounting to £5.

Fees.—For Anatomy, Medicine, Practice of Medicine, Materia Medica, Midwifery, Medical Jurisprudence, Institutes of Medicine, Practical Chemistry, Obstetric Medicine and Surgery (at Sir P. Dun's Hospital), Ophthalmic Surgery (at St. Mark's Hospital), each £3 3s.; Demonstrations and Dissections, each year, £8 8s.; Surgery and Chemistry, each £2 2s.; Botany, £1 11s. 6d. Students dissecting during the fourth year pay £2 2s.

SCHOOL OF SURGERY: ROYAL COLLEGE OF SURGEONS IN IRELAND.—Lectures will be given as follows. *Winter Session:* Anatomy and Physiology, Dr. Cunningham; Descriptive Anatomy, Mr. Thornley Stoker; Surgery, Mr. J. Stannus Hughes and Mr. Stokes; Practice of Medicine, Dr. A. W. Foot; Chemistry, Dr. Cameron; Midwifery and Gynæcology, Dr. Roe. Lectures on Comparative Anatomy will be delivered by Dr. Mapother. Practical Instruction in Operative Surgery will be given as part of the surgical course. The Professor of Chemistry receives operating pupils into the chemical laboratory. The dissecting-rooms open from October 1st, and are available from 8 A.M. to 10 P.M. during the session. The dissections are under the direction of the professors of anatomy, assisted by five demonstrators.—*Summer Session*, commencing April 1st, 1884: Materia Medica, Mr. Macnamara; Medical Jurisprudence, Dr. Davy; Botany, Dr. Minchin; Practical Chemistry, Dr. Cameron;

Midwifery and Gynæcology, Dr. Roe; Hygiene, Dr. Cameron; Ophthalmic and Aural Surgery, Dr. A. H. Jacob.

The fee for the course of lectures is £3 3s., excepting Descriptive Anatomy, which is £8 8s.; Practical Chemistry, which is £5 5s.; and Ophthalmic and Aural Surgery and Hygiene, which are free. Composition fee for all lectures and dissections for the Diploma in Surgery, £56 17s. 6d.

ADELAIDE MEDICAL AND SURGICAL HOSPITALS.—*Consulting Physician*, Dr. J. F. Duncan; *Consulting Obstetric Surgeon*, Dr. Lombe Atthill. *Physicians*, Dr. Henry H. Head, Dr. James Little, *Assistant-Physician*, Dr. Wallace Beatty. *Surgeons*, Dr. John K. Barton, Dr. Kendal Franks, Mr. F. W. Warren. *Obstetric Surgeon*, Dr. R. D. Purefoy. *Ophthalmic Surgeon*, Mr. H. R. Swanzy. *Dental Surgeon*, Dr. R. T. Stack.

Fee for nine months' hospital attendance, £12 12s.; six months, £8 8s.; summer three months, £5 5s.

There are wards for infants and children, and there is a large detached fever hospital. Special hours are devoted to Clinical Instruction in the Diseases peculiar to Women, and in the Diseases of the Eye, Ear, Throat, and Skin; and students are individually instructed in the use of the Stethoscope, Ophthalmoscope, and Microscope, in its application to Clinical Medicine. Three resident pupils are selected half-yearly. At the termination of the session, prizes in Clinical Medicine and Surgery, in Obstetric Medicine, and Ophthalmic Surgery, will be awarded. In addition, the Hudson Scholarship (£30 and a gold medal), and a Prize of £10 with a silver medal, will be awarded for proficiency in the subjects of clinical instruction.

Further particulars may be obtained from any of the members of the medical staff.

CARMICHAEL COLLEGE OF MEDICINE.—The Dissecting Rooms will be opened on October 1st. Lectures will commence on October 31st. The following are the Courses.—*Winter Session:* Medicine, Dr. J. W. Moore, T., W., and F., 12; Surgery, Dr. J. K. Barton and Dr. H. Corley, M., Th., and S., 12; Systemic Anatomy, special course, M., W., and F., 12; Anatomy, Dr. F. Heuston, senior, Tu., Th., 1; junior, M., W., F., 1; Physiology, Dr. J. A. Scott, daily except S., 2; Midwifery, Dr. W. B. Jennings and Dr. A. V. Macan, M., W., and F., 3; Chemistry, Dr. C. R. C. Tichborne, T., Th., and S., 3; Ophthalmic Surgery, Dr. C. E. Fitzgerald, W., 1.—*Summer Session*, 1884: Botany and Zoology, Dr. W. R. McNab, daily except S., 11; Pathology, Dr. S. Woodhouse, T., Th., S., 11; Materia Medica, Dr. G. F. Duffey, M., W., Th., F., 12; Practical Chemistry, Dr. Tichborne, T., Th., S., 1.30; Medical Jurisprudence, Mr. Auchinleck, M., W., and F., 1; Practical Histology, Dr. J. A. Scott, M., T., Th., F., 3; Practical Surgery, Dr. Barton and Dr. Corley. There are nine Anatomical Demonstrators, who superintend the dissections. A bone-room, adjoining the dissecting-room, is open for the first time this session. The Physiological Department comprises a Histology Room, a room for Physiological Chemistry, and one for Physiological apparatus. The Museum comprises a valuable collection of Anatomical and Pathological preparations. There is also an extensive Museum of Materia Medica. A Students' Reading Room has been added. *Fees*, for each course of lectures, £3 3s.; for each course of Practical Instruction, £5 5s. A second practical course can be attended for £2 2s., if no certificate be required. The fee for Practical Surgery is £3 3s., with £1 1s. additional for cost of subject, etc. Perpetual Pupils, paying £58 17s. 6d. in two instalments, can attend all the lectures required by the Royal College of Surgeons of Ireland, or by the University of Dublin. Systemic Anatomy is free, if no certificate be required. The Carmichael and Mayne Scholarships, each £15 in value, and Prizes, are awarded annually. For information, apply to Dr. Woodhouse, at the College, Aungier Street, or to any of the lecturers.

CATHOLIC UNIVERSITY MEDICAL COLLEGE.—*Winter Session:* The dissecting-rooms will be opened on October 1st. The lectures will commence on Monday, October 29th. Anatomy and Physiology, and Anatomical Demonstrations, Dr. Nixon, M., Tu., W., Th., and F., 12; Dr. Coppinger, daily, except S., 1; Chemistry, Dr. J. Campbell, M., W., and F., 11; Surgery, Mr. P. J. Hayes, M., W., and F., 3; Medicine and Pathology, Dr. R. D. Lyons, M.P., T., Th., 3, and S., 12; Midwifery, Dr. J. A. Byrne, T., Th., 2, and S., 1; Demonstrations in Dissecting-rooms, Mr. J. M. Redmond, Mr. McCullagh, Mr. McArdle, Mr. Chance, Mr. J. F. O'Carroll, and Mr. Strahan. *Summer Session*, 1884: Practical Chemistry, Dr. John Campbell, M., W., and F., 11 A.M. to 1 P.M.; Materia Medica and Therapeutics, Dr. F. J. B. Quinlan, M., T., W., and Th., 1; Medical Jurisprudence, Dr. S. M. MacSwiney, M., T., W., and Th., 12; Botany, Dr. G. Sigerson, M., T., Th., S., 2; Zoology, Dr. Sigerson; Histology, Dr. Nixon and Dr. Coppinger; Operative Surgery, Mr. P. J. Hayes; Ophthalmology, Mr. D. D. Redmond; Natural Philosophy, the Rev. Gerald Molloy, D.D., T., Th., S., 11.

The school is within a few minutes' walk of the principal hospitals of the city. It includes a complete chemical laboratory, and well-supplied students' library.

Prizes.—At the termination of the winter and of the summer sessions respectively, public examinations will be held in each class; and prizes are offered for competition.

Further particulars may be learned from the Honorary Secretary, Dr. Campbell, Medical College, Cecilia Street, Dublin.

CITY OF DUBLIN HOSPITAL.—*Consulting Physicians:* Dr. Apjohn; Dr. Banks. *Consulting Surgeon:* Mr. Joliffe Tufnell. *Physicians:* Dr. Hawtrey Benson; Dr. Duffey. *Surgeons:* Mr. H. G. Croly; Dr. W. I. Wheeler; Dr. H. Fitzgibbon. *Ophthalmic and Aural Surgeon* (vacant). *Gynæcologist:* Dr. W. J. Smyly. The Hospital is visited at 9 A.M.; after the visit, Clinical Lectures are delivered, and Pathological Specimens exhibited. There are special wards for Fever and other Contagious Diseases, Ophthalmic and Aural Diseases, and Diseases of Women and Children; also a Daily Dispensary, and Special Dispensaries for Diseases of the Skin, Throat, Eye, and Ear, and for Diseases peculiar to Women.

Clinical Assistants to the Physicians, and Dressers to the Surgeons, are appointed from the most deserving of the class, and certificates awarded for the faithful performance of their duties. Medical and Surgical Resident Pupils are appointed by examination, and Special Certificates awarded if merited. A House-Surgeon is appointed annually.

The Winter Session commences in October and terminates in April; the Summer Session commences in April and terminates in July. *Fees:* Nine Months' Hospital Attendance, £12 12s.; Six Months, £8 8s.; Three Months, £5 5s.

COOMBE LYING-IN HOSPITAL.—*Consulting Physician:* Dr. Gordon; *Master:* Dr. G. H. Kidd; *Deputy-Master:* Dr. Poole. The hospital contains sixty-five beds, in two divisions, one devoted to Midwifery, and the other to Diseases of Women. Students can enter for six months at any period of the year. Clinical Instruction is given daily, and Lectures are delivered on the more important cases. Two Paid Pupil Midwifery Assistants and one Clinical Clerk are selected half-yearly from among the pupils. Certificates of attendance are accepted by the Examining Boards; and the diploma of the hospital is recognised by the Irish Local Government Board as a qualification in Midwifery. *Fees:* extern pupils, £8 8s.; intern pupils, £18 18s. Particulars may be learned on application to the Registrar at the Hospital.

JERVIS STREET HOSPITAL, DUBLIN.—*Physicians:* Dr. S. M. MacSwiney, Dr. W. Martin. *Surgeons:* Dr. J. S. Hughes, Mr. A. Meldon, Mr. J. E. Kelly, Dr. W. Stoker, Dr. J. J. Cranny, Dr. R. MacDonnell, Mr. J. V. Lentaigne.

This Hospital, which is at present being rebuilt, is central in situation. An extensive Dispensary is attached.

Clinical Instruction is given by the Physician and Surgeon on duty on alternate mornings, between 9 and 11. Two Clinical Lectures are delivered each week, and Pathological Specimens are exhibited. Surgical Instruments and Appliances of all kinds are made the subject of Special Instruction.

Surgical Operations are performed on Tuesdays, at 10 A.M., except in cases of emergency.

Resident Pupils and Dressers are selected from among the most attentive of the advanced students, without payment of any additional fee. Two Interns are appointed each half-year, and are provided with apartments, etc., free of expense. Special Certificates are given to the Resident Pupils and Dressers who have performed their respective duties to the satisfaction of the Physicians and Surgeons.

MATER MISERICORDIÆ HOSPITAL.—*Physicians:* Dr. C. J. Nixon, Dr. J. M. Redmond, Dr. M. A. Boyd. *Assistant-Physician:* Dr. John Murphy. *Consulting Surgeon:* Mr. R. F. Cruise. *Surgeons:* Mr. P. J. Hayes, Mr. C. Coppinger, Mr. M. J. Kilgariff. *Assistant-Surgeon:* Mr. H. Kennedy. *Obstetric Physician:* Dr. T. M. Madden. *Ophthalmic Surgeon:* Mr. C. Coppinger. *Dental Surgeon:* Mr. D. Corbett.

This Hospital contains 230 beds, including 50 beds for Fever and other Contagious Diseases. There is a ward for Ophthalmic Diseases.

Two Clinical Prizes (the "Leonard Prizes") of £15 each, one Medical and one Surgical, will be given at the end of the winter session.

Fee for nine months, £12 12s.; six winter months, £8 8s.; three summer months, £5 5s.

Further particulars may be learned by application to Dr. Hayes, 18, Merrion Square, North, or to any of the other medical officers.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—*Physicians*, Dr. A. W. Foot, Dr. J. W. Moore. *Surgeons*, Sir G. H. Porter, Mr. J. H. Wharton, Mr. P. C. Smyly, Mr. R. Macnamara, Dr. L. H. Ormsby, Mr. W. J. Hepburn.

The hospital contains 120 beds for the reception of medical and surgical cases. An extensive dispensary, lending library, and physical laboratory, are attached. An additional ward has been erected for the reception of children.

The winter session will commence on October 1st, and the clinical lectures on the first Monday in November. Four clinical lectures will be delivered weekly, and instructions in Medicine and Surgery will be given on alternate days. The Physicians and Surgeons on duty visit the hospital at 9 A.M.

Prizes will be given at the termination of the winter course to the best answers in their respective classes. The office of Resident Pupil is open to pupils as well as apprentices.

Further information may be obtained on application to Mr. W. J. Hepburn, 53, York Street, Dublin; or at the Hospital.

MERCER'S HOSPITAL.—*Physicians*, Dr. T. P. Mason, Dr. C. F. Knight. *Surgeons*, Mr. E. S. O'Grady, Mr. F. A. Nixon, and Mr. M. A. Ward.

Special instruction is given in Cutaneous, Gynæcological, Infantile, and Ophthalmic Diseases. Lectures upon Clinical Medicine and Clinical Surgery are delivered weekly.

Resident Pupils and Clinical Clerks are appointed half-yearly, and Dressers are selected each quarter. Prizes in Clinical Medicine and Clinical Surgery are rewarded at the termination of the winter session.

Fees for the winter and summer session (nine months) £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s.

Further information can be obtained from any of the medical officers of the Hospital, or from Mr. James Shaw, Secretary to the medical staff.

QUEEN'S COLLEGE, BELFAST.—The following courses are delivered at 4 P.M. on each alternate Friday. Anatomy and Physiology, (vacant), M., T., W., Th., F., 2; Practical Anatomy, daily, except Sat., 12; Practical Physiology and Histology, Saturdays and alternate Fridays (winter); Medicine, Dr. James Cuming, M., T., W., Th., 4; Surgery, Dr. A. Gordon, M., T., W., Th., 1; Materia Medica and Therapeutics, Dr. J. Seaton Reid, M., T., W., Th., 4; Midwifery, Dr. R. F. Dill, M., T., W., Th., 3; Chemistry, Dr. Letts, M., T., W., Th., F., 3; Medical Jurisprudence, Dr. J. F. Hodges, M., T., W. Th., 2 (summer); Natural Philosophy, Dr. J. D. Everett. 11; Zoology, Dr. R. O. Cunningham, M., T., W., F., 1: Botany, Dr. Cunningham, M., T., W., Th., F., 11 (summer).

Clinical instruction is given at the Belfast Royal Hospital. The Ulster Hospital for Diseases of Women and Children, and the Lying-in Hospital in Belfast, are open to students. Instruction is also given at the Belfast District Lunatic Asylum.

Fees.—Medical Jurisprudence, Chemistry, Materia Medica, Medicine, Surgery, Midwifery, and Zoology and Botany, each £2; re-attendance on same course, half free; Practical Chemistry and Practical Anatomy, each course, £3; Anatomy and Physiology, first course, £3; each subsequent course, £2. Belfast Royal Hospital, Clinical Fees, winter session, £5 5s.; summer session, £2 2s.; Perpetual Fee, payable in two instalments, £10 10s.; Hospital Fee, half a guinea for each winter or summer session. Ulster Hospital for Diseases of Women and Children, and Midwifery Dispensary, winter, six months, £3 3s. Lying-in Hospital, six months, £2 2s. Belfast District Lunatic Asylum, fee for course, £3. Eight Junior Scholarships, of the value of £25 each, are awarded annually, after examination, to students of the Faculty of Medicine; two being awarded for each of the four years of study.

QUEEN'S COLLEGE, CORK.—The following courses of lectures are given. Anatomy and Physiology, Dr. J. J. Charles, daily, 1; Histology and Practical Physiology, T., S., 2; Practical Anatomy, daily; Medicine, Dr. D. C. O'Connor, M., W., S., 12; Surgery, Dr. S. O'Sullivan, M., W., F., 4; Materia Medica, Dr. M. O'Keeffe, T., Th., 3: S., 12; Midwifery (vacant), T., M., S., 4; Medical Jurisprudence and Public Health, Dr. O'Keeffe and Mr. M. S. O'Shaughnessy, M., F., 3; Natural Philosophy, Mr. J. England; Chemistry and Practical Chemistry, Dr. M. Simpson, M., W., F.; Zoology and Botany, Dr. M. M. Hartog, M., W., S.; Modern Languages, Dr. O. O'Ryan.

The building in which the Medical School is located is provided with a large well lighted, well ventilated dissecting-room, with Physiological and Toxicological Laboratories, Materia Medica, Anatomical and Pathological Museums, as well as a room for surgical and obstetrical instruments and appliances. There are well-appointed Physical and Chemical Laboratories, and a large Natural History Museum in the adjoining building; and part of the College ground is laid out as a Botanic Garden. The College Library is open daily to students of the school.

Fees.—For Practical Anatomy and Practical Chemistry, £3 each course; for Anatomy and Physiology, £3 for first course, and £2 for subsequent course. Other Medical Classes, £2 for first course, and £1 for second course. Eight scholarships (value £25 each), as well as several exhibitions and class prizes, are awarded every year to the most deserving students.

Clinical Instruction is given at the North and South Infirmaries and Lying-in Hospitals. Students can also attend the Mercy Hospital, the County and City of Cork Lying-in Hospital, the Maternity, the Hospital for Diseases of Women and Children, and the Fever Hospital, the Ophthalmic and Aural Hospital. Fee for Clinical Lectures and attendance at either the North or South Infirmary, £8 8s. for twelve months; £5 5s. for six months; at the Lying-in Hospital and the Maternity, for six months, each £3 3s.

A course of Clinical Lectures will be delivered on Tuesdays, Thursdays, and Saturdays during the first three months of each winter session in the Cork District Lunatic Asylum, by Dr. Eames, Resident Medical Superintendent. The fee is £3 3s.

QUEEN'S COLLEGE, GALWAY.—*Professors:* Anatomy and Physiology, Dr. J. P. Pye, M., T., W., Th., F., 3; Anatomy, Dr. Pye, same days, 1; Medicine, Dr. J. I. Lynham, T., Th., S., 12; Surgery, Dr J. V. Browne, M., W., F., 11; Materia Medica, Dr. N. W. Colahan, T., Th., S., 2; Medical Jurisprudence, Dr. R. J. Kinkead, M., W., F., 12; Midwifery and Gynæcology, Dr. R. J. Kinkead, M., W., F., 2; Chemistry, Dr. T. H. Rowney, M., W., F., 12; Practical Chemistry, Dr. T. H. Rowney, M., W., F., 2; Botany and Zoology, Dr. A. G. Melville, T., Th., S., 11; Experimental Physics, Mr. Larmor, T., Th., 12; Modern Languages, Dr. C. Geisler. The College Library is open daily to students; also the Museums of Human and Comparative Anatomy, of Physiological Instruments, of Pathology, of Materia Medica, of Natural History, of Chemistry, and of Natural Philosophy; and the Montgomery Obstetric Collection.

Prizes.—Attached are eight scholarships of the value of £25 each; four exhibitions of the value of £12 each; two exhibitions of the value of £16 each; and sessional prizes in each of the subjects of the curriculum are awarded annually. All scholarships and exhibitions of the second, third, and fourth years may be competed for by students who have attained the requisite standing in any Medical School recognised by the College Council, and have passed the Matriculation Examination in the College.

Clinical Lectures are delivered on Tuesdays and Fridays, and practical teaching at the bedside on other days of the week, at the Galway County Infirmary and the Galway Town Hospital.

Fees.—Matriculation, first year, 10s.; each subsequent year, 5s.; Anatomy and Physiology, first course, £3; each subsequent course, £2; Practical Anatomy and Practical Chemistry, each course, £3; other courses, £2 each; second courses of Materia Medica, Surgery, Medicine, and Midwifery, each £1. Clinical Instruction, six months, £4 4s.; Resident Clerkship, six months, £15 15s.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—*Physicians:* Dr. J. T. Banks, Dr. B. G. M'Dowel, Dr. S. Gordon, Dr. R. D. Lyons, M.P.; *Assistant Physician and Pathologist:* Dr. Stewart Woodhouse; *Consulting Obstetric Surgeon:* Dr. G. H. Kidd; *Surgeons:* Dr. William Stokes, Dr. William Thomson, Dr. W. Thornley Stoker, Dr. Antony H. Corley; *Ophthalmic Surgeon:* Dr. A. H. Jacob; *Assistant-Surgeon and Curator of Museum:* Mr. A. N. Dickenson.

These hospitals contain 312 beds; 110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases.

There will be a distinct Course of Lectures and Clinical Instruc-

tion in Fevers. Operations are performed on Monday and Wednesday mornings, except in cases of emergency. A Course of Practical Instruction in Ophthalmic Surgery will be given; fee, £3 3s. Practical Pharmacy is taught under the superintendence of the Apothecary of the hospitals. A Resident Surgeon is appointed every alternate year, receives a salary, and holds office for two years. Eight Resident Clinical Clerks are appointed each half-year, and provided with furnished apartments, fuel, etc. These appointments are open not only to advanced students, but also to those who are qualified in Medicine or Surgery. The dressers are selected from among the best qualified of the pupils, without the payment of any additional fee.

The Richmond Lunatic Asylum, containing over 1,000 patients, adjoins these hospitals, affording every facility for the study of mental diseases. The hospitals are visited at nine o'clock by the physicians and surgeons on alternate days. Two Clinical Lectures are delivered in each week, in addition to the usual daily bedside instruction.

Fees.—For the winter and summer session, £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s. Resident Clinical Clerks, winter, nine months' certificate, £12 12s.; summer, three months' certificate, £5 5s.; winter or summer, six months' residence, £8 8s.

ROTUNDA HOSPITALS.—*Master:* Dr. A. V. Macan; *Consulting-Physician*, Dr. J. Little; *Consulting-Surgeon*, Dr. W. Colles; *Assistant-Physicians*, Dr. R. Henry, and Dr. J. L. Lane; *Pathologist*, Dr. G. F. Duffey.

This institution consists of two distinct hospitals—namely, the Lying-in Hospital, for labour cases, and the Auxiliary Hospital, for patients suffering from uterine and ovarian disease. There are also a large extern maternity in connection with the hospital, and a Dispensary for Diseases of Women. An Obstetrical Museum, containing upwards of five hundred preparations, is attached to the hospital.

Clinical Instruction in Midwifery and the Diseases of Women is given daily; and the Lectures are delivered regularly during the session.

The Diploma from this hospital is granted to pupils after a six months' attendance, and on their passing an examination. It is recognised by the Local Government Board in Ireland, as a qualification in Midwifery.

Accommodation is provided for a limited number of Intern Pupils.

Fees.—Intern Pupils: six months, £21; three months, £12 12s.; two months, £9 9s.; one month, £6 6s. Extern Pupils: six months, £10 10s.; three months, £6 6s.

SIR PATRICK DUN'S HOSPITAL.—*Consulting-Physician*, Dr. J. T. Banks; *Consulting-Surgeon*, Dr. W. Colles; *Physicians*, Dr. J. M. Finny, Dr. J. M. Purser, Dr. W. G. Smith; *Midwifery-Physician*, Dr. J. R. Kirkpatrick; *Surgeons*, Dr. E. H. Bennett, Dr. T. E. Little, Dr. R. G. Butcher, Dr. C. B. Ball.

The physician on duty visits the wards, with his class, at 9 A.M. on Mondays, Wednesdays, and Fridays; and the surgeon on duty, with his class, at 9 A.M. on Tuesdays, Thursdays, and Saturdays. The Hospital Dispensary is open from 9 to 11 daily.

Fees.—The payment of £12 12s. to the hospital entitles the student to hospital attendance and clinical teaching during the winter and summer sessions. For the winter session alone, the fee is £8 8s.; for the summer alone, £5 5s. For twelve months' instruction in Practical Midwifery, students of Trinity College, £3 3s.; other students, £6 6s. Silver Clinical medals in Medicine and in Surgery are awarded to the students who shall pass the best examinations on the Medical and Surgical cases treated in the hospital during the year.

DR. STEEVENS'S HOSPITAL.—*Consulting Physicians*, Dr. H. Freke and Dr. T. W. Grimshaw; *Consulting-Surgeons*, Mr. S. G. Wilmot and Sir G. H. Porter; *Physicians*, Dr. H. C. Tweedy, Dr. R. A. Hayes; *Surgeons*, Mr. W. Colles, Dr. E. Hamilton; Dr. R. McDonnell; *Obstetric Physician*, Dr. A. Duke.

The Hospital contains 250 beds. There is a ward entirely devoted to Syphilitic Disease, and also a detached building for Fever cases; also an extensive Out-patient Department, with separate Clinics for Diseases of the Skin, Throat, Teeth, and those peculiar to Women.

Arrangements have been made that each Pupil shall be assigned one or more beds, for the care of which he will be responsible; and he will be expected to keep accurate notes of the cases. At the end of each Hospital year, Gold Medals will be awarded for general attention and proficiency in Clinical work and Case-taking.

The Hospital is visited by the Physicians and Surgeons at 9 A.M. Clinical Lectures are given by the Physicians and Surgeons. Surgical Operations are performed on Saturdays, at 10 A.M., except in cases of emergency.

The Museum is open daily to the Pupils of the Hospital. There is also a Lending Library.

Fees.—Hospital Practice: Nine Months, £12 12s.; Six months, £8 8s.; Three Months, £5 5s. Dressership: Winter, Six Months, £21; Summer ditto, £15 15s.

ST. VINCENT'S HOSPITAL.—*Physicians*, Dr. F. J. B. Quinlan and Dr. M. F. Cox; *Surgeons*, Dr. E. D. Mapother and Dr. J. S. McArdle; *Gynæcologist*, Dr. J. A. Byrne; *Ophthalmic and Aural Surgeon*, Mr. D. Redmond; *Surgeon Dentist*, Mr. W. J. Doherty.

The Winter Session will begin on October 1st. Clinical Lectures will commence on November 1st. An introductory address will be given on October 25th, at 11 A.M., by Dr. McArdle.

The Hospital contains 120 beds. Attached to the Hospital is a General Dispensary, also a Convalescent Home at Linden, Blackrock. There are special wards and Dispensaries for Ophthalmic, Aural, and Gynæcological cases.

Medical and Surgical Clinical Lectures delivered twice a week during the Session, and clinical instruction is given daily. Operations admitting of delay are performed on Fridays.

Arrangements have been made for giving Special Clinical Instructions in infective fevers. Practical Instructions in Medical Chemistry, Spectrum Analysis, and in the use of the Microscope, and of the other Scientific Instruments applicable to Clinical Investigations, are given in the Medical Laboratory of the Hospital.

At the commencement of every Winter and Summer Session two Resident Pupils are selected from the previous classes.

Fees.—Winter and Summer, Nine Months, £12 12s.; Winter, Six Months, £8 8s.; Summer, Three Months, £5 5s.

Certificates of attendance on the practice of this Hospital are recognised by all the Licensing Bodies. For further particulars apply to the Secretary to the Medical Board, Dr. Cox, 97, Stephen's Green South, Dublin; and at the Hospital.

CHOLERA IN EGYPT.

THE MISSION OF SURGEON-GENERAL HUNTER.

A PARLIAMENTARY paper has been published, embodying the former report of Surgeon-General Hunter, forwarded by Sir E. Malet to Earl Granville. The former has headed the communication by a kind of epitome to the report, stating that Dr. Hunter has found evidence of the existence (1) of an epidemic of typhus prior to the outbreak of cholera, and (2) of cholera previous to the outbreak at Damietta, and he entertains grave suspicions of cholera having been endemic in Egypt since the epidemic of 1865. The report confirms much that has been already communicated to the JOURNAL by our special correspondents. The first inclosure consists of a letter from Surgeon-General Hunter to Sir E. Malet, dated Cairo, August 19th, 1883. It contains details of his visit to the towns and villages situated on the banks of the Damietta branch of the Nile, for which a special service was placed at his disposal by the Egyptian Government. Although much had been done by surface-cleansing to put the places in some order, more especially at Tanta, which had had the benefit of Dr. Sidki Bey's capable administration, in every place ample testimony was found of that gross violation of all sanitary laws, which, unfortunately, is only too prevalent in Egypt. If a small factory be erected on the banks of the river, the privies, as a matter of course, are built over the stream.

It was from the Damietta Branch of the Nile that Mr. W. Goodall succeeded in removing 568 carcases of cattle which had died of typhus, besides numerous portions of others which were all in a more or less advanced state of decomposition. The cemeteries visited, with rare exceptions, gave off disgusting odours. Dr. Hunter readily obtained the sanction of the *Conseil Supérieur* for the closing of the pestilent cemetery at Benha, and for a new cemetery being laid out on a site to the east of the town.

The hospitals, as a rule, were in a more or less tumble-down, dirty condition. The hospital at Tanta alone may be exempted from this sweeping condemnation. Though it possessed radical defects of construction for hospital purposes, it was found clean and in good order. It was, however, empty. The village barber is the registrar in the smaller towns and villages. He never, unless by chance, sees

a patient during life. His functions apparently only come into operation after the death of the sick person; and, according to the statements made to him by the relatives or friends of the deceased, he enters on his register what he considers to be the cause of death, and then grants a permit for burial.

For some time previous to starting on this tour, Dr. Hunter's thoughts had frequently taken a direction somewhat as follows. Egypt has been visited by five epidemics of cholera since that of 1831. namely, in 1848, 1850, 1855, 1865, and 1883. Diarrhœa is very common and fatal, and conditions for the development and spread of endemic and epidemic disease abound everywhere. What is this disease which is here called "diarrhœa," and is so lethal? With his mind possessed by thoughts such as these, Dr. Hunter began to make cautious inquiries from medical men and others long resident here, and found that cases of "cholerine," as by a euphemism they term the disease, are not unknown, and have been seen by one and another from time to time.

Dr. Sonsino had met with one or two instances, and his cousin, Dr. Ambron, who had been long resident in Cairo, had informed him that he also had come across one or more cases.

Dr. Sonsino also informed Dr. Hunter that instances had been reported as having occurred for some years past at Alexandria, and that he would write to a friend of his, Dr. Sierra, for information. In due course, the reply from Dr. Sierra was received, and is inclosed in Dr. Hunter's report; this reply shows that cases of "cholerine" have been noticed for some years past in Alexandria, by many doctors, "not with any frequency; say, perhaps, two or three every year." By the term "cholerine" Dr. Sierra means "vomiting, and very copious diarrhœa, accompanied with a marked weakness of pulse, hollowness of the eye-cavities, and difficult reaction." Dr. Sierra further makes reference to a report that two cases of cholera had been received into the European hospital in May last; this latter statement Dr. Hunter will take the opportunity of verifying on his visit to Alexandria.

Dr. Sierra arrives at the conclusion that the examples quoted could not be cases of cholera; a decision that will not, in Dr. Hunter's opinion, bear scrutiny.

Concerning the alleged cases of cholera that had occurred at a Greek school in Damietta previous to the outbreak of the 22nd June, Dr. Hunter prosecuted careful inquiries among the towns and villages he visited, and while doing so ascertained, to his great surprise, that an epidemic of typhus had existed in the Delta during the early part of this year, and prior to the outbreak of cholera. Many of these so-called cases of diarrhœa were really examples of what in India would be called cholera. At Damietta, after some little trouble, his diligence was rewarded, and he had the satisfaction of testing the truth of the statement.

Two Coptic priests, after being carefully interrogated, informed Dr. Hunter that a Coptic boy, aged 5 years, belonging to their school, had died of all the symptoms of cholera on the 17th June. A Greek priest said that last May one of their scholars, aged 8 years, was attacked at Damietta with excessive vomiting and prostration, but had no purging. The lad was taken by his mother to Mansourah, where he died in twenty-four hours.

At Shirbeen, Dr. Hunter met with Dr. Dutrieux; and, on discussing the question, discovered that his investigations had led him to conclusions similar to his own.

Shortly after returning to Cairo, Dr. Hunter received the following telegram from Dr. Dutrieux, dated August 13th: "I have been to Feraskor to get serious information as to date of cholera at Damietta; returned to Damietta expressly to verify. Have received declarations in five cases. Two Greek children died 27th April; one day's illness, cyanosis, aphony, algid state, no vomiting, no diarrhœa. Another Greek child, ill about six months; vomit, cramps, aphony, algid state, without diarrhœa; death after six days. Arab barber, ill two or three days, towards end of April, after vomit and diarrhœa. Arab shopkeeper dead after twenty-four hours' vomit and diarrhœa. These facts are positive.—DUTRIEUX." A copy of Dr. Dutrieux's report on the above cases, dated Belkas, August 15th, forms a third inclosure in Dr. Hunter's report.

These facts are very significant, and of the first importance. They lead to the conclusion that cholera, be it called by whatever name it may, as Asiatic, epidemic, sporadic, cholera "nostras," cholerine, etc., has existed in Egypt for some time past, and that, in many instances, the diarrhœa, which is so common and deadly, is but a form of cholera. As there are varying degrees of fever, so in like manner there are varying degrees of cholera. It may manifest itself, in an endemic or epidemic area, as a slight looseness of the bowels only, readily amenable to treatment, or as a sudden paralysis of the vaso-motor system of nerves, which may rapidly end in death, and is beyond the reach of any known therapeutic agent.

In order to obtain as much information as possible on the subject above referred to, instructions have been issued to the medical officers recently arrived from England to institute cautious and careful inquiry in the districts under their charge, and to report the results to Dr. Hunter, who, in the face of such facts as the above, considers that it is hardly worth while to discuss the oft-repeated and as often-refuted story of the importation of the disease from India into Egypt by a stoker of the steamship *Timor*, but calls attention to an enclosed report, "*Le Choléra de Damiette en* 1883, *Origine et Développement*, par Ahmet Chaffey Bey et Salvatore Ferrari." These two medical gentlemen, firmly convinced of the importation of the disease into Egypt from India, instituted an inquiry into the matter, with the full anticipation of obtaining a confirmation of their opinions. Instead of this, they are forced to the conclusion that the disease had not been so imported, and that there existed in the deplorable unsanitary condition of Damietta itself sufficient cause, as they believe, for the origin and development of the disease. To their report is added an appendix on the chemical and microscopical examination of the water at Damietta, which shows that the water drunk by the inhabitants has been in a state of putrefaction. The Nile water at Cairo was, in July, prior to the rise of the river, and at the time of the outbreak of the epidemic, also found, on being subjected to chemical and microscopical examination, to be undergoing putrefactive changes.

While this report has been under preparation, Dr. Hunter received from Dr. Ambron, and from Dr. Sonsino, statements showing that each had had under observation in Cairo a case of cholera—the former in 1867, the latter in 1873. Dr. Ambron says: "I am not quite sure of the year, but I believe it was in 1867, that I saw a case in the person of Dr. Giovanni Martini, who, being called out at night to an accouchement, wrapped himself up in a woollen scarf which he said he had used only during the epidemic of 1865. A few hours later, he was seized with fainting, then with vomiting, and had all the phenomena of cholera with the algid state, and aphony, but recovered." Dr. Ambron, like the majority of the medical men in this country, is a firm believer in the "importation theory of the disease from the delta of the Ganges;" and, unless it can be so traced, or unless he fancies it can be so traced (for, with reasoners like him, the two are identical), he blinds himself to the evidence of his own senses. It is this fixed idea of importation that renders inquiry so difficult, and causes all the believers in such a hypothesis to ignore testimony which to an unbiassed mind would be plain and clear.

Dr. Hunter encloses in his report data taken from the official returns of the death-rate in Cairo in 1881 and 1882, and from some of the hospitals visited in his tour. Dr. Sonsino supplies the following instance. "Tomaso Bonassi of Leghorn, lapidary, was seized with 'cholerine' on May 13th, 1873, and suffered from diarrhœa, vomit, algid state, and sunkenness of the eye-cavities. He recovered after twenty-four hours. In November 1874, the same man, while an invalid from an abdominal abscess (in the walls of the abdomen), was again attacked with 'cholerine,' much more severely than the first time, but recovered, and is now in good health."

Dr. Hunter also draws attention to the highly interesting atmospheric phenomena which occurred during the epidemic of 1865, and also during the epidemic of the present year. Some notice of these phenomena has already appeared in the JOURNAL. Mr. R. Borg, Her Majesty's Vice-Consul in Cairo, who has devoted much of his time to sanitary matters, informed Dr. Hunter that, "when cholera was at its height in 1865, in the capital, the sky was lead-coloured; the atmosphere oppressive, so as to render breathing rather difficult at times; and the town of Cairo, as seen from the Mokattan Hills, seemed to be enveloped in a spherical cloud of thick mist during three consecutive days." He also observed that the sparrows deserted the town, and did not return until the epidemic was on the decline. These observations have been verified by others.

Dr. Gilbert Kirker, medical officer of Her Majesty's ship *Iris*, has forwarded to Dr. Hunter some instructive meteorological data made by him during last June and July, at Port Said, Alexandria, and Damietta; a copy of these is enclosed in Dr. Hunter's report. The chart for the month of June is the more important, as it was at that time that the epidemic broke out. Dr. Kirker's views are more definitely expressed in a letter addressed to the editor of the *Egyptian Gazette*, dated Port Said, July 28th, 1883, and published in that journal on August 1st. He states that the meteorological

phenomena antecedent to and during the outbreak at Damietta may be divided into two periods. During the former period (May 28th to June 23rd), the winds were variable; many of the nights were almost or quite still and cloudless; the humidity of the air being excessive, at one time, on the 12th, 13th, 14th, and 17th of June, being at saturation-point (100); the average varying from 91 to 92; and there was no rain. In the latter period, from June 23rd to July 6th, the relative humidity was only 78 and 82, at 9.30 A.M. and 11 P.M. On June 24th, the sea-breeze was established; the wind blew during the day from the north-west, veering round towards the south-west during the night and early morning; and there were no calms.

Dr. Hunter also encloses a copy of a report made by Brigade-Surgeon McDowell, A.M.D., Sanitary Officer to the Cairo District, to the effect that, when the epidemic was at its height on July 23rd, a very peculiar condition of the atmosphere was observed—a yellowness of the air, somewhat of the nature of a fog; and it was quite calm. The sparrows, it was noticed, had deserted the place, and did not return till July 26th. On the night of July 23rd, the cholera first attacked the British garrison at Kasr-en-Nil, Abassieh, and the Citadel. It is curious to note that the Arabic phrase for cholera is "the yellow air" (el-hawa-el-asfar), and that the fact of birds deserting a place at such periods has also been remarked by the natives.

Public Health in Upper Egypt.

Dr. Haddad, writing to us from Assiout, Upper Egypt, under date of September 5th, says:

Since the month of May, many people suffered here from an illness presenting the following symptoms. In some cases, simple diarrhœa or profuse watery diarrhœa was the only symptom; in some, vomiting and diarrhœa were both present; and in a few cases, cramps and collapse were added to these two. When the evacuations were observed, they were often found to be watery, and to resemble rice-water. The great majority of patients so attacked recovered, but a few died.

During the month of May and the beginning of June, this illness was confined almost entirely to the lower classes, and hence it is very difficult to be exact as to the dates of the attacks. The following are enough, however, to prove its existence at that period.

Fatima, the mother-in-law of Abdul Rahman Effendi Numeis, the Omde of Assiout, was attacked some time about the middle of May with vomiting, diarrhœa, and cramps, attended with coldness of the extremities and blueness of the face, from which she died in about twenty hours. Her evacuations were entirely watery, and slightly whitish in colour. At this time, Abdul Rahman Effendi states that several attacks of this kind took place, some of them in his own house, but the patients recovered. This statement is corroborated by others.

Warde Ali, a woman, aged about 60, died on May 12th from a similar attack, and Fatoum Ali Ahmed on May 20th. A few men and children were reported to have also died during the same month of this same illness, but I could not make sure of them.

To this same period corresponds an event which, owing to its peculiar circumstances, is known by everyone here, and which took place in El-Wasta, a small village on the east side of the Nile, two miles from Assiout. A man named Girgis Suleiman, the Government Cashier of this village; one named Ibrahim Dacdouc, a clerk to this cashier, and a third man named Omar Taha, the Omde of El-Wasta, were all three attacked with severe vomiting and diarrhœa, with cramps and coldness of the extremities. The first-named died next day; the two others recovered, and are still alive. At first, people attributed the attacks to secret poisoning, which they always do in the case of sudden deaths from an unknown cause. This occurred long before cholera was declared at Damietta, and before it was thought of here.

About June 20th, this illness became very frequent, though not more severe than before. It prevailed among the people in general, and reached the upper classes, among whom many authentic cases can be recorded. Wisa Booktor, one of the wealthiest of the Coptic notables here, was attacked severely about June 17th or 18th. Two or three days afterwards, her daughter and her son-in-law, Aknouk Fanous, were attacked by the same illness. These people are now out of town, but this information I verified from their friends and from Dr. Mazarakis, who treated them. Between June 20th and 26th—that is, before anything could be imported from Damietta—the following persons were attacked by the same illness: Tadros Shnoude El-Monkabadi, assistant to the superintendent of the Nile steamers; his sister, Mrs. Nashal Effendy Sidry; Mr. Habib Shnoude, Mr. Tadros Minghirias, and many others. All those mentioned read the newspapers, and were astonished at their having suffered from the disease, which had not yet appeared, or was just appearing at Damietta, believing that it can be caught only by contagion.

Among the well-known and well-to-do people, the disease at this period seems rarely to have had a fatal issue; but that it was fatal in some instances the following cases prove. Abdo Butros, aged 20, grandson of the magazinier of the Government School here, died on the 15th Shokbar (which corresponds to the 20th June) from an attack of severe vomiting and diarrhœa, the case lasting one night only. Sahida, a black servant to Mr. Ayoub Hanna, died on the 11th June from an attack of severe diarrhœa with rice-water stools, the case lasting two days, and unattended with vomiting.

Besides this, the increased number of deaths during May and June of this year, as seen in the Government registers, tends to show that the mortality from this disease was greater than supposed; for, with the exception of twenty deaths caused by diphtheria during the two months, there seems nothing to account for the great mortality.

The following is a list of the comparative number of deaths during the first seven months of the last three years, as registered in Government books:

	1881.		1882.		1883.
January	98	...	116	...	85
February	71	...	77	...	77
March	71	...	67	...	91
April	71	...	46	...	91
May	75	...	68	...	120
June	60	...	72	...	116
July	63	...	71	...	113
August	86	...	70	...	167

Already in March and April the increase is noticed, while in May and June the number of deaths is double that of the two previous years.

In May, the causes of death are registered as follow:

Catarrh of the Stomach	3
„ „ Intestines	20
Diarrhœa	14
Dysentery	2
	39
Other Diseases	81
	120

In June, as follows:

Catarrh of the Stomach	3
„ „ Intestines	14
Diarrhœa	19
Dysentery	1
	37
Other Diseases	79
	116

The first case that was declared by the whole town to be cholera, was a man named Mustapha Kheir-el-Dein, the son of the chief janissary of the Moodirieh. He arrived from Cairo on July 28th, and died next day. But a great number of people had noticed by that time, or had experienced in themselves or their families, the existence of the same disease a long time before, and laughed at the idea of regarding this as the first case of cholera in Assiout, when they had experienced it three months before. Even this case is registered in the Government books as "choleriform."

It is a curious fact, that the proportion of deaths from cholera in Assiout has been very low. The number of deaths in one day has never been more than twelve; and the total number for the last four months cannot have exceeded 250. The number of attacks, however, has been enormous; at least three-fourths of the inhabitants suffered from it. I did not enter a house, or speak to a person, without finding that three-fourths, or the whole of his family, had, during the last four months, been attacked by the prevailing disease.

I cannot account for the mildness of the epidemic here. Assiout shows no lack of filth and dirt; it is not by any means in a better sanitary condition than the towns of Lower Egypt that I have visited this year, except that the Nile is freer from dead animals,

and had risen higher up here; but many neighbouring villages have suffered immensely; some are said to have been decimated by cholera. These, however, I have not visited, and cannot consequently say anything of their sanitary state.

Every observant man here testifies that diarrhœa has been a common disease here every summer for many years. Dr. Mazarakis mentioned to me the case of a man named Mohammed, whom, in the month of December last, he attended one day for diarrhœa. Next day the man ate pickles, was suddenly seized with severe vomiting and diarrhœa, with cramps, followed by collapse and death after ten or twelve hours' illness.

In the Government registers, more than the third part of the deaths are attributed, at all periods during the last five years, to diarrhœa and gastro-intestinal catarrh; but on these, I avow, no reliance for diagnosis can be placed.

[From our Special Correspondent.]

The Egyptian minister of the Interior has issued a notice to the effect that all Egyptian pilgrims must this year make the pilgrimage to Mecca by land, and forbidding them to go by sea. The reason alleged for issuing this order is that the prolonged land journey is a sure safeguard against their importing cholera into their destination either going or returning.

The British s.s. *Angelica*, with 480 pilgrims on board from Smyrna for Jedda, having remained eight days at Port Said to complete cargo, the pilgrims, annoyed at being delayed and kept in a port of a cholera infected country, petitioned the Khedive to use his influence to have them sent at once to their journey's end.

The P. and O. Company's steamer, with Sir Evelyn Baring on board, arrived at Suez on the 9th instant. It had a death from chronic diarrhœa amongst its passengers between Bombay and Suez. The surgeon of the ship declared the case "death from chronic diarrhœa." The Egyptian sanitary agent at Suez, a young medical man of no experience, refused to accept the surgeon's certificate, declared it to be a "cas suspect," and threatened the imposition of seven days' quarantine. Cherif Pasha at once telegraphed to the President of the Quarantine Board, requesting him to give immediate orders to the sanitary agent at Suez to allow Sir Evelyn Baring and suite to proceed to Cairo after twenty-four hours' delay for observation, the rule at present in vogue. The members of the Quarantine Board having been consulted, the majority voted to comply with Cherif Pasha's demand, but a considerable number were in favour of their Suez agent's opinion and action. It would have been interesting to know what the action of the minister would have been had the majority of the members been obstinate, and refused their assent to free *pratique*.

The results, so far, of the work of the Pasteur and Koch experimenters, in connection with the cholera in Egypt, have not yet been made public; but the general opinion is that, up to the present time, nothing definite has been found. M. Dutrieux has already presented his report to Cherif Pasha, of which an early copy will be forwarded us for publication.

The discussion on the German proposal to establish perpetual quarantine in the Red Sea against the whole of India has been postponed by the Quarantine Board at Alexandria for three months.

THE DEATH OF THE COMTE DE CHAMBORD.

M. Vulpian has written a very complete report of the last illness and necropsy of the Comte de Chambord, which was published last week in the *Gazette Hebdomadaire de Médecine et de Chirurgie*, after the permission of the illustrious relatives of the deceased Prince had been obtained. When twenty-one years of age, the Count was thrown from his horse, and sustained a fracture of the neck of the left femur, followed by distinct shortening, and a certain degree of atrophy of the left lower extremity. Though rendered slightly lame by this accident, his habits were very active, and his health excellent till five years ago, when, feeling inconvenienced by increasing corpulence, he underwent Banting's treatment, and lost fifty pounds' weight within a few months. This was followed by dyspeptic symptoms, not attributed, by M. Vulpian, either to Bantingism or to smoking, in which he had never indulged to excess. In June 1882, the Count went to Marienbad, suffering from chronic rheumatism and renewed increase of corpulence; but troublesome dyspepsia appeared, and Dr. Ott, his attendant, did not consider it judicious to enforce the usual Marienbad treatment on his patient. On March 22nd, this year, he was suddenly seized at Goritz with severe pain in the upper and outer part of the right leg, when stepping into his carriage; this was followed by a marked and tender swelling along the outer border of the popliteal region, apparently due to phlebitis. For several weeks, the Count was obliged to keep to his bed, when he began to suffer from loss of appetite and sensations of weight in the stomach after food. By May 20th, he was able to walk, and returned to Frohsdorf. On June 15th, he was seized with vomiting and diarrhœa, after having eaten several overripe strawberries at dessert on the previous day. On June 16th, he experienced dyspeptic symptoms, and lost much blood from internal hæmorrhoids; anorexia, nausea, frequent vomiting, and severe abdominal pain, aggravated after meals, followed, and the patient rapidly became emaciated. Dr. Theodore Mayr attended him from June 19th; the symptoms became worse, and, on June 24th, Dr. Mayr detected, on palpation, a resistant swelling in the epigastric region, to the right of the median line. Drs. Drasche, Billroth, and Mayr held a consulation on June 29th, but with no decided result. The vomiting and pain became much aggravated, but no blood was found in the ejecta, and the swelling disappeared.

By July 6th, thanks to careful symptomatic treatment, the patient's condition had improved, but only to a very slight extent, and it was thought desirable to call in a French doctor. M. Potain was sent for, but that physician, being at the death-bed of M. Parrot, would not abandon his dying colleague, and suggested that M. Vulpian should be sent to Frohsdorf. The latter arrived at Vienna on July 13th. He found the Count emaciated and weak, but in not so bad a condition as he had expected. On carefully examining the epigastrium, M. Vulpian detected a broad deep-seated swelling, extremely tender on pressure. The idea of a new growth in the stomach immediately presented itself to M. Vulpian's mind. Slight icterus and congestion of the fauces, with hoarseness, had supervened during the last few days before M. Vulpian's arrival, and the French doctor found the tongue to be aphthous. The pain after meals had almost ceased; they had always followed, not immediately, but about ten minutes after swallowing. Nutritive enemata had not been well retained; the bowels were constipated, and no polyuria had been observed. After a consultation with Drs. Drasche and Mayr, it was decided to watch the case for a few days before feeling certain about the nature of the gastric symptoms. On July 17th, the patient's abdomen was again examined, and the Austrian doctors agreed with M. Vulpian, who diagnosed cancerous deposit on the mucous membrane of the stomach, some distance from the pylorus, though, on account of the absence of hæmatemesis, Drs. Drasche and Mayr preferred to say that the cancer was in the *region* of the stomach. A distinct family history could be traced, for the Count's uncle, the Duc d'Angoulême, husband of the daughter of Louis XVI and Marie Antoinette, had died of malignant disease of the stomach. There was also evidence of fatty degeneration of the heart and atheroma of the aorta. On July 18th, M. Vulpian took leave of the Comte de Chambord. The palliative treatment, described at full length in the French physician's report, proved beneficial, but the temporary improvement and the sudden relapse are now matters of history. On August 20th, M. Vulpian was once more summoned to Frohsdorf; and just before reaching that place, a messenger informed him that the last of the senior line of the Bourbons was dead.

The Countess, acting upon the express desire of her late husband, forbade a necropsy; it was therefore decided that only the parts exposed during the process of embalming should be examined; this was done, in the presence of M. Vulpian and other doctors, by Professor Kundrat of Vienna. On opening the abdominal cavity and raising the omentum, it was then found that the tumour which had been felt during life consisted of a local thickening of the mesentery, made up of fat and a mass of hypertrophied lymphatic glands. Neither these glands nor the thickened mesenteric tissue around them were cancerous; the swelling was simply due to inflammation. The stomach was somewhat dilated; its walls were nowhere rigid, and the pylorus was normal. A thick fibrous band ran between the junction of the first and second part of the duodenum and the adjacent part of the liver. On removing the stomach, with the other abdominal and thoracic viscera, and the œsophagus, the upper part of that canal was found to be healthy, but the lower fifth was extensively ulcerated, almost in its entire circumference; the largest ulcer lay close to the cardiac orifice of the stomach. The edges of the ulcers were sharply cut or bevelled, the bases grey, showing complete destruction of the mucous membrane. The stomach exhibited the usual appearances of chronic catarrh; an inch or two from the

pylorus a few small ulcers were found, resembling some of those seen in the œsophagus. Atheroma of the arch of the aorta was discovered; but no morbid appearances were seen on examining the heart, excepting great flaccidity of the muscular structure, which was of a dark brown colour. The lungs, liver, and intestines were practically healthy; there were traces of slight interstitial nephritis in the kidneys.

Thus the diagnosis of several distinguished physicians proved to be incorrect, and M. Vulpian and his colleagues had to declare that the morbid appearances discovered at the necropsy were—ulceration of the lower part of the œsophagus and of the stomach; slight atrophy of the kidneys; atheromatous lesions in the aorta; and fatty degeneration of the muscular tissue. M. Vulpian naturally dwells on the close resemblance of the symptoms to those seen in cancer of the stomach; and the strangest feature of all, in this case, is the total absence of dysphagia or other sign indicating extensive ulceration of the œsophagus. The ulcers were decidedly not cancerous. M. Vulpian speaks at some length, but with avowed indecision, of their origin and nature; he dismisses all suspicion of poisoning, as perfectly inadmissible, though the over-ripe strawberries might have had some share in aggravating the patient's condition in the early part of his illness. M. Vulpian's report should be read in its complete form, being a most valuable and complete clinical and pathological record of a case not only of historical interest, but most remarkable in that so many of the features of cancer were present when no malignant disease really existed.

INTERCOLONIAL MEDICAL CONGRESS AT AMSTERDAM.

THE President, Dr. M. B. J. Stokvis, opened the Congress, on the 6th instant, with a masterly address, in which he paid a well-deserved tribute to the memories of Bontius, Piso, Darwin, and others, and passed in rapid review the advanced pathology of the day. In the afternoon, a paper on "Hygiène des Professions, Cultures, et Métiers Insalubres dans les Colonies" was read by Professor Amado of Lisbon; another, "Sur la Colonisation Européenne dans les Pays Chauds," by Professor van Overbeek de Meijer of Utrecht; and a third, on "Acclimatement et Acclimatation," by Dr. H. Rez of Toulon.

The forenoon of the 7th was occupied by Sir Joseph Fayrer's and Dr. Joseph Ewart's paper on (1) The Management of the Effects of Malarial Poisoning and Prolonged Exposure to Tropical Heat, (2) Congestion of the Liver, (3) Abscess of the Liver, (4) Tropical or Malarious Anæmia, (5) Progressive or Pernicious Anæmia, and (6) Consequences of Insolation and Thermic Fever as seen in Temperate Climates; by that of Dr. A. le Roy de Mericourt and Dr. Corré, on "Chronic Dysentery and Diarrhœa (Tropical) as witnessed in Moderate Latitudes"; and by that of Dr. Scriven on the "Best Method of Using Quinine Hypodermically. In the afternoon, important papers were read on "Quarantine" by Professor de Chaumont, Dr. van Leent, and M. J. A. Kruyt. The two latter, with the Spanish, Portuguese, and French delegates, who entered into the discussion, strongly advocated recourse to quarantine against cholera; whilst the distinguished author of the first paper, Dr. Timothy Lewis, and Dr. Joseph Ewart, spoke quite as emphatically on the other side; so did Sir Joseph Fayrer, who had the opportunity of continuing the discussion on the following day.

As the subject of quarantine is engaging the attention of the continental powers at the present time, we give below a condensed summary of the speeches by Lewis, Ewart, and Fayrer.

Dr. TIMOTHY LEWIS referred to his appointment to India, upwards of fourteen years ago, in conjunction with his colleague, Dr. Douglas Cunningham, for the special purpose of investigating the subject of cholera and its causes. The speech, which was manifestly quite impromptu, was delivered with great effect, and produced a marked impression on the meeting. It would not be possible, within our limits of space, to give a verbatim report of this effective and eloquent speech; but as it will, in due course, appear in full in the *Transactions* of the Congress, this seems unnecessary. He stated, however, that he had never seen any evidence of the contagiousness of cholera. He argued, therefore, against quarantine.

Dr. EWART had seen the disease, both in its endemic and epidemic forms, in Lower Bengal and the North Western Provinces. Between 1863 and 1876 he saw it almost daily in Calcutta, in one or other of its great hospitals. Students, medical staff, nurses, and ward attendants enjoyed wonderful immunity: so did the sweepers who removed the discharges, and the washermen who washed the clothes and bed linen. He believed that it spread much like dengue and influenza, and that it would be as useless to attempt to prevent its propogation by quarantine, as it would be to limit, by the same measure, the prevalence of these diseases in their epidemic forms, or the east wind. The best plan of managing an epidemic is to remove the sick to a healthy locality, where the principles of hygiene and sanitary science can be promoted to the utmost extent. This is the method adopted in India, with the happy result of invariably restricting the dissemination of the disease. Quarantine, which at the best is only a poor apology for bad sanitation, is in no way attempted, because experience in India, as recently in Egypt, has proved to be as useless and unnecessary as it is injurious, cruel, and impossible.

Sir JOSEPH FAYRER, whilst glad to hear opinions and arguments on the other side, had never, during his whole service in India, observed anything which tended to show that cholera was in the least contagious or infectious. He had seen the disease as an endemic and an epidemic, and in both he had arrived at the conclusion that the physicians, students, nurses, ward-attendants, sweepers, and washermen, all, according to his experience, enjoyed even more than usual freedom from attack—apparently a greater immunity than a corresponding number of the general population. He was, therefore, opposed to quarantine, as being superfluous, and, when rigorously enforced, calculated to inflict great risks upon the affected, and much hardship and danger upon numbers of previously healthy and unaffected persons.

On the 8th, Surgeon-General Becking and Dr. Dyce Duckworth read interesting papers on the education of medical men for the colonies. The President read Dr. Chevers's paper on the Modifications which Certain Diseases, and especially Infectious Diseases, undergo in Tropical Climates; and that of Dr. E. Waring on Some Indigenous Drugs of Tropical Climates. Dr. Gori read a paper on the Transport of the Sick and Wounded by Railways in Tropical Climates.

The Reception Committee and the Municipality spared no pains in entertaining the foreign delegates. Thus were enjoyed a rapid succession of excursions, banquets, visits to the opera, the various picture-galleries, and one of the best geological collections in the world. The hospitality was unbounded. The British representatives—viz., Sir Joseph Fayrer, and Drs. Ewart, Lewis, Cutts, Jones, Duckworth, and Scriven—had the pleasure of receiving a large party of the most eminent members of the Congress at a banquet which was highly appreciated. In the happiest manner, the proceedings were followed by an excursion, in fine weather, to Leyden, the Hague, and Scheveningen, the Brighton of Holland. Thus ended one of the most successful and instructive scientific gatherings we ever attended.

This is, we believe, the first Intercolonial Medical Congress that has been held. It was conceived, inaugurated, and carried out with great success, by the medical profession of one of the most ancient and extensive colonial powers, in a spirit worthy of all praise; and we hope that England will, in due course, follow the example of our excellent Dutch friends in this important matter.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1883: ELECTION OF MEMBERS.

A MEETING of the Council will be held on Wednesday, October 17th. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., September 26th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

September 18th, 1883. FRANCIS FOWKE, *General Secretary*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 17th day of October next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, September 16th, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS and explanatory memoranda for the inquiries concerning Acute Pneumonia, Chorea, and Acute Rheumatism, can be had by application to the Honorary Secretaries of the Local Committees appointed by the Branches, or to the Secretary of the Collective Investigation Committee. Of these diseases, each member of the Association is earnestly requested to record at least *one ordinary case* coming under observation during the year.

Inquiries concerning Diphtheria and Syphilis have been prepared, and can be had on application by those willing to contribute information on these subjects. There are two cards on Diphtheria, one containing clinical, the other etiological inquiries, together with an explanatory memorandum. One of these cards is intended to serve as a guide to the systematic examination of a house or district for sanitary purposes. There are also two sets of inquiries concerning Syphilis, one for acquired, the other for inherited, disease. These are accompanied by an explanatory memorandum giving information concerning the most recently observed symptoms of the inherited disease.

A card and memorandum on Acute Gout is now ready, and may be had by application as above.

All these inquiries will be continued during the present year.

Applications, etc., to be addressed

The Secretary of the Collective Investigation Committee
161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

MIDLAND BRANCH.—A meeting will be held at the New Bath Hotel, Matlock, on Thursday, September 27th, 1883. Members having papers to read or matter to discuss will please communicate with Mr. SHARP, Honorary Local Secretary, 61, Osmaston Street, Derby.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will be held at Wellingborough, in the first week in October. Gentlemen desirous of reading papers or exhibiting specimens, etc., are requested to communicate with the Honorary Secretary at their earliest convenience.—G. F. KIRBY SMITH, Honorary Secretary.

NORTH OF ENGLAND BRANCH.—The autumnal meeting of this Branch will be held at West Hartlepool on Friday, September 28th, 1883. Gentlemen intending to read papers, show specimens, etc., are requested to communicate as soon as possible with the Secretary.—DAVID DRUMMOND, M.D., Honorary Secretary, 7, Saville Place, Newcastle-on-Tyne.—September 1st, 1883.

READING BRANCH: ANNUAL MEETING.

THE annual meeting of the Reading Branch was held in Reading on September 12th.

President's Address.—Dr. WELLS, the President for the year 1883-1884, delivered an able address, the purport of which was to show that in chronic diseases there exists in the human system a natural power of adjustment, which is able to modify the injurious influence of the disease upon the health of the body; that in these cases medical treatment, if directed specifically against the disease, frequently acts detrimentally to the patient; that it does so because it interferes with those processes which nature, if left to herself, sets up; that in these instances it is the best treatment to forget the disease and think only of the patient, by attending to the general health and by removing such obstructions as might otherwise lie in nature's path.

President and Council.—Subsequently, G. E. Moore, M.B.London, M.R.C.S.Eng., was chosen President-elect; and the executive for the year was elected.

SPECIAL CORRESPONDENCE.

MANCHESTER.

New Eye Hospital.

THE building, for which an excellent site has been secured at the junction of Oxford Street with Nelson Street, Manchester, is intended to accommodate 100 in-patients, and will have the extensive arrangements requisite for the daily attendance of about 400 out-patients.

The administration, which contains suites of apartments for the resident medical officer and the matron, board-room, secretary's room, and rooms for the medical staff, together with a spacious dining hall, occupies the ground floor of the Oxford Street frontage. The out-patients' department extends along Nelson Street, and has a spacious waiting hall, registration hall, examination room, and dispensary.

The wards, on the pavilion principle, will accommodate 60 males and 40 females, with all the requisite nurses' rooms, baths, and water closets fitted up on the most modern and approved manner. The wards are 25 feet long, and are divided longitudinally by dwarf wooden screens. Isolated wards are provided for infectious cases, and spacious day-rooms are arranged contiguous to the wards, with airing courts available in fine weather. The corridors are sufficiently wide, and are intended to be used as ambulatories in inclement weather. A space of one thousand three hundred cubic feet is allowed to each patient in the dormitories. The kitchen, stores, and servants' hall are in the basement, and the laundry is a detached block in the rear of the main building. The operation room and the examination hall have each due north and top-lights. The nurses' sleeping rooms are quite separate from those of the servants, on the second and third floors respectively.

The building has been designed in a simple, yet, from its varied outline, effective style of Free Classic architecture, and will be built of red brick with red-tiled roof, sash windows with transoms, and movable fanlights, glazed with toned glass, in all the rooms used by the patients. The joiners' work will be varnished throughout, and all the corridors and staircases will be of fireproof construction. The architects are Messrs. Pennington and Bridgen, of Manchester, who executed the recent alterations and additions to the Royal Infirmary, and also built the Hospital for Sick Children at Pendlebury. The work is to be proceeded with at once, and the hospital is expected to be completed by the end of next year.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE BATH MINERAL WATER HOSPITAL.

THE value of this institution becomes more and more appreciated, and the number of applicants for admission increases every year. During the past year, 1,280 patients were admitted. Many of the cases were of rather a chronic character, and required long periods of treatment; but it is interesting to learn that a larger number of patients pass through the hospital annually since alterations were made whereby they were enabled to remove into fresh and cheerful day rooms, and to return at night to well-ventilated bedrooms. It is now thought that if a room for recreation were added to the institution, and the patients not allowed to go beyond the precincts during their stay, thus obviating the temptation to visit public-houses, a still larger number would be benefited. The committee have, therefore, offered to purchase the adjoining premises known as "The Sedan Chair Inn," with the view of converting them into pleasure-grounds and recreation-rooms for the patients.

LONDONDERRY COUNTY INFIRMARY.

DURING the past year 674 patients were admitted, which with 57 remaining in hospital from the previous year, made a total of 731. Of these, 640 were cured or relieved; 32 died; and 59 remained at the close of the year. Seventy-five operations were performed, 27 dislocations and sprains were attended to, and 64 fractures treated without a single death; facts which speak well for the skill and attention shown by the surgeon—Sir William Miller, M.B.—attached to the infirmary. The year closed with a slight balance against the institution; and it is to be regretted that Hospital Sunday should not have succeeded so well in Londonderry as in other places, as we learn from the report that only one church had a collection (amounting to £20) in aid of the funds of the hospital. This is a circumstance to be regretted, and we trust that a different result may take place this year. Several students attended the clinical practice of the hospital; and there is little doubt that a considerable amount of experience can be obtained in the Londonderry and other infirmaries scattered throughout Ireland.

ST. ANDREW'S HOSPITAL, NORTHAMPTON.

ST. ANDREW'S LUNATIC HOSPITAL, Northampton, contained, on December 31st last, 312 patients, 155 males and 157 females. The patients of each sex are, it seems, divided into two classes, according to rates of payment for board; and each class is divided into three grades, according to the traits of mental disease exhibited.

A considerable number of patients are received at reduced rates of board, but the charitable operations of the hospital admit yet of great extension; and it is to be hoped that, in the march of improvement, the benevolent purpose of the institution will not be lost sight of. Suitable accommodation for insane patients of the affluent classes can always be easily procured without the intervention of a public hospital like St. Andrew's, and the special and inestimably useful mission of such an establishment is to afford care and treatment to lunatics of the professional and middle classes who have been made indigent by their disease, or who possess only small means, insufficient to meet the charges of good private asylums, but who at the same time are so educated and refined, that it is a cruel aggravation of their sufferings to place them in pauper asylums. Mr. Bayley, the Medical Superintendent of St. Andrew's Hospital, who is, we are glad to see, handsomely remunerated—his salary being £1,200 a year, with unfurnished residence, coals, gas, and vegetables, and £300 a year invested to form a superannuation fund—reports that the sanitary condition of the hospital continues to be very satisfactory; typhoid fever, which occurred almost annually for so long, having quite disappeared since the new system of drainage was established about five or six years ago. The Commissioners in Lunacy and Lord Chancellor's visitors now visit the hospital twice in the year, instead of once, as heretofore.

HOSPITAL FOR WOMEN AND CHILDREN, CORK.

THE annual meeting was held recently, presided over by the Lord Bishop of Cork. There were upwards of 1,600 patients tended during last year, of whom 218 were interim cases, while 5 deaths took place. The great majority of those admitted to the wards were received free of charge, and the remainder paid sums averaging from two shillings to a guinea per week. The total expenditure amounted to £645 19s. 8d., leaving a balance in hands of £151. It was decided at the beginning of the past year to double the fee paid by the lady probationers; but this increase has not interfered with the number of applicants for the post of nurses, thus showing the high opinion in which the instruction given to the probationers in the hospital is held, and also affording a considerable increase in revenue. An effort was made by the Board last year to amalgamate the institution with the South Infirmary, but, after careful consideration, the suggestion was declined by the trustees of the Infirmary. The Board therefore feel that, much as they object to the unnecessary multiplication of charitable institutions, they are justified in continuing to carry on the hospital as a separate undertaking, and they trust before long to be able to move into a larger and more commodious building, when they will be in a position to meet the increasing demands on their space, particularly in the case of children, numbers of whom have daily to be refused admission, owing to want of room. Already nearly £1,200 has been obiained for building a new hospital, but fully a £1,000 more will be required for that purpose. Dr. Macnaughton Jones having tendered his resignation, the following resolution was adopted by the Board. "That we cannot accept the resignation of Dr. Macnaughton Jones, as consulting-surgeon to this hospital (the establishment of which in this city is in a great measure due to him), without expressing our warm acknowledgment of the skill, care, and attention which he has always bestowed upon the patients; and whilst we regret his severance from this institution, we wish him, in the more extended sphere of operation to which he is about to remove, the success which his philanthropy, and his eminent skill as a physician and surgeon, so well deserves." Dr. N. J. Hobart succeeds Dr. Jones as consulting-surgeon. Of the five deaths, one was from suicide, and was that of a woman in great mental depression, who was found dead in her bed, having choked herself by forcing a stocking into her gullet. The case was reported by a member of the medical staff in the JOURNAL as an unusual method of committing suicide, but five similar cases have been published which occurred in other parts of the United Kingdom.

THE DEVONSHIRE HOSPITAL, BUXTON.

DURING the half-year ended June 30th last, 958 patients were admitted to this hospital, an increase of nearly one-third over the number of patients received during the first half of 1882. Of this number, 658 are reported as having been discharged improved in health, 39 as no better, and 251 remained on the books on June 30th. Post-cards, received from the patients six weeks after their return to their homes, stated that 324 cases had improved, 139 were no better, and two had died. The great majority of the 958 in-patients treated were suffering from rheumatism, for the cure of which the Buxton thermal waters are specially renowned. Altogether, 727 rheumatic cases were treated, with the following results. Of 43 very bad cases, in which on admission locomotion was impossible, the joints severely deformed and crippled, and the general health undermined, 14 were discharged without apparent benefit, 29 received varying degrees of relief, and six made complete recovery. In two instances, the patients could neither stand nor walk on admission; and, at the time of discharge, were able to walk three miles without discomfort. In a second group of 268 cases, differing only in degree from the first, all were discharged after having received much benefit; and, in a third group of 326 cases, in which rheumatism had not become pronouncedly chronic, nor produced much danger to the articular structures, "the curative process was rapid, the benefit marked, and, except when intercurrent complications existed, lasting benefit was realised." The remaining 90 cases contained cases of lumbago, muscular rheumatism, etc., occurring in advancing life; but, "even in these cases, the amount of relief was satisfactory and encouraging."

The correspondent to whom we were indebted for the description of the hospital which we published on March 17th last, writes, after a second visit made recently, to state that he observed, on a renewed inspection, a number of improvements in the management and appearance of the institution since his first visit, though of necessity the structural defects remain as he described them. He is confirmed, by interviews which he had with leading residents of the place, in the opinion already expressed as to the folly and wastefulness of attempting to adapt stables for the purposes of a hospital, or convalescent home, as it might more properly be called. He finds a remarkable abstention from the board meetings of the five medical men of the place, who are on the committee of management, which he regards as evidence that all is not so *couleur de rose* as the chairman believes and writes. He thinks it would be a wholesome rule, that no one should have a seat on the committee who is in any way concerned in any bargain or contract entered into with the committee. Finally, he is of opinion that money would be better expended over improving the present insufficient and badly placed natural bath, and bringing the thermal water within the hospital precincts, than in ornamenting the structure with an illuminated clock, no matter at whose expense this is being done. He points, with much satisfaction, to the inauguration of an excellent library for the use of the patients; but notes with regret that the arbitration case, as to the balance of £3,000 claimed by the contractor for the extensions, still remains unsettled.

PRIVATE DISPENSARIES.

SIR,—Your correspondent "P. D." has evidently misunderstood the purport of my letters. I see no objection whatever to clubs where there is a properly organised society for the benefit of the clubmen's wives and children, who can thus be attended at their own homes for five shillings weekly, or at the surgery of the club medical officer they choose to select out of several (not being restricted to one in particular), at two shillings and sixpence per week; but with this proviso, that membership should be restricted to families where the husband and father is not earning more than thirty shillings per week; moreover, that the medical officer should not receive any remuneration direct from the patients, but through the medium of the secretary of the club. I, for one (in fact, every respectable medical man), would scorn the idea of having a place calling itself a dispensary (a name I disapprove of in itself) which is simply a private "speculation" in disguise; still more so, the unworthy expedient of sending out handbills as decoy-ducks, a practice which sinks its perpetrator to the level of a contemptible quack. But that societies such as I have described above *do* exist is exemplified by the South-Eastern Medical Aid Society, which is in process of establishment in Bermondsey, to counteract the delusive provident dispensary practice so ably set on foot by well-meaning but mistaken people.

May I add a word or two of enlightenment for my worthy friend "P. D."? Poverty is really *not* a disgraceful crime, nor can the honourably unfortunate lose self-respect in receiving parish relief, to which they have in their time contributed, and which they consequently may claim as a right. I should feel no disgrace in such unfortunate straits by accepting public assistance devised for the mutual help of society. We may *all* of us ("P. D." included), by the dispensation of Providence, be driven to the workhouse, and yet have no cause to feel ashamed of it.—I remain, sir, yours obediently,

47, Jamaica Road, S.E. J. BRINDLEY JAMES.

PRESENTATION.—Mr. F. Workman has been presented with a silver salver and a case of amputating-instruments by the members of the Reading Pathological Society. The salver bears the following inscription: "Presented to Francis Workman, Esq., M.R.C.S.E. and L.S.A., September 12th, 1883, by members of the Reading Pathological Society, as a mark of their respect and esteem, on the occasion of his leaving Readiug for Australia."

MRS. WILLIAM OVEREND of Retford has given £10,000 to the Sheffield General Infirmary, to be invested, and the income applied in sending convalescent patients to sanitaria.

MILITARY AND NAVAL MEDICAL SERVICES.

COMBATANT AND MEDICAL OFFICERS OF THE ARMY.

SIR,—Your recent leading article on "the Combatant and Medical Officers of the Army," opening up the undoubted estrangement between them, embraces a subject all important in the future of the service and the department.

There are three prominent features apparent in the evidence of Lord Morley's Committee: the marked animus shown by members of the combatant branch, no less seen in the unworthy accusations by the general commanding, than in the paltry narration of grievances by the more junior officers; the wish to burden the system and administration with the blame, while exonerating the executive officers; the absence of all attempts to assist the department in what were regarded as shortcomings. And with these facts now officially recorded, how can good feeling from medical officers, content, or a "loyal feeling towards the combatant branch," exist in view of the animus, injustice, and unfriendliness exposed, to a degree which few of us thought possible, and which so markedly strike the outside professional mind? The estrangement cannot be ignored, and no doubt you have gone very closely to the root of the question in your quotation from an appended paper, in which subordination of the medical element to the combatant element is the keynote. But the discord is of old date, and inseparable from the relations of one to the other. Under the regimental system, surely no one who had personal experience of it, and observed, but must have seen and felt that the pleasantness of the relation was essentially dependent on the degree to which one's personality was restricted to social and professional points; let such points as precedence in accordance with rank, a voice in mess or band matters proportionate to contribution, choice of quarters, etc., be raised; and, in the majority of instances, the doctor was made to feel his dependent position.

Personal suppression and subordination were the gist of this system, and there was always a feeling of antagonism (varying in degree in corps, and latent or active according to circumstances) between the two segments, probably due to the autocratic element in the combatant, as opposed to the independent professional element in the medical, and a feeling in the latter that he was not placed in a position worthy of his status and calling. Unfortunately, the medical branch came in for more than its proper share of this caste jealousy, owing to its points of contact with the combatant branch being so much more numerous, close, and constant.

With the departure of the regimental system, commanding officers saw their power over medical officers waning; and just in proportion as the bonds have been loosened has the feeling of antagonism against existent conditions increased, until now a determined stand has been made, from the Commander-in-Chief downwards, to bring back the old state of affairs by "hook or by crook." Caste prejudice is the active principle, and the process is essentially a struggle for emancipation of a section of a professional class from the trammels of another class to whom love of authority is one marked characteristic. It is well to face honestly the position; friction there always will be, but we can neither expect help to carry out our work, nor justice to our efforts, from the combatant branch; it remains for us to be true to our professional calling, and to work in hope that time may tone down the existing animus.

What the department wants is to carry out unfettered its special work, and all that hinges on it, in the service, not for a section merely, but for the whole army, in loyalty to the State, whose servants we are, and supervised by competent seniors of our own calling; and it is for the State now to determine whether this natural arrangement shall be the outcome of the present inquiry, or the wheel of progress be reversed, and a more or less complete return to the old system be enforced. If the former, a responsible and heavy burden will be laid on the departmental head in making the system complete and workable, and also in the selection of men for the higher grades; not promoting for mere seniority, office work, or favouritism, but choosing those who, with administrative capacity, will command the professional respect of the juniors. If the latter, friction will be increased for present members, and in proportion to professional worth, while probably few good recruits wi offer themselves for vacancies; and it is not easy to perceive how the true fighting unit—the private soldier—can benefit by that or any similar arrangement.—I am, sir, etc.,

AN OLD SURGEON-MAJOR.

DR. CRAWFORD, the Director-General of the Army Medical Department, accompanied by Sir James Hanbury, K.C.B., lately made a minute inspection of the Herbert Hospital, Woolwich. He inquired very closely into the arrangements for the comfort, nursing, and treatment of those seriously ill, with which he was pleased. He complimented Brigade-Surgeon O. Barnett (medical officer in charge), on the clean and cheerful appearance of the wards. The present heavy unsuitable working clothing of the Army Hospital Corps, and packing of medical stores for dispatch in any future expedition, formed subjects of discussion.

MAJOR-GENERAL THE HON R. MONCK, commanding the Chatham District, lately presented the decoration of the Royal Red Cross, which had been conferred by Her Majesty on Miss King, one of the nursing sisters at the Military General Hospital, Chatham, in consideration of the unwearied devotion displayed by that lady in nursing the sick and wounded during the campaign in Egypt. The presentation was made at Fort Pitt Hospital, to which Miss King is attached, in the presence of the whole of the officials at that establishment, the patients now in hospital, and a number of the officers and ladies connected with the garrison. Major-General Monck, in making the presentation, highly eulogised the devotion and kindness displayed by Miss King in carrying out her duties.

THE Queen has granted to Surgeon-Major Francis Bramley Baker, Grenadier Guards, late senior medical officer of the brigade of Guards in Egypt, Her Majesty's royal licence and permission that he may accept and wear the Insignia of the Third Class of the Order of the Medjidieh, which His Highness the Khedive of Egypt has been pleased to confer upon him in recognition of his services during the recent operations in that country.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

WEARDALE RURAL DISTRICT.—There is little medical interest in this report, which refers to the Stanhope and Newlandside division of the union, and which has only a population of 2,993 persons. The report, however, is methodically arranged; and in this respect Mr. Arnison sets an example to health officers of larger and more extensively populated districts. During 1881 there 95 births and 53 deaths registered, representing rates of 31.7 and 17.7 per 1,000 respectively. Sixteen deaths were those of children under five years of age, while 18 occurred in people above 60. The district was remarkably free from zymotic disease, there being a total absence of small-pox, measles, scarlet fever, and diphtheria. Diseases of the respiratory organs caused 11 deaths, against 8 in the previous year, a result probably due to the inclement weather.

MID-WARWICKSHIRE.—Dr. George Wilson's reports are always good and practical. He gives just what information is required, without undue brevity or undue prolixity. Not the least interesting portion of his report for 1881 on this combination of sanitary authorities is that devoted to an analysis of the zymotic mortality registered during that year. The total number of deaths attributed to the seven principal zymotics amounted to 152, representing a death-rate from these causes of 1.5 per 1,000, compared with 1.8 for the previous year, and 2.24 for the whole of England and Wales. But four cases of small-pox came to notice, all of which recovered, and fortunately there was no spread of the disease. Measles was prevalent in several parishes in the Rugby and Southam Rural Districts, and in all caused 11 deaths. Scarlatina was more or less prevalent, there being altogether 50 deaths, 21 of which occurred in the Rugby Rural District. In order to prevent further spread of the disease, especially in scattered country districts, Dr. Wilson gave certificates to close the schools in several instances; and in all of them the malady was checked, and, after a comparatively short time, stamped out. Four deaths were attributed to diphtheria, all of which occurred in the Solihull district, two of them being scattered cases, and not connected with a special outbreak. The other two were connected with a limited outbreak of the disease which originated in a neighbouring sanitary district, and was spread through the agency of a school. When the outbreak became known, the school was promptly closed, and no fresh cases occurred. Whooping-cough was somewhat prevalent in almost all the districts, and caused altogether 34 deaths. The deaths attributed to fever, chiefly typhoid, amounted to 16, and 8 of these, or one-half, occurred in the Rugby Rural District, 5 of them being connected with an outbreak which happened in the village of Long Lawford. Dr. Wilson states that this outbreak was originated by bad drainage and privy-nuisances close to houses, and was spread by infection, and in some instances by polluted well-water. The deaths attributed to diarrhœa were comparatively few, and 24 of the total of 33 occurred among children. The other mortality statistics call for little comment. The total births, 2,814, and the deaths, 1,606, registered during the year, represented rates of 28.2 and 16.0 per 1,000 respectively, compared with a death-rate of 18.5 during the previous year. For 1881, this rate was further reduced to 15.4 on deducting the deaths of persons not belonging to the combined district in public institutions. The rate of infantile mortality, measured by the proportion of deaths of infants under one year to births, was 104 per 1,000, compared with 124 for the previous year, and 130 for the whole of England and Wales during 1881; and, as regards the several districts, it varied from 90 per 1,000 in the Warwick Urban and Solihull Rural Districts to 128 in the Rugby Rural District. Sanitary improvement progresses; and Dr. Wilson reports, amongst works of a public nature which have been carried out during the year, the completion of the outfall works at Southam, by which the sewage is now diverted from the river and utilised on land. Considerable improvements in the drainage of the towns of Warwick and Rugby have also been carried out, and the extensive drainage-arrangements of Kenilworth were nearly finished at the close of the year.

During 1882, the only outbreak of infectious disease which threatened to assume serious dimensions, was an outbreak of typhoid fever, the circumstances of which have already been referred to in these columns (see BRITISH MEDICAL JOURNAL, June 9th, page 1136). The total number of deaths attributed to this disorder in the combined district, during the past year, amounted to 17, and, with the exception of five, all of them were traced to the use of polluted well-water. The death-rate from zymotic causes was low, varying from .9 per 1,000 in three of the districts, to 1.7 in Rugby, while the total zymotic death-rate for the whole area only amounted to 1.2 per 1,000, compared with a rate of 2.64 for the whole of England and Wales. The rate of infantile mortality, measured by the proportion of deaths of infants under one year to births, was also exceptionally low, being only 96 per 1,000, compared with a mortality of 141 per 1,000 for the whole of England and Wales. This rate varied from 125 in Warwick, where the birth-rate is high when compared with the other districts, to 69 in Milverton, where the birth-rate, as in Lillington, is always exceptionally low. The total deaths from all causes represented a death-rate of 15.8 per 1,000.

NORTH WITCHFORD RURAL DISTRICT.—An analysis of the zymotic prevalence in this district occupies a considerable portion of Mr. Stephens's report. Scarlatina was very prevalent in Benwick, a village situated on the Nene, where there were no fewer than 137 cases, 5 of which terminated fatally. The epidemic is reported as having been in a great measure brought about by the annual "revel" held in July, and the malignant character given to those cases on the banks of the river (4 deaths occurring among a total of 15 such cases) by the operations for cleansing it. Several feet of slush were thrown from the bed of the river on its banks, and, while drying, must have emitted a great deal of vapour laden with decomposing organic matters and germs of a septic nature, which, on mingling with the scarlatinal poison, gave a malignant character to the disease. The presence of measles in a mild form led to the closing of the board-schools, and the abatement of the malady. Excluding the deaths which happened in the workhouse, the mortality represents an annual rate of 14.7 per 1,000 of population. The health-officer comments on the absence of means for isolating cases of infectious disease, and reminds his authority that disinfection, however thoroughly carried out, cannot afford sufficient protection to the district from the incursions of infectious disease.

PORTSMOUTH.—A considerable portion of Dr. Sykes's interesting report is occupied with an account of the severe outbreak of diphtheria which visited Portsmouth during 1881. In all, there were 205 deaths registered, a mortality from this cause probably unprecedented in the annals of the borough; although since 1861 there has never been a year without more or less mortality from diphtheria, the average number of deaths annually having been 15.3 for the twenty years 1861-80. During the years 1877-78 and 1879, the disease seems to have been comparatively quiescent, as there were only 5, 1, and 4 deaths for these years respectively. Up to June 11th, in the year 1880, no death was recorded from diphtheria, but on the 12th of that month a child died which had been removed from Park Lane to the temporary fever hospital. This was followed by no case in its immediate neighbourhood for over twelve months. On July 12th a death occurred, but no other death took place until October 23rd. This latter seems to have been the starting point of the epidemic. Dr. Sykes gives a detailed account of the subsequent spread of the disease, and appends an excellent map, showing its progress in the various portions of the borough. A careful inquiry was made into the milk and water-supplies, but neither of these seemed to have been concerned in the epidemic. Indeed, Dr. Sykes admits that its origin is enveloped in obscurity; there were no special unsanitary conditions appertaining to the neighbourhood in which it first appeared, nor did it differ in its general conditions and surroundings from a very large portion of the borough. The subsequent spead of the disease Dr. Sykes attributed (*a*) to the natural carelessness and curiosity of neighbours visiting infected houses, and taking the disease home to their own children; and (*b*) to the congregation of large bodies of children together in schools. This last cause was undoubtedly responsible in a great measure for the widespread nature of the epidemic. One of the most serious obstacles felt by the authority in coping with the epidemic, was their inability to obtain information of fresh cases of the disease, and Dr. Sykes urges the importance of the Town Council obtaining compulsory powers for the notification of infectious disease. It is obvious, as Dr. Sykes points out, that, with the best hospital in the world, and with the most energetic officers, if information of disease cannot be obtained before the death from it is registered, and probably several more individuals in the same house are already attacked, the whole sanitary organisation, as regards a certain class of disease, must necessarily fail. Zymotic diseases were fatal to 436 persons, and despite the increased mortality from diphtheria, this number was slightly below the average of the ten years 1871-80. Notwithstanding the constant communication between Portsmouth and other districts where small-pox was prevalent, the borough was free from the disease, and there were but few deaths from measles or scarlet-fever. Whooping-cough was somewhat prevalent, but the mortality from "fevers" and diarrhœa was below the average. The death-rate from zymotic causes represented 3.4, and the general death-rate 19.59, per 1,000.

MERTHYR TYDFIL.—Dr. Dyke's excellent report deals chiefly with the extensive outbreak of scarlet fever which prevailed in the district during 1881. In the first quarter of the year, there were four deaths assigned to the disorder; in the second, 21; in the third, the number rose to 68; and in the fourth, to 148. The spread of the disease seems to have been due in a great measure to the congregation of large numbers of children at public schools, and on this point Mr. Dyke gives some interesting figures. Of the total deaths (251), no fewer than 237 occurred in children under ten years of age. The average age of children attending infant-schools was from $3\frac{1}{2}$ to $7\frac{1}{2}$, and the number of those who died from scarlet fever at that range of age was 84, that is, 17 per 1,000. Mr. Dyke was energetic in his efforts to secure the closure of the public schools, but his advice was, unfortunately, but tardily accepted. The Caedraw schools were closed on October 7th; within the first week from that day, one child, and in the second week two children who had attended these schools in the week ending October 8th, were taken ill, and these were the only cases of Caedraw Board School children reported to be suffering from scarlet fever during the month the establishment was closed. At Penydarren, there were 16 cases of fever reported during the week ending on the day when the schools were closed, and, in the first week of the closure, 34 new cases were reported; in the second, 12. Of the 34 cases, Mr. Dyke ascertained that 18 were those of children residing in infected houses, 6 were attending other schools, and the remaining 10 may either have been infected from other children or at the schools. Apart from the large fatality from scarlet fever, the mortality statistics call for little notice. Scrofulous diseases of the brain, lungs, and intestines occasioned 190 deaths, a number largely in excess of that reported for the two preceding years. There were but few deaths from diarrhœa, the death-rate from that disease being only 0.22 per 10,000, while in previous years it has been as high as 11.2 per 10,000. Heart-disease was fatal to 100 persons, and chest-diseases to 242. Altogether, the total number of deaths recorded in the district amounted to 1,355, representing a rate of 27.6 per 1,000. Mr. Dyke concludes his report with a brief review of the sanitary condition of the district, which is far from satisfactory. A large number of houses are unfit for human habitation; and, until the authority use the powers given by the Artisans' and Labourers' Dwellings Act, nothing can be done to remedy the original evils of construction of the back-to-back and other unventilated and unhealthy houses.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending 15th inst., that the mean death-rate was recently equal to 33.4 in the three principal Indian cities; it was 21.1 in Calcutta, 36.3 in Madras, and 36.8 in Bombay. In Bombay, 86 deaths from cholera were reported, and 45 from small-pox in Madras, while 134 fatal cases of "fever" were returned in Bombay. According to the most recent weekly returns, the average annual death-rate in twenty-three European cities was equal to 25.2 per 1,000 of their aggregate population; this rate was 5.9 above the mean rate last week in twenty-eight of the largest English towns. The rate in St. Petersburg was 23.8; the 424 deaths included 90 from diarrhœal diseases and 20 from "fever." In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate was 20.4, the highest rate being 22.9 in Stockholm: whooping-cough caused 4 deaths in Copenhagen, and scarlet fever 2 in Christiania. In Paris, the death-rate was 24.1, and the deaths included 54 from typhoid fever and 23 from measles. The 198 deaths in Brussels were equal to a rate of 25.9 per 1000, and included 6 fatal cases of small-pox. In Geneva, the rate of mortality was equal to 17.1 per 1000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 19.9, the highest rate being 20.4 in Amsterdam,

where a death from small-pox was recorded. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 27.1; it ranged from 21.3 in Hamburg and 22.3 in Vienna, to 31.6 in Trieste and 31.9 in Breslau. Diarrhœal diseases showed considerable fatality in Berlin, Breslau, and Vienna; measles caused 11 deaths in Munich, and small-pox 9 deaths in Prague. In the principal Italian cities, the death-rate averaged 26.7 per 1000; it was equal to 23.3 in Turin, 24.5 in Venice, and to 30.5 in Rome, where 12 deaths from measles were recorded. The 121 deaths in Lisbon were equal to a rate of 31.6, and included 4 fatal cases of typhoid fever. In four of the principal American cities, the death-rate averaged 25.9, and ranged from 23.0 in Philadelphia, to 25.2 in New York and in Brooklyn. Diarrhœal diseases continued to be fatally prevalent, and caused 143 deaths in New York and 93 in Brooklyn; 16 deaths were referred to typhoid fever in Philadelphia, and 9 to scarlet fever in Baltimore.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 13th, 1883.

Greenwood, Cecil Danforth, Offerton Road, Clapham.
Honan, Lynton Michael, High Street, Clapham.
James, Henry Daniel, Woodland Terrace, Babbicombe, South Devon.
Passmore, George Shapland, North Radworthy, North Molton, North Devon.
Richards, William, Bath Row, Birmingham.

The following gentlemen also on the same day passed their Primary Professional Examination.

Dovaston, Milward Edward, University College.
Lewis, Jenkyn, London Hospital.
Vernon, Frederick William, London Hospital.

At the Preliminary Examination in Arts, held at the Hall of the Society, on September 13th, 14th, and 15th, 128 candidates presented themselves; of whom 85 were rejected, and the following 43 passed, and received certificates of proficiency in general education.

In the First Division—None.

In the Second Division, in alphabetical order, viz.

Edward Buller Allan (E.M.), Valentine Evelyn Barrow, Louis Beckett (E.M.), Daniel Booth (E.M.), Ivan John Howard Boyton, Graham Wilmot Brooke (E.M.), Frank Calder (E.M.), Percy Tranto Carpenter, William Burwell Darroll, Frederick Arundel Dene, George Tolcher Eccles (E.M.), William Henry Frederick Godwin (E.M.), Arthur Stephen Hanson (E.M.), Henry Hamilton, William Edmund Hardy (E.M.), Richard McDonnell Hawker, George Herbert Humphreys (E.M.), Smith Cyril Ireland, Theophilus Nicholas Kelynack, Frederick William Lewitt (E.M.), Ernest Andrew Long (E.M.), Stouppe McChance (E.M.), Matthew Lovell Mackintosh, Edward Charles Mahony (E.M.), Charles Reginald Morley, Horace Young Nutt, John Griffiths Owen, Kilham Roberts (E.M.), Cyril Walrond Shaw, Alexander Sharman, Gilbert Arthur Sumner, Jenan George Thomas (E.M.), Nigel Alan Allison Trenow, Basil Riddell Trevelyan (E.M.), Arthur Turner (E.M.), Charles Stuart Vines (E.M.), Charles Frederick Myers Ward (E.M.), William Timmins Ward, John Houghton White (E.M), John James Winn.

Those marked E.M. have also passed in Elementary Mechanics.

The following passed in Elementary Mechanics alone.

Edwin Thomas Larkam, Henry Nichol, Reginald Field Walker.

MEDICAL VACANCIES.

The following vacancies are announced:

BOLTON INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications to Mr. Kevan, 12, Acresfield, Bolton, by September 26th.

BOLTON INFIRMARY AND DISPENSARY.—Junior House-Surgeon. Salary, £100 per annum. Applications to Mr. Kevan, 12, Acresfield, Bolton, by September 26th.

CITY PROVIDENT DISPENSARY AND SURGICAL APPLIANCE ASSOCIATION, 164, Aldersgate Street, E.C.—Surgeon. Applications to the Secretary.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

GRANTHAM FRIENDLY AND TRADE SOCIETIES MEDICAL INSTITUTE.—Resident Medical Officer. Salary, £150 per annum. Applications to John Hancock, 16, North Parade, Grantham, by October 1st.

HARTLEPOOLS' FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to T. Twiddell, Commercial Terrace, West Hartlepool.

HELSTON UNION.—Medical Officer. Salary, £53 per annum. Applications by September 22nd.

JOINT COUNTIES ASYLUM, Abergavenny.—Senior Assistant Medical Officer. Salary, £150 per annum. Applications to Medical Superintendent by October 1st.

KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by October 1st.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to Dr. T. W. Measures, 4, Lion Street, Kidderminster.

KING'S COLLEGE HOSPITAL.—Pathological Registrar. Applications to J. W. Cunningham, Esq., Secretary.

KING'S COLLEGE, London.—Curatorship of Anatomical Museum. Applications to J. W. Cunningham, Esq.

NEWPORT (MON.) INFIRMARY AND DISPENSARY.—Doubly Qualified Medical Officer. Salary, £100 per annum. Applications to the Chairman by September 28th.

NEWPORT (MON.) ODD FELLOWS' MEDICAL AID ASSOCIATION.—Assistant Medical Officer. Applications to J. Powell, Secretary, 19, Dock Street, Newport, Monmouthshire, by October 1st.

PAROCHIAL BOARD OF KILLEAN AND KILCHENZIE.—Medical Officer. Salary, £150 per annum. Applications to the Chairman of the Board, Glencreggan, Kintyre, Argyllshire.

PEMBROKE UNION.—Medical Officer and Public Vaccinator. Salary, £66 per annum. Applications by September 25th.

QUEEN'S COLLEGE, Belfast.—Professor of Anatomy and Physiology. Candidates to forward testimonials to the Under-Secretary, Dublin Castle, not later than the 20th October.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Assistant-Physician. Applications by October 6th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Surgeon. Applications by October 6th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Pathologist. Applications by October 6th.

ROYAL LONDON OPHTHALMIC HOSPITAL.—House-Surgeon. Applications to the Secretary at the Hospital, by September 26th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—House-Surgeon. Applications to the Secretary, King William Street, Charing Cross.

ST. GEORGE'S, HANOVER SQUARE, PROVIDENT DISPENSARY, 59, Mount Street, W.—Resident Medical Officer. Applications by September 29th.

ST. PANCRAS AND NORTHERN DISPENSARY.—Resident Medical Officer. Salary, £105 per annum. Applications to the Hon. Secretary, H. P. Bodkin, Esq., 23, Gordon Street, W.C., by September 25th.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, Henrietta Street, Covent Garden.—House-Surgeon. Appointment for six months. Honorarium, 25 guineas. Applications by September 25th.

MEDICAL APPOINTMENTS.

ALLEN, F. J., M.A.Cantab., M.R.C.S., L.R.C.P.Lond., appointed Second House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* W. H. Sellers, M.B., promoted.

GILES, Bernard Faraday, M.D.Durh., M.R.C.S.Eng., appointed Medical Officer of Health to the Wem (Salop) Rural Sanitary Authority, *vice* J. J. Flinn, L.R.C.P.Ed., resigned.

ROWE, Edmund L., L.R.C.P., L.R.C.S.Edin., appointed Second Assistant Medical Officer to the County Asylum at Gloucester.

SELLERS, W. H. Irvin, M.B., C.M.Ed., M.R.C.S.E., appointed Senior House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* J. T. R. Davison, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

COOPER.—On September 5th, at 9, Henrietta Street, Cavendish Square, the wife of Alfred Cooper, F.R.C.S., of a daughter.

MORRIS.—On September 16th, at 63, Montague Square, W., the wife of Malcolm Morris, of a son.

SCOTT.—At Musselburgh, N.B., on September 15th, the wife of Thomas R. Scott, M.B.Edin., of a daughter.

MARRIAGES.

CUFFE—JONES.—On August 30th, at the Pro-Cathedral, Kensington, by the Revd. W. C. Robinson, M.A., assisted by the Revd. M. Cuffe, Chaplain to the Forces, uncle of the bridegroom, Surgeon-Major Charles MacDonagh Cuffe, C.B., of the Medical Staff, Aldershot, to Amy Blanche, the only child of W. J. Jones, Esq., of Jonesville, Corozal, Central America.

EVANS—HUGHES.—On September 13th, at St. Mary's, Acocks Green, Worcestershire, by the Revd. Dr. Butler, vicar of Olton, William Thomas Evans, M.B., C.M.Edin., of 21, Westbourne Villas, Bayswater, to Elizabeth, second daughter of the late Thomas Hughes, of Coventry.

WARBURTON—RHYS.—On September 15th, at St. Antholin's Church, Nunhead, Edward Samuel Warburton, M.R.C.S., L.S.A., Brynfedwan Treherbert, to Rachel Mary, elder daughter of the late Watkin Rhys, M.R.C.S., L.S.A., Brynfedwan, Treherbert.

WAUGH—ALLEN.—At Kingsland Congregational Chapel, on September 17th, by the Revd. Thos. Aveling, D.D., John Waugh, M.A., M.D., 42, Colvestone Crescent, Dalston, to Pattie, daughter of James Allen, Esq., Soham.

WILLS—CHILDE.—At Southborough, Tunbridge Wells, on September 13th, J. P. Wills, M.B., of Bexhill, near Hastings, to Maude Alice, third daughter of Revd. G. F. Childe, of Southborough.

DEATHS.

CLOUSTON.—At Sandwich, Manse, Orkney, on September 16th, Charles S. Clouston, M.D., Gunnersbury, London, W.

TWINING.—At the Eastern District Hospital, Frank Theed Twining, M.A. M.B.Cantab., on September 14th.

RAINFALL AS A SOURCE OF A POTABLE WATER-SUPPLY.—On every square mile of London (says the *Builder*) descends in the course of a year 1,644,000 metric tons of rain-water, an amount which is equal to an allowance of fifty metric tons *per annum*, or rather over thirty gallons per day each, for 33,280 inhabitants. If we take the driest year during which rainfall has been measured in the Thames Valley, we find an estimated downpour of 7,545 milliards, or thousands of millions, of metric tons. To supply fifty metric tons per head to six millions of inhabitants requires three hundred millions of metric tons, or only about one-twenty-fifth part of this rainfall. But, on the other hand, if we attempt to check the calculation by gauging the outflow of the Thames below London, we are struck by the reflection, how little of this ample store is utilised, or, under present circumstances, is utilisable by man. Measuring the outflow to the sea, we cannot account for more than 14 or 15 per cent. of the rainfall. How much escapes by evaporation, how much by subterranean flow, or other means, we cannot tell. At all events, the proportions of need and of evident accessible supply are too close to enable us to dismiss the consideration that we may hereafter have to revert to the plan, universal about half a century ago, of collecting rain as it falls for human use. That cheap and efficient source of water-economy has been destroyed by the pollution of rain-water as it falls, or as it is collected, by the exhalations of a dense urban population. But the lesson which that fact should teach is, that public health and national economy may hereafter make an imperative demand on the chemist for a cheap, certain, and available means of making rain-water not only palatable, but at once sweet, clear, and sparkling.

BOTHRIOCEPHALUS IN MAN.—Dr. Braun of Dorpat has observed that the frequency of *Bothriocephalus latus* in the Baltic Provinces of Russia is due to the consumption of large pike and eel-pout that are extensivcly infected with the scolex of that tapeworm. In the Dorpat fish-market, more than ninety per cent. of the pike offered for sale were thus diseased; they had been taken in Lake Peipus, and in some of the large broads or meres which abound in Livonia. Dr. Braun administered to three enthusiastic medical students a dose of scolices of bothriocephalus from a pike, after having ascertained that they were quite free from any trace of tapeworm or hydatid disease. This experiment was performed on October 15th; on November 18th, the fæces of the subjects of research were found to be full of the ova of bothriocephalus. Ultimately, large mature specimens of the worm were discharged from the intestines of these martyrs to science.

HOSPITAL SATURDAY.—Saturday, September 8th, being the day appointed for the tenth annual collection in connection with the Hospital Saturday Fund, 1,200 ladies, who had volunteered their services for the purpose, took up their stations at an early hour in various parts of the metropolis. It is anticipated that the result of the street collections on this occasion will exceed that of last year. Boxes were placed in all the theatres and other places of amusement in the evening, as well as inside and outside the International Fisheries Exhibition. The instrumental concert in Victoria Park, which last year resulted in an addition of £80 to the fund, was repeated in the evening, and the experiment was also tried in Southwark Park. On each of the boats of the London Steamboat Company a collection was also made. Upwards of 36,000 collecting sheets, besides a large number of boxes, were forwarded to the workshops and factories of the metropolis for the purposes of this year's fund. The net result of this mode of action last year was an addition of about £700 to the funds of the medical charities of the metropolis. Since its institution, the fund has collected about £59,000.

PAY-WARDS IN THE ROYAL ALBERT HOSPITAL.—The Managing Committee of the Royal Albert Hospital at Devonport have adopted the system of pay-wards, and set aside two wards—one for men and the other for women—to meet the requirements of those who are able and willing to pay for hospital accommodation. These wards are situated in one of the most pleasant parts of the building, commanding a view of the Hamoaze, and each is divided by curtain-partitions into three compartments. Each compartment is really a small and cheerful apartment in itself, nicely furnished and fitted with an electric bell brought within easy reach of each bed, whilst the walls of the wards are adorned with pictures. For eight shillings a day, the patient will receive the professional services of the resident medical officer, board, medicine, surgical appliances, and nursing, the only extra being wines and spirits. Patients may be attended by their own medical adviser if preferred, but remuneration for such attendance would not be included in the charge made by the hospital authorities.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S, 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annua and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A Warning.

SIR—May I put your readers on their guard against an impostor? I have been informed by several friends that a man, who adopts various aliases, has called upon them to solicit their charity, and, among others, has mentioned me as recommending him to them. He states that I have employed him to do clinical work in connection with the Collective Investigation Committee. It is true that a person called upon me, stating that he was sent by Professor Humphry, who told him that I might find some work for him. His tale was so plausible, that I gave him some circulars to address, and employed him for a day. Meanwhile, having communicated with Professor Humphry, I found that his tale was utterly false; and the following day I dismissed him, followed, unknown to himself, by a couple of detectives whom I had obtained for the purpose. The next I heard of him was from one of these detectives, who informed me that he was to appear at some police-court, charged with obtaining money by false pretences—with what result, I never ascertained. I hear, however, he is still about, and preying on the unwary, and that he makes good capital out of the day's work I gave him.—Yours faithfully,

F. A. MAHOMED.

Temperance and Health.

SIR,—The paragraph on this subject in your issue of September 1st seems to call for a few lines from me, as perhaps few medical men are better qualified to answer it. My long connection with the temperance movement, the part I have taken at many great meetings in the largest towns in the kingdom, and my inquiries into the condition and health of very many abstainers, entitle my opinion to some attention; but I do not add my name, as I do not wish to be inundated with letters from angry friends all over the country.

First, then, I am astonished to learn that the names and addresses of apparently 700,000 new abstainers have been preserved, and that many of these recruits are well-to-do members of society. The latter is quite at variance with my experience. Nowhere have I seen any pretence of a register, though in some small places such a record may have been attempted. As a rule, as soon as the meeting is over, there is not a moment to lose, and the pledges are filled up most hurriedly; and as for the Blue Ribbon, it is pinned on, as fast as possible, on anyone who will submit to the operation. At many of our largest missions, it was impossible to make any pretence of a register, from the entire absence of any machinery; and, as for subsequent house-to-house visitation, that, too, was impossible. How many missions, fêtes, and meetings have been on public holidays, where four-fifths of the converts came from great distances, nothing being known of their names, addresses, or circumstances! At several very large meetings, recruits have come up to the platform, and, holding up their hands, have repeated the words of the pledge after the chairman; here there was not even any pledge-signing, though these persons were all counted as new pledges, and quite fairly too. All statements, therefore, as to the number of new pledges are valueless, and no guess as to the percentage of relapses is possible, though, in the towns I know best, the relapses have been very numerous, many giving up the pledge in three weeks; the number of Blue Ribbons may, however, be roughly estimated.

Now, one word as to the good the temperance movement effects. No one will question that when a drunkard is induced to sign the pledge, and to keep it—and there is some difference between the two—the bodily health and moral condition often improve materially; again, signing the pledge may help many young men and women out of bad company and from forming habits of intemperance. So far, temperance deserves well of the country. But I emphatically assert that, in the case of the hundreds of thousands of strictly moderate persons who sign the pledge, and keep it, the moral and physical results are, in the vast majority of cases, decidedly disappointing. There is, assuredly, no distinct improvement of health. Why, indeed, should there, unless we are prepared to maintain that two glasses of beer a week undermine the constitution? Thrift, cleanliness, morality, are rarely promoted. Nay, I find that among my teetotal patients, of whom sometimes I have forty on my hands, the illnesses are the same, and run the same course, as among the moderate people. Pauperism is certainly not unknown among teetotallers; there are usually several in the workhouse here, and others in receipt of outdoor relief: my teetotal patients are just as unwilling to pay me as are their neighbours; I could lay my finger on several—five at this moment—women of ill fame here, abstainers; illegitimacy is quite, I believe, as common among the teetotal young people; and, in my long experience of temperance prophets, I have met with some bright and shining lights whose private life and public career were objectionable, and ended in their having to leave home suddenly for the colonies. Have I not good cause to say that I have been grievously disappointed, and that temperance has not seemed to me to insure those results which some of its advocates plead for it?

Still, I believe temperance to be a good thing; and, as a lifelong abstainer, I can claim for it that it has suited me. Temperance or teetotalism is, however, only a part, and a very small one, of that upward movement which some of us believe is raising our humbler countrymen; hand in hand with religion, education, thrift, and improved sanitary conditions, it has a great part to play.—I remain, faithfully yours,

September 1883. AN ABSTAINER OF THIRTY YEARS' STANDING.

Marriage of Cousins.

SIR,—It may console A First Cousin to reflect that such a man as Frederick the Great, of Prussia, was the offspring of one of the marriages to which he refers. Not only were Frederick's parents first cousins, but his mother, a daughter of our George the First, was also the child of first cousins. It is worth noting, however, that Frederick's paternal ancestors, with scarcely an exception, from the first Hohenzollern, were born of extraordinary mental activity and vigour; while on his mother's side the plain good sense of the Hanoverian Princes was as remarkable as the singular learning and cleverness of some of the ladies of their family.—I am, etc., yours faithfully,

Cleobury North, September 18th, 1883. G. HODGES.

A Question of Diagnosis and Treatment.

SIR,—Having perused a letter in the BRITISH MEDICAL JOURNAL of August 18th, under the above heading, it struck me that possibly the symptoms, etc., of "An Associate's" case may be attributable to, and a result of eating shell or some other kind of fish, which he may be in the habit of taking. Such cases are not uncommon in a tropical country, and are noticed especially in those whose nervous systems are impaired, as in this case. The treatment obviously is palpable, if once the etiology be determined.—Yours faithfully,

A. S. F.

Proposed Medical Provident Association.

WE have received from Dr. W. C. James (Kensington) the sum of 10s. 6d., towards the preliminary expenses.

Medical Advertising.

THE following is taken from the *Hawick Advertiser*.

"I, Dr. Daniel Sutherland, surgeon at the New Medical Hall, 73, Jamaica Street, Glasgow, hereby intimate to all whom it may concern, that I have long studied and treated Confidential Complaints and Weaknesses as a principal part of my Practice, both here and in Edinburgh, though never formerly made known by Advertisement, and it is possible this notice may be construed as a breach of professional etiquette; but I think it very pardonable when I consider the number of gentlemen constantly consulting me with their Constitutions injured, and Complaints aggravated, after being for months or years the dupes of Quacks and Druggists. I consider it a righteous necessity in the Public interest to advertise the fact that a Member of the Profession proper devotes his time to the study and treatment of these special Complaints. Gentlemen are therefore inexcusable if they fall into the hands of empirical pretenders. I make free to assure Gentlemen entrusting me with their confidence that they may rely upon the highest professional honour and skilled conscientious treatment, whether they visit me at 73, Jamaica Street, Glasgow, or communicate with me by letter, which will have my immediate attention.—I am, faithfully, DANIEL SUTHERLAND.

"Licentiate of the Royal College of Physicians, Licentiate of the Royal College of Surgeons; also of the Faculty of Physicians and Surgeons. For seven years Councillor and Trustee of the City of Edinburgh, and Manager of the Royal Maternity Hospital, Edinburgh; President of the Scottish Christians' Evidence Society; Medalist (Royal College of Surgeons) 1867; awarded Queen's Prize (Science of Chemistry), Kensington Museum, 1868; Public Honours (Royal College of Surgeons) 1869, etc."

*** The above is worthy the attention of the colleges whose names are included in the advertisement.

A CORRESPONDENT sends us the following extract from the advertisement columns of a Brighton newspaper.—"9, Western Road, Hove. Private dispensary. Consultations from ten to twelve in the morning, and from six to nine in the evening. Sundays from ten to eleven in the morning. Fees.—Advice and medicine, 1s. 0d.; servants and children, 6d.; visit and medicine, 2s. 0d.; vaccination, 1s. 0d. J. Oliphant Betts, M.R.C.S.Eng., L.S.A.Lond., surgeon, etc., registered. Late Medical Officer No. 4 District of the Holborn Union, London, etc."

THE *Christian Chronicle* has lately contained a conspicuously displayed advertisement, of which we subjoin a portion. Mr. Congreve's name appears in the *Medical Directory* for this year; he is M.R.C.S.Eng., 1879; and L.S.A., 1876.

"Persons suffering from any kind of chest-disease should at once obtain Mr. G. T. Congreve's new work on Consumption, Chronic Bronchitis, Cough, Asthma, and other Chest-diseases. Containing one hundred and thirty-three selected cases. It treats of the causes, symptoms, progress, various stages, fallacies of treatment, and of the true treatment of consumption, with valuable instructions as to diet, air, exercise, mental emotions, and everything bearing on the matter that is needed to be known. Post free for 6d., or 1s. 3d., from Elliott Stock, 62, Paternoster Row; or from the author, Coombe Lodge, Peckham, S.E." He announces to the readers of the *Christian Chronicle*, "who may be personally or relatively interested in the matter," that he will give one recent case, not published before, in that journal every week.

"Note.—Mr. Congreve's son-in-law, J. Alex. Brown, M.R.C.S., L.S.A., is now associated with him.

"Days of Consultation.—Tuesday, Thursday, and Saturday mornings only, at Coombe Lodge, Peckham. Patients from any long distance should choose either of the two former days."

M.R.C.S.—Without making too much of what are, after all, small matters, we would say (1) that such a mode of advertising ought certainly to be discouraged; and (2) that, when a surgeon invents a surgical appliance of any kind, it is best to follow the usual custom, and to have it made and sold by a surgical instrument maker.

Contagious and Epidemic Pneumonia.

SIR,—In your issue of August 11th, appear two interesting communications on "Contagious or Epidemic Pneumonia." Mr. Raven, however, makes one remark on his last case which seems paradoxical. He states, "that it was thought probable that this child's attack was one of pneumonia without inflammation of the lungs." If there were no inflammation of these organs, clearly it could not be a case of pneumonia, contagious or otherwise; but, as showing how difficult it is in some cases to detect by physical signs evidence of pneumonia in children, I may mention the following case. A child, M. E., was taken ill with pyrexia and *malaise*, and a careful examination of the lungs failed to detect any evidence of pneumonia, but, taking all the circumstances of the case into consideration, it was pretty confidently diagnosed as pneumonia. A consultant was called in who examined the chest, and failed to detect any evidence, although he felt convinced that such was the nature of the case. A second examination by the consultant and the regular attendant, however, elicited signs of consolidation at the angle of the left scapula, heard only over an area about the size of a florin. (I would, here, remark that this spot, as far as my experience goes, is a favourite one for pneumonia in children.) Probably, in Mr. Raven's case, there was inflammation which could not be detected by physical means. If not, then it must be removed from the catalogue of contagious pneumonia. My impression of these cases is that they are due to some septic cause acting through the lung, and that the pneumonia bears the same relation to them that the typhoid ulcer does to cases of typhoid fever; but if in an epidemic, such as Mr. Raven describes, certain cases do not develop pneumonia, then we must regard the cases as some form of septicæmia in which the pneumonia is only a second phenomenon.

It would be interesting to know whether Mr. Raven followed any plan of treatment in his last case different from the former ones, to which might fairly be attributed the fact that no lung-inflammation supervened.—Yours truly,

M.B.

SIR,—I shall feel extremely obliged if anyone can recommend a place near Naples for winter residence, climate bracing, for young children.—I am, etc.,

M.D.

Ship-Surgeons.

Sir,—As I am at present a surgeon of a steamer, running between Liverpool and New York, and had previously been in a line of steamers going between London and the Brazils, I may be able to answer your correspondent's queries (British Medical Journal, August 25th) according to my own experience.

1. I have never heard of any such rule, but sometimes, at my own desire, the stewardess accompanies me when visiting a lady patient.

2. Any "medical comforts' I order are immediately given out from the bar without any further signature but my own.

3. All fees I may receive from passengers I am, and have always been, allowed to retain.

4. I have heard that on some lines the medical men are not paid, but join for the sake of their health and the change.

The shilling per month is paid by the Company because no one is permitted to sign the ship's articles, unless paid at least the above sum. My salary is £10 10s. per month.

5. On some steamers, the doctor has not a special room, but as a rule he has. I have always had a special room on deck, and my present cabin is, I may almost say, among the best on board. As regards the water employed for patients being the same as that used for washing purposes, which is condensed, if the medical man should make up the medicines for patients with such water, it is owing to his negligence in not directing his steward to supply him with a jug of drinking-water for that object.

6. See reply to query 4.

7. The chemist who supplies the ship may be a shareholder, which, however, can have no effect on the drugs he sends on board, as they are furnished according to a printed list of the Board of Trade. This list specifies the drugs and quantity of same, in proportion to the number of the crew or emigrants. Ether and chloroform are included in this list.

8. I have never heard the expression of "double-barrelled doctor," and have never heard of a doctor tallying cargo. It is a fact, however, that on some boats where no purser is carried, the medical man is required to make and copy out the cargo-books during the voyage; from which books, on reaching port, others tally the cargo.

9. It is the case that sometimes a steward, or baker, etc., though suffering from skin-affections and other diseases, pursues his ordinary duties. It must, however, be remembered that none of the authorities on board, excepting the doctor, are aware of it. As the patient has come to him in strict confidence, he is not permitted, by the rules of our profession, to publish his disease; and as regard the passengers, I think

"Where ignorance is bliss,
'T were folly to be wise."

10. Being a surgeon at sea does not, so far as I can judge, interfere with future career on land. Many of the surgeons now practising on shore have spent a year or two at sea after being qualified, and I am sure it has not interfered with their practice. I should say it would have the opposite effect; as travelling to other lands enlarges one's ideas, opens one's mind to the fact that there are other countries besides one's own, and tends to make one an agreeable and entertaining companion.—Yours, etc.,

Edmond Murphy, L.K.Q.C.P.I., etc.

6, Mountjoy Square, Dublin, August 30th, 1883.

Tricycles.

Sir,—"Bewildered" wishes to know how the "Cheylesmore" tricycle works. Having ridden one for two summers over all kinds of roads, I consider myself a fair judge of its capabilities. I may premise by saying there is no machine without its faults. In the Cheylesmore, the first disadvantage lies in its being a three-tracker; but it is only over bad and rutty roads that any inconvenience arises from this cause, and then it usually is the steering which is difficult to manage, the hind wheel occasionally catching in a rut and refusing to come out. All three-trackers have this disadvantage; but I have known a two-tracker to be overturned from this cause.

The advantages of the Cheylesmore are double driving, rigidity, comfortable space between wheels, and clutch-action in cranks, allowing the pedals to be used as foot-rests. The machine is a good hill-climber, is splendidly fitted, and the chains are very strong. For a weak rider, a saddle is necessary, as it diminishes the work greatly. I have an L-pin on which my saddle is fixed, and I ride over my work, thereby avoiding the thrust forward which the ordinary tricycle-seat necessitates. The spokes are better painted grey, and the fewer bright parts in the machine the better. When riding at night, I carry two "King of the Road" lamps, which give splendid light. If "Bewildered" wishes for more knowledge on the subject of tricycles, I shall be happy to correspond with him.—I am, etc.,

Arthur Campbell.

Mablethorpe, Lincolnshire.

Cascara as an Aperient.

Sir,—I have lately been using the drug in cases of habitual constipation, due to an atonic condition of the stomach and bowels, with sluggish liver, and the results have been extremely satisfactory. I use the cascara cordial of Messrs. Parke, Davis, and Co., of which the formula is as follows. Cascara sagrada bark (tinc. rhamnus purshiana), 100 grammes; berberis aquifolium, root tinc., 37 grammes; diluted alcohol, (*U. S. P.*, sp. gr. 941), 233 grammes; sugar, 288 grammes; water, sufficient to make one litre. This is flavoured with various carminative aromatics, and is the most agreeable preparation. Its action is mild, in most cases painless, though occasionally attended with griping. Taken twice a day, I have relieved the most obstinate cases where all other drugs had failed, more especially a woman, whose bowels had acted only once a week for years past. The drug has caused relief every day, and this after every other remedy has failed. The drug should be administered twice or thrice a day, in doses from 15 minims to one drachm (the smaller dose I have generally found effectual) until a normal action is obtained, then gradually reduced till taken once or twice a week. I feel sure that if an extended trial be only given to the drug, very good results will be obtained, and a valuable remedy added to our pharmacopœia.—I am, etc.,

Penge, S.E. William I. Lory.

D.—Of the Universities mentioned, that of Edinburgh holds the first place in professional estimation. It would be difficult to express the relative value of the degrees granted by the others; the examinations in all are good, and the degrees hold a respectable position. There is not much difference in the social standing; the public, as a rule, know little of any distinctions in the sources whence degrees are obtained.

Unqualified Assistants.

Sir,—In the Journal of August 25th, "L.R.C.P.Ed." suggests it should be made illegal for a registrar to accept certificates unless signed by a registered medical practitioner; but what should be done to a medical practitioner who knowingly allows his unqualified assistant to sign all kinds of certificates with his, the registered practitioner's, name, not merely once or twice, but almost daily?

How comes it that there are so many unqualified men? If from inability to pass their examinations from downright lack of brain-power, what guarantee have we that their "greater experience" has been profitably used?

A few months ago, whilst *locum tenens* for a gentleman, I was called to a middle-aged person, suffering from cancer of the uterus, and who was greatly debilitated from profuse hæmorrhage. She had been treated for some days by one of these gentlemen of greater experience. I need hardly say the correct diagnosis had not been made. Again, I was called to a house where the same gentleman had been attending. I was informed the "patient's blood was out of order." I found a case of variola!

As regards their "greater amiability," perhaps that means taking down the shutters of an open surgery, or sweeping or dusting the various counters, etc.—in other words, being prepared to act, at a moment's notice, the part either of doctor or of errand-boy.

Another correspondent states, "the country pays for medical advice for the poor;" but who sees that it is proper advice the poor get? I know one instance where nearly all the parish cases are visited by an unqualified man, the principal only going when the patient is *in extremis*, and not always even then, but taking the assistant's word for the diagnosis, and entering that in the death-certificate. Lastly, how is it possible for the unqualified to show proof of "greater experience," when the great majority of them have had no hospital or systematic training whatever? How many deaths have taken place entirely through the gross and culpable ignorance of the unqualified? But the blame should fall on the shoulders of men who, belonging to a honourable profession, prostitute that profession for the sake of extra gain, the difference in remuneration between a legally qualified assistant and a may-be anything, from a barber's apprentice to a ship's steward.—I am, sir, yours obediently,

Another L.R.C.P.Ed.

Sir,—As a member of the British Medical Association who has taken some interest in the question of "Employment of Unqualified Assistants," I have been much astonished at the slight reference made by the numerous correspondents on the subject to the Report of the General Medical Council published in page 838 of the Journal for 1883; as I am very anxious to know whether we members of the Association are to consider it "ethical" to employ a man who has had no regular medical education to attend confinements and prescribe for patients, or to describe such conduct, in the words of the Council, as being "of a nature of a fraud on the public," "professionally disgraceful," and injurious to the interests of junior members of the profession.

As the question is obviously very important, and one that has been opened, but not definitely settled, in our Journal, I venture to ask you to publish this letter, hoping that it may obtain a definite and authoritative answer.—I am, sir, yours obediently,

Henry Blake, M.B.Lond.

Sir,—In reply to your correspondent, Mr. Thos. M. Watt, there is a Cripples' Nursery in New Quebec Street, Hyde Park, which receives crippled boys and girls under 12 years old. The Cripples' Home for Girls, 17A, Marylebone Road, takes them above 12.—I am, etc.,

M. A. R.

Magnesia in Beer.

Sir,—The paragraph in the Journal of September 15th, cautioning the public against magnesia in beer, may possibly create in the minds of certain sections of the community a little alarm. I will greatly thank you to permit me to point out that a certain quantity of magnesia is much appreciated by beer-drinkers. It is generally admitted that Burton-on-Trent attained its celebrity for ales from the peculiar character of the water obtained from its wells. Analyses show that the salts of lime and magnesia are present in the water in considerable quantities. Brewers in other places found that the addition of sulphates of lime and magnesia were beneficial, and consequently many have made their brewing-water somewhat closely approximate to the Burton standard. Bottinger gives an analysis of one of the most celebrated brewer's wells at Burton, and shows that, in 10,000 parts of water, there are present: sulphide of calcium, 2.7; sulphate of magnesia, 1.42; carbonate of calcium, 2.21; carbonate of magnesia, 0.24; total, 6.57. Cooper gives the water of an equally famous Burton well, which contains a total quantity of sulphates of lime and magnesia, 9.47 parts per 10,000. Hooper shows that the water of a third popular Burton well contains 65 grains of solid inorganic matter per gallon, made up chiefly of lime and magnesia, viz.: sulphate of lime, 18.96; sulphate of magnesia, 9.95; carbonate of magnesia, 1.7; carbonate of lime, 15.51. Two wells at Edinburgh, greatly celebrated for the quality of the ales produced from water yielded by them, also contain upwards of 43 grains per gallon of sulphates of lime and magnesia. Kradisch publishes the fact that the water used in the Pschoor Brewery at Munich contains 2.085 parts per 10,000 of magnesia alone, and considerably more lime.

These instances can be confirmed from hundreds of other sources. They prove that ingredients invariably present in water in certain localities are found to be good in the manufacture of ales. Can it be shown that Burton, Edinburgh, and Munich beers are harmful and bad when drank, from excess of magnesia? Or is it conclusively shown that any brewer away from these great brewing centres uses sufficient magnesia to be of harm in water which is naturally deficient in this particular. The addition by intelligent men of a right proportion of magnesia to water, in places where it does not naturally exist, should not be stigmatised as adulteration.

The point was judicially settled at the Court of King's Bench by Lord Brougham, so long ago as May 1830.—I remain, sir, your obedient servant,

Kenwyn, Cintra Park, Upper Norwood, S.E. H. Stopes.

Subscriptions and Branches.

Sir,—Mr. Rivington, in his observations on the Branches of the British Medical Association at the extraordinary general meeting at Exeter Hall, on the 17th ult., assumed that 2s. 6d. is the fee to be paid by a member joining a Branch. Possibly that sum may be most commonly paid for the privilege, but it is not by any means invariable. With some Branches 1s. 6d. is considered sufficient to meet extra expenses, whereas others subscribe 5s. I think a fixed invariable fee should be determined by by-law.—I am, sir, your obedient servant,

An Associate.

One Idea.

Scene: Consulting-room. Enter a tired man, who drops into a seat, and says that he wants treatment. The doctor puts on his eye-glasses, looks at his tongue, feels his pulse, sounds his chest, and then draws up to his full height and says: "Same old story, my friend. Men can't live without fresh air; no use trying it. I could make myself a corpse, like you are doing by degrees, if I sat down in my office and didn't stir. You must have fresh air; you must take long walks, and brace up by staying out of doors. Now, I could make a drug store of you, and you would think I was a smart man; but my advice to you is walk, walk, walk." Patient: "But, doctor——" Doctor: "That's right; argue the question. That's my reward. Of course, you know all about my business. Now, will you take my advice. Take long walks every day—several times a day, and get your blood in circulation." Patient: "I do walk, doctor. I——" Doctor: "Of course you do walk. I know that; but walk more; walk ten times as much as you do now—that will cure you." Patient: "But my business——" Doctor: "Of course, your business prevents it. Change your business so that you will have to walk more. What is your business?" Patient: "I am a letter-carrier." Doctor (paralysed): "My friend, permit me once more to examine your tongue."

Erratum.—In the Journal of September 1st, page 445, column 1, in the second note under the head "Cramp," for "bichloride" read "bicarbonate."

A Question as to Authorship.

A correspondent of the *Philadelphia Medical News* asks for information as to the author of the following.

"Te mater omnis, te lacrymabilis
Accurret uxor, ne caducum
Orba virum, puerosque ploret;
Seu confluentes forte timet notas
Decora virgo—tu faciem eripis
Periclitantem, protegisque
Delicias juvenum futuras."

"To thee shall weeping wives and mothers fly,
Or see their husbands and their children die;
To thee the virgin trust her lovely face,
Or some rude blemish rifle every grace.
Oh, hard the perils that around her wait,
Oh, shield her beauties from impending fate,
Nor let a cruel pestilence destroy
The hope of youth and pledge of future joy."—J. R. Q.

A Member.—1. The following books can be commended: Wilson's *Anatomy*, edited by Buchanan and Clark; Heath's *Practical Anatomy*; Kirkes's *Physiology*, edited by Baker; Bryant's or Holmes's *Surgery*. 2. Certain exemptions are allowed by the regulations of the Royal College of Surgeons in the case of qualified practitioners holding diplomas or degrees in surgery. Our correspondent should send a statement of his case to the secretary of the College, mentioning the qualifications which he possesses; he will thus best ascertain whether a practical course of anatomy can be dispensed with.

Doubtful Case of Psoriasis of the Tongue.

Sir,—Mrs K., aged 58, four years ago had a tenderness and smarting at the back of the tongue and throat, which has never left her. Last February, she complained of a burning in the tongue and mouth, which was worst at the back and left side of the organ. In last February, what she calls white smarting blisters came on, awaking her from sleep. Six weeks afterwards, she consulted a medical man, who ordered her to wash the mouth with alum, and gave her internal medicine, which kept it in check. What the medicine was I do not know. The medical man told her that there was nothing on her tongue; that it proceeded from indigestion. She gave up drinking hot tea, of which she was very fond. She has not slept well from uneasiness about her tongue, her brother having died of some disease of it two years ago. Every morning she has had a dark expectoration when awaking. This morning the sputum was fœtid. She is a phlegmatic woman, pale, and bilious looking, with an enlarged liver and a burning and smarting extending from the tongue down to the stomach. The bowels are inclined to be constipated; her tongue is pointed and soft at the point, and hard towards the root, all white, with all the papillæ enlarged and well elevated, and rough to the touch, with slight fissures running across the tongue. The left side of the tongue appears thicker than the right. My treatment is to wash the side and front of the tongue with bromide of potassium, forty grains, glycerine and water to six ounces, and to give a pill of calomel and colocynth with hyoscyamus at night, and half an ounce of the following mixture three times daily after meals:—℞ Infusi gentianæ comp. ad ℥viij; liq. arsenici (Donovan) ℥ij + ℥ij; succi conii ℥j; tincturæ gentianæ comp. ℥ss. There is no history of syphilis; her mother had rheumatism, she herself never had it. I shall be glad if some member would kindly give his opinion as to diagnosis and treatment. She has been ordered walking exercise and generous diet.—I am, etc., J. B. K.

Ophthalmic Surgery in the University of Edinburgh.

In the table of the Medical Schools of Scotland, at page 494 of the Journal for September 8th, the name of Dr. D. A. Robertson should have been inserted under the head "Edinburgh University," as lecturer on Ophthalmic Surgery. Dr. Argyll Robertson gave a course of lectures in the University daily during last May and June, and intends to give a similar course each summer.

Rheumatism in Children.

Sir,—I must ask you to be kind enough to correct an error in the report of my remarks during the discussion on Rheumatism in Childhood, at the late meeting of the British Medical Association (British Medical Journal, September 15th, 1883, page 518). I am made to say that an inflammatory exudation about the fibrillæ of the cardiac muscle might impair the muscular closure of the aorta, and so give rise to a murmur of mitral regurgitation from adynamia. For "aorta" should be read "aperture." I consider it proved that the muscles encircling the left auriculo-ventricular orifice are active agents in narrowing this orifice at the time of ventricular systole; and that, inasmuch as inflammatory exudation amongst the fibrillæ in endocarditis is readily to be demonstrated, it is extremely probable that, in some cases, the murmur of regurgitation which is heard may be due to imperfect closure of the orifice, from causes affecting the muscles rather than the valves.—I am, sir, your obedient servant, A. Ernest Sansom.

84, Harley Street, W., September 17th, 1883.

Recognition of Professional Services.

Sir,—"Is there anything undignified in trying to obtain a juster recognition of professional services?" I cannot but help thinking that those of our profession who imagine that gratuitous medical advice has a greater value than paid-for service, have some such scruples as are hinted at in the above quotation. I am very strongly of opinion that professional poverty has a very great deal to say to the political powerlessness of the medical profession (if, indeed, it be not cause and effect). One of two things is certain: either medical advice is estimated at a very low value, or the profession is benevolent to an extreme and absurd degree. Reduce the brain-power employed in gratuitous advice to the crude condition of £ s. d., and, if the cheque were cashed, many of our poorer brethren, who are contributing very largely to the gratuitous system, would be better able to spare their half-guineas for the worthy purpose ably advocated by Messrs. Harrison, Alcock, and Milward.—I am, sir, your obedient servant, J. O.

Sanitary Towels.

Sir,—These articles may be very good things of their kind, but it is not edifying to see them, discarded after use, floating about the lake at this beautiful spot. How this carelessness is to be rectified, I know not; but in the hope that this complaint may reach the ears of women who use them, and that they may repeat it to others, and so cause this disgusting heedlessness to be put a stop to, I trouble you with this letter.—I am, sir, yours faithfully,

Charles Spurway, M.R.C.S.Eng.

Cadenabbia, Lago di Como, September 3rd, 1883.

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BOOKS, etc., RECEIVED.

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BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON SURGICAL DISEASES OF THE KIDNEY, AND THE OPERATIONS FOR THEIR RELIEF.[1]

By R. CLEMENT LUCAS, B.S.Lond., F.R.C.S.,

Senior Assistant-Surgeon to Guy's Hospital, and Teacher of Operative and Practical Surgery in the Medical School; Surgeon to the Evelina Hospital for Sick Children.

It must be evident to all who have directed their eyes towards the horizon of surgical practice that the greatest advances in treatment are those which have of late years been made along the indefinite border-land which separates medicine from surgery. Barren and desolate tracts of incurable disease, which for generations have been delegated to the region of medicine, are those in which surgical interference has been most welcomed, where it has proved most fruitful in rendering relief. It is characteristic of the good understanding that exists between the two branches of the profession, that this encroachment, so far from being regarded with jealousy, is everywhere accepted with gratitude, and often suggested from the medical side. Few greater triumphs are there than those which result from the reunion in consultation of medicine with surgery. The artificial separation which the growth of knowledge has made necessary thus becomes bridged over, and the patient receives the benefit of a wider experience. Under such influence, the various operations for the relief of stricture and obstruction comprised under abdominal surgery have been widely extended. Colotomy, gastrostomy, and the like, are no longer regarded as surgical novelties, but as important means for prolonging life in cases not uncommon. Ovariotomy, after being condemned as unjustifiable, has risen to a position of frequency, and has recently been rewarded with a title.[2] But those who write the history of the present decade will note, as the most worthy incident in surgery, the sudden light which fell upon the profession in its relation to renal disease, and the rapid growth and recognition of renal surgery.

The credit of having awakened a new interest in renal surgery, and of having scientifically investigated the risks of operating, is mainly due to the late Professor Simon[3] of Heidelberg; who, when consulted for the cure of a troublesome fistula of the ureter, following ovariotomy, proceeded to investigate the dangers, in the way that has so often pioneered our greatest successes, viz., by performing a series of carefully conducted experiments on the lower animals. He found that, when a healthy kidney was removed from a dog, the symptoms which might be anticipated, referable to an uræmic condition, did not appear, and that the operation proved fatal only once in about five cases. The principal risk was found to be due to peritonitis; but, as regards this danger, the human kidney compares favourably with that of the dog; for whereas, in the latter, the organ is almost completely invested with peritoneum, in man it lies altogether behind that membrane, and may be excised through the loin without opening the peritoneal cavity. He further showed that, with a limited renal excretion, there was an intolerance of opium, the dogs to which this drug was administered remaining stupified for several hours, and vomiting more than those to which it was not given. This is an important thing to remember when carrying out the after-treatment of cases of nephrectomy. Having thus, by experiment, made this ground certain, Simon excised his patient's kidney in 1869, and cured the fistula.

Since then, nephrectomy has been performed upwards of a hundred times. Nephrotomy, or incision and drainage of the kidney, has become a much more frequent operation; and renal lithotomy, which formerly used only to be undertaken when a sinus or tumour existed, has been successfully extended to cases where no sinuses exist.[4] Besides the reports of individual operators, the literature of the subject has been enriched by Professor Czerny[5] of Heidelberg, who, in 1881, collected a valuable series of seventy-two nephrectomies by Dr. Harris[6] of Philadelphia, who last year increased the table to a hundred cases, and by Mr. Barker,[7] who has laboured much to place a statistical account of this operation before the profession in our own country.

The brilliant results which have, in some cases, followed nephrectomy, and the fascination of a new operation have, I am inclined to think, led surgeons to regard this too much as the only resource in renal disease; and it will be my endeavour, in this paper, to take a broader view of the subject, so as to indicate where less severe measures may be sufficient, and thus contribute to better results when the major operation of extirpation is finally determined upon.

The statistics of nephrectomy, taken as a whole, are not very encouraging, for they indicate a mortality of 50 per cent.; but in these statistics are included all kinds of accidental and surprise operations, and many which afforded scarcely any hope of success. Statistics never serve more than a temporary purpose, for men of genius attain success in spite of them; but collections of cases are very valuable as indicating the causes of the mortality, and the direction from which improvement is to come. Besides the revolution which has been made in the statistics of ovariotomy by careful attention to details, the mortality after excision of the knee has been so completely changed by antiseptics, that statistics of the operation made before the introduction of this method of dressing, may be consigned to oblivion as useless lumber. Still, they served a temporary purpose, and, at one time, correctly indicated that the danger of excision might be so much greater than that of amputation, as to scarcely justify an attempt to save a limb. I regard the present statistics of kidney-operations as worth little, and am convinced that a few years will place them on an entirely different footing; but, as collections of cases, they throw some light on the direction in which we are to work to lessen the mortality.

If we cast a rapid glance over those diseases of the kidney which may admit of surgical inteference, we shall be induced to exclude, at the onset, all such affections as attack equally the two organs; hence, the various degenerations included under the generic term of Bright's disease and lardaceous disease must ever remain outside the province of renal surgery. But lardaceous disease, when secondary to suppurating bone-disease, may be arrested by amputation; and amputation through the hip is generally to be recommended when lardaceous disease follows an unsuccessful excision of the head of the femur. So far as the kidney itself is concerned, however, bilateral disease closes the door to surgery.

Let us now turn our attention to the conditions which disturb the function of one kidney only; and we shall find that many, if not most of these, suggest surgical treatment, and are capable of relief by operation.

Painful Movable or Floating Kidney is a condition which, perhaps, ought first to be considered, inasmuch as the kidney-structure is usually normal, and the disturbance of the organ is only brought about by the looseness of its connection with the loin. There appear to be two forms of movable kidney, the one in which the organ moves freely beneath the peritoneum, the other in which the peritoneum passes over the posterior surface of the organ, and there exists a kind of meso-nephron.[8] Contrary to what one would expect, floating kidney is more common on the right side than the left; and the dislocation seems to have been accounted for, in some cases, by the downward pressure of the liver, as the result of enlargement or of tight-lacing. Eight cases, appended to the report of a Committee of the Pathological Society of London, were all of the right side. In some cases, the kidney is seen, on opening the abdomen, to project forward between the liver and the colon. In many instances, the kidney is altered in direction as well as in situation, being sometimes placed obliquely or horizontally, or with one end projecting forward; and in a case recorded by Dr. Goodhart,[9] it was found turned completely over, so that the ureter appeared on the anterior surface. Floating kidneys often drop back into position when the patient lies on her back, and cannot be felt till she turns again on her abdomen, when, at the same time that the tumour is felt, a resonant percussion-note may be obtained over the loin. Before de-

[1] An abstract of this paper was read at the annual meeting of the British Medical Association, held at Liverpool, as an introduction to a discussion on the subject.

[2] Sir T. Spencer Wells was created a baronet in 1883.

[3] *Chirurg. d. Nieren*, Erlangen, 1871.

[4] Morris. *Transactions of the Clinical Society*, vol. xiv, p. 30.

[5] *Transactions of International Medical Congress*, 1881, vol. ii, p. 249.

[6] *American Journal of Medical Sciences*, 1882.

[7] *Transactions of the Medical and Chirurgical Society*, vol. lxiii, p. 257, and vol. lxiv, p. 182.

[8] "Report of Committee on Movable and Floating Kidneys," *Transactions of the Pathological Society*, vol. xxvii, p. 467.

[9] *Transactions of the Pathological Society*, vol. xxvii, p. 472.

ciding that a tumour is a floating kidney, I cannot too much insist on the necessity of thoroughly evacuating the colon with castor-oil, as fæcal tumours may be readily mistaken for renal. A patient, who was placed under my care in Guy's Hospital this spring, for a very distinct tumour beneath the liver, supposed to be a floating kidney, was completely relieved of it by free purgation. The case was obscure, because for years she had suffered from irritability of her urinary organs; and a frequent recurring pain in the right side, with constipation, was always accompanied by the appearance of this tumour. Had it been less solid, it might have been taken for a case of intermitting hydronephrosis, of which I shall speak presently.

The treatment of so mechanical a condition as a floating kidney must, of necessity, be mechanical, and any relief afforded by medicine can only be of a temporary character. The indication for surgical treatment must depend on the amount of disturbance produced, which varies greatly in different cases, from a mere sense of discomfort to a pain of the most agonising character, sufficient to drive the patient to distraction. It is probable that, in a large proportion of cases, an exploration through an incision in the loin, and replacement of the organ in its proper position, would be alone sufficient to effect a cure. It is, indeed, remarkable that, in almost every case where such an exploratory incision has been made, for painful conditions other than floating kidneys, some relief has followed the operation. Such relief may be accounted for by the division of the lumbar-nerves in the parietes, and perhaps some of the sympathetic in the immediate neighbourhood of the kidney; but, if the kidney has been before unduly movable, it is easy to conceive that the healing process might be sufficient to attach it more firmly to the loin, and thus effectually cure the pains resulting from abnormal mobility.

When surgical interference is limited to an antiseptic and extra-peritoneal exploration, the danger is of a most trivial character, and the wound will often heal by first intention. This happened in two cases that I explored through the loin, on suspicion of there being a renal calculus. One was a man aged 48, whose right kidney I exposed on June 28th, 1881. Primary union followed. His temperature never rose to 100°. He sat up on the tenth day, and was able to walk out of doors on the thirteenth, and left the hospital seventeen days after the operation. This patient was admitted a second time, about six months after, under Dr. Wilks's care, for phthisis; and, curiously enough, he had been free from hæmaturia from the time of the exploration, and attributed his relief from pain and freedom from hæmaturia to the surgical operation I had performed upon him. I have not been able to follow this case to its termination, but I have little doubt the man had a strumous kidney.

The second case I explored on October 22nd, 1882. The man was under Dr. Mahomed's care, and was forty-three years of age. He had nephritic colic three years before; and for a year and a half had passed blood in his urine at intervals, especially after exercise. These attacks of hæmaturia were usually preceded by a rigor, and followed by lumbar pain on the left side, and rise of temperature. His urine contained a small quantity of pus. On the night before the operation, he had a rigor, followed by a temperature of 103°. The kidney was exposed by an incision through the loin, and was found to be somewhat puckered on the surface, as if from old cured abscesses; but no stone being detected, the wound was closed. The wound healed primarily, and the patient had no rise of temperature, pain, or hæmaturia for a fortnight after the operation. The symptoms, however, recurred; and I do not feel quite confident, even now, that one may not have overlooked a small stone, though the kidney was punctured to the depth of an inch and a half in several places.

I mention these cases to show that the exposure of the posterior surface of the kidney may be undertaken without any anxiety, the danger being equivalent to the amount of damage to soft parts, and not apparently increased by the fact that the kidney lies at the bottom of the wound. Such exposure and replacement will, I am inclined to believe, prove sufficient to cure the greater number of movable and floating kidneys. If, however, the surgeon doubts the advisability of trusting to the adhesion resulting from the operation to retain the kidney in position, he may, with slight additional risk, sew the capsule of the organ to the margins of the wound, and so fix it with certainty.

This operation is called nephroraphy, and was first performed by Dr. E. Hahn[10] of Berlin. In the first two cases, this surgeon contented himself by stitching the perirenal adipose tissue to the parietes; but, as in one of these he was only partially successful, in his third case he carried his catgut sutures through the capsule of the kidney. The operation has been repeated by Küster,[11] Esmarch,[11] Bassini,[12] Weir, and in this country by Dr. David Newman,[13] and in every case it is said to have been successful.

There will still remain instances when the pain is very intense, and when, perhaps, the treatment previously spoken of has failed, that will suggest nephrectomy as the only means of giving relief. It must be remembered that the removal of a kidney, under these circumstances, is equivalent to the sudden locking-up of half the secretion that should pass out through the urinary passages; for the organ is healthy and performing to the full its function. Here, then, we recognise the value of Simon's experiments, as showing that one healthy kidney is sufficient for the immediate requirements of the body, when the other is removed. Martin of Berlin has on six occasions performed nephrectomy for painful floating kidney. He operated in each case by ventral incision, and removed the kidney through the peritoneum. Four of these cases were successful, and two died from peritonitis. In the successful cases, the urine was at first diminished to one-half; but at the end of a week it became normal in quantity. Others have operated with success through the loin; and it should be remembered, though the ventral operation is much easier, and at first sight apparently better adapted for the removal of a floating kidney, a complete mesonephron is very rare; so that by lumbar incision the kidney can, in almost every case, be removed without damage to the peritoneum, and the risk from peritonitis would be thus avoided or greatly diminished.

Hydronephrosis, by which is meant distension of the pelvis and calices of the kidney, and often of the ureter, by watery fluid, as the result of obstruction below, is the next condition I would claim as a purely surgical affection. It is sometimes congenital, and in such cases has been traced (1) to impermeable ureters[14]; (2) to obliquity of these tubes[15]; (3) to congenital twist in some part of their course[16]; (4) to valvular condition of the mucous membrane at their commencement[17]; (5) to a similar condition at their termination[18]; (6) to congenital stricture[19]; and (7) to a membranous obstruction at the orifice of the urethra.[20] The effect of the obstruction is to cause, at first, distension of the pelvis of the kidney and its branches, and afterwards a gradual absorption by pressure of the secreting structure of the organ. In this way a large tumour is often formed, limited by the capsule of the kidney, having sacculi corresponding to the dilated calices or weak points in the capsule. Such tumours have been found in children at birth, and within the first few months of life. When they occur later in life, they may be due to other causes. The impaction of a calculus at the commencement of the ureter,[21] or in some part of its course,[22] is one of the most frequent causes. Stricture of the ureter,[23] the pressure on the ureter of cancerous glands secondary to uterine cancer,[24] and pressure on the ureter of a fibrous band[25] attached to the brim of the pelvis, are all conditions which have been discovered *post mortem* as causes of hydronephrosis.

These tumours spring from the loin, and are at first behind the colon and intestines; but after a time they come into contact with the abdominal wall, frequently touching it internal to the colon, or the colon being carried forward and downwards, there exists a wide surface uncovered by peritoneum, through which they may be explored or drained. In women they have frequently been mistaken for ovarian tumours, and have been successfully removed, though the intention of the operator at first was not to perform a nephrectomy. They are generally capable of being moved to some extent, and give fluctuation and the thrill of fluid on palpitation. The contents of these tumours, though at first urine, change gradually as the secreting structure becomes destroyed, and in long standing cases they contain a thin fluid, in which little, if any, of the normal constituents of the urine can be detected. In some cases where

10 *Centrallblatt für Chirurgie*, July 23rd, 1881.

11 *Centralblatt für Chirurgie*, No. 29, 1882.
12 *Ann. Univ. di Med.*, vol. 261; and *London Medical Record*, 1883, p. 181.
13 BRITISH MEDICAL JOURNAL, April 28th, 1883.
14 Billard, *Traité des Maladies des Enfants*, 1828.
15 Dumreicher, *Wiener Med. Woch.*, 1864, p. 139.
16 Hare, *Medical Times and Gazette*, 1857.
17 Broadbent, *Transactions of the Pathological Society*, vol. xvi, p. 164.
18 Roberts, *American Journal of Medical Sciences*, 1841.
19 Hillier, *Transactions of the Medical and Chirurgical Society*, vol. lii, p. 389.
20 Lamotte, *Traité des Accouchements*, liv. i, ch. xxiv, p. 128.
21 Farre, *Lancet*, 1861, vol ii, p. 472.
22 Rayer, *Traité des Maladies des Reins*, tom. iii, p. 490; and Piorry, *Gazette des Hôpitaux*, 1832, p. 451.
23 Reynaud, *Journal Hebdomadaire*, tom. i, p. 81.
24 Rayer, *op. cit.*, tom. iii, p. 487; and Pye-Smith, *Transactions of the Pathological Society*, vol. xxiii, p. 159.
25 Simpson, *Glasgow Medical Journal*, vol. ii, 1867.

stricture of the ureter exists, the history of an injury followed by hæmaturia may be a guide in diagnosis. In Dr. Pye-Smith's case [26] the man was kicked by a horse under the ribs and had hæmaturia two years before the tumour was noticed. When calculus is the cause, the history of gravel, and the pain excited by the impaction, may be taken to indicate the kind of obstruction. Other forms of obstruction can only be guessed. In a few instances, when the obstruction is incomplete, the tumour has been noticed to diminish or disappear and then again refill, and with each disappearance there has been observed an increased flow of urine. Mr. H. Morris has recorded one of these cases of intermitting hydronephrosis [27] caused by a villous growth in the bladder, partially obstructing the orifice of the ureter, and has appended a useful table of other cases. Though generally movable, they are apt, after long existence, to become partially adherent to the intestine or mesentery, and sometimes discharge themselves through the colon. Where doubt exists as to the nature of the tumour, aspiration through a fine cannula will always materially assist the diagnosis.

If we now consider the treatment of hydronephrosis, bearing in mind that it is simply the result of a mechanical obstruction to the outflow of urine, our first indication would be to attempt to overcome that obstruction, and there are three recorded cases[28] which suggest that manipulation of the tumour may occasionally bring about a cure. In two of these cases instructions were given for the abdomen to be rubbed with mercurial or iodine ointment, and whilst this was being carried out, the tumours suddenly disappeared, their disappearance being followed by a large discharge of urine. In the third case, the mother was in the habit of rubbing the tumour, to relieve the pain, and the effect of the pressure was to cause the tumour to disappear, and the bladder to swell up. In one of these cases only, however, was the relief permanent.

If a small calculus were loosely impacted in the ureter, one can conceive that gentle manipulation of the tumour might assist in its discharge, and, if this were effected, the cure would probably be lasting. The danger of bursting a urinary cyst into the peritoneal cavity, will, however, deter surgeons from doing too much in this direction. The real method of treatment which suggests itself is simply to tap the cyst, or to aspirate it with Dieulafoy's aspirator. If this be done through the peritoneum it is not altogether free from danger, as urine may become extravasated and set up fatal peritonitis, an accident which has occurred more than once. Care should be taken to percuss and tap where there is no bowel; and if a small cannula be used, the danger will not be great. Generally speaking, however, it is better to tap through the loin, the colon being carried forward by the tumour. This treatment is palliative, but not curative. About two years ago I aspirated in Mary Ward, Guy's Hospital, a hydronephrosis, which had been tapped on three or four previous occasions. The woman remained in very good health and did not wish anything more serious to be undertaken.

Next to tapping or aspiration, the simplest method of treatment is to expose the cyst in the loin, drain it, and stitch the margins of the cyst to the edges of the wound. The cyst will then gradually contract, and after a time the wound may be expected to close. Should this fail, the kidney may be excised, as a final resource. Whether nephrectomy in these cases should be undertaken through the loin, or by ventral incision, may still be considered an open question. Mr. Knowsley Thornton strongly advocates the removal of the cyst through the peritoneum in all cases, and, if it has not been previously drained, this is not at all difficult; but it is probable that all cystic tumours of the kidney can be removed through the loin, after tapping, and when a wound of the peritoneum can be thus avoided, the patient is saved from one of the risks of the operation. Nephrectomy for hydronephrosis may be expected to yield better statistics than nephrectomy for most other conditions of the kidney, as constitutionally the patient suffers little, and the other kidney has long been accustomed to perform the work of two.

Large Isolated Cysts of the Kidney.—These, when attaining a size sufficient to create a tumour, require surgical treatment, but their rarity lessens their importance. They are not to be confused with either the congenital cystic disease, which Virchow[29] showed was often associated with congenital deformities, or with the cystic degeneration of adults, associated with albuminuria, both of which affections attack both kidneys, and do not belong to surgery. With the large isolated cysts the kidney-structure only suffers by pressure. They commence in the secreting substance, and have no communication with the pelvis. Their contents may be a limpid, pale, yellowish-green fluid, which sets into a tremulous, gelatinous mass on removal,[30] or a thin fluid containing neither albumen nor any constituents peculiar to urine.[31] In a case related by Hawkins, a diminutive third kidney was attached to the cyst-wall, which was probably of congenital origin.

The treatment in these cases would be to aspirate, and in the case of their refilling to drain antiseptically through the loin.

Hydatid of the kidney is rare, and has a tendency to discharge itself through the pelvis of the kidney. If with a renal tumour the patient passed small daughter-cysts through the urethra, the diagnosis would not be doubtful, and under these circumstances medical treatment alone might be sufficient. When, however, it enlarges forward, and attains a considerable size, it will probably require surgical interference. The globular nature of the tumour, its tenseness, mobility, and thrill, might lead one to suspect its nature, but the diagnosis could scarcely be made certain till it had been tapped or aspirated, when the watery, saline, faintly-milky fluid, showing ecchinococci under the microscope, would place the character of the cyst beyond a doubt. Such cysts occurring in women, like most renal cysts, have been mistaken for ovarian tumours and operated upon as such. These mistakes might be avoided by an exploratory puncture, and the risk of a laparotomy incision would be, in this way, prevented.

Aspiration of the cyst through a fine cannula, or siphon-tapping, as recommended by Dr. Roberts,[32] appears in the majority of cases sufficient to effect a cure. I have known an hydatid cyst refill twice after tapping, but whether it was the original cyst or a daughter-cyst which enlarged in the same situation, may be open to question.

Pyonephrosis.—Unilateral pyonephrosis, that condition of kidney which resembles anatomically hydronephrosis, but contains pus instead of watery fluid, will next engage our attention.

The double pyelitis, with suppuration and distension, which results from stricture, enlarged prostate, calculus or growth in the bladder, and which has been described under the inappropriate designation of "surgical kidney," I mention but to disown. This condition is brought about by the absence of surgical treatment, and it is as absurd to speak of it as "surgical kidney," as it would be to speak of a mob that had collected through the absence of policemen as a policeman's mob. I would suggest that the term *reflux pyelitis* would more accurately indicate this class of cases. Reflux pyelitis, when one-sided and dependent upon some obstruction in the ureter, not unfrequently ends in a large pyonephrosis. The other chief causes of pyonephrotic tumours are calculus in the pelvis of the kidney and scrofulous pyelitis. These conditions give rise to very free discharge of pus, thickening of the ureter ensues, and temporary or partial stoppage of the tube is apt to occur from the entanglement of the *débris* from the kidney, so that the pelvis becomes gradually dilated.

Pyonephrosis gives rise to more pain and constitutional disturbance than hydronephrosis; and the tumour forms adhesions to the neighbouring parts, and is, therefore, less movable. Attacks of nephritic colic are frequent, especially when a calculus is present; but these attacks must not be regarded as absolutely characteristic of calculus, for plugs of mucus and blood-clots obstructing the ureter give rise to similar pains. Many of the cases which have been operated upon, on the suspicion of calculus, have proved to be cases of strumous pyelitis. The urine usually remains acid throughout. Intermitting pyonephroses occur just as intermitting hydronephroses, but the changes in the urine are more readily traced. Thus, with the appearance of a tumour, pus may disappear from the urine, and, with its subsidence, pyuria may be re-established. Irritation of the bladder is always excited by pus in the urine, and frequent micturition is one of the most painful consequences. I remember a case of pyuria which was under Mr. Cock's care about fifteen years ago, when I was his dresser. The man was unable to retain his urine longer than a quarter of an hour, and suffered intense pain in micturition. Mr. Cock performed cystotomy, which appeared to give temporary relief. I watched this man for four years, till he died of phthisis in a medical ward; and it was then ascertained that his bladder-symptoms were entirely due to strumous kidneys. Rigors, followed by rise of temperature, frequently occur during pyonephrosis; and the pus may burst its capsule and point in the loin, or, more rarely, come forward in the inguinal region. I have twice

[26] *Transactions of the Pathological Society*, vol. xxiii, p. 159.
[27] *Transactions of the Medical and Chirurgical Society*, vol. lix, p. 227.
[28] Roberts, *Urinary and Renal Diseases*; Broadbent, *Transactions of the Pathological Society*, vol. xvi, p. 164; Thurnam, *London Medical Gazette*, vol. xx, p. 717.
[29] *Gesammelte Abhandlungen*, pp. 837 and 864.
[30] Hare, *Transactions of the Pathological Society*, vol. iv, p. 199.
[31] Hawkins, *Transactions of the Medical and Chirurgical Society*, vol. xviii, p. 175.
[32] *Liverpool and Manchester Medical and Surgical Reports*, 1873.

opened and drained these abscesses through the loin; and both cases were greatly relieved, though they left the hospital with sinuses. One of these cases I have been unable to trace; but the other, I have since heard, has completely recovered. The colon is apt to become adherent to a pyonephrotic tumour, and the latter sometimes discharges itself through the bowel.

The treatment of pyonephrosis, when it has already burst its capsule and is showing a tendency to come to the surface, all surgeons will be agreed upon. The abscess should be opened freely in the loin, and its cavity thoroughly disinfected and drained. Many cases treated in this way will gradually contract, and the sinuses through which they have discharged will afterwards close. Other cases will continue to suppurate and discharge through a fistula, which can only be cured by removal of the kidney.

When the pus is still retained within the capsule of the kidney, it may be matter for discussion whether it is most advisable to perform nephrectomy at once, or to drain the kidney first before removing it. Nephrectomy for pyonephrosis has been more successful than nephrectomy generally. Out of twenty-eight cases in which the kidney has been removed for pyonephrosis, there were eleven deaths and seventeen recoveries; but it is a thing most worthy of note, that six of these cases had discharged their contents through a fistula in the loin, and *all these six recovered*.[33] Judging from these results, it would certainly appear safer to drain the kidney before attempting to remove it. Out of the twenty-eight cases, twenty-four were operated upon through the loin, and four by ventral incision; and, though three of the latter recovered (one having been previously drained through the loin), the danger of dragging a bag of pus out through the peritoneal cavity is such, that I should hesitate to recommend it. The difficulty of removing a suppurating kidney through the lumbar region is very great, owing to the adhesions it makes with surrounding parts; and in several cases the peritoneum and colon have been injured during the operation. It is important to bear in mind, when these extensive adhesions are found, that the only way of removing the organ without damaging other structures is to open its capsule and turn it out, leaving this covering behind. I found it necessary to do this in my own case, the kidney being firmly attached to the ribs; and others have done the same.

One of the most interesting and instructive results of nephrectomy for pyonephrosis is, that the suppuration of the bladder and ureter secondary to scrofulous kidney is shown to be gradually recovered from after the kidney has been removed. In the case I operated upon three and a half years ago, pus continued in the urine for about nine months, but gradually lessened, and eventually disappeared.[34] In Mr. Morrant Baker's case, a similar occurrence was noticed.

New Growths of the Kidney.—The pathological department of this meeting will, it is hoped, throw some new light on these neoplasms. Encephaloid, or medullary sarcoma, is the disease which, as a large solid tumour, is of most interest to the surgeon. In children it is frequent under the age of five, and it occurs again late in life. The relation of the colon to it is important, as distinguishing it from tumours of the spleen and liver, the bowel lying over it, and intervening between it and the liver or spleen. Hæmaturia is a frequent but not a constant symptom; its elasticity may sometimes suggest fluid, but puncture would only draw blood, or perhaps with it, some cellular matter, which the microscope might throw light upon.

Nephrectomy, in these cases, offers the only chance of prolonging life; and, as the disease appears for some time to remain enclosed in the capsule, if performed early, there is some hope that the relief may be permanent. In these cases, owing to the size of the tumour, the ventral incision must be generally employed, though, in five cases, cancerous kidneys have been removed through the loin, and in four of these recoveries took place. Out of sixteen cases removed by ventral incision, ten died and six recovered.

Calculus is, perhaps, one of the most important affections of the kidney, and one which will most frequently suggest operation. Though nephrotomy for calculus, or, as it is now termed, nephrolithotomy, was suggested by Hippocrates, the difficulties in diagnosis appear to have deterred surgeons, till quite recently, from operating, except in cases where the presence of a stone was made evident through a sinus in the loin, or probable by the presence of a tumour. A good many such cases are to be found scattered through medical literature. Simon's work,[35] however, put renal surgery upon an entirely new footing. Among other things, he showed that it might be impossible to feel a calculus in the kidney, even when the organ was exposed, and suggested acupuncture as an aid. Mr. T. Smith[36] and Mr. Annandale,[37] in this country, both advocated nephro-lithotomy in 1869; and Mr. Durham explored a kidney with that object in 1872. But it was not till 1880 that Mr. Morris,[38] on Dr. Coupland's suggestion, successfully removed a small calculus from a young woman aged 19, who had had attacks of renal colic and hæmaturia, but no abscess or tumour.

Other cases by Mr. Beck, Mr. Haward, and Mr. Butlin, were brought before the Clinical Society during the following session;[39] and Mr. Bennett May has this year related before the same society a most interesting case, which shows that the operation may be successfully performed even when the stone is very large. At Guy's Hospital, during the present year, the operation has been twice successfully performed; once by my colleague, Mr. Howse, and quite recently by Mr. Symonds.

The operation is not a difficult or dangerous one, but the uncertainty of diagnosis stands in the way of the operation becoming as frequent as it deserves to be. Attacks of renal colic belong to the ureter rather than to the kidney; and the largest stones often cause the least pain, owing to their being fixed in the calices. Still, recurrent attacks of severe pain, extending from the loin to inguinal region, thigh, and testes, with retraction of the latter, are the most reliable indications of renal calculus, though they may be imitated by the passage of blood-clots, mucus, pus, or hydatids; hence, strumous kidneys will be frequently explored for calculus. The passage of blood at intervals, especially after exertion, and the occurrence of pyelitic epithelium and pus, together with crystalline deposits, will help to complete the diagnosis. The case reported by Mr. Butlin deserves special notice, since his colleague, Mr. Willett, concluded there was stone in the kidney when there was but one symptom, viz., recurrent attacks of intense pain in, and retraction of, one testis.

When the kidney has been explored behind and punctured without success, before giving up the search for a stone it may be advisable to pass the hand in front of the kidney, and press the pelvis against the psoas muscle. This was done by Mr. Howse in the case in which I assisted him, and in no other way could the stone be felt. The operation is completed by scratching through the pelvis with a probe, and removing the calculus with a forceps or finger.

It may be well to throw out a warning that calculous pyelitis is sometimes bilateral, and this I will illustrate with a case. A girl, aged 15, was brought under my notice first for retention of urine, the bladder being enormously distended. Four pints of urine were drawn off. She was said never to have had proper control over her bladder at night; but, two months before being seen, she had a severe attack of sickness, diarrhœa, and pain in the abdomen, from which time she had had a difficulty in passing her urine; and it was noticed to be milky. She had never passed blood. There was no stone in the bladder, but the urine contained a large quantity of pus. The abdomen was not distended, but there was tenderness on the right side. She was thin and cachectic-looking. Violent vomiting set in, which nothing could control, with pain and some diarrhœa, and she died a fortnight after she was first seen. Both kidneys were found dilated, and filled with pus. The right contained a large branching calculus, the left a smaller one, blocking the ureter.

If the renal structure be found in great part sound when exposed, the surgeon will, after removing the stone, only secure for the patient free drainage through the loin, and wait for the wound to close. But, should the kidney be found dilated, and its structure extensively destroyed, with a large branching calculus embedded in it, he will have to determine whether it would not be wiser to remove the organ at once, rather than attempt to abstract the calculus. The statistics of nephrectomy for calculous pyelitis are not very favourable; for, out of thirteen cases in which it was undertaken for this disease, seven died and six recovered. One reason of this is, no doubt, that, with long continued pyelitis in one kidney, the other is apt to become affected. In a case operated upon by Mr. F. Lange,[40] of New York, the remaining kidney at the necropsy was found to be quite useless.

Injuries to the Kidney, though not included under the title of this

[33] The operators in these six cases were Czerny, Bardenhuer, Clement Lucas, McClelland, Morrant Baker, and Knowsley Thornton.

[34] *Transactions of the International Medical Congress*, London, 1881, vol. ii, page 271.

[35] *Opus cit.*

[36] *Transactions of the Medical and Chirurgical Society*, 1867, vol. iii, p. 211.

[37] *Edinburgh Medical Journal*, July, 1869.

[38] *Transactions of the Clinical Society*, vol. xiv, 1881, p. 30.

[39] *Transactions of the Clinical Society*, vol. xv, 1882, p. 103.

[40] *New York Medical Record*, 1880, p. 144.

paper, can scarcely be omitted in a surgical discussion. They generally result from crushing injuries of the abdomen, and are indicated by hæmaturia. It is well known that severe lacerations of the kidney may be recovered from, as is indicated by the deep white scars found *post mortem* on kidneys which have been injured years before. How far it may be justifiable to cut down and remove a kidney thus injured, we want more experience to determine. The difficulty will be to decide whether the symptoms are sufficiently severe to call for interference; and then, whether the risk of exposing and removing the organ may not add to, rather than diminish the danger. An interesting case of this kind was brought by Dr. Rawdon[41] before the Royal Medical and Chirurgical Society in May last. The kidney was removed on the seventeenth day after the injury; cystotomy was performed on the twenty-first, and the patient lived till the fortieth day, and died from pyelitis of the other kidney. Cases where the kidney bleeds through an external wound, or has been exposed by a cut, do not present the same difficulty. The amount of bleeding or damage done to the kidney will determine the operation.

I have now passed in rapid review the diseases and injuries of the kidney which admit of surgical treatment, and have pointed out the kind of operation I think most suited for each case. Before closing my paper, I wish to say a few words about the operations themselves.

We have at our disposal six operations, paracentesis, exploration of the kidney, nephroraphy, nephrotomy, nephrolithotomy, and nephrectomy.

Of the last five, four are performed through the loin, and require no special notice, whilst the fifth, nephrectomy, includes two distinct operations, viz., (1) the removal of the kidney through the loin, or extra-peritoneal operation, and (2) its withdrawal through the peritoneal cavity by ventral incision.

Incisions.—In the ventral or transperitoneal operation, an incision in the median line, extending three inches above and three inches below the umbilicus, is usually employed, and the kidney is reached through the outer layer of meso-colon. Langenbuch[42] of Berlin, has suggested that it is better to make the incision on the outer side of the rectus muscle in the linea semilunaris, as this enables the surgeon to reach the kidney more readily on the outer side of the colon. After the kidney has been removed, Sir Spencer Wells[43] has advised that the edges of the rent in the peritoneum at the back of the abdomen should be sewn together, as well as the incision through it in front; but it may be doubted whether the advantage promised would not be dearly bought by the time expended in obtaining it. The surgeon must decide on such details at the time of the operation, according to the state of his patient. In the same discussion, Mr. Barwell suggested (but it has not yet been carried out) that after ventral extirpation it would be well to make an opening through the loin, and insert a tube to drain the postperitoneal space. In the operation through the loin, or extraperitoneal operation, Simon originally employed a vertical incision on the outer edge of the quadratus lumborum, and this has been generally followed. Couper[44] and others have used the ordinary oblique incision as for colotomy; and Klineberger has suggested a curved incision, with its convexity upwards and inwards. I found myself that a combination of two incisions gives the most room and allows the hand to be freely introduced: viz., an oblique incision, which should be higher than the colotomy incision, within about half an inch of the last rib and parallel with it, and a vertical incision along the outer edge of the quadratus lumborum, commencing at the upper edge of the last rib and extending to the iliac crest.[45] This incision has since been employed by Mr. Barwell and Mr. Morrant Baker, and my colleagues, Mr. Golding Bird and Mr. Howse.

If the quadratus lumborum be large, no harm will be done by dividing this till the edge of the erector spinæ is reached. The eleventh and twelfth ribs will be found a good deal in the way of the operator, and should be drawn up by a strong, blunt hook-retractor. In five cases the twelfth rib (or eleventh by mistake) has been subperiosteally excised to give more room, but this should be avoided if possible, as it adds to the risk of the operation. Of these five cases four died, and in one it was ascertained after death that the pleural cavity had been opened. To reach and secure the pedicle is the chief difficulty in the lumbar operation. When it has been tied it may be a question whether to leave the ligatures out of the wound or cut them short. I think, with Professor Czerny, that it will be found better to cut them short, as in ovariotomy. In case of bleeding, I should not again attempt to retie the pedicle, but should stuff the wound tightly with sponges steeped in perchloride of iron and put a tight bandage round the abdomen. In this way I saved my patient when exhaustion was such that recovery seemed impossible. Another point I would insist upon is the great importance of guarding against death by shock. I do not think it is sufficiently recognised how much this depends upon lowering of the surface-temperature. I have, for some years, in cases of such serious operations as amputation through the hip-joint, been in the habit of wrapping[46] the patient's extremities in cotton-wool and flannel, and I adopted the same precaution before performing nephrectomy. Mr. Thornton has recommended that the cut end of the ureter should be brought out through the wound and disinfected, and I am inclined to adopt this suggestion in any future case, as it is not improbable the end of this tube may excite suppuration.

In conclusion, I would urge that antiseptic exploration of the kidney through the loin is a simple and not at all a dangerous operation, which may be undertaken without anxiety in any case where calculus is suspected; that it is generally wiser to tap and drain fluid tumours of the kidney before proceeding to remove the diseased organ; that, where nephrectomy is decided upon, the extra-peritoneal operation through the loin should always be chosen for any tumour it is possible to withdraw through the limited space at disposal; finally, if this course be adopted, the transperitoneal operation will be reserved for large solid tumours, and perhaps some floating kidneys.

41 *Proceedings of the Royal Medical and Chirurgical Society*, May 22nd, 1883.
42 *Transactions of International Medical Congress*, London 1881, vol. ii, p. 278.
43 *Proceedings of the Royal Medical and Chirurgical Society*, May 22nd, 1883.
44 *Medical Press and Circular*, November 24th, 1880.
45 Letter by author, BRITISH MEDICAL JOURNAL.

A CASE OF NEPHRECTOMY FOR CYSTIC TUMOUR OF A FLOATING KIDNEY.

Read in the Section of Surgery.

BY WILLIAM WALTER, A.M., M.D.,
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THE subject of this communication is a woman (E. D.) aged 42, who was admitted into St. Mary's Hospital on April 9th, 1883, on account of a movable tumour in the right lumbar region; she was also suffering from prolapse of the uterus and left ovary, but from the latter complaint she had very little inconvenience. During the previous three months, she had been an out-patient under the care of my late colleague Mr. Ewart, who showed me the case the first day she came to the hospital. We both agreed that the tumour in the right lumbar region was a displaced kidney, and that the organ was of normal size; it could easily be pushed across the mesial line to the left hypochondriac region, as well as upwards under the liver.

The next time I saw the patient was a few days before her admission into hospital, when, owing to Mr. Ewart having left Manchester, she was transferred to my care. I found that a marked alteration in the case had taken place; the tumour had lost its renal shape, had assumed a spherical form, and was three times as large as a normal kidney. The woman herself had also changed for the worse, having during the previous five or six weeks suffered from constant vomiting; nothing that she swallowed remained in her stomach more than a few minutes; and she complained of a continuous aching and tenderness in the tumour. The surface of the tumour was quite smooth; its consistence felt solid, though there was an obscure sense of elasticity in it; no fluctuation could be detected; it still remained as movable as before, and sometimes, when lying on her back, would slip under the ribs completely from view.

On inquiring into her previous history, she said she had been married eighteen years, had had five children, and seven miscarriages; the catamenia commenced when she was thirteen years of age, and always were regular until six months ago, when they ceased. She had not been pregnant since her last miscarriage, five years previously, and had suffered more or less from bearing down of the womb for sixteen years.

Her present ailment dated back to her last confinement, which occurred nine years before, and she distinctly recollected the first occasion on which she felt the tumour; it was just a fortnight after her confinement, and she was carrying two large pails of water when she felt something give way in the right lumbar region, and perceived a small swelling just below the ribs. During the time referred to, she had a farm in Canada, and it was her duty eighteen

46 See remarks by author on a case of amputation through the hip-joint, *Guy's Hospital Reports*, 1879, page 324.

or twenty times a day to carry water from the pump, distant from the farm at least one hundred yards. For the next six years, the tumour grew slowly, and gave very little trouble to her, but the last three years she had previously suffered a great deal of pain. Her urine was carefully examined, and found normal, nor was there any history of hæmaturia, or any vesical trouble.

The propriety of operative interference was fully discussed with my colleagues; and, with their assistance, I made a small exploratory incision in the linea alba, feeling that I would not be at all surprised to find that the tumour might after all prove to be a malignant disease of the omentum, the extreme rapidity with which the woman had become emaciated naturally making one feel somewhat suspicious as to the correctness of our former diagnosis.

The operation was performed on April 20th, 1883; the spray was discarded, but in other respects antiseptic precautions were adopted. The anæsthetic used was bichloride of methylene; and, as soon as the patient was under its influence, I made an incision, four inches in length, in the mesial line, commencing two inches above the umbilicus.

No vessels requiring attention were wounded in the abdominal incision; and, as soon as slight manual pressure was made in the right lumbo-dorsal region, the tumour appeared in view at the incision, and proved to be a cyst, whose walls were thin and tense, and whose colour was of a bluish hue, similar to an ordinary ovarian cyst. I now made the incision larger, and, introducing my hand into the abdominal cavity, found that the right kidney was included in the growth. The left kidney was found to be of normal size, and in its natural position.

The tumour was again brought into view, and the layer of peritoneum in front of the growth, and underneath which it freely glided, was divided with the scissors before any attempts at enucleation took place.

To the lower end and anterior surface of the kidney seemed to be the attachment of the cyst, whose walls were as thin as tissue-paper. This cyst I punctured with a fine trocar, and drew off its contents, which measured ten ounces, had a pale straw-colour, of specific gravity 1013, and contained two-fifths albumen, but no urine.

Carbolised silk-ligatures were placed around the ureter, renal artery, and vein, which structures being divided with scissors, the kidney was removed. A sponge being applied to the parts, was scarcely tinged with blood, and the edges of the wound were then brought together with five wire and two superficial silk-sutures. The wound was then dressed with thymol gauze and cotton-wool pads, which were kept *in situ* with stripes of plaster and a many-tailed bandage.

For several hours after the operation, the patient was very weak, and required the free use of brandy and beef-tea, which were administered as enemata.

The day after the operation, the patient seemed very well, but was coughing a good deal; and, on the sixth day, the sutures were all removed, the wound having healed by first intention, without the presence of any pus.

On the eighth day, the patient was moved into the general ward, and seemed to be doing well until the twelfth day, when the pulse reached to 130, and her temperature rose from 100° to 102°; her tongue became furred, and a trace of albumen was found in the urine, which was also rather scanty in amount.

The following day, she was suffering from delirium tremens, and became so violent as to require tying down in bed, refusing, at the same time, to take any food.

Enemata of beef-tea, milk, brandy, and chloral hydrate were freely given; and, at the end of five days, all these symptoms disappeared. Three weeks after the operation, the patient was sitting up in the ward; and, five days later, was able to return home.

Her convalescence has progressed steadily, and the former pain and vomiting, for which she sought relief, has not since recurred. Unfortunately, she neglected to wear, on returning home, an abdominal bandage, and a ventral hernia has resulted; but she expresses herself as very much pleased indeed with the benefit that has followed the operation.

I have to mention, with thanks, my indebtedness to Mr. A. Winterbottom for notes of the above case.

Mr. BENNETT MAY (Birmingham) considered that the accumulated evidence as to the present condition of all the cases in which nephro-lithotomy had been performed would be of great value, furnishing the state of the urine and the probable state of the kidney as a working organ or otherwise. That these patients fully recovered from the injury inflicted by the operation was amply proved, but whether this applied equally to the object for which the operation was undertaken was not so certain. Still, their result appeared to have been very good. As a contribution to the subject, he wished to report the sequel of a case, the present state of a man, aged 34, from whom he had removed a stone, one ounce in weight, the kidney being apparently healthy. This was in November 1882, and the result was this. He had been wholly relieved of hæmaturia, almost wholly of pain, but still had pus in the urine. Within the last few weeks he had materially improved, and the amount of pus was much less. The amount of urine now averaged from fifty to sixty ounces a day. Its specific gravity was below 1010. It gave a small deposit of pus, and the amount of urea it contained varied between one and three grains in the ounce, thus giving as his daily average elimination of urea about 150 grains, on examination extended over two weeks. He remained, however, in excellent general health, able to enjoy a moderately active life, and fairly contented with his condition, and Mr. May was content to let well alone, but if the condition became very much worse he would perform nephrectomy. The result was satisfactory, and quite endorsed the received opinion that the limit to success in these cases was not the size of the stone, but the state of the kidney. A complete success was not to be looked for in the presence of persistent pyelitis. After some remarks as to the choice of lumbar or abdominal section for nephrectomy, Mr. May suggested that there might, perhaps, be added to the instructive list of diseased conditions of the kidney amenable to surgical treatment which had been furnished by Mr. Clement Lucas, one other, viz., certain cases of obstructive suppression, not, of course, in hope of cure, but in the hope of postponing a fatal termination. He suggested establishing a fistulous opening in the loin for the escape of the urine, where suppression occurs as the result of impaction of a calculus in the ureter, the patient generally living six or eight days, with scarcely other symptoms than the suppression of urine. As a matter of fact, it was not difficult to strike the pelvis of the kidney by the aspirator; and, in conclusion, Mr. May mentioned a case in which he had successfully relieved a patient of four ounces of urine after diagnosing retention of urine in the loin.

Mr. KNOWSLEY THORNTON (London) would confine his remarks to the subject of nephrectomy, and dwell chiefly upon the relative mortality of the operation by abdominal and lumbar section. It must eventually be decided by statistics, but he wished to point out that the higher mortality at present attached to the abdominal section was due to many of the cases being stumbled upon by operators when they expected to remove an ovarian tumour. On the other hand, the success of lumbar section was swollen by the simple cases in which a healthy kidney was removed after wound in the loin or some other accident. He could not agree with Mr. Lucas that tapping first, and then removing a collapsed cyst through the loin, would simplify the operation or lessen the danger. The operation would be very difficult in many cases, and the tapping would add another risk. He had operated five times by abdominal section, once by median incision, twice by Langenbuch's incision, then again by the median incision, and recently he had removed a healthy kidney for wound of the ureter during ovariotomy by an incision further out in the abdomen than Langenbuch's incision, pushing the colon aside, and not opening the peritoneum. This, he thought, will be the operation of the future. Either of these lateral abdominal incisions gave a great advantage in enabling the vessels to be enucleated, and tied before the main enucleation was performed, so as to save any serious hæmorrhage.

Mr. LAWSON TAIT (Birmingham) was of opinion that some form of abdominal section would be that ultimately selected for removal of kidney tumours, as by it the presence of the second kidney, its healthiness or unhealthiness, could be determined, and even if the removal of any particular kidney in this way were found to be impossible, a preliminary exploration would not in any way add to the patient's risk.

Sir SPENCER WELLS (London) had only once removed an enlarged and diseased kidney. In that case, he determined before the operation to close the divided peritoneum not only on the anterior abdominal wall, but also behind, where the peritoneal covering of the kidney must be divided in order to shell out the kidney from its bed in the loin. But at the operation he found so much loose peritoneum of such unhealthy appearance, that he cut it all away, thus prolonging the operation owing to the necessity of tying many bleeding vessels. Examination of the tumour proved that the cancerous growth had not invaded the proper capsule of the kidney. In any future case, he (Sir Spencer Wells) would close the opening in the peritoneal covering of the loin. He did not think opening

the abdominal cavity would be the best mode of ascertaining whether only one or both kidneys were diseased.

Mr. RUSHTON PARKER (Liverpool), in answer to Mr. Lawson Tait's remarks on suppurating kidney, and his advice to remove the organ rather than incise and drain, had to contribute his experience as witness of three such cases operated upon. Two were approached from the loin, incised and drained, with survival of the patients; and, at the operation, extirpation was found to be apparently impossible, from the intimate adhesion of the extremely thin capsule that alone remained attached to surrounding parts. In the third case, extirpation was attempted by abdominal section, and eventually effected, after extreme difficulty, with the speedy death of the patient, and the regret of the surgeon at having undertaken the procedure. It remained still to be settled, by additional experience in a subject upon which the experience of no one seemed to be large, whether incision or excision ought to be by preference attempted. It seemed to Mr. Parker, from his small knowledge, to be pretty clearly indicated that extirpation in pyonephritis, whether by loin or from the front, may be frequently impossible or necessarily fatal; whereas incision, and that in the loin, was probably always feasible, frequently successful, and not seldom the only operative resource. As to drainage after excision of renal tumours from the front, this might obviously be wisely effected by the loin, as proposed by several of the speakers.

Mr. WHEELHOUSE (Leeds) spoke as to the advisability of opening and draining suppurating kidneys. He expressed an opinion that, in many of these cases—perhaps the most distressing ones—extirpation was, if not impossible, at least likely to prove very difficult, and to be followed by almost immediate death; but that we need not, nevertheless, leave the patient altogether unaided; and he recommended in such cases that the kidney should be opened from the loin, freely drained, and occasionally washed out with some antiseptic fluid. He mentioned two cases in his own practice in which such a procedure had been followed with great, and tolerably persistent relief.

Mr. CLEMENT LUCAS, in reply, said that most of the points touched upon by the various speakers were discussed in his paper, but, owing to the limited time at his disposal, he was compelled to omit them. Mr. Bennett May's case was referred to in the paper as being the largest stone yet removed from the kidney. Before the publication of this case, it was generally supposed that, in cases of very large stones, it was better to remove the kidney; but this case will cause us to reconsider the question, and decide rather by the condition of the kidney-structure. He agreed with Mr. Thornton (and it was mentioned in the paper) that Langenbuch's incision was to be preferred when the transperitoneal operation was decided upon; but, though this operation was the easier, he adhered to his opinion that the lumbar operation was always to be preferred where its performance was practicable. The last rib should never be excised where it could be avoided, as it added to the risk of the operation. Four cases died out of the five in which this was done; and, in one, the pleura was found to have been opened. He was very glad to have the support of Mr. Rushton Parker and Mr. Wheelhouse as to the value of drainage in cases of pyonephrosis. Mr. Tait's case showed the difficulty of nephrectomy in such cases; for, after failing by abdominal section, he was only successful through the loin after wounding the peritoneum. Had he left the capsule of the kidney, as recommended in the paper, this accident could be avoided. Drainage was successful in many cases of pyonephrosis; but, should nephrectomy afterwards be required, the operation was far less dangerous than under other circumstances. Six cases had been undertaken after the discharge of the pus through the loin, and all recovered. In answer to Mr. Black's question as to the possibility of discerning the condition of the other kidney before operating, Mr. Lucas said that Mr. Simon had dilated the urethra of women, and afterwards catheterised the ureters. In men, it presented great difficulties.

MR. F. J. M. PAGE, B.Sc., F.C.S., has recently been elected Demonstrator of Practical Chemistry at the London Hospital Medical College.

BEQUESTS AND DONATIONS.—The Very Reverend Dr. Archibald Boyd, Dean of Exeter, bequeathed £250 to the Devon and Exeter Hospital, £250 to the General Hospital and Dispensary at Cheltenham, £250 to St. Mary's Hospital at Paddington, £200 to the Exeter Dispensary, and £200 to the West of England Eye Infirmary at Exeter.—The Reverend William Thomas Browning, of Lichborough, bequeathed £100 to the Horton Infirmary, Banbury.—Mr. Henry Rae has given £100 to the Hospital for Incurables, Dublin.—"J. W." has given £50 to the British Home for Incurables.

LIGATURE OF THE AXILLARY ARTERY IN A CASE OF TRAUMATIC INJURY TO THAT VESSEL, AFTER FRACTURE OF THE SURGICAL NECK OF THE HUMERUS.

Read in the Section of Surgery.

BY GEORGE E. FENWICK, M.D.,
Professor of Surgery McGill University, and Surgeon to the Montreal General Hospital.

ELIZA C. B., aged 41, a spare, delicate-looking woman, was admitted into the Montreal General Hospital, on May 23rd, 1883, for injury from the following accident. While walking in the street, a piece of heavy timber fell from a building in course of erection; it broke in two, and the upper half struck her on the shoulder, hurling her to the ground, and breaking the humerus at its upper third, about two inches below the joint; the upper fragment was drawn forcibly inwards and lacerated the brachial artery at or about the point of the commencement of that vessel. On examination the shoulder was greatly swollen, the axillary pit brawny and filled with what appeared to be blood; there was considerable tumefaction beneath the pectoral muscle, extending as high as the clavicle. The entire upper part of the front of the chest and axilla was tense and mottled; there was absence of pulsation below. On examination with the stethoscope the pulsation could be traced down to a point about an inch below the fold of the axilla, and at this point there existed a circular abraded surface about the size of a shilling. This was situated over the position of the artery, and below this point all evidence of arterial pulsation ceased. The forearm and hand were greatly congested, the veins distended almost to bursting, the colour of the skin was dark and mottled, the limb cold, the temperature being below the normal standard. A consultation of the surgical staff was hastily summoned, and in the meantime the limb was supported on a pillow, and hot flannels applied to restore warmth and favour the circulation if possible. In consultation it was suggested to make an exploratory incision over the course of the vessel, ligate it above and below the point of injury, and turn out as much of the blood-clot as possible, to relieve tension and endeavour to save the arm. During the two hours which had elapsed the same state of things existed, if anything, in an aggravated form, the superficial stasis and coldness of the limb had extended, and the swelling had increased; the pulse, which at the former visit was moderately full and 80 per minute, had become more rapid and somewhat weaker, and there was perfect absence of sensation as high as the middle of the arm. The patient was placed under ether, the subclavian artery was compressed with the handle of a door-key, where it passes over the first rib. The arm being by the side, an incision three inches in length was carried down directly over the situation of the artery; the centre of the incision being at the point where pulsation had ceased, as ascertained by the stethoscope. A large blood-clot was removed, and the artery and median nerve hooked up on the finger; the wound in the vessel was quite apparent, and carbolised catgut ligatures were applied above and below the injury. The upper ligature was applied at the point where the vessel passes over the tendons of the teres major and latissimus dorsi muscles, which were quite visible. As much of the blood-clot as possible, without disturbance of the parts, was pressed out.

The injury to the bone was a simple transverse fracture: the upper fragment was lying in front, and drawn inwards; the lower fragment was drawn upwards and outwards, and there was shortening of about an inch and a half. Extension of the limb brought the fragments near together, and, by a little manipulation, the broken ends were accurately adjusted. The wound was cleansed with a warm solution of 1 to 40 of carbolic acid, the wound closed with catgut sutures, and dressed with the usual antiseptic dressing; outside of the dressing, two pieces of Gouche's splinting were fitted, and retained in position by a couple of bands of ordinary bandage, and the hand and forearm swathed in a flannel-bandage. The operation was performed under the spray, and with full antiseptic precautions. There was one circumstance which was quite noticeable at the time of the adjustment of the fragments—a large clot was liberated and came away, and the veins, which previously were flaccid and empty, at once became distended, and the stasis in the forearm and hand was relieved. Before applying the flannel bandage, the parts had assumed a more natural hue. At night, she was very comfortable; there had been considerable draining away of serum tinged with blood; the colour of the forearm and hand was natural, and the warmth of the limb appeared to be that of the rest

of the body; there was, however, no pulsation to be felt at the wrist.

May 31st. She had passed a fairly good night, had slept at intervals, and had taken nourishment in small quantity, principally milk. The evening temperature was 101°, and had fallen to 99.2° in the morning. There was no pulsation at the wrist. Very little discharge had escaped since night except bloody serum, which had apparently dried, so that I did not disturb the limb by changing the dressing.

June 1st, 1 P.M. I dressed the arm to-day; the wound was looking well; discharge trifling, and of the same character. The fulness about the front of the chest beneath the clavicle had greatly lessened. The same dressing was applied. On careful examination, the pulse was distinct at the wrist, though small in volume as compared with the opposite arm. This was forty-five hours since the ligation of the vessel, and about forty-eight since the accident.

From this time forward, she progressed slowly, but favourably; the wound closed, and union between the broken fragments of bone took place, and the patient left the hospital towards the end of July.

REMARKS.—This was a case of unusual occurrence, and is of interest in illustration of the surgical principle of ligating a vessel at the point of injury. There are other conditions connected with the case which might render this line of practice objectionable, and to which exception might be taken, as the converting a simple into a compound fracture. The case was desperate, and one of two things had to be done: either ligate the vessel, and endeavour to save the arm, or practise amputation at the shoulder-joint.

The conversion of a simple into a compound fracture, always a serious injury, and to be avoided if possible, is less feared now, with the use of antiseptic means, which, in this instance, were fully carried out. A most interesting circumstance connected with this case was the accuracy with which we were enabled to ascertain the actual point of injury to the vessel by the use of the stethoscope; the humming of the artery could be distinctly made out to cease at a given point, opposite to which was an abraded portion of skin, and exactly at this point the wound in the vessel was found.

Another point of interest was the return of the radial pulse forty-five hours after ligation of the vessel.

Mr. EDMUND OWEN (London) briefly recorded a case of a somewhat similar nature; it was that of a young sailor who, falling from the rigging on to the deck of his ship, ruptured his left axillary artery; he was in a state of great exhaustion; a consultation was held, and, contrary to his inclination, Mr. Owen was induced to tie the subclavian artery. The axilla was full of clot, and the clavicle was greatly elevated; the external jugular vein was tied in two places, and divided. The operation was tedious, and the man died a few hours after the operation. Dr. Fenwick's case was of interest, not only from the favourable issue which attended his treatment, but also from the fact of its vindicating the great surgical principle that, when an artery is wounded, the surgeon must cut down upon it to tie it above and below the damaged spot.

Mr. H. H. TIDSWELL (Southport) said that the case mentioned by Dr. Fenwick called to his mind one of rupture of a popliteal aneurysm. When the patient first came under notice, it was evident what the injury was. There was an enormous extravasation of blood, as the knee measured 22 inches in circumference. He had for some time been suffering from a swelling in the popliteal space, with some contraction of the knee. He went to a bone-setter, who at once set to work to straighten the knee by placing it across two chairs, and with great force he did so. The result was the gradual formation of this swelling, which continued to increase for two weeks before he came to the hospital. The case was a serious one, and the patient was not a good subject for operation; he was between forty-five and fifty years of age; an old soldier; and had had syphilis. Was it advisable to attempt to save the limb by cutting down on the artery and tying both ends; or should amputation be performed at the knee? Amputation was decided on; and Mr. Tidswell thought that this was right. The man made an excellent recovery, and was saved the risks of gangrene.

THE Wednesbury Local Board and Urban Sanitary Authority have, upon the recommendation of the Sanitary Committee, increased the salary of Dr. John C. Garman, the medical officer of health, from £84 to £168 *per annum* for the nine months ending June 24th, 1884, in consideration of his extra services during the late epidemic of small-pox.

FORTY CASES OF INCISION OF THE CHEST FOR EMPYEMA;

TREATED IN THE LEEDS INFIRMARY BY DR. ALLBUTT, DR. EDDISON, AND DR. CHURTON.

Read in the Section of Medicine.

BY J. E. EDDISON, M.D.,
Physician to the Leeds Infirmary.

THE cases to which I am about to direct your attention were under the care of my colleagues, Drs. Allbutt and Churton, and myself, in the Leeds Infirmary. It occurred to us that a series of cases in which the chest had been incised for empyema, taken consecutively and without any selection, might have an interest which isolated or selected cases could not have. I have taken the last forty cases in order as they were admitted; every case, from October 1879 to the end of May 1883, being included, whether it was what may be called a simple case of empyema, or one complicated by the presence of some other disease. I have to thank my colleagues for allowing me to bring forward their cases with my own; and I am much indebted to our able house-physician, Dr. Silk, for great assistance in getting out the details of the cases.

There can be no need for me to describe to you so simple an operation as the ordinary incision of the chest-wall, or to insist upon the necessity of the operation when pus is present. My object is merely to bring before you, as briefly as I can, the results of a careful comparison of these particular cases. The incision was usually made in the eighth, ninth, or seventh space, sometimes higher, and generally near the posterior axillary line. In some cases, it was out of the question to give any anæsthetic. Ether was given in thirty-one cases, no injurious effects being observed to follow its use. In all the cases except two (8 and 10), the operation was performed with antiseptic precautions, carbolic spray being used, and the dressings afterwards being also antiseptic. In seven cases, the special dressings were given up at different periods after the operation. On the whole, I think patients seem to do better and to be more comfortable when antiseptic dressings are adopted than when they are dressed in the ordinary way; but it is quite certain that many cases in which no antiseptics are used do extremely well; No. 10, a woman of 28, being a case in point.

The most important point undoubtedly is the maintenance of perfectly free drainage. Any blocking of the drainage-tube, or any interference with the free exit of pus, invariably sends up the temperature and retards the progress of the case.

With the object of finding out the influence of various elements in these cases—such as age, sex, etc.—I have arranged the cases in different ways; and, in order to save the time of my hearers, and to make it easier and less tedious to follow my remarks, I have had four of these tables printed, for the convenience of anyone interested in the subject. I have not thought it necessary or useful to print the list of patients in order of admission, as that can have no particular interest. In these tables, years and months are all reduced to weeks, in order to make a comparison of the cases more easy.

On examining this series of cases, in order to see what effect age may have on the result, some striking facts are to be noticed. A comparison of larger numbers would not, in all probability, give the same results; still, they are very much in agreement with experience derived from other cases. As usual, there are many more cases in males than in females; of these 40 cases, 26 being males, and 14 females; 7 of the males, and 4 of the females, being below twelve years of age. The difference in the numbers of the sexes occurs chiefly amongst the older cases, there being nine cases above thirty, and all of them were males; below this age, the sexes are almost equally divided. The greater frequency of empyema amongst males is doubtless due to the fact that men are so much more exposed to bad weather and sudden changes of temperature than women are.

As to the sides affected, they were exactly equal, there being twenty of each; but, amongst the fatal cases, the right side was the one affected in two-thirds; the numbers being six and three. These numbers are far too small to be of any value as indicating the relative danger to the patient. They may, however, be noted in passing.

Nine cases ended fatally, five males and four females; the five fatal cases amongst the males were all patients over thirty-five,

LIST OF CASES IN ORDER OF ADMISSION.

No.	Ref.	Physician.	Age.	Sex.	Side.	Duration of Illness before Operation.	Date of Operation.	Amount Evacuated.	Anæsthetic.	Method of Operation.	Dressings.	Result.	Duration of Case after Operation.	REMARKS.
1	100	Dr. Eddison	8	M.	R.	5 weeks	Oct. 9, 1879.	18 ozs.	E.	A.	A.	Cured	7 weeks	—
2	124	Dr. Allbutt	10	M.	R.	52 weeks	Dec. 5, 1879.	14 ozs.	E.	A.	A.	Cured	18 weeks	Had been repeatedly tapped for simple effusion. The drainage-tube became blocked with curdy pus several times.
3	98	Dr. Eddison	31	M.	R.	10 weeks	March 2, 1880.	60 ozs.	E.	A.	A.	Cured	8 weeks	—
4	121	Dr. Allbutt	19	M.	R.	6 weeks	April 16, 1880.	12 ozs.	E.	A.	A.	Cured	8 weeks	The urine was very albuminous, both before and after the operation. He left the infirmary without leave before the wound was absolutely closed.
5	114	Dr. Churton	7	M.	R.	—	May 20, 1880.	30 ozs.	E.	A.	Antiseptic till end of third week.	Cured	8 weeks	At the end of the second week, he became very hectic (temperature 103° Fahr.). The antiseptic dressings were discontinued at the end of the third week. A strumous child.
6	122	Dr. Allbutt	4	M.	L.	11 weeks	May 25, 1880.	20 ozs.	E.	A.	A.	Cured	6 weeks	He had received a blow on the chest the day before the beginning of the illness.
7	101	Dr. Eddison	5	F.	R.	15 weeks	June 21, 1880.	9 ozs.	E.	A.	A.	Cured	5 weeks	—
8	125	Dr. Allbutt	11	F.	L.	?	July 2, 1880.	None at Operation.	E.	No antiseptics.	No antiseptics.	Died	4 days	Lungs were breaking down at the time of admission, with expectoration of fœtid pus. *Post mortem* examination: lung full of cavities, one of which communicated with the pleural sac.
9	99	Dr. Eddison	40	M.	R.	10 weeks	July 26, 1880.	16 ozs.	E.	A.	A.	Cured	4 weeks	Free expectoration of pus two days before operation.
10	113	Dr. Churton	28	F.	L.	2 weeks	Sept 15, 1880.	40 ozs.	None	Without antiseptics.	Without antiseptics.	Cured	6 weeks	Had been well and at work fourteen days before operation. On exploration, pus found to be fœtid. No anæsthetic, no antiseptics, either at operation or afterwards. Breathing 60; pulse 130, and very weak. Relief was immediate.
11	114	Dr. Eddison	20	M.	L.	7 weeks	Feb. 28, 1881.	47 ozs.	E.	A.	A.	Cured	6 weeks	Heart was much displaced before operation.
12	113	Dr. Eddison	4½	M.	L.	11 weeks	May 17, 1881.	16 ozs.	E.	A.	A.	Cured	4 weeks	—
13	138	Dr. Allbutt	16	F.	L.	36 weeks	June 4, 1881.	24 ozs.	E.	A.	A.	Cured	4 weeks	—
14	144	Dr. Churton	6	M.	L.	5 weeks	July 13, 1881.	?	E.	A.	A.	Cured	4 weeks	Drainage was difficult during the first week.
15	112	Dr. Eddison	40	M.	R.	3 weeks	Aug. 20, 1881.	40 ozs.	E.	A.	A.	Died	3 days	Was a hard drinker. Pus had been withdrawn by aspiration six days before admission. He had pneumothorax; and, at the operation, a great deal of air came out with the pus. Extreme dyspnœa set in on the day after. The lung was found to be completely collapsed.
16	122	Dr. Allbutt	15	M.	R.	32 weeks	Oct. 7, 1881.	A few ozs.	E.	A.	A. not perfect.	Cured	18 weeks	Pus had been withdrawn about three months before he came to the infirmary, and for one month he had been expectorating pus. He now (July 1883) has phthisis at both apices. The dressings were only partially antiseptic.
17	120	Dr. Allbutt	43	M.	L.	52 weeks	Oct. 26, 1881.	68 ozs.	E.	A.	A.	Cured	20 weeks	Was tapped three times for simple effusion. Temperature very irregular and profuse discharge for some weeks. Hectic. Tube became blocked.
18	112	Dr. Churton	6	F.	L.	16 weeks	Feb. 16, 1882.	10 ozs.	E.	A.	A.	Cured	23 weeks	A strumous child. Had had scarlatina six months before admission. Hectic for a long time after operation.
19	103 A	Dr. Churton	48	M.	L.	12 weeks	March 7, 1882.	8 ozs.	E.	A.	A.	Died	2 weeks	Was aspirated four times and tapped twice before operation, the fluid being at first serous with blood-cells, and gradually becoming purulent. Had been a hard drinker, and subjected to much exposure. At *post mortem* examination, tubercular deposits found in both lungs.
20	113	Dr. Churton	23	F.	R.	10 weeks	March 8, 1882.	29 ozs.	E.	A.	A.	Died	12 weeks	Tapped twice before operation; the first time, serum with blood-cells; the second time, pus. Discharge profuse, quite sweet. Hectic throughout. At *post mortem* examination, tubercular deposits in the lungs and in other organs.
21	121	Dr. Allbutt	35	M.	R.	40 weeks	March 11, 1882.	20 ozs.	E.	A.	Antiseptic till end of 4th week.	Died	23 weeks	In November 1881, clear serous fluid was withdrawn, and again on two subsequent occasions. Readmitted in February 1882 with empyema. Four weeks after operation, the discharge became offensive, and the antiseptic dressings were stopped. Temperature kept high. At *post mortem* examination, tubercle in both lungs. A second opening had to be made in this case.
22	104	Dr. Churton	26	M.	R.	4 weeks	March 20, 1882.	12 ozs.	E.	A.	A.	Cured	7 weeks	Aspirated nine days before—22 ounces. Slight hectic in the second week.
23	105	Dr. Churton	29	M.	L.	3 weeks	March 26, 1882.	84 ozs.	E.	A.	A. for about 7 weeks	Wound still open.	—	On March 22nd, clear fluid was drawn off; and, on the 25th, pus was found to be present. Was sent out of hospital on May 3rd (five weeks), on account of an outbreak of erysipelas. The discharge became fœtid, and the antiseptic dressings were stopped, about fourteen days afterwards. Is now attending as an out-patient; the wound still open, and communicating with the pleural cavity, but in otherwise perfect health.
24	24	Dr. Churton	56	M.	R.	16 weeks	April 11, 1882.	68 ozs.	E.	A.	A.	Died	5 days	Aspirated April 6th; clear serum drawn off. Again on the 8th. At the *post mortem* examination, the lung was found to be solid from anthracosis, and to contain a small cavity. No anæsthetic was given.
25	124	Dr. Allbutt	23	F.	R.	16 weeks	April 25, 1882.	104 ozs.	None	A.	A.	Died	8 days	Symptoms very urgent on admission. Respiration 48, shallow; pulse small. Great dyspnœa and lividity came on. Left lung adherent; cavity in apex, size of an orange. Caseous nodules throughout.
26	123	Dr. Allbutt	16	F.	R.	52 weeks	July 6, 1882.	40 ozs.	E.	A.	A. for 4 days only.	Died	22 weeks	Aspirated five times before operation. At first clear serum, gradually becoming purulent. Discharge fœtid at time of operation. Antiseptics discontinued on the fourth day. Discharge profuse throughout. At *post mortem* examination, purulent peritonitis and pericarditis.

LIST OF CASES—*continued.*

No.	Ref.	Physician.	Age.	Sex.	Side.	Duration of Illness before Operation.	Date of Operation.	Amount Evacuated.	Anæsthetic.[1]	Method of Operation.[2]	Dressing.	Result.	Duration of Case after Operation.	REMARKS.
27	125	Dr. Allbutt	14	F.	R.	10 weeks	Aug. 2, 1882.	50 ozs.	E.	A.	A.	Cured	8 weeks	Twenty-four ounces of pus drawn off by aspiration five days before operation. Temperature rose to 101°. Owing to want of free drainage, a second opening had to be made.
28	106	Dr. Churton	3½	M.	R.	3 weeks	Aug. 12, 1882.	20 ozs.	E.	A.	Antiseptic for 14 days.	Cured	7 weeks	Temperature went up for two days, apparently owing to defective drainage.
29	107	Dr. Churton	21	M.	L.	12 weeks	Aug. 16, 1882.	36 ozs.	?	A.	A. until now.	A sinus still open.	—	Temperature high and irregular at first. Left hospital in November last. A strumous, ricketty-looking man, attending as out-patient. Small sinus leading down to rib, a portion of which is necrosed.
30	114	Dr. Churton	24	F.	L.	10 weeks	Aug. 18, 1882.	40 ozs.	E.	A.	A.	Cured	14 weeks	Irregular temperature for the first six weeks. A second incision was made. At first, no pus obtained in sixth and seventh spaces.
31	108	Dr. Churton	15	M.	L.	16 weeks	Sept. 8, 1882.	?	None	A.	Partial A.	Cured	9 weeks	—
32	32	Dr. Eddison	4	F.	R.	?	Oct. 17, 1882.	26 ozs.	None	A.	A.	Cured	23 weeks	A strumous child. Temperature irregular throughout. Repeated difficulty as to drainage. Small sinus leading to a portion of bare rib. Incision was enlarged.
33	115	Dr. Churton	29	F.	L.	20 weeks	Oct. 19, 1882.	26 ozs.	E.	A.	A.	Cured	9 weeks	Temperature became high (103°-105°) at end of second week, going down after continuing about a fortnight. The pus at first was fœtid; it became sweet. It was syringed with carbolic solution (1 in 40).
34	109	Dr. Churton	36	M.	L.	?	Nov. 6, 1882.	150 ozs.	None	A.	A.	Died	Half an hour.	On admission, was livid, and in a state of extreme weakness. *Post mortem* examination, right side of heart enormously distended; kidneys contracted.
35	"35"	Dr. Allbutt	21	F.	L.	3 weeks	Dec. 8, 1882.	24 ozs.	E.	A.	A.	Cured	30 weeks	Temperature became normal at end of third week, and has remained so.
36	—	Dr. Churton	45	M.	L.	8 weeks	Dec. 20, 1882.	60 ozs.	None	A.	A.	Cured	7 weeks	Serious heart-disease. Owing to extremely feeble state of patient, small aspirations were made—five, four, and then fifteen ounces—before operation.
37	37	Dr. Allbutt	26	M.	L.	8 weeks	Feb. 2, 1883.	12 ozs.	None	A.	A.	Under treatment for sinus.	—	Was aspirated four times; on the first occasion, sixty-one ounces of clear serum being drawn off. Subsequently, the fluid became bloody and purulent. Now slowly healing (July 1883).
38	38	Dr. Churton	28	M.	R.	6 weeks	March 2, 1883.	48 ozs.	None	A.	A.	Cured	9 weeks	Temperature never rose above 99°.
39	39	Dr. Churton	29	M.	R.	8 weeks	May 10, 1883.	20 ozs.	None	A.	A.	Cured	7 weeks	The incision was enlarged, owing to defective drainage; after which, the temperature never reached 99°.
40	—	Dr. Eddison	29	F.	L.	26 weeks	May 30, 1883.	22 ozs.	E.	A.	A.	Cured	7 weeks	Temperature normal after the second day.

of whom there were only eight altogether. Of the eighteen male cases below that age, not one died. By contrast, if we take all the cases of both sexes below eleven years of age—ten altogether—there is not a single death, and every one of them did well. Or, again, taking all the cases above thirty-five, and all below that age, we find five deaths amongst eight above that age, and four deaths out of thirty-two below. We must not, however, at once conclude that the bad results are due merely to the age of these patients, which was by no means great, and is, indeed, only noticeable by contrast with the other cases. It is evidently not so much the age of the patients that leads to the bad result, as the fact that there has been much more time for various pathological changes to develop themselves, and for intemperance and exposure to produce their full effects. Where the constitution is good, and where there is no tendency either to phthisis or other general affection, patients do extremely well, even when quite as old as some of those who died. Still, however one may try to account for the fact, these cases bear out what I believe is the common experience (and it is certainly mine), that the younger the patients, the better is the result likely to be, children doing best of all. The better healing powers of children, the elasticity of the chest-wall, and other causes, doubtless contribute to this result; but I must not digress into a consideration of such general questions.

It is difficult to estimate correctly the effect of the duration of illness upon the course of the cases after the chest has been incised, and especially difficult in the fatal cases in which the effect of various complications is evidently great. Still, as might be expected, prolonged illness has a bad effect on the whole, although there are some exceptions. One case (13), after about nine months' illness, was well in one month, the shortest time in which any recovered; and another, ill for only three weeks, took nearly eight months to recover completely. This case was, however, delayed by a slowly healing sinus. Two cases, in which illness lasted a whole year, recovered perfectly, although after rather a long time; these two cases are at the top of the list in Table 2. By arranging the cases in order, according to their duration after operation, some idea may be gained as to the average length of time that favourable cases may be expected to take. By such an arrangement, the result, in those cases where the patient was in a hopeless condition at the time of operation, is shown very emphatically. Six of the nine cases died within a fortnight of the operation, not on account of the operation itself, but, as I shall show later, on account of their condition on admission. Of the three that got over the first two weeks after the operation, and which yet ultimately died, two were phthisical, and one developed purulent peritonitis and pericarditis.

There are three cases which cannot be counted as cured, although all three patients are at work, and earning their living. Of these, one, which comes highest of all when the duration of the operation is taken as a ground for comparison, has been going on for more than a year. There is still a portion of the sac discharging; and it is the only case in which it may, perhaps, become a question whether the cure would be hastened by excising a portion of rib over the point where, as it seems, the lung is unable to expand. Of the other two still counted as under treatment, one was operated on forty-four weeks ago; but, although this patient figures almost at the top of the list as to the duration of his case, owing to a sinus that is still left, yet he began to do a full day's work five weeks before Christmas, and he has continued in full daily work as a cloth-finisher, without losing a day, ever since then. He has no discomfort and no pain. The other case, which has lasted twenty-six weeks, is a coachman, who attends to and drives a pair of horses; but there is still a small sinus, which is, however, healing up.

The shortest time in which any of the cases in this series have recovered completely is four weeks. There are, as will be seen in Table 3, five cases recovering in that time. These five cases are of various ages, from four and a half years to forty, and had been ill for periods of from five weeks to nine months before operation. One case (No. 10) is an example of a good result in a most unpromising case. The patient was *in extremis* on admission. The contents of the chest were fœtid. No anæsthetic could be given, nor were antiseptics used, and she recovered perfectly in six weeks.

Another case (16) may be referred to as an example in which,

[1] E means that ether was used. [2] A means that antiseptics were used at the operation, and that the dressings were done antiseptically.

although phthisis was present and active, yet the empyema was relieved, and indeed cured.

In order to see what effect the amount of pus in the chest may have on the result, I have arranged the cases in order, according to the amount removed at the operation. Where an extremely large amount is present, it has clearly a very bad effect; and this is well illustrated by the two cases that head the list—two cases in which the patients were at the point of death at the time of operation.

Forty Consecutive Cases of Empyema.

Table I.—*Arranged in order according to Age.*

No. of Case.	Arranged in order of Age. Males' Ages. Left side.	Males' Ages. Right side.	Females' Ages. Left side.	Females' Ages. Right side.	Duration of Illness before Operation.	Pus evacuated at the Operation.	Duration after Operation.	Result.
						Ounces.		
24	...	56	...	...	16 weeks	68	5 days	Died.
19	48	...	...	...	12 ,,	8	14 ,,	Died.
36	45	...	...	...	8 ,,	60	7 weeks	Cured.
17	43	...	...	...	52 ,,	68	20 ,,	Cured.
15	...	40	...	...	3 ,,	40	3 days	Died.
9	...	40	...	...	10 ,,	16	4 weeks	Cured.
34	36	...	...	...	?	150	¼ hour	Died.
21	...	35	...	...	40 ,,	20	23 weeks	Died.
3	...	31	...	...	10 ,,	60	8 ,,	Cured.
23	29	...	...	...	3 ,,	84	16 ,,	Sinus leading into chest; under treatment.
33	...	...	29	...	20 ,,	26	9 ,,	Cured.
39	...	29	...	...	8 ,,	20	7 ,,	Cured.
40	...	...	29	...	26 ,,	22	7 ,,	Cured.
10	...	...	28	...	2 ,,	40	6 ,,	Cured.
38	...	28	...	...	6 ,,	48	9 ,,	Cured.
22	...	26	...	...	4 ,,	12	7 ,,	Cured.
37	26	...	...	...	8 ,,	12	26 ,,	Sinus, healing; under treatment.
30	...	...	24	...	10 ,,	40	14 ,,	Cured.
25	...	...	...	23	16 ,,	104	8 days	Died.
20	...	...	...	23	10 ,,	29	12 weeks	Died.
29	21	...	...	...	12 ,,	36	44 ,,	Sinus rib necrosed; under treatment.
35	...	...	21	...	3 ,,	24	31 ,,	Cured.
11	20	...	...	...	7 ,,	47	6 ,,	Cured.
4	...	19	...	...	12 ,,	8	8 ,,	Cured.
13	...	...	16	...	36 ,,	24	4 ,,	Cured.
26	...	...	...	16	52 ,,	40	22 ,,	Died.
16	...	15	...	...	32 ,,	A few ozs.	18 ,,	Cured.
31	15	...	...	...	16 ,,	?	9 ,,	Cured.
27	...	...	...	14	10 ,,	50	8 ,,	Cured.
8	...	...	11	...	? *	None	4 days	Died.
2	...	10	...	...	52 ,,	14	18 weeks	Cured.
1	...	8	...	...	5 ,,	18	7 ,,	Cured.
5	...	7	...	...	?	30	8 ,,	Cured.
14	6	...	...	...	5 ,,	?	4 ,,	Cured.
18	...	...	6	...	16 ,,	10	23 ,,	Cured.
7	...	...	...	5	15 ,,	9	5 ,,	Cured.
12	4½	...	...	...	11 ,,	16	4 ,,	Cured.
6	4	...	...	...	11 ,,	20	6 ,,	Cured.
32	...	...	...	4	?	26	23 ,,	Cured.
28	...	3½	...	...	3 ,,	20	7 ,,	Cured.
	12	14	8	6				
	26		14					

If the age of the patients be considered, the amount of pus in the chest, provided it is not extremely great, does not have so bad an effect as might be expected, children appearing able to bear with impunity a larger proportionate amount than are adults. For example, Case 28, with twenty ounces of pus, was a child three and a half years old; and Case 5, with thirty ounces, was only seven; and both did perfectly well, the cases lasting seven and eight weeks respectively; yet the quantity is large, when the small size of a child's chest is taken into consideration. One thing should always be remembered, and that is, to remove the pus slowly; and the larger the quantity, the more gradually should it be allowed to escape.

Whatever plan of treatment we may happen to be considering, it is always most important to look carefully into the particulars of such cases as terminate unfavourably, in order to find out whether anything connected, either directly or indirectly, with the treatment, can possibly have led to the result. With this object in view, I will very briefly set before you the particulars of each of the fatal cases—again reminding you that they are not selected cases, but

Table II.—*Arranged in order according to the Duration of Illness before Operation.*

No. of Case.	Duration of Illness before Operation.	Duration of Case after Operation.	Result.	Remarks.
2	52 weeks	18 weeks	Cured	
17	52 ,,	20 ,,	Cured	
26	52 ,,	22 ,,	Died	Peritonitis and Pericarditis.
21	40 ,,	23 ,,	Died	Tubercle in both Lungs.
13	36 ,,	4 ,,	Cured	
16	32 ,,	18 ,,	Cured	
40	26 ,,	7 ,,	Cured	
33	20 ,,	9 ,,	Cured	
18	16 ,,	23 ,,	Cured	
24	16 ,,	5 days	Died	Anthracosis of Lung.
25	16 ,,	8 ,,	Died	Cavity in Lung.
31	16 ,,	9 weeks	Cured	
7	15 ,,	5 ,,	Cured	
19	12 ,,	2 ,,	Died	Cavities in both Lungs.
29	12 ,,	44 ,,	Sinus leading down to rib	
6	11 ,,	6 ,,	Cured	
12	11 ,,	4 ,,	Cured	
3	10 ,,	8 ,,	Cured	
9	10 ,,	4 ,,	Cured	
20	10 ,,	12 ,,	Died	Tubercle both in Lungs and other organs.
27	10 ,,	8 ,,	Cured	
30	10 ,,	14 ,,	Cured	
36	8 ,,	7 ,,	Cured	
37	8 ,,	26 ,,	Sinus healing	
39	8 ,,	5 ,,	Cured	
11	7 ,,	4 ,,	Cured	
4	6 ,,	8 ,,	Cured	
38	6 ,,	9 ,,	Cured	
1	5 ,,	7 ,,	Cured	
14	5 ,,	4 ,,	Cured	
22	4 ,,	7 ,,	Cured	
15	3 ,,	3 days	Died	Pneumothorax: Intemperance—much exposed before admission.
23	3 ,,	68 weeks	Sinus leading into chest	
28	3 ,,	7 ,,	Cured	
35	3 ,,	31 ,,	Cured	
10	2 ,,	6 ,,	Cured	
5	?	8 ,,	Cured	
8	? *	4 days	Died	Phthisis: Pneumothorax.
32	?	23 weeks	Cured	
34	? *	¼ an hour	Died	*In extremis*, Cardiac Disease, Granular Kidneys.

that they are cases with various complications presenting themselves at the hospital, with this feature in common, that incision of the chest was required, whether the prospect of recovery was good or bad.

In Case 34 (the last in Table 3, second column), the patient was *in extremis* on admission. If left alone, he would inevitably have died. He had enormous cardiac dilatation; he had at least 150

Table III.—*Arranged according to Duration of Case after Operation.*

No. of Case.	Duration of Case after Operation.	Result.	Duration of Illness before Operation.	No. of Case.	Duration of Case after Operation.	Result.	Duration of Illness before Operation.
23	68 weeks	Sinus leading into chest	3 weeks	27	8 weeks	Cured	10 weeks
				1	7 ,,	,,	5 ,,
29	44 ,,	Sinus; rib necrosed	12 ,,	22	7 ,,	,,	4 ,,
				28	7 ,,	,,	3 ,,
35	31 ,,	Cured	3 ,,	36	7 ,,	,,	8 ,,
37	26 ,,	Sinus; healing	8 ,,	40	7 ,,	,,	26 ,,
				6	6 ,,	,,	11 ,,
18	23 ,,	Cured	16 ,,	10	6 ,,	,,	2 ,,
21	23 ,,	Died	40 ,,	7	5 ,,	,,	15 ,,
32	23 ,,	Cured	?	39	5 ,,	,,	8 ,,
26	22 ,,	Died	52 ,,	9	4 ,,	,,	10 ,,
17	20 ,,	Cured	52 ,,	11	4 ,,	,,	7 ,,
2	18 ,,	,,	52 ,,	12	4 ,,	,,	11 ,,
16	18 ,,	,,	32 ,,	13	4 ,,	,,	36 ,,
30	14 ,,	,,	10 ,,	14	4 ,,	,,	5 ,,
20	12 ,,	Died	10 ,,	19	2 ,,	Died	12 ,,
31	9 ,,	Cured	16 ,,	25	8 days	,,	16 ,,
33	9 ,,	,,	20 ,,	24	5 ,,	,,	16 ,,
38	9 ,,	,,	6 ,,	8	4 ,,	,,	?
3	8 ,,	,,	10 ,,	15	3 ,,	,,	3 weeks
4	8 ,,	,,	6 ,,	34	¼ hour	,,	?
5	8 ,,	,,	Doubtful				

* Probably ill for a long time.

ounces of pus in his left chest; and, as was afterwards seen, he had mitral disease and granular kidneys. He died as the dressing was being finished.

Case 15 (the second from the bottom in Table 3) was an intemperate man, who had been exposed to great hardship. He had had a quantity of pus withdrawn a week before admission, and he had pneumothorax, and about forty ounces of pus. The lung on the affected side was found completely collapsed.

Case 8 (the third from the bottom in Table 3) was a case of advanced phthisis, in which one of the numerous cavities communicated with the pleural sac. Fœtid pus had been expectorated for a long time, and none was evacuated at the operation. This patient lived four days.

The next case above this, in Table 3 (No. 24), lived five days after the operation. He was a coal-miner, aged 56. At first, the case was apparently simple pleurisy, with effusion. Suddenly, however, the temperature rose; he had severe rigors; and the chest was aspirated for the relief of the extremely urgent symptoms. Three days afterwards, pus was found to be present, and the chest was incised. The lung was found to be solid, hard, and perfectly black, literally as black as a piece of coal, and blackening the fingers like a piece of wet coal does, and filling any fluid in which it was placed with particles of carbon until it was as black as ink. The condition in which the lung was has been described as anthracosis. There is a figure in the *Pathological Atlas* of Lancereaux and Greenfield of a lung in just the same condition.

TABLE IV.—*Arranged according to the Amount of Pus evacuated at the Operation.*

No. of Case.	Pus evacuated at Operation.	Result.	Duration of Case after Operation.
	oz.		
34	150	Died	½ hour.
25	104	,,	8 days.
23	84	Sinus leading into chest	68 weeks; under treatment.
17	68	Cured	20 weeks.
24	68	Died	5 days.
3	60	Cured	20 weeks.
36	60	,,	7 ,,
27	50	,,	8 ,,
38	48	,,	9 ,,
11	47	,,	4 ,,
10	40	,,	6 ,,
15	40	Died	3 days.
26	40	,,	22 weeks.
30	40	Cured	14 ,,
29	36	Sinus; rib necrosed	44 weeks; under treatment.
5	30	Cured	8 weeks.
20	29	Died	12 ,,
32	26	Cured	23 ,,
33	26	,,	9 ,,
13	24	,,	4 ,,
35	24	,,	31 ,,
40	22	,,	7 ,,
6	20	,,	6 ,,
21	20	Died	23 ,,
28	20	Cured	7 ,,
39	20	,,	5 ,,
1	18	,,	7 ,,
9	16	,,	4 ,,
12	16	,,	4 ,,
2	14	,,	18 ,,
4	12	,,	8 ,,
22	12	,,	7 ,,
37	12	Sinus healing	26 weeks; under treatment.
18	10	Cured	23 weeks.
7	9	,,	5 ,,
19	8	Died	2 ,,
16	"A few ozs."	Cured	18 weeks; pus coughed up before operation; phthisis.
14	?	Cured	4 weeks.
31	?	,,	9 ,,
8	None	Died	4 days; a cavity communicated with sac.

In Case 25, a woman, aged 23, who lived only eight days, the left lung was already breaking down on admission, and the right chest contained at least 104 ounces of pus. The symptoms were most urgent, with great dyspnœa and lividity. She rallied after the chest was relieved by incision, but sank again and died. The left lung was found to be adherent, with many caseous nodules, with a cavity as large as an orange.

One case (26), the eighth from the top in Table 3, first column, is a case that went on for more than five months, but succumbed at last. At the time of operation the pus was fœtid, and the discharge was most profuse throughout. Peritonitis and pericarditis set in, and the pericardium was found to be adherent, with much suppuration both in the peritoneum and in the pericardium. The mother of this girl died of phthisis.

I think it will be admitted that, in none of these six fatal cases, can the incision of the chest, or any other part of the treatment, have had anything to do with bringing about the unfavourable result. It should be noted, however, that the last case to which I have referred (Case 26) had been aspirated five times for repeated accumulation of fluid, the fluid being at first clear, and afterwards becoming purulent.

The three other fatal cases still remaining for consideration had this feature in common with the case to which I have just referred: they, too, were aspirated for clear fluid, or rather for fluid not containing pus; and, at a later period, on the pleura again filling, pus was found to be present.

The question at once arises in one's mind, can the aspiration have had anything to do with the fact that suppuration set in? A careful consideration of these cases will, I think, show that the aspiration, whether it was done once only or repeatedly, was in no sense the cause of the suppuration that followed, but that the condition of the lungs and pleura led to the repeated accumulation of fluid, and therefore to the necessity for aspiration, and that the same cause, the condition of the organs themselves, led to the suppuration.

For in all these three cases tubercle was found in the lungs. In Case 19, for example, a man, forty-eight years of age, who only lived a fortnight, the first aspiration was performed for the relief of extremely urgent symptoms, the patient being livid and in great danger. The fluid drawn off was clear, but contained many blood-cells. It rapidly re-accumulated and became purulent, the chest being aspirated four times and tapped twice before the chest was finally incised. This patient had a broken-down constitution, and had been very intemperate. Tubercle was found in both lungs, with several cavities.

In Case 20 (a woman aged 23), the temperature was very high and hectic; but, when fluid was first withdrawn, it was serous, with a good many blood-cells; when it had to be relieved a second time, pus was found. The temperature continued high, and, in sixteen days, both lungs were evidently breaking down. The discharge continued profuse, and, at the *post mortem* examination, tubercle was found both in the lungs and in other organs.

Case 21 was a man aged 35. He had been aspirated several times for pleuritic effusion in November 1881, but returned to the hospital in the following February with empyema. Soon after the chest was incised, the discharge became fœtid; and, after nearly six months, the temperature being continuously high, he died, tubercle being found in both lungs.

It will, of course, be admitted by every one that an infected needle might easily set up suppuration, and possibly lead to the development of tubercle; but it seems to me far more probable that, in all these cases, it was the condition of the lungs that led to the re-accumulation of fluid, when that took place, and ultimately to the suppuration that followed. I know it is never satisfactory to seem to try to explain away unfavourable results; but my object is not at all to improve appearances. I only wish to estimate the results of these cases at their true value.

The results, then, in these forty cases, when carefully analysed, lead to very much the same conclusions that have been arrived at as the results of general experience; but I hope that they will not, on that account, be assumed to be altogether useless. There is, I think, still a great deal of unnecessary hesitation about incising the chest, even when an empyema is known to exist; and it will, I think, be allowed by every one that many cases of so-called chronic pneumonia are allowed to go on for months, or perhaps even years, which are simply cases of ordinary empyema—cases in which the use of a small hypodermic syringe would have settled the diagnosis at once. It is natural, no doubt, especially in private practice, to hesitate about undertaking any very active and definite line of treatment which may be followed by unsatisfactory results; but, if these cases show nothing else, I think they show very clearly, what is not sufficiently accepted, that, when the worst results follow, it should not therefore be assumed that the operation has been the cause of the patient's death, or that it ought not to have been performed. I think we may go further, and say that, even when there is no hope of ultimate cure, we ought not to hesitate about giving the patient the relief from pain and distress that is afforded by the operation.

Perhaps the conclusions which are supported by these cases may be summarised in the following way.

Children and young people do much better than adults. The duration of a case before operation has, on the whole, an

unfavourable effect in proportion to its length. A very large amount of pus has a distinctly bad effect. Anæsthetics, ether at any rate, may be safely given, provided the breathing and circulation are fairly good at the time. The particular point at which the chest is incised has not much importance. The contents should be allowed to escape slowly—the larger the quantity, the more slowly should they be removed. The maintenance of free drainage is of the very highest importance; any accumulation of pus, owing to obstruction of the drainage-tube, or to any other cause, being followed by an increase of temperature, and delay in the progress of the case. The use of antiseptics is worth the extra trouble; and, although cases may do admirably in which no antiseptics are used, yet, on the whole, patients do better and seem more comfortable when they are used, both for operations and dressings. Simple cases of empyema—in which the lungs are themselves sound, and in which the other organs of the body are fairly healthy—are almost sure to do well; but it is not possible in any case to estimate its probable duration with any exactness. Cases in which fluid has re-accumulated repeatedly, after having been drawn off, and especially when such fluid contains blood-cells, do badly as a rule, though not always; in such cases, it may be suspected that the lung itself is diseased, and probably tuberculous. No matter what complication is present, or what the probability of an ultimately unsatisfactory ending of the case may be, it is the duty of the attendant to incise the chest, even if only for the sake of temporary relief from pain and distress.

ELECTRO-THERAPEUTICS.

Read in the Section of Medicine.

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FROM my note-book of patients seen in private practice, I select 122 cases in which I have used the continuous or the interrupted current of electricity. Within the short time allowed for my paper, I can only give an epitome of the cases, with a few remarks based on the mode of application, and results derived from it in the treatment of various affections, with a few illustrations of some observations in individual cases.

1. *Asthma Nervosum* (eleven cases).—At the meeting of the Association in Manchester in 1877, I brought before the notice of the members seven cases (see BRITISH MEDICAL JOURNAL, September 15th, 1877, p. 376) successfully treated by galvanisation of the pneumogastric nerves, combined with arsenic inhalations, and have now to add four more successful observations, from which I select one as an illustration.

Mrs. R. H., of Whalley Range, Manchester, consulted me on September 7th, 1880. Her age was 49; she had ten confinements. In July 1869 she got her first attack of sneezing, dry cough, and difficult breathing, which continued till the end of October, feeling always well during the winter; she had repeated yearly attacks, from the end of July to the end of October, for the last eleven years. This time she was in the sixth week of her annual affection, and I found her in a sitting posture in bed with great distress of breathing, dry cough, and a sensation of numbness in the right leg and foot. She frequently had neuralgic pains in the face and right leg. Digestion was good; the menses were regular; there were no physical signs of organic disease anywhere. I applied galvanism at once; two to ten Leclanché cells in five minutes over each nervus vagus, using wet electrodes, the positive to the upper part of the inner edge of the sterno-cleido-mastoid muscle, and the negative close to the trachea near the sterno-clavicular articulation, and ordered spray-inhalations of arseniate of soda, and also to keep the room moist with sea-salt spray. I continued the galvanisation three times a week, in all forty-six times, from September 1880 to January 1881. After the sixth application, the breathing became quite free, the cough ceased, and she has never had any more attacks now for three years.

All my patients have derived a speedy relief during the distressing attacks, and have been permanently cured. In two cases I have used galvanism without spray-inhalations, and the result was equally good; and, in future, I intend to use electro-therapeutics alone in cases of nervous asthma, and also in so-called hay-fever.

2. *Laryngospasm.*—In two cases I have derived permanent benefit from galvanisation of both pneumogastric nerves.

3. *Habitual Costiveness* (seven cases.)—Since 1879, I have had occasion to use the continuous current with remarkable success in seven cases of chronic constipation of the bowels. The *modus operandi* was as follows. A sponge, wetted in a saturated solution of sulphide of sodium, and connected with the positive electrode, was applied to the stomach-pit, and kept in that position, whilst the wet negative electrode was gently moved along the abdominal wall in the direction of the intestinal canal, from duodenum to sigmoid flexure, where it was finally fixed, and the current of five to thirty cells allowed to pass steadily, without interruption, from ten to thirty minutes. I repeated this operation every other day for a period of three to six weeks, during which time I regulated the diet, and stopped the use of aperients or enemata altogether. The bowels became gradually regular, and remained so after the cession of the galvanic application. I give a few of these cases as an illustration.

Mr. E. C. of Manchester, aged 49, consulted me in June 1879. He had suffered for two years from flatulent dyspepsia, dilated stomach, and sluggish bowels, which were never moved without the aid of aperient pills or mineral waters. I applied galvanism from June 27th to August 1st, 1879, twelve times; after the fifth application, the bowels commenced to act regularly every day, the digestion improved, and he has continued during the last four years to enjoy regular habits and good health.

Miss M. T. of Rochdale, aged 20, consulted me in October 1880. Since childhood she had suffered from habitual costiveness and frequent headache. The menses first appeared at the age of 14, and the catamenia had never been regular, only one day every four to seven months. I galvanised her from October to December 1880, seventeen times, and afterwards I applied the faradaic current, followed by galvanism, to the ovarian regions up to January 17th, 1881. The bowels began to act after the fourth application of galvanism, and slight menstrual discharge appeared November 23rd. She menstruated again for three days, January 23rd to 25th. I saw her lately, and ascertained that she is still regular in her bowels and menses, and has been so since January 1881.

Miss C. T., aged 22, in November 1880 had mental anxiety, and suddenly ceased to menstruate, having been regular since her sixteenth year. The bowels then became habitually constipated, and only acted with an aperient or enema. I galvanised the abdomen twelve times, from December 3rd, 1881, till January 16th, 1882. After the third application, the bowels began to act regularly, and have continued so ever since, now 18 months. I continued to apply faradisation and galvanism to the spine and ovaries up to October 1882, without producing an effect upon the establishment of the catamenia.

Miss G. W. of Heaton Chapel, aged 21, since childhood was dependent on the use of aperients and enemas for the action of the bowels, and for two years there was pain in the dorsal vertebræ. I galvanised the abdomen and spine twelve times. After the fourth application she had a natural motion, and since has had the bowels moved every morning. The spinal pains entirely subsided.

The other three cases were those of gentlemen, aged respectively 16, 40, and 48 years, who had suffered for several years, and were in the habit of using aperients. I applied galvanism six, eleven, and thirteen times in each patient respectively, and obtained in all of them permanent regular daily action of the bowels.

4. *Neuralgia* (twenty-seven cases).—I always applied wet electrodes, and have derived permanent good results in most cases from galvanisation, and only temporary relief from faradisation. There were ten cases of tic douleureux, four of pain in the arm, four of pain in the leg, four of sciatica, three of gastralgia, and two of intercostal pain. I obtained permanent relief in twenty-two cases, temporary in four cases, and none in one case (neuralgia in both legs).

5. *Spinal Weakness and Tenderness* (eleven cases).—Galvanism was more effectual than faradisation.

6. *Traumatic Paresis of Extensor Muscles With Contractures of the Fingers* (five cases).—In four cases galvanisation, and in one case faradisation had a permanent good effect.

7. *Paralysis* (six cases).—*a*. Rheumatic affection of right facial nerve, middle portion; two cases, both cured with faradisation followed by galvanisation; *b*, right leg, bladder and sphincter ani; continuous and faradaic current with slight improvement of right leg only; *c*, left arm and leg, galvanism, slight improvement; *d*, bladder only, galvanism, cure; *e*, paralysis agitatus; no effect from either galvanic or faradaic current.

8. *Nervous Deafness* (five cases).—Galvanisation cured two, improved two, and had no effect in one case.

9. *Loss of Taste and Smell* (two cases).—The cases were treated

by galvanism with no effect in one case, and with brilliant result in the other, which I will mention. Mrs. A. F., aged 40, consulted me in October 1871. Five months previously she had an influenza cold, when she lost the senses of taste and smell. I put on her tongue in succession quinine, sugar, soda, citric acid, and kitchen-salt. She was conscious of a foreign body on her tongue, but not of its taste. She could not distinguish between a pleasant and an unpleasant odour. I applied galvanism, five to fifteen cells, wet positive electrode to the nape of the neck, and dry negative electrode to the tip of the tongue, also to the lingual nerve, and the wet positive electrode to the angle of the lower jaw (alternatively right and left side), a dry negative to the tip of the tongue; also dry electrodes positive to the bridge of the nose, negative alternatively to the right and left nostril. I applied galvanism seven times, from October 27th to November 13th, 1871. After the fourth application, she tasted correctly quinine, citric acid, and salt, but not sugar or alkali, and could smell the flavour of a hot dish on removal of the cover; otherwise, the sense of smell was deficient. After the sixth application, she could taste and smell everything, and was permanently cured.

10. *Defect of Speech* (one case).—Galvanisation of the glosso-pharyngeal and hypoglossal nerves. L. B., a boy aged 8, could not pronounce the letters g, k, ch, q, c, s, sch, x, z since infancy. I applied galvanism to the nape of the neck, below the chin and to the pharynx, from June to September 1865, ten times. After the sixth application, he pronounced k, sch, and ultimately could speak distinctly and pronounce every letter of the alphabet.

11. *Writer's Cramp* (two cases).—Galvanisation, positive electrode to the wrist, negative to the nape of the neck, and faradisation of the wrist, thumb, second and middle finger of the right hand had no effect.

12. *Anæsthesia in Right Arm* (two cases).—Both were permanently benefited by the faradaic current.

13. *Coldness in Right Thigh After Railway Accident.*—Galvanisation of spine and thigh was followed by an improvement.

14. *Hystero-Epilepsy* (one case) *and Hystero-Catalepsy* (one case).—No effect was produced by either current.

15. *Amenorrhœa in Hysteria* (two cases).—Galvanism was applied to the spine and ovarian region with good result.

16. *Muscular Rheumatism* (two cases).—These were benefited by galvanisation of muscles.

17. *Muscular Atrophy of Left Leg* (one case).—Miss H. R. of Manchester, aged 9, suffered from early childhood. The faradaic current had no effect; the continuous current, applied to the spine and to individual muscles, produced some improvement after six months, when the treatment had to be discontinued, owing to appearance of menstruation at that early age.

Electrolysis in Tumours (thirty-three cases).—I have applied the electric needles in; *a*, fourteen cases of cystic tumours (on forehead, face, upper eyelid, nose, behind ear, neck, abdomen, and popliteal region); *b*, six cases of ganglion (see BRITISH MEDICAL JOURNAL, November 4th, 1871, page 527), three right and three left wrist; *c*, eight cases of warts; *d*, two cases of varicose veins, one on the lip, one on the leg; *e*, one case of bronchocele (see *Medical Times and Gazette*, January 28th, 1871, page 96); two cases of lipoma; and was successful in all the cases except in those of fatty tumours. In each case I introduced into the swelling one or more needles connected with the negative electrode, and placed a wet sponge connected with the positive electrode to the skin near the tumour, and allowed a steady continuous current derived from five to twenty cells to act from five to forty-five minutes, according to the case operated upon. After each operation there was distinct crepitation and increase of size during twenty-four hours, after which time the swelling gradually subsided; in some cases, several applications were necessary before the tumour entirely disappeared. In a few instances a few drops of liquid discharged through the apertures made by the needles, but generally none escaped, and the operation left no mark whatever.

The limit of time does not permit me to go into details, but I believe that my observations encourage a more frequent resort to electro-therapeutics in a variety of otherwise troublesome affections, amongst which I specially point out cases of nervous asthma, habitual constipation, and the serous tumours, varices, and warts.

IN the *Journal de Médecine de Paris* are collected the results obtained by several observers in the prevention of abortion and premature labour by asafœtida. In ninety per cent. of the cases so treated the patients (who had aborted from two to five times in former pregnancies) went on to full term.

CEREBRAL LOCALISATION IN ITS RELATIONSHIPS TO PSYCHOLOGICAL MEDICINE.

Read in the Section of Psychology.

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IF we were asked what doctrine taught during the present century has proved most universally applicable to our studies of the wondrous organisation and functional manifestations of living beings, surely our reply would be, the doctrine of evolution; if, moreover, the question were put to us, what apparently universal principle has done most to stimulate investigations in the various departments of biology, or given us the broadest and most intellectual concepts of the kindred sciences of psychology and sociology, the reply would be similar—the doctrine of evolution. If, again, restricting the limits of our inquiry to the department which more immediately concerns us as alienists—that of psychological medicine—we inquire what has the doctrine of evolution done for *us*, we may triumphantly point to the localisation of cerebral function as a direct outcome of the great principle of evolution carried to its logical issues; we may, I believe, confidently indicate the localisation of cerebral function as a foreshadowing and promise of a scientific basis for our studies of insanity. Differentiation of cerebral function must necessarily be formulated by believers in evolution; and it should therefore be the endeavour of every such earnest inquirer to substantiate and expand the truths already acquired in this department, by physiological experiment and pathological research. The psychological student has to study man from the highest standpoint—not merely as a piece of wondrous mechanism, as an automaton with wheels within wheels, liable to most diverse disturbances—but as a feeling, thinking, intelligent being. In the resultant phenomena of mental activities, we find that there is superadded to the intricate relationships established betwixt organism and mere physical universe an infinitely more complex relationship. As a social being, man is brought into contact with unending diversities of conditions existing around him, and arising out of the existence of mind in his fellow-creatures; and there is thus necessitated an adaptation of his organism to the multitudinous manifestations of mind in others. Mind thus reacts on mind, and is a chief factor in its own development; nay, beyond all this, the moral nature of man asserts its supremacy, and its evolution adds to the existing complexity by indicating his position and relationship, not merely as a social unit, but as a constituent unit of the universe to an all-pervading Creative Mind. As alienists, therefore, we have to deal with mental phenomena resulting from implication of the realms which are most highly evolved in the genesis of the nervous system—realms which, in themselves infinitely the most differentiated and complexly integrated, have, as products of their activity, the most complicated and interwoven of mental processes. Upon the changes undergone by the material substrata of mind, the activity of which alone renders states and modifications of consciousness possible, the alienist should find his immediate attention riveted: the subjective accompaniments of these activities, directly cognised alone by the individual himself, can, like these activities, be appreciated only by a strict and close study of their objective manifestations. We cannot pry into our patients' states of consciousness, any more than we can observe the activities of the material substratum of which it is the subjective accompaniment; but we can observe and study those expressions of the material change exhibited in speech, gesture, conduct—in short, in the adjustment of the organism to its environment; we may learn to correlate these objective manifestations with their associated subjective states; and, lastly, we may estimate the site and extent of those material changes which originated, on the one hand, the modifications of consciousness, and, on the other, gave rise to their external expression. We have thus a problem to solve which presents a clinical, a pathological, and a psychological aspect.

In the present stage of our studies of localisation in relationship to mental alienation, it would be hazardous in the extreme to commit one's self to any dogmatic statement of opinion: repeated observation and the accumulation of materials by ceaseless plodding labour and research will alone yield us any real progress in this department; and, though I feel that the time is ripe for such work, and for exchange of views and elaboration of schemes for inquiry, I would carefully guard myself from offering other than mere suggestions or hints as to certain problems awaiting solution, and which may form the subject-matter of our discussion.

And first, let us glance at the methods essential to the investiga-

tion of our case. A thoroughly systematic scientific inquiry is alone likely to lead to the success we desire. We must learn, then, to examine the various localised lesions of the cortex, as to :

1. Superficial area and exact depth, and express such limitation graphically;

2. Localised atrophy of the cortex, as regards layers of nerve-cells implicated and terminal vascular tracts ;

3. The relative bulk of the convolutions;

4. The tracts of ascending as well as descending degeneration.

And, surely, no one will object that this minute method of research is impossible, with all our present facilities for investigation; in this field, organised and systematic research must eventually triumph. Nor, again, will it be objected that the microscope can do but little to aid our investigations by those who are at all acquainted with the various pathological states of the brain ; by those who have seen how certain nerve-elements, regarded as probably motor in their significance, are affected in epilepsy and general paralysis ; by those who are acquainted with the varied forms of degeneration of the different cortical layers ; with the advance of proliferating connective tissue over the deep layers of arcuate fibres and spindle series of cells, absolutely buried beneath their nuclear products; with the advance of similar changes beneath the membranes, gradually extending downwards to the different series of cells beneath ; with the localised areas of vascular degeneration, and a host of other changes here apparent. We have, however, heard much of such qualitative changes of cortex and medulla ; and what we now more particularly require are accurate and extended inquiries into the topographical limitation of such lesions.

And now, from the psychological aspect of our studies, let us ask, what principles should guide our investigation of mental disease ? It appears to me that, at every step of our inquiry here, one universal principle should be constantly appealed to ; I refer to the principle of dissolution.

Students of insanity, from the stand-point of the evolutionist, must, I take it, bow to the dictum of Dr. Hughlings Jackson, that insanity essentially consists in a dissolution, or in reduction to a lower state of conscious activity—a definition more explicitly formulated as a loss of those higher regulative or controlling faculties which, in their excitation, involve the higher kinds of conscious activity. The increasing complexity and integration of nervous structures imply, as we are aware, the superposition of centres regulative of subordinate groups : hence, when these highest inhibitory centres lose control, as the result of a discharging or destroying lesion, the subordinate series run riot, and the more delicate adjustments to the environment are sacrificed. In studying any case of insanity, therefore, we have to consider it from three points of view : as a nutritive modification or lesion of the material substrata of consciousness ; as a negation of the higher spheres of consciousness ; and, lastly, as an exalted functional activity of lower centres relieved from inhibitory control—issuing subjectively in the varied mental anomalies of the insane, and objectively expressed in speech, gesture, and conduct. The view of mania, as an excitement of all the mental faculties, is essentially fallacious, unless it implies also an actual loss of more delicate adjustments, in other words, paralysis of the highest faculties ; and the fallacy is all the more reprehensible, since it leads one to regard the subjective aspects of exalted consciousness, and its objective expression of incoherent speech, grimace, excited action, and unrestrained conduct, as constituting in themselves the more important elements of insanity; whereas, the very essence of insanity consists in the negation of consciousness, or rather, of its higher spheres of activity. Taking this view of mania, we ask naturally : Is there evidence forthcoming of the possible implication of special cortical areas ? Since the molecular changes occurring in these states leave nothing appreciable to the naked eye, as indicative of the morbid topography, are there not other methods of inquiry which we may adopt ? If it be a question of vascular areas, is it not possible, by a close study of the changes observed in the brain of the chronic insane, by the localisation of atrophic and other gross changes, to find the site of disturbances now more deeply indicated, and so to lead up to the origin of primary troubles ?

Conditions such as the foregoing illustrate mental life at high pressure, albeit upon low planes of consciousness. In all states of simple melancholia, however, there appears, to my mind, evidence of a long-standing waste of nervous energy, gradual, perhaps scarcely appreciable in its outflow, but sufficient to result in great reductions to lower planes of mental life. Now, since this occurs in the highest realms of consciousness from those substrata which, from their excessively complicated integrations, include in themselves, so to speak, all subordinate groups, there must necessarily result as universal lowering of all vital functions : hence the diminished revivability of ideas; the weakened hold of the emotions; their instability and incoherent manifestations ; the enfeebled desires and volition, anorexia, sluggish circulation, and torpor of bowels. Necessarily attendant upon this condition, we get the vague pain, despondency, or absolute despair, which result whenever the cerebral substrata of consciousness exhibit diminished associative activity. Periods then arise when spasmodic discharges occur, attended by excessive loss of inhibitory control, and the lower and more brutal instincts spring into life, whilst agitation may supplant previous apathy and torpor; or the rising tide of nerve-force on lower planes may, to borrow Herbert Spencer's language, force the less permeable tracts, and so result in a pleasurable and joyous delirium.

Whence originates the grave and persistent intellectual disturbance which, following an attack of simple mania or melancholia, issues in the various forms of consecutive mental weakness and the monomaniacal state ? How comes it that, with sudden emotional calm, the intellect becomes deeply affected, and the Ego completely transformed ? Can we, upon anatomical grounds, predict the onset of such changes ? And yet such inquiries lie but upon the borderland of our psychological studies.

And now, passing from the forms of simple melancholic depression to states of delusional melancholia, we find that more active dissolutions occurring in the higher realms of consciousness issue in varied deluded states; for all deluded conditions result from such a loss, whereby healthy contrasts are rendered impossible, and so judgment is enfeebled. Thus there result morbid states of mind, with, perhaps, more or less motor agitation. In the maniacal states previously alluded to, there is a serious interference with the processes by which memory is evolved, and upon which depend the genesis of healthy cognitions; out of the confused rush of impressions from the environment together with the materials derived by reminiscence, certain delirious ideas may be framed, but they are fleeting and transitory, and the mental evolution is to a great extent at a standstill as regards persistent acquisitions. But, on the return of comparative calm ; at the turning point when consciousness, so to speak, tends to reinstate herself in the higher realms of mind ; it is then the evolutionary tendency may be misdirected. Certain groups of false conceptions may preponderate in their influence, and, acting as sole autocrats, may, in their further developments, disturb the adjustments of the gradually unfolding mind. The mental organism consequently becomes more and more adjusted to its own delirious conceptions, rather than to the environment. It is now that certain dominant ideas and beliefs attract around them auxiliary groups of nascent ideas, exhibiting the weakened hold of the environment in a want of adaptation to its reactions, and thus the monomaniacal state is evolved.

It were a lesson of humility to question ourselves how far we can associate this profound subjective change with its physical correlative. Our observations of the very gradual unfolding of consciousness as the result of the naturally slow progressive evolution of its substrata, force home upon us some serious reflections : all spasmodic and partial restorations of mental equilibrium must, from their nature, be regarded suspiciously ; all sudden transitions from maniacal excitement to mental calm and apparent recovery must in like manner be pronounced unfavourable ; in fact, mental health and restoration cannot be ensured except it takes the course of a gradual psychical evolution.

Again, at that critical period when restoration to mental vigour has just commenced, can we be too guarded against subjecting the nascent mind to injurious surroundings, *e.g.*, such as the degrading speech, conduct, and propensities of certain chronic maniacs, and the brutal instincts of criminal lunatics ?

Amongst the numerous problems awaiting solution at the hands of the alienist, are some which specially appeal to us for further investigation and discussion.

There is the moot point relative to the true significance of what are called motor centres of the cortex. Are they the seat of truly idio-motor activities as taught by Ferrier, or must they be relegated to a subordinate system, altogether outside the sphere of mind, as Bastian would affirm ? In connection with this question, can we afford to overlook the very important mental failure which immediately succeeds those limited convulsive and paralytic seizures of general paralysis—the rapid downward progress initiated by a cortical monoplegia or monospasm ? If the excitation of these motor centres result in the revival of ideal movements, it is an all-important point to recognise.

Are we to regard the origin of the sense of muscular movements

as a concomitant of outgoing currents, with Bain; or as centric, and the necessary accompaniment of functional activity in the motor centre, as taught by Hughlings Jackson; or, lastly, have we evidence of the existence of a great kinæsthetic centre for the revivability of all such impressions of muscular movement, as Bastian teaches and ably advocates? I would submit that those cases of general paralysis, with deluded notions as to exaggerated muscular power and weight, might afford us some information upon this debated question.

In all higher forms of cerebral cortex, such as that of man, we discover at the vertex no abrupt transition from one kind into that of the other, but a very gradual change; and thus, as we approach Ferrier's motor area, we find that the granule or angular cells characteristic of the sensory areas, and especially of the occipital pole, gradually thin out into insignificant layers, but are still represented, especially in the second cortical stratum; so the ganglionic cell, largely represented in the fourth layer of motor areas, become more and more thinned out towards sensory realms. The constant presence of these small cells above the layers of pyramidal or of ganglionic cells appear to me to indicate a possible overlapping of sensory and motor elements, the excitation of the latter probably being the immediate source of revivability of "motor memories" in the sensory elements superimposed, the degree of revivability of such motor impressions being dependent upon the energy exerted by the ganglionic cell in its functional activity. Upon this supposition, a widespread kinæsthetic register would be intercalated betwixt different strata of motor elements. In proportion as movements become more automatic, such kinæsthesis is dispensed with, as Bastian clearly enunciates; and, in connection with this view, we find the granule or angular series of cells still less evident or wholly absent in lower mammals, such as the rabbit, rat, etc., where we should hardly postulate the activities of the motor area, as consisting in ideo-motor or noetiko-kinetic processes.

As regards the præfrontal regions of the brain, I have repeatedly observed in cases of senile insanity, with excessive wasting of these regions, such as results in a peculiarly pointed frontal lobe, an association during life of extreme torpor and somnolence. I recall especially three cases where such conditions existed in which the nurse would constantly observe that the patient was always "dropping off to sleep," and in which, when the attention could be sufficiently commanded for the appreciation of a question, the patient would probably fall asleep whilst endeavouring to formulate a reply; this is of interest as regards the faculty of attention, to which the frontal lobe is supposed to be subservient. Then there are the cases where, as Hughlings Jackson teaches, profound dementia accompanies lesions of the posterior parts of the brain; confirming the observation of Rosenthal, that the psychical disturbances resulting from tumours in the posterior lobes are far more frequent than from corresponding growths in the anterior and middle lobes.

We are all aware how this holds good in aphasia, where lesions of the sensory perceptive centres interfere with the impressive faculty of language. Then, again, should there not be evidence forthcoming as regards that very important hypothesis advanced by Hughlings Jackson, that the left posterior and right anterior parts of the brain contain the substrata of subject-consciousness; whilst the right posterior and left anterior parts represent the substrata of object-consciousness?

As the localisation of the lesion in speech-troubles promises to do so much in the correlation of mental derangements, with morbid changes in their physical substrata, I cannot do better, during the few minutes which remain to me, than read the notes of cases which have occurred in the wards of West Riding Asylum, during a period of about three years.

CASE I.—E. F. Epileptiform seizures; right brachial monoplegia with amnesic aphasia; could not comprehend anything said; failed to recognise written or printed letters; was incapable of any articulate intelligible expression beyond—"I can't," "I dont know."

Disorganisation of upper and inner aspect of first left frontal gyrus; also of left postero-parietal, angular, and supramarginal gyri.

CASE II.—E. D. Convulsions limited to right side of body followed by right hemiplegia and aphasia. A failure in the recall of names; a frequent tendency to misname, but with recognition of her errors; read with much difficulty; wholly failed to recognise certain letters; fully appreciated all that was said; agraphia; good control over tongue, with no flattening of face; grasping power of right hand much diminished; no rigidity; reflex and cutaneous sensibility unimpaired.

A tract of softening involved outer segment of left lenticular nucleus, impinging on globus pallidum, and very slightly on posterior part of internal capsule. A focus of softening involved in both hemispheres the medulla betwixt posterior extremity of internal capsule and the gyri surrounding the extremity of the horizontal limb of the Sylvian fissure; insula and third frontal gyri intact. Here we have a recoverable form of right hemiplegia from ganglionic lesion not involving the peduncular tract; distinct interruption of the medullated tracts betwixt the impressive and emissive departments of language, resulting in mistakes in names recognisable by the patient; in a faulty appreciation of certain letters and complete agraphia. Judging from the symptoms, the visual perceptive centre must have been itself somewhat involved, as certain letters were utterly unmeaning symbols to her, or the "associative connection" betwixt the visual and auditory perceptive centres may have undergone partial damage.

CASE III.—E. W. Convulsions limited to right side of body, with complete loss of consciousness invariably followed by right hemiplegia and aphasia. She fully appreciated the meaning of all that was said, but failed to speak intelligibly; could not even recall the names of her own children; her speech was very mumbling and indistinct; she wholly failed to recognise written or printed symbols, and lately her sight had become affected.

Softening and disorganisation of the left ascending frontal convolution at its middle third; the first and second annectant gyri, the left angular and posterior extremity of the first temporo-sphenoidal gyri, were absent, leaving a triangular gap, with its base towards the occiput, and its apex on the Sylvian margin of the temporo-sphenoidal lobe. The guiding centres of *sight* and *hearing* were in this case absent on the left side. Visual symbols had lost all meaning for her. She could neither read mentally nor aloud, and lately sight had become affected. Auditory symbols, however, were still fully appreciated, so far as could be gleaned from her expression and conduct; but she had lost the faculty of formulating expressions, or even naming objects around. Word-deafness was here not complete, as she understood what was said to her; and it is quite conceivable that auditory impressions might result in sufficient revivability to give rise to definite cognitions, and yet the feebleness of representation fail to produce the highly intellectual efforts of articulate language.

CASE IV.—H. S. Epileptiform seizures limited to right side, followed by speech-troubles, but no marked paralysis. She could not "put words together," which meant that she could not propositionise. A great difficulty was experienced in conveying distinct impressions to her mind, the very simplest forms of speech only being comprehended. Speech was slow, very imperfect, and accompanied by painful effort. She utterly failed to pronounce certain words. Apparently no loss of memory; no delusion or hallucination.

Syphiloma of membranes and vessels overlying the supramarginal and posterior extremity of first temporo-sphenoidal and angular gyri of left hemisphere. Cortex much disorganised, but by no means completely so. The growth had followed the course of the branches of the Sylvian artery. The auditory and visual centres were here involved in a superficial lesion resulting in a diminished activity of the auditory perceptive centre for the reception and elaboration of impressions. No forgetfulness of names, but a notable difficulty in propositionising. Beyond the amnesia experienced, there was also a difficulty in distinctly pronouncing certain words. Dr. Hughlings Jackson has drawn attention to the syllabic speech in syphiloma of the cortex.

CASE V.—J. H. Right hemiplegia, with aphasia; gradual recovery of leg, and subsequent partial recovery of arm. Could not articulate a single word intelligibly, except "no." Made great efforts to speak, gesticulated wildly, but only uttered unintelligible jargon. Burst into tears at failure, fully comprehended all said, and did what was requested; was anxious to write, but only on one occasion succeeded in writing the first three letters of a familiar name, finishing it off by unmeaning scrawls.

Disorganisation of lower end of two left central gyri, the supramarginal convolution, and left insula. A tract of ischæmic softening betwixt adjacent sides of second and third left temporo-sphenoidal gyri. External capsule involved in the same destructive process with the island of Reil.

Here, then, was a case of ataxic aphasia with agraphia; intellectual pantomime fully retained; imperfect recovery from right hemiplegia of ganglionic origin. The emissive department for co-ordinate expression was here destroyed, whilst the guiding perceptive centres escaped. Mental rehearsal was not interfered with, and consequently the agraphia could be explained only by an interruption be-

twixt the visual perceptive centres and the hand-centres involved in writing. The patient, therefore, whilst retaining full mental vigour as regards the presentative and representative elements of language, was incapable of giving them expression either by visible symbol or by articulate speech.

CASE VI.—E. G. Right hemiplegia, with partial aphasia following upon numerous epileptiform attacks limited to right side. He did not comprehend what was said, or obey the simplest directions; asked his age, replies "Don't know; God the Father, God." His ejaculations were limited to the above expressions and "No," with a look of irritation when asked a question. There was, however, distinct excitement, insane gesticulation, unmeaning laughter, and a constant flow of unintelligible utterances; articulation was thick and blurred. Subsequently, he died with apoplectic symptoms; left side paralysed, eyes constantly directed to the left, pupils minute and fixed.

Softening and destruction of cortex of whole left postero-parietal lobule; also of right angular gyrus. Softening of left postero-parietal lobule extended deeply to walls of left lateral ventricle, the ependyma here being thickened and of brownish hue. Outer and posterior portion of right optic thalamus torn up by a recent hæmorrhage. Crural monoplegia might have been anticipated here from implication of postero-parietal; but it is by no means clear that the lesion deep-seated in the medulla did not also implicate the medullated connection of the cortical arm-centres. The association of aphasia with the implication of the right angular gyrus seems to me a very exceptional circumstance; unfortunately, the history is incomplete on many points required. The eyes directed to the left and minute pupils are symptoms dependent upon extravasation into the hinder part of the thalamus and its pressure effects.

CASE VII.—W. P. Frequent attacks of right hemiplegia, without loss of consciousness or convulsions, but transient impairment of speech. Speech was drawling, and articulation, especially of dentals, impaired. Gait, especially of right leg, stiff. Then progressive enfeeblement and loss of the faculty of speech, contractions of right leg. Replies were now wholly irrelevant, but he still comprehended simple directions, as when told to protrude the tongue. Frequent convulsions, limited to right side, followed, without loss of consciousness. There was complete right hemianæsthesia (of cerebral origin); the patient was speechless, and understood nothing said to him.

Left optic thalamus and internal capsule occupied by a growth, probably syphilitic. Left postero-parietal extremely wasted. The progressive impairment of speech, first purely ataxic, and eventually amnesic, associated with contractures of the right leg, and subsequently right hemianæsthesia, are interesting, as indicating very clearly the course of the lesion in its evolution.

CASE VIII.—W. H. History of several apoplectic seizures, with speech-troubles. On admission, speech was thick and blurred, like that of a drunken man; he fully realised the meaning of what was said; no amnesia; excitement, suspicion, aggressive conduct. The left arm was flexed, and hands closed, but both with slight effort could be extended; gait tottering; tongue protruded straight under good control; cutaneous sensibility normal; left pupil dilated.

Excessive wasting of both postero-parietal lobules; a focus of softening in anterior tubercle of right thalamus opticus; a softened tract in each caudate nucleus near beginning of tail, extending down the "knee" of each internal capsule, alike in position and extent in both hemispheres.

CASE IX.—M. B. Frequent attacks of epileptiform convulsions, limited to right side, and chiefly involving right arm, associated with ataxic aphasia.

Sarcomatous growth involving lower end of left ascending frontal and parietal gyri.

These two latter cases illustrate pure ataxic aphasia as the result of implication of the emissive centre of speech or its conducting fibres for outgoing currents. The knee of both internal capsules being involved, the commissural connection of the third frontal gyri through the medium of the corpus callosum was useless, so far as the re-establishment of speech was concerned.

CASE X.—C. J. Right brachial monoplegia, followed by rigidity of arm, and associated with aphasia. She did not comprehend anything said, and failed to read; failed to name any object presented to her; and when prompted by the correct or incorrect name, said "Yes," "Yes," alike for both; uttered much unintelligible jargon, and did not recognise her erroneous attempts at language.

Disorganisation of third left frontal and posterior extremity of second frontal gyri; insula, temporo-sphenoidal, and angular gyri on left side extensively disorganised; supramarginal and other convolutions intact, as was also the right hemisphere.

The brachial monoplegia may here be associated with the destruction of the second frontal convolution; but beyond this the lesions were too extensive for accurate localisation with respect to the faculty of speech. The mouth and tongue centre, as well as the visual and auditory perceptive centres, were, however, generally disorganised.

CASE XI.—M. J. E. Convulsions limited to right arm, followed by transient hemiplegia and loss of speech; next epileptiform convulsions of right side, from which the right leg recovered, but the arm was powerless, and became the seat of late rigidity; she could not protrude her tongue, nor speak intelligibly. She failed to name any object presented, but mental rehearsal appeared good; she fully understood all that was said and all that was written. She read with perfect satisfaction to herself, but her reading aloud and utterances were wholly unintelligible jargon; she failed to write.

Left insula almost completely disorganised, as also a small area of the posterior end of third left frontal gyrus. A cyst-like cavity, as large as an almond, occupied the "Rolandic loop" of medullated fibres in the left hemisphere; all other regions were healthy, except the left internal capsule, which gave evidence of descending sclerosis connected with the lesion of the "Rolandic loop."

CASE XII.—J. H. Frequent convulsions, limited to right side of body, usually followed by much weakness of right arm; choreiform twitchings of facial muscles and of tongue; pure ataxic aphasia: utterances explosive, and articulate speech limited to such as "God bless you," "God bless," or "Bless you," "Thank you;" uttered much unintelligible jargon; excessive intellectual pantomime, aided by cries and most expressive facial contortions. She fully comprehended all said to her, frequently looked up, folded her hands piously or made the sign of the Cross; very sensitively appreciative of all around her; never learnt to read or write.

Disorganisation of anterior end of left supramarginal and inner aspect of first temporo-sphenoidal gyri of left hemisphere.

I crave your indulgence for the meagre notes and rough outlines which I have placed at your disposal. The subject of the relationships between cerebral localisation and psychological medicine is so vast in itself, that one must necessarily confine his remarks to a most restricted compass. I shall feel, however, more than rewarded if any hint which I may have dropped may form the subject matter of the instructive discussion which I now anticipate.

Dr. ROSS (Manchester) thought that the wealth of material presented in Mr. Bevan Lewis's paper required careful consideration after publication, before it could be profitably criticised. One could only envy him the numerous valuable cases which he had been able to present. In one of Mr. Lewis' cases, in which there was conjugate deviation of the eyes during life, a focus of softening was found in the angular gyrus, and a second in the optic thalamus; and to the latter of these Dr. Lewis appeared to attribute the deviation of the eyes; but Dr. Ross argued that the disorder in the ocular movements was caused by the lesion in the angular gyrus.

Dr. MICKLE (Bow) did not agree with the rigid localisation attempted by some observers who made diagrams of the brain, and on it placed circles, within which they definitely locate the movement of the arm or leg, or a sensory function, as, for example, vision. He also drew attention to the facts of the difference between the two cerebral hemispheres in function, and the different localisations in the two hemispheres of a given representation of a part of the body. There was undoubtedly a localisation of function in the brain, but not so rigidly restricted as laid down by some; and it was interesting to find the several parts of symbolic cortical field aggregated within, not a narrow, but a somewhat limited part of the cortex; the parts more particularly connected with the representation of speech, movements of the upper limbs, and hearing, lying in convenient proximity, and thus the parts concerned in written and spoken language being located within a definite area.

Dr. FLETCHER BEACH (Darenth) said that Professor Tamburini and Dr. Robertson, at the International Medical Congress of London, read papers, giving cases in which hallucinations of sight and hearing were associated with disease of the visual and auditory centres. Hallucinations were not common in imbeciles; though delusions occurred, especially in patients suffering from epilepsy. A few cases of imperfect development of convolutions associated with defect of speech and hearing, had occurred to Dr. Beach. One was that of an imbecile boy, the subject of hereditary syphilis, in whom there was low development of the first temporo-sphenoidal convolution on both sides, and the patient was deaf. Another was also an

idiot of very low type, in whom, with exceedingly low development of the first temporo-sphenoidal convolution, there was want of hearing. The convolution of the frontal lobes of the brain, in which intellect was supposed to reside, were often very simple in imbeciles, in some cases being only half-an-inch in width. In a case of microcephalic idiocy related by Dr. Beach at the Congress, in which the brain weighed only seven ounces, the frontal lobes of the brain were relatively larger than normal, owing to the deficient development of the occipital lobes. In another case, in which the brain weighed twenty ounces, the frontal lobes were also larger than normal, for the same reason. No doubt the reason why, with relative largeness of the frontal lobes in imbeciles, there was deficiency of the intellect, was, first, simplicity of the convolutions; and, secondly, want of development of the nerve-cells. Instead of cells with many processes, were found often cells with wasted protoplasm, so that there was a clear space, or one containing granular material, around the nucleus, and only one or two processes. If (and this was only a theory) thought originated in nerve-cells, and was carried from one cell to another by means of cell-processes, of course want or deficiency of cell-processes would cause the low state of the intellect in the imbecile. Mr. Bevan Lewis said he had found with largeness of the frontal lobes a tendency to fall asleep. In a case of hypertrophy imbecility, which was under Dr. Beach's care, there was great increase in size of these lobes, together with the rest of the brain, and the patient often fell asleep. In another patient, who had a tumour in the right frontal lobe, a perfect state of catalepsy once existed. Mr. Mickle referred to the fact that, when one hemisphere or part of the hemisphere was diseased, the other hemisphere will carry on the work. One imbecile patient with marked atrophy of one hemisphere had considerable intelligence, and was in the first class in the school, the second hemisphere being sufficient for her use.

Dr. WIGLESWORTH (Rainhill) said that Mr. Bevan Lewis, in the course of his suggestive paper, had asked the question whether the motor cells of the so-called "motor area" belonged to mind or not. This question must be answered in the affirmative. It was not only in harmony with the views held as to the sensori-motor mechanism of the cortex; but, as knowledge of any object was not simply dependent upon sensory impressions, but its form and position in space were obtained by movements of the eyes, which movements would probably be registered in motor cells of the cortex, it would be seen that pathological affections of these cells might be expected to produce mental modifications, not yet, however, specifically recognisable. As regarded the dementia sometimes consecutive to lesions of posterior lobes, these lobes doubtless registered the raw material of intelligence; and, if this raw material were destroyed, there was nothing from which intellect could be elaborated.

Dr. SHUTTLEWORTH (Lancaster) mentioned a case of microcephalic imbecility in a girl aged 15, whose brain weighed only 21½ oz., in which arrest of development, more especially of the temporo-sphenoidal and occipital lobes, was observed. The frontal and parietal lobes were fairly, though somewhat coarsely, convoluted. She had good powers of observation, and was active in locomotion. The chief sensorial infirmity noticed in the girl was imperfect hearing; and it was perhaps remarkable that this imperfection coincided with very imperfect development of the superior temporo-sphenoidal convolution, in which, according to Ferrier, the auditory centre is placed.

Mr. VICTOR HORSLEY (London) wished to draw the notice of the meeting to the question of perversion of either the emotions or moral sense in cases of lesions in the frontal lobes. Of six cases in which there was injury (laceration) of the frontal lobe, he had observed slight changes in two only. Thus, in one case, in which there was laceration of the anterior thirds of both the superior and the middle frontal convolution, the patient used very bad language, the only other lesions being small hæmorrhages outside the right corpus striatum. In the other case, in which the patient recovered, there was no reasonable doubt of laceration of the frontal lobe; the boy was exceedingly irritable and emotional (melancholy). He asked if, supposing the lesion were situated in the left frontal lobe, whether Mr. Lewis had frequently noted perversion of language. Finally, he could not see any difficulty in accepting assumption of function by the uninjured hemisphere, after such cases as were recorded by Andral.

Dr. IRELAND (Prestonpans) said that the question before the members was, whether in treating their insane patients they had been helped by the new doctrines of cerebral localisation, or had, in the course of their pathological observations, seen anything to confirm these views. For his part, having especially studied a large number of cases of idiocy, he had failed to observe anything to support the theory of the different centres of vision, hearing, and sensation, distributed by some physiologists over the hemispheres. He had derived light from the discoveries about aphasia; and the theory of motor centres, with the commentaries of Dr. Hughlings Jackson thereupon, had been universally received as of great clinical interest. About the other centres he was still sceptical. Dr. Mickle, who had carefully studied the pathology of general paralysis, had entirely failed to find lesions in the centres for vision and hearing in patients visited by hallucinations of these senses. Mr. Bevan Lewis rather led them up to the promised land than took them into it. Some day it might be possible to say during life what layer of grey matter was altered in a case of insanity, or what hallucinations were accompanied by hyperæmic spots on the cortex; but this would probably not take place for some time. He hoped Mr. Lewis would live to complete the research. In that case he would not only have a long life, but he would gain immortality. Dr. Ireland thought that the advocates of localisation had better reply to Goetz before they went any further. As that physiologist wittily said, a great part of the brain was under the suspicion of being a visual centre. If they went on creating so many new centres in the brain, there would soon be no room for thought and reason.

ON BONE-DEGENERATION IN THE INSANE.

Read in the Section of Psychology.

BY JOSEPH WIGLESWORTH, M.D.Lond.,
Assistant Medical Officer, Rainhill Asylum.

IN bringing under your notice a few observations on the subject of bone-degeneration in the insane, I will be as brief as possible, feeling sure that there are many here present much more conversant with the subject than myself.

Scattered through medical literature are numerous communications on this subject, to a few of which I will here shortly refer. The most important papers dealing with the question to which I have had access are one by the late Dr. Ormerod in *St. Bartholomew's Hospital Reports* for 1871, and a joint paper by Dr. Rogers and Dr. Campbell Brown in the *Liverpool Medical and Surgical Reports* for 1870. In the former of these papers, the subject was investigated by microscopical examination, and in the latter by chemical analysis. Dr. Ormerod operated chiefly on the ribs; and in the paper above referred to, as also in a prior one in the *Journal of Mental Science*, he describes certain changes which he found. His method of operating was to make a fine section of a rib with a saw, and then grind this section down until it had reached a sufficient degree of thinness to be mounted for the microscope. It is obvious that this was by no means a very delicate mode of preparation, especially in the case of a rib abnormally fragile. Details of the cases are not given; but he appears to have found some degree of change in the majority of the bones he examined. The most characteristic features appeared to be enlargement of the Haversian canals and a minutely granular appearance of certain districts, sometimes involving the entire Haversian systems. The process was described as one of absorption of the internal structures of the bones, the osseous tissue being replaced by an excessive deposit of the fatty matter normally existing in its interior.

In the paper by Drs. Rogers and Campbell Brown before mentioned, details of five cases are given, in which the ribs had either been fractured during life, whilst the patient was under asylum-treatment, or in which an abnormal softness of these bones was noticed at the necropsy. It is worthy of note that three out of the five cases died of phthisis; two of the cases were examples of general paralysis. The ribs from one of these cases of general paralysis, and from two other cases of this disease, were submitted to chemical examination. After giving the analysis in detail, the authors remark "that the ratio of organic constituents to earthy matter is much greater, while the ratio of lime to phosphoric acid is distinctly less, in the ribs of paralytics than in those of healthy adults. There are the same differences between the composition of healthy ribs and those of paralytics as between the composition of adult bones and those of the fœtus; and generally the composition in cases of paralysis approaches that observed in cases of osteomalacia." The authors are careful to remark that this opinion was based on the examination of three cases only, and that further observations were needed.

I may also refer to a paper by Dr. Hearder entitled "Fractured Ribs in Insane Patients," published in the *Journal of Mental Science* for January, 1871. The author states that out of twenty *post mor-*

tem examinations, the ribs and sternum were diseased in nine. In one of these latter cases, fracture of the ribs had occurred during life. The bones were reported to be thin and soft, easily broken, greatly deficient in inorganic matter, etc. No analysis was made, however, nor does it appear that any microscopical examination was resorted to.

I may add that Dr. Davey of Bristol, in a communication with which he has favoured me, has pointed out that, as far back as 1842, he detected the presence of mollities ossium in persons dying insane. Isolated cases of fragile bones in insane individuals have also been reported from time to time by different observers.

The foregoing quotations will, I think, be sufficient to show that, in some cases at least, the bones of lunatics are weak as compared with those of healthy adults; and there is, I think, a more or less general opinion amongst asylum physicians, that there is a special proclivity to bone-degeneration amongst insane individuals; nevertheless, this opinion appears to be of a somewhat vague nature, and to rest on not altogether adequate grounds. The subject, however, is one on which it is very necessary to have definite and precise ideas, for at any moment public attention may be arrested by one of those unfortunate accidents which occasionally occur in asylums, and the reputations and future prospects of individuals may greatly depend upon the views which we have formed on the question.

It was, accordingly, with the intention of endeavouring to throw some light on the subject, that, at the suggestion of Dr. Rogers, I commenced last winter to make a microscopical examination of the bones of patients dying insane in Rainhill Asylum; and from that time to the present I have examined indiscriminately all cases that presented themselves. My observations have been chiefly confined to the ribs, and I have obtained sections of these bones from thirty insane individuals. The mode of preparation has been as follows.

The portion of bone selected for examination was first decalcified by placing it for a variable number of days in a dilute solution of nitric and chromic acids, after which it was transferred to methylated spirit until all the chromic acid had been extracted; the spirit was then removed by soaking in water for twenty-four hours, and the bone was finally steeped in a thick solution of gum for from twelve to twenty-four hours; it was then ready for cutting on the ether-freezing microtome. The gum makes an excellent embedding agent, and, when frozen, cuts like cheese; excellent support is thus afforded to the fine trabeculæ of cancellous tissue, and by these means very fine transverse sections through the whole thickness of the bone can be readily obtained. A good staining agent was found in picro-carmine, and the sections were dehydrated in alcohol, cleared up with oil of cloves, and mounted in dammar in the ordinary way.

In order to obtain a reliable standard of healthy ribs for the purpose of comparison, I resorted to Dr. Rich, pathologist to the Liverpool Royal Infirmary, who kindly supplied me with eight ribs from patients dying in that institution from causes unconnected with lunacy; sections were obtained from these in the above described manner. I will now briefly summarise the results obtained.

It is unnecessary to describe the minute anatomy of normal bone; the arrangement of the Haversian systems—the bone-lacunæ and canaliculi—are familiar to us all; but it may be as well to call to mind that cancellous bone differs in no respect from compact bone, except in having a more open texture; and that all bones containing cancellous tissue, such as the ribs, have on their outside a layer, more or less thin, of compact substance, upon which their strength to a great extent depends; and that this outer layer of compact substance gradually becomes more and more open, as it passes into the central cancellous tissue.

Examination of the eight ribs above referred to, from patients other than lunatics, brought out the fact that, whereas, in six of them, the layer of compact substance showed the close arrangement of Haversian systems and small size of their contained canals, characteristic of normal bone, in one of them—and, to a less extent, in two—the Haversian canals were somewhat enlarged, and a tendency to openness of structure, or vacuolation of the bone, was thus produced. This fact must be borne in mind in estimating the significance of similar changes met with in lunatics.

Of the thirty ribs of insane individuals from which sections were obtained, eight might be described as normal; seventeen showed slight, in some cases quite trivial changes; these changes consisted in a relatively thin layer of compact substance, and more or less widening of the Haversian canals, so as to produce a slight degree of vacuolation of the bone. I must repeat that the departure from the normal, in these cases, was, in general, only slight. Two others showed the above-mentioned points in a somewhat more marked manner. The remaining three were altogether abnormal, and presented the following characters. The external layer of what should have been compact bone was in many places thinned, and riddled with cavities of all shapes and sizes, some round and clearly formed by the absorption of an Haversian system, others oblong, and apparently produced by the coalescence of two or more of these circular vacuoles; many of these large oblong vacuities were situated quite in the superficial part of the compact substance, in some cases immediately beneath the periosteum—in the layer of bone, that is, which normally would be most compact; the trabeculæ of the cancellous tissue, and those formed by the vacuolation of the compact substance, presented in many cases rounded ends, as if in actual process of being worn away. The sum of the changes was to produce great porosity of the bone, and necessarily to render it very liable to fracture.

With the view of determining more accurately the relative thickness of the external compact layer of bone in the ribs of the sane and insane cases, I have made a series of measurements, with the following results. Of the ribs of the eight sane cases, forty-four measurements were taken, which gave the average depth of the outer compact layer as .59 millimètres; if, however, the average were struck from the four best ribs, a depth of .81 millimètres was obtained. Doubtless this average is below that of individuals in general, as the majority of the cases—six out of the eight—were females. The average age of the patients was 31 years.

Turning now to the thirty insane cases, the result of 175 separate measurements was to give an average depth of only .32 millimètres, very little more than half the lowest estimate in the sane cases. Of these thirty cases, nine were males, and twenty-one females; the average age was 47.6 years. The causes of death were various; seven died of general paralysis, and five of phthisis.

Of the three cases above mentioned which showed marked porosity of the bones, the first was that of a woman 58 years of age, who had been an inmate of the asylum twenty-one years, and whose mental condition was one of dementia consecutive to mania; the second was that of an old woman aged 78, who had spent the last nine years of her life in the asylum; she was the subject of senile dementia, and died of tuberculosis of the intestines; the third case was also that of a woman, an epileptic imbecile, aged 38, who had been in the asylum thirteen years, and died in the *status epilepticus*.

It was stated that in these three cases the porosity of the ribs was due to large cavities which had been produced by absorption; measurements were taken of several of these, two of the largest of which extended in the long axis of the bone for a distance of 2.3 millimètres, and 1.94 millimètres, the depth being .25 millimètres and .42 millimètres respectively.

For the correct interpretation of the above described facts, we must call to mind certain points in connection with the development and growth of bone. All bone is formed directly or indirectly from the periosteum; and as long as bone grows there is also absorption going on at some place or other. In long bones, there is a constant absorption of bone near the marrow-cavity as long as the periosteum continues to produce new layers of bone. The absorption of compact substance next the marrow-cavity proceeds in a manner contrary to that of the formation of it; the concentric lamellæ, which are the parts last formed, succumb first; hereby the Haversian canals are widened, and are again transformed into Haversian spaces (Klein's *Elements of Histology*), and so on.

For the structure of bone to maintain its uniform compactness, it is necessary that the incessant processes of absorption and reformation should exactly balance each other; should the rate of absorption from any cause exceed the rate of deposition, more or less porosity of the bone will ensue, and such porosity may result from two causes. (1) Absorption may not go on at a quicker rate than normal, but, through impairment of the general health—chronic wasting disease, etc.—the deposition of new bone may be practically at a standstill; and probably some degree of porosity thus produced may be looked upon, in a sense, as a normal accompaniment of old age. But (2), as the result of causes at present ill understood, the absorption of bone may go on at a rate much in excess of that which can be neutralised by the deposition of new bone.

Now the porosity met with in the ribs of many lunatics would appear to have its origin in both these causes; the slight, often trivial, extent to which this has been met with in the majority of cases examined, would appear merely to be correlated with that general impairment of nutrition so common in the insane, or with some chronic wasting disease, such as phthisis, from which they may have suffered. These cases are, therefore, removed from the category of local to that of general conditions; and probably, from

the point of view which has a special interest for us, viz., the liability of the bones to fracture, they are not of much importance. But it is otherwise with cases of the second class—to which three out of the thirty belonged—which, though they form a decided minority, are not on that account to be the less regarded. These cases appear to constitute a distinctly local disease, which, when it has progressed to any extent, must seriously endanger the integrity of the osseous structure. They seem to occur more commonly in the old, and the affection is doubtless of the nature of that described as "senile osteoporosis," or "senile osteomalacia," though it appears to be quite distinct from osteomalacia, properly so called. Of this disease, Cornil and Ranvier remark that "it is a rarefaction of the osseous tissue by enlargement of the medullary spaces.....The friability of the bones is owing simply to their rarefaction; there is not a softening of the bones by decalcification, as in true osteomalacia. Accompanying the rarefaction, there are important modifications of the marrow, presenting some analogy to those occurring in true osteomalacia. There is, to a greater or less extent, disappearance of the adipose cells, and a formation of cells similar to those of embryonal marrow.....The bones most frequently attacked with the disease are the ribs and vertebræ. The vertebral column becomes curved, and the ribs are fractured by the slightest effort." (*Pathological Histology*, p. 220. American translation.)

But, though osteoporosis is thus demonstrated to occur in insanity, it is advisable to exercise caution in drawing conclusions as to a causal connection between the two conditions, for this same osteoporosis is known to occur amongst quite sane individuals; nevertheless, the occurrence of three examples of it, out of thirty cases examined, is a fact of some significance. The number of cases is, of course, too small for a reliable induction to be founded on them; but, if the proportion indicated were maintained, it would give a ratio of 10 per cent. amongst insane individuals in general; in other words, in an asylum community, ten out of every 100 individuals would have their ribs in an abnormally fragile condition, ready to be fractured on the application of slight violence; if this proportion were to prove approximately true, it would certainly give a much higher ratio of osteoporosis amongst insane individuals than amidst the community at large; but, as to the causes which would determine the frequent presence of this affection in lunatics, I think we can at present only form somewhat wild speculations at the best.

As before mentioned, the number of cases included in this communication being small, the induction reached can only be an imperfect one; nevertheless, for the purposes of discussion, it is advisable that certain conclusions should be drawn, which may be thus formulated.

1. The ribs of lunatics are perfectly healthy in a minority of cases.

2. The majority present some slight degree of change, which consists in a slight thinning of the external layer of compact bone, and slight enlargement of the Haversian canals, but that these changes are in general merely trivial, and to be correlated with the general failure of nutrition so common in insanity, or with the presence of a wasting disease such as phthisis, or with the advent of old age, or it may be with a combination of all of these; these cases possess, therefore, a general, not a local significance.

3. In a minority of cases, provisionally estimated at 10 per cent., clear and precise lesions are found, produced by considerable internal absorption, which renders the bone very porous and brittle, and brings it under the category of the condition known as osteoporosis. The proportion of cases in which this affection occurs being thus considered to be much higher amongst insane than amongst sane individuals, it would appear to have some causal connection with insanity, of the nature of which we are as yet ignorant.

Dr. MICKLE (Bow) regarded Dr. Wiglesworth's microscopic preparations as of very great value, there being but few of the kind recorded. The question was not so much as to the production in the insane of a condition of bone, in which the bones would break without any violence, as it was a question of a state of bone in which the application of a slighter force than usual sufficed to bring about fracture. There was no ground for surprise in this. The lowering of nutrition in the insane often affected all parts of the body. Besides this, there were in the insane many special changes in different parts, as the hair, skin, so that there was nothing wonderful in the view that an analogous series of special changes might occur in their bones. The question of a direct influence of trophic nerves upon the bones, and of a morbid influence of the same trophic nerves in cases of cerebro-spinal disease in the insane was one of great interest; and here the changes were merely analogous to what was found as the result of disease of (assumed) trophic nerves in other parts of the body. Another important point was the condition of defective reflex power and of anæsthine observed by Dr. Mickle on several cases of fractured bone in the insane. Here it was obvious that an accidental fall, or a sudden jerk, or any slight injury, might readily produce fracture, the muscles adapted to preserve the patient from injury not being readily thrown into action. Hence there were several ways in which the bones of the insane were liable to fracture on the application of comparatively slight force or injury.

Dr. T. L. ROGERS (President) agreed with Dr. Mickle that disease of the bones was only one of many indications of weakened nerve-force and nutrition, and that this condition was not confined to lunatics. He mentioned the case of an attendant who had been in India and invalided for muscular rheumatism, who, on one occasion, fractured his humerus in the presence of Mr. Reginald Harrison and himself (Dr. Rogers) in throwing up a cricket-ball, and who subsequently became a good round-hand bowler. He supported Dr. Sankey's views as to the loss of defensive reflex muscular power by the analogous case of a horse destroying his hoof after division of the nerve of the leg by putting the foot down with too great force, and mentioned a case in which a woman, the subject of general paralysis, fell and broke her leg in shaking a carpet, and got up twice and attempted to walk on the broken end. He attributed the fewer number of cases of broken ribs that occurred at present to the knowledge gained by attendants that lunatics' ribs may be abnormally fragile, and therefore required to be more gently handled, and also that medical attention was more directed to this source of danger.

Dr. YELLOWLEES (Gartnavel) said that the paper represented a great deal of excellent work. It was very interesting and important that, in thirty cases of insane persons taken indiscriminately, three should have been found with the morbid change in the bones that was observed. In his experience the condition only occurred in chronic insanity, and was more frequent in women. It was most noticeable in the anterior extremities of the higher ribs, and the sternum was sometimes markedly affected. Similar changes, though in a far less degree, could be detected in the long bones of the limbs in these cases.

Mr. ROOKE LEY (Prestwich) said that bony union rarely occurred, according to his experience, in the ribs of patients, after fracture. In one case, that of a general paralytic, in whom seven ribs were broken, and who survived the injury fifteen months, no bony union was observable; the ends of the bones were strongly united by fibrous tissue. At the *post mortem* examination the ribs and other bones were found to be in a very brittle condition.

Dr. WIGLESWORTH, in reply, said that he thought that the opinion of most of the speakers was to the effect that bone-degeneration occured in insanity; the question was as to the proportion of cases thus affected. Dr. Yellowlees had misunderstood him in saying that he asserted that the majority of lunatics had diseased ribs; he thought that those cases which presented distinct disease were decidedly in the minority. It must not be supposed that because a bone was broken therefore the patient was subjected to undue violence, or that the bone was abnormally fragile; but every case must be judged on its merits. Several speakers had alluded to the anæsthetic condition common in insanity, which doubtless acted as a predisposing cause. He had no personal experience with reference to the repair or non-repair of fractures in osteoporotic bone; but Cornil and Ranvier asserted that they mended readily with an abundant callus.

AN EPIDEMIC OF DELIRIUM.

Read in the Section of Psychology.

BY CHARLES MERCIER, M.B.,
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FOR the opportunity of seeing the cases here mentioned, I am indebted to Dr. Huddart of Greenhithe, in whose practice they occurred.

On the 24th of February last, several boys on board the training-ship *Worcester* were taken ill with scarlet fever. They were promptly isolated; but, on March 2nd, several other cases occurred. The lads affected were sent on shore, where they were all treated in the same building, and all did well.

In every case there was a rash, though in some cases the rash was very slight. All had sore-throats, but in none was there a definite deposit or ulceration of the throat. All had slight albuminuria, which subsided early. The epidemic was a mild one; the lads

had gone through the attack without any unfavourable symptom, and were so far advanced towards convalescence that little anxiety was felt about them, when a very peculiar thing occurred.

About nine o'clock in the evening of March 13th, two of the lads (sleeping in different rooms), who had been for some days complaining of headache, became acutely delirious. They talked loudly and nonsensically, were very restless, and, apparently under the belief that they were about to be molested, they attacked their fellow-patients as though in self-defence. They kept the wards in an uproar until an early hour in the morning, when they sank to sleep. On waking, they appeared normal in every respect, and stoutly maintained that they had slept the whole night through. They seemed to have no recollection at all of the scenes that had taken place over-night. Both of these boys were among the second batch of scarlet fever cases; in both, the malady had shown itself on March 2nd. A day or two afterwards, three boys belonging to the second batch of scarlet fever cases complained of headache, and, on the night of March 19th, these three boys became delirious, all about the same hour as in the previous cases, and continued so during the greater part of the night, the delirium having much the same character as that of the other lads. On the following morning, when I first saw them, two of these three were still distinctly, although slightly, alienated; and it may here be stated that of the genuineness of the affection there was not a shadow of a doubt. None of the five boys who had exhibited uproarious conduct for several hours on the previous night appeared to have the slightest recollection of what had occurred; and this is unusual, some remembrance commonly remaining after delirium. Of the two lads whose alienation was apparent at my visit, one, H. C., conversed very sensibly until a comrade entered the room, when he started up in sudden fury, probably accompanied by illusion; for, when calmed and questioned, he said that he had first thought that the new-comer was a different lad. It did not appear, however, that he had any disagreement with this other lad. He was reticent when cross-questioned about the affair, and passed on to other topics, as people commonly do when questioned about illusions. The other boy was talking incoherently and excitedly about the Oxford and Cambridge boat-race, which was rowed about that time, and no very sensible answers could be got from him. On this and subsequent occasions, the optic discs in all five of these lads appeared unduly suffused and succulent-looking; and in one of them (H. C.) this condition almost amounted to neuritis. There was no albuminuria in any case. The temperatures were normal. In all, the appetite was good; they ate largely, and after each meal became markedly worse. Those who had previously been normal became odd in their conduct, and incoherent in language; and those who had previously been a little queer, became, after their meals, actively delirious. An exacerbation always occurred about nine o'clock at night, at or about the time they went to bed, and, unless treated, continued until the small hours of the morning. Half a drachm of bromide of potassium was usually enough to procure tranquil sleep through the night, and, if this failed, the addition of ten grains of chloral-hydrate was always successful. The delirium lasted intermittently, as above described, for about three weeks altogether, gradually subsiding, and, at the end of that time, disappearing.

Seeing that all these lads had recently had a throat-affection, and bearing in mind the paralysis that occasionally follows not only diphtheria, but throat-affections of an allied character, of which the inflammation that occurs in scarlet fever is undoubtedly one; and remembering, moreover, that the occurrence of the paralysis bears no relation to the severity of the throat-affection, I was at first inclined to believe that these cases afforded an instance of such a paralysis, affecting, not as is common, a motor centre or arrangement, but the highest nerve-centres, and those only. Of course, delirium could not be directly due to such paralysis; but if the functions of these centres were suddenly abolished, the centres immediately below them would be deprived of their controlling and regulating influence, and the excessive and irregular action of such uncontrolled centres would be the physiological process in delirium. While, however, the suspension of the action of the highest nerve-centres was, in all probability, the immediate antecedent of the delirium, the view that regards this suspension as due to a post-diphtheritic paralysis is not countenanced by all the facts. The intermittent occurrence of the delirium does not fit in with such an hypothesis, for diphtheritic paralysis is not intermittent, and does not appear and disappear in the fitful way that this delirium did. The explanation is probably indicated by the times at which the exacerbations occurred, and by the wretched character of the pulse in all the lads affected. It seems most probable that the removal of the action of the highest nerve-centres, which, as I have said, will account for the delirium, was brought about by a failure of their blood-supply. These centres are the most peripherally situated with respect to the blood-supply, are the furthest from the heart, and will be the first to feel any deficiency that may occur in the circulation. That the delirium was accompanied by a more or less rapid occurrence of anæmia, or, let us say, by a diminution in the amount of blood supplied to the highest nerve-centres, is seen by the fact that it occurred just at those times when a diminution normally takes place, at times that are commonly occupied by sleep. It occurred at night, when the heart's action is diminishing, and the arterial tonus slackening with the accumulated fatigues of the day; and it occurred after meals, when a large supply of blood is draughted off into the abdomen, when therefore there is less blood in the rest of the circulation, and when consequently sleep is a common occurrence in convalescents and other persons with a low arterial tension. In these young people, delirium replaced sleep, just as in children still younger a convulsion may replace a rigor. It may be said that chronic anæmia of even an extreme degree may exist for a long time without any sign of delirium; and this is quite true, but it is not to the point. It was insisted on long ago by Dr. Hughlings Jackson, and has become generally accepted, that one of the most important factors in a cerebral lesion is the suddenness with which it occurs. A sudden increase in the bulk of the cranial contents, as by a small hæmorrhage, produces symptoms of the most pronounced character—coma, it may be, with hemiplegia; but a much larger increase occurring slowly, as by the gradual growth of a tumour, may be attended by no discernible symptom at all.

Holding this view of the nature of the malady, I confidently gave a very favourable prognosis, which was speedily justified by the event. With a generous diet, a couple of glasses of wine daily, the administration of the syrup of the phosphates of iron, quinine, and strychnia, and the occasional use of the sleeping-draught above mentioned, the lads rapidly recovered.

The simultaneous occurrence of delirium in several people was so startling an occurrence, and pointed so strongly to a common cause, that inquiries were naturally made as to any possible ingesta to which it might have been due; but apart from the nature of the delirium, which was quite unlike that of belladonna or alcohol, the circumstances under which the boys were placed—strictly confined in an isolated building under the complete control of a trustworthy attendant—rendered such an explanation inadmissible. Whatever the *rationale* of the occurrence, the cause of its simultaneous appearance in different individuals is sufficiently indicated by the fact, that, in all those whose delirium appeared at the same time, the scarlet fever rash had similarly appeared three weeks before on the same day.

The condition of the optic discs tends to corroborate the view here taken, for it was, I believe, an early stage or a slight degree of that neuritis which is commonly seen in anæmic and chlorotic girls.

SOME ACTS DURING TEMPORARY EPILEPTIC MENTAL DISORDER.

Read in the Section of Psychology.

By JOHN HENRY BAKER, L.R.C.P., and W. J. MICKLE, M.D.

The acts committed by epileptics during the temporary mental defects and disorders immediately following epileptic seizures, or replacing these, are of great interest from a psychological point of view, as a study of the external manifestations of the mental operations under these conditions. They have also an extremely important medico-legal bearing. Epileptics may perform acts of the most complicated kind, and apparently purposively adapted and arranged to the successful carrying out of a seemingly methodical design, and yet the acts may be entirely due to the epileptic mental conditions, to a large extent may be unconsciously performed, and little or no recollection of them may remain when the paroxysmal disturbance has been succeeded by the usual state of tranquillity and of reason. The acts may follow an epileptic seizure, or the mental tumult may be substituted for the motor disturbance.

When these acts are of such a kind as may prove dangerous, injurious, or fatal to the unfortunate epileptics themselves, or to those about them, the medico-legal importance of the subject is obvious, and it is desirable to place on record striking examples of

this nature when they come under observation. Without further preface, therefore, we will briefly describe an example which has recently come under notice, and mainly in the words of the patient's brother, who has always been intimately associated with him, and who gives a detailed account of the case, of which the following is a condensed summary. He writes as follows.

"X is 25 years old. At an early age he was subject to somnambulism, and complained of seeing visions. He has been subject to epileptic fits since his thirteenth year at least. The intervals between these fits are very irregular. Sometimes, after a considerable interval has passed without his having any, he will have several in quick succession, sometimes several in the same night, or at intervals of one or more nights, and then will not have any for a considerable time. Before having a fit he generally becomes very irritable and passionate, and often strange in conversation; sometimes the attack seems to be brought on by indigestion. At the commencement of a fit, apparently as he loses consciousness or the paroxysms begin, he almost invariably gives an exceedingly shrill and wild shriek, often loud enough to wake everyone in the house. When in a fit he foams at the mouth, has his eyes turned so that the whites only are visible, struggles violently with his arms and legs, and has violent convulsive twitchings and movements of them and of his whole body; he becomes very black in the face, and often seems as if he were about to suffocate; he nearly always bites his tongue, or lacerates some part of his mouth; the fits seldom last more than a quarter of an hour. Sometimes, after the paroxysms are ended, he becomes conscious for a time, but he nearly always falls into a very deep sleep, in which he breathes very heavily, either immediately or shortly after the paroxysm. If he is held up, and a glass of water is put to his lips while in a fit, he generally drinks it readily, and it seems to revive him. He generally asks for and drinks water when he recovers consciousness. He very frequently vomits during and after a fit, the vomit being very peculiar and slimy. He has for a number of years back been under medical treatment. His friends thinking that living in the country might improve his health, he has for many years past lived on farms in Scotland and England, but has experienced no permanent benefit. Just about a year ago he was living at a farm in the country; he enjoyed very good health there for a considerable time, but I was suddenly called to him by a telegram, which stated that he was quite out of his mind. By the time I got there he was much better than I was told he had been, but was still very weak and rambling in conservation, he did not know what had been the matter with him, or what he had been doing. The people he was living with told me that he seemed to have quite lost his senses, that he had been raving on religious subjects, and had frightened every one in the house. He had expressed a determination to cut his throat, and he got up and looked for his razors, but the people of the house had taken them and hidden them. They insisted upon my taking him away with me at once. I had anticipated from the telegram I had received that I should have been obliged to have had him immediately removed into an asylum. I, however, found him quite quiet, although very weak, and wandering in his mind, and I did not consider it necessary to have him removed to an asylum. During the railway journey, of eighty miles home, he was very incoherent in conversation, and strange in his manner, and I had to keep a careful watch over him. He complained that he had water in his head, on his brain, and asked me to have the top of his head cut off; he rubbed his head with his handkerchief as if he were washing it, the whole way, until he rolled the handkerchief up into a ball, and, pulling down the window, deliberately threw it out, then asked for mine and continued rubbing his head. After reaching home he became much better, and seemed to become quite sane and collected, although his conversation is never very sensible. The fits became very rare and not so violent. He went as a clerk into an office in order to occupy his mind. About eight months ago he went with the family to ——. One day there he took up a knife threateningly to a sister; he, however, came to his senses before doing any harm, threw the knife down, burst into tears, and rushed out of the house saying he would drown himself, and stopped out several hours. He was in a passion about something that had occurred. From this time until his seizure on Monday last he has been much better; the fits have been very rare and not violent; he stuck fairly well to his work at the office, although of course he has never been of much use. He has been to different places by himself, on a tour to another country, and recently we thought it quite safe for him to go to —— and ——, to make some enquiries. He went to Paris and stayed there a few days. After returning, he went to ——, to prosecute the inquiries. He had a fit or was taken ill at ——; he had not had a fit for some months before then. As soon as he was well enough, a day or two afterwards, he returned home. He seemed ill and weak, but he went to the office as he wished to see some of the clerks. The first day he was all right. The second day he had a fit at the office, and one of the clerks had to bring him home. This was about the end of the week before the Monday on which he was taken ill. He remained at home a day or two, and seemed all right, except that he looked exceedingly weak, his face being very thin, wan, and haggard. Sunday night he was playing cards with his mother. In the middle of a game (as he had often done before) he started up, and threw his arms about, and began raving for a few seconds, then stopped and threw himself on the sofa. On the following day, on the Monday, he seemed fairly well, and went to bed all right. The family retired to bed about 11. About 12.30, when I had only been a short time asleep, I was awakened by one of the family. I opened my door, and heard him raving on religious subjects in a very loud tone of voice and in a most horrible manner. I became much alarmed, and tried to get into his room. I, however, found he had locked his door inside. I could hear that he was praying God to take him, and saying that he was about to die. I, however, could not be certain of what he was doing. After some time I managed to open the door, and got into his room. I found him lying on his bed, perfectly naked, with his head and pubes lathered and shaved, his throat cut, and his body gashed in several places and streaming with blood, with which his bed was soaked. When he saw me he got up. Being afraid that he contemplated further mischief, I closed with him; he struggled with me, and managed, in spite of my efforts, to get to the dressing-table where he had left his razors, and got hold of one, and began cutting his throat again with it while I was struggling with him. I managed, at last, to hold him so as to prevent him doing this; he then said to me: 'You know very well it is better for me to die. I am going to die. God has called me, and is going to take me. You have no right to stop me; you know it is the best thing for me.' I, however, of course, held him fast. He then said: 'You have no right to stop me; you know it is best for me. If you interfere with the command of God, you must take the risk.' He then seemed to become very angry with me, and struggled as if he wished to attack me with the razor; but after a great deal of difficulty I got him on the bed, and held him down from behind and held his arms; he tried to gash himself underneath all this time. I did my utmost to prevent him, but he was very strong. I shouted for help, but none came for a long time. At last several men and a policeman were brought to us, and with difficulty the razor was removed from his grasp. They had great difficulty in holding him, and he continued to rave and struggle violently. A surgeon came, but he could do nothing without securing him, on account of his violent struggles. He therefore strapped him down, twisted a bleeding artery, and sewed up his wounds. On Tuesday morning he was removed to the hospital infirmary; he had continued to rave nearly all the night. On Wednesday he was taken before the magistrate. He told the surgeon that the moon had compelled him to try and kill himself, and that he had tried to kill the surgeon and myself. He stated that I was trying to make myself pass off for my father (who is dead) by circulating photographs of myself, and so he thought he would kill me. He has always been exceedingly temperate in the matter of drink. Sexual intercourse has occurred once only."

The patient's condition on admission, next day after the wounding, was as follows: He was of dark complexion; all hair was cut off the head and pubes; there were incised wounds on head, neck, chest, and legs, self inflicted; the pupils were very mobile, often somewhat dilated, but act well to light and in accommodation: the patellar tendon-reflex was about three inches movement; sight and colour-vision were good. He said his sight was not so good after attacks, and he was dizzy then. He denied venereal disease; occasionally had "wet dreams;" and he occasionally got a bad taste and watering in the mouth, and his teeth set on edge and drawn together before the epileptic fits. At first he had a strange, suspicious, and askance glance, and stated that he has a dim recollection that when he used the razor on himself, he thought he was being crucified; subsequently he stated that he thought he was in a tomb and buried alive. He had no recollection of the struggle with his brother, or of his inflicting the injuries on himself, in fact, no recollection of anything that happened between the time of his going to bed, until the time of his hearing the family medical man speak during some part of the latter's attendance on him. Except for an outburst at night, the patient was quiet and rational, and so remained.

REVIEWS AND NOTICES.

A System of Surgery, Theoretical and Practical. In Treatises by Various Authors. Edited by T. Holmes, M.A.Cantab., Surgeon to St. George's Hospital, Memb. Corresp. de la Société de Chirurgie de Paris; and J. W. Hulke, F.R.S., Surgeon to the Middlesex Hospital and to the Royal London Ophthalmic Hospital. Third Edition, in Three Volumes: with Illustrations. London: Longmans, Green, and Co. 1883.

[Third Notice.]

We have already spoken at some length of the general character of the new edition of the *System of Surgery*, and have noticed the improvements and alterations in the essays included in the first two volumes. It is now our turn to consider the third, which includes articles on the surgical diseases of the absorbent and vascular systems, and of the urinary organs, venereal disorders, diseases of the male and female sexual organs, of the thyroid gland, anæsthetics, minor surgery, plastic surgery, amputation, excision, resection, surgical diseases of childhood, osteotomy, apnœa, parasites, and surgical diagnosis, and regional surgery. A large proportion of this third volume is composed of the writings of its senior editor, whose merits in the field of surgical literature are well known, and we need hardly say that his classical monograph on aneurysm is enriched by the addition of all details of any importance gained by clinical researches that have been made since the appearance of the last edition of the *System*. Mr. Holmes's opinions on materials for ligature, and on the deligation of certain large arteries, already well known, will be found in this essay, collected together in a manner convenient for reference. We can also safely leave the contributions of Sir Henry Thompson and Mr. Henry Lee to the verdict of the profession. The passages on the treatment of stricture, and on Bigelow's method of lithotrity, will be read with interest by all who are concerned in the surgery of the urinary organs. Sir Henry Thompson records his opinion on Bigelow's operation in the following words.

"This method has now been employed by several surgeons, both here and elsewhere, and I have used it almost solely now about three years. The remarkable success which it has achieved, and the details of which will be given in their place, render it no longer a question for discussion whether or no the old practice of many sittings, or the new 'lithotrity at one sitting' should be performed. The advantages are so clearly in favour of the latter operation, that it only will be described here. At the same time, any instructions relating to the new procedure must of necessity embrace all manipulations belonging to the old, so that all exceptional instances in which more than one sitting may be necessary—and such it is admitted may present themselves, especially to operators who have not had large experience—will be provided for."

Mr. Lee has evidently little or no faith in the numerous drugs that of late years have been advocated in the place of mercury and iodide of potassium, for the treatment of syphilis, nor do we find any novelties among the remedies prescribed for gonorrhœa. Mr. Hutchinson's *Surgical Diseases of Women*, is professedly only a sketch of the more important features of the subject; the passages relating to ovariotomy, are hardly as complete as might be desired, but the author sums up in an able manner the different causes of the recent reduced mortality following the operation. Here Listerism is not included, as, in Mr. Hutchinson's opinion, it is "almost certain that its supposed advantages have been greatly overrated." In saying this, the author continues, "I would by no means be held to imply that I think that the use of the Listerian precautions can be safely neglected by those who operate in general hospitals."

Want of space forbids us from discussing several other essays of great merit; but, in conclusion, we must direct attention to the valuable additional information avowedly "written 1882," by Mr. Lister, in his article on anæsthetics. Notwithstanding certain results of the experiments conducted a few years since by a Committee of the Association, Mr. Lister adheres firmly to views enunciated in a former edition of the *System*, strongly deprecating the theory that chloroform kills by its power as a cardiac sedative, that the pulse is the main thing to be attended to in its administration, and that it should be always given, when possible, by a specially appointed chloroformist. Mr. Lister still entrusts the administration of chloroform "to a succession of senior students, changing from month to month, whose only qualification for the duty is that they must previously have served the office of dresser, and that they strictly carry out certain simple instructions, among which is that of never touching the pulse, in order that their attention may not be distracted from the respiration." Mr. Lister also persists in abstaining from auscultation before the administration of anæsthetics, which, according to his doctrine, serves no good purpose, and which he considers as a cause of needless alarm, often in itself, in his opinion, a cause of death during the administration of anæsthetics.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. OLIVER'S URINARY TEST-PAPERS.

The advantages of having, in a readily available form, a test for the detection of albumen or sugar in the urine, are obvious. We have received from Messrs. Wilson and Son, of Harrogate, specimens of urinary test-papers which promise to be of real practical value. These papers are of various kinds, some simple, and others compound; but our observations have been confined to the indigo-carmine papers for the detection of sugar, and to the potassio-mercuric iodide papers for albumen.

The sugar-test depends on the well-known property of indigo-carmine being converted into indigo-white in the presence of certain organic matters. This reaction has long been known in the arts, and has received practical application in certain operations connected with the dyeing of calicoes. The chemical change that takes place is this: indigotine, the colouring matter extracted from commercial indigo, when brought in contact with oxidisable animal matter in the presence of alkalies, takes up hydrogen, and is converted into indigo-white, which in its turn, under the influence of oxygen, is capable of reconversion into indigotine. Dr. Oliver has utilised his knowledge of this fact in a very clever way. He has saturated filtering-paper with a solution of carmine of indigo—sulpho-indigotate of sodium—a substance which, on being heated with carbonate of soda in a solution of glucose or saccharine urine, becomes first green, then red, and finally yellow. The paper is cut into slips about an inch in length and a quarter of an inch in breadth, and these are put up in little boxes with corresponding slips saturated with carbonate of soda. The practical application of the test is very simple. One of the indigo-carmine and one of the carbonate of soda papers are dropped into a test-tube and covered with water. A drop of the suspected urine is then added, and the whole is boiled up together over the flame of a candle or spirit-lamp. The colour of the indigo-carmine is dissolved out of the paper; and then, if sugar be present, the solution becomes first green, then red, and finally yellow or colourless. On allowing the urine to cool, it absorbs oxygen, and the colour is gradually restored. We have tried the test with different urines, and believe it to be in the main reliable, although many organic substances besides sugar seem to act in a similar way. The indigo-reaction is given by every form of carbo-hydrate; whilst the copper-test, as is well known, is not reduced by all forms of sugar. This in some cases will be an advantage, whilst in others it will be found disadvantageous.

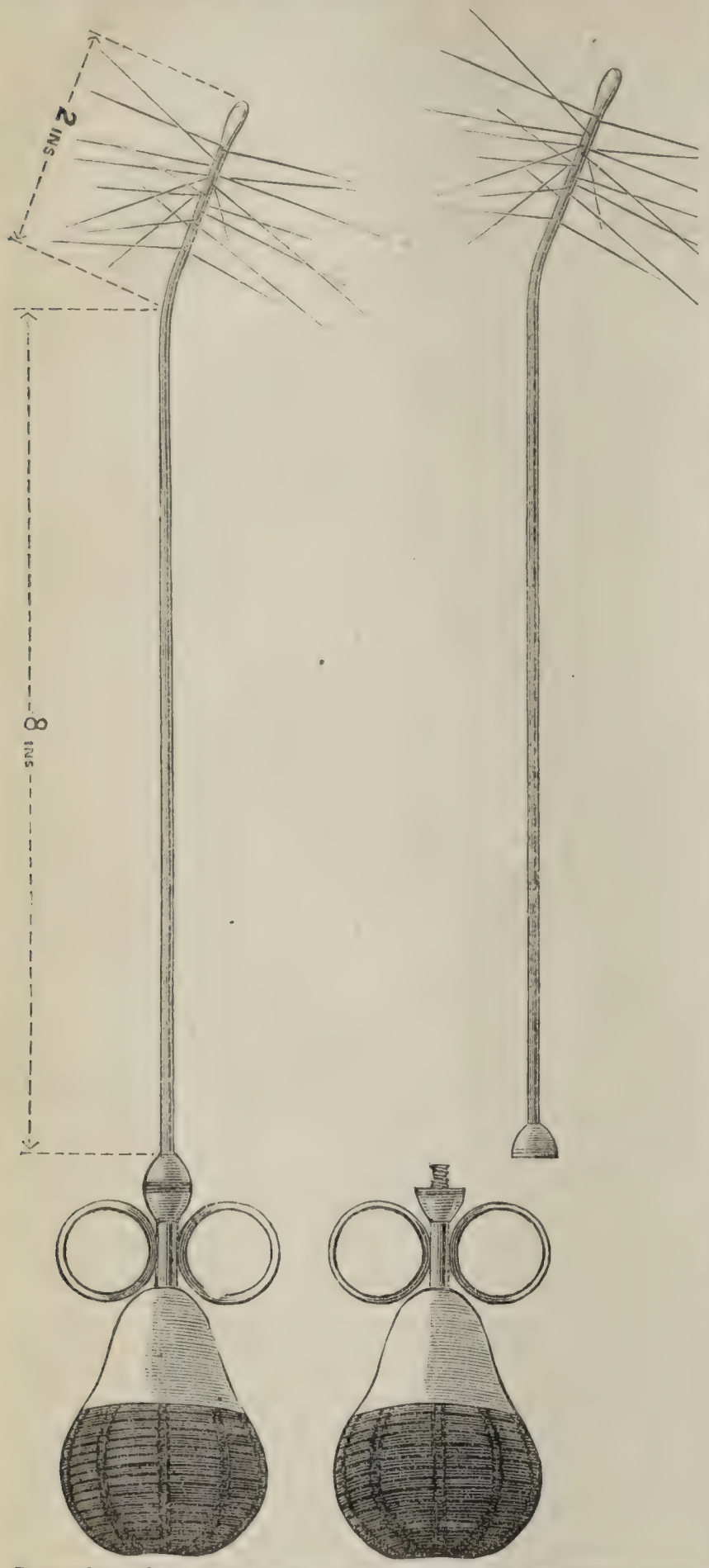
The test for albumen is, if possible, still more simple. A little of the suspected urine is poured into a test-tube, and a potassio-mercuric iodide and a citric acid paper are added, when, if albumen be present, a white precipitate almost immediately falls to the bottom of the tube. This test is undoubtedly very delicate, and in one case we obtained the reaction when cold nitric acid gave no precipitate until some minutes later. The urinary test-papers are excellent; and they will undoubtedly come largely into use, especially if they can be sold at a moderate price.

CHRISTIANI'S FLEXIBLE MEDICINE CAPSULES.

These capsules are excellent, and afford a convenient mode of administering nauseous medicines. We have tried most of them, and find that patients take them without difficulty. They are made of various sizes, and can be filled with any drug, either liquid or in powder. They deserve a trial, and their price is not prohibitive. They are manufactured by Christiani and Co., 11, Queen Victoria Street, London.

SYRINGE FOR THE CERVIX UTERI.

DR. SPEDDING, of Belfast, sends us the accompanying sketch of a new portable syringe for the cervix uteri.



It consists of an India-rubber ball, capable of containing three-fourths of a fluid ounce, screwed on to an electro-plated tube, having the diameter of a No. 4 catheter. The tubular portion partakes of the shape of Simpson's sound, but is bulbous at the end, and is perforated from the shoulder to the point by eighteen fine holes, which emit the medicated solution in a fine spray upon the lining membrane of the entire cervical canal. It is not intended to inject solutions into the cavity of the uterus.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 29th, 1883.

THE RELATION OF DRUGS TO MEDICINE.

AN interesting article on this subject appears in a recent number of the *British Quarterly Review*, the writer, Mr. Crofts, discussing the whole present position of medicine in a suggestive and impartial manner. The general public must always have more or less interest in the science and art of medicine, and it is well for the profession to hear their views from time to time. Although a good deal of ground is covered, we cannot say that much that is novel is stated in the article. Indeed, we fancy that, to some extent, the writer labours under a certain confusion of ideas. The usual statements are made that medicine has altered very much in the last generation, that more [reliance is being placed on good nursing, proper food and hygiene generally, than on the administration of drugs; and the writer goes on to say that medicine depends on biology, and that hence modern medicine views disease, "not as a thing altogether alien to the system, to be encountered by hostile measures of all kinds, but as aberration, a deviation from health, etc." This is no doubt true to a certain degree, and yet to a great extent disease is something altogether alien to the system. While it is true, for example, that simple inflammation is only an abnormal amount of the blood-supply and activities generally, an abnormal energy in the processes of health, the case is very different when we have to deal with such an affection as hydrophobia or scarlatina, in which foreign matter, "altogether alien to the system," has been introduced, and has to be got rid of somehow or other; and even a simple inflammation, if it advance to suppuration, is associated with the formation of a material altogether alien to the system. And so with tuberculosis and cancer. No one can contend that these formations are natural to the healthy body, or are anything but abnormal and unnatural. This is a view which, it appears to us, is too often forgotten in some of the modern statements about the province of medicine. For instance, the writer says: "Pathology recognises no structure or process, the type of which is unknown to physiology." Now if all that is meant by this statement is that the cells of cancer or tubercle, for example, differ only in certain details from those of muscle, or fat, or lymph, but are equally with them cells, no exception can be taken to it. But in another sense it is entirely untrue, for it may safely be said that cells with those characters are never found in health, and, in fact, their peculiarities are the pathological properties which invest the structures with their special interest and importance. To take an illustration from a saying attributed to a great statesman, dirt is not only "matter in the wrong place," far more important than this is the fact that it is matter in the wrong state or condition; and had it not been for the changes that occurred in its state, the matter might have been allowed to remain in a wrong place for ever, without anyone's health being damaged. And, to carry the parallel a little further, not only do we rid ourselves of dirt by taking to another place the

offending material, which alone would be required if its position only were at fault; but we generally destroy it altogether, so offensive is it in its very nature.

So, in many of its forms, disease is not only an excess or diminution of normal action, but is something entirely abnormal. And the important feature to the medical man, practically, is not so much that the abnormal growth obeys laws similar to those determining the behaviour of healthy structures, but it is the abnormality itself, which is of such a sort that we cannot be satisfied till it has been entirely removed and destroyed. It is of course quite true that medicine is much more hygienic than it used to be, and that, deeply founded on biology, its province is felt more and more to be, by studying the laws of the formation of products, normal and abnormal, to maintain the conditions leading to the former, and to obviate, if possible, those which tend to produce the latter, and, in short, to strive to maintain the conditions of health. In effecting this purpose, no doubt drugs are found to be less and less necessary; at least, it is seen that many diseased states are cured without their help, and hence one cause of the tendency observed to do without them. But in other most important respects the writer seems to us to misapprehend the spirit of our art in its most modern developments. It is not, for instance, because it is felt that medicines have little effect in inducing healthy action that their doses are tending to become smaller, but it is an entirely different principle that is determining practice, and in regard to this he seems to us to be in some confusion. Referring to a remark of the late philosophical Dr. Alison, that the advance of medicine must be looked for in two directions, the investigation of the causes of disease, and the discovery of specifics, the writer states that the scientific progress in the former direction has quite discredited the latter. Now this statement, the spirit of which pervades the article, since in one form or other it is made frequently in its course, does not seem to us to be compatible with fact or with other statements made by the writer. In fact, the proposition is true only, or mainly, of the fevers, and what are called specific inflammations. Certainly the modern treatment of these does not rely on specifics, while the enormous diminution of mortality from these diseases which we have witnessed has not been effected by their means. But when the writer says that drugs are now administered in other affections, not so much with the former indefinite aim to "do good," as with a distinct intention to produce some definite physiological effect, we may fairly ask if this is not another way of saying that medicines are administered as specifics. The fevers, after all, account for only one fourth or one fifth part of the whole mortality, and it does not do to assume, as the writer seems, by implication, to have done, that the principles of drug-administration applicable to them apply in the other affections whose causes are so different. We quite agree that doses of drugs are becoming smaller. But what is the administration of a definite small quantity of a remedy, with the view of producing a definite physiological effect? What is this but the search for specifics, which, according to the author, the scientific progress of medicine has quite discarded? To discover the part affected; to make out the nature of the affection, for example, whether congestive or spanæmic; to investigate the elective affinities of remedies, and the nature of their actions and of their reactions; then to administer such a dose of the remedy as will act in a definite way on the affected part—what is all this but to seek for specifics? And are not the very instances quoted, to which the addition of many more might be made, instances of the same specific action which the writer says the progress of scientific medicine has discarded? What is the action of strychnia on the "inorganic muscle"—does the writer mean voluntary muscle?—what is this but a specific action; that is, a definite or a positive action, of which the action of atropia on the pupil is another instance? And is not the action of digitalis on the heart another example? And how can the writer say that the only specifics of to-day are the two known to Dr. Alison, when, in addition, we have those already mentioned, and also the action of corrosive sublimate on the large intestine, ipecacuanha in dysentery, antimony on the lungs, pilocarpine on the sweat-glands, and a crowd of others? Surely no one can read such a handbook of therapeutics as that of Dr. Sydney Ringer, without realising on almost every page that modern therapeutics is in great measure the application of specifics, and that it is this more than anything else which constitutes its distinctive character. For our part, while we see plainly, as time goes on, a tendency to order less and less medicine, we also see that, when medicines are ordered, as it seems to us they must continue to be in the large number of ordinary ailments, they are being administered in steadily diminishing doses, with intentions on the part of prescribers of a more and more definite nature; or, in other words, that remedies are partaking more and more of the nature of specifics.

In other respects, there is much in the article with which we cordially agree. The remarks on hydropathy are particularly good, the writer showing that it is not, properly speaking, so much a water-treatment, as that water is the medium for the application to the body of heat and cold, which, he might have added, are the types of the two great classes of remedies with which we are acquainted. As tonics and stimulants, these two sets of agents have been known for a long time; and, as inducing in the body shrinking and swelling respectively, they indicate the only two sets of actions which are possible, since secretion and excretion, and functional activity generally, are conducted invariably under one or other of these conditions. It has indeed often been to us a matter of surprise that no therapeutical authority appears to have made this simple generalisation, or to have seen how very much of therapeutic action it is capable of explaining. Perhaps part of the reason lies in the fact, well stated by the writer in special reference to hydropathic establishments, that "seed which is sown to bring forth a money-crop cannot be expected to bear the fruits of science."

We wish that space allowed of our following the writer further, for he has many suggestions to offer which, if not always novel, are yet of the utmost importance. What could be of greater consequence, for instance, than the closing sentences regarding a Ministry of Health, or the enormous saving it would be capable of effecting in the health and purse of the community? Truly, the possibilities of the medicine of the future are in this respect gigantic, the years of life which it might add to the community being to be reckoned by hundreds of thousands, and the net addition to its earnings by hundreds of millions sterling. But this and other suggestions of the writer must be left for further consideration.

REMOVAL OF THE THYROID GLAND.

EXTIRPATION of the enlarged thyroid gland has been of late years frequently practised, and, on the whole, good results have been obtained, thanks chiefly to the antiseptic system of dressing. Amongst the more important recent writers on this subject may be mentioned Professor J. L. and Dr. A. Reverdin, who have published in the *Revue Médicale de la Suisse Romande* (1883, Nos. 4, 5, and 6) an account of twenty-two extirpations of goître performed by them on twenty-one patients, twelve of whom were women. These cases are interesting, not only on account of the good results obtained, but also, and chiefly perhaps, because Messrs. Reverdin were able to examine their patients several years after the operation, and then discovered certain remarkable alterations of the general health, which will be mentioned below, and which had, it seems, escaped the attention of other operators. The following is a brief account of Messrs. Reverdin's paper. The size of the tumours varied from that of a hen's egg to that of an adult's head. Most of the tumours were parenchymatous, with or without cysts, and occupied more or less exactly the middle line; one sent a prolongation downwards behind the sternum. In seventeen cases, total extirpation

was performed; once an enucleation was done, while the remaining were cases of partial extirpation. Of the twenty-two operations, two only were followed by death, which was caused, in one case, by dyspnœa and convulsions, and, in the other, by lobular pneumonia. On an average, the patients remained only sixteen days in the hospital after the operation, and, in ten cases, union by first intention was obtained.

Amongst the accidents which may accompany or follow the operation, Messrs. Reverdin mention hæmorrhage, which is best prevented by securing the thyroid arteries as soon as possible; secondary hæmorrhage occurred in two cases. Dyspnœa was sometimes present before the operation, and in several cases prevented the administration of chloroform. The same complication, and also dysphonia, aphonia, and dysphagia, were often noticed after the operation, but generally disappeared after a short time. In three cases, tonic convulsions of the upper extremities appeared after the operation; in one of these cases (mentioned above), they were accompanied by a severe attack of suffocation, and soon followed by death. In five patients, three of whom were men, a remarkable alteration of the general health showed itself some months after the extirpation of the thyroid gland. There were at first weakness and coldness of the limbs, then loss of appetite, slowness of speech, diminution of the memory and progressive anæmia, accompanied, in two cases, by a peculiar œdema, most marked in the face, and very analogous to that which occurs in myxœdema. These symptoms partially disappeared after about three years. They seem to show themselves only after total extirpation, and are produced, according to Messrs. Reverdin, by a lesion of vaso-motor nerves, and by a mucoid infiltration of certain tissues, in consequence of the removal of the thyroid gland. These serious consequences, which have a remarkable analogy with cretinism on the one hand, and myxœdema on the other, must be taken into consideration in the prognosis. Nevertheless, extirpation (or, if possible, enucleation) ought to be performed, according to Messrs. Reverdin, when there are symptoms of imminent danger, such as attacks of suffocation, and also in cases of retrosternal or rapidly growing goitre, when the ordinary treatment has proved useless.

MILK-SICKNESS.

ONE of the most interesting papers read at the recent meeting of the American Medical Association, was that read before the section on medicine by Dr. W. M. Beach, of London, Ohio, which has since appeared in the journal of that Association (Vol. i, No. 3). Dr. Beach deals with a disease which is probably unknown, even by name, to most of our readers; but in these days, when the carriage over long distances of the most perishable foods is being conducted with so great and increasing success, it would seem not altogether improbable that English practitioners should some day have to deal with it. On this, as well as on other grounds, we think it not unprofitable to present our readers with the essence of Dr. Beach's paper.

The disease, as it affects the human species, is known by the name of "milk-sickness." It prevails in many parts of the American continent, more especially in Ohio, Kentucky, Tenessee, Illinois, Indiana, and Michigan; but in other parts, as in New England and west of the great American desert, it seems to be unknown. In the Old World, it has probably never been known.

"Milk-sickness" is transmitted to the human species from the lower animals by the ingestion of the milk, the butter, or the flesh of affected animals. Among the lower animals the disease (in them termed the "trembles") attacks chiefly the young and unweaned animals, but it is by no means confined to these. Wild animals are iable to become affected as well as domesticated animals.

The etiology of the "trembles" is by no means clear, and various theories have been advanced in regard to it. By some the disease s attributed to the ingestion of some vegetable poison, such as *Eupatorium ageratoides* or *Rhus toxicodendron;* others have claimed for it a malarial origin; and others have deemed it due to a specific germ. The specific theory, to which Dr. Beach adheres, seems, on the whole, that most consistent with the facts. But while the nature of the poison remains obscure, there are some well-established facts regarding its behaviour. The following are described by Dr. Beach as being unquestioned: 1. The "trembles" are rare in wet, and especially prevalent in dry seasons. 2. The poison especially affects wild and densely-timbered lands, and seems to be unknown in lands freely exposed to the sun's rays. 3. The nature of the vegetation does not influence the prevalence of the disease; and 4. The poison seems to be impotent during daylight after the fogs and dews have disappeared.

The incubation period of "milk-sickness" is uncertain. In Dr. Beach's experience, it seems to have varied from about twenty-four hours to a week.

As regards the symptomatology of the disease, the prominent symptom exhibited by animals is, as the name given to the disease indicates, the agitated condition of the muscles. At the onset of the trembles, the animal becomes languid and loses its appetite; soon, trembling of the muscles sets in, accompanied by thirst and constipation; the animal becomes unable to rise, and, in most cases, death closes the scene about the eighth or tenth day.

The symptoms of the disease, as it affects the human subject, are very clearly set forth by Dr. Beach in the following terms.

"In milk-sickness the patient is apathetic, complains of *malaise*, weakness, indisposition for exercise, loss of appetite or loathing of food, and sometimes of slight nausea. This condition may run on for several days, gradually becoming more pronounced, when vomiting supervenes, and the patient finally takes to his bed. There are no chills, no rigors, but usually an unsatisfied thirst. The tongue is large, flabby, tremulous, moist, and heavily loaded with a dirty white coating. The temperature of the surface sinks below that of normal. The skin is dry, and sensible respiration suspended. The abdomen is retracted and flabby, and comparatively empty. Peristaltic motion seems absolutely suspended; and from that cause, probably, and the general suspension of alimentary secretions, the bowels become, from the first, obstinately and persistently constipated.

"The breath becomes offensive, with an odour that some people claim is peculiar to milk-sickness alone. I am led to believe that this may be so, but my observations do not fully confirm me in the belief. The urine becomes diminished, sometimes to eight or ten ounces a-day, and generally clear and limpid. The pulse is variable as to frequency, but is always weak and easily compressible, with laboured action of the heart and pulsating aorta. The temperature rises in some cases to 99°, but is usually below normal.

"There is a marked degree of hebetude and indifference, and even in cases where the patient expresses no hope of recovery; the ordinary solicitude for the future of the family and friends is rarely alluded to.

"There is an intolerance of covering for the body, especially of the extremities; and I recall one case in which the patient would give no rest to the nurses except when they kept his hands immersed in a basin of cold water; and the ordinary efforts resorted to for warming up the extremities usually are attended with an aggravation of the vomiting or retching.

"As the disease advances, the exhaustion becomes so extreme that vomiting is superseded by a feeble retching effort, that heard once is to be remembered always.

"The patient seems to become more and more somnolent; but there is seldom oblivious sleep; and if there ever is, at all, it is of short and fitful duration.

"The vomiting first, and the retching in the later stages, continues to the very close of life; or until coma and oblivion shut it off.

"In the later stage, the fluid ejections from the stomach are tinged like the indigo-blueing water used in laundries.

"These symptoms increase as the disease advances; the hebetude assumes a semi-comatose condition; the respirations decrease in frequency, and are variable—sometimes profound and sometimes scarcely perceptible—like the respirations of a hibernating animal. The prostration sometimes becomes profound, the process of winking suspended, and the conjunctiva and cornea become dry and glazed. The hebetude increases to somnolency, and the somnolency to a

coma. There is stasis of the capillaries, and the vital forces yielding one by one, the patient dies without a struggle, and almost without a sign."

In mild cases, recovery takes place almost always very gradually; but, in one case, Dr. Beach observed recovery by crisis.

There are no characteristic *post mortem* appearances, so far as has yet been discovered.

In regard to treatment, Dr. Beach has found the best results follow the free exhibition of stimulants, either by mouth or by the rectum, combined with mucilage of fresh slippery-elm-bark as a drink, and occasional small effervescing draughts.

WE have reason to believe that a medical congress will be held at St. Petersburg next October for the purpose of discussing all matters connected with cholera. MM. Charcot and Pasteur and other European authorities are said to have promised to be present.

QUARANTINE, on arrival at Malta from Mediterranean ports, has been reduced to periods ranging from four to ten days, *minus* the actual duration of the voyage. Arrivals from Greece are admitted to free pratique, but the quarantine regulations are still enforced against those from Egypt.

DR. E. SYMES THOMPSON will continue his course of lectures on "Nursing" at the Gresham College, Basinghall Street. The subject for Tuesday, October 2nd, is "On Observation and Watchfulness;" for Wednesday, October 3rd, "On Knowledge and Judgment;" for October 4th, "Purity and Impurity;" for October 5th, "Firmness and Authority."

THE General Secretary of the Association has received from the executors of the late Dr. A. P. Stewart the sum of £200, in augmentation of the Stewart Fund, which was founded by the lamented Dr. Stewart out of funds raised for the testimonial to him by public subscription. This is, we believe, the first legacy which has been left to the Association.

ALL the European Powers have signified their adhesion to the proposal of the Italian Government to summon a conference at Rome, with the object of making sanitary regulations, and drawing up an international sanitary code. Signor Mancini, Minister for Foreign Affairs, will shortly address a circular to the Powers on the subject.

WE call attention to an Inquiry concerning Enteric Fever, which is about to be undertaken by the Collective Investigation Committee of the Metropolitan Counties Branch, with especial reference to the present epidemic. It is very desirable that the returns should be as numerous and precise as possible. It will be seen that Mr. Eastes, 69, Connaught Street, Hyde Park Square, is the Honorary Secretary to the Committee; and he will be able to furnish additional cards to any members who may be able to use them.

THE Council of the Statistical Society announce that the annual competition for the Howard Medal (1884) will take place subject to the usual conditions—the subject being "The Preservation of Health as it is affected by Personal Habits, such as Cleanliness, Temperance, etc." The candidates are referred to Howard's account of his own habits, as well as to his opinions set forth in the text and foot-notes of his two works on *Prisons* and *Lazarettos*. Essays are to be sent in on or before June 30th, 1884. The Council have again decided to grant the sum of £20 to the writer who may gain the Howard Medal in 1884.

ALCOHOL FROM MELONS.

M. SEBAS, former pupil of the "Ecole Polytechnique," informs the Académie des Sciences that he has discovered the means of extracting alcohol from the fermented pulp of melons. Alcoholic fermentation does not take place in the pulp, notwithstanding the sugar it contains, until sulphuric acid is added. Five litres of alcohol can be extracted from thirty kilogrammes of pulp.

PORRO'S OPERATION.

IN the obstetric hospital of Milan, Professor Porro has just performed, for the fourth time, the now well-known modification of Cæsarean section which bears his name. The *Gazzetta degli Ospitali* states that the operation, which was undertaken at the ninth month in a rickety woman, only lasted twenty minutes. The mother was progressing favourably at the end of a week.

ANTHRAX IN EGYPT.

OUR correspondent in Alexandria writes:—One or two cases of anthrax fever *(Fièvre charboneuse)* have been noticed lately in Alexandria. A native died in the Government Hospital a few days ago, twenty-four hours after admission. He was febrile when admitted, and presented numerous round and oval black spots over the body. The *post mortem* examination revealed extensive hæmorrhages in the abdomen and into internal organs, the kidneys presenting the appearance of sacs filled with black blood. This case was examined by Koch, who found the bacilli of anthrax.

LUMBRICUS IN THE LIVER.

DR. OKS of Rasgrad, Bulgaria, describes in the *Vratsch* the case of an almost moribund phthisical patient, who was seized with vomiting and icterus. The liver was much enlarged. After death, the usual appearances of advanced phthisis were discovered. All the biliary ducts were dilated, and the common duct was occupied by a large female lumbricus; one extremity of its body hung free into the duodenum. Deep in the substance of the liver a smaller male lumbricus was found, impacted in a biliary duct. This is a rare, but not entirely unknown, complication of a parasitic disease.

COPPER AND CHOLERA.

AN engineer, living at Westminster, has forwarded the following interesting information to the Académie des Sciences, and it has been communicated by that body to the members of the Commission appointed to investigate the subject. In 1871, the writer visited the copper-mines at Falun (Sweden). All the miners were impregnated with copper-vapours, which pervaded the atmosphere and destroyed all vegetation, but had no deleterious effect on the human organism. When cholera raged in Sweden, the royal family took refuge at Falun, where no one had been attacked.

THE NORFOLK AND NORWICH HOSPITAL.

ON Saturday, a meeting of the Governors of the Norfolk and Norwich Hospital was held, in the Board-room, for the purpose of receiving a report from a committee appointed to arrange a bazaar recently held in connection with the opening of the institution by their Royal Highnesses the Duke and Duchess of Connaught. The Mayor of Norwich (Mr. C. R. Gilman) presided, and among those present were Lord Justice Lindley, Mr. J. J. Colman, M.P., Sir W. Foster, etc. The report of the committee stated that, after providing for all expenses, the bazaar had resulted in an additon to the building-fund of £5,779, which it was hoped would cover the entire cost of fitting and furnishing the hospital, as well as any amount which may be due upon the fabric itself. A letter was read from the Duke of Connaught, expressing the great pleasure which the success of the bazaar had afforded him, as well as the Duchess of Connaught. The

proceedings closed with votes of thanks to all who had assisted in the bazaar.

DOGS' DIET.

THE result of the experiments made to determine the quantity of food a dog can consume daily were communicated at a recent meeting of the Académie des Sciences. It appears that the quantity varies considerably, according to different conditions affecting the animal. A dog can eat and digest a quantity of meat equal in weight from one-tenth to one sixteenth of its body. After taking cold coffee, its appetite is much keener, and it can devour a quantity of meat equalling in weight one-eighth of its body. If meat be used with bread, starch, or any kind of flour, less of the food swallowed is absorbed, and the animal becomes thinner, sometimes phthisical, and dies.

PROPOSED MEDICAL PROVIDENT SOCIETY.

IT is proposed, at an early date in October, to call a meeting of the Provisional Committee to carry on the work of organisation of this society on the lines agreed to at the meeting held at Liverpool on August 2nd (see report in the BRITISH MEDICAL JOURNAL of August 11th, p. 293). Information is at present being collected as to the financial arrangements, figures, and organisation, of Friendly Societies of a somewhat similar character to that which it is intended to found; and any documents or information relating to this subject, giving data suitable for the purpose, will be valued, and may be addressed to Mr. Ernest Hart, 38, Wimpole Street, London, W.

A VICTIM OF SCIENCE.

IT was announced last week that M. Thuillier, one of the members of the Scientific Commission which was sent to Alexandria to investigate the origin of cholera according to M. Pasteur's directions, died at that city on Tuesday, September 20th, from cholera. M. Thuillier had previously been engaged in carrying on the experiments at Pouilly le Fort (May 1881), which demonstrated that vaccinating for charbon is efficacious; he then went to Hungary, and directed the experiments made in public at the Veterinary Institute of Buda Pesth and the farm of Kupavar. Subsequently he visited Prussia for the same purpose, and directed the experiments made by Packisch and Borschütz.

THE SANITARY INSTITUTE AND THE PARKES MUSEUM.

WE are informed that the Sanitary Institute of Great Britain transfers its offices this (Michaelmas) day to the premises of the Parkes Museum, 74A, Margaret Street, Cavendish Square. We understand also that Mr. White Wallis, who has been for several years the secretary of the Sanitary Institute, has been appointed secretary and curator of the Parkes Museum, and that, for the future, he will discharge the duties of secretary to both undertakings. The aims of these two bodies are, to a considerable extent, identical, though they seek to attain the desired ends by somewhat different means; and any plan which tends to concentrate the energy now somewhat widely diffused over a number of philanthropic undertakings for the furtherance of sanitary science, is very much to be commended.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE new Calendar of this institution shows that there are now 1,166 Fellows of the College, including 593 who obtained the distinction by examination. There are only five upon whom it has been conferred as members of twenty years' standing under Section v of the Charter of 15th Victoria, viz., Mr. E. R. Bickersteth of Liverpool; Sir Joseph Fayrer of Wimpole Street; Messrs. T. H. Huxley of Marlborough Place, N.W.; Oliver Pemberton of Birmingham; and John Tomes of Caterham. There are three *ad eundem* Fellows, viz., Mr. A. E J. Barker of Harley Street, and Sir William Mac Cormac of Harley Street, Fellows of the Irish College; and Mr. M. K. King of Hull, of the Edinburgh College of Surgeons. The Library and Museum of this institution will be reopened on Monday next.

OVARIOTOMY IN ITALY.

WE are indebted to Dr. Peruzzi for an important addition to the history of ovariotomy in Italy. The fourth series of 100 cases of ovariotomy has been completed in the eleven months from June 1882 to May 1883. The following table is very interesting, showing how the operation has progressed in Italy, and how the mortality has steadily diminished. The first 100 occupied 18 years, from 1859 to 1877; the second only two years and a half, the third nearly two years, and the fourth only eleven months. The recoveries and deaths are as follows:

First	100,	cured	37,	died	63
Second	„	„	64,	„	36
Third	„	„	74,	„	26
Fourth	„	„	79,	„	21

In the fourth series, in addition to the 100 cases of complete ovariotomy, there were 7 incomplete operations, with 4 recoveries and 3 deaths; 19 cases of supravaginal laparo-hysterotomy, with 9 recoveries and 10 deaths; and 6 cases of exploratory incision, with 5 recoveries and 1 death; oöphorectomy, or Battey's operation, was performed 4 times, with a result of 1 death and 3 recoveries.

DIPHTHERIA AT MILL HILL.

FOR a considerable number of months, there has been a more or less scattered prevalence of diphtheria in the Mill Hill Ward of the Hendon Local Board District. So far as can be ascertained, the cases have no connection with the circumscribed outbreak in the neighbouring ward of Hendon, which Mr. W. H. Power traced to the use of infected milk; and the origin of the outbreak has evidently not yet been made out. A remark of Dr. Cameron, the health-officer, draws attention, however, to a possible source of danger arising from the practice of boarding-out convalescents from the East London Hospital for Children amongst the cottagers of Mill Hill. A case of scarlet fever being reported in a girl-convalescent from this hospital, Dr. Cameron wrote to the house-surgeon to ask whether any child, convalescent from diphtheria or scarlet fever, or their after-effects, had been sent from the hospital to be boarded-out at Mill Hill. From the secretary's reply, Dr. Cameron gathers that "convalescents from diphtheria have been sent to Mill Hill from the hospital, and that cases of scarlet fever had occasionally occurred in it." He is, therefore, of opinion that, "if the present practice of boarding-out these convalescents amongst the cottagers in the district be continued, it will be a source of danger to the neighbourhood, and should be discontinued, and proper hospital-accommodation provided for the purpose."

UNREASON AND INSANITY.

PEOPLE with very strong opinions and prejudices are seldom those whose mental balance is of the strongest. Of such a nature was the unhappy shoemaker of Rotherhithe who committed suicide last Friday. The published evidence at the inquest gives a quite insufficient motive for this act of "temporary insanity," as the jury described it; but there were some circumstances in the deceased's career which may conceivably have had much to do with his desperate act. He was a "staunch anti-vaccinator," and had braved the law on a number of occasions to maintain his "principles." Not even the loss of his wife and two children from small-pox brought conviction to his mind, nor the death of a man whose clothes he borrowed to attend their funeral, and who subsequently sickened and died of small-pox, caught, no doubt, from the infected clothes. But for the last six months of his life he had been unwell, and appeared very strange in his manner. The germs of unreason which

had revealed themselves in his obstinate disbelief in vaccination, were doubtless brought into undue activity by the business troubles which seem to have recently weighed upon the unfortunate man, with the tragic ending recorded in Monday's daily papers.

GREEN OYSTERS.

In the Biological Section of the recent meeting of the British Association for the Advancement of Science, at Southport, Professor Lankester, F.R.S., gave an account of an investigation he had made into the colouring matter of the green oyster. The cause of the green colour in the oyster was decided fifty years ago by a French oyster-cultivator, who was in the habit of producing them for the Paris market. This gentleman found that in the ponds in Normandy in which these oysters were produced, there was always a green deposit. He thought it was a vegetable substance, and called it *Vibrio ostrearis*. It had since been maintained that it resulted from the contact of the oyster with copper, and it had been alleged that cases of poisoning had in consequence occurred. The explanation, though plausible, as there were minute quantities of copper in the tissues of the oyster, was not the real one. The green substance to which he had referred had been found to be living protoplasm. It came from a microscopical organisation known as the *Mavicula ostrearis*. This organism was swallowed with the water by the oyster, was absorbed into the blood, and the colouring matter was deposited on the surface of the gills and the labial tentacles. It imparted no particular flavour to the oyster, for he would defy any man to distinguish between the green oyster and the white one with his eyes shut.

REGULATION OF MIDWIVES.

In commenting on the very unsatisfactory position which Sunderland occupies in respect to uncertified deaths, the average being 5.5 per cent. of the total mortality, against that of 2.5 in the twenty-eight large towns, Mr. Harris observes in a recent report that many of these deaths, which occur principally among a colliery population, were newly-born children, who were brought into the world by unskilled and incompetent midwives. Poverty, to some extent, is responsible for this; for it is not always possible for the poorer classes to fee a medical man, and also to pay a nurse, who is required for some time after the infant's birth, not only to look after the mother and child, but also to assist in the house. For these reasons she is selected in preference to the doctor, and, in her ignorance, a frail life is now and again allowed to slip away before any danger is suspected. In these circumstances, Mr. Harris suggests that the medical men of the borough should elect from among themselves an examining board, who should grant certificates of proficiency to all midwives who are willing to present themselves for examination. This would afford protection to a limited extent, as it would enable the poorer classes to judge between the good and the bad. Mr. Harris is also strongly of opinion that legislative measures are necessary to protect the poor against incompetent women—measures which the recent occurrences at Sheffield and Kensington (see British Medical Journal, vol. i, 1883, pp. 128 and 875) fatally demonstrated to be the only remedy.

SANITARY ARRANGEMENTS AT SMETHWICK.

Smethwick is a manufacturing town in South Staffordshire, with a population of upwards of 25,000 persons. It is high time the local sanitary authority bestirred itself. The drainage of the town, or what passes for drainage, is of the most primitive and pernicious description. We are informed that a foul ditch runs through some of the streets, and that an open sewer is to be found in the centre of the town running alongside the principal thoroughfare, Rolfe Street, where it receives the contents of several pigstyes. Another open sewer runs alongside High Park Road, and there receives the drainage from what is called the "tip." These three sewers all join together at a place which is cheerfully known as "Merry Hell," and which, for many years, has been well-known as a fever-den. At Smethwick the "midden system" is the method generally in vogue for the disposal of excreta; and all the dangers of surface-drainage find abundant illustrations. We hope it may not be unprofitable to call attention to these disgraceful particulars. We have reason to believe that Smethwick is not much worse off in sanitary matters than some of its neighbours amongst the Black Country towns. It is not improbable that the circumstances we point out may have an intimate causal connection with the recent exceptional prevalence of zymotic diseases in the district.

INTERNATIONAL ASSOCIATION OF SURGICAL INSTRUMENT MAKERS.

We are informed that an international meeting of orthopædic and surgical instrument makers was held at Frankfort-on-Maine on the 10th, 11th, and 12th instant, with the object of constituting a permanent association. This important and difficult trade has made great progress and attained considerable development during the last hundred and fifty years, in harmony with the strides of medical and surgical science, the increasing ingenuity of inventors, and the great demand for instruments of precision and delicacy both for medical and surgical purposes. It was alleged at this meeting, and as one of the reasons for the existence of the association which has been founded, that there is, in these days, a tendency to the wholesale production of imperfect imitations of recognised models, and that this association is founded to protect them and the medical and surgical world against debased reproductions of trustworthy instruments, as well as for the intercommunication of ideas, comparison of new models of inventions, and the general advancement and protection of the interests of the art of surgical instrument making. One hundred and twenty persons, from various parts of the world, have joined the association, which has received the approval of professors of some of the principal medical schools. The executive committee consists of M. Leiter (Vienna), M. Windler (Berlin), M. Walter Biondetti (Basel), M. Krohne (Krohne and Sesemann, London), M. Simsky (Koenigsberg), M. Wendschich (Dresden), M. Laibach (Liège), and M. Fischer (Freiburg in Baden).

THE WALTHAMSTOW MURDER.

We are informed that the Home Secretary intends to commute the sentence on the convict Gouldstone to penal servitude for life, the evidence of insanity being sufficient to justify a modification of his punishment. It is satisfactory to find that the Home Secretary has promptly yielded to the representations made to him, and ordered an inquiry into the mental condition of the convict. The names of the physicians to whom the inquiry has been entrusted have not been announced, but the probability is that Dr. Orange, of Broadmoor, and Dr. Gower, Her Majesty's Inspector of Prisons, who are generally employed by the Home Office in such investigations, have been instructed to examine Gouldstone. It would be well that the terms of the reference to them should be made public, for no investigation limited to the convict's present mental state, and that did not include his mental state at the time when he committed the crime for which he has been condemned to death, could be regarded as in the least degree satisfactory. Evidence in support of the view that Gouldstone was insane when he destroyed his children has been accumulating rapidly since we commented on the case; and no medical man can read the touching narrative of his wife, and the clear statement of the vicar of the parish in which he lived, without finding in them strong corroboration of the only theory that is consistent with the facts of the case as given in evidence—the theory that the man's arm, when lifted against the children who were so dear to him, was moved, not by criminal design or passion, but by the dire compulsion of disease. The "irrespon-

sible frivolity" and obstinate ignorance of journalism have, in one or two instances, led to sanguinary demands for "the penalty and forfeit" of the law; but, as a rule, the lay and even legal press have recognised the true significance of symptoms in this case; while the organs of medical opinion have been unanimous in their demand for a diagnosis by competent authorities.

LADIES' DRESSES.

DR. HORACE DOBELL, in a letter published in the *Times* of September 18th, draws attention to the bad effects of the "braces system of suspension" for women's dress. He urges that the hips, and not the shoulders, are the best part of the human frame for the support of weight. He adds that "braces restrict the elevation and antero-posterior expansion of the chest; and important as these movements are to men, they are far more so to women." There is doubtless much truth in Dr. Dobell's remarks, but we trust that his assertion that the system of suspension of the clothes from the shoulders is the outcome of the arguments used by "dress reformers" against tight lacing, will not be seized by the ladies as a statement in favour of continuing the use of stays. The evils referred to by Dr. Dobell, doubtless are often produced by the use of braces, and especially when a heavy weight is suspended. This weight is often unnecessarily great in consequence of the looseness of ladies' clothing. If, instead of hanging a quantity of loose clothes round the legs, the garments covering these extremities were chiefly close-fitting, the weight of the clothing might be very much lessened, because when close to the body they preserve the warmth much better than when surrounding the legs loosely. The principle of dual garments might be carried on without altering the external appearance of female dress; for, with the use of warm, close-fitting drawers or trousers, the outer skirts might be made in the usual manner, but of much less thickness and weight. Many ladies now wear neither stays nor suspenders, and yet experience no difficulty in supporting their skirts, chiefly upon the hips.

ANKYLOSTOMUM IN GERMANY.

DR. MENCHE of Bonn describes, in a recent number of the *Zeitschrift für Klinische Medizin*, a case of anæmia from the presence of ankylostomum in the intestine, the first that has been recorded as having occurred in Germany. Hitherto it had been confined to Italy, Egypt, and Brazil, until the epidemic among the workmen in the St. Gothard tunnel showed that the parasite had been imported into Swiss territory. This epidemic is fully described in Dr. Bugnion's contribution to the JOURNAL in March 1881. Dr. Menche's patient was a brickmaker, who had never travelled beyond the neighbourhood of Bonn, where he carried on his business. He became very anæmic, and presented all the other symptoms of ankylostomum disease, as described by Dr. Bugnion. After the administration of ethereal extract of male fern, masses of the parasite were voided from the patient's bowels, and the anæmia soon disappeared. Dr. Menche observes that, just as tropical chlorosis and the St. Gothard tunnel epidemic of anæmia have been found to be due to the presence of masses of the blood-sucking ankylostomum in the duodenum, so, as in his own patient, the anæmia common among brickmakers and tileburners may be, generally at least, due to the same parasite.

REMOVAL OF WORKHOUSE PATIENTS.

THE details have lately been published of an inquest recently held on the body of one James Bolton, who died in the Highgate Sick Asylum Hospital a short time after admission. It would appear that Bolton had been an inmate of St. Pancras workhouse, suffering from asthma and bronchitis for some years. Latterly he became so ill that his friends were permitted to see him at all hours. Why this man was sent away is partly explained in Dr. Dunlop's evidence, who stated that he had seen the patient, and had certified that it was a case for removal, and had therefore sent him away, giving as an additional reason that the workhouse contained about four hundred inmates more than it was certified to hold. He, however, admitted (very unfortunately) that he did not specially examine the man. The *post mortem* examination revealed recent pneumonia, as well as old chest-disease. Medical officers of districts and workhouses cannot be too careful, if they wish to avoid such inquiries, and notably when they are accompanied by special verdicts such as we subjoin: "That the deceased was found dying, and did die in Highgate Infirmary, from the mortal effects of pneumonia and pleurisy following old-standing bronchitis and asthma; and the jurors are further of opinion that the death was accelerated by the removal from the workhouse to the infirmary, and they would call the attention of the medical officer of the workhouse to the urgent necessity for making a special examination of sick patients before their removal, in order that their exact condition might be ascertained in view of the journey they must take to reach the infirmary. We commend this case to the consideration of all medical officers directing such removals.

HOSPITAL ACCOMMODATION FOR INFECTIOUS DISEASES IN LIVERPOOL.

DR. J. STOPFORD TAYLOR, medical officer of health, Liverpool, writes to complain of alleged inaccuracy in the facts and arguments set forth under this heading in the article which we published on the subject last week. He states as an illustration, that "the letter of Mr. David Wainwright has been used on previous occasions, and a full explanation of my conduct in the matter was given, to the satisfaction of the Health Committee, but my critic now supplements it by the following observations:—

"'The house in question, 89, Warwick Street, is an eight-roomed house, fronting on a street between forty and fifty feet wide, and by its side-wall forming part of another narrower street which runs at right angles to the first. It is, moreover, tenanted by a highly respectable family, whose last thought would have been to apply for parochial assistance in times of sickness. There was no lack of air-space, either within or without; and the assumption formed, without inquiry, that there was not sufficient lodging and accommodation within it for those who were ill, backed up by the highly practical proceeding of the relieving officer, in the shape of a visit for the purpose of removing them to the workhouse hospital, caused no little astonishment.'

"The facts of the case are these: 89, Warwick Street is a sublet lodging-house, and at the time of my visit was kept by a widow, and occupied by three families and two single men. Mr. Wainwright had only recently taken two rooms in the house when his children were attacked with scarlatina, and this gentleman, who had such an horror of an hospital supported by public rates, had no objection to receive the gratuitous assistance of an institution supported by the voluntary contributions of the charitable, so he sent for the dispensary doctor to attend his family. Information of the sickness was given me by the medical attendant, and having no hospital under my control, I sent to the relieving officer for an order for the admission of the patients into the workhouse hospital, which was refused. The relieving officer appeared to have changed his views respecting the house and its tenants since the previous year, when he sent the following letter:—

"'I have to report a case of fever at 89, Warwick Street; this is the fourth case of this disease in this house in about a month, one case resulting fatally, therefore I should say that it requires more than ordinary attention.'"

BATHERS' CRAMP.

A FEW weeks ago, we drew attention to the important question of the nature and causation of the dangerous affection known as bathers' or swimmers' cramp. With the object of suggesting efficient measures for its prevention or mitigation, we showed that

true cramp is a tonic and painful spasm, affecting the voluntary muscular system either as a local or as a general condition, and induced under certain well-ascertained circumstances of temperament, circulation, shock, fatigue, effort, and temperature. We return to the subject because some experience of bathing fatalities, especially as exemplified in certain recent deaths, tends to show that true muscular cramp, of the classical kind we have described, is not the only fatal danger which menaces the life of even the expertest swimmer when he plunges into deep water. When true cramp kills, the muscular spasm is so general and so severe, that it holds the bather's body and limbs immovably fixed, so that his will is powerless to move his rigid muscles, and thus he sinks and drowns. In such cases the body is usually found contorted when recovered When, however, a swimmer has been observed to throw up his arms and then suddenly to sink, it is not likely he has been seized with cramp in the ordinary acceptation of that term. Cases of this kind have been recorded in which swimmers have so sunk, and have been taken out of the water, after an immersion of three or four minutes, quite dead, and with flaccid limbs. In instances of this description, it has been suggested that death has not arisen from drowning in the strict sense of the word, but from asphyxia due to sudden spasm of the glottis. In view of all the facts forthcoming, this explanation of the mode of death is certainly a very probable one in the anomalous cases to which we refer, and in which it seems impossible to hold the theory that death has arisen in consequence of a disabling cramp affecting the general muscular system. Such fatal glottic spasm might be caused by the sudden dashing of a spray of cold, and especially of salt, water upon the back of the throat of a person swimming with his mouth open at the moment of inspiration. To these considerations we would add the practical precept that swimmers should cultivate the habit of breathing wholly through the nostrils. It is only during oral breathing that the production of glottic spasm, in the way we have suggested, is possible.

THE DEPTFORD VACCINATION CASE.

In our notice of this case in last week's issue, we stated that it was expected that an inquest would be held on another of the children vaccinated on July 23rd by Dr. Kavanagh, the public vaccinator to Deptford. It appears, however, that the child died from measles, bronchitis, and dentition, and that the death has been certified to be due to these causes; no inquest will, therefore, be held; and, apart from the Local Government Board inquiry into the conduct of Mr. Fisher, the case may so far be deemed to be at an end. Omitting, therefore, from our consideration any question relating to Mr. Fisher, as a subject still *sub judice*, we may refer to this story of supposed death from vaccination as one which affords good evidence of the behaviour of the antivaccination party, and those who are allied with them. In a letter which Dr. Kavanagh has addressed to the *Kentish Mercury*, he comments on the behaviour of Mr. Corrie Grant, the counsel to the Antivaccination League. There can be no question but that Mr. Grant succeeded in impressing the coroner's jury, at the inquest on the body of the first child, with the belief that Dr. Kavanagh had disobeyed an order of the Local Government Board in vaccinating twenty-one children from one vaccinifer; and, as a result, the jury appended a rider to their verdict, regretting the manner in which the vaccinator performed his duties. The order to which we refer is perfectly clear; it states, "from such a vesicle as vaccination by puncture commonly produces, do not, under ordinary circumstances, take more lymph than will suffice for the immediate vaccination of five subjects." The impression evidently conveyed to the minds of the jury was that the word "child" stood in the place of the word "vesicle;" moreover, as Dr. Kavanagh shows, the vesicles which result from his vaccination are produced by abrasions or scratches, and not by puncture, and are two or three times the size of those obtained by the latter method; each vesicle, therefore, supplies sufficient lymph for at least ten children, and the order of the Board is not infringed by such procedure. It is difficult to believe that the profession to which Mr. Corrie Grant belongs would approve such a method of conducting a case or of attempting to win a verdict. It is of interest to observe that, of all the medical men who gave evidence, Mr. Makuna alone was prepared to believe that the pneumonia from which the child died was in any way associated with the eczema from which it had previously suffered. Mr. Makuna, whose name is frequently seen in connection with these cases, and who, with Mr. Corrie Grant, appeared on "behalf of the parents," stated that he had been invited to attend by the Antivaccination Society. It is, however, satisfactory to be able to record that the jury returned a verdict which will show the absolute groundlessness of the statements of the noisy agitators at Deptford; but it is important not to lose sight of the injury which is done to the public by allowing a few unscrupulous persons to procure an inquest whenever a child dies after vaccination, whatever may be the cause of death, or by permitting them alone to be represented by counsel at such inquiry.

SENATOR ON FLOATING KIDNEY.

Professor Senator's conclusions, recently published in the *Charité Annalen*, based upon the records of thirty-two cases, agree in almost every particular with those to be found in Landau's *Wanderniere der Frauen*. Senator terms the affection "ectopia renis." He found 1 in every 139 sick women to be subject to floating kidney, independently of age or social station. Disappearance of the fat around the capsule of the kidney can hardly be a cause of this condition, for there is little or no such fat in children, amongst whom floating kidney is very rare, and men are as liable to emaciation as women, yet floating kidney is much less frequent amongst men than in women. The absence of fat, as Senator most pertinently observes, does not cause floating kidney, but facilitates diagnosis. The causes are more probably to be found in the condition of the generative organs and defects of attire. Repeated pregnancy causing pendulous abdomen is a very probable cause; and uterine displacements are considered by Landau to influence the position of the kidney; the same authority attributes displacement of the kidney to tumours and hydronephrosis, but Senator has never observed these pathological conditions in any of his cases. Tight-lacing is considered as a highly probable cause of floating kidney, as Mr. Clement Lucas observes in his paper on surgical diseases of the kidney, published in this week's Journal, and would account for the greater frequency of displacement of the right kidney, which, in a tight-lacing woman, is subject to prolonged pressure by a large solid body, the liver. The greater length of the right renal artery favours displacement of the right kidney. To make diagnosis as certain as possible, the patient should first be placed on her back, the abdominal walls must then be thoroughly relaxed by passive elevation of the lower extremities. In examining the right lumbar region, the surgeon or physician should stand on the same side, and place the left hand on the loin posteriorly and the right on the abdomen; in examining the opposite side, these tactics must be reversed. Professor Senator appears to prefer this method to Landau's, for if the medical attendant stand on the opposite side of the patient, with the position of the hands reversed, Senator believes that the displaced organ is more likely to be pushed aside and thus elude detection.

THE REGISTRAR-GENERAL'S QUARTERLY RETURN.

During the first three months of the present year 87,830 persons were married in England and Wales; and the annual marriage-rate was 13.3 per 1,000 of the population, showing a marked increase throughout the country upon the rate in recent corresponding quarters. It was as low as 11.5 in the first three months of 1879, and has since then steadily recovered. This year it varied in the several counties from 7.7 in Herefordshire, and 8.1 in Rutlandshire, to 16.0 in Durham and 16.3 in Nottinghamshire. The births in the

second quarter of this year, in England and Wales were 228,703, giving an annual birth-rate of 34.3, or 1.6 below the average, and being the lowest birth-rate recorded in the corresponding quarter of any year since 1869. The lowest county birth-rates were 27.8 in Herefordshire, and 28.8 in Devonshire; the highest rates were 39.2 in Staffordshire, and 40.7 in Durham. The natural increase of population in England and Wales, or the excess of births over deaths, was 94,920 last quarter. The emigrants of British origin who left these shores during the quarter were 134,707; of whom 60,198 were English, 11,781 Scotch, and 62,728 Irish. The mean temperature of the air in the quarter was 53.0°, and was 0.7° above the average; the monthly mean temperature was slightly below the average in April, above it in May and June. The rainfall during the quarter was 4.75 inches, and was 1.08 inches below the average. It was below the average in each of the three months. The deaths recorded during the second quarter of the year were 133,783, and equal to an annual death-rate of 20.1, which was 0.3 below the average. The death-rate from zymotic diseases was exceptionally low; there was an exceptionally large relative excess of mortality amongst males; whilst the relative excess of urban over rural mortality was below the average. The death-rate of the 28 great towns was 21.5; it was 20.5 in London, 25.3 in Blackburn, 25.7 in Hull, 26.6 in Liverpool, and 27.5 in Manchester. The average rate of infant mortality was 126 per 1,000; it was 128 in London, but was as high as 168 in Hull, 174 in Huddersfield, 187 in Exeter, 188 in West Bromwich, and 190 in Macclesfield. It was so low as 69 in Colchester, 79 in Maidstone, and 82 in Cambridge. The average rate of mortality of persons aged between 1 and 60 years was equal to 11.5 per 1,000 living (18.1 in Liverpool, and 18.5 in Manchester); among persons aged upwards of 60 years it was 73.3 per 1,000. which was 3.5 above the average. There was 2,815 deaths from whooping-cough, 2,582 from measles, 2,452 from scarlet fever, 1,905 from diarrhœa, 1,793 from fever, 861 from diphtheria, and 224 from small-pox.

UNQUALIFIED DISPENSERS.

PROFESSOR ATTFIELD has made out a strong case in favour of an immediate amendment of the Pharmacy Act of 1868. In his opening address as President of the Pharmaceutical Conference at Southport, he has clearly shown that the aim of the Act in question, namely, the proper supply to the public of trustworthy drugs by duly qualified persons, has not been generally accomplished. Although Dr. Attfield's cogent criticism of the Pharmacy Act was naturally formulated from the standpoint of the pharmaceutical chemist, and directed primarily towards the support of the authority of the Pharmaceutical Society and the protection of the trade-interests of his auditors, his observations cannot fail to quicken the interest of the medical profession in the reforms he advocates, and to demonstrate to the general public the pressing need for more stringent regulation of the conditions under which they purchase their medicines. A general impression has hitherto prevailed that the Pharmacy Act prevented the sale of powerful drugs, or the dispensing of prescriptions, by any but properly educated and publicly authorised persons. Dr. Attfield authoritatively informs us that the public have really no reliable guarantee that the shopkeeper who sells drugs or undertakes the compounding of prescriptions is qualified for his responsible and hazardous work. The Pharmacy Act provides, it seems, that no man shall call himself a chemist and druggist unless he has passed certain examinations, and been duly registered. But, unfortunately, it is the name only that is protected, not the exercise of the calling; the business itself is left open to anyone, without let or hindrance, and the Pharmacy Act is practically a dead letter. Anybody, as the law at present stands, is at liberty to hang a red lamp over his door, and to fill his window with the orthodox bottles of coloured water; and, providing only he does not incur penalty by calling himself a chemist and druggist, to sell drugs and poisons without restriction, and to "make up" prescriptions with impunity. This practice is grossly unfair to the honestly educated and duly certificated chemist, and it constitutes a grave and widespread public peril, which cannot be suffered to continue. Dr. Attfield assures us that drugs of nearly all kinds, simple and compound, are now being indiscriminately sold by unqualified persons; that it is a notorious fact that prescriptions are dispensed, and the most dangerous drugs supplied, except only some few poisons which are scheduled in the Pharmacy Act, by barbers, booksellers chandlers, confectioners, drapers, general dealers, grocers, hairdressers, herbalists, ironmongers, marine-store dealers, oilmen, printers, publicans, stationers, storekeepers, tailors, tobacconists, toy-dealers, and wine-merchants. The public can, more or less, judge of the quality of the food or raiment they purchase, but they cannot safely be left to protect themselves in the case of drugs. The failure of the Act has arisen from the adoption of a wrong method of protecting the public. A legal fence has been raised around a mere name. Experience has shown that the method that ought to have been adopted was that of rendering illegal the retail sale of the simple and compound drugs of the pharmacopœia, with certain well-recognised exceptions, by any but registered chemists and druggists, with the saving of all rights to medical practitioners. As a remedy for the evils he described, Professor Attfield advocated an extension of the principle and letter of the Pharmacy Act. It is obviously necessary, both for public safety and for the protection of the qualified chemist, to amend the Act of 1868, so that it may really accomplish the purpose for which it was ostensibly passed. It is not sufficient that an unqualified and unregistered tradesman shall be prevented from assuming the name of chemist and druggist; he must also be effectually restrained from selling drugs and compounding medical prescriptions.

SURGICAL INSTRUMENTS AT THE VIENNA ELECTRICAL EXHIBITION.

DR. BOUDET, of Paris, exhibits, at this most interesting exhibition, a number of surgical instruments to which electricity has been successfully applied. The common pulsometer, or sphygmophone, consists of a microphone in which a suspended carbon point abuts against a carbon disc; a sounding button applied to the artery causes variations of contact, and these variations are heard in a telephone. A similar apparatus, called a cardiophone, is used for auscultation of the heart, and the myophone for auscultation of the muscles. The myographe, an instrument for measuring nervous excitability, consists of a Marey drum applied to the lower part of the muscle of the arm, and a slightly curved elastic bandage applied to the upper part of the muscle. Both drum and bandage are connected to a differential coil with rheostat. The drum is also connected with a registering apparatus. This latter is a cylinder coated with paper that has been blackened by smoke, and is set in motion by clockwork. The differences of nervous excitability in the two parts of the arm are traced on the smoked paper in the form of an irregular curve. By introducing a certain resistance into the circuit these irregularities disappear, and the more resistance has to be introduced to obtain a regular tracing the greater is the nervous excitability. Thus, the amount of resistance introduced gives a direct measurement of this latter. Another apparatus for measuring the acuteness of hearing is also most interesting. It consists of an electric diapason and two chords set in unison, which are connected together also to a battery element and rheostat with differential coil. Another connection goes to a microphone which is in communication with an ordinary Bell receiver. When the diapason and the chords vibrate in unison, by introducing a corresponding resistance, no sound is heard in the telephone. Now, as soon as one of the chords varies its tone, be it ever so slightly, a noise is heard, and this noise is the more intense the greater the variation of tone. In order to silence the telephone, an additional amount of resistance must be introduced in the circuit, and, consequently, the more re-

sistance the individual observer has to introduce in order to obtain a sound in the telephone the more acute is his hearing. Here, again, the amount of resistance introduced affords a direct measurement of this acuteness. M. Bréquet, of Paris, also shows a few electro-medical apparatus, among others an electric explorer of the vibrations of the larynx, which is nothing but a microphone applied outside, which transmits the variations of contact caused by the vibrations of the larynx to a telephone.

SCOTLAND.

TYPHOID fever has broken out in the village of Muirkirk, and, notwithstanding the precautions taken to prevent its spreading, threatens to become epidemic. As yet, the exact cause of the outbreak has not been ascertained.

A FATAL case of poisoning from drinking liquor ammoniæ in mistake for spirits is reported from Lennoxtown. The deceased was admitted for treatment to the Glasgow Western Infirmary; but the corrosion of the throat and digestive passages was so great, that he soon succumbed.

THE Glasgow Royal Infirmary has just been visited by a severe outbreak of typhoid fever. Some of the patients have suffered from it; but the nurses of the hospital have been the chief sufferers, no less than fifteen having been attacked, and of these two have died. Defective drainage has been the cause of the disease making its appearance. It would seem to be essential that there should be a periodical inspection of the drainage of all buildings, and especially of infirmaries or institutions where numbers of people are brought together to obtain health.

BRITISH ASSOCIATION MEETING IN ABERDEEN.

THE British Association has resolved to meet in Aberdeen in 1885. They are sure of a loyal and hearty welcome in the Granite City. The last meeting held in Aberdeen was under the presidency of the late Prince Consort in 1859, and was one of the most successful meetings ever held.

CASE OF SUNSTROKE NEAR FORT-WILLIAM.

THE Very Rev. Dr. John Mee, rector and vicar of Westbourne, Hants, who became suddenly ill with symptoms of sunstroke when on his way from Inverness to Banavie, died at Banavie, never having recovered consciousness. Deceased, who was about fifty-nine years of age, was for a few years Dean of Grahamstown, South Africa.

INVERNESS NORTHERN INFIRMARY: APPOINTMENT OF HOUSE-SURGEON.

A MEETING of the Managers of the Northern Infirmary, Inverness, was held last week for the purpose of appointing a house-surgeon, in room of Dr. Macpherson, recently resigned. There were eleven applicants, two of whom withdrew. Dr. Paterson, who is now acting in the Infirmary, was appointed to the post.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General, for the week ending September 15th, show that the death-rate in the eight principal towns was 19.7 per thousand of estimated population. This rate is 1.2 below that for the corresponding week of last year, but 0.2 above that for the previous week of the present year. The lowest mortality was recorded in Leith—viz., 12.8 per thousand; and the highest in Glasgow—viz., 24.5 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.6 per thousand, or 0.8 above the rate for the previous week. Of miasmatic diseases, diarrhœa continues to be the most fatal. Scarlet fever was prevalent in Glasgow. Acute diseases of the chest caused 77 deaths, or 13 more than the number registered during the previous week. The mean temperature was 53.8°, being 0.7° below that of the week immediately preceding, but 1.5° above that of the corresponding week of last year.

FIFE AND KINROSS ASYLUM.

THE annual report of the Fife and Kinross Asylum was submitted by the Medical Superintendent, Dr. A. R. Turnbull, at a meeting of the Asylum Board held on Tuesday. During the past year, 429 cases have been under treatment in the asylum; and, at the close of the year, there were 334 patients inmates. During the year, 35 new cases had been admitted, which was a greater number than the average admitted for the previous twelve years; this was considered due to the admission of a considerable number of cases of mild imbecility, which, in former years, would probably not have been sent to the asylum, but which had now been sent on account of their having become troublesome at home. The number of deaths (27) was also greater than during any previous year. As a result of the changes during the year, there was an increase of 17 in the resident population. The report also dealt with the subject of boarding-out, which has been adopted to a considerable extent, and of which the Superintendent gave a favourable opinion, as to its effects both on the mental and physical condition of the boarded-out patients. A vote of thanks was awarded to the Medical Superintendent.

HEALTH OF GLASGOW.

FROM the medical officer's report, for the fortnight ending September 15th, we learn that there were 470 deaths registered, representing a death-rate of 25 per thousand living. In the corresponding fortnight of last year, the death-rate was one per thousand lower. The present higher rate is due to an increase in pulmonary diseases, from which there are 35 per cent. more deaths than last year. In the zymotic class of diseases, there are more deaths from scarlet fever, measles, and diarrhœal diseases, and fewer from whooping-cough, than last year; but typhus and typhoid fever occupy the same position in both periods. There were 142 deaths from pulmonary diseases, and 39 from diarrhœa, of which 36 were persons below five years of age. The number of deaths from fever was 13—namely, 9 from enteric fever, and 3 from typhus; and from the infectious diseases of children, 45—namely, 22 from scarlet fever, 16 from whooping-cough, and 7 from measles. There were two fresh cases of small-pox registered; but they have been shown to be associated with the cases already reported in the northern district. The outbreak of typhus, with which the authorities have been contending for some weeks, seems now on the decline, and only nine cases have been registered during the fortnight. One noticeable feature in the fortnight's report is, that, while the deaths from measles are stationary, there has been a large increase in the number of cases; and the most probable explanation of this is, that the resumption of the schools has given the disease a fresh impetus. There were 126 cases of scarlet fever registered, 66 of measles, 52 of whooping-cough, and 14 of diphtheria, of which 76 were removed to hospital, and the remainder supervised at home.

THE ANNUAL CONGRESS OF THE SANITARY INSTITUTE.

THE annual autumn congress of the Sanitary Institute was formally opened in Glasgow on the 25th instant, the proceedings being inaugurated by a public luncheon, under the presidency of the Lord Provost of the city. After that, there was a formal opening of the exhibition of sanitary and other appliances, which has been arranged in connection with the congress. To this last, considerable attention has been directed; and it is expected that, from the number, variety, and excellence of the exhibits, it will be superior to any previous exhibition. Great difficulty has been found

in providing sufficient accommodation for all the exhibitors, but, by suitable additions to the main building, the necessary space has been obtained. There are five different departments under which the various entries are arranged. They are as follows: 1. Construction and materials; 2. Sewage and water-supply; 3. Lighting and ventilation; 4. Personal hygiene, foods, and disinfectants; and 5. Miscellaneous. It will be at once seen from this list that we have assembled together side by side all the means and requirements for ensuring healthy houses and exemption from disease; and it is a wise arrangement that the exhibition is to remain open for some weeks after the congress closes. We hope, in our next issue, to be able to give a more detailed account of the various addresses to be delivered during the four days on which the congress is to meet, the subjects set down for consideration and discussion in the different sections being all of them of great interest and importance.

ROXBURGH, BERWICK, AND SELKIRK DISTRICT ASYLUM.

THE annual report of the Roxburgh, Berwick, and Selkirk District has just been published for the financial year ending May 15th, 1883. The total capital expenditure to May 14th, 1882, amounted to £54,262 2s. 4d., and that up to May, 1883, £55,732 16s. 2d., £1,470 13s. 10d. had been spent during the year on water-reservoir, piping, wall buildings, etc. The above reservoir, which has been lately erected in the asylum grounds, is capable of holding 300,000 gallons of water. The total sum borrowed amounts to £52,000, of which £49,500, obtained from the Equitable Life Assurance Society, will be liquidated in thirty years from date of advances, by an annual payment of £6 2s. 6d. per cent., the balance still unpaid being £37,567 9s. 7d.; £3,200 was the amount realised last year on lands and heritages in the counties and district boroughs embraced in the lunacy district, the rateable value being £1,036,804 1s. 3d. The profit made by the maintenance of private patients has been less during the last year, as less has been received for their board. It has been found necessary to increase the board of pauper lunatics from £25 to £27 *per annum*. In 1877, it was reduced from £28 to £26, and in 1880, further reduced to £25. The Commissioner in Lunacy, who visited the asylum last June, strongly urged a reduction in the number of female patients, among whom overcrowding is specially apparent, and recommends that only those who are of the poorer class should be admitted.

IRELAND.

CASE OF ASIATIC CHOLERA (?).

IT is alleged that a death from Asiatic cholera took place last week in the Sligo Fever Hospital; but the medical practitioner who attended the deceased previous to admission is of opinion that it was only an aggravated case of English cholera.

HEALTH OF CORK.

DURING the four weeks ending September 8th, the total number of registered deaths amounted to 111, including 16 in the workhouse and therefore outside the borough. Of these, only 1 occurred from an infectious disease, 17 were infants of one year and under; and 156 births took place. The annual death-rate per 1,000 inhabitants gives a total ratio of mortality of 18.0; but, deducting those who died in the workhouse, the urban death-rate will then stand at 15.0; for infectious diseases, 0.1; an infant mortality of 2.0; and a birth-rate of 25.0 respectively.

LOUGHREA UNION: DR. BURKE.

A MEMORIAL, signed, among others, by four guardians, has been addressed to the Local Government Board in reference to Dr. Burke, whose case was referred to last week, praying for his removal in consequence of the recent charges brought against him. The following is an extract from the memorial, which would appear to be of a singular character: "It is essentially necessary these matters should receive your careful and prompt attention, as the press of the entire world are watching the result."

FEVER AT CARRICKFERGUS.

AN epidemic of typhoid fever has recently broken out at Carrickfergus; and Dr. Patrick, sanitary officer of the district, as he cannot assign any cause for it, has recommended that samples of the two sources—Carnassie and Lough Mownie—with which Carrickfergus is supplied with water, should be analysed. The cases at first were looked upon as gastric fever, an affection which a good many physicians regard as identical with typhoid.

CORK WORKHOUSE.

AT a meeting of the guardians last week, a member of the Board moved that, at the request of Dr. Magner, resident medical officer, some of the hospital wards in the workhouse should be placed under his charge. This extraordinary application had been referred to the medical officers of the workhouse, the visiting physicians, who very properly replied that they did not require any assistance in the execution of their duties. After some discussion, the motion, which was not seconded, was withdrawn.

THE REPORTED CASE OF HYDROPHOBIA NEAR TIPPERARY.

MR. J. F. O'RYAN of Tipperary informs us that the boy O'Keefe, whose case was mentioned in the last number of the JOURNAL, died from tetanus, not hydrophobia, as reported. Mr. O'Ryan saw him first on the evening of the eighth day after he had been bitten, and the symptoms of tetanus were very well marked. Drs. Duhy and Morrissy visited him later on, but he died about thirty-six hours after incomplete trismus had set in.

EPIDEMIC OF SCARLET FEVER IN LONDONDERRY.

THE urban Sanitary Board for the borough and city of Londonderry held a special meeting last week to consider the reports of their sanitary officers on the prevalence of scarlet fever in the city, and especially in the Waterside district, where it has assumed the form of an epidemic. The medical officer of the latter district, Dr. Elliott, reported that the disease was of a most malignant type; and he strongly recommended that the schools in that district should be closed for some time. Other precautions are being taken to prevent the disease spreading. Among the rest, the subsanitary officers have been enjoined to visit the houses whose inmates had scarlet fever, and to have the places disinfected; while a recommendation has been given to the friends of the patients to have them removed to the City Fever Hospital.

THE DUBLIN HOSPITALS.

A COMMITTEE of the Corporation of Dublin has just reported on the city hospitals—nineteen in number—that receive grants from the Corporation. These grants now amount to £4,695 *per annum*. The committee inspected the hospitals without giving any previous notice of their visit; and in their report, the observations resulting from their visits are, on the whole, fairly given. Unfortunately, the majority of the Dublin hospitals suffer from a want of funds, and are greatly in debt. Many of the defects pointed out by the committee are due to this fact; but, in other cases, the report particularises faults resulting solely from bad management and want of proper individual responsibility. The committee are of opinion that better results would be obtained from the expenditure of money and attention upon the hospitals of Dublin, if the available resources were more concentrated by a diminution of the number of hospitals,

such diminution to be effected by an amalgamation of some of these institutions which have a common object in view, or by some of the smaller special hospitals becoming adjuncts of the larger general hospitals. It is clear that, by the adoption of some such course, the resources available could be made to effect much greater good. This opinion is quite in accordance with that expressed by Mr. South's Committee many years ago, and by all persons competent to form an opinion on the subject without bias. We trust that this report will do good, and that the Corporation will continue the system of inspection that it has inaugurated this year.

ALLEGED CASES OF POISONING AT ROSEGARLAND, CO. WEXFORD.

ABOUT a month since, an animal which was affected with dry murrain was killed on the property of Mr. Leigh, of Rosegarland, and distributed to his labourers. Shortly afterwards, nearly fifty became seriously ill, with vomiting and purging, and two deaths took place. Rumour had it, that because Mr. Leigh was a boycotted landlord, that poison had been administered; and part of the viscera of one of the fatal cases, and samples of the food used by the sufferers, were forwarded to Dr. Cameron of Dublin for analysis. On the 22nd inst., the adjourned inquest was resumed before the coroner, when Dr. Cameron gave evidence to the effect that the food did not contain any mineral or organic poison. The stomach was much congested, but was not ulcerated or corroded, and the liver and kidneys presented a healthy appearance. The boiled meat, he stated, had a very offensive odour, and that pickled somewhat less. The evidence of a veterinary surgeon was that the disease was not dry murrain, but splenic apoplexy in an incipient state; but, as he did not see the animal alive, his opinion is only one of conjecture. The jury found a verdict that deceased had died from eating diseased meat.

QUEEN'S COLLEGE, GALWAY.

THE President, in his annual report recently published, refers at considerable length to the changes introduced by recent legislation, and shows that its immediate influence has been felt in this College in the serious decline which has taken place in the number of students on its rolls. The students attending lectures during the past session numbered 144, of whom 55 were in the Faculty of Arts, and 70 in that of Medicine; the remainder being divided between the departments of Law and Engineering. In the preceding session, the Arts Faculty included 57 students, and that of Medicine 122. Other causes may have contributed to bring about this result. The pecuniary pressure on that class of the community from which the College mainly derives its support, arising from the state of the country for some time past, has, doubtless, not been without its effect; but it will be observed that the decline is almost exclusively confined to the Faculty of Medicine, that department of the College which it was foreseen would be particularly affected by the substitution of the Royal University for its predecessor. The President remarks that the assertion is constantly made, that students are attracted to the Queen's Colleges by the rich rewards, in the shape of scholarships, which are bestowed with a liberal hand; and he disposes of this imputation by a simple statement of the real facts. The entire sum placed at the disposal of each College for prizes to undergraduates is £1,180. Of this sum, £100 is distributed at the end of each session in book premiums; the remaining £1,080 is divided into scholarships and exhibitions, varying in amount from £25 to £15, and which, with the exception of Scholarships in Arts of the second year, are tenable for one year only. There are, besides, eight scholarships in each College, limited to graduates, and tenable for one year, of the value of £40 each. Any one acquainted with the helps and rewards held out to students at the old seats of learning will perceive at a glance the insignificance, in number and in value, of the prizes which are at the disposal of the Queen's Colleges in Ireland.

THE TELEGRAPH IN MEDICAL JOURNALISM.

SOME of the American medical papers refer with much pride and approval to the "journalistic enterprise" of our able contemporary the *Medical Record* of New York, in providing its readers with telegraphic summaries by cable of the daily proceedings of the British Medical Association during its Liverpool session, and obtaining advance copies of the addresses; an example of intelligent activity which is declared to be without precedent in medical journalism. Our contemporary also took just credit to itself at the time, and suggested also that this use of the cable was a new departure in medical journalism. We highly appreciate the interest which was thus displayed in the proceedings of our Association. The free use of the cable for obtaining medical information of public importance is, however, by no means new to us; and the cable reports of the progress of cholera in Egypt which we obtained for the BRITISH MEDICAL JOURNAL from eminent medical authorities in Cairo and Alexandria were by far more extended and elaborate than the reports in question; and the prompt, accurate, and conclusive information which they furnished from the earliest moment as to the nature, extent, symptoms, and causation of the malady, proved, we are glad to know, to be not only of interest and value to the medical profession here, but were of great weight in recording the steps taken by the Government here to arrest and check the epidemic, and threw a much needed light on the diplomatic and commercial aspects of the question, as well as its scientific relations. The contemporary scientific and clinical records of this epidemic—which so greatly stirred the fears and panics of Europe, and excited so vivid a scientific interest—are up to this moment to be found in our columns, and in ours alone. In due time, we may expect the later results of the reports of the various Commissions which have been set at work in Egypt—necessarily somewhat late in the day.

MEMORANDUM ON THE INQUIRY CONCERNING ENTERIC FEVER.

IT is well known that enteric fever varies in its severity in different epidemics, and also it would seem that certain epidemics are characterised by the prominence of certain symptoms, and others by the occurrence of unusual complications; in one the intestinal symptoms may be most severe, in another the gastric, in a third the pulmonary, in a fourth the nervous; in some albuminuria may be frequent, and even hæmaturia may occur; in others throat-symptoms prevail, and there may be only a follicular tonsillitis, or there may be a membranous exudation resembling that of diphtheria.

It is important that the clinical features of every epidemic should be recorded. This part of the inquiry cannot be undertaken by the medical officer of health; it can only be carried out by the medical attendant. It may hereafter be found that certain laws govern the evolution and development of the contagium; that the soil on which it has been propagated, or the method of its distribution, may determine its virulence and the severity of its incidence on one or other organ; so that the clinical features of the disease may eventually help us to determine its source.

The presence and severity of any throat complication is well worthy of record and study; especial attention has been paid to this in preparing the accompanying card. The circumstances which give rise to this complication are at present quite unknown; yet its presence in a considerable proportion of cases has characterised several epidemics.

Our knowledge of the mortality of the disease is chiefly derived from hospital statistics, while but few records of large numbers of cases treated in private exist. If these could be obtained, we should have a better knowledge of the normal mortality of the disease than we at present possess. The cases admitted into hospitals are usually severe, or at least well marked; while in private practice a large number of very mild cases are seen, in which the symptoms of the disease are so slight as to be easily overlooked and, indeed, they would be so were it not that they occur in association with more characteristic examples of the disease in the same house or neighbourhood.

With regard to treatment, considerable diversity of opinion exists. While one authority would limit the milk consumed by an enteric patient to a pint per diem, others would give four pints. The question, which is right, is one of no small importance, and is surely capable of solution. While the comparative values of the bath, quinine, and salicylate of soda, as antipyretics, deserve further collective inquiry at the hands of British practitioners, in addition to the information we possess from the observations of a few individuals.

These and other points the committee has had in mind, when preparing the inquiry card on this subject. It seeks to obtain a record of the severity, duration, complications and treatment of the cases coming under observation, together with some details as to the source, method of diffusion, reception and incubation of the poison. The returns will subsequently be classified and compared with others occurring during the same and different epidemics.

Attention is especially directed to the numerical method of recording the severity of each symptom; by the adoption of this plan it is hoped that both accuracy and brevity may be obtained. After each symptom enumerated on the card a number expressing its severity should be inserted; of these the maximum should be 5, the absence of a symptom should be indicated by 0. These figures may be taken to represent certain definite expressions; thus, 5 = very severe, 4 = severe, 3 = moderate, 2 = slight, 1 = very slight, 0 = absent.

The severity of the pyrexia may be indicated in a similar manner; it should be estimated by the ruling temperature during the chief part of the illness. Thus, if the temperature was maintained for some time at 104° and upwards, it would be represented by 5; if it chiefly ranged between 103°—104° by 4, if from 102°—103° by 3, from 100.5°—102° by 2, from 99°—100.5° by 1, from 98.4°—99° by 0.

A chart accompanies the card. Should the temperature have been systematically recorded, it may with advantage be registered upon it; but this is by no means essential to the value of the case.

Collective Investigation Committee of the Metropolitan Counties Branch.

Enteric Fever: (1) *Clinical Features*, (2) *Presence of Throat Symptoms*, (3) *Treatment*, (4) *Supposed Cause*, (5) *Result*.

A Temperature Chart accompanies this Card.

Observer's Name.
Address.
Date of last Obs.
N.B.—Insert a number after each symptom enumerated on the Card, to indicate its severity: thus 5 = *very severe*, 4 = *severe*, 3 = *moderate*, 2 = *slight*, 1 = *very slight*, 0 = *absent*. Under "pyrexia," the ruling temperature may be indicated as follows: 5 = 104° *and upwards*, 4 = 103°–104°, 3 = 102°–103°, 2 = 100.5°–102°, 1 = 99°–100.5°, 0 = 98.4°–99°.
Initials of Patient. M. or F. Age.
Residence.
Date of onset.

Early Symptoms and their Severity.

Headache.	Insomnia.
Loss of appetite.	Pain in back.
Pain in limbs.	Rigors.

Mention any other.

Prominent Symptoms and their Severity.

Pyrexia.	Rash.
Diarrhœa.	Hæmorrhage.
Abdominal pain.	Abdominal distension.
Bronchitis.	Pneumonia.
Nervous prostration.	Delirium.
Quality of heart-sounds.	Irregularity of pulse.
Retention of urine.	Albuminuria.

Any others.

Throat. Amount of injection.
Presence of exudation. Membranous.
Pultaceous.
Tonsils, enlargement of.
,, ulceration.
,, enlargement of follicles.
Enlargement of cervical glands.
Duration of pyrexia.
Date of termination of pyrexia.
,, ,, illness.
Complications.
Sequelæ.
Result.
Remarks.
Treatment. — Diet during pyrexia. (*State average daily quantity of each article.*)
Alcohol. (*Nature of stimulant. Amount per diem.*)
Drugs employed. (*State for what purpose, in what doses, how often, and how long.*)
Baths. (*Temperature, duration, frequency.*)
Sponging.
Disease—Epidemic, sporadic.
Any other cases of illness in the house?
Any case of illness among lower animals in house or on premises?
Was infection conveyed to patient by milk, water, or sewer-gas?
Where, when, and how, in your opinion, was the disease contracted?
Space for additional notes on any point of interest in the case.

This card, when filled up, to be returned to G. Eastes, Esq., M.B., 69, Connaught Street, Hyde Park Square, W., Hon. Sec. to the Committee of the Branch, from whom additional cards may be obtained if required.

A Centenarian.—According to the French papers, Marie Durand, an inhabitant of d'Auberive-en-Royans (Isère), was born March 16th, 1761. She was married in 1783 to Claude Gerard; she has been ninety-six years a widow, and has now attained the age of one hundred and twenty-two years.

British Association for the Advancement of Science.

In the course of a highly interesting and important address, for which we regret not being able to afford the space to reproduce it *in extenso*, Professor Lankester, F.R.S., President of the Biological Section, set forth as follows the claims of science to pecuniary acknowledgment and endowment.

The Endowment of Research.—It might be laid down as a general proposition that scientific discovery had only been made by one of two classes of men—namely, those whose time could be devoted to it in virtue of their possessing inherited fortunes, or those whose time could be devoted to it in virtue of their possessing a stipend or endowment especially assigned for that purpose. It was impossible to doubt that there were hundreds of men among us who had as great capacity for scientific discovery as those whom fortune had favoured with leisure and opportunity. It was also a mistake to suppose that the existence among us of a few eminent men was evidence that we were doing our full share of scientific work. In every department of biological research, the hard work of investigation was carried on by German observers. After pointing out what is done in other countries, he stated the demand which the British Association ought to make. Taking England alone as distinct from Scotland and Ireland, they required, in order to be approximately on a level with Germany, forty new biological institutes distributed among the five branches of physiology, zoology, anatomy, pathology, and botany—forty, in addition to the fifteen which already existed. The annual cost of the buildings required would be about £4,000, giving a total initial expenditure of £160,000; the average cost of stipends for the directors' assistants and maintenance might be calculated at at £1,500 annually for each, or £60,000 for the 40, equal to a capital of £2,000,000. These institutes should be distributed in groups of five. One such group would be placed in London, one in Bristol, one in Birmingham, one in Nottingham, one in Leeds, one in Newcastle, one in Ipswich, one in Cardiff, and one in Plymouth. The first and most liberally arranged of these institutes should be in London. It was the misfortune and disgrace of London that, alone among the capitals of Europe, with the exception of Constantinople, it was destitute of an institution corresponding to the universities and colleges of research which existed elsewhere. As the source from which funds for providing such an institution might be derived, he mentioned the property left 250 years ago by Sir Thomas Gresham for scientific research in the city of London. That property, which was now valued at three millions sterling, was appropriated about 100 years ago by the Corporation of London and the Mercers' Company, and he expressed a hope that a sequel to the report of the commission which recently inquired into the proceedings of the Corporation and Companies of London might be the repeal of the Act which sanctioned the perversion of Gresham's money. He was aware that the scheme which he had sketched would be regarded as extravagant. Unfortunately, many persons regarded biology as only an amusing speculation. But this class was becoming less numerous every day, and the time would come when there would be more than one member of the Government who would understand and appreciate the value of scientific research. Those who might be expected to be well informed in regard to such matters were not so, as was proved by the fact that Mr. Gladstone recently spoke of a capital sum of £27,000 expended on the Nottingham College of Sciences, as an important contribution to the support of learning, amounting to one-third of what was spent by Germany in one year on her numerous universities, the actual expenditure of Germany being in reality about £800,000. While voluntary donations were altogether insufficient to provide the requisite endowments for biological institutes, and these must be obtained from the Imperial revenue, he thought something might be done by individual effort; and as a practical result of the present meeting of the Association, he suggested the raising of a sum of £20,000 for establishing a biological laboratory on the sea coast. There was no such laboratory on the whole line of the British coast, and such an institution would be of the greatest value to the numerous students of the problems connected with the life of marine plants and animals. On the motion of Dr. Carpenter, a cordial vote of thanks was passed to Professor Lankester for his valuable address.

Economical and Statistical.

This Section was presided over by Mr. J. P. Martin.

Report of the Anthropometric Committee.—Sir Rawson Rawson read the full text of the last report of this Committee, which had

been presented to the Anthropological Department. The report contains a large number of tables, illustrated by maps showing the stature, weight, and complexion of the population in the several counties of Great Britain and in the four provinces of Ireland, and was the first attempt to frame a physical census of the British Isles. The variations shown to exist in different parts of the country appear to be due chiefly to differences of racial origin. The descendants of the several invading nations, who are known to have been people of great stature, retain more or less their pre-eminence in that respect. On the other hand, the aborigines of Britain, who were of low or moderate stature, have bequeathed that peculiarity to their descendants. This was shown in a small table, in which a few of the counties in which there has been the least admixture of foreign blood have been compared. Early British—Cardigan, Radnor, and Brecon—average stature, 66.59 inches; Saxon—Sussex, Berks, and Oxford—67.22; Anglian—Lothian, Northumberland, and Norfolk—68.73; and Scandinavian—Shetland, Caithness, North and East York, and Lincoln—68.32. As regards geographical distribution, the maps indicate a greater stature in elevated districts above those in alluvial plains and the beds of valleys. The inhabitants of the northern and cold countries exhibit the highest stature. The four nations of Europe who rank highest in this respect are Norway, Scotland, Sweden, and Ireland; the three ranking lowest being Italy, Spain, and Portugal. The same table shows close accord between the average stature of the population of the United Kingdom and that of the white population of the United States, viz.: British, 67.66 inches; America, 67.67. The statistics collected by the military authorities in the United States place the British soldiers serving in their armies during the Civil War in the same order of stature as that assigned to the general population. The low stature in the West Riding of Yorkshire, Durham, Hertford, Middlesex, and Surrey, is attributed to the nature of the occupation of the people and their sanitary surroundings. The average stature of foreigners in Great Britain is two inches and a half below that of the British people. At the top of the list rank Polynesians and New Zealanders; next to them, British of the first or professional class; then Patagonians, Nagas, negroes of the Congo, and afterwards Scotch. At the bottom of the scale stand the Lapps, Andamanese, and Bushmen of South Africa. The general result of the investigations of the committee is that country life and occupation are more favourable to physical development than town life and occupation. Criminals and lunatics are two inches shorter in stature than the general population from which they are drawn. As regards complexion, there is an excess of 10 per cent. of dark men among the criminals, and of 5 per cent. of fair men among the lunatics. The committee discusses the period of maturity in man, and gives its reasons for fixing it at twenty-three years in males and twenty in females, and also the influence of advancing age. The loss of stature resulting from the degeneration and loss of tissues, and the stooping position assumed by old people, is more than counterbalanced by the survival of a greater number of individuals who are above the average in height. The uniform increase observed in the weight and chest-girth throughout adult life also confirms this view. The tables relating to industrial schools afford another illustration of the difference between children in classes at the extremes of the social scale. Boys, at the age of fourteen, are nearly seven inches shorter of stature, and twenty-four pounds and three-quarters lighter in weight, than the first or highest class in the preceding table. Two tables, showing the average stature and weight, first of factory children at an interval of forty years—viz., between 1833 and 1873; and, secondly, of boys in the Friends School at York for twenty-seven years, enable the committee to throw a favourable light on the question of the physical improvement or degeneracy of the population. Among the factory children, there has been a slight increase in stature, and a large increase in weight at corresponding ages, while, among the more favoured class in the other school, the stature has remained stationary, and there has been a slight improvement in weight. The appendix contains some tables relating to recruits for the British army, which show that recruits of the age of eighteen years may be expected to increase one inch in stature, one inch and a half in chest-girth, and ten pounds in weight, before they attain the age of twenty-two years. It also supplies specimens of some of the methods of observation which have been used by the committee; a list of all the tables in its several reports, and of the most recent publications on anthropometry in England and the United States. The committee concludes by pointing out that attention has been called in the report to some of the principal points of interest in the data which it has collected, but that, in many respects, the tables have been left to speak for themselves. It is not, indeed, improbable that a study of them may lead some persons to conclusions differing more or less from those of the committee. It believes, however, that it has laid a substantial foundation for a further and more exhaustive study of the physical condition of a people by anthropometric methods, and that its action will prove it has been useful as an example to other scientific bodies and to individuals in stimulating, as well as directing, them in the use of methods of making statistical inquiries relating to social questions.

On the motion of Mr. FRANK FELLOWS, seconded by Mr. F GALTON, the report was adopted. Mr. Walford, Mr. James Heywood, Professor Leone Levi, and other gentlemen took part in the discussion, and the resolution for the adoption of the report was agreed to.

The Prolongation of Human Life by Total Abstinence.—The value of abstinence from strong drinks, as a meas of prolonging human life and reducing the premiums for life-insurance, was urged in a paper by Mr. H. B. ROBINSON. He said: "There were several mutual life-assurance societies which kept quite separate the statistics of the lives of the general section and of those persons who abstained from strong drinks. At present, many difficulties presented themselves in the inquiry, which would, no doubt, be eliminated in future years. The most valuable facts were furnished by the United Kingdom Temperance and General Provident Institution, showing that in seventeen years the claims in the temperance section were only a little over 70 per cent. of the expectancy, while in the general section they were but slightly below the expectancy. The experience of the Whittington Life Assurance Company was not yet enough to form any exact opinion upon; but the company said that 'teetotalism seems to be favourable to longevity.' The Sceptre Life Association stated that, during the eighteen years of their history ended in 1882, they had 116 deaths in their temperance section against 270 expected deaths; and in 1883 the same disproportion prevailed, as they had had 51 deaths, and only 7 of them were the lives of abstainers; whereas, to be equal with non-abstainers, there should have been 19. In the Emperor Life Assurance Office, lives in the temperance branch were assured at a less rate than moderate drinkers. In some accidental offices, the assumed superior lives of abstainers were recognised by a charge of 20 per cent. less to teetotalers than to moderate drinkers.—Sir EDWARD VIVIAN supported, from figures which had come under his own observation, the view taken by Mr. Robinson.—Mr. WALFORD admitted the startling character of the figures put forward on this point, but urged that the experiment of temperance assurance had not been tried long enough to justify them in saying that this kind of thing was an indication of what would always exist in the temperance department. It had yet to be proved that the temperance section would form not only a healthy community during middle age, but also during old age.—Dr. ODGERS desired to know what security the companies had of the temperance *bona fides* of the persons they insured.—Mr. SARGEANT replied that the insured had at stated times to sign declarations of their continued abstinence. He believed that the bulk of the people who joined the temperance section continued abstainers through life.—Mr. W. PEARCE spoke of the terrible effect which intoxicating liquor was having upon the prairie Indians of Arizona and other neighbouring territory.

BIOLOGY.

The Continuity of Protoplasm through the Walls of Vegetable Cells.—Mr. WALTER GARDINER had embraced, in his investigation, fifty species of plants, and he found that the cells were placed in communication with one another by means of delicate threads passing through their walls. Evidence had been tending to show the unity of the individual and the working together of its various specialised organs. His investigations proved that in each separate cell the relation between cell-wall and protoplasm was of a closer kind than had been hitherto imagined. In every single property of protoplasm, and in the exhibition of every phenomenon, the plant and the animal were shown to be possessed of a common life; and now the statement that in animal life there was a differentiation of the protoplasm, while in the plant there was only one of cell-wall, could no longer be held. They were now in a position to get a clearer insight into a series of phenomena in connection with general cell-mechanism too numerous to mention.

Papers were also contributed "On the Relations of Protoplasm and Cell-Wall," by Mr. F. O. BOWEN; on "Protoplasmic Continuity in the Florideæ," by Dr. T. HICKS; and "On the Intercellular Connection of Protoplasts," by Professor W. HILLHOUSE.—Dr. CARPENTER expressed the very deep interest with which he had listened to

these communications, because they went to the very fundamental conception of life that they had been gradually coming to from the days when he was taught that cells were everything. They had been coming to perceive that there are a great many forms of animal and vegetable life which never arrive at the dignity of cell-form. There are forms in which there is simply a continuity of animal protoplasm, and they had been gradually coming to that idea in vegetable structure. This continuity of protoplasm was really just drawing the lower forms of the two kingdoms into closer approximation one with the other. These investigations illustrated the larger general views to which they were coming of the fundamental conception of life; and, on the other hand, they showed the superiority of the modern method of microscopic investigation over the old method.

Mr. C. A. MACMUNN (Wolverhampton) read a paper "On the Occurrence of Chlorophyll in Animals." The conclusion at which he had arrived was, that all the characteristic appearances of vegetable chlorophyll are present in animals, and synthetically built up by and in the bodies of animals.—The PRESIDENT said he regarded this paper as one of great importance. Some persons considered that chlorophyll in animals was due to minute parasitic algæ; but that view, which was entertained by German physiologists, was opposed by various considerations.—Mr. W. T. THISELTON DYER remarked that the paper was valuable as an argument in favour of the unity of composition between the two series of organisms of the animal and vegetable kingdom.

The Germ-Theory and Disease.—Dr. CARPENTER, who read a paper on this subject, treated it from a natural history point of view. He pointed out the facility which the lower forms of life possess of adapting themselves to changed conditions of existence. He believed, although it has not yet been proved, that the same germs under different conditions give rise to various diseases. The decrease of the virulence of the small-pox which ravaged Europe in the fifteenth century he attributed to the cultivation of the mildest cases which occurred, while a severe dose of any particular disease-germ may so affect the system, that a disease arises which cannot be recognised as related to that from which it proceeded. Under favourable conditions, an ordinary intermittent fever (endemic) may develop into a virulent form which is highly contagious. There was, in the opinion of the author, very strong ground for the belief that even the innocent hay-bacillus, which, when sown in broth or milk, simply causes its putrescence, and has no power of developing itself in the human body, may undergo such an alteration in its type as to become the germ of severe disease. Notwithstanding, therefore, the tendency among modern pathologists to regard the various forms of zymotic disease as specifically distinct, and to attribute to inexact observation every recorded fact which ran counter to their preconceptions, the author held that the application of the natural history method to the study of these diseases fully justified the belief that the same germs undergoing development under different conditions might manifest themselves under a variety of forms, and maintained that a larger study of the history of medicine justified the belief that, while some of these germs, breeding only in the human body, had acquired a considerable fixity, yet that this fixity did not necessarily hold good over the whole world or through all time; and that there was a large class, including cholera and the various forms of fever originating in germs which breed in the soil as well as in the human body, over which the nature of the breeding ground, with various atmospheric (possibly electrical) conditions exerted a most important modifying influence. He held that this inclusive study, taking account of all the facts which science could bring to bear on the inquiry, was much more likely to lead to accurate results than the exclusive method followed by many pathologists.—The PRESIDENT said the paper was important, as there was a desire to exclude natural history from the medical curriculum. All he could say was that, whenever that was done, medical men would cease to be such able interpreters of nature as they were at present.—Mr. VINES said there was no evidence of the mutability of the lower fungi, whatever there might be as to bacteria.

Cattle-Disease in South America.—Dr. Roy had passed the poison of this form of disease into mice, or other animals, and in the blood of these animals he found contained a less virulent poison than that with which they were inoculated; but this, when used as a vaccine, proved itself to be still deadly. The prairie-dog was then used as a medium of cultivation, and the poison was found to be sufficiently modified for use for horses and cattle, though not for sheep. Exposure to heat for a longer period was sufficient to modify the virulence of the poison to such an extent that the sheep inoculated did not die, but they were not found to be protected against disease. Germs treated by Pasteur's method did not cause death, but yet did not prevent animals from contracting disease. Finally, Dr. Roy found that, by heating the poison to 45° Cent. for seven or eight days, a vaccine was obtained which prevented the death of sheep when inoculated with it, but yet, in his opinion, did not protect them from the disease, and he could not, therefore, adduce from his experience any support of Professor Pasteur's theory.

On Galvani and Animal Electricity.—Professor M'KENDRICK, M.D., F.R.S., etc., Professor of Physiology in the University of Glasgow and in the Royal Institution of Great Britain, delivered a discourse on Galvani and Animal Electricity, fully illustrated by experiments in which galvanometers of the most sensitive constructive were used. Professor M'Kendrick observed that in these days, when electricity is commanding universal attention as a great force capable of being made subservient to humanity, it may be appropriate to consider some of the phenomena of electricity produced by living tissues and by living organs, or what is called animal electricity. It must also be remembered that most of the modern developments of electrical science may trace their origin to the physiological experiments of Galvani, the Professor of Anatomy at Bologna, in 1786. The lecturer spoke of the well-known researches of Galvani, and the opposition of Volta, whose inquiries led to the invention of the Voltaic pile. He referred to the experiments of Nobili and Matteucci, and spoke at great length of the labours of Du Bois Reymond, and other authorities. In summing up, after a few remarks regarding electric fishes, the lecturer said that all of these electrical changes were really expressions of the vital changes occurring in living tissues under the action of stimuli. It was no part of the functions of nerves, muscles, or of the retina of the eye to produce currents under the action of their relative stimuli, but such currents indicated chemical changes in the organs or tissues. For example, the contraction of a muscle is a movement following or consequent upon many chemical changes, among the results of which were the production of heat and differences of electrical potential. Thus there was no special production of electricity, except in the case of electrical fishes, and possibly of some other animals. In most animals, including man, the production of currents was an incidental phenomenon, indicating chemical operations, and nothing more. Besides, the currents so produced were feeble and evanescent, and bore no relation to the general well-being. Consequently, all attempts to influence the living body by magnets had no rational basis. The lecturer had tested this question by powerful electro-magnets, and had not been able to detect that they had the slightest influence on any vital phenomena. It need hardly be added that the so-called phenomena of animal magnetism are of a subjective character, dependent on peculiar states of the nervous system, having nothing whatever to do with electricity or magnetism; but still in a sense they are phenomena as real as those of physical science. Their subjective character, however, renders them specially difficult of investigation, and consequently they are more liable to fall into the hands of the charlatan. One safeguard against this is the recognition of what the electrical phenomena of the living body really mean, and one purpose of the lecturer will be served if it shows that to detect and account for these phenomena requires the most refined methods of the physicist and of the physiologist, and that they give us only a glimpse into the intricate changes occurring in living tissues.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884:

ELECTION OF MEMBERS.

A MEETING of the Council will be held on Wednesday, January 16th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., December 26th, 1883, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 17th day of October next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, September 16th, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia at the end of the year. Cases are therefore urgently needed during the next two months.*

Applications should be addressed to
The Secretary of the Collective Investigation Committee
September 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will be held at Wellingborough, in the first week in October. Gentlemen desirous of reading papers or exhibiting specimens, etc., are requested to communicate with the Honorary Secretary at their earliest convenience.—G. F. KIRBY SMITH, Honorary Secretary.

WEST SOMERSET BRANCH.—The autumnal meeting will be held at the Railway Hotel, Taunton, on Thursday, October 18th, at 5 o'clock. The question, as settled by the Council to be discussed after dinner, is "What is your personal experience as to the etiology of diphtheria?" Dr. Prideaux will exhibit Preparations of Bacteria of various diseases, and will show, if possible, a case of extroversion of the bladder. Gentlemen wishing to bring communications before the meeting, are requested to give notice to the Secretary.—W. M. KELLY, Honorary Secretary, Taunton.

EAST AND WEST SURREY DISTRICTS: SOUTH-EASTERN BRANCH.—A conjoint meeting of the above districts will be held at the White Hart Hotel, Reigate, on Thursday, October 11th, 1883, at 4 P.M., F. F. Lloyd, Esq., of Reigate, in the chair. Dinner will be served at 6 P.M. precisely; charge, 6s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends.—The following communications, etc., have been promised. Watson Cheyne, Esq.: Antiseptic Surgery as Applied to Country Practice. Geo. Abbott, Esq.: Note-taking by Notation, with Special Reference to Collective Investigation. Thos. M. Butler, Esq.: A Case of Interest.—J. Herbert Stowers, Honorary Secretary East Surrey District, 23, Finsbury Circus, E.C. A. Arthur Napper, Honorary Secretary West Surrey District, Cranleigh, Surrey.—N.B. Gentlemen having filled up cards of the Collective Investigation Committee, will oblige by bringing them to the meeting.

EAST ANGLIAN BRANCH.—The autumn meeting of the East Anglian Branch will be held at the King's Head Hotel, Bungay, on Thursday, October 25th, at 1 P.M. There will be a *dejeuner* at 4.30, after the meeting. It is requested that notices of papers or communications be sent at once to either of the Honorary Secretaries, W. A. Elliston, M.D., Ipswich; M. Beverley, M.D., Norwich.

BORDER COUNTIES BRANCH.—The autumnal meeting of the above Branch will be held on Friday, October 19th, 1883. Gentlemen intending to read papers, show specimens, etc., are requested to communicate as soon as possible with either of the Secretaries, W. Russel, M.B., Carlisle; J. Smith, M.D., Dumfries.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above district was held at Hayward's Heath on September 19th, Dr. HEWITT in the chair.

Chairman's Address.—Dr. HEWITT spoke on "The Relation between Consulting-Physicians and General Practitioners, with Special Reference to Seeing Patient, Payment of Fees, and Abuse of Prescription." Dr. Hewitt considered the present relations very unsatisfactory, and attributed to this, in great measure, the general status of the profession, which was admittedly lower than it should be. He summed up his suggestions, as to remedy, under the following heads: 1. There should be a distinct grade of consultants. 2. Consultants should see patients only in association with general practitioners, either by correspondence or by personal interview. 3. Prescriptions should be given by the consultant to the medical attendant only, and, on no account to the patient.

Mr. Austin, Dr. Lee, Mr. Turner, and Mr. Hodgson spoke.

The majority of those present evidently felt strongly the justice of the Chairman's remarks.

Dr. EWART described a case of Hypertrophy of the Nose, upon which Mr. Lister had operated with very good results.

Dr. LEE read a paper on the Use of Antiseptics, especially with reference to their volatilisation. He spoke of the circumstances affecting the volatilisation of various antiseptics, and pointed out the fallacy, in certain experiments with carbolic acid upon vaccine virus. The virus remained potent after exposure, as it was thought, to the vapour of carbolic acid; whereas, in reality, no vapour was given off. Dr. Lee pointed out the bearing of this upon the use of this and other agents, for the purpose of disinfection.

Mr. HODGSON (Brighton) narrated the following cases of deafness from nerve-disease.

CASE 1. *Labyrinthine Deafness from Mumps.*—A professional man's only son, aged 15, took mumps from one of his sisters in November 1877. A spoiled and wilful lad, he would not submit to any treatment, not even confinement to the house. On the sixth day, the swelling of the salivary glands never having been great, severe orchitis occurred. For this, he gladly took to his bed. In two days more the other testicle became much inflamed. When the swelling, etc., of the testicles was subsiding, sharp head-symptoms supervened—headache, much giddiness, tinnitus, deafness on the left side, fever, and some night-delirium. In about a week, all these symptoms subsided, except the one-sided deafness, which remained much the same as when it was first noticed. From the first, nothing wrong was to be detected in the outer ear, or tympanum, or throat; but the deafness was great. An old-fashioned watch (whose tick was audible by average hearing at twenty-seven feet distance) was altogether inaudible by this ear, and also on the mastoid. An A tuning-fork was but faintly noticed in air and on the bone, and, on the latter slightly better with meatus open than when closed. During the acute symptoms, salines with bromide of potassium were administered; but, as soon as convalescence began, he would take no more medicine, or Mr. Hodgson should have liked to have tried the effect of potassium-iodide. Six months subsequently, and again five years later, this youth's ear was carefully examined again, and found to be just in the same state.

CASE 2. *Labyrinthine Deafness from Mumps.*—A clergyman's daughter, aged 15, was first seen in August 1883, on account of deafness on the right side, of two years' duration. It had come on suddenly then, whilst she was ill with the mumps, for which she received no medical attention, and was not confined to one room. Both sides of her neck were then a good deal swollen, but she was not very ill, and had no earache, tinnitus, or giddiness; and since that time she had been quite well in general health. At present the hearing (of the same watch described above) is just not contact, and it is also faintly heard on the mastoid. Tuning-fork also heard very imperfectly both opposite the meatus and on the bone. External and middle ears and throat all seemed perfectly healthy. This condition of things having existed for two years, no treatment was considered feasible.

Remarks.—Such cases as the two above-mentioned are not common. They are the only ones that Mr. Hodgson has ever met with. Still, they have occasionally been alluded to in English medical literature; and during the last two or three years several cases have been recorded in the *Archives of Otology* (German and American), a publication which culls otological lore from all parts of the civilised world. Thence it appears that the attacks are always sudden, the deafness generally severe, and sometimes affecting both ears, in which cases the giddiness may persist for years. The symptoms clearly point to mischief in the labyrinthine structures, which would seem (as in the salivary, mammary, and seminal glands), to be effusive and not purulent, but yet violent enough to permanently injure the delicate expansions of the auditory nerve. Even the testicles are said to be sometimes left impotent by an attack of mumps. But why the internal ear should be amongst the structures selected for invasion by this disease, it is hard to define, since its tissues seem not to resemble those of any other of the organs affected, including the exceptional ones, the ovaries, uterus, and vulva. Mr. Hodgson believes that, as yet, nobody has investigated this mumps-deafness *post mortem*.

CASE 3. *Labyrinthine Deafness from Inherited Syphilis.*—A labourer's daughter, aged 10½, has been quite deaf with both ears, during the last twelve months. Now she cannot hear either a large watch, a tuning-fork, a metronome, or a loud voice, in any way. She began to have interstitial keratitis six years ago, and now is, in consequence, nearly blind, notwithstanding two iridec-

tomies. Her two upper and four lower incisor teeth are typically "Hutchinsonian." No defect in outer or middle ears, except slightly in-drawn membranes.

CASE 4. *Labyrinthine Deafness from Inherited Syphilis.*—A working woman, aged 33, "stone-deaf" with both ears. Up to two years ago heard very well; and all this has come on since, by degrees. Membranes of the drums in-drawn, but bulge readily under Valsalvaism and Politzerism. Throat healthy. Auditory nerves quite insensible. Sight of both eyes defective, from the effects of bygone keratitis. Incisor teeth "Hutchinsonian."

Remarks.—The two last-given cases are of a kind unhappily common; but these two well represent many, except that their ages are at the two extremes. Generally the disease occurs to young people in their "teens," the ear-affection having been preceded by the corneal. When a case is seen in its early stage, the use of bichloride and iodide has sometimes made the surgeon think a cure was about to be obtained, only, however, before long for the failure to become as determined and hopeless as in other cases. Indeed, so far, in those congenitally syphilitic, as well as in the parotitic deafness, therapeutics are of no avail; but the diagnosis and prognosis are sufficiently clear to deter from useless treatment and from resort to quackery; and, of course, hearing-trumpets are of no use. The precise condition of the labyrinth in this disease has not apparently been investigated in any necropsy.

CORRESPONDENCE.

CAPTAIN GALTON ON HOSPITAL CONSTRUCTION.

SIR,—The publication in the BRITISH MEDICAL JOURNAL of the 1st instant of the paper read by Captain Galton on August 2nd at the annual meeting of the British Medical Association held in Liverpool requires a reply from me to that portion relating to my hospital plan. A few days before the reading of this paper, I corresponded with Captain Galton, and explained to him that I was about to exhibit the drawings and model of my proposed method of hospital construction at the then forthcoming meeting, by the request of two of the Association officials (Dr. W. Carter and Dr. Imlach), and hoped he would therefore not consider I was obtruding my ideas. I also enclosed two or three reprints and a photograph respecting my plan. I received an early reply containing certain comments, to which I replied on July 29th.

Captain Galton has chosen to quote (see BRITISH MEDICAL JOURNAL, page 426) from the least explanatory reprint I sent him. Had he fully quoted from the paper, headed "Paris Universal Exhibition, 1878," my description of my proposed method of hospital construction, and from the manuscript note appended to the same, his criticisms would have been to a great extent answered, and the readers of the JOURNAL would have had clearer ideas of the advantages offered by my design. I shall feel obliged by your now inserting this description. It is as follows.

"This method of construction consists of a substantial building, containing a smaller one, the side and end spaces, between the two, forming corridors. The inner building is made of glass, or enamelled sheet-iron and glass, fixed in iron framework, and is divided longitudinally by a partition into two equal parts, and these are subdivided by partitions transversely, so as to form a double row of compartments, each of which has an entrance from its corridor. Each compartment is supplied with fresh air from a grating in the floor by means of an air-tube which lies underneath, and also by an extra tube over the door, and the foul air is extracted by a heated flue which passes from the summit of the inclined inner roof or ceiling up through the outer roof. One of the supply-tubes may be closed in cold weather if necessary. The building is heated by hot-water or steam pipes. The ward-offices are placed at each end of the building, and project on either side, so that the outline of the ground-plan somewhat resembles the letter I. The nurses' rooms are so placed that the nurse has a view of the patients through either row of transparent compartments.

"By this plan of hospital construction, each patient is surrounded with air uncontaminated by himself, by his fellow-patients, or by the building, the materials of which the compartments (including the floors) are made being non-absorbent, and the ventilation constant and complete, even if the external air were perfectly still. By occasionally washing the compartments, they would always retain their purity, thus obviating the expense and inconvenience attendant on hospitals otherwise constructed. Although each patient would be isolated, he would not feel lonely, as he could see and converse with his neighbour through the glass partition. He would also not be exposed to draughts, as in ordinary hospitals, where the amount of ventilation which is useful to some patients is frequently injurious to others. *This plan is especially adapted for the reception of wounded patients, whether by operation, accident, or disease; for a fever hospital, and a lying-in hospital.* By this means, not only would there be a great saving of life, but recoveries would be more rapid. *Cases not requiring isolation may safely be placed together in large wards capable of accommodating twenty or more patients each.*

"The chief requirement in a hospital is, that the patients shall be constantly surrounded with fresh air. To obtain pure air, it is self-evident the hospital must be placed in a healthy locality, and must not 'foul its own nest' by imperfect drainage, defective sewer-ventilation, etc.; or, if placed in the midst of a crowded city, the air must be purified in its passage into the building. To do this, and to prevent the admitted air becoming impure around the patient, and to remove all risk of infecting the neighbourhood with the outgoing air, will be found set forth in the papers which accompany the drawings exhibited.[1]

"In addition to the above remarks, I beg to state that *my design is intended to secure the advantages of a large hospital without the dangers, and the safety of the hut system without the inconveniences.* Mere isolation of certain classes of cases, however, is not sufficient. The compartments in which the patients are placed should be of proper form, and made with non-absorbent materials; otherwise, ventilation would be imperfect, and the walls would still become a source of mischief. My method of construction allows the patients' friends to pay visits without the chance of receiving infection, as they could remain in the corridors, and yet see and converse with the patients through the fronts of the glass compartments. The arrangement of the corridors would not only prevent the compartments being exposed to extremes of temperature, but would also prevent external sounds injuriously affecting the patients.

"In a tropical climate, each compartment could be furnished with a *punkah* for fanning the patient; as ventilation, however perfect, might fail to produce sufficient evaporation from the body to cause a sensation of coolness. All the *punkahs* could be kept in motion by one man with the aid of simple machinery. Lastly, the construction of the compartments would not afford a covert for venomous snakes and insects."

With this plan, the compartments would be always available for patients, as the cleansing and disinfection of a compartment could be carried out within an hour of its being vacated. It would also be economical for small towns, where the authorities could not afford to build wards for the different infectious diseases and for both sexes. One block, with the ward-offices in its centre, so as to separate the sexes, might suffice; and the compartments might be occupied by patients from various classes of society, and suffering from different diseases. Another advantage this plan offers is that, if a patient be admitted under suspicion of infection, although he may not really be infected, he is not exposed to infection as he would be if placed with other patients in a common fever-ward, or even in a probationary ward. In February 1882, I suggested the use of telephones in infectious diseases hospitals, so that a patient in his bed could converse with a friend placed in a room in a remote part of the building, and thus avoid the risk of spreading infection. (I made this suggestion to Professor Tyndall, who approves of my hospital plan, but wished to know if I could make it possible for a visiting friend to converse with a patient without being overheard by other patients.)

Captain Galton says: "As regards the facility of inspection, it is quite certain that a view of the beds in a distant cubicle could not be obtained through a series of glass partitions." I presume he means he is quite certain. Well, I am quite certain such view could be obtained through plate-glass; and a portion of each partition (about five feet square) in the line of sight from the nurse's room, would be made of this material. As there would be a nurse's room at each end of the block of twenty compartments or cubicles, a nurse would not necessarily have to view more than one half the length of the block of two rows; that is to say, she would only have to look through five sheets of plate-glass at the utmost at a time. Besides, it would be the duty of the nurses to occasionally walk in the corridors, so as to gain a closer inspection of the patients. In all hospitals it is sometimes found necessary to have a nurse or

[1] See BRITISH MEDICAL JOURNAL, May 11th, 1872; November 15th, 1873; September 26th, 1874; January 30th, 1875; June 19th, 1875.

friend constantly at the bedside of a patient. If certain patients are to be isolated, I wonder what kind of partitions Captain Galton would suggest which would allow of clearer inspection. He then goes on to say: "The complications of Mr. Greenway's method seem to present difficulties, and to create corners for dirt." He is less confident on this point, as he uses the word "seem." There are no complications in my mode of isolating, beyond the multiplication of corridor doors, in order to give the power of converting into temporary ante-rooms any portions of a corridor outside the patients' rooms. These doors, however, I have stated are not essential to my plan, and they would be very seldom used for such purpose. As regards the "corners for dirt," there would be no more in each compartment than in an ordinary ward (the partitions would certainly not cause any dirt); and, supposing there were such gross mismanagement as to allow dirt to remain about, it would not be absorbed either by the glass partitions or by the metal-covered floor. As regards the dimensions of the compartments and corridors, they are open to alteration; but, from a purely sanitary point of view, I consider I have given sufficient space to the former. We are next told "the patient is absolutely dependent for ventilation, even in summer, on artificial means, because the corridor prevents the direct flow of fresh air from the windows into the cubicle where the bed is placed." I am surprised by this statement, after the letter I wrote Captain Galton on July 29th. I therein said: "I am glad to have heard your view of the mode of ventilation I have adopted, as it enables me to correct a misapprehension before you read your paper. I do not rely on artificial ventilation, but simply heat the outlet flue to create an extra amount of draught. Each patient is supplied with fresh air from a one-foot square tube which opens underneath the bed, and from a 12 by 9-inch tube which opens over the compartment door; and the outlet tube is 9 by 18 inches, and runs straight up through the roof. These dimensions may be altered. Natural and efficient ventilation would thus take place if there were no hot-water pipe in the flue, especially if a Boyle's air-pump ventilator were fixed on the top. I believe I have provided for more than a sufficient amount of air, and, under certain circumstances, it would have to be lessened..... Some time since, an architect in Gloucestershire advocated my plan for a portion of a general hospital, but he thought all the outlet tubes should lead to one large heated up-take shaft. To this and all similar contrivances I objected, as any failure in the motive power, whether it be heat or machinery, disarranges the whole system." I think this language is explicit enough. If Captain Galton, in addition to his knowledge of military engineering, had the experience of a medical practitioner, he would be careful not to expose a patient, suffering from scarlet-fever, measles, and certain other diseases, to excessive ventilation, especially in such a climate as ours. The late Dr. A. P. Stewart, who presided over the Public Medicine Section at the annual meeting in 1871, told me, after I had read my paper on my proposed method of Hospital Construction, that he had known many a patient die from lung or kidney-affection produced by being exposed to excess of ventilation; and such would be the general verdict of the profession. All we require is that the patient shall be surrounded with pure air. As a final blow at my plan, Captain Galton says: "The large amount of glass surface to be cleaned would be a continual trouble." I should have imagined it would be an advantage to see whatever deposit might take place on the partitions, so that it could be removed at an early period. The ostrich is said to bury its head in the sand when pursued, in order to experience a sense of security. If the partitions were made of opaque material, the deposit would still occur, and be absorbed if on a porous surface; but there would be the satisfaction that they appeared clean, and would not be a source of continual trouble. Surely Captain Galton would not thus lull hospital managers and patients into a false sense of security. I think, however, the deposit would be very slight with my mode of ventilation, and it could be quickly removed by an occasional syringing with carbolised water. The sheets of plate-glass would require a little extra attention. Captain Galton next asks: "But to what extent is this isolation desirable? Is there any proof of its necessity, except in special cases? For special cases, a limited number of wards would suffice."

Answers to these questions will be found in the description of my plan. It is true, that since "Listerism" has been adopted in the treatment of wounds, there is not the same necessity for isolation and non-absorbent walls and floors in our surgical hospitals as before; but I think the extra safeguard should not be dispensed with. It has also been proved that small-pox patients will bear aggregation with safety, provided sufficient space be allotted.

At the commencement of his paper, Captain Galton states it is "seventeen years" since he addressed the British Medical Association on the subject of hospital construction. It is fourteen years since he addressed the Association at Leeds (in 1869), and I well remember the important discussion which followed. It was generally felt there was no such thing in existence as a perfect hospital, and that we should have to look for an entirely new design. From that moment I turned my attention to the subject, and I am happy to find my labours have met with the approval of many of the leading scientists in this and other countries. Captain Galton then goes on to say there is no finality in the construction of hospitals; and yet, before he finishes his paper, he predicts what will be the hospital of the immediate future.

When speaking of my plan in the Public Medicine Section at the Liverpool meeting, he made no attempt to give any *rationale*, or even the short description which appears in his paper in the JOURNAL, but, in addition to his criticisms, simply stated that the model of a transverse section he had before him explained the whole building; and—in contradiction to what now appears in his paper—that a compartment is ventilated by opening its door and the window on the opposite side of the corridor, and then closing the corridor doors; also by a tube which opens through the floor underneath the bed. He altogether ignored the inlet-tube which opens over the compartment door. As regards this window-ventilation across a subdivided corridor, I was surprised to hear Captain Galton speak of it as my mode of supplying air; for, in my letter of July 29th, I simply said it could be adopted, "but would never be required." (The model, by-the-bye, was removed from the sanitary department of the Annual Museum to the lecture-room without my consent or that of the Secretary, Dr. Imlach, and it was not replaced by the middle of the following day, when I had to look after it myself.) Owing to a prior engagement, I was unable to remain during the discussion which followed the reading of Captain Galton's paper—which reading was much delayed by waiting for an audience to assemble—but I deputed a member who sat near me to make certain remarks on my behalf. I found, on the following day, that he had failed to do so.—I am, sir, yours obediently,

Plymouth, September, 1883. HENRY GREENWAY.

P.S.—I much regret, in consequence of illness, I have been prevented sending an earlier reply.

THE DEATH-RATE OF ANÆSTHESIA.

SIR,—In his article on the Statistics of Anæsthetics, in the JOURNAL of July 21st, these are Mr. Gunn's words: "I suppose I need hardly say that, on the subject of anæsthetics, I do not speak as a specialist." However, he *has* spoken as a specialist; and his experience is entirely special—altogether derived from the Moorfields Eye Hospital, in fact.

This is important; because, in the induction of anæsthesia, such a field may be expected to furnish the very lowest death-rate possible in any kind of surgical practice; whereas the large general hospitals, whence my experience is derived, may equally be expected to furnish the very highest; and this as well on account of the difference in the health of the patients, as in the severity of the operations. I am aware that the contrary has been maintained; but, as I believe, on insufficient evidence. For instance, it is exceedingly improbable that any operation would have been undertaken in most of my cases elsewhere than in a large general hospital. I wish to point out that the induction of anæsthesia in cases of this kind is an exceedingly hazardous proceeding.

Patients with any form of intestinal obstruction, who are weak and more or less collapsed, are very likely to die when anæsthetised, especially if chloroform be employed. Mr. Gunn has made the mistake of comparing together these extreme types of practice, and of seeking to confute the one with experience proper to the other. I am surprised to find he has neglected to take into consideration the very important fact, that an unusually large proportion of his cases—nearly half, indeed—are under twenty years of age, at which period the danger is universally admitted to be much less than at any other.

Mr. Gunn has blamed me for having insisted on the danger of administering anæsthetics. "Nothing," he says, "is more calculated to increase the death-rate of anæsthesia than widespread dread of its danger." Well, having witnessed the worst results from reckless self-confidence on the part of administrators, and the best from a rational timidity, I am not inclined to attach much importance to this objection. "Dans un temps d'ignorance," says Montesquieu, "on n'a aucun doute, même lorsqu'on fait les plus grands

maux; dans un temps de lumière on tremble encore lorsqu'on fait les plus grands biens."

Our knowledge of the death-rate of anæsthesia is still in its infancy. I have simply stated my experience, and that too entirely on my own authority. I think it a pity Mr. Gunn has seen fit to do otherwise. The charges he has brought against me are quite unwarranted. One death in 13,000 administrations is Mr. Gunn's estimate of the mortality at Moorfields, during a period of nearly ten years, from 1874 to 1883. In the JOURNAL for December 18th, 1880, is a table of deaths from anæsthetics, for which we are indebted to Dr. Jacob, of Leeds. During a period of equal duration with the above, and embracing to a large extent the same years, viz., from 1870 to 1879, Moorfields is there credited with no fewer than six deaths, being a mortality, on the basis of Mr. Gunn's calculation, of 1 in 2,166. Perhaps Mr. Gunn will be good enough to explain this discrepancy, and to inform us which estimate is the correct one.

The following remarkable statements have been made with regard to the chloroform death-rate.

According to Flourens, the French army in the Crimea, with more than 25,000 administrations, had not a single death. Wellford states that, during the American civil war, the Confederate army, with 22,000 administrations, was equally fortunate. Nussbaum is gravely credited with 15,000 administations; Billroth with 12,500; and Guy's Hospital with 12,000; each without the loss of a single patient. At length, it occurred to some one that an occasional death ought to be recorded. The Royal Infirmary of Edinburgh set a good example, with its estimate of one death in 36,500 administrations. For German hospitals, Keppeler has admitted one in 19,500; and Squibb, for American ones, one in 11,764; whilst Lyman's estimate, from English and American sources, was one in 5,860. Richardson, dealing only with English hospitals, reduced the number to one in 3,196. Coles and Andrews, on the basis of English and American statistics, put it at one in 2,873 and 2,723 respectively. Lastly, Rendle, including only London hospitals, cut it down to one in 2,666; and here the matter has since rested.

In the JOURNAL for December 30th, 1882, the death-rate for chloroform is given as one in 2,873; for ether, one in 23,204; or for both together, one in 13,038. My estimate, based on ten years' experience at various metropolitan and provincial hospitals, was one in 208 for chloroform, one in 1,050 for ether, or one in 350 for both together. This is individual experience, and I was particular to publish it as such, though Mr. Gunn hardly gives me credit for so doing.

These are my words: "Although the total number of cases, on which this statement is based, is not so large as, under the circumstances, might be desired, especially as regards ether, I think, nevertheless, it may be accepted as conveying a more correct idea of the dangers actually involved, than any of the statistics usually quoted. Perhaps some of your readers will be able to explain these remarkable discrepancies, and to decide which statement most nearly approximates the truth."

I hoped thus to have elicited some new facts; but, as this has not been the case, I will now attempt such partial solution of the problem as I can, with the very imperfect data at my disposal.

I have estimated the number of times a-year anæsthetics are administered at the subjoined hospitals, roughly, as follows: The London, 2,500; St. Bartholomew's, 2,300; Guy's, 2,000; Middlesex, 700; University College, 600. It has necessarily happened, in the absence of published statistics, that most of these figures are mere estimates, and as such, they must be taken, subject to correction; probably the exact numbers are known to some; at any rate, I shall be much obliged to any one for corrections, desiring only to arrive at the truth.

Three deaths a-year at the large hospitals, though not exactly of common occurrence, have happened several times of late; for example: at the London in 1870, and again in 1875; at Guy's in 1882; at Middlesex in 1882; and at University College in 1877. Two deaths a-year occurred at the London in 1877, 1878, and 1881; at St. Bartholomew's in 1878 and 1882; at Middlesex in 1872; and at University College in 1870.

At the London Hospital, sixteen deaths (three from ether and thirteen from chloroform) are reported in the journals during the last thirteen years, being a mortality, on the basis of our previous estimate, of one in 2,031. Of course, some fatal cases have occurred that are not included here.

St. Bartholomew's Hospital has had seven deaths (five from chloroform and two from ether) during the last five years, or one in 1,642.

At Guy's Hospital, the deaths from anæsthetics amount to one or two a-year (*vide Lancet*, May 12th, 1883, in reply to the Glasgow inquiry). This will give a mortality of one in 1,333. In 1882, there were two deaths from chloroform and one from ether. The journalistic record of the mortality at this hospital is so incomplete as to be practically useless for our purpose.

The Middlesex Hospital has had eight deaths reported during the last fourteen and a-half years (chloroform, five; ether, one; methylene, two); or one in 1,268.

Lastly, at University College Hospital, during the last thirteen years, nine deaths are reported (eight of chloroform and one of ether), or one in 966.

To sum up, the average mortality will be one in 1,448. Of forty-three recorded deaths, thirty-three were due to chloroform, eight to ether, and two to methelyne. The impression conveyed by this estimate, taking everything into consideration, is perhaps hardly less unfavourable than that indicated by my individual experience; it shows a very high chloroform death-rate.

On the whole, I think I was quite justified in saying, that my former estimate conveyed "a more correct idea of the dangers actually involved than any of the statistics usually quoted."

Yours, etc., W. ROGER WILLIAMS, F.R.C.S.

1, Bentinck Street, Cavendish Square, W.

POLITICAL POWERLESSNESS OF THE PROFESSION.

SIR,—I have read with much interest Dr. Foster's address on this subject, and have noted, not without the mixture of grief and amusement which such incoherent utterances are fitted alternately to excite, the various comments and proposals which have followed in the columns of our JOURNAL, from gentlemen more enthusiastic, I venture to think, than thoughtful. Dr. Foster seems to think it possible to devise a medico-political programme, to which the whole, or a great bulk of the profession shall be united, and proposes that the profession shall exercise its whole political influence to obtain its enforcement. That, sir, is the central idea of the political organisation of this Association. It is that idea which produced the organisation of the Medical Reform Committee, and the recent agitation on the notification of infectious diseases, and the influence which has been exercised by the Association on questions affecting the various medical services. So far, we shall all agree with Dr. Foster. But when it is proposed to form funds to support the election of medical men, or of a particular medical man, who is to go into Parliament with the sole and avowed object of promoting and supporting certain special interests of the medical profession, we have to ask ourselves for what borough or what county this member of Parliament is to sit, and whether he is to plainly avow to his constituents that his expenses are paid by medical subscribers, who look to him to treat their interests as foremost in his parliamentary career. Is the medical profession Conservative in its politics, or is it Radical? Does it desire manhood suffrage, equal electoral districts, and annual parliaments? Is it in favour of establishment or disestablishment of the Church? Is it, in short, agreed upon any of the great political problems of the day, or is it so indifferent to them that it is prepared to support a candidate for political life, irrespective of his political opinions? Do these gentlemen think that they can find any constituency which would return such a member, or do they expect to induce Mr. Gladstone or Sir Stafford Northcote, in the forthcoming redistribution of seats, to enfranchise the medical profession with the sole view to the representation of its class interests? That would indeed be a new departure. It would be interesting if some of your correspondents who are writing so magnanimously on the subject of subscriptions, and who are so fervent in their desire for political representation of the medical profession, would face these problems.—I am, sir, yours faithfully,

A WHIG DOCTOR.

THE WALTHAMSTOW MURDERS.

SIR,—Your important leader on this subject, in the last issue of the BRITISH MEDICAL JOURNAL, induces me to suggest that steps be taken to make it legally compulsory to hold a skilfully conducted necropsy on every criminal who dies at the hands of the hangman. By making it an established practice to examine *post mortem* the bodies of all criminals who die in our gaols, whether they be executed or die a natural death, two important ends would be obtained. If the *post mortem* examination were carefully and skilfully conducted, many important scientific facts would be ascertained. Further, the knowledge that the criminal would not only suffer the last penalty at the hands of the executioner, but his body thereafter be subjected to the scalpel, would, I think, probably in some instances

prove a deterrent from crime. Although I would urge that the bodies of all criminals dying in gaols be subjected to *post mortem* examination, I would especially insist on necropsies, complete and careful, being conducted on the bodies of those who die by the hands of the public hangman.—I remain, yours truly,

Birkenhead, September 25th, 1883. P. M. BRAIDWOOD.

TYPHOID FEVER IN THE NORTH OF LONDON.

SIR,—Within the last six weeks, Camden Town and its neighbourhood have been visited by an outbreak of enteric fever of a severe type. About three hundred cases have been reported, and some thirty deaths have occurred. This is the first epidemic of typhoid fever which has occurred in this neighbourhood during my practice of thirty years; and my experience of this disease has been limited to a few sporadic cases every autumn, which, with hardly an exception, were imported either from the Continent or from places of resort nearer home.

The origin of the epidemic is still a matter *sub judice*, in regard to which I am not prepared to speak definitely. Of my thirty cases, twenty-two have been supplied with milk from the same dairy; but in thirteen instances there was sufficient reason in the unsanitary condition of the dwellings to account for the origin of the disease. The *primâ facie* evidence, however, against the milk, is not so strong as the above figures seem to indicate; for, since the suspected dairy supplies the greater proportion of the inhabitants of this district, it is obvious that a very large proportion of the cases would have derived their milk from this source, whatever the cause of the epidemic might have been. The evidence against the dairy was, however, too strong to be disregarded; and therefore, at my son's suggestion, Dr. J. E. Squire was engaged by the dairyman to examine and report upon the condition of the farms from which the supply of milk was drawn. Though no case of typhoid was discovered at or near these farms, the milk was discontinued from two, the sanitary condition of which was not quite so satisfactory as was expected.

The outbreak has not been marked by any very striking characteristics. It resembles that which occurred in the southern part of London in 1881, in being marked by constipation in place of the more usual symptom of diarrhœa. Hyperpyrexia has not been met with in any large proportion of the cases, two only having touched 105° Fahr.; so that I have not found it necessary to adopt any refrigerant measures beyond cold sponging twice or thrice a day, and an occasional full dose of quinine or salicylate of soda.

The diet has been strictly confined to beef-tea and boiled milk, with a liberal, though not unusual, amount of stimulants; and I am fortunate enough not to have had a single instance of pneumonia or any fatal case.

Most of the deaths which have come to my knowledge have been amongst those who, mistaking the nature of their ailment, have left their homes for change of air, and probably sacrificed their lives by this imprudence.—I am, sir, truly yours,

WILLIAM ADAMS, F.R.C.S.

Lower Lodge, Regent's Park Road, N.W.

ST. JOHN'S HOUSE AND SISTERHOOD.

SIR,—In reply to many inquiries, I beg you to permit me thus to announce to the professional friends of St. John's House the fact, which has already appeared in the usual advertisements, that there has been no cessation in the nursing work of this institution. Skilful medical and surgical nurses can be obtained on application to the lady-superior, personally or by letter. The hospital work at King's and at Charing Cross is continued as heretofore. I may add that the lady-superior can recommend two very good nurses ready to go abroad.—I am, sir, your obedient servant,

GEORGE WILLIAM BELL, Hon. Secretary.

MAGNESIA IN BEER.

SIR,—The amounts of magnesia in the Burton waters mentioned by Mr. Stopes are harmless, but he does not seem to be aware that some of the Burton well-waters are so surcharged with magnesia, that the brewers themselves have voluntarily discontinued their use. The local drinking supply is obtained from Lichfield, fifteen miles distant.

Magnesian waters, similar to Burton, exist in other parts of the kingdom; under the present system of calling magnesia by initials, etc., the brewer unknowingly adds a further quantity.

Even in slightly magnesian waters the practice is attended with risk when the brewer, who is neither a licensed pharmacist nor a doctor, does not know the material he is using. Frequently he has not got an analysis of the well-water, and there is always attendant the danger of carelessness on the part of the workmen, especially when more than one chemical is used, and at different stages of the brewing process.

These arguments afford sufficient grounds to call the attention of the brewers to the use by them, under trade names, of Epsom and other magnesian salts.—I am, sir, X.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE METROPOLITAN PROVIDENT DISPENSARIES ASSOCIATION.

THIS Association has just opened a dispensary for the Dalston and Haggerston district, at 318, Kingsland Road. This is the second dispensary which the Association has set on foot in this locality. The movement has met with a good deal of local support. At the commencement of the present year the Hackney Provident Dispensary, which had previously been in connection with the Charity Organisation Society, was handed over to the Association; and now a second dispensary has opened. Thus the Association is gaining a sure footing in a district where such an agency is much needed.

THE HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.

THIS hospital is one of those which are trying to develop themselves upon what we once called the more modern principles of hospital administration. If we may judge by the way in which the report alludes to the abuse of medical charity, we should say that the recent Conference on Hospital Management, held under the auspices of the Social Science Association, had not been without its influence upon the Committee. It would be satisfactory to see some of our larger hospitals discussing the subject in their reports in the same manner.

The hospital in the Regent's Park expects both in and out-patients to contribute to the funds, if they can reasonably do so. Last year the treasurer received from in-patients, £470, and from out-patients, £210. The number of in-patients admitted was 92; the number of out-patients, 394. The medical officers have published, along with the report, a classified list of the nervous diseases which came under treatment. This list includes no less than 104 classes, sections and sub-sections; a good proof of the way in which the diseases of the brain and spinal cord have of late years been differentiated. The hospital also makes special arrangements for the reception of a few private patients.

MILITARY AND NAVAL MEDICAL SERVICES.

VOLUNTEER SURGEONS.

SIR,—May I be permitted to ask you or, through you, any of your readers, to whom and how to apply for the commission of volunteer surgeon?

I understand from a captain in command, that when former individual companies became one consolidated battalion, the several company surgeons were transferred to the general staff of the regiment; and as vacancies occur they are not filled up. Does this mean that the services of the volunteer surgeon are being altogether dispensed with, or that his place is to be henceforth filled by the army surgeon?—I am, sir, yours faithfully, J.

COMBATANT AND MEDICAL OFFICERS.

SIR,—Allow me to correct a statement in "Surgeon-Major's" letter of September 15th. In India, where the greater part of our foreign service is now put in, the pay of the most junior and senior medical officers, is less than that of the corresponding relative rank. Senior surgeons, major and brigade surgeons in charge of large stations and hospitals, ranking with lieutenant-colonels, and with frequently, far greater responsibility, only draw the pay of the departmental rank; while every combatant officer of the same grade in command of a regiment (native or European) gets 300 rupees a month extra allowance for the special responsibility. Quite recently the Government of India have given to lieutenant-colonels of police 200 rupees a month personal allowance after a long agitation. There is not a single officer in India except the medical, who, when holding an independent charge, does not draw a command or charge allowance. During the late Afghan war, medical officers at the front in charge of station hospitals, drew from 250 rupees to 300 rupees a month in addition. The present anomaly is universally complained of by those medical officers whose duties (owing to diminished numbers) have been much increased, while their leave and time of home service have been considerably curtailed, our Indian Government at the same time saving largely. In the old days "head money" compensated for the larger charge. What officer in India will take a large hospital, with its many responsibilities, willingly, when he can draw exactly the same pay as a "doing duty wallah?'

Some of the best stations are being shunned on this account, and there is a very general desire on the part of senior, as well as of very junior, officers to get out of going to India until the pay of combatant and medical officers are equalised. The surgeon-general in Bengal writes circulars animadverting upon want of zeal. Would it not be better if this gentleman pointed out to the Indian Government how unjust is the present arrangement and what a penny wise pound foolish policy they are pursuing?—I am, etc.,

A. M. D.

MEDICO-LEGAL NOTES AND QUERIES.

TRAVELLING FEES OF WITNESSES AT INQUESTS.

SIR,—Would you inform me if a coroner has any power to allow a medical man any travelling allowance in addition to the medical fee of a guinea? I often have to drive six or seven miles out into the country to the inquest and sometimes the same distance to the body, a day or so before the inquest; so that for driving, say 24 miles, and giving my professional opinion, I only get the ordinary fee of a guinea. Coroners are allowed, as no doubt you know, ninepence per mile from their residence. Why should not medical men be allowed the same? I have spoken to the coroner, who thinks that medical men should be allowed mileage; but knows of no statute allowing it. If you can give me any information I should be obliged, as it would be a great boon to many men practising in a wild country.—I am, sir, yours faithfully,

A RURAL PRACTITIONER.

*** The sums payable to medical witnesses for attendance and giving evidence, etc., at the coroner's court, are fixed by a special Act of Parliament, called "The Medical Witness Act," 6 and 7 Will. IV, in which Act no provision is made for the payment of travelling expenses. Hence the coroner is only empowered to pay the medical witness one guinea for making a *post mortem* examination. This, undoubtedly, in some cases—more especially in country districts—presses hardly upon the medical witness, but the law, and not the coroner, must be held responsible in the matter.

OBITUARY.

CHARLES STEWART CLOUSTON, M.D.EDIN.

DR. CHARLES STEWART CLOUSTON of Gunnersbury, London, who died on September 16th, 1883, has been cut off in the very prime of his life, being only thirty-six years of age, a victim to professional duty, for he caught a bad attack of scarlet fever some years ago from a patient, to which his later illness can be traced. He was the son of the Rev. Charles Clouston, LL.D., for thirty years minister of the parish of Sandwick, Orkney, and now the venerable father of the Church of Scotland, and the oldest member of the College of Surgeons of Edinburgh.

Dr. Clouston inherited his father's scientific tastes, and studied medicine in Edinburgh University. He took a distinguished place there, and especially devoted himself to clinical work. He took his M.B., C.M., in 1868 with honours, and first went to Hay, where he built up a practice, as large as he could possibly overtake, and was universally esteemed as a man and as a physician. He did not rest contented with relying on former rules of practice, but made accurate observations for himself on many subjects. Especially in regard to the treatment of rheumatism by the salicylates, he made extensive original investigations, which he embodied in his graduation thesis for M.D. in 1881, and afterwards published in the *Practitioner*. They show a markedly scientific spirit and close clinical observation. He removed to Gunnersbury, London, a few years ago, and soon was engaged in extensive practice there.

He was a man of sound judgment and of high professional honour, as well as marked general ability and culture. He suffered from pneumonia in November last, and this was succeeded by a series of obscure hepatic, renal, and purpuric symptoms. He went up to the Orkneys in June, to see if his native air would not restore his health; but he steadily got worse, and died in the manse where he was born, calm, cheerful, and resigned to the will of Providence, as a man who had done his work well; only mourning for those he left behind.

He married Emma, eldest daughter of William Traill, M.D., of oodwick, Orkney, by whom he leaves five young children. On his father's side he came of a Norse stock; and through his two grandmothers he was connected with the Traills of Holland and the Stewart's of Brugh, two of the oldest Orkney families of Scotch importation.

THE Government of New Zealand have increased the salary of Dr. G. W. Grabham, the Inspector-General of Lunatic Asylums and Hospitals, to £1,200 *per annum*, with the usual travelling allowances.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

DR. ROGERS AND THE WESTMINSTER GUARDIANS.

THE *Standard* has the following comment on the proceedings of the Westminster Guardians in connection with the inquiry which we recently reported, and on which we commented.

"The Local Government Board, in an official communication to the guardians of the Westminster Union, say they have 'entertained very great doubt whether, consistently with their public duty,' they could 'properly allow' the present master of the Poland Street Workhouse to retain his post. It is likely that the public will go all the way with the Local Government Board, and even a little further. The Board, having instituted a long and searching inquiry into sundry charges brought against the master, have arrived at the conclusion that several of the accusations have been established. They told the guardians so much as this some little time back; but these authorities wished to know more precisely what were the charges considered to be proved. It is fortunate that these gentlemen were so far disposed to challenge the conclusions arrived at by the central power, for the answer they received puts the public in possession of some notable facts, which otherwise might have remained in obscurity. We now learn that the demonstrated delinquencies of the workhouse master include such peccadilloes as twice emptying a bucket of water over an inmate named Ellen Coleman, and kicking a woman named Ann Lane, as well as a boy named James Daley—the latter twice. He also contravened the Board's regulations by placing an old woman upon bread and water. There might be some economy in this, but it was more than counterbalanced by an awkward habit in which the master indulged, of charging rations for paupers absent on leave. Another irregularity consisted in 'a mistake as to a body sent for burial,' coupled with which we hear of 'undue delay in the registration of four births.' Then there was confusion as to the medical relief books, and a neglect to give notice when people were dead. To all this must be added a 'habit of swearing and using expressions of an objectionable character when irritated.' This model master of a workhouse is further proved to have been discourteous to the wife of a clergyman, and to have 'used very improper language to Emily Brown,' a poor woman who came to see her husband. For all this, he is master of the workhouse still; and, as he retains 'the confidence of the guardians,' the Local Government Board 'refrain from adopting the extreme course of requiring his resignation.' But, at the same time, this redoubtable official is warned that, if any further complaints are substantiated against him, he will be most certainly asked, with all due politeness, to relinquish his responsible office. There is, for the moment, nothing more to be done, except, perhaps, for the guardians to present him with a testimonial."

Our contemporary has, however, reckoned without taking into consideration the singular fertility of resource of a board of guardians which has entered upon a thoroughly wrong course, and is determined to justify itself in its evil doings. Irritated by the exposure of their master, they have resolved to avenge themselves on the medical officer to whose complaints as to the master's conduct the initiative as regards the inquiry is due—the same having been instituted by a remonstrance addressed to the Local Government Board by Messrs. Fraser, Bonsor, and Pridett, members of the Board. They have now called upon Dr. Rogers to resign. This inversion of justice would be comic if it were not in so serious a matter. Dr. Rogers having naturally declined to comply with the request, they have appointed a committee to endeavour to enforce it. Can any more monstrous proceeding be conceived? The course taken by the guardians in their further proceedings, and by the Local Government Board, will be watched with interest by the profession, the public, and the press.

CHOLERA PRECAUTIONS.

THE various reports which have been prepared in response to the suggestion made by Dr. Buchanan, the medical officer of the Local Government Board, in his excellent memorandum on the precautions against the infection of cholera, show that, so far as health-officers are concerned, no effort has been spared to secure the removal of conditions likely to favour the disease. Prominent among the reports which we have received, is one from Dr. Collingridge to the Port of London Sanitary Committee. It details the precautions

taken for the prevention of the introduction of cholera from ship-board, the arrangements made for the mooring of infected vessels, and the measures to be adopted for the isolation and treatment of cases of the disease, should any unfortunately occur. Mr. Armstrong, the health-officer of Newcastle-on-Tyne, has prepared an excellent report on the precautions taken in the borough and in the port district. In the town itself, especial care has been directed to an examination of the food-supplies, and circulars have been addressed to house-owners and agents, requesting them to cleanse and limewash their tenemented property without delay, instead of waiting, as on ordinary occasions, until September. The sanitary inspectors have been instructed to see that domestic water-cisterns are kept clean, and that there is no direct communication between such receptacles and drains, or other defect of construction allowing contamination of water intended to be used for drinking or cooking. In addition, a house-to-house visitation of a very searching and minute character is in course of progress. Similar reports have been issued by numerous health-officers, those prepared by Mr. Davies (Bristol), Dr. J. M. Fox (Altrincham), and Mr. North (York) being especially worthy of notice. At Leeds, the prevalence of diarrhœa has induced Dr. Goldie to make special reference in a recent report to the measures to be taken by the inhabitants towards rendering themselves and their homes secure against an invasion of cholera.

THE POOR-LAW MEDICAL SERVICE.

SIR,—I have read with much interest, in the JOURNAL of August 11th, the excellent letter on the above subject by Surgeon-Major Evatt, Army Medical Department, and I have been hoping that his letter would have been followed by others from abler pens than mine. There seems to be, however, some unaccountable apathy among Poor-law medical officers—on this side of the Channel, any way—with regard to taking any steps to obtain redress for the burning grievances under which they labour; so, as no response to Surgeon-Major Evatt's letter has appeared, beyond a short letter from "M.B." in the JOURNAL of September 15th, appealing to Poor-law medical officers to enlist the aid of the Association on their behalf, I have determined to keep silence no longer. And first I must express my entire concurrence with the opinion of Surgeon-Major Evatt as regards the possible future of the Poor-law Medical Service. If the improvements he suggests were carried out in anything approaching their entirety, the Poor-law service would afford enormous scope for the advancement of sanitary science, and, indeed, of medicine in general.

I do not think the position of Poor-law medical officer is thoroughly understood by the profession in general; or, if it is, I cannot conceive how things have been left so long unchanged. Take the case of an ordinary Irish dispensary doctor. His salary generally averages £100 *per annum*, with £10 or £20 *per annum* as medical officer of health. Added to this, he gets two shillings for every child he successfully vaccinates, and is also in many districts registrar of births, marriages, and deaths, being paid one shilling for each registration of births and deaths, and sixpence for each registration of marriages. I believe I am quite safe in saying that his fixed income does not, in ordinary rural districts, average more than £150 or £160 *per annum*. The average radius of a rural dispensary district is five or six Irish miles, so that there are few districts which can be worked without at least one horse. Keeping a horse of course necessitates keeping a servant; and, by the time both are paid for, there is not much left for the doctor to live and keep up the appearance of a gentleman on. Added to his attendance on patients at their own houses, he has also to attend twice a week, for two or three hours on each occasion, at his dispensary, for the purpose of seeing patients and dispensing medicines, it being quite the exception for a district to have a dispenser.

In some districts, a midwife is paid, who relieves the medical officer of some of his work, but also relieves him of some of his private practice, inasmuch as where the services of a midwife are obtainable at a comparatively trivial cost, those of the medical officer are unsought by many pay-patients, unless in very critical cases.

Of course, it may be said that the Poor-law medical officer has his chance of private practice; but it must be remembered that dispensary patients have a prior claim on his services, and that their claims are often so pressing and numerous as literally to destroy his time for other practice. I have known a dispensary doctor occupied by dispensary patients for thirty-six hours at a stretch. Even at the end of long and weary service, or when his health is broken down by hard work and exposure, what has the medical officer to expect? A munificent pension of two-thirds of his miserable pittance of £120 a year, and even this is not certain, because it is dependent on the goodwill towards him of the board of guardians in whose union his district lies. These boards of guardians consist of *ex officio* and elected members—the former being magistrates, and for the most part gentlemen; the latter chiefly farmers, half-educated, elected by the votes of the more ignorant ratepayers chiefly, and many of them men who are only too glad to have an opportunity of showing their petty power by tyrannising over the unfortunate medical officer who may in any way have incurred their ill-will. Added to all this, tickets for medical relief are only too frequently issued by these guardians to people who are perfectly able to pay at least something for medical attendance; and to obtain redress the medical officer has first to get the ticket cancelled by the committee of management of his dispensary, which is composed of the Poor-law guardians resident in the district—this cancelling being often a matter of no small difficulty—and then to prosecute either the issuer or receiver of the ticket to recover his fee—in the latter case making an enemy of one who has plenty of opportunity for making things unpleasant for him.

All Dr. Evatt's suggestions deserve commendation, and are equally applicable, so far as I know, to Ireland and England. It is to the Association, and it alone, we must look for help; and the sooner we take action the better. We see all round us grievances in and out of the profession obtaining redress, and we have daily evidence of the power of united effort properly directed. Why cannot we apply the lesson, and make vigorous efforts to release ourselves from grievances, such as are not equalled, I venture to say, in any other branch of the public service. Medical legislation has been postponed to another session of Parliament; and if we only work vigorously and unitedly during the recess, we can have much done before Parliament meets, when it will be for us to bring our wishes under the notice of a member able and willing to give them expression in the House. The power of the Association is great; and as it directs its attention to every form of medical grievance, we may reasonably hope it will not overlook ours.

I appeal most earnestly to my professional brethren in all branches of the public service not to let such a state of things as I have described any longer exist. Let us all work together, and prove that we are worthy of attention and relief; and let no man shirk his share of the work by saying it is not his business, and that others will do the work without him. It is the business of every medical man loyally to stand by his brother, and unless that is done we can never hope to better our condition.

My letter is long, but the vital importance of the subject to a large and deserving body must be my only excuse.—I am, etc.,

AN IRISH DISPENSARY DOCTOR.

SUBSTITUTES AT DISPENSARIES.

SIR,—Kindly let me know by the next issue of the BRITISH MEDICAL JOURNAL what I am to do in the following case. I got suddenly ill on July 12th, and totally unfit to perform my duties as dispensary medical officer. I reported this to the Honorary Secretary of the Dispensary Committee, who called a meeting on the 13th instant, and the members present unanimously granted me four weeks' sick-leave, and appointed Dr. Downing of Fermoy to act as my substitute at three guineas per week. The Fermoy Guardians, on July 14th, approved of Dr. Downing, but by one majority refused to pay him, saying I should do so myself, even though at that very meeting they approved of the payment of a substitute for another medical officer of the union who left home for amusement.

By giving instruction in my case, and letting me know can Dr. Downing recover his payment by process, you will much oblige your obedient servant,

JAMES AHERN, L.K.Q.C.P.I., M.B., M.A.

Rathcormac, co. Cork, Ireland, September 15th.

*** Boards of guardians do very incredible things, or it would be hard to credit the statement of our correspondent; still, as he gives chapter and verse, we will express the opinion that he can recover, or rather that his substitute can obtain, the £12 12s. by summary process in a county court, or whatever may be its equivalent in the Sister Isle. We advise an immediate summons, and before a jury, the substitute or principal, as the case may be, taking care to apply for all necessary subpœnas, for witnesses, documents, minutes of procedure before the Dispensary Committee and at the Board of Guardians. If this be done with judgment, it is certain that the Fermoy Board of Guardians will have cause to regret that they have acted so unfairly. That regret will be intensified if our correspondent, as one of the ratepayers, attends before the auditors, and objects to the legal expenditure which these gentlemen will have incurred as a wrongful application of the poor-rates. A jury is more costly, but the expense will inevitably fall on the defendants.

SIR,—Will any of your readers kindly inform me of any system for the ventilation of sewers now in use in their respective districts, and oblige, yours faithfully,

JOHN BLUETT, M.O.H. Borough of Chesterfield.

Durrant House, Chesterfield, September 24th, 1883.

THE Amersham Guardians and Rural Sanitary Authority reappointed Mr. Brickwell as medical officer of health in July last, at £50 *per annum*, being half his former salary, which he immediately declined. They then, after advertising, appointed Mr. Hosegood at the reduced salary, and applied to the Local Government Board, in the usual manner, to confirm the appointment; but the latter, before doing so, asked the reasons for this large reduction, and intimated that they did not view proposals of this nature with favour, as the natural tendency of the reduction of salaries was to discourage officers in the discharge of their duties. The guardians have had the matter under consideration at two meetings, and, at the last, decided to reply, "That they consider the amount of salary which had been paid to the sanitary medical officer was excessive, in proportion to the duties in connection with the appointment."

THE Derby Guardians have increased the salary of Mr. William Legge, medical officer for the north district, from £120 to £135 *per annum*.

HEALTH OF FOREIGN CITIES. — It appears, from statistics published in the Registrar-General's return for the week ending the 22nd inst., that the death-rate was recently equal to 21.9 in Calcutta, and 43.6 in Madras; 11 deaths from cholera were reported in Calcutta, and 50 from small-pox in Madras, where also "fever" fatality showed a marked excess. According to the most recent weekly returns, the average annual death-rate in twenty-two large European cities was equal to 24.5 per 1,000 of their aggregate population; this rate was 4.9 above the mean rate last week in twenty-eight of the largest English towns. The rate in St. Petersburg was equal to 23.1; the 412 deaths included 101 from diarrhœal diseases and 10 from scarlet fever. In three other northern cities—Copenha-

gen, Stockholm, and Christiania—the mean death-rate was equal to 19.1, the highest rate being 21.7 in Copenhagen; 4 deaths were referred to diphtheria and croup in Stockholm. In Paris, the death-rate was 21.5, and the deaths included 154 from diarrhœal diseases, and 40 from typhoid fever The 161 deaths in Brussels were equal to a rate of 20.3, and included 5 from small-pox. In Geneva, 24 deaths were returned, the rate being 17.9. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 23.0, the highest rate being 26.0 in Amsterdam, where no fewer than 26 deaths were referred to diphtheria and croup. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 27.9; it ranged from 22.3 in Vienna and 24.5 in Hamburg, to 29.9 and 35.0 in Trieste and Prague. Diarrhœal diseases caused 149 deaths in Berlin and 44 in Buda-Pesth; 27 fatal cases of small-pox were recorded in Prague, and 11 from diphtheria in Dresden. The rate was equal to 22.6 in Venice, and to 23.1 in Turin, where a death from small-pox was returned. The 122 deaths in Lisbon included 3 fatal cases of scarlet fever, and were equal to a rate of 31.0. The death-rate in four of the principal American cities averaged 25.1. Diarrhœal diseases continued to show exceptional fatality in New York and Brooklyn. The death-rate did not exceed 18.4 in Baltimore, whereas it was equal to 24.1 in Brooklyn and 29.7 in New York. Diphtheria continues fatally prevalent in Philadelphia, and caused 21 deaths; and 9 deaths were referred to scarlet fever in Baltimore.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ASTON MANOR.—Mr. May appears to have bestowed much care and labour upon his report, which, like its predecessors, ranks high for completeness and interest. No point seems to be omitted, and the information given under each section is of a very full and detailed kind. Mr. May strongly advocates the compulsory notification of infectious diseases, which he thinks should come from the medical attendant. The sanitary authority of Aston Manor have so far recognised this principle as to resolve to pay a fee of half-a-crown to the medical man for every case of small-pox reported by him. The total number of cases of infectious diseases reported during the year was 638, a vast increase on the numbers reported during the two previous years, which were 261 and 147 respectively. This increase was caused partly by infectious disorders having been more numerous, and partly through information having been more diligently sought for and more willingly afforded. Small-pox appeared in the district on six separate occasions, and attacked nine persons, one death happening in the person of an adult whose original vaccination in infancy had been imperfectly performed. Measles assumed a severely epidemic form, 375 cases (17 of them fatal) occurring in 175 houses. Mr. May thinks that the epidemic might have made slower progress if the public schools had been closed, but believes that it was too strong in its march, and that there were too many other sources of inter-communication for this step to have stayed its course. Typhoid fever was generally prevalent during the last half of the year, and seemed to have commenced with the outbreak of summer diarrhœa. Cases of this last disease seemed to linger in the district longer than usual after the hot months were past, and many of them assumed typhoid symptoms; while on the other hand many of the typhoid cases seemed modified cases of diarrhœa. Fifty cases of the fever were reported, 13 of which proved fatal. The prevalence of other zymotics calls for little comment, but, in referring to the prevalence of autumn diarrhœa, Mr. May expresses a strong opinion that the disease is of a miasmatic character, depending on germs either of a typhoid or choleraic character, which heat fosters into activity, but which unsanitary surroundings also help to encourage. From the seven principal zymotics there were 143 deaths registered, representing a death-rate of 2.5 per 1,000, while from all causes the rate was as low as 15.4. The sanitary condition of the district seems now to be generally good, and Mr. May is to be congratulated on the amount of sanitary progress he has been instrumental in carrying on during the last ten years. At the date of the report the authority were arranging with a neighbouring district for the erection of a joint hospital; and an important addition to the sanitary appliances of the district has been made by the provision of a Ransome's disinfecting apparatus, in the place of an old and inefficient stove.

AUCKLAND RURAL.—This district is divided into three divisions, and is supervised by as many health-officers, whose reports are usually printed together. In the first division, there were some thirty cases of typhoid fever, with five deaths, and in almost every instance the disease was found in association with unsanitary surroundings. At one place, a polluted water-supply was undoubtedly at fault, but Dr. Mackay does not state whether any measures were taken towards preventing the pollution of certain wells, which were obviously in danger of sewage-contamination. This division was also the *locale* of a mild epidemic of scarlet fever; but, of some hundreds of children who were attacked, only five succumbed to the disease. In his report on the second division, Mr. Kilburn gives a short account of the sanitary work of the year, and an analysis of the mortality-statistics. The infantile death-rate was enormously high, since of the total deaths, 324, no fewer than 175 occurred in children under five years; and of these, 116 had not completed twelve months of age. A large percentage of these, however, died from diseases over which a sanitary authority has little control, such as bronchitis and pneumonia; a mortality which Mr. Kilburn holds to be due, in a great measure, to improper feeding and bad nursing. Having regard to the densely populated character of the district, and to the nature of the occupation of many of the inhabitants, the death-rate, which represented 19.1 per 1,000, is not unsatisfactory; but a lower rate must be looked for on the completion of the sanitary works the authority have still before them. For the third division, Dr. Hutchinson reports a death-rate of 21.3 per 1,000, which he thinks is favourable in comparison with many other places. A desirable addition to these reports would be the statistical tables issued by the Central Board.

BARNSLEY RURAL.—Commenting on the value of early notification of infectious disease, Dr. Sadler speaks of the service rendered by the sanitary inspector, in his capacity of school-attendance officer, in giving prompt notice of cases of illness affecting children of school-going age. It is the duty of this officer, on hearing of a child being kept from school, to inquire into the cause; and, if he find it to be from infectious disease, to see that no other child from that house goes to school, to inquire if there are any similar cases in the neighbourhood, and to report any unsanitary defects he may discover. During the year, Dr. Sadler had many outbreaks of scarlatina to contend with, and the prevalence of measles also caused some trouble. A number of cases of typhoid fever were discovered in connection with drainage-defects, which, after some pressure and a threat of legal proceedings, were remedied. As many as thirty-six deaths were registered from diarrhœa and dysentery, the largest mortality occurring, as usual, in the autumn. A case of small-pox was imported into the district on board a canal-boat from Hull, which was fortunately heard of by the sanitary inspector. The prompt measures of isolation and disinfection taken prevented any spread of the infection. Dr. Sadler gives an account of his sanitary work in the district; and he notes that some improvement has been made, notably in sewerage and drainage. The water-supply, however, seems in need of attention; and complaint is made of the serious nuisane arising from vast volumes of smoke which are given off from the coke-ovens and colliery-furnaces in almost every part of the district. Excluding those registered in the workhouse, the total deaths due to the district were 391, representing a death-rate of 18.97 per 1,000.

CARMARTHEN URBAN.—In his tenth report, Mr. Hughes congratulates his authority upon the improved sanitary condition of their district; and he shows that, while the mean death-rate for the ten years 1872-81 was 21.93 per 1,000, that of 1882 was as low as 17.69. The death-rate for a single year is by no means a satisfactory criterion of the value of sanitary work; but in the present instance there is little doubt that the energetic supervision exercised by Mr. Hughes has borne good fruit. Scarlatina was generally prevalent in the town district; and, out of eighteen cases, three proved fatal. In two instances, where the children of a dressmaker and of a beerhouse-keeper were attacked by the disease, the health-officer had no difficulty in persuading both these persons to discontinue their employments for some weeks, so as not to propagate the infection. In each of these cases, the sacrifice and self-denial on the part of the poor people was as praiseworthy as it was remarkable. There were several cases of typhoid fever associated with overcrowding, and the illness of eight persons from diphtheria was caused by sanitary defects. Although still too high, the death-rate from scrofula seems to be decreasing; but the infantile mortality remains somewhat excessive. Notwithstanding the prevalence of scarlatina, Mr. Hughes states that the disinfecting-oven was not used, nor did he find it necessary to occupy any of the rooms allotted to him as an infectious hospital.

HANDSWORTH (NEAR BIRMINGHAM).—Dr. Welch congratulates his authorities upon the high standard of public health that has been attained and maintained in this district, the death-rate for the last three years having been under 13.0 per 1,000. This low rate of mor-

tality, Dr. Welch adds, would be highly satisfactory in any district, and it is especially so in this, in which there is a large artisan and working population. To the seven principal zymotic disorders, thirty-four deaths were referred; whooping-cough, which was more fatal in any year—except 1878—during the last twelve years, causing eleven. Two cases of small-pox were imported into the district, but in both immediate notification was received from medical men; and the prompt steps which were taken for the removal of the patients to an infectious hospital, and the revaccination of the adult inmates of the houses, stamped the disease out. An instance is given in the report of the value of school-closure in preventing the spread of infectious disease. In commenting on an outbreak of diphtheria among school-children, Dr. Welch observes that an examination of the school-premises failed to account for the prevalence. Subsequent inquiry, however, showed that a child suffering from what was regarded as simple sore-throat had attended the school, and had directly infected the other children. The school was closed for a short time, and, as all the cases occurred in houses in which isolation could be sufficiently carried out, the disease quickly subsided. In reviewing the sanitary history of the year, Dr. Welch notes that a great improvement has of late been made in the condition of small house-properties. Some extension was also made in the main drainage to which 288 houses were connected during the year, making a total of 2,020.

HOVE.—The death-rate of a health-resort is a matter of high importance, not only to those interested in the welfare of the place, but also to intending visitors; and it is satisfactory to learn that during 1882 the death-rate in Hove from all causes was as low as 13.6 per 1,000 of population. Whooping-cough was prevalent during the first six months of the year, and accounted for more than half the total deaths from zymotic causes (58); diarrhœa being fatal to nine children, and measles to four. The rate of infantile mortality was somewhat high, on account of fatality from whooping-cough; but 27 per cent. of the total deaths occurred in persons aged sixty years and upwards. Dr. Kebbell congratulates his authority upon the satisfactory condition of their district, which, he thinks, is emphasised by the fact that two deaths only were recorded from typhoid fever.

MONMOUTH RURAL.—In his account of the prevalence of zymotic disorders in this district during 1882, Dr. Willis gives an instance of neglect of a kind which, unfortunately, is a common experience of health-officers. Dr. Willis found a delicate child suffering from whooping-cough in an exceedingly dirty state, kept in a small greengrocer's shop, in the midst of decaying fruit and vegetables. The door was wide open all day, allowing a full draught of November air to blow over the sick child, who suffered with a complication of the disease with bronchitis. Thus it could not be a matter of surprise that the case terminated fatally. While such painful cases of neglect and ignorance are of every-day occurrence, so long will the task of preventing the extension of disease be one of insuperable difficulty. There was a considerable prevalence of measles during the year; and cases of scarlatina cropped up at different times, but nothing of interest is noted in regard to their causation. The total deaths numbered 340, representing a death-rate of 15.50 per 1,000. Dr. Willis appears to have kept his district under supervision, and he notes that a considerable number of nuisances have either been removed or abated.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 20th, 1883.

Bateman, Frederick Augustus Newton, Pall Mall, S.W.
Habgood, William, Wimborne, Dorset.
James, Prytherch James, Eastlake Road, Loughborough.
Little, Andrew-Johnston, Belfast.
Lockwood, Harry, Gudcliffe Vale Road, Sheffield.
Marsden, James Aspinall, Paulet Road, Camberwell.
Smith, Joseph Spilsbury, Free Town, Sierra Leone.

MEDICAL VACANCIES.

The following vacancies are announced:

CHELTENHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum. Applications to the Honorary Secretary by 24th October.

CITY PROVIDENT DISPENSARY AND SURGICAL APPLIANCE ASSOCIATION, 164, Aldersgate Street, E.C.—Surgeon. Applications to the Secretary.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by October 1st.

DURHAM COUNTY ASYLUM, Sedgefield, near Ferry Hill.—Junior Assistant Medical Officer. Salary, £100 to £150 per annum. Applications to Dr. Smith, Superintendent.

GRANTHAM FRIENDLY AND TRADE SOCIETIES MEDICAL INSTITUTE.—Resident Medical Officer. Salary, £150 per annum. Applications to John Hancock, 16, North Parade, Grantham, by October 1st.

HARTLEPOOLS FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to T. Twiddell, Commercial Terrace, West Hartlepool.

JOINT COUNTIES ASYLUM, Abergavenny.—Senior Assistant Medical Officer. Salary, £150 per annum. Applications to Medical Superintendent by October 1st.

KENT COUNTY OPHTHALMIC HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by October 1st.

KIDDERMINSTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Applications to Dr. T. W. Measures, 4, Lion Street, Kidderminster.

KING'S COLLEGE HOSPITAL.—Pathological Registrar. Applications to J. W. Cunningham, Esq., Secretary.

KING'S COLLEGE, London.—Curatorship of Anatomical Museum. Applications to J. W. Cunningham, Esq.

LISTOWEL UNION.—Medical Officer. Salary, £75 per annum. Applications to J. McCarthy, Esq., Clerk of the Union, by October 4th.

LOCAL BOARD FOR THE DISTRICT OF CARSHALTON, Surrey.—Salary, £40 per annum. Applications to William A. Smith, Cumberland Villa, Carshalton Hill, Sutton, Surrey, by October 1st.

NEWPORT (MON.) ODD FELLOWS' MEDICAL AID ASSOCIATION.—Assistant Medical Officer. Applications to J. Powell, Secretary, 19, Dock Street, Newport, Monmouthshire, by October 1st.

OUGHTERARD UNION.—Medical Officer, £122 per annum, and Vaccination Fees. Applications to the Honorary Secretary, P. McDonough, Esq., Lettermore, Ballydangan, *vid* Spiddal, Co. Galway, by October 2nd.

OUNDLE UNION.—Medical Officer. Salary, £40 per annum, and Fees. Applications to Robert Richardson, Esq., Clerk to the Union, by October 3rd.

PAROCHIAL BOARD OF KILLEAN AND KILCHENZIE.—Medical Officer. Salary, £150 per annum. Applications to the Chairman of the Board, Glencreggan, Kintyre, Argyllshire.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Assistant-Physician. Applications by October 6th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Surgeon. Applications by October 6th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Pathologist. Applications by October 6th.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—House-Surgeon. Applications to the Secretary, King William Street, Charing Cross.

QUEEN'S COLLEGE, Belfast.—Professor of Anatomy and Physiology. Candidates to forward testimonials to the Under-Secretary, Dublin Castle, not later than the 20th October.

ST. GEORGE'S, HANOVER SQUARE, PROVIDENT DISPENSARY, 59, Mount Street, W.—Resident Medical Officer. Applications by September 29th.

MEDICAL APPOINTMENTS.

ADKINS, George, L.R.C.P.Lond., M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer of Health to the Plympton St. Mary Union Rural Sanitary Authority.

GORDON, A. H., M.R.C.S.E., L.R.C.P.Ed., appointed Junior House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* M. M. Fitzpatrick, M.B., C.M., resigned.

HAMILTON, G. S., L.R.C.P., appointed Resident Medical Officer to the Infirmary for Children, Liverpool, *vice* E. Davidson, M.B., resigned.

HEATH, James, M.B., C.M.Edin., appointed Junior House-Surgeon to the Torbay Hospital, Torquay.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

SHARP.—On the 20th instant, at Kenmare House, Walsall, the wife of Gwinnett Sharp, Surgeon, of a son.

MARRIAGE.

CARTER-NORTH.—On the 26th instant, at St. Martin's Church, Potter Newton, by the Rev. R. R. Kirby, vicar of Chapel Allerton, assisted by the Rev. R. K. Snowdon, vicar of Clifford, Francis Richard Carter, M.R.C.S., eldest son of Joseph Barton Carter, M.R.C.S., Elm House, Chapel Allerton, to Mary Temperley, youngest daughter of the late William North, Esq., of North Grove, Potter Newton.

DEATH.

BALDING.—On the 25th instant, at his residence, Barkway, Herts, James Balding, M.R.C.S. and L.S.A.Lond., aged 86.

THE LIBRARY OF THE PARKES MUSEUM.—Mr. Edwin Chadwick, C.B., has recently presented to the library of the Parkes Museum a large number of books, pamphlets, and reports, dealing with his favourite subjects; many of the volumes are of exceptional value, being in many instances rare and difficult to obtain, and in almost every case enriched by the autograph of the author. Miss Florence Nightingale also has recently presented her two works (on *Hospitals* and on *Lying-in Institutions*) to the library; and, in doing so, has taken the opportunity of expressing her warm interest in the Museum.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S , 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S , 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Dr. Mansell-Moullin, Dr. W. A. Duncan, and others. Dr. Swayne: Gangrene of the Thigh during the Seventh Month of Pregnancy. Dr. Henry Bennet: On the Anatomy, Physiology, and Pathology, of the Os Uteri Internum. Dr. E. S. Tait: Observations on Puerperal Temperatures.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annua and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CONTAGIOUS AND EPIDEMIC PNEUMONIA.

SIR,—Your correspondent, "M.B.," takes exception to the expression, "pneumonia without lung-inflammation," as paradoxical. I would remind "M.B." that many observers look upon acute pneumonia as a specific fever, of which an inflamed state of the lung is the peculiar characteristic. It does not, however, follow that this characteristic is invariably to be met with. Small-pox is a fever characterised by pustular rash; scarlet fever is another, characterised by scarlet rash (but "M.B." has, doubtless, seen "*variola sine variolis*," and scarlet fever where there has been no rash. To speak of small-pox without spots, or scarlet fever without scarlet rash, is quite as paradoxical in terms as i l is to speak of pneumonia without inflammation of the lung.

"M.B." thinks that the case in which I ventured this diagnosis must have been one where, although lung-inflammation existed, it could not be found. If "M.B." will favour me by referring again to the case in question (BRITISH MEDICAL JOURNAL, August 11th), I think he will see that the phenomena were quite unlike what is seen in the course of inflammation of the lung. Whether they were accounted for by the same septic influences which induced well-marked pneumonia, with lung-consolidation, in the patient's brothers and sisters, is the point at issue. I thought it probable, but by no means certain. If it were certain, then, undoubtedly, all the children suffered from pneumonia, but this one had it without inflammation of the lung.

In answer to "M.B.'s" question, I may say that no special treatment was adopted, in this case, which could have cut short, or prevented, an attack of lung-inflammation.—I am, sir, yours obediently, THOS. F. RAVEN.

Barfield House, Broadstairs, September 23rd, 1883.

DR. WYNN WILLIAMS ON DISPLACEMENTS OF THE UTERUS.

DR. WILLIAMS writes to inform us that the different pessaries mentioned in his paper published in the JOURNAL, September 22nd, may be purchased at Mr. Russell's, 57, George Street, Portman Square. In that paper, page 575, first column, line seven from top, for "labia" read "left labium;" and in the same column, line thirty-five from top, for "fine ends" read "free ends." In the last paragraph in the paper, for "withdraw the shield with the point downwards" read "withdraw the sound," etc.; and for "dilated and strengthened" read "dilated and straightened."

AN ORTHODOX MEMBER.—We would suggest that our correspondent should communicate any information which he possesses to the secretary of the hospital. There is not, we are assured, any leaning of the kind suggested; and the publication of the letter would convey, we believe, an unkind and unfounded imputation.

CALIX AND CALYX.

A PASSAGE in Hyrtl's *Onomatologia Anatomica* will prove of interest now that so much is being written about the kidney, both in surgical as well as in medical works. "Calyx, -ycis" is a purely botanical word from κάλυξ, -υκος, a bud, it is occasionally used by the ancients to express the shell or covering of certain fruits and animals, but never intended to imply a cup. Calix, -icis, in Greek κύλιξ, -ικος, signifies simply a cup or goblet, such as the *calix venenatus*, whence Socrates drank the poison-draught. Hence Winslow, as much at home in botany as in anatomy, wrote "calices of the kidney," since they are cup-like, not bud-like.

X. Y. Z.—We are not aware of any objection to it.

SEA-VOYAGES.

SIR,—"An Anxious Inquirer" will find the climate of the Cape preferable to that of St. Helena. A sojourn in the neighbourhood of Wynberg, a few miles from Cape Town, would be very enjoyable, even in summer. The hottest part of the year occurs in December; but the heat is moderated by the winds, which render the climate bracing. In winter, the winds round the Cape are tremendous. No better time could be chosen than the present for making the voyage; beyond the chance of an equinoctial gale in the Bay of Biscay, the voyage is very plain sailing, and going round the Cape is a pleasure trip at this season. Having lived about five years at the Cape, I can speak highly of its climate, but I do not recommend the frontier for the invalid, who would encounter many difficulties. St. Helena is a miserable place, not to be compared with the Cape.—I am, etc., SENEX.

SIR,—This summer I spent some time in South Africa, calling at St. Helena on my outward and homeward voyage. It was the cool season when I was at St. Helena, and even at that time the heat was most oppressive. What it will be during their summer, I can't imagine. If one were to go there as a stranger, he would find it very dull, and, I fear, find difficulty in passing the time pleasantly. The greatest drawback to the place is, undoubtedly, the hotel-accommodation, which is very poor.

At the Cape, on the other hand, the climate will be most agreeable, and everything will be at its finest, trees, heaths, etc., all in full bloom. For a stranger, it would be best to go to some of the suburbs—Wyneberg, twelve miles in the country, or some other of the numerous lovely spots within easy reach of Cape Town. The hotels are first-class, and living is comparatively cheap, from 9s. 6d. to 12s. 6d. *per diem*. As a rule, one meets pleasant people, and has ample opportunity of enjoyment.

The steamers to the Cape are of the best class, and are well found in every respect. Should one feel disposed, the voyage from Cape Town to Durban, Natal, is a pleasant way of spending a short time. The only drawback to this, if one be a bad sailor, is the small size of the coasting steamers, and the rough weather often experienced.—I am, yours faithfully,

W. MORRISON, M.A., M.B.

CANNABIS INDICA.

SIR,—Being in doubt as to the efficacy of this drug, I took the tincture, in doses commencing at five minims and increasing to two drachms, every four hours, without any effect. I then concluded that the drug was inert; but, to make sure, I took the extract in one-grain doses. The second dose was taken two hours after the first; and in about two hours I experienced an irresistible tendency to laugh, with great excitement. I conclude I am peculiarly susceptible to this drug, as I am to morphia, as in most people (including a medical friend who also experimented on himself) a much larger quantity was required to produce toxic effects.—I am, etc.,

W. PEEL NESBITT, M.B., M.R.C.P.E.

North Adelaide, South Australia.

Determination of Sex.

Sir,—We are not in possession of all the data necessary for the solution of any particular case of this problem; but the teachings of experiment and reasoning indicate that sex is determined mainly by the age which the ovum has already attained at the time when it meets with the "fertilising" spermatozoon. In the simplest form of animal life with which we are acquainted, and in which there appears no specialisation of parts or of function (e.g. *Protamœba*), the race increases in numbers by the simple subdivision of the individual; in short, "generation" and "individuation" are synonymous terms. A little higher in the scale of evolution, we find two individuals—two lumps of protoplasm apparently exactly alike in every respect—cohere and merge into one before subdividing into a brood of others, the earliest indication of sexual distinction and usage.

As the next step (in the *Spongidæ*, *e.g.*), under certain conditions of season and temperature, certain cells develop sperm-elements, and others ova; these are set free, and the union of an ovum with a spermatozöoid results in the formation of an embryo sponge. But, at another time of the year, the same (parent) sponge will propagate its species by the process of simple gemmation, or subdivision, of certain of its cellular elements; and it is noticeable that, throughout all instances of generation, the formation of a new individual is due to the subdivision of a parent (as a whole, *e.g.*, *Amœba*), or of a part of a parent (*i.e.*, of an ovum). In any case, it would be to the advantage of the resulting offspring that this subdivision should be preceded by the union of one parent, or of a part of this parent (ovum), with another individual, or with a part of another individual (sperm-element). That such previous union of the sexes is not absolutely necessary to generation, even in the highest invertebrata, is evidenced by the not rare occurrence of parthenogenesis (*e.g.*, aphides and bees). Amongst the vertebrates, there has been recorded no undoubted instance of parthenogenesis, yet we can scarcely believe but that this tendency—an imperfect potentiality—exists in every unfecundated ovum, only it is not carried far enough; and, in the higher animals, it is only under the further stimulus afforded by union with the sperm-cell that the ovum is enabled to fulfil its mission of development, which it begins, after the fashion which contented its earliest progenitors, by a process of subdivision, now known as the "cleavage of the yolk." Hence, should it ever be found that a virgin female—say amongst higher mammals even—had produced young without the possibility of any previous sexual intercourse, this would not prove any break of continuity in the laws of nature and of evolution.

But if it be of advantage to the offspring that generation should be preceded by an union of individuals, or of male and female elements, even though, at the same time, the female element retains its own unaided power of propagating its kind by subdivision of itself, it follows that it would be advantageous that the female element should possess the tendency to produce, if left to itself, individuals possessed of, or capable of, developing sperm-elements; by selection and inheritance, this tendency would become fixed and increased in power; in other words, the tendency of the ovum is to develop into a male of its species. This tendency, or rather, this power, is exemplified in the instances of parthenogenesis already alluded to—*e.g.*, the ova of the unimpregnated queen bee, and the occasionally developed ova of the so-called "neuters" (abortive females) develop into males (drones). On the other hand, the influence of the sperm-element would, with most advantage, tend to such a modification of the development of the ovum as should result in the production of female offspring. Thus, the influence of the two sexual elements, as regards the determination of sex, is antagonistic; and the result will be due to the preponderance of one over the other. It is reasonable to suppose that the older the ovum is at the time of impregnation, *i.e.*, the longer the time it has had to develop its own inherent potentiality of developing into a male, the less likely would it be to be dominated by the (sexually) antagonistic influence of the sperm-cell. In such a case, the power of the latter would be chiefly exerted in giving to the ovum that impetus which it needs (in the higher animals) in order to continue its development into an individual. Conversely, if the ovum be at an earlier age, the influence of the spermatic element might preponderate, and, as a consequence, the fertilised ovum would develop into a female. Briefly expressed, the tendency is for the mother to produce males; the tendency is for the father to beget females; and the sex of the offspring is determined mainly by the age of the ovum at the date of its impregnation. This is borne out by the experience of cattle-breeders, who have found, *e.g.*, that with cows or mares covered towards the end of the period of heat, the offspring are generally males, females being produced when impregnation occurs at the beginning of the period. With respect to the human female, our present knowledge regarding the situation in which the ovum is commonly impregnated, the time occupied in the descent of the ovum, and even the true relationship of ovulation and menstruation, is too inexact to allow the expression of precise opinion in any particular case; but the advice given in a late number of the Journal, with a view to secure the birth of a female child, viz., "to procure the postmenstrual fertilisation of an ovum" appears to be reasonable, and is consonant with the remarks already made. Of course, other matters, such as the relative vigour of the ovum and sperm-cell, in any given case, influence the result.

To me, however, the chief interest of these views appears to lie in another direction. Since the mental, moral, and physical peculiarities of parents are undoubtedly transmitted by inheritance to their descendants, and bearing in mind the sexual influence of the germ and sperm-element respectively, it follows that the distinguishing peculiarities of the father would be impressed upon the daughters, and those of the mother upon the sons of a family. We should expect that any peculiarities, not connected with the sex of the possessor, would be thus directly transmitted; and instances of such "cross-heritage" will occur to everyone. To take one instance out of several from amongst my notes, a coloured gentleman in the West Indies married an English lady; they had two children, a son with fair skin (like his mother), and a daughter with skin and hair as dark as her father's. Peculiarities associated with sex would be indirectly transmitted, *i.e.*, those of the father *e.g.* to his daughters' sons, and so on. Take, amongst diseases for example, such instances as ichthyosis, hæmophilia, and some forms of gout. Of course, in all cases, allowance must be made for the influence of cross-breeding, and for those other causes to which Sir James Paget has recently drawn attention. In its simplest form, the formula runs: "The father's peculiarities, etc., are transmitted to his daughters (or through them to their sons); those of the mother, to her sons (or through them to their daughters)." The subject is an interesting and important one, especially as enabling us to prognosticate the extent, form, and direction of the transmission of peculiarities, deformities, and disease. Much light would be thrown upon it by carefully compiled life-histories, and by careful and accurate records of all and any instances of inherited peculiarities, etc. Such records, however, to be of any real service, must be far more minute and searching than the ordinary form of statement, *e.g.*, "the same peculiarity is exhibited by several cousins and by two of his nephews;" such loose accounts are almost valueless to the scientific statistician. To trace and state the precise relationship of the possessor of each peculiarity to the remotest ancestor who is recorded to have exhibited it, doubtless demands the exercise of more or less patience, labour, and research, as does all good work; but it is worth doing, and it transforms an interesting but irritatingly useless and slipshod statement into a record of permanent value hardly yet to be estimated. Perhaps the Collective Investigation Committee may some day be able to utilise its effective machinery to this end. In the meantime, I should be very grateful for any information or examples bearing upon this subject, to which I have given much attention for some years past. Any communications which I may receive in this way will be gladly acknowledged.—I remain, sir, yours faithfully,

C. E. Shelly, B.A., M.B.Cantab.

Hertford, September 15th. 1883.

P.S.—In such cases as are quoted by Dr. Campbell (a litter of both sexes), it is not proved that the ova are all of the same age, or that the spermatozoa reach them all simultaneously.

Sir,—I have little doubt, as the result of much observation on the subject, that Dr. Campbell's explanation of the determining causes of production of sex is, in the main, correct. There appears to be almost an equilibrium of force established under ordinary natural conditions, resulting in nearly equal numbers of each sex. If the potentiality of either factor be considerably modified, the balance of force tells in favour of the other. This is more likely to happen in the case of the female, on account of her more impressionable condition; and as a matter of fact, we see it operating every day, where, in the case of women of strong character and unusual intellectual capacity, the procreative power is almost suppressed, causing total or comparative barrenness, and in cases where there are children, the great majority of them are males. This latter result is also probably accentuated in the tendency of the mother to produce her like, and is one of the chief foundations for the frequent remark, that especially able men have had women of strong character or intellectual attainments as mothers. Inadequate power on the male side has its influence also, but not in anything like the same amount. Female physiological function is certainly being sacrificed to modern intellectual culture.—I am, etc., Franklin Gillespie, M.D., Surgeon-Major.

Sir,—Your correspondents may find good information about determination of sex, in Professor Thury's *Mémoire sur la production des Sexes*, published in 1863, in Paris. This being out of print, I may say that Thury's theory, well authenticated by many experimental facts, is that the ovum is female in the beginning, then, by the continuation of its development, becomes male. If it be fecundated in the first period it is fixed in its female sex; if later, the product is a male.—Yours truly, A. Cordes.

Retreats for Dipsomaniacs.

Sir,—I shall feel obliged by your inserting this short statement, which will correct an erroneous idea which the Report of the Inspectors of Retreats just published is likely to give to the public. It states that three out of five patients admitted last year into my Retreat, etc., This of course only alludes to patients under the Act, as the inspector cannot officially notice the private patients; for, although I have a licence for ten only, I have accommodation for twelve, and am generally full. Undoubtedly the inspector would be able to give better results of those placing themselves under the protection of the Act would they do so for a longer term than they do.—I am, etc.,

Fredk. John Gray,
Hall Court Retreat, Cannock, Staffordshire. Medical Licensee.

S. J.—The Board of Management have a perfect right to require the members of the medical staff to sign their names in a book kept for the purpose, whenever they make professional visits to the hospital. This practice is carried out at many of the leading metropolitan hospitals.

Re Ship-Surgeons.

Sir,—Would any of the readers of the Journal, who have acted in the above capacity, kindly inform me how to obtain a situation as surgeon in an emigrant or ordinary passenger ship to Australia, New Zealand, or the Cape—excellent references and testimonials can be supplied—and oblige,

Scotus.

Sir,—May I ask you kindly, for the information of a young medical friend, how an appointment as surgeon to an emigrant ship for the colonies is obtained? Who is the "surgeon-general" for the colonies?—Yours obediently,

F.R.C.S.I.

*** The only ships, so far as we know, which specially carry Government emigrants, are those running to Queensland and to New Zealand. The appointments are not numerous, and are much sought after. Experience at sea is required. Application should be made to the Secretary for the Agency of the Queensland Government, C. S. Dickin, Esq., 1, Westminster Chambers, London, W., or to the Secretary of the New Zealand Government Agency, Walter Kennaway, 7, Westminster Chambers, London, W.

Police and Colonial Government Surgeons.

Sir,—I should be much obliged if you would inform me: 1. Whether surgeons to police forces in England are entitled to the ordinary guinea fee on going into court in criminal causes?

2. Whether the salary of a surgeon "appointed to the service" of a colonial Government can be held as calculated to cover all such fees?

The question has not been hitherto raised, and is not yet settled in the colony to which I belong.—Yours faithfully, Colonial Surgeon.

*** Surgeons to the Metropolitan Police stand on just the same footing as any other practitioners in this respect. Their salary is paid in respect of their medical services to the police-constables, and has nothing whatever to do with their attendance in courts of justice.

As to surgeons appointed to places under colonial Governments, the proper authorities must be consulted.

Anæsthetics.

SIR,—While giving Mr. J. G. Kerr full credit for his interesting paper in the JOURNAL of September 15th, there are nevertheless one or two points which may be disputed. For example, he states that, in Scotland, it is taught that a towel or folded napkin ought invariably to be used for the administration of chloroform. This is quite erroneous; a flannel mask and drop-bottle being largely used in Edinburgh, where anæsthesia induced by ether is by no means infrequent. The drop system is, I should imagine, much superior to the towel; and the mask can easily be momentarily removed to examine the lips, while a couple of fingers under it readily feel the warm expired air, and can quickly appreciate any defect in respiration. Again, Mr. Kerr advises that the patient be brought as rapidly as possible under the anæsthetic (chloroform), which is a doctrine opposed to the experience of many very able chloroformists, who recommend six or eight minutes to be employed in the induction of anæsthesia. It is, of course, self-evident that chloroform, in all cases where severe or prolonged pain is to be expected, should be given to complete anæsthesia, whether the heart be affected or not. In many—or may I not say in most—of the fatal cases, the heart has been found practically healthy. Mr. Kerr omits reference to the use of morphia and atropia subcutaneously, twenty or thirty minutes before the inhalation of chloroform is begun.—I remain, your obedient servant,

G. ARMSTRONG ATKINSON, M.B.Edin.

Wylam-upon-Tyne, September 17th, 1883.

TWO MEMBERS.—It is quite true that, some years ago, the bodies of all persons executed at the Old Bailey were afterwards handed over to the College of Surgeons, by whom, after a short *post mortem* examination, they were distributed in turn to the anatomical schools attached to the recognised metropolitan hospitals.

Irish Wakes.

SIR,—I do not by any means take exception to your article on Irish wakes; but, as an Irishman, I take exception to your imputation that wakes are merely held to give excuse for merry-making. They are relics of penal times, when it was made impossible for a priest to meet his flocks, except in disguise, five pounds being offered for his head.

With regard to sanitation, it is hard to expect much from uneducated peasants when such bad example is set in Government institutions, of which I may say the following is a fair sample.

The military barracks here has its offal from privies, etc., carried by an open drain by a circuitous route, to empty itself into the River Brosna, before that river enters Mullingar, through the middle of which it passes, expanding into a small lough in its middle.

The same holds good with regard to the workhouse lunatic asylum and gaol, while it is quite a common thing to see a police-barracks with its privy on the road-side, with nothing but a board to prevent the nuisance, perhaps of years, flowing out on the wayside.

When such things occur in the green wood, what may we expect in the dry?—Your obedient servant, LAURENCE KERIGAN, L.R.C.S.I.

Mullingar, Ireland, September 18th, 1883.

Medical Advertising.

THE following handbill has been forwarded to us for publication. "Payment in time of sickness only. Self-supporting dispensary, 107, Stamford Street, Blackfriars, S.E. (formerly at 76, Stamford Street). Dr. Seymour, L.R.C.P., L.R.C.S., L.M., L.S.A., etc., registered physician and surgeon, late dental assistant to the London Hospital, etc., attends daily: mornings, 9 to 12; evenings, 6 to 9; Sundays, mornings only, 9 to 11. Fees: advice and medicine, sixpence; visit and medicine, one shilling; vaccination in two places (or more if desired), sixpence; teeth skilfully extracted, sixpence each. No letters of recommendation."

The Best Depilatory.

SIR,—I shall be thankful if any of my brother members could suggest the remedy for successfully removing a moustache and whiskers from a lady patient's face. She is of dark complexion, and when heated or excited, the hair is unpleasantly apparent. CHARLES HOGG.

12A, Charterhouse Square, E.C., September 25th, 1883.

Cramps.

SIR,—If "Enquirens" has not tried the following plan, he will possibly obtain relief for his patient by instructing him to extend the limb to the utmost (without leaving the bed), at the same time flexing the ankle-joint so as to get the toes well back towards the front of the leg, immediately upon the seizure. The writer, who formerly suffered much from cramp, invariably found instant relief by adopting this method, and has recommended it to many others with equally good results.—Yours obediently, F. W. F.

ALPHA.—As the Medical Acts Amendment Bill did not pass during the recent session, and the formation of a single examining board for each division of the kingdom is consequently postponed, our correspondent's position with regard to the examinations of the University of Aberdeen is not affected. There is no probability of any change in the law before he has completed his examinations.

Carriage Tax.

SIR,—Will any member kindly inform me whether a movable hood to a phaeton can be considered as part of the "movable furniture," and, as such, be taken off before the phaeton is weighed for the purpose of fixing the duty? I have heard both "Yes" and "No," but not from reliable sources.—I am, etc.,

G. V.

A PARENT, Liverpool.—The preliminary examinations of the Royal College of Surgeons having now come to an end, all inquiries with respect to recognised preliminary examinations should be addressed to the Registrar of the General Medical Council, 299, Oxford Street, W. The registration of hospital studies at the College is also abolished.

A Curiosity in Obstetrics.

SIR,—A patient, aged 66, was attended in her last confinement twenty-four years ago. She was very ill for eleven weeks afterwards; probably through puerperal fever. She has never seen any menstrual discharge since that time. She has completely lost the sense of smell, and almost entirely that of taste. She refers these losses to the illness mentioned. Her general health is now good, save for a little chronic bronchitis, and commencing fatty degeneration of the heart. T. W. H. GARSTANG.

Doncross, September 24th, 1883.

Chronic Metritis with Version and Flexion of the Uterus.

SIR,—In the report of my remarks on the papers read before the Obstetrical Section at Liverpool, in the JOURNAL of September 22nd, page 574, I am made to say, "There is *a* flexion or version without hypertrophy." It should read, "there is *no* version or flexion without hypertrophy." This involves the whole of the question in dispute as to the treatment by "mechanical or scientific" methods.—Yours truly, WILLIAM DONOVAN.

Whitwick, Leicestershire, September 22nd, 1883.

COMMUNICATIONS, LETTERS, etc., have been received from:

Messrs. Francis and Co., London; Dr. W. Morrison, London; Mr. C. G. Wheelhouse, Leeds; Mr. E. C. Nourse, Exeter; Dr. Howie, Macduff; Dr. N. H. Taylor, Anerley; Œolus Waterspray and General Ventilation Company, London; Mr. J. Smith, Guildford; Dr. Roger Williams, London; The Medical Dean of King's College, London; Dr. J. Stopford Taylor, Liverpool; Mr. F. W. Mott, Liverpool; Mr. J. Bain Sincock, Bridgwater; Dr. Henry J. Ley, Teignmouth; The Secretary of St. Mary's Medical School; Dr. Cosgrave, Dublin; Mr. Albert Kisch, London; Sir Erasmus Wilson, Westgate-on-Sea; Mr. T. Jenner Verrals, Brighton; Mr. G. W. Bell, St. John's House; Mr. A. Wynn Williams, London; Mr. Charles Cotton, Ramsgate; Dr. P. Kavanagh, Brockley; Messrs. W. Woollams and Co., London; Mr. C. W. Krohne, London; Mr. W. H. Sutcliffe, Jersey Medical Society; G. Street and Co., London; Mr. T. W. H. Garstang, Doncross; Dr. Morris Hays, *Medical News*, Philadelphia; Mr. George Adkins, Yealmpton, Plympton; Mr. C. H. Phillips, Hanley; Dr. Mackie, Alexandria; Mr. W. B. Dabbs, Torquay; Mr. G. E. Rundle, Hillston, Australia; Dr. Fairlie Clarke, Southborough; Mr. T. M. Watt, Hovingham; Mr. William Adams, London; Mr. Mark H. Judge, London; Dr. Kelly, Taunton; Mr. W. K. Williams, London; M.B.; Dr. A. Forsyth, London; Our Aberdeen Correspondent; Dr. Stevenson, London; Mr. Charles Du Val, London; Dr. Willoughby, London; Mr. J. H. Macintire, Bristol Royal Infirmary; Dr. Croom, Edinburgh; Mr. T. Holmes, London; Dr. Mahomed, London; Mr. T. F. Raven, Broadstairs; Mr. Donovan, Whitwick; Mr. R. W. Watson, Budleigh Salterton; Mr. Clark Bell, Medico-Legal Society, New York; Dr. A. H. Barrett, Wallingford; Professor Cleland, Glasgow; Dr. Cooper Stawell, Laghey, Donegal; Dr. F. Nicholson, Hull; Dr. Sawyer, Birmingham; Mr. T. W. Reid, Canterbury; Dr. Acland, Oxford; Mr. Pierce Gould, London; Professor T. H. Huxley, Brechin; Mr. F. Le Gros Clark, London; Mr. J. Tweedy, London; Dr. D. H. Tuke, Hanwell; Mr. W. H. Bennett, London; Mr. N. A. Humphreys, London; Our Dublin Correspondent; Dr. J. B. Nash, Lambton, N.S.W.; Dr. T. Clouston, Edinburgh; Dr. Joseph Rogers, London; Dr. G. W. Grabham, Wellington, New Zealand; Mr. N. C. Collier, London; The Secretary of the Statistical Society; Mr. J. Dysart McCaw, Portglenone, Belfast; Dr. W. Domett Stone, London; Mr. A. S. Faulkner, Aden; Dr. G. E. Shuttleworth, Lancaster; Mr. J. F. O. Ryan, Tipperary; Dr. E. Symes Thompson, London; Mr. J. N. G. Biggs, London; Dr. Thelwall, Stilton; Dr. R. D. Pinnock, Ballarat, Victoria, Australia; Mr. G. Stanmore Bishop, Manchester; Mr. Valentine Knapp, Kingston-on-Thames; Mr. C. L. Lightfoot, Ewell, Surrey; Dr. P. M. Braidwood, Birkenhead; Dr. Saundby, Birmingham; Our Glasgow Correspondent; Mr. C. J. Radley, London; Mr. R. T. Risk, Harrow; Mr. James Crocker, Bingley; Mr. A. H. Newth, Hayward's Heath; Mr. W. S. Carruthers, Leeds; Mr. Charles Hogg, London; Dr. Galabin, London; The Honorary Secretary of the Liverpool Medical Institute; Mr. C. Reid, London; Mr. C. J. Bond, Leicester; Dr. Collie, Homerton; Dr. B. H. Paul, London; Great Northern Railway Company; Dr. Clifford Allbutt, Leeds; Mr. A. S. Mallett, London; Mr. G. A. Phillips, Walsall; Dr. Sturges, Beckenham; Mr. C. M. Jessop, Fulwood Park; Mr. Shirley F. Murphy, London; Mr. S. Wilson Hope, Petworth; Dr. James Hudson, Nelson, New Zealand; Dr. Strange, Worcester; Mr. A. H. Gordon, Liverpool; Mr. W. P. Herringham, London; Mr. H. A. Phillips, Stoke-on-Trent; Mr. H. E. Armstrong, Newcastle-upon-Tyne; Dr. Norman Kerr, London; Mr. William Adams, London; Dr. Waller, London, etc.

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INTRODUCTORY ADDRESS
ON
MEDICAL STUDY AND PRACTICE.

Delivered at the opening of the Leeds School of Medicine.

By T. CLIFFORD ALLBUTT, M.A., M.D., F.R.S.,
Senior Physician to the General Infirmary, and Lecturer on Medicine in the School of Medicine, Leeds.

GENTLEMEN,—The lapse of time, and the revolution of affairs within these walls, have called me once more into this chair, and have made me your President for another term. The bridge which carries us from youth to age is a narrow one, and many of us have passed over to the other side before we are aware of the passage, but an event of this kind compels me to know to-day that although it seems but as yesterday when I gave my first lecture in the old school, or my former address as your president in the new school, yet much of the little span of life has run off since those days, and I must now reckon myself among the elders.

Happy years pass quickly, and I cannot wish they had dragged along with a heavier load. We cannot stop the wheel of time. That would be hard on our juniors whom time ambles withal; but he is never old who keeps green the memories of youth, and whose heart is open to the promise of new springs. To you, my young friends, who in all the blithe spirit and dancing blood of your years, gather upon these benches for the first time, I am still young enough at least to offer a generous welcome, and, I think, still to live again in your hopes. To see you before me warms once more my heart with a fire which is, perhaps, the quickest flame of my life; I feel it now—the glowing sense of my first freedom. On the first day of my university life, after my breakfast in a small upper floor sitting-room in a dark little street in Cambridge, and as I sat at my own table, the reality came upon me, like a living coal in my breast, that for the first time I was free, free and my own; that for weal or woe, sorrow or gladness, my own, thenceforth, were the builder's hands, and the infinite world around me mine, too, if I could win it. Do not think, gentlemen, that my ambitions were then lofty and academic—five thousand a year and a four-horse team to drive, or the best three brace of setters, and a grouse-moor—such were the raw visions over which my eye was rolling. Nay, more, the first uses of my freedom were, I regret to say, anything but edifying. Like that horse we were wont to read of in the *Delectus*, "Tandem liber equus, campoque potitus aperto," I was more disposed to become a "restless ramp," as Spenser says, than to work in the round of a mild-eyed student. Luckily, one is brought up soon and sharply in such ways by the hard edges and corners of this world, and learns philosophy while plastering broken shins.

It is rather tiresome to find that, if free one's self, other people are free, too, and making free, and will open that oyster, the world, with their swords pretty quickly, and keep their own and more if we do not claim our part. Thus the free man learns to become the tyrant to himself and to buckle on his harness, first from sheer need, afterwards because he finds that if he has outgrown the dispensation of the law, it is not to relapse into a "warped slip of wilderness," but to expand into a larger growth, and put on the new armour of light.

That on your first freedom, gentlemen, you should be tempted to extravagance is likely enough, and you may be led into some of that waste of power which your professor of physiology tells you may be a condition of new growth. A lad of spirit and courage may sometimes even be more likely to play the fool than one whose nature is less exuberant. Some young men are sedate and placid not because their principles are strong, but their impulses feeble. Yet freedom, with all its waste and error, is a glorious inheritance, and into this you now enter. Let us, by timely warning, keep your wills and desires in the right way. You escape from the uniformity of mechanical discipline in order that you may develop for yourselves a living system, inspired by your own energies, and drawing in food from many sides. And, remember, freedom brings its losses also. While in tutelage, with no anxiety of your own, you had all your needs cared for, now you are free you must take thought for your own to-morrow. The strength you will waste henceforth is your own, the stores you dissipate your own in-gathering.

O young men, why will you buy again experience so dear, when we are crying wisdom in the streets for naught? Let us who have passed by your way never have to look with sympathetic sadness upon opportunities unseen, upon chances slipped away, upon time wasted and wasting you again, upon squandered wits and powers dissipated. Young men, the world belongs to you, the future is in your womb—is your child; nourish the life—the promise that is within you; brood over that which you shall see, that which prophets and kings have desired to see, and have not seen it. You have time; nay, if you have let time slip, you may seize it again, for the mill of God grinds slowly, though it grind exceeding small.

Seek then counsels of perfection, make the best of yourselves, and you shall be fit for any work which shall be your lot; that which you choose to-day is one worthy of your strength. You students are told this day in a score of pulpits that you have cast in your lot for a noble profession. Do not think, the pulpiteers will hasten to add, that you will make any money by it; let him who hath notions so sordid as that beware of our precincts. Look forward to a noble but unappreciated existence; your board will be bare, you will not even have the comfort of knowing that any doctor in Great Britain has been made a lord, but your meat shall be the bread of knowledge, and your reward the consciousness of your lofty avocation.

Now, gentlemen, if it come to crowing, my throat is as wide as another's; but is not all this unreal talk better avoided? Even you have been in the world long enough to know that a man's profession is, in point of nobleness, pretty much what he chooses to make of it; and that, in all probability, a set of doctors are as good an average as any other set of equally well educated men, and no better. Like other people, we have our faults and our virtues, and we sum up much as the rest. No clear-minded man will believe that your hard-working parents are likely to put you into a profession which, in money and personal advantages together, does not offer as good a livelihood as another. Taking my professional friends all round, their houses are as cosy, their wives as well dressed, their dinners as good, their wall-papers as æsthetic, as are those of our like in other callings. If you know your work and please your clients—or, as I ought to put it, if you please your clients and know your work—you will enjoy as comfortable an income as any man is likely to have who starts with your small capital; and many little social privileges besides which add to its value. As to the nobility of your calling, a man may sell fish to the glory of God—that, remember, is as it may please you to make it.

Essentially speaking, to patch up a man's clay carries to my mind no sense of inherent nobleness as a calling. Skill, knowledge acuteness, all these it must have; nobility, none necessarily.

A man may yearn with all his soul to be pious and upright; he may train all his mind to be a good citizen; he may burn out his heart with desire after perfection as painter or poet; nay, he may strain every nerve only to be a fine horseman or a crack shot, and have our admiration; but, if he be possessed mainly by the fear of death or disease, and if he dwell continually upon the behaviour of his inwards, we scarcely admire bravery among his virtues. The doctor deals with needs which are subordinate in the great purposes of life. Like him who made two blades of grass grow where one grew before, his useful business is to conserve or develop forces for higher ends than his own. If we be driven to such an issue, it is better we should be a free and great-hearted nation than a healthy one. The ringing times of great Elizabeth, with the sweating sickness and the black death, are a far grander heritage for Englishmen than times of lesser men who ripened with the patriarchs. Nay, my friend Dr. B. W. Richardson would be the first to fly from his own dukedom of Hygeia if its dreary inhabitants worshipped the God of Cleanliness only, and dwelt ignobly content in their own security from bacteria. It is our business, gentlemen, to extend life to its utmost tether. To this end we spend our skill, our learning, and our shrewdness. It is for man to see that such life is worth preserving. For him it is to know that to die in youth gloriously is better than to live ignobly for a century; and I read with pain the sneers of those who even jealously seek to diminish the national reward of great chiefs who have staked life for life at their country's call. To say they are rewarded for destroying life, while we are unrewarded for saving life, is a perversion of the truth. Those men are decorated with titles appropriately, because such titular ornaments derive from times earlier and other than these, and belong to State services. Such decorations are, indeed, scarcely in the spirit of modern civilisation, and could not naturally arise in a new society. In our own, they are honourable and picturesque traditions, and better reserved for ancient forms of State service

The services of the private physician or surgeon are of a private and personal character, and rendered, not to the State, but to the individual. Public medicine is, indeed, working out the conditions of those great social fusions which hereafter shall absorb individual wills into new wholes, and reveal the future of mankind—societies as yet thwarted and disintegrated by the degrading and repulsive squalor of modern trade-work. As yet, however, it does not deal with very large conceptions, nor with the higher aims of national life. Therefore, all the recent cries for "Doctors in the House of Lords," for "Political power for the profession," and so forth, appear to me to be based upon a false and, I must add, an undignified idea of the republic of science.

Eminent medical publicists make stirring cries of the political powerlessness of the profession, of our lack of organisation, of the neglect of medical trades-union questions in the Houses of Parliament, and so forth. I honour those speakers who give their time and energy to elevate the profession; but their ideals and mine are not the same. As to organisation, is there any British profession so usefully organised as our own? If organisation is to mean the dictation of creedmongers, and the suppression of all intellectual variety, then I, for one, am content to be disorganised. If political power means the setting up of some medical semaphore in one or other House, who may consent to utter only our shibboleths, and take from us his sole political colour, then I, for one, am content to be politically powerless.

Do I say, then, that your lives shall be mean lives? God forbid; "Invocavi, et in me venit spiritus sapientiæ, et preposui illam regnis et sedibus."

Most of you, perhaps all who listen to me as students, have set yourselves on towards a light which shines brighter upon your faces than upon mine, and of those who belong to my sphere of service. The general practitioner of medicine, as I often witness, even to my shame, devotes his profession, and indeed his life, to the good of others, after a fashion which ennobles any work. Herein, gentlemen, is our true patent of nobility, loftier far than any coronet. The doctor who does, however, honestly, the work only that he is paid for is rare in the ranks of general practice; and his life, I repeat, is a useful, but not a noble one. General practitioners obey a far larger and more lovely idea than that. Our blood has been stirred by the devotion of those medical officers who have exposed themselves, unarmed, in the battlefield, to save friend or foe from cruel and lingering death.

Our brethren walk fearlessly, unconscious of heroism, beside the pestilence, snatching men from its breath, and bearing away the stricken to safety. When the typhus epidemic fell upon us in 1865, and our fever hospital was a pest-house, men from general practice stood by me, holding their own lives cheap at the call of duty and humanity. Mr. Burroughes died at his post; Mr. Swann died at his post; Mr. Libby, happily now living, was smitten heavily, and barely rose again from his bed. Yet I had no lack of volunteers.

If of another nation, yet of our band are those devoted men who have gone fearlessly into the very den of cholera to search out the secret of its malignant power, and to teach mankind to defeat it. Hardly had they begun their task when we had to mourn their captain's death—the brave M. Thuillier—who fell upon the threshold of his labours. May his noble comrades have their peaceful revenge.

Less brilliant, but, in its steadfast unselfishness. perhaps, incomparable, is the voluntary sanitary work done by general practitioners before the establishment of sanitary districts. Of these services, the careless public is yet scarcely aware. Did the members of any other profession ever seek odium, and even rancorous enmity, by persistent endeavours to cut down their own incomes in the interests of their clients? To speak plainly: enteric fever, for instance, was worth perhaps a steady hundred a-year to many a town or country practice—not counting the luck of epidemics. Now, hundreds of doctors—you know many of them yourselves—in human pity, have striven to suppress this and other such maladies; spoiling their own incomes, and earning, not the thanks, but even the curses of the public; offending not the poor, but the rich—the landlords, the thriving farmers, the Poor-law guardians—the class upon whom the rest of their shrunken practice must depend. I think of one now whose health prematurely failed on this militant, yet bootless path.

Again, in the quiet heroism of daily life, these same men and their brethren labour, day and night, for sick and suffering persons, who can never repay them in money. Some walk in the squalid and hideous places of large towns; others among the poor widely scattered over moor and fell.

I said to one of these, as I pointed to a vast mountain-side deep in snow—"How do poor fellows up there get aid in winter?" "O, we have to go somehow," he cheerily replied. "And how are you ever paid for such labour?" "Never," he said. "But there is no doctor for seven miles on that side, for five miles on that side, nor even for ten miles on the other; and if an old chap gets a strangulated hernia in the middle of the night up there, one is bound to go."

I silently took my first-class seat in an express train homewards, with a cheque in my pocket, thinking—and these are the men who are called "the lower grade" of the profession, and who are not fit even to vote for their own Colleges of Physicians or Surgeons.

Gentlemen,—Before your time and mine, it is true the general practitioner was of the "lower grade" of the profession. The colleges which lived upon him, did even less for him than they do now. Shrewd and handy, he was then too often ignorant and rough. For below those masters who in all times must be distinguished, the bulk of the profession was then narrower in knowledge and trained intelligence. Now, although his colleges still do the least for him that public opinion and the general march of events will permit; yet, happily the medical press, three or four of the Universities, and his own body, the British Medical Association, have changed all that. The student of to-day is better wood for the carving of Mercuries, and the general practitioner of to-day stands on an equality with the best men of his profession; and is even a more widely qualified man than the consultant. We who practise medicine or surgery more exclusively are so far more highly specialised. I know that I can give my friend in general practice points in the minuter appreciation of certain cases in my own line, but also I know that, taking him all round, the bulk and variety of his skill and knowledge may be greater than my own. The names of leading general practitioners in this and other large towns near us, are now in your minds as I speak to you of their readiness in resource, working every branch of a complex and difficult art, having not, like the lawyer, powers of reference only, but carrying their knowledge about for immediate consumption, and doing all with a habit of kindliness and ready helpfulness which is almost astonishing. Add to this the general dexterity and versatility bred by a life which gives men a facility in observing and picking up all sorts and bits of cleverness, and you have in medical men a class to whom very inadequate justice is done.

Such, gentlemen, is the body of men in which you are to be enrolled; men who would not be human had they not faults also. Let me warn those of you now entering into practice against some of these. Our worst fault is, I fear, that we are a somewhat touchy and jealous class. Our cousins of the Bar set us a contrary example, to our shame. In that profession accidental endowments of a popular order—nay, devices which have some tincture of vulgarity in them—may go for much; yet both the Bar and its individual members take all and each an honourable pride in their leaders. Nay, even where in the ranks competition is the keenest, I never heard the most briefless barrister fail to appreciate, as generously as critically, the schoolfellow who may be passing him in the race. Now, common report and a wide area of personal work have taught me—what I am thankful to say I should not have learned in the harmonious brotherhood of the Leeds profession—that doctors, on the other hand, are tempted to distrust and to detract from each other. Too often they are jealous of one another, and towards the public, and tenacious of their own claims, which is not becoming. Where two doctors practise in a village, or ten practise in a small town, it is not a safe social thing to assume that they are at peace with each other. We work under conditions which tend to breed distrust. Unlike the Bar, we do not play with our cards above the table. In our more intimate work it is terribly easy for one doctor, by little intangible tricks, to elbow out or depreciate another.

Then, for the same reason, the public often fail in loyalty and candour with us, and work mischief in their own little ways.

Still, these jealousies might be avoided, and are avoided, by genial and upright men, whose first regard is for the rights of others. Our old friend, Mr. S. Hey, gave me a lesson soon after I came to Leeds, which has been a blessing to me to remember. "Never be annoyed," he said, "if you find a patient of your own in another man's consulting-room; you will have to submit to it, so you had better learn in good time not to mind it; and this the more as you are sure next day to find one of his patients in your own." We are too often disposed to assume some property in our patients, and to think, because they come to us at times, they have no business at other times to consult other men. That patients who dodge from doctor to doctor are very foolish is true, for they lose all that personal devotion which doctors bestow on a staunch ally; and it is not only a foolish, but an uncandid and unfair thing for a client

to place business of any kind in the hands of two men simultaneously without a due understanding between all parties. But we must not go beyond that, and say a sick man has no right to consult whom he pleases, and deny his right to be the judge of his own interests. A man's life is very dear to him, and our self-reliance becomes a positive evil when it degenerates into exclusiveness. It would be far better, both for the profession and the public, if medical men consulted more with each other. I do not mean necessarily with professed consultants only. Two doctors in a village who meet freely and discuss each other's cases, either formally or informally, will do their work far better and more happily, and will stand far better, too, with the public, who are quick enough to detect and sneer at their squabbles and trade upon them. I was much struck with some public remarks made on this subject by Mr. Knaggs, of Huddersfield, who, if any man, might feel sufficient unto himself. He spoke of the enormous value of "acting in concert" on our cases; and indeed I myself find that it is the best men who seek consultations, and the less capable and those more ignorant of the world who shirk them. To talk over a case with one who knows no more than yourself often strikes out light, nay, to talk it over with one of inferior knowledge is often most fruitful, as I have ample reason to know myself from many a conversation with my pupils; I do not envy the man who knows that a fellow-man has loyally committed his life to his care, and who is not prompted to share that responsibility as far as circumstances may permit.

Another warning I give you, gentlemen, is this—if you think you are aggrieved, avoid the wretched fashion of writing letters to your brother. Charges are thus made without reserve, words easily used on paper which would have lingered on the lips, but which cannot be recalled; the favourable influence of man on man is lost, and a lifetime may barely hold mischief, which, in a personal interview, would have gone piping down the wind. Few men mean to injure their neighbour, or even to take undue advantage of him; but men lack imagination; offence is taken where none is meant, facts are misrepresented, false assumptions are made, and a grave quarrel arises out of nothing. The expression "medical etiquette" is an unfortunate one. It leads the public to suppose that we have peculiar rules "which no fellow can understand," and which are not wholly in their own interest. At the Bar, a special etiquette there is, as, for instance, that the public may not approach counsel directly—a rule which does not arise out of the simple relations of honour and candour between men. We have no such artificial laws; with us, medical etiquette is good behaviour, and our rule the golden rule of doing as we would be done by, of acting candidly and considerately towards ourselves and towards the public. Looking, indeed, only to the happiness of your own lives, what more fatal poison can you have in your cup than a chronic ill-humour? what more irksome way than to meet your medical brother daily in the street with sulky look or neglect? It is petty, and anything but worthy of what the newspapers call your "noble profession." On the lowest ground, is it worth the wretched ten-pound note by which you think yourself the worse? Say with Corin, in *As You Like It*: "Sir, I am a true labourer: I earn that I eat, get that I wear, owe no man hate, envy no man's happiness, content with my harm, and the greatest of my pride is to see my ewes graze and my lambs suck." An ill-bred fellow once told me it was the doctors' wives who kept their husbands so often at loggerheads—a fellow, I need not say, that I have no hope of, and whom I only name to reprobate. Go forth then from this school determined to rise above such blunders; determine to do right yourself; and if your brother act unseemly, a physiologist knows best of all men, "*Personne ne peut donner que ce qu'il a.*" As to your patient, put yourself in his place. What you calmly regard as an incident of your daily work, is to him, perhaps, the life of a parent or a child. If he lose his head in his fear, small blame to him; if his alarm and agitation lead even to some hasty and irregular action, I say again, put yourself in his place. He does not know, as you do, either your cleverness or the vanity of his fears. A cripple more or less, a gravestone more or less, is nothing to the solar system, but it is all the world to him.

Our hatred of quackery of all kinds again may become undignified, but, to our honour, this rests at least as much in a clear view of the probable waste and futility of it, as in the fear of loss of custom. Yet I cannot but smile sometimes at the round denunciations of quackery in a patient by a doctor, who, at the very moment, is himself caught by some humbug equally contemptible in the eye of a farmer, an engineer, or a stockbroker. As men become more enlightened, they will recognise more and more the value of an authority in matters of opinion, and better understand how carefully to exercise their choice of competent guides. As Lewis says (*Influence of Authority*, 1849, p. 400): "There is a strong inclination to the adoption of the opinion of competent judges, when competent judges can be clearly discerned to exist." To confess to the prevalence of quackery, is then a left-handed detraction unto ourselves much better avoided. An aid to quackery is the fault of oracular reserve formerly more prevalent than to-day, and now diminished chiefly by our greater confidence in the scientific basis of our art, but in part by the more vulgar chastisement of the courts of law. A doctor is no less liable than another man to be called upon to explain himself, and the ruthless test of cross-examination has taught us to distrust big words, and feel that if we cannot make a thing clear to an intelligent layman, then we do not know it ourselves. A shake of the head and a dark allusion to the liver will not now satisfy an intelligent patient, nor ought it to do so. Fact and due season must guide our language; yet people now-a-days "want to know, you know," and they are right. Sick persons, wholly free from morbid curiosity, feel nevertheless they ought to carry away with them a definite notion of their ailment—where it is, and how you will try to avert it. If you have no story for them, some one else has; and you must be brave enough also to point out, if necessary, where your knowledge ends. Avoid infallibility. As some hot tempered person cries, "If you know nothing, why the deuce can't you say it?" There is no better test of a man's knowledge than his neat delineation of the shore-line of his ignorance. As a rule, a patient calls on you for information, as well as skill; and while you are incapable of brutal frankness, your sympathy will be wise enough to teach you to give your opinions candidly and clearly.

In matters of wider bearing—in the larger social and political questions—we shall do well, as Bacon says, "not to usurp a kind of dictature in sciences, nor with overconfidence to pass censure upon matters in doubt, nor to give way to peremptory fits of asseveration." All professions, not one only, tend to put on the priesthood, if not checked by conflicting authority; to give themselves airs, in short. A doctor's one idea being very properly a sound body, he proclaims that, if he were king, no members of a family tainted with consumption or insanity should marry; as if the frail tenements which held the spirits of Keats, or of Elia, of Arthur Hallam, or of W. K. Clifford, bore not freights more precious than a wilderness of cricketers. To come nearer home: Addison was one of the ablest teachers the art of medicine ever knew; now Addison was bred of insane blood, and died by his own hand. Who are we who pretend that we can lose such lives as these, or who deny that their genius drew any quality from the instability of their blood? Our answer to questions of this kind is to point out the dangers clearly, and wherein they lie, or increase; but not to claim alone to bind or loosen, nor to measure all things with our own foot-rule. Even in lower matters, where we see more clearly, as in sanitary questions, we cannot drag people blindfold.

They may be very stupid, but it is our business to enlighten their understanding, not to hector them. Much that is painfully true in hygiene at first sight seems improbable, and even fanciful; and, until people begin to realise these curious truths, you do more harm than good by force. There is waste in all ways, but the least wasteful way is to convert people first, and coerce them afterwards.

Still yours is a noble rage, and Mr. Morris put it into winged words the other day—

> "O why and for what are we waiting while our brothers droop and die,
> And on every wind of the heavens a wasted life goes by."

In the vivisection controversy, the medical profession was roughly handled; it was treated, and is still treated, with injustice. But, on our side, did we not bluster a little too much? Did we do no injustice to men of clear heads and profound humanity like Mr. Hutton, Mr. Morley, Mr. Gurney, and others, in confounding their arguments with the noisy and false rhodomontade of little people. If we saw more clearly that, while we lie under the curse, to multiply the sum of happiness for man and animal we must experiment upon animals, as, indeed, all medicine must be, and is, an experiment upon the living; at the same time, we used many arguments as weak as our opponents', and showed tempers little calmer than theirs.

Thoughtful men must recognise that, of all tests of progress, the advance of humanity is the surest; and, in our quiet moments, admit that, if the present Antivivisection Acts are unjust, in that they assume we shall act cruelly, and in that they have a separate aim at us, rather than include us, with all Her Majesty's lieges, under general provisions; yet, on the other hand, that some such provisions and restrictions should exist, is surely not a blot, but an honour to our age and nation.

The inadequacy of science to solve your needs will shorten your powers in other directions besides the moral and social. I must repeat to you the old distinction, that medicine is not a science, but an art, and is no more to be restrained by the limits of exact science than is landscape-painting. Art leads and does; science follows and explains. Science corrects, chastises and establishes our methods, or may even initiate them, but it cannot confine them. What we call experience is a trained habit, formed by continual practice and inexact observation, by which one learns nicely to balance probabilities, where there can be no exact propositions, nor any equation of certainties. This training of sense and inference in the absence of science made Hippocrates a physician of no mean skill and insight; it has made a valuable helper of many a doctor of modest scientific acquirements; and it makes perhaps the larger part of the gifts of the best of us—that quality without which the rest is vain.

The best doctor is the best artist, and the best medical artist is the master, and not the servant, of his sciences. Those practitioners who complain that we turn out men now-a-days who possess wide scientific knowledge, but are no medical artists, have right with them. They feel that a less learned assistant gains with them a facility in dealing with exigencies which puts the much-pondering prizeman to shame in the sick-room. Like a tennis-player, he has made a good chase before his mathematical antagonist has measured and calculated the tangents and frictions. No man should go into practice alone until he has so trained hand and eye that his aim is true; without that, all the learning of the schools is vain. Better is the sling and the stone, with the true hand and eye, than all the armour of Saul without them. Dr. Hare, in a recent address, set this vividly and circumstantially before us. He showed that, whatever the advance of science, it is a positive retrogression of an art to forget certain effectual empirical methods, and to limit itself to the show of exact system where no exactitude can really extend.

Able and well-meaning young men thus get lost in the faddy therapeutics so much the fashion to-day; and while balancing the hourly drop of digitalis against the half-hourly half-drop of aconite, they vacillate and lose time, if they do not indeed miss altogether some broad features of their cases which would have been plain enough to their father's surgery-boy. I will be bold enough to question whether a doctor may not think too much about his cases. A nice old lady once told me her doctor was so precious to her, he lost indeed his sleep of nights in thinking over her symptoms. I strongly suspected said doctor to be a lying humbug; but many a doctor, who boasts not of it, does worry about his cases, anxiously turning them about in his mind, and, I believe, such an one to be a less successful practitioner when the time is for action. Interludes of vexing care waste his energies, so that he loses vigour and promptitude, and lacks the spontaneous impulse of trained instinct, which is generally truer to the mark than a stroke made in the discomposure of anxiety.

When you have a trying case, be sure you have well investigated it, be sure you have duly consulted your written authorities, be sure you have trained your mind and eye to the best; take care, if possible, to talk the case over with a medical friend, and, having done these things, let your mind rest on it. This advice is good for all the affairs of life, if men would but realise it. There is nothing so wasteful of strength and purpose as what people are pleased to call "thinking things over," which really means muddling things to and fro, passing generally into a greater perplexity than before, and ending too often in error or confusion.

So important, indeed, are the intuitive appreciation of the main factors of a case, the relations between them and their tendencies, that, without these, reliance on those facts which are at once more precise and more limited may be positively misleading. Students and young practitioners rely, as a rule, far too much on their preciser data, and so far the discovery of instruments of precision has some temporary disadvantages. Because they find albumen in some urine which measures up to a substantial quantity, they cry out Bright's disease—or sugar, and they cry out diabetes. Or a patient, who has had a stationary mitral murmur for years, and may have it many more, comes to a doctor who applies first a simple stethoscope, then tries to get to the inner meaning of it with a double barrelled one, and forgets the while that it is not the instrument, but the man at the near end of it, which counts. All his mind, however, he sends down the tube, and leaves none for the patient's own story, none for an estimate of the tone of the circulation in the several organs, none for the contours of the chest and its districts, none for the many little common sense probable inferences which the case should offer him. He rushes to the alarm of heart-disease in all its terror, which, if literally, is not practically true.

Now, gentlemen, not in heart-disease alone, but in the whole field of medicine, there is no exact datum of any instrument of precision—nay, not even of the thermometer—comparable in value to the inexact suggestions of the radial pulse, taken, not by the sphygmograph, but by the erudite finger. In enteric fever, for instance, the qualities and fluctuations of the pulse are far more trustworthy signs than the variations of the temperature. Take away from me my instruments of precision and you cripple me; deprive me of my touch of the pulse, and you blind me.

My brother-professors, you know that, as a teacher, I rather take to dunces. Many of my brilliant pupils have made brilliant careers; but I look also with much satisfaction on the after-lives of my dunces. John Ridd, in Mr. Blackmore's fascinating romance *Lorna Doone*—who, by-the-way, was a noble specimen of the dunce—says, in his dry way, that nothing worse can happen to a man than to be born with more brains than body. Your dunce is often a youth who is absorbed in building good bones and tissues, who, as he grows, is quietly and unconsciously weaving various things into his brain for future use, and not for present sale; he is often shrewd and humorous, with the reticence of such a temper; bluntly disposed to go his own way, which may not be yours, dimly aware, too, that eyes and fingers count for something as well as tongues. His instincts are attracted by a hundred things which seem not in the least professional, but which in the end turn out, oddly enough, to have furnished his intellect and enriched his character. His brilliant class-mate tells him he ought not to commence his career without the gravest sense of responsibility; he dimly suspects his class-mate is a prig, though he has a profound respect for men cleverer than himself; anyhow, he does not like things in the clouds, and is not attracted by sentiments which seem unreal to him. These students are not brought out by examinations; on the contrary, the brisk protagonists of the College of Surgeons trip them up gaily; for they are not interested in books, or, if they are, they are open also to many other and greater interests, such as boating, lawn-tennis, or just doing nothing at all, with a pipe. Here we have to compel them to come in, therefore, with class-rolls, weekly tests, and the like, yet the teacher who interests these men is the successful teacher, for although some of them may be dullards, the majority are not so: they mature later, and attain a solid success while retaining a cheerful, hopeful, manly disposition, which attaches and invigorates their patients. But let not those of you now beginning your studies think how nice it will be to play the *rôle* of dunce, nor how we shall love you for it. Whatever we may think of dunces in the general, the particular dunce will be harried if he does not go the way he is told. It may be bad for us, but competition is too keen now-a-days for leisurely persons. When I was at school, boys either worked or played; in the present, boys are wise enough to see that he who works best may also play best, and muscular aspirations have entered into the serious medical as well as into the divinity student. At the same time, do not be wholly one-sided. In the six years of preliminary study, medical study, and early practice, you may easily let slip all other endowments.

Now, a hobbyless man is but half a man. A country practitioner once drove me ten miles to see a patient, and on our way he discoursed me as ably on the geology of the district, as upon the difference between a reef-knot and a granny, and upon the true construction of a claret-cup. I knew he must be an admirable doctor, and I strongly suspect that in years gone by he was a dunce. A beloved brother in this school, I believe, really thinks that the serenest heights of surgery can only be trodden by a fisherman. This is a prevailing creed in Leeds, and a reverend one. You are anxiously charged by all your advisers to keep up your literary attainments. To give such advice is like urging all men to have a taste for music. Some, perhaps most persons, lack an ear for literature. Take up your Bible, or the collects in the prayer-book, and read them with a nice attention to the words as well as to the matter. If to the power and melody of those words you find any answering delight in yourself, you have an ear for literature—a sense of style. It is a precious possession, and you may well cherish it. If you have it not, you cannot make it, and you had better take your pleasure in the breeding of fox-terriers. You must find comfort in the verdict of the old farmer in Artemus Ward's sketches, who "never knowed a literary man that knowed anything." But keep up some taste, go out into some pursuit other than your bottles. Some men can get inexhaustible amusement out of a rain-gauge. If you live in the country, you may grow roses or apples

tend a rockery, or join the fungus-eaters—nay, you may grow auriculas and carnations in a box even in the back street of a town, and their silent dainty ways and lovely faces will make you forget to write that sharp letter you intended for your medical brother. You will go instead to read a chapter of the adventures of Uncle Toby and Corporal Trim, of their gentle souls and of their hobby-horse, and so grow into peace with all men.

My dear friends, my very dear colleagues with whom I have marched for nearly a quarter of a century, my less dear but most welcome younger friends, with whom I join hands first to-day, I have wandered with you for this hour, bestowing upon you much that is trivial, and forgetting much that it would have been better for you to hear.

These occasions are scarcely fit for scientific lectures, which are not human enough for hours when we meet to welcome and fortify each other for the days that must come—days laden with many trials, laden with many hardships, laden with many griefs. You and I will need for our future work all the cheer and all the strength we can give each other. Our work lies day by day in the darker chambers of human life. The wife or father will see the loved eyes grow silent, the loved cheek grow cold, in spite of all our skill, and we must too often close the door on a bereaved home with sinking heart. Yes, gentlemen, you may get, and I hope you will get, a certain use in these things; but you are not men if your hearts do not feel them. And so you may forget that after all there is more gladness than pain on the earth, more beauty of life springing from her bosom than death falling back to her. As you are young, you will rejoice in the life, you will have vision for life only; as you grow older you will be touched rather with the mystery of evil—*das Elend des Lebens*—with a sense of the weary and unintelligible weight which darkens the lot of so many beings made for happiness. The waning face is pressed close to the ruddy and bright cheek—the yearning mother cleaving to the child whose looks are so strangely far away; you will thrill within you as you see joy and anguish, life and death together, and fears will begin to cry in you, asking loudly, Have I, by any deed of mine, by any want of forbearance of mine, by any heedless neglect, or by any lack of my help or sympathy, have I, added to the sorrows or lessened the joys of the least of these? I do not wish for you the surly heart which will not hear these voices; if you hear them without remorse, God will indeed have given you his blessing.

BEQUESTS AND DONATIONS.—Mrs. Ellis of York bequeathed £500 to the Earlswood Asylum for Idiots.—The Sussex County Hospital at Brighton has received £500 under the will of Mrs. Emily Williams of Worthing.—The Nottingham General Hospital, the Nottingham Dispensary, and the Staffordshire General Infirmary, have each received £100 under the will of Mr. Francis Leaver of Longnor Hall.—The Bristol Royal Infirmary has received £200 under the will of Miss Mary E. Dods of Clifton.—Mrs. Clarke of Wymondham has given £100 to the Norfolk and Norwich Hospital, for the bazaar fund.—University College Hospital has received £50 from the People's Contribution Fund.—The British Home for Incurables has received £449 10s. under the will of Mrs. Russell Smith.—Mr. William Goding of Knightsbridge has bequeathed £200 each to the Hospital for Consumption and Diseases of the Chest, St. George's Hospital, the Lock Hospital, and the Cancer Hospital.—The Halifax Infirmary has received £120 from the Halifax Friendly and Trades Societies' Demonstration held on July 28th.—The Bristol Royal Infirmary has received £100 under the will of Mr. William Pritchard.—The Hon. Mrs. Robert Bruce has given £50 to Miss Mary Wardell's Convalescent Home for Scarlet Fever.—Mr. William Hodgson of Gilston Park has given £500 to the Cumberland Infirmary, Carlisle.—The Duke of Bedford has given £200 to the Metropolitan Provident Medical Association.—Mrs. Elizabeth Barlow of Ealing Green bequeathed £200 to St. Mark's Hospital for Fistula, etc., £100 to the Lock Hospital and Asylum, £100 to the Hospital for Consumption and Diseases of the Chest, and £100 to the City of London Hospital for Diseases of the Chest.

ALLEGED EXTRAORDINARY PROLONGATION OF GESTATION.—According to the New York Senate Committee on Asylums for the Insane, a woman who had been for four years an inmate of the State Homœopathic Asylum for the Insane, at Middletown, New York, was confined of an illegitimate child, of whose origin "Dr." Talcott, the superintendent, gave the following explanation: "It might be stated, in brief, that cases of protracted pregnancy have been reported, and some of the most eminent physicians believe it, and I have quoted this case as covering three years. I had charge of the patient less than two years before the child was born."

INTRODUCTORY ADDRESS

ON THE

PROGRESS OF THE OWENS COLLEGE.

Delivered at the opening of the Owens College, Manchester.

BY ARTHUR GAMGEE, M.D., F.R.C.P.Edin., F.R.S.,
Brackenbury Professor of Physiology and Histology to the College.

TEN years have elapsed since I, then newly elected to the chair which I occupy in this College, was called upon to discharge the honourable duty of opening the session of the Medical Department. To-day, my task is still more honourable and even more onerous; it is to deliver the address which shall inaugurate the opening for the session of all the departments of this College. But, if the task which has been imposed upon me is onerous, it is one which fills me with pride and satisfaction; in fact my being chosen for it is a proof of the completeness of the union which in reality only took place ten years ago between the Manchester School of Medicine and Owens College, of the fact that the department of medicine is now one of the integral departments of the College.

There are times in the history of individuals and of institutions, when it is eminently useful to cast a retrospective glance, and to endeavour to estimate the work which has been done, to survey the actual position occupied, and to contemplate the prospects which unveil themselves. In an institution which has grown and is growing so marvellously as this College, in means, in influence, in responsibilities, these retrospective glances, these occasions of taking stock, as it were, should be frequent, if only that those of us who are newer to the work, may be nerved, by the labours and successes of our seniors, to exertions which shall emulate theirs, and which shall be commensurate with the magnitude of the task which remains to be done.

It is just ten years since the College moved from its first modest abode in Kay Street to the building in which we are now assembled. In the twenty-two years which had elapsed since its foundation, the College of John Owens had, indeed, made giant strides; for, thanks to the ceaseless devotion of its first governors—the original trustees—and still more of the body of governors which immediately succeeded them, no less than of its small but brilliant staff of professors, it had lived through a period in which it had to encounter some of that indifference and want of appreciation which is more dispiriting even than direct opposition, and it had won for itself, in Manchester and the whole district, sympathy and approval. Whilst its class-rooms and its laboratories had become filled with students, there had grown up a spirit which found expression in the generosity which made it possible to erect these fine buildings, the embodiment of the determination on the part of her citizens that, in this great centre of commerce, learning of all kinds should receive unstinted support, a welcome, and a home. Had those who first laid the foundation of the reputation of Owens College been imbued with purely utilitarian views of education, or had they anticipated that peculiar delusion of our own days, the movement which has, by a misnomer, been termed "the university extension movement," and which tends to spread throughout communities the error that popular courses of lectures on various branches of knowledge, delivered by young men who have recently taken university degrees, constitute in any sense academic training, I need not tell you that their success would have been far different from what it has been. But they were imbued, on the contrary, with the spirit that the College which they were fostering, and to which they wished to give the scope, if not all the aims nor all the functions, of an university, must, above all and before all, be a place where learning is studied and taught for its own sake; and that, in order to exert that influence which great academic institutions have exercised in the past, it must be not merely as a place of teaching, but as a centre in which learning is added to by the labours of those who teach—a place of research, a centre of light.

And how remarkably have these early workers succeeded, for in those short twenty-two years the struggling College had made a reputation which was no longer local; and, at the time of which I am speaking, there were few who were not impressed by the activity, both in literary and scientific fields, of the professors of Owens College.

It is a source of heartfelt thankfulness that some, though, alas! not all, of these earlier workers in the cause of the higher education, these founders of a great institution, in which Lancashire and, I venture to think, the whole of the north of England, in some degree takes an interest and a pride, are yet amongst us, working with the same enthusiasm, with the same continuous zeal, as before, rewarded by the honour which has accrued to them in the success of the object of their devotion. In our distinguished Principal, in whom we also delight to recognise the Vice-Chancellor of the Victoria University; in Henry Enfield Roscoe, the successor here of E. Frankland, and who, by his scientific work no less than by his personal qualities, has won for himself one of the highest positions amongst the scientific men of England; in Professor Theodores, so long—in those days of much teaching and few teachers—professor of modern as well as of oriental languages, and by us all beloved and regretted in his quasi-retirement; in W. C. Williamson, eminent amongst the botanical palæontologists of Europe, we recognise some of the most active of the early professors; and, knowing them, we do not marvel that by the aid of such men it was possible for our College to attain success as a place of teaching and research.

But I should lead my hearers to form a very false impression if I were to cause them to suppose that, in my opinion, the success and high position which Owens College had attained, even ten years ago, was due only, or even chiefly due, to academic elements. Anyone coming to Manchester, as I did, ten years ago, and weighing, as it were, mentally, the various elements which had combined to make Owens College what he found it to be, whilst he could not but admire the work of the handful of literary and scientific men who had succeeded, in so short a time, in attracting to the institution the regard of all interested in the progress of science or letters, felt no less admiration for the high-minded views, the keenly intellectual sense, the unostentatious generosity of some of the leading citizens of this great city, who ungrudgingly devoted time and means, and splendid talents, in the development of the College.

He only who has enjoyed the privilege of a seat on its governing body, can appreciate the high part which its Council has taken, and how essential to its welfare has been the lay, as distinguished from the teaching element, which it contains—a lay element full of culture, composed of men of whom many are accomplished in literature or science, and all cherish the loftiest ideas of the scope and value of education. To select particular individuals, where all are so worthy of our regard, is perhaps an invidious task, yet can I do otherwise than ask, what would be the portion of the College now, but for the unwearied devotion of its cultured treasurer, or of that member of its governing body to whom Owens College owes as much as to its founder? Were it not for that distinguished man, the present high sheriff of Lancashire, these buildings, so indispensable to our work, could not have been erected, and the position of the College would, in other respects, have been very different from what it is to-day.

One of the chief causes of the strength of Owens College appears to me to lie in our possessing a constitution singularly perfect in its conception and efficient in practice, which, whilst it assigns a dignified position to the academic body (the Senate), endowing it with the regulation and control of all the details of education, and giving it a direct voice, through its representatives, in the executive government of the College, recognises that the supreme governing body should be one in which the academic is one, but one only, of the elements, and on which are represented wider interests, and abilities of different orders. By this fusion of different minds and different interests, the College has secured wisdom in its councils; the good understanding and tranquility which arise when the rights of all are respected; and the influence which has been, and yet is, essential for its growth.

But, concerning what I may term purely prefatory remarks, I wish to ask, what has been our progress in the ten years which have passed, and where do we stand to-day? All departments of our College have been extended, both by the addition of teaching appliances and by the addition to the teaching staff. Newly-founded professorships of English language and of applied mathematics; an additional professor of law; the separation of political economy from the subjects, still too numerous, confided to the professor of logic and mental and moral philosophy; the appointment of an additional assistant-lecturer in classics; and an assistant-lecturer in history and English literature—these are some of the chief changes on the arts-side of the College. Our science-courses have undergone still more remarkable development during the last ten years, and to these I shall direct your attention at somewhat greater length.

Until the year 1872, our distinguished Professor of Botany held the professorship of Natural History; and, even without an assistant and without a laboratory, taught theelements of animal physiology, besides zoology, botany, and geology—four sciences which to-day are taught by four professors and three assistant-lecturers, each one of whom is an accomplished specialist. First came the separation of geology from natural history, in 1872, when Mr. Boyd Dawkins, F.R.S., now the professor, was appointed lecturer of this subject. In the following year, the Brackenbury Professorship of Animal Physiology and Histology was founded, so that the duties of the professor of natural history were restricted to teaching botany and zoology; whilst, in 1879, a separate chair of zoology was founded, and Dr. Milnes Marshall was appointed its first professor, the chair of botany—the science, amongst all which he had taught and cultivated, which he was most devoted to, and which he had particularly enriched by his work—being retained by Professor Williamson.

But this increase in the number of teachers from one to seven does not adequately represent the development which has occurred. Laboratories of physiology, of botany, and of zoology have been set on foot; and the practical teaching of geology, both in the museum and in the field, organised as is only possible when the subject is in the hands of an enthusiastic professor who makes it his own study.

The modern method of teaching natural science is, as you all know, based upon the principle that, wherever this is possible, the student should be brought in contact with the very object of his studies, and, by simple observation, or, when this is requisite and possible, by experiment, become acquainted with all the phenomena which it presents; hence this method of teaching requires museums and well-fitted laboratories. Teaching by mere lectures, however well illustrated these may be, has more and more made way for a system in which the systematic lecturer deals with the principles of a science of which the details must be learned by each student for himself in the laboratory and the museum, for there is no truth with which the modern scientific teacher is more impressed than was expressed by Horace in the lines:

> "Segnius irritant animos demissa per aurem
> Quam quæ sunt oculis subjecta fidelibus."

Spacious though they appeared to be, the new buildings, opened for the first time in 1873, did not offer adequate room for the practical teaching of the various branches of natural science to which I have referred. In a new building of the medical department, to which I am shortly to make reference, has now been completed a laboratory of physiology, which offers every facility which the worker can desire, and which is surpassed by few at present existing. Within a few weeks, I believe, the foundations are to be laid of a great natural history museum, in which our collections of botany, zoology, and geology are to be lodged; and which is to contain spacious laboratories devoted to the pursuit of these sciences, which will give the same facilities to those anxious to cultivate them which are now already offered to the student of physiology.

So magnificent had been the provision made for the teaching of chemistry in these buildings in 1873, that I have not to tell you of any remarkable structural extension of this department. A record of the past ten years would, however, be incomplete if it did not refer to the fact that Mr. Schorlemmer, who had long been the special lecturer on organic chemistry, was, in 1874, appointed professor of this science; which he has done so much to advance by his researches, that the laboratories, new in 1873, if they have not been found too small, have not proved too large; and that, whilst no small fraction of all the original scientific work done in Owens College has emanated from them, they have supplied professors to the newly-founded colleges at Leeds, Sheffield, Newcastle, and Dundee. Truly, our chemical school is worthy of its teachers, Frankland, Roscoe, and Schorlemmer.

But if the Owens College has developed marvellously by the differentiation and development of its older studies, unquestionably the greatest of its recent developments has been due to its incorporating within itself a medical department. Ten years ago, the incorporation had just taken place. Referring to it in my inaugural address delivered at that time, I expressed myself as follows: "I speak of the present session marking the commencement of a new era in the history of the Manchester School of Medicine, no less than in that of the Owens College, because, although the legal amalgamation of the two institutions took place some time ago, it is only now that the effects of this union are about to become evident. Henceforward the teaching staff of the medical school will form an integral part of the Senate of the Owens College; whilst the professors, who have by their illustrious labours already

gained for this institution a high reputation as a school of literature and science, are about to co-operate for the first time in the noble endeavour to raise up in the north of England a great school of medicine. For the first time, this year the medical students of Manchester will receive a part of their education within the walls of this College; and, before many months have elapsed, the adjacent buildings of the new medical school will afford the strongest objective proof of the union which has been brought about in Manchester between two institutions devoted to literature and science, and medicine."

This union was brought about amidst the sanguine hopes of many, but yet not without the anxious fears of some of the friends of the two institutions. To-day, we recognise the success of the policy which dictated it.

The new buildings of the medical department to which reference has just been made, were duly opened just nine years ago, and were considered, with justice, to be amongst the very best devoted to such purposes in the kingdom. But nine years have wrought great changes. The number of our students has well-nigh doubled. Emulating, even surpassing, the departments of arts and science in the extension of its courses of study, the medical department has added to its curriculum many new courses, whilst the teaching of others has been greatly extended, and has been made more and more practical, in accordance with the tendency which I have already referred to, when speaking of the teaching of the natural sciences.

The buildings which, nine years ago, were sufficient, were, three or four years ago, already recognised to be no longer adequate to our requirements, and the Council determined upon the large extensions which have just been completed, and which constitute the new buildings of the medical school which are to-day thrown open to your inspection, and which are henceforward to be occupied.

In the new buildings we have, for the first time, large and efficient laboratories in pathology, a subject which has developed in a singular manner in recent times, and of which the importance is now fully recognised; and which has, in spite of scanty means, been cultivated amongst us with singular success and devotion by Professor Dreschfeld.

A large materia medica museum and two laboratories will enable the professor of materia medica, Dr. Leech, with the aid of a recently appointed assistant-lecturer, to develop, as was before not possible, the teaching both of materia medica and pharmacy, and of pharmacology and therapeutics. It will enable students to learn within our walls, and we believe more efficiently than was possible under older systems, the fundamental operations of pharmacy, and the distinguishing characters of drugs.

Besides a new students' reading room, and a library and reading room reserved for members of the medical society, the new building contains room for a collection of models and appliances illustrating the course on hygiene and forensic medicine; and last, but not least, a fine series of rooms, including a lecture-room, which constitute the new physiological laboratory of the College, to which reference has already been made.

You will, I feel sure, be all ready to admit that the development of our means of teaching has, within the period which I have selected for review, been indeed remarkable. This development has only been possible by the generosity of many of the benefactors of the College, who have recognised that to found a great academic centre was an object worthy of their ambition, but requiring great and never-ceasing sacrifices; that, although much has been done, yet immensely more remains to be done, if we are to take a position amongst the leading universities of Europe. Foremost amongst our recent benefactors was the late Mr. Berjer, whose munificent bequest relieved the College at a time when such relief was urgently needed, and permitted of a development and reorganising of certain of our departments which otherwise must have been long delayed.

I have said enough, I believe, to impress all my hearers with the extent of the progress which Owens College has made in ten years, in respect to its teaching staff and teaching appliances; but this gives but a faint idea of the altered position of the College, of its increased influence, and of its more extended usefulness.

It is true that, ten years ago, both within our walls and outside, both in Manchester and beyond, it was beginning to be hinted that the prosperous College which had been less than a quarter of a century in existence, would, ere long, of necessity have to seek to occupy the higher position of an university; but anyone would have been accused of being over-sanguine who had ventured to predict that, within ten years, such an aspiration would, in a sense, have been realised, and that an University, of which Owens College is as yet the only college, would be in active work.

I shall not attempt to recount to you the details of the contes which terminated in the granting, in 1880, of a Royal Charter to the Victoria University, except to say that we found far more friends and sympathisers than enemies or opponents; and that it was, doubtless, to the warm advocacy of many of the most enlightened and influential members of the older universities, both in England and Scotland, that the aspirations of Owens College found a realisation, though not precisely in the form which had originally been desired, in the foundation of the Victoria University, whose seat is in Manchester, and whose first and only college is the Owens College, upon whom have been transferred, from the first, the fullest privileges permitted by the Charter.

There has been, and yet is, so much misconception as to the relation of the Owens College to the Victoria University, that you will excuse me if, in a few sentences, I attempt to dispel any difficulties which some of you may have in reference to this matter.

The Victoria University stands to the Owens College in an analogous relation to that of the University of Oxford or the University of Cambridge to the Colleges of Oxford and Cambridge respectively. The governing bodies of our University—the University Court and the University Council, which is the executive body—have been and are composed of members, some of whom are elected by the Crown, and will be succeeded by persons appointed by the Lord President of the Council; others hold office in virtue of the office which they hold in the Owens College; whilst a certain number are chosen by the Senate, and a larger number by the governing body of the College. In all matters relating to examinations and examiners, degrees and distinctions, the governing body of the University acts only after a report from the General Board of Studies, which is composed of professors of the College, who are *ex officio* also professors of the University, of certain lecturers of the College who have been elected lecturers of the University, and of certain external examiners not professors, lecturers, or teachers in any of the colleges in the University. But I wish you to observe that, though the relations of the University and Owens College are so close, the governing bodies of the two institutions are independent of one another.

Then, again, whilst the *locus* of the University must be in Manchester, and will, we may venture to predict, for ever be identified with that of the Owens College, there is provision made for the incorporation into the University of additional colleges; and already two of the very junior sister-colleges of the Owens College—the Yorkshire College and the Liverpool College—are looking forward to the time when, having been able to comply with the requirements of the charter, they will be in a position to be admitted colleges of the Victoria University, sharing, in proportion to the development which they may have attained, in the privileges which we now alone possess. We may predict, then, that, in the course of a few years, the Victoria University will, like the University of Oxford or the University of Cambridge, be an university embracing several colleges, though I believe—and you must understand me to express strictly my individual opinions—it will not be found consistent with its proper government, or in accordance with the policy that gave birth to it, that it ever should possess a great number of colleges. With three, perhaps four colleges, the Victoria University may be able steadfastly to pursue its present aims, which are the aims of all universities worthy of the name—to encourage the higher learning by their immediate influence, and, if possible, by their aid; to foster the progress of education, by making the degrees which they confer encouragements to, and the natural aid of, systematised and properly regulated study carried on under their own immediate care.

When, early in 1880, we heard that the Crown was ready to grant a Royal Charter, constituting the Victoria University, and conferring upon it power to grant "all such degrees and other distinctions as now, or at any time hereafter, can be granted by any other university of the United Kingdom, it was not without deep disappointment at the proviso which it was stipulated must, of necessity, follow, to wit: "Subject to the proviso that the University shall not grant degrees in medicine or surgery unless and until authority in that behalf is given by our further charter or by Act of Parliament."

The reason which led to the introduction of this proviso was so obvious, and the hopes of future concession such, as to render it, in the opinion of all, expedient that the Charter should be accepted, in spite of this anomalous disability.

The reason was this: the subject of medical qualifications and degrees, together with the working of previous Medical Acts, was at that time under the consideration of a Parliamentary Committee, which was shortly afterwards succeeded by a Royal Commission

appointed to inquire and report on the same subjects. These inquiries had been brought about in great measure by a feeling prevailing in the medical profession that, in the past, neither its interests nor its dignity had been safeguarded by the large number of rival and practically irresponsible bodies endowed with the power of conferring medical degrees and qualifications, some of which it was alleged had, so as to add to their means, vied with one another in lowering the standard of medical qualifications, and had, by so doing, injured the status of the profession by admitting imperfectly educated persons into its ranks. It would have been strange if a Government which had appointed a Commission to inquire into this matter had added one more to nineteen medical licensing bodies already in existence, without waiting to receive the report of the Royal Commission.

The Parliamentary Committee to which I referred lapsed, but was concluded by the Royal Commission on the Medical Acts, appointed in 1881. Our vice-chancellor appeared before this Commission, and in his evidence, brought before it two grounds upon which the Victoria University felt entitled to press the claims which were deferred in 1880, and to be relieved from the disabilities under which it laboured in this respect in comparison with all other British universities. It could not be doubted, he maintained, that medical study in Scotland had profited greatly by the influence exerted by the universities, and which could not have been exerted had not their bodies possessed the power of directing medical studies by their right to grant medical degrees. Having alluded to the influence exerted by the numerous universities of Germany in fostering scientific medical research, our vice-chancellor asserted that existing universities have, at all events in recent times, endeavoured to exact from candidates for their medical degrees evidence of high merit, and especially exact scientific training, and have thus encouraged studies which have had the greatest influence upon the progress of medicine; this relation having added dignity to the profession of medicine, whilst it has reacted in a most beneficial manner upon the study of science in the universities. Having pointed out the universal opportunities afforded in our medical department for the scientific and practical theory of medicine, and the boon which would be conferred upon it as well as upon the medical department of such other colleges as might be incorporated with the Victoria University, our vice-chancellor concluded by assuring the Commission that the views of the Victoria University on the standard to be aimed at by a university granting medical degrees were essentially the same as those set forth by the promoters of the Royal Charter establishing the University, who, in a document drawn up for submission to the Privy Council, had thus expressed themselves:—

"The authorities of Owens College beg leave to state that, in seeking power to confer degrees in medicine, their object is to be enabled to give a degree which shall imply both a sound training in arts and science, and a very high standard of strictly professional attainment. They recognise fully the distinction between the minimum of attainment which shall be exacted as giving a title to practise, and that high standard of training and knowledge which should alone qualify for an university degree."

The Royal Commission on the Medical Acts presented its report at the close of last year, and unanimously recommended that the Victoria University should have conferred upon it the powers possessed by all other British universities. Consequent upon this, a supplemental charter was granted on March 20th, 1883, conferring upon the Victoria University power to confer degrees in medicine and surgery.

In the comparatively brief interval which has elapsed since this supplemental charter was granted, the University has appointed external examiners in medicine, who have co-operated with the resident members of the Board of Studies in drawing up draft statutes and regulations for degrees in medicine and surgery, which have substantially been approved by the University Council, and which, it is hoped, may soon be promulgated after receiving the approval of the University Court. When I mention that the first external examiners in medicine of the Victoria University are Professor Lister, Professor W. T. Gairdner, Dr. W. O. Priestley, Dr. Lauder Brunton, and Mr. Mitchell Banks, it will be admitted that the University has given a guarantee of its desire that its medical and surgical degrees shall command the confidence of the profession, and take from the very first a high position.

There are many amongst those whom I am addressing who doubtless feel some curiosity to know what are to be the essential characters of our medical and surgical degrees; and I regret not to be able to give some interest to the present address by revealing what must still, for a little time, continue to remain confidential particulars, and that I must confine myself to remarks of a general character.

At a time when the standard of the medical qualifications granted by even the least efficient of the licensing medical corporations, is being greatly raised, it is expedient that a new university, about to confer medical degrees, should disavow any intention to seek popularity by conferring titles upon any but the most honourable terms.

A degree in medicine should, in my opinion, offer a guarantee that its holder is possessed of more than a minimum of general education, such as is demanded by the General Medical Council of all medical students, without exception; it should still more offer a guarantee that he has obtained a fundamental, though not necessarily profound, knowledge of the sciences upon which medicine is based, acquired not merely as a result of reading, but of carefully directed and systematised instruction; it should, lastly, ensure that his professional education has been exact and yet broad, including certain branches of knowledge which, though not insisted upon by the ordinary licensing bodies, are yet necessary in one who is to be considered as having received a liberal medical education.

The great grievance which has existed until lately in England, as distinguished from Scotland, in the matter of medical degrees, and, if we except Cambridge, yet exists, lies in the fact that the older universities no less than the University of London have taken no part in the medical training of their graduates, so that a degree in medicine has not afforded a guarantee of a lawful and systematised training in medicine under teachers of eminence. A new university must, in order to be successful, offer by its medical degrees the double guarantee of a systematised and thoroughly efficient education carried out under its own watchful guidance, as well as of examinations sufficiently extended, sufficiently rigorous, and yet fair to candidates, because uniform in standard and demanding no knowledge for the thorough acquirement of which opportunities have not been freely accorded.

And now I must draw the survey of our recent progress to an end, though I cannot do so without touching, however briefly, upon a subject of some importance. I refer to the provision which has just been made for incorporating the Manchester and Salford College for Women with Owens College, and in such a manner that, whilst great facilities will be offered for the pursuit of many of these higher studies which, until lately, were virtually closed to women, we shall avoid the difficulties and objections which many raise to the adoption of a general system of mixed education. In our department for women, the greater part of the work will be carried on in separate classes and a separate building; but it is in the discretion of the Council to admit to such of the Intermediate, Final, and Honours Classes held in Owens College as it shall think fit, women who have passed the Preliminary Examination of the Victoria University.

I trust that no one who has listened to this address will have misinterpreted the motive which has guided me in selecting the subject of my remarks. It was not, believe me, that I might speak in a vainglorious spirit of what has been achieved in a comparatively short period by the bodies with which I have the honour to be connected, but rather that I might impress my hearers, and especially the younger members of this College, with the responsibilities which rest upon us to utilise to the very utmost the splendid opportunities which are before us of building up in this great city a college or an university which shall do justice to the generosity of our benefactors, and which shall make for itself a reputation which shall not be inferior to those of the great universities whose annals are linked with our national history, and whose glories are the pride of every Englishman.

THE INFLUENCE OF THE DOCTOR IN HEALTH-RESORTS.—"Each winter resort," says John Richard Green, in *Stray Studies*, "brings home to us the power of the British doctor. It is he who rears pleasant towns at the foot of the Pyrenees, and lines the sunny coasts of the Riviera with villas that gleam white among the olive-groves. It is his finger that stirs the camels of Algeria, the donkeys of Palestine, the Nile boats of Egypt. At the first frosts of November, the doctor marshals his wild geese for their winter flitting, and the long train streams off, grumbling, but obedient, to the little Britains of the south."

AN analysis of the population of Paris just published, shows that medicine, in its branches, supports 18,000 persons; the branches of course including chemists and all compounders and vendors of medicine.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

INTESTINAL OBSTRUCTION.

Introduction to a Discussion in the Section of Surgery.

By RUSHTON PARKER, B.S., F.R.C.S.,
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In entering upon the complex series of topics involved in a consideration of intestinal obstruction, I feel it to be due to the occasion, to my audience, and to myself, to confine my remarks to certain portions of the subject upon which we are by no means as much agreed as I think we might advantageously be.

It may be well to be clear as to what we understand by the term, for we are dealing with a subject that has been often disputed, upon which very exclusive and even contradictory views have been expressed; but which is not yet satisfactorily settled, so far as the patients are concerned. It is evident that there is no little want of agreement as to what is meant by intestinal obstruction; and the obvious interpretation applicable to the language of some is that by that term they understand the mechanical obstacle rather than the sum total of its effects. To no such restricted sense can I confine the meaning of the term, which for all purposes—pathological, clinical, and therapeutic—deserves, I imagine, instead of so narrow an application, the widest that we can give it.

When a hernia of intestine passes into the condition known as strangulated, a series of characteristic symptoms, quite apart from the more or less recognisable tumour, make their appearance. When sudden invagination, or volvulus, of the gut occurs to anyone, a series of symptoms, more or less identical with those just hinted at, likewise appear. Instead, however, of speaking of the symptoms of strangulated hernia, the symptoms of intussusception, of volvulus, or of other strangulation, it would be more correct, more clear, and more comprehensive to call them the "symptoms of intestinal obstruction," as caused by strangulated hernia, invagination, etc. Not that these most definite mechanical occlusions are by any means the only causes of complete—that is, for the time impassible—intestinal obstruction.

All the symptoms to be found in the varieties of intestinal strangulation are, however, equally found in cases from which strangulation is known to be absent: cases of peritonitis, of enteritis, and others, whose pathological anatomy we are not sorry to ignore in the event of recovery, or upon which dissection, in the event of fatality, throws no light.

Constipation, abdominal pain, distension, vomiting, retching, and eructation, quickened pulse, elevation of temperature, are the coarser symptoms that characterise intestinal obstruction, from whatever cause resulting.

There seems to be a hazy sort of notion that the kind of obstruction is indicated by the relative arrangement or intensity of the symptoms, whereas this is not only untrue, but the converse is actually the case, namely, that individual cases of obstruction due to one cause, and thus ranged in one class, differ from each other neither more nor less than individual cases due to different causes, and ranged in different classes.

There is the utmost variety, for instance, found among cases of strangulated hernia, as there is among cases of internal strangulation, among cases of peritonitis, among cases of local enteritis, and among cases of functional obstruction due to causes that may be unknown, or incapable of certain recognition. And here a word is due in explanation of the term "functional obstruction," by which some observers seem to understand little or nothing more than passive constipation. I must here repeat that, by obstruction of the bowels, I do not mean merely the fact of arrested dejection, but the harmful consequences, the active visceral derangements exhibited, not merely in the alimentary functions, but in those of the circulatory and nervous systems as well. In this sense, clinically comprehensive, physiologically real, logically the only sense, have we a right to use the term "intestinal obstruction."

But before you can properly treat, you must know what you have before you; and in treating a condition so variously brought about, one naturally tries to differentiate its variety; hence the technical hunt for a "differential diagnosis," the early attainment of which is said to be all important. The early attainment of all that is possible in this direction, I freely admit to be important; in fact, I sometimes wonder for how long people want old acquaintances to stare them in the face before they are to be recognised; but I decidedly object to the unnecessarily violent methods adopted in the attempt to effect this entirely desirable purpose. Strangulated hernia, for instance, is a common accident usually extremely easy of recognition, thanks, among other circumstances, to the external tumour; and the result of proper treatment opens up an avenue for the rescue of lives that has become, and continues to be, both wider and more illuminated. But I am not sure that the part played by the ostensible external swelling, in promoting and certifying diagnosis, always receives its due tribute of appreciation.

Then, again, intussusception, and other internal strangulations, have precisely the same symptoms, which are really not difficult of recognition as such. In occasional, though, unfortunately, too rare, instances, an internal abdominal tumour assists the interpretation so far that an early differential diagnosis is not only possible, but is sometimes actually made. It begins to be seen, however, that it is one thing to find intestinal obstruction, but quite another to prove, at the outset, its mechanical cause. And then its cause may not be mechanical at all, in the sense that strangulations and strictures are mechanical, but may be due to the equally obstructive local paralysis or other propulsive incapacity, due to peritonitis, enteritis, or other causes that we can only at the time imagine, and even then, perhaps, incorrectly; for *post mortem* examinations may reveal little or nothing that accounts for obstruction. But the obstruction has been there, and would have been promptly recognised if it had been properly realised.

I complain that the obvious symptoms of intestinal obstruction, which no medical man really overlooks, but which it is certain many fail to realise in time, appear to undergo a process of concealment from the mind of the observer who is looking for them.

Among psychological phenomena, I hardly know of one more curious than this, which looks like a form of mental disease liable to attack persons of various ages in adult life, chiefly of the male sex, engaged in the profession of medicine, and especially at the time when they happen to be pursuing the investigation of certain forms of abdominal disease. It is necessary, in order to analyse the symptoms of the observer, to separate his mental processes into those relating to observation, and those that relate to treatment.

I complain that the treatment adopted on the first recognition of the symptoms of intestinal obstruction is often one that exaggerates them when they are expressed, or even evokes them when dormant. Thus it is that symptoms submitted to aggravating treatment undergo the extraordinary process of being both intensified and concealed. In the too eager employment of erroneous methods, the symptoms are intensified, while the much sought for "differential diagnosis" is apt to be obscured.

If the observer happen to effectually direct his efforts from the first to the palliation of the symptoms, he loses nothing in the department of diagnosis, though he will have fewer opportunities of verifying it by *post mortem* examination.

It does not seem to be sufficiently recognised that the abrogation of ingesta cannot be too rigidly enforced at the outset, that the administration of enemata, or even the digital exploration of the rectum, aggravate the painful symptoms, I was going to say, "which they fail to elucidate;" but they so far elucidate them that they elicit or increase them. Traditional practice is here, as elsewhere, dictated by routine prejudice, against which there could be no complaint were its consequences not physically harmful. We have only to establish generally a different routine practice, which is happily employed more or less thoroughly by not a few, and I do not care how blindly it be followed, or how traditionally it may become a prejudice, since it greatly comforts the patients, and affords satisfaction to the attendant. It has, moreover, the additional, if rarer, advantage of being rational. We know something of cases where the abdomen has been wounded and the intestine torn; of the careful neatness with which the bowel is closed and replaced, the cleanliness with which the avoidance of putrefaction in the tissues is observed. During the momentous first few days the patient is kept plied with opium, and fed with nothing, or a mere suck of ice. The most tender care is taken that all possible restraint shall be put upon the movement of the bowel and of the patient, whose life absolutely depends upon every one of these simultaneous precautions. Not many days are required for successful healing, when it happily, and most generally, occurs; but the precautions are unstinted, the

abstensions are enforced, and what is more, the crisis is endured without any grave inconvenience to the patient.

What would you think of a solemn conclave round such a case, ordering an enema, perhaps not even a hot one, to see whether something could not be got to pass the wounded spot of bowel; ringing the changes on opium and belladonna, or perhaps even persistently prescribing the latter, which is the actual antagonist of the former; administering bowl after bowl of milk, "to keep up the patient's strength," forsooth, and then afterwards wondering why he has acquired such a furred tongue and such a foul breath; as soon as the inevitable tormina have had a good turn, repeating the injection or having a grope at the anus, and then gravely recording that the patient subsequently was severely griped; that the abdomen, which was previously flat, had now become distended; that eructation had given place to retching or vomiting; that the pulse, from numbering 80 or 90, had risen to 120 or 140, and the temperature to 102° or more; that the patient had a "pinched and anxious expression;" that the hands and feet were getting cold; that the patient eventually became collapsed and died; that at the *post mortem* examination nothing wrong was found with the peritoneum; that the bowel was empty and contracted below the seat of injury, dilated above it; that the wound had perfectly healed; that there was no stricture or other "sign of obstruction"—as it is sometimes actually expressed—the fact of distension down to a certain spot, and the non-passage of intestinal contents beyond it, not being recognised as being, with all the above symptoms, the very essence of "intestinal obstruction."

And all this is related as having happened, *in spite* of the treatment adopted, treatment which is positively sometimes called "palliative."

Why, gentlemen, that is the exact way to manufacture the symptoms, which certainly sometimes result from treatment such as I have sketched. I do not say always result, for some patients can stand so very much more than others. Every case of intestinal obstruction, except strangulated hernia, requires the same tender protection that all admit to be necessary for a wounded bowel, and a hernia requires the same for a variable time after operative reduction.

As for a differential diagnosis in other forms of obstruction, that is, immediate and exact differential diagnosis, it would be well for us all to appreciate that, unless at once obvious, it is *sometimes impossible, always difficult, and never essential.*

I therefore agree with those who advocate careful medical treatment from the first in all forms of intestinal obstruction except strangulated hernia, whether the cause be, as it generally is at first, entirely unknown, or whether it be guessed to be invagination, volvulus, or stricture. And here one comes to the subject of cancerous and other strictures of the large intestine. A critic in the *Lancet* of July 21st, 1883, says that he "cannot suppose" me "to mean that we should refuse all food to patients with, say, cancer of the rectum." Who ever said or implied that he could? Are "cancer of the rectum" and "obstruction" the same thing, as they appear to be in the mind of this writer? Cancer of the rectum may be a *cause* of obstruction, and generally is, in some stage or other of its progress. Such obstruction, or rather its symptoms, I would certainly treat, while they require it, by the methods applicable to the symptoms of every other form of intestinal obstruction. But the symptoms of obstruction from this cause, whether they be at first mere colic, or develop to a severer extent, are capable of relief, so long as entire occlusion has not come on, by opium and the great restriction of the diet, or even its abrogation for a time; but afterwards, a nourishing diet of milk, broths, and even some other solids so long as not too productive of fæces, may be both endured and enjoyed. Two patients of mine, treated for cancerous stricture of the rectum, of their own accord and common sense, managed their diet so well that they never suffered distension or other symptoms of obstruction from the first day of their disease up to the performance of colotomy for its temporary relief. In both, the colotomy was done on an undistended bowel, not for the relief of intestinal obstruction, but to divert the irritating fæces from the surface of a painful tumour, and, in one case, from a bladder into which a fæcal fistula had opened.

In the event of the case going from bad to worse in spite of systematic care, and passing into the commencement of collapse, the operation of gastro-enterotomy will relieve the distension to which collapse may in some cases be chiefly due.

It is idle to say that only so many per cent. of cases submitted to expectant treatment have recovered. Let us submit a greater proportion of cases to the proper kind of expectant treatment. We know the mechanism of spontaneous recovery in invagination, and reopening of the closed canal after the passage of the sphacelus; let us give the cases a better and earlier chance. Some cases, of course, must die, perhaps many; but we are in need of new statistics, under genuinely palliative management, which is the easy and only safe method for all non-strangulated cases (and they are a numerous class), while it is decidedly less frequently fatal than "abdominal section."

Dr. EDWARD WATERS (Chester) read notes of five cases of intestinal obstruction. The first case was that of an unmarried female. On December 10th, 1879, colotomy, by median incision, was performed by Sir Spencer Wells. The result was successful. The second patient was an unmarried female, who had obstruction from a growth at the upper part of the rectum. On November 1st, 1882, enterotomy was performed immediately above the left ilium by Dr. James Taylor, surgeon to the Chester Infirmary. The result was at first successful, but death followed on November 28th. The third case was that of a male, who had intestinal obstruction from a fungoid growth at the sigmoid flexure. On December 10th, 1882, Sir Spencer Wells operated, by the median incision, with the formation of artificial anus. Death occurred in a few hours. The fourth patient was a married female, who had intestinal obstruction from a growth in the large intestine. On February 16th, 1883, enterotomy was performed immediately above the crest of the right ilium by Sir Spencer Wells. The result was successful. The fifth case was that of a male, with obstruction from a growth in the large intestine. On March 26th, 1883, enterotomy was performed immediately above the crest of the right ilium by Sir Spencer Wells. The result was successful.

Sir SPENCER WELLS said that the cases brought before the Section by Dr. Waters offered a complete reply to the conclusions at which Mr. Parker had arrived. Of four desperate cases in which Sir S. Wells had operated, after consultation with Dr. Waters, three were successfully relieved from the obstruction, and only one, operated on when almost moribund, was unsuccessful. One lady, operated on in 1879, was still alive and in excellent health. This was a very curious case of enormous distension of the cæcum and transverse colon by fæcal matter. An incision was made in the median line of the abdominal wall; the peritoneal coat of the distended intestine stitched to the peritoneum of the parietes; the intestine then opened, and emptied of two pailfuls of fæces. Complete recovery followed, the artificial anus having been closed some months afterwards. The seat and cause of the obstruction are still unknown. In the two other cases, where the cause of the obstruction was malignant growth in the upper part of the rectum, instead of operating in the left loin, Sir S. Wells opened the cæcum in the right loin, below the right kidney, well behind the peritoneum. One of these patients was still alive; the other lived several months, greatly relieved from her sufferings. These three patients could not have lived many days, probably not many hours, if the operations had been left undone. In all three, great suffering had been relieved, and life prolonged; and in one the cure may be considered complete, the patient being likely to complete the full term of average life. The operation in the right loin has several advantages over Amussat's operation in the left loin. The peritoneal cavity may be more certainly avoided, and the surgeon is much more likely to open the bowel above the seat of disease. It is important to stitch the edges of the opening in the bowel to the skin—otherwise, fæcal fluids might gravitate into the subcutaneous cellular-tissue, and give rise to diffuse cellulitis.

Mr. OLIVER PEMBERTON (Birmingham) expressed his opinion that exploratory operations for determining the seat of stricture in cases of uncertain diagnosis were not justifiable in the present state of knowledge, and that such proceedings took away, in many instances, the chances of life. He advocated the advantages of early observation, and the administration of opium; and in the end, when, especially, the diminished secretion of urine demanded interference, the performance of right iliac enterotomy, in preference to colotomy, the object being to open the cæcum, if possible, and if not this, then the presenting portion of distended intestine.

Mr. PEARCE GOULD (London) could not agree with Mr. Parker that it was wise to regard all cases of intestinal obstruction as alike. He considered this a retrograde step, and asserted that intestinal obstruction was a symptom only, and not a clinical or pathological entity. Cases of strangulation differed widely from those of mere obstruction from impacted gall-stone or fæces, or again from paralysis of gout due to peritonitis or enteritis. The great requirement was exact and early diagnosis, and the early removal of all causes of simple physical obstruction. He could not agree with Mr. Par-

ker that enemata and digital exploration of the rectum should never be used, and he referred to cases of intussusception which had been cured by injections of air or fluid.

Mr. LAWSON TAIT (Birmingham) said that the present discussion afforded an illustration of a proceeding which might very well be extended. Instead of the Section having its time occupied by a number of miscellaneous papers, it would be conducive to far better results if the whole work of the Section during its session were confined to one such important, difficult, and complicated question as that now under discussion. In such a case, the papers to be read should be printed and in the hands of the members some time before the meeting. Mr. Tait was under the impression that the views enumerated by Mr. Parker were of a retrograde kind, and that the true solution lay in surgical interference by operating early, opening the abdomen in the middle line, and making an artificial anus in the first piece of distended intestine which presented. It was wholly unnecessary, and it was dangerous, to wait for an accurate diagnosis. This could be done only by abdominal section, and this had better be done before death than after it.

Mr. BENNETT MAY (Birmingham) regarded Mr. Rushton Parker's views as not favourable to the advancement of operative treatment in cases of obstruction, which, however, he himself believed was the line on which progress would be made in the future. No doubt, the selection of the proper operation was often a matter of great difficulty, often impossibility. Where the indications to open the colon were not distinct, the surgeon had to make choice between simple enterotomy and an exploratory abdominal section. The former was much less fatal in result than the latter, for reasons which were obvious; but certain conditions could only be completely relieved by abdominal section, among which he enumerated internal strangulation, intussusception, volvulus, and impacted gall-stone. Enterotomy was often undertaken as a compromise between colotomy and an exploratory section, and was a very judicious compromise in view of the impossibility of sure diagnosis, accepted by many able surgeons, such as the previous speakers (Mr. Oliver Pemberton and Mr. Lawson Tait). For all other causes of a chronic character—as compression by tumours, constriction by bands, etc.—enterotomy was the appropriate operation. Mr. May referred to three cases in which he had performed abdominal section for obstruction, and expressed his conviction as to the absolute necessity of exploring every doubtful swelling of the abdominal wall or cavity where symptoms of obstruction were persistent and unrelieved. He believed the principal objection to operation in many surgeons' minds lay in the hope, which was always present, that spontaneous recovery might ensue. A strangulating band might liberate itself by ulceration, an impacted gall-stone pass on, or a strangulated intussusception exfoliate itself.

Mr. EDMUND OWEN (London) considered that Mr. Lawson Tait had thrown a flood of light upon the surgical aspect of acute intestinal obstruction. Hitherto, surgeons had inclined to the practice of making a tolerably certain diagnosis as to the situation of the strangulation before proceeding to operate. Although surgeons in consultation on a case might all agree upon the advisability of giving relief by operations, the operation was apt to be delayed on account of a divergence of opinion as to the "where." Mr. Tait had now said, with the authority of his vast experience, that it was not necessary to attempt a differential diagnosis. For the future, Mr. Owen would be inclined to follow the suggestion that the abdomen be opened below the umbilicus, and an artificial anus made in the first piece of distended intestine which presented to view; thus all harmful manipulation would be avoided. The operation of colotomy, either in the right or left loin, without implicating the peritoneum, was not an easy performance; he was particularly inclined to condemn a blind operation upon the colon by the loin when the strangulation could not be determined. In the chronic intestinal obstruction of cancer of the rectum, the surgeon's course was clear enough.

Mr. RUSHTON PARKER, in reply said: Much of what has been said in criticism of my paper, has been to the effect that several speakers differed widely from some of my main conclusions, which are declared to be unscientific, to advocate a retrograde step in surgery, and to present some of the essentially surgical portion of this most important collection of subjects in a decidedly unsurgical light. I should indeed be rightly ashamed if these imputations were just, but as I emphatically repudiate their applicability, it remains to supplement my opening statement by additional remarks, in the absence of which my real conclusions have been misunderstood. For any want of clearness in my actual words, and the consequent misapprehension of my meaning, I must blame my own anxiety to keep within the time allotted to me, while duly dwelling on important points. The effect of the discussion upon my own mind, however, has been that of gratification at the large amount of support my arguments have received, from speakers who, while deprecating my heterodoxy, have ably defended the position they condemn.

It seems to have been overlooked that I distinctly advocated the performance of gastro-enterotomy in cases of intestinal obstruction that are steadily proceeding from bad to worse. It is true that I did this in merely the words required for its utterance; but something must be taken for granted in a statement that, in the time at my disposal, is necessarily precluded from being exhaustive. Mr. Lawson Tait gave the most independent support to one of my contentions, when he declared that, after having performed abdominal section for intestinal obstruction, in a very considerable number of cases, he had generally failed to find any seat of strangulation, or otherwise to localise any obstructed spot. "He had, however, contented himself with establishing an artificial anus in concluding the operation, with the recovery of his patient in most cases." No better proof could have been adduced regarding the futility of tentative abdominal section; while, at the same time, the ordinary fatality attending the operation was wisely averted by opening and emptying the bowel. What is this, in effect, but gastro-enterotomy?—an operation I entirely approve, under appropriate conditions. I would go further, and state that severe or acute cases of intestinal obstruction, promiscuously treated early by incising the abdomen, uniting to the edge of the opening the piece of gut that presents, and puncturing the latter, I should expect to be almost invariably relieved, and to show a large majority of recoveries. Nothing could be more candid than Mr. Tait's admission that, with his experience (which has given him almost as much anatomical inspection as could be derived from *post mortem* examinations, while still preserving the lives of his patients), he feels not yet able to lay down exact rules for our operative guidance in these cases. He says that he satisfied himself with having cured his patients, without knowing why. While congratulating him on his empirical success, I do not regard it as unexplained; but presume his patients were cured because he relieved their intestinal distension—a condition which, if permitted to continue long enough, leads to exhaustion, by keeping up the pulse, temperature, and restlessness, till, finally, collapse sets in.

Mr. Gould misappropriates my words without apprehending their meaning when he supposes, somewhat to this effect, that, in all cases of intestinal obstruction except strangulated hernia, I content myself with prescribing opium, stopping food, and, in the event of its proving an internal strangulation, awaiting the death of the patient, without taking the necessary steps to make out the exact diagnosis, or to operate for the patient's relief. For all that is attainable in the direction of early differential diagnosis, I am, as I have already said, as desirous to be on the alert as anyone; but you cannot make a differential diagnosis unless or until circumstances permit, which, in the early stages, and often later, they truly do not. Having ascertained that symptoms of intestinal obstruction are present, there is surely nothing either exclusive or eccentric in urging the immediate suppression of food, and the prompt effective aid of opium. It is necessary to say the "effective aid," for no amount of opium, in any form, given by the mouth, can be of service if speedily rejected by vomiting. A hypodermic injection of morphia (the sulphate gives least dissatisfaction) may, therefore, be the agent required to procure the "prompt effective aid of opium." Patients seized in this way are often very ill, always extremely uncomfortable, and they require prompt relief. It is a matter of no difficulty to recognise severe abdominal pain, and perhaps distension, total loss of appetite, with or without retching or vomiting, quick pulse, and elevated temperature. The diagnosis of intestinal obstruction requires no profound recollections or elaborate inquiries, but rather the exercise of a little common sense. Still that is a very different matter from pointing out the exact contributing cause, excepting only hernia, the presence or absence of which can be ascertained without delay. Even strangulated hernia is made more tolerable by the suppression of ingesta, and the hypodermic injection of morphia, pending the final arrangements for operation, even if the latter be postponed but an hour or less.

Such cases cannot, I submit, be too tenderly treated; nor can the tender treatment be too precipitately adopted. After a few hours' relief, the pain or other symptoms may return, necessitating a repetition of the morphia injection, which has to be given thrice, or at least twice, a day in severe cases, to maintain its effect. But that is no neglect of diagnosis, or refusal to attempt to distinguish it. On the contrary, differential diagnosis is positively promoted; the symptoms are combated, simplified, and minimised in functional, easily

recoverable, cases; while in cases caused by internal strangulation or other more mechanical obstacle, the symptoms continue for certification, even though mollified or rendered bearable by this genuine palliation. But that is a very different thing from pommelling the abdomen, groping the anus, turning the patient upside down, squirting up injections—all for what? It cannot be to relieve him, for they make him worse, but merely to prosecute a meddlesome, puerile fumbling, that is already known to generally fail, under the pretence of seeking a "differential diagnosis," which is thereby the rather impeded. It must be evident that such diagnosis is matter of difficulty; and Mr. Lawson Tait has shown us, on the best practical evidence, that it is often, if not generally, impossible. He freely admits that it is not required; in fact, I have claimed no more myself. Since cases of functional obstruction may set in just as severely and painfully as cases of utter strangulation, and since it is often quite impossible to determine the variety at the outset, how can it be too urgently important to palliate at once by the only possible means?

I can perhaps illustrate my meaning by citing a case. My attention was one night called to the sudden illness of a woman, aged about 40, or less, who was lying in bed in considerable pain, referred to the abdomen. She was thirsty, vomiting everything she swallowed, had elevated temperature, and quick pulse. No stool had passed since the previous day, and the power to pass flatus was lost, while distension and distress were only too evident. The belly was too much swollen to permit discriminative palpation, so the presence or absence of any circumscribed swelling among the intestines could not be clearly ascertained. There was no ascertainable hernia, the onset was sudden, and the symptoms were quite compatible with the existence of intussusception. Sulphate of morphia was given at once under the skin, about one-third of a grain or more; a second dose was put into a wine-glass for her to take in the night if she wished, and all ingesta, except the smallest quantities of water or tea, forbidden. Before I left the house she began to feel relief. I heard the next day that she had passed several hours of comparative comfort, that in the early morning a return of griping pain had been relieved by the dose drunk out of the wine-glass. The abdomen was less hard, though still tender and much swollen: no more vomiting had occurred; the patient was, for the time, obviously better, but still as obviously in need of maintained relief. The same medication was continued twice daily; the same restriction of ingesta to trifling quantities of warm tea, or thin filtered broth. At the end of the first or second day, it became probable that the case was not intussusception, or any form of strangulation. At the end of three or four days, a little wind escaped, making it probable, if not certain, that complete obstruction had ceased. After some more days, I do not remember how many, a stool escaped. The case was carefully watched from day to day, at first twice or thrice daily; a fortnight or more was spent in bed; a month elapsed before ordinary food could be tolerated, or duties properly resumed. But there was no disregard here of the idea of differential diagnosis, though the latter was never actually attained, or even attainable. The patient got well without it. I may presume, and do suppose, that the intestinal contents became arrested somewhere, that the bowel became distended above that spot wherever it may have been. No certainty exists at all, except that the treatment was correct throughout, that the patient was inexpressibly relieved from day to day, and eventually got well. But no good was likely to result from enemata in this case, though I am not able to prove that they would necessarily have done harm. I know that some few cases have occasionally appeared to have been set all right by enema and its consequent stool, though the practice must, under such circumstances, be regarded as a dangerous experiment. Nothing would induce me to administer, or consent to the administration of, enemas in this stage of any similar case, for it is certain that many cases have been aggravated in this way, and not a few actually killed. The practice is absurd at such a time, and cannot be too severely condemned. Neither did I feel the least curiosity to explore the rectum, or to violently manipulate the abdomen, which was sore enough under the gentlest examination.

Furthermore, the use of milk was specially forbidden. The woman was not in want of nourishment; she wanted relief from pain, and was no more able to undertake digestive feats than is a person suffering from sea-sickness. Every one of you must be aware how, in former times, cases of strangulated hernia had to run the gauntlet of castor oil or other equally harmful purgative attacks. It is no justification to reply that the hernia may sometimes have been unrecognised. Things have greatly improved in this respect, though it is astonishing to read, even now, as I have lately done that educated clinical observers, even professors of surgery, calmly relate the administration of enemata to cases of strangulated hernia before operation, and after actual recognition.

If, after the gentlest possible treatment, such as above advised, a case of intestinal obstruction become steadily worse, it may be necessary to entertain the question of performing gastro-enterotomy to relieve the overdistended intestine;[1] while in cases that have become aggravated by purgation, enemas, or feeding, the operation may be fitly undertaken at once.[2]

ON THE OPERATIVE PROCEEDINGS IN CASES OF INTESTINAL OBSTRUCTION.

Read in the Section of Surgery.

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THE purpose of the remarks which follow is not to lay down any definite rules, or to state the particulars of an individual case; but, my attention having been called to the subject by several cases in which I have lately been an active or passive spectator, it is my object to offer, for comment or discussion, some few points in the operative measures which are rendered necessary in cases of intestinal obstruction, where therapeutic and other means have failed, and the aid of the surgeon becomes necessary to relieve the patient. It is only too frequently observed that operative measures are resorted to at so late a period in cases of intestinal obstruction, that there is little prospect of saving life, even if the cause of obstruction be removed; and that, on the other hand, if operation had been earlier performed, a fair prospect of recovery might have been entertained. This, however, is a question which belongs more strictly to the region of diagnosis; and, with the desire of confining myself directly to the limits of the above title, into this wide and intricate question I will not attempt here to digress.

Moreover, since the intention of reading this paper was announced, the Committee have decided that a discussion shall take place on the Treatment of Intestinal Obstruction by or without Operative Interference. I shall, therefore, deem myself fortunate, if the remarks which follow tend to guide the lines of this discussion in any way towards a practical issue. Abdominal surgery already owes so large a debt to the intrepid perseverance of Englishmen, that we must be jealous to see that its further development shall, so far as possible, be extended in this country; and it would seem that this is not an unfitting time or place to gather the collective experience of surgeons, who are meeting here from all parts of the kingdom, on the details of a subject which involves so large a question of life, particularly among the young, and often in otherwise healthy individuals.

Nor does it seem desirable to reopen the vexed question of the use of antiseptics in abdominal surgery. This has been fully enough discussed of late in the transactions of societies and in the medical journals, and it is not likely that at present fresh arguments could be added which would win either party from the belief or otherwise in their necessity.

Given, then, a case of intestinal obstruction, in which, by auscultation and other methods, the integrity of the colon may be presumed, the median line seems to offer the most favourable situation

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[1] The relief procured by puncture with trocar and cannula, or suitable tubular needle of some kind, when the greatly distended abdomen is tympanitic, is very great, and out of all proportion to the amount of gas liberated. Such punctures may be made at several different points on each occasion, repeated at daily intervals, with the effect of greatly mitigating, or even annulling, the patient's suffering, during the interval preceding the first fæcal evacuation, whether passed by rectum, or by artificial anus in the event of operative interference.

[2] But the issue in spontaneous recovery, confidently to be expected in cases of functional obstruction properly treated from the first, need not be despaired of in cases of internal strangulation, or other occlusion, however acute, and should always at first be regarded as the ultimate object to be sought, even if not throughout hopefully entertained. So long as the patient, under vigilant inspection, is certainly holding his ground, so long may operative interference be reasonably postponed; and in some cases it will be found that the first stool passes during this period of waiting and watching. I have witnessed at least two such cases, in which we were several times on the point of performing gastro-enterotomy, which was, however, each time postponed because the patient was found to be better, or at least holding his ground. The whole subject, however, has been fully treated by Mr. H. O. Thomas, from whom I have derived much valuable information on it, in his work on *Intestinal Obstruction*, of which the last edition appeared quite recently, published by H. K. Lewis. To the clinical observer who tries to rid himself of bias, and who can appreciate good matter without carping at unimportant details of manner, I cordially recommend a careful and repeated study of Mr. Thomas's book.

for the incision; since from it every region of the abdomen can be explored; the risk of hæmorrhage is diminished; it is not ill-suited for the formation of an artificial anus; and it can be extended, if necessary, in a vertical or lateral direction.

Exceptions to this rule may occur—

1. In the case of herniæ reduced *en masse*;

2. In the case of foreign bodies, gall-stones, etc., which can be felt from without to be impacted in the intestines;

3. In the case of tumours external to and pressing upon the gut.

Under any of these circumstances, it may be advisable that the incision should be made directly over the region in which strangulation may be presumed to exist; but the middle line may still be preferable in the third case when the tumour is ovarian, or where, notwithstanding the pressure of a tumour, the compression is caused by a band which passes from it to some other portion of the abdomen. A remarkable and instructive instance of this occurred lately in the practice of Mr. Holmes, who has kindly furnished me with the notes of the case.

A man aged 39, who had previously been in good health, was seized with constipation and vomiting, which continued very severely till his admission on the third day of the attack. He was then intensely collapsed. The vomiting was frequent, but not feculent. A hard dull tumour was found in the right iliac region; and into this an incision was made, when it was discovered to be an hydatid cyst, the contents of which were cleared out. The patient died; and at the *post mortem* examination other similar tumours were found in different parts of the abdomen, and some of these were connected by broad bands to one another. One of these bands passed from the under surface of the tumour downwards into the pelvis, and was attached to a cystic tumour in that region. Beneath this band, a portion of the ileum had become constricted; and it was possible that it might have been released, had the incision been made in the middle line.

It has, moreover, been shown that if the obstruction be found after all to be situated in the colon, a median incision does not forbid the subsequent operation of colotomy, or the removal of a cancerous growth.

The abdomen having been opened, how should the seat of obstruction be sought? In some cases this presents itself readily; more often the coils of distended intestine obscure the site and nature of the compression. It has been recommended to withdraw, examine, and return consecutively short portions of the gut until the cause of obstruction is discovered. To this there are two great objections. First, the tense state of the peritoneum covering the gut make it desirable that it should be handled as little as possible. Secondly, there is no means of ascertaining whether the intestine is being examined upwards towards the duodenum, or downwards towards the cæcum. On this subject a valuable hint has lately been given by Dr. Kingston Fowler, who points out that the collapsed portion of the bowel, which it is so important to secure, will, in these cases, be found in the pelvis, and may be most easily reached towards the right side. This suggestion has been of practical value in more than one case lately published.

Bands are most frequently situated in the right lateral region of the abdomen, and when found may be divided at the centre or at each extremity; but it should be noted that many cases are recorded in which one band having been released, the symptoms have persisted, and *post mortem* examination has shown the existence of a second band causing constriction. Its absence should therefore, if possible, be determined before closing the abdomen.

Or it may be advisable to remove altogether the cause of constriction, as in a case of laparotomy at which I assisted a short time ago ago, when a portion of intestine had become constricted by a diverticulum, attached at one extremity to the umbilicus, and at the other to the lower part of the ileum. At the *post mortem* examination I found that the intestine was sound, but perforation had taken place in the diverticulum, which was in a state of gangrene from the continued pressure.

Considerable difficulty is not seldom encountered in returning distended intestine which has been withdrawn from the abdominal wound. The usual practice is to release flatus by punctures with a fine trocar, and to close the wound by a ligature. This has the objection that it only allows escape from a limited portion of the gut, and the punctures have therefore to be repeated; and that the mucous and not the peritoneal surfaces of the wound are brought in contact. As a result, fæcal oozing not unfrequently follows. Prolonged distension has paralysed the gut, and rendered it powerless to contract and expel flatus. It is a question for consideration whether a clean incision, which could be closed by sutures apposing the peritoneal surfaces, would not allow of a freer escape of gas, and thus produce a greater collapse of intestine, while the tendency to fæcal extravasation would be diminished.

Where intestine is already in a state of gangrene, or threatens to give way at the seat of constriction, choice must be made between artificial anus and union of the sound portions of intestine. That gangrenous intestine must be removed does not admit of question, and the desirability of establishing the continuity of the tube is greater in proportion to the distance of the constriction from the stomach. Kocher's successful cases go far to show the feasibility of removing large portions of intestine, and of uniting the sound ends of the tube with a successful issue. One of these was performed on a woman aged 45, when twelve centimètres of gangrenous intestine were removed, together with a wedge-shaped portion of the mesentery, the wound being the extended incision for operation on a femoral hernia. The second was also on a woman aged over 40, in whom acute obstruction existed in a herninated portion of intestine. Forty-two centimètres of gangrenous gut were removed, and recovery followed. Great technical difficulties must doubtless be found in suturing the paralysed and distended upper portion with the collapsed and shrunken part below the constriction; but suggestions for overcoming these difficulties have already been made by Kocher, Treves, and others; and it may be remembered that the earlier operation takes place, the less will be the difference of calibre of the two portions. Kœberlé's case of excision of two mètres of the small intestine for multiple stricture shows that success may be obtained where the cause is situated within the circumference of the gut, and illustrates how large a portion may be removed without destroying the digestive functions; and Billroth's cases of pylorus excision show that this is the result even where the upper portions of the tract are concerned. Another difficulty which has been raised is the question of dealing with the large portion of mesentery which may require excision. Experience is wanted on this subject, but the results of removal of large masses of omentum in operations for strangulated hernia, and of large portions of mesentery in cases where intestine has been excised, do not go to strengthen this objection.

The argument against excision, that it is frequently followed by stricture, requires further demonstration before it should be allowed to tell against the operation.

I have made no allusion to the subject of intussusception, because the rules for treatment of that affection have been so ably laid down in Mr. Jonathan Hutchinson's well-known paper. One observation in that paper is of the highest importance in connection with the subject under consideration, viz., that in cases of intussusception, internal hernia, etc., it may be taken as an established fact that, unless actual perforation has occurred, there will be no peritonitis.

This fact, taken together with the encouraging results which have attended laparotomy and enterotomy, in cases of impacted foreign bodies, and of hernia reduced *en masse*, that is to say, in cases where the operation has been performed at an early stage, because, the cause of the symptoms being known, less time has been lost, point to a field for better results in cases where the cause cannot be distinctly ascertained.

All present observations indicate the desirability of earlier diagnosis and of earlier surgical interference in proper cases. It is none the less necessary, however, to seek for information as to the details of operative measures, since it is by a study of detail that abdominal surgery has made such great advances in recent years; and upon some points in this subject, I trust that the above remarks may succeed in eliciting instruction from the experience of others.

PAPAL HONOURS.—Old students of St. Bartholomew's Hospital, and all other friends of Dr. Anthony Collings Brownless, K.G.G., Vice-Chancellor of the University of Melbourne, will be glad to hear that his Holiness the Pope has been pleased to confer on Dr. Brownless the Knight Commandership of the Illustrious Order of Pius. This decoration carries with it a patent of nobility. The order is a temporal one, and is conferred upon members of all religious creeds, who from their distinguished attainments, high official rank, or great public services, are considered worthy of the honour. We believe this honour was conferred in recognition of the eminent services rendered by Dr. Brownless to higher education in Victoria, as Vice-Chancellor of the University of Melbourne for more than a quarter of a century. The Medical school (founded by Dr. Brownless) has at the present moment 200 students attending lectures in the University; the great success has exceeded the most sanguine expectations of the friends of the University of Melbourne.

THE RELATION BETWEEN CONSULTANTS AND GENERAL PRACTITIONERS.*

By A. H. NEWTH, M.D.

GENTLEMEN,—I have invited you to discuss a subject which is, in my opinion, of great importance; for it affects our professional and social status, our relations to our patients and their connections, and our emoluments. The latter is of no small consideration in a profession which is so inadequately remunerated, though there are many who would be willing to forego even pecuniary advantages in order to secure a more honourable position, socially and professionally.

There has always been a more or less tacit opposition between physicians and general practitioners, and this is to be regretted, for a better understanding between these two essential and important branches of our profession would result in a very great improvement in the position, not only of the general practitioner, but also of the physician, and consequently of the profession generally; and this not at the expense of the patients, but to their advantage; for it stands to reason that, whatever increases professional knowledge and status, and at the same time tends to put down quackery (the most dangerous form is licensed quackery) must be a gain to the patient in every respect.

Probably few physicians or surgeons can, strictly speaking, lay claim to the honorary distinction of being pure consultants. In many instances, they are also ordinary family attendants. Hence they stand in an unfair relation to consultors; for, if patients can obtain the services of consultants on equal terms, they will probably do so.

We want men in our profession who have achieved their position as consultants by some special distinction, and to whom we can go with the same confidence as a lawyer goes to a barrister. Feeling they know all that is to be known of the case we consult them on, will give it their careful consideration, and will not take advantage of their position to rob us of our patients.

About the time of the Emperor Nero, I believe, there were, in the Roman Empire, distinct grades of medical men, who occupied a far higher position socially than they do now. There were, it seems, first of all, the medical practitioners of the various districts into which the provinces were divided; they were chosen by a vote of the people, and had to pass an examination, and be under the jurisdiction of the medical college of the province. The colleges were formed by a combination of the various medical men of the districts, headed by what may be termed a physician-in-chief (Archiatrus). These physicians-in-chief were appointed by the head of the State—the "Crown," as we should say—and were no doubt consultants as well as medical overseers. In point of rank, they were equal to the general of an army, or a duke, and probably also to a bishop or judge at the present time.

Whether it would be possible or advisable to have physicians occupying such positions now, is a question that might be considered. It seems to me that it would be a great advantage to the State as well as to ourselves if, in every section of the kingdom, medical men of high standing were appointed, either by election or by the Crown, who should stand in relation to their medical brethren as bishops do to their clergy, as generals do to their officers, or as surgeons-major do to surgeons in the army, whose duty it should be to see that the various medical men in their district were doing their work properly; who might act as referees or umpires in cases of disputed points of medical etiquette; who should investigate all complaints as to malpraxis, etc.; make proper inquiries in case of sudden death; assist the coroner, or be coroner, at inquests; act as medical officer of health; and represent the professional interests of the districts in the Medical Council. Such a man would be of immense value to the State and to the profession.

This, however, is beyond our purpose to discuss now; what we have to consider is, "whether it might be feasible, or whether, if feasible, it might be desirable, to establish a class of pure consultants in the medical profession." This is a question which the BRITISH MEDICAL JOURNAL, in a leading article in 1878, considered ripe for discussion.

Though more than five years have passed since these words were written, nothing seems to have come of them; the matter does not appear to have been discussed at all. It should be the duty of the various Branches to discuss this subject, and agitate in the matter, till something is done to raise our noble profession to the honour and dignity socially, that the Church, the Army, and the Bar occupy.

In works professing to teach medical etiquette, it is laid down as a rule that "a consulting physician should never, under ordinary circumstances, see a patient, except in the presence of the usual attendant, or by his written request." Very few consulting physicians have the honour to abide by this rule, and yet those who do so find it to their advantage. A contemporary, in a short annotation, a few years ago remarked, that a physician who sees a patient without the knowledge of the usual medical attendant of that patient, is guilty of great vanity and discourtesy. He shows his vanity by supposing his prescription and advice will hold good for ten days or more, before he next sees the patient, and he shows his discourtesy by not recognising his brother practitioner.

In the majority of cases, the physician forms his opinion on facts communicated to him by the patient, which have previously been suggested or told to the patient by his medical attendant, who probably only arrived at them after long and studious consideration and attention. Now this is extremely unfair, for the patient pays a physician a long fee for advice obtained, indirectly, through the ordinary medical adviser, who gets no fee in this case and no credit; and, if he be not censured by the physician for his mode of treatment, is very likely "damned with faint praise."

No one derives any benefit from the present state of affairs. The physician does not, for his time is taken up by trivial cases, and he has no leisure for studying his cases properly. He cannot form a correct diagnosis in a short interview, without any previous knowledge of the patient's state, and from information obtained only through the patient himself. Many physicians have made most serious mistakes through not being furnished with a proper history of the case.

The family attendant, who has known the patient and the patient's family probably for years, understands the peculiarities of his constitution, his idiosyncrasies, the circumstances under which he is surrounded. He can draw the physician's attention to many points in the case which otherwise might not have occurred to him. He can say what remedies he has tried, and with what success, and can offer suggestions as to treatment of no mean value; for general practitioners have necessarily a wider experience than many consultants; they see human nature under all its various phases, and hence look upon patients not simply as cases with reflexed wombs, deranged brains, cirrhosed livers, syphilitic constitutions, etc., but as human beings whose social, moral, and intellectual surroundings have to be attentively considered in the diagnosis and treatment of disease.

Hard-worked physicians are sometimes little better than automata; they advise and prescribe often without a shadow of thought. "So automatic is the process," says Dr. Wilks, "that I once sketched out a plan of an assistant-physician machine, whereby certain prescriptions should appear at a pigeon-hole according as the patient pronounces the words diarrhœa, cough, sickness, etc." In fact, it is not difficult for anyone to be tolerably correct in anticipating a physician's advice and prescription in special diseases. So, also, many of our physicians' prescriptions are neither more nor less than quack remedies, such as Fellowes's syrup of the hypophosphites, Easton's syrup, Squires's dialysed iron, Ferris's nepenthe, Brown's chlorodyne, Richardson's lactopeptine, etc. In fact, now-a-days, the chemists and druggists provide physicians with formulæ, instead of following what the physician prescribes. No doubt these various remedies are all very good, but still it seems to show a want of resource in the materia medica, and of a knowledge of drugs or a combination of drugs, for a physician to prescribe in such a manner.

It would be far more consonant with the dignity of the profession if the physician were to advise the medical attendant what remedies to give. A patient ought not to be allowed to have a prescription to use and abuse as he pleases. A remedy which holds good at one time may not be suitable at another time, neither should it be given to another person who appears to be suffering in the same way as the proprietor of the prescription.

Patients also at the present time seem to know exactly what they are taking, and talk learnedly (!) about the effects produced by phosphorus, iodides, bromides, iron, etc., which, to say the least, is extremely unpleasant.

Our materia medica is sadly lacking in specific remedies. There is a splendid opportunity afforded by the collective investigation system for general practitioners assisting physicians in finding out

* Delivered at a meeting of the East Sussex District of the South-East Branch of the British Medical Association.

new remedies, or testing their value. In fact, it is to this inductive method of studying disease and drugs that we must look for the future development of the theory and practice of the medical art. Hence we see how important it is that there should be a closer affinity between consultants and general practitioners.

The general practitioner would be a gainer in every respect, for his position would be raised and rendered more important. Instead of being snubbed by the consulting physician as one whose professional attainments were of small account, he would be regarded and acknowledged as a necessary person, from whom the physician must obtain the requisite information for forming a correct diagnosis, and to whom he must look for the proper carrying out of his advice. Besides this, his professional knowledge would be increased by association with men of superior abilities.

I propose, therefore:

1. That there should be a distinct grade of consultants.
2. That consultants should see patients only in association with a general practitioner, either by correspondence or by a personal interview.
3. That prescriptions and letters of advice should be given to the medical attendant, and on no account to the patient.

In order to meet these changes, there would have to be some modification in the payment of fees; but this requires further consideration. My object now is to impress members with the importance of agitating for a reform in the relations existing between general practitioners and consultants.

OBSTETRIC MEMORANDA.

CASE OF COMPOUND PRESENTATION.

On Thursday, September 6th, I was called to Mrs. H., multipara, who had been in labour for twelve hours. On vaginal examination, the os uteri was found fairly dilated, and the bag of membranes protruding, evidently containing a portion of the funis. During examination, the membranes were ruptured, and then it was discovered that the funis, both hands, and head were presenting, the forehead being towards the arch of the os pubis, and the arms extended in the attitude of a man preparing to dive. With considerable difficulty, both hands were pushed back behind the head; and, after some delay, in consequence of the objection of friends to any interference, the long forceps was applied, and delivery quickly accomplished. The child (a female) was dead.

Harrison Coates, M.R.C.S.Eng., Hucknall Torkard, near Nottingham.

TOXICOLOGICAL MEMORANDA.

LABURNUM POISONING.

Seeing in a recent number of the Journal an account of poisoning by eating the seeds of the laburnum tree, I thought the records of three cases which occurred in my practice a short time since might be of some interest.

On August 12th, a gentleman came in haste to my surgery, stating that two of his children and nurse, while playing in the garden, had eaten a quantity of laburnum seeds, and were very ill from the effects of them, and desired my accompanying him at once. Upon arrival, I found the nurse, aged 15 years, a little boy and girl, aged respectively 3 and 6 years, all more or less suffering from collapse and sickness, the pulse fast and feeble, the pupils widely dilated; the little boy was in convulsions, the other two were not so. The stomachs having been well emptied before my arrival, I had each put in a hot bath; and, immediately on being taken out, wrapped in warm blankets, with a mustard poultice applied over the stomach, and I gave a little brandy and water every few minutes. Reaction soon began to take place; and I am glad to say they all made a good recovery.

From the experience of these three cases, I think the stomach having been well emptied, very energetic measures should be used to bring on reaction as soon as possible.

Henry Robinson, L.R.C.P., Chesterfield.

West London Hospital.—One of the wards in the new wing of the above institution has been named the "Forester's Ward," in recognition of the long-continued kindness shown by the members of that ancient order.

ABSTRACTS OF INTRODUCTORY ADDRESSES DELIVERED AT THE METROPOLITAN AND PROVINCIAL SCHOOLS.

On OCTOBER 1st, 1883.

ST. GEORGE'S HOSPITAL.

The Introductory Address was delivered by W. H. Bennett, F.R.C.S., Assistant-Surgeon to the Hospital.

The lecturer considered that, in calling the attention of his audience to "The Social Position of the Medical Profession," the result might not be altogether without profit. In speaking of the social position of the medical profession, Mr. Bennett signified the estimation in which it is held by the public from a social point of view, as compared with their estimation of the church, the army, and the law. With regard to the first two, they might be dismissed without much comment, seeing that in each of them there are attractions which would always place them high in the social scale; so that the consideration of the subject selected resolved itself, to a great extent, into a comparison between the relative positions of law and medicine. The social status of a profession might be fairly gauged by the consideration of the sources from which it was recruited. Law, from a purely commercial standpoint, had a decided advantage over the medical profession, by reason of its having the monopoly of a very large number of highly-paid offices under the State. The writer of a book of reminiscences, a man of the world in every sense, and of high social standing, in speaking of the selection of an occupation, said: "This choice of a profession is not an easy matter when, as a rule, the church, the army, the bar, and the diplomatic service are almost the only four professions open to a young fellow." It was here sufficiently evident that a thought of medicine had never for an instant entered the author's mind. A comparison, again, between the *Law List* and the *Medical Register* would show that law was patronised far more freely by society of a certain rank than was our own calling. It was useless to ignore such facts, especially when they depended without doubt, to a great extent, upon defects which were steadily though slowly improving, and which for the most part were susceptible of being completely rectified. There was often a tendency amongst certain members of our profession to forget sometimes what was due to their vocation itself, and to fancy that, so long as science progressed and the demands of humanity were satisfied, the advance in their other surroundings would follow as a matter of course—a confidence which would not unfrequently be found to be misplaced.

It was to a consideration of certain of the defects above indicated that Mr. Bennett directed the notice of his audience. In the first place, there were two conditions which must always throw some little obstacle in the way of our social popularity. One of these existed in the fact that a certain part of our occupation must be of a somewhat menial kind, and, in some respects, upon superficial observation, perhaps uncleanly, if not actually repulsive. Unfortunately, this applied in particular to the educational part of the matter, which affected the individual before the interest felt in the profession was sufficient to atone for the discomfort which was a necessity of certain parts of the medical curriculum. The other inherent drawback lay in the fact that he who adopted medicine as his life-work was never free from the fetters of his business, inasmuch as he was, at all times and under all circumstances—often at a moment's notice—at the constant call of the public, a fact which, from the social point of view, must compare badly with the circumstances under which a solicitor or member of the bar lives. The above conditions were irremediable, and must ever remain so. There were, however, defects which formed no integral part of the profession itself, and which might in all instances be greatly alleviated, and in the majority of cases removed.

The point in which we compared the least favourably with the church, the army, and the legal profession, was that of State recognition. The State did very little indeed for medicine; of highly paid appointments there were none. There was no State representative of the profession in either House of Parliament. The sparing hand which controlled the distribution of Government honours was well known. A medical peerage was yet to be created; a baronetcy was proportionately rare; a knighthood hardly more frequent. It was, therefore, encouraging to note that very latterly there had been a promise of more liberality

in this respect, and St. George's Hospital and School might feel proud to own that seldom had the State shown so great a judgment in the award of distinction as in the case of Henry Pitman and Prescott Gardiner Hewett. There were few men to whom St. George's Hospital and School owe so much as to Sir Prescott Gardiner Hewett, and his early retirement was much to be regretted. Sir Henry Pitman was a fitting representative of that good old school who held the dignity of their profession dearer than their personal interest.

The real reason of our "political powerlessness" could be found in the fact that the public even now were lamentably careless on matters which concerned the health of individuals and communities, and hence of the country itself; although it must be admitted there had been some evidence of progress in this direction lately. Still, sanitation was, in comparison with other matters of secondary importance, thought but lightly of—a fact sufficiently demonstrated by the spectacle of a Government, strong as it was, hampered to such an extent as to make it necessary to consign the Medical Acts Amendment Bill to an early grave, to await a possibly tardy exhumation; and by the attitude of a House of Commons, alarmingly like indifference, which allowed the repeal of the well-tried compulsory clauses of the Contagious Diseases Act in answer to the importunities of hysterical morality. It should be our first business to so educate the people that the important relation which health in all its branches must bear to the welfare of the country may be fully understood. The profession in whose hands the management of the nation's health should be would then be fully appreciated. Energies directed to the end in question in any other way would be as useless as were those of the simple rustics of a Wiltshire village who manured their church to make its spire grow.

The well-known inability and disinclination of the public to discriminate at all successfully between the legitimate practitioner and the quack was another matter damaging to our social position. It must never be overlooked that quackery, in common with science, kept pace as much as possible with the times. The quackery of to-day was subtle and well masked, so that the fraud was made additionally troublesome by the existence of a thin veneer of pseudo-science and absolute respectability, which was a part and parcel of the high-class charlatan. Mr. Bennett then drew a distinction between the forms of specialism which quackery so successfully affects and that legitimate specialism which is the result of a ripe general experience.

The belief in the existence of "professional jealousy," another point damaging to us in the eyes of the public, seemed much strengthened in the public mind by the well-known medical etiquette, so much valued and respected by us all, which regulated our business relations, and not seldom seriously affected our popularity, as, from the point of view taken by the laity, it was too often asserted at their cost, sometimes upon trivial and inconvenient grounds. With this same so-called "jealousy" there was frequently associated, by the outside world, what was regarded as a strange propensity for exposing to view the dissensions and petty quarrels which from time to time disturbed the professional horizon. That this did not add to our dignity could hardly be questioned. As an instance of how little was to be gained by the public ventilation of matters which affected our mental quietude, might be mentioned the recent discussion on homœopathy, the result being that homœopathy was galvanisd into a more active existence, and took a new lease of life. Homœopathy, in the proper sense of the word, was long since dead; the hybrid thing which now for a time flourished under the name could never compete with a profession like ours; and surely it was far better treated with a dignified silence on our part, which would do much more for us than any quantity of altercation in the papers of the day.

A matter which the lecturer considered to be the most delicate of all was the relation of the consultant to the general practitioner. Medical education was improving so rapidly that it was not difficult to see that the general practitioner might in course of time take charge, as a matter of course, of cases which formerly were considered to belong almost exclusively to the domain of the hospital physician or surgeon. This state of affairs, combined with the increase of specialism, must of necessity abstract from the consultant a large proportion of his field of practice—a consideration, to him, of a very serious kind. If matters were so, there must be a diminution in the number of consultants; or the consultant must confine his practice to a much more limited sphere; or, lastly, there must be a point, sooner or later, when there would be competition between the consultant and the general practitioner. This last condition was an extremely serious matter; for there surely could be nothing more lowering to the social standing of a profession than commercial competition between those who should be its leaders and those who formed its general working body. In relation especially to this last condition, the lecturer threw out the suggestion as to whether the time has not arrived when the relation of the consultant to the general practitioner requires to be reconsidered.

Notwithstanding all these imperfections, there was no calling so full of genuine attractions as the medical profession. Its whole aim was the relief of suffering humanity, by the prevention and conquest of disease. Besides, our profession had a future positively unlimited in its extent and grandeur. Already, in the scientific world, we rank among the foremost; socially and from a political standpoint, we lagged somewhat behind. What mattered that? Would not the credit due to those who helped us on be all the greater? There should, however, be always present in our minds the thought that this state of development in which we now are increased considerably our responsibilities, for to allow ourselves to remain where we are was impossible; the choice lay between retrogression and progress—a progress to a certain and great end. Could we, then, boast a greater pride than this? We had a profession for which we each could do something to aid in its advance. It was our duty, as it should be our ambition, to further by all creditable means the position of the grand calling handed down to us, unsullied in its honour, by those great men who had gone before, to whom we had to answer for the share we each one take; and, as we strove to bring it to that rank which it must take in the not far-distant future, we worked in the presence of "unseen witnesses," for the eyes of the immortal dead were upon us as we added our poor efforts to that struggle which should make our profession the glory of this country and the envy of the civilised world. The address concluded with a welcome to the new students, followed by some observations intended to show necessity for the cultivation of a thoughtful mind, which, guided by common sense in the proper appreciation of the value of a thorough regard for detail in their studies, would gain for them that practical knowledge which must ever be the essential attainment of the successful practitioner.

KING'S COLLEGE.

THE Inaugural Address was delivered by Dr. ACLAND, F.R.S., on Tuesday, October 2nd, at the distribution of prizes, Canon BARRY being in the chair.

The lecturer said that there was something in the occupation of the student of medicine which touched every well-constituted mind with singular force, for there was no corner of human nature which he might not one day or other be destined to explore. What was to be the true aim of those who sought to influence the medical education of the future should, therefore, be made clear. In King's College, no uncertain sound on this matter had yet been given. King's College originally laid down certain well-known principles to guide her destiny as a great seat of education. In accordance with these principles, the lecturer urged the students not to allow themselves to be perplexed or dazzled by the controversies as to the relation between physical science and religion. Of all discussions, they were the most fruitless, unless they excepted purely metaphysical speculations. Scientific acquirement was the result of patient industry and careful self-education, not of controversy. Religion was the fruit of self-mastery and reverence, not of doubt and of wavering. The student of medicine had, of all men, under conditions, the greatest opportunities, if he had received a good education before his hospital days, of forming a true judgment of the nature of things. There was no department of precise knowledge, whether of physics, of chemistry, of biology, that was not open to him. All the fascination that the material world could display was his. His senses were open as many other men's were not. He saw daily in the facts before him the blessing of virtue, the evil of vice, the curses of ignorance. He noted in these at once the bane and the antidote. Any system of education which had not seriously brought before the student some considerations concerning the spiritual life had been for him faulty and inadequate, and was behind the science of the day. Any scheme of the universe condemned itself which left out of sight all that could be learnt of the character of a heavenly Father from the study of the moral nature of man. No amount of acquirement in positive knowledge of physical science could remedy the deficiency incident to a wholly secular and materialistic education. For reasons which he need not then relate, the Medical Council had abstained from entering upon this stormy topic in its recommendations on general education; but, in his opinion, the importing religion into scientific teaching was fraught with danger both to religion and to precise knowledge.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

THE Inaugural Address of the tenth session of this school was delivered by Dr. HORATIO DONKIN, Lecturer on Medicine to the school. He selected as his subject, "Popular and Rational Therapeutics." He urged the desirability of an improvement in the relations of doctor to patient, and that a more rational understanding should be arrived at between them. Many of the faults and shortcomings of the profession were due to superstition and ignorance regarding science in general, and medicine in particular, and a widespread misconception of the nature of disease gave rise to impossible demands on the part of the public and a consequently ample supply of quacks to pander to them. Before men began to search after causes and study disease scientifically, only symptoms were considered, and hence sprung up the great importance and delusion of homœopathy, so attractive to the superficial and pseudo-scientific mind—a system, like most systems of medicine, with plausible deductions based on superstition and pure assumption. To the treatment of symptoms as if they were diseases might, indeed, be referred almost all forms of quackery in medicine. An undue importance was given to drug-treatment, even by some who studied the action of a drug in a scientific manner, and the most learned exponent of materia medica might be the sorriest blunderer in the diagnosis and treatment of disease. The tendency of modern medical knowledge pointed to methods of treatment quite separate in the main from drug-giving. Disease, too, was best understood by looking at it in comparison with health. Pathology was but a chapter in physiology, and the treatment of disease in general must be chiefly hygienic, or the adaptation of the known conditions of life. Much more was to be hoped, both towards prevention and cure, from the study of the therapeutics of air, warmth, diet, and exercise, than by the administration of substances, called drugs, alien to the human body. Although the old belief in the antidotal, or drug-treatment of disease must ultimately disappear, there was no cause for either patient or physician to despair. The doctor's work would never be gone, and the patient might reasonably hope that it would be better done.

ST. MARY'S HOSPITAL.

THE Introductory Address was delivered by Dr. C. HANDFIELD JONES, Physician to the Hospital.

After warmly greeting all that were present at the delivery of the address, old, present, and newly-entered students, the lecturer expressed his hopes that both teachers and students would commence their work in a cheerful hearty spirit, conscious of the difficulties it involved, but not in any way afraid of them. The period of youth and early manhood was described as one of rare value, both for enjoyment and achievement; and it was insisted that the former should be sought in the latter, though not, of course, in it exclusively. It was shown by the lecturer that it was quite possible to take deep interest in medical and surgical work, and some details were entered into demonstrating that no excessive application was required of any student to enable him to pass through the ordinary curriculum with credit. A short history was then given of the foundation and development of St. Mary's Hospital and School, and the labours and difficulties which its early promoters encountered and overcame were related. A confident hope was expressed that if so much had been done in less than half a century, the remaining half would surely not elapse without witnessing the completion of the scheme as originally planned; and it was suggested that it was greatly needed and most desirable that this completion should include the establishment of a convalescent annexe in pure country air.

MIDDLESEX HOSPITAL.

THE Introductory Address was delivered by Mr. PEARCE GOULD, M.S., F.R.C.S., Assistant-Surgeon to the Hospital.

The lecturer, after the usual good wishes to the students of the hospital, referred in eulogistic terms to Mr. Lyell and Dr. A. P. Stewart, whose deaths had occurred during the past twelve months, and urged his hearers to imitate their many good qualities. In reference to the Medical Bill recently introduced into Parliament, he said:—"There is one event in medical politics that has occurred during the recent session of Parliament that calls for a brief notice at my hands. A Royal Commission having been appointed to examine into the mode of granting licences to practise medicine and surgery in the United Kingdom, reported against the system at present existing, and made certain excellent recommendations. A Bill was introduced by the Government embodying these proposals, and was quickly passed through the House of Lords. But the obstructive tactics of individuals and bodies not wholly disinterested prevented its being read a second time in the House of Commons. There can, however, be no doubt whatever that the Bill in its main provisions gave intense satisfaction to the general body of the profession, and it is to be feared that the only result of the tactics of the representatives of the obstructive corporatians will be that they will obtain less generous terms when the Bill is next presented to Parliament. These particular corporations have degraded the profession and have deceived the public, and are not worthy of the sympathy of either of the parties so deeply interested in this question. The points dealt with in the Bill on which there is a consensus of opinion are three:—(1.) That every one shall be required to pass a final examination in the three branches of medicine, surgery, and midwifery before being eligible for registration as a qualified medical practitioner. (2.) That this necessary examination shall be conducted by some body other than any of the existing corporations. (3.) That the general body of the profession shall be represented on the Boards controlling these examinations. Legislation on these lines is urgently needed, and is confidently expected as one of the earliest measures to be submitted to Parliament when it next assembles. I hope that he who addresses you next October will be able to refer to it as an accomplished fact, and it may then be his duty to explain to you the effect of the Act upon your studies and your future course." The lecturer congratulated those who would receive prizes that afternoon, but urged all to be actuated by higher motives than the desire to excel in competition with their fellows, and to aim rather at self-mastery, mental discipline, and obtaining an insight into the ways of nature by efforts through which all alike could win success. It was very important to study the body in health as the essential groundwork on which all the student's later knowledge and practice must rest. This knowledge was to be obtained by studying anatomy and physiology, which ought to be regarded as one science. The student must study life, for structure without function was death, while function apart from structure was an impossibility. Not only was this the true way to study anatomy, but it rendered the task much easier, for association was the greatest aid to memory, excelling all spurious methods of learning the science by exercise of the memory alone. Mr. Gould next referred to the great progress that had been made of late years in the localisation of disease, and in the recognition of the local effects of disease. He cautioned his hearers, as students, against devoting too much of their time and energy to work in this direction, and dwelt upon the great importance of studying general pathology. He commented severely on the prevalent tendency towards specialism in medicine, which was contrary to the generalisation to be seen in nature, and spoke in still more severe terms of the evils of "special" surgeons. To remedy the abuses of specialism, whose subjects were often neglected by the general body of students and practitioners, he strongly urged on his hearers the necessity of studying with all care those diseases, methods of investigation, and operations which have been relegated to the hands of "specialists." He claimed that the benefits which have undoubtedly accrued to science and art by the "special" study of disease were mainly due to the labours of general physicians and surgeons, and he cited as an instance the fact that the most recent improvement in the operation of lithotrity which had done more than anything else to establish its position had not been introduced by anyone who had devoted himself particularly to this department of practice, and who counted his cases by the score or the hundred, but by a general surgeon. Mr. Gould concluded by urging his hearers to give themselves to their studies with whole-hearted devotion, and to take the ways of nature, not only as their theme but as their model. The prizes were subsequently distributed to the successful students by Mr. J. Bell Sedgwick.

QUEEN'S COLLEGE, BIRMINGHAM.

THE Introductory Address was delivered by Mr. BENNETT MAY, F.R.C.S., Demonstrator of Anatomy to the College. After a few preliminary remarks, Mr. May drew attention to the high position taken by the students of the College at various examining boards during the past year. The results, he said, showed that students found there the agencies by which to accomplish what was necessarily one of their main objects, and bore tribute to the wise liberality with which the council had sought to promote the welfare of the school and increase the facilities and attractions for medical education. Mr. May then dwelt at some length on the due relationship

that should exist between the scientific and the practical in the training of the student. After some remarks as to how a voluntary extension of the teachings of the ordinary curriculum might be effected, and on the general management of the student-career, Mr. May passed to the main purpose of his address. "I wish," he observed, "to help you to appreciate the agencies which have been operative in raising our national school of surgery to its present standard; and I will ask you to go with me while I touch lightly on some of the methods and characteristics of the men by whose achievements this has been accomplished." At least three orders or faculties of mind would be found prominent: the scientific or investigating; the practical or operative; and the philanthropic. Of the former, our greatest anatomist, John Hunter, was the type. In Sir Charles Bell, who extracted from nature a magnificent secret, and this without the modern stimulus of "endowed research," the genius of the investigator was diffused in other channels and accomplishments, yet few had excelled him in the devotion and sincerity with which he led the scientific life, and thereby promoted the advancement of surgery.

As a practical and operative art, surgery had attained a high degree of completeness and perfection, cultivated, as it had been, by men who had worked in the spirit and with the aim of the artist to perform dexterous workmanship of high artistic excellence. Referring to conservative and preventive surgery, Mr. May remarked that this tendency has never been absent. The very name conservative told in what direction the minds of the practical surgeons of a quarter of a century ago turned, though the full significance of the term no longer existed, for all surgery worthy of the name was preventive surgery. In preventive surgery, the present epoch was far the most fertile in achievement, because the latest discoveries in natural science had been laid under contribution. Without vaunting the infallibility of any system or formula of antiseptics, it must be remembered that the primary basis of successful antiseptic surgery was the awakening of the moral sense, which compelled us to shield the patient from every noxious influence. The greatest skill in research, combined with the most brilliant triumphs of the knife, would not ensure success, unless welded with this spirit of devotional care of the individual patient; requiring the exercise of some homely virtues, as cleanliness and patience, and method and forethought; remembering that, in surgery, great troubles often have small beginnings.

Mr. May pointed out that the advantages this school afforded for clinical education were obvious; the proportion of students to the four hundred beds at their disposal was so well adjusted, that every one could take an active part in the practical and responsible work from which alone skill in the art of surgery could be acquired. As a branch of clinical surgery, therapeutic surgery held a high place, and closely allied it with the sister art of medicine; it must, therefore, be carefully studied. The very vastness and bulk of our knowledge tended to disintegration, and this process was necessarily at work. But in what direction were we as individuals tending? Were we advancing or receding? Probably both. Receding in the comprehensiveness and largeness of design which characterised the great ones of the past; but advancing in matters of detail and elaboration, and, as the bulk and burden of knowledge grew, concession had to be made to the growth in the form of specialism, or subdivision of labour. To become skilled in any of these so-called special subjects, the student must make use of the opportunities afforded by the special hospitals, or the special departments of the general hospitals. Mr. May said, in conclusion, that surgery, as an art, was thus founded on scientific knowledge, manipulative skill, and devotional care. These qualities were rarely blended in the highest degree in the same individual; but in proportion as one or other predominates, would he find the widest field for his talents in the wide range of diagnosis, the trying moments of the operating arena, or the care and general treatment of his patients.

ST. THOMAS'S HOSPITAL.

THE Introductory Address was delivered by Mr. F. LE GROS CLARK, F.R.S., Consulting-Surgeon to the hospital.

Mr. Clark commenced his address by referring to his former connexion with the hospital, which lasted for nearly half a century. He still felt the warmest interest in its reputation, and the deepest sympathy for the students in their trials, their privileges, and their legitimate enjoyments. He reminded them that their pursuits would necessitate their occupying themselves with the laws of nature and the search for truth; and added that the object of his brief address was to direct their attention to some of those laws in relation to themselves, and to indicate the share their own will might and ought to have in accomplishing the life-work before them. The physical and natural sciences, he remarked, were those which would occupy their chief attention. In the study of the natural sciences, it was well to make a selection of some one for special cultivation, according to their particular taste, and never afterwards to let it go. It would prove a healthful recreation at all times, amid the perplexities and worries of a professional life. Indeed, if nature were wooed when they were young, she would repay them richly, when they were old and their work was done, in the ever-increasing appreciation of the rich banquet which never satiated nor wearied. Moreover, this intelligent intercourse with nature would teach them to trust her, and this trust would ripen year by year. He referred to the moral laws by which their conduct should be influenced and determined. He reminded his hearers of the distinction between their intellectual and moral nature, and that mental gifts might be employed to contravene and subvert the moral law, and thus be prostituted to selfish and ignoble purposes. The will was the potent instrument by which our conduct was regulated, and duty should supersede inclination in guiding the will. Self-examination was, therefore, the essential discipline of daily life. He illustrated these remarks by reference to the control of the thoughts in reading, in the lecture-room, and at the bedside, assuring his youthful hearers that if this habit of control were not acquired early, it probably never would be. The importancce of student-life was dwelt upon, and the students reminded that knowledge must be acquired by slow degrees. Those who were disposed to be disheartened by lack of ability might take comfort from the definition of genius as a "transcendent ability to take trouble," and the fact that the highest gifts are valueless without exertion; while moderate ability, earnestly exercised, might accomplish much. In commenting on the number of subjects which claimed the attention of the student during the comparatively short period of his sojourn at the hospital, the lecturer proceeded to say:—"I am well aware that this necessary compression of so much within so small a compass is consequent on the rapid strides of natural science in these later days; and I deplore one result of this needful storing of the mind with so many facts—that education, in its higher sense, is neglected. It appears to me that the contrast between instruction and education corresponds with that between knowledge and wisdom. You may be a diligent accumulator of facts without being wise in their appropriation and use; so you may be instructed in many things without that discipline of the intellect which tempers the instrument and fits it for any use to which it may be applied. Let me ask you to remember this when you are tempted to acquire knowledge by artificial helps, or in an unmeaning and mechanical way. Seek rather to make the acquirement your own, by investigating all its relations; and do not accept, on the authority of another, that which is within your reach to ascertain for yourselves. Your learning will be little worth unless you teach yourselves." Reference was then made to the examinations which the students have to pass, and to the lecturer's lengthened experience as to the special object of the examiner in practical subjects, in testing the qualifications of the candidates. The lecturer then turned to the more congenial subject of his old and honoured hospital, of which he spoke as the nursery of his professional boyhood, and his professional home for well-nigh half a century. He next briefly reviewed many of the changes in the treatment of disease which had occurred within his memory, and then asked, "What is law as applied to matter? I do not accept the hard and chilling definition of this word, that it signifies 'only the ascertained sequence of events.' To my mind, law signifies more than this; it implies a causative and intelligent agent—in short, a lawgiver, beneficent and omnipotent, 'too wise to err, too good to be unkind.' If intelligence have not framed these laws, where else are we look for an explanation of the uniformity of their action and their mutually adjusted government of matter, with all the grand and glorious outcome we have within and around us." After some further remarks on the responsibility which the exercise of an unfettered will entails, Mr. Le Gros Clark concluded by exhorting the students to realise their responsibility while they were young and vigorous, remembering that age would bring with it sadness and remorse if they wilfully rejected the right and chose the wrong. He urged them not to limit their aspirations to securing their own happiness and the acquirement of knowledge, but to seek rather to realise the still higher and more noble purpose of their existence, in promoting the good of others, and in becoming masters of themselves.

UNIVERSITY COLLEGE, LONDON.

THE Inaugural Address was delivered by Professor JOHN TWEEDY, F.R.C.S., Professor of Ophthalmic Medicine and Surgery, and Assistant Ophthalmic Surgeon to the Hospital.

Professor Tweedy, after welcoming the new students, dwelt upon some of the special advantages which would accrue to them from studying in University College. The continued and unvaried success of half a century was a sufficient testimony to its efficacy and its worth. Scarcely a city, town, or village throughout the British Empire but cherished one or more of her sons. The hospital had supplied the material of the public experience of some of the greatest teachers and practitioners of this age. It had been the scene of the clinical and scientific achievements of Elliotson, of Anthony Todd Thompson, of Robert Carswell, and of Samuel Cooper; and, among those, happily, still living, of C. J. B. Williams, of Walshe, of Jenner, and of Reynolds; of Richard Quain, of Erichsen, of Henry Thompson, and of Wharton Jones. Here, too, Liston performed those marvellous feats of surgical skill and daring that made him the wonder and delight of his contemporaries, the envy and despair of his successors. From this college and hospital had emanated some of the most famous and permanent contributions to medical literature. The *Encyclopædic Surgical Dictionary* of Samuel Cooper, the classical treatise of Erichsen on the *Science and Art of Surgery*, that fund of clinical record blended with philosophical reflection in Walshe's work on *Diseases of the Heart and the Lungs*, and Quain's copious and authoritative text-book of *Anatomy*, had had their birth and received most of their nurture within this fold. This college had also, from its very foundation, been distinguished from most other medical schools by the plan and method of its studies. Its guiding principle had been to teach by great authorities, by specialists and experts in their particular departments of learning. This had given to its teaching a thoroughness, reality, and dignity, that had enabled a large proportion of its pupils not only to excel as practitioners, but also to attain distinction as students of science. Nor had these results been casual or fortuitous; they had been, rather, the anticipated culmination of a sagacious and well-regulated system.

There was a collateral advantage, amounting almost to a privilege, which the medical student in this college might enjoy. This institution was not a medical school only; it was a large educational establishment, embracing also the Faculties of Science and Arts. In the Faculties of Science, and of Arts and Law, the medical pupils of University College would find many earnest and anxious toilers after truth, who were doubtless destined to take high places among the thinkers and the workers of the immediate future; and it was to their intellectual and moral advantage, to say nothing of their social interest, to make the acquaintance of such, and to grow up in friendly communion with them.

Still, the lecturer reminded his hearers that they were to be medical men first, and University College men afterwards. To this end it was necessary to have clear notions of what medicine was. To most freshmen it might seem nothing more than the art of diagnosing disease and prescribing remedies. It was this; but it was something more. Medicine was essentially the science of health. Now the medical profession would still retain the most important part of its duties, and all, or more than all, its present share of honours, if every drug in the Pharmacopœia were to become extinct. Medicine, being not merely the art of healing, but the science of life in its organic relations, the duty of studying and investigating the phenomena and conditions of health became paramount. It was the recognition of this truth that raised Hippocrates and his school out of the region of mere empiricism. The efforts of Hippocrates and his followers were, however, rather to promote the health of individuals, whereas the aim of modern medicine was, in addition, to conserve and protect the health of communities. Professor Tweedy continued: "Imagine the condition of a large city like London, with four millions of persons congregated upon the comparatively small area of a hundred and twenty square miles, without the sanitary and other resources which medical science has bestowed upon civilisation. What a light has hygiene thrown upon the relations existing between the character of the soil, drainage, light, ventilation, food, water, clothing, and occupation, and the origin and spread of disease!"

The scope for medicine was therefore far-reaching, and in order to comprehend the whole science of medicine in the sense just defined, as the art of treating disease and the science of health, it was necessary to premise the study of the natural behaviour of living matter—that is, with physiology. The grandest discovery and generalisation of modern medicine was that disease is healthy action gone wrong, or, as Mr. John Simon has described it, "Pathology consists in the science of life under other conditions than those of ideal perfection." Physiology was therefore the true foundation of medicine. It had opened up for anatomy new paths, and had, at the same time, furnished more solid basis of support for the reform of pathology. Anatomy was still of primary importance to the study and practice of medicine; it was the very A B C, without which no real progress could be made. It was only when anatomy took on a synthetic character, and became comparative in its method, that it first assumed the quality of a science; nevertheless, it was indispensable in a medical education, and to be of any service it must be almost exclusively practical. Now, practical anatomy meant dissection, and this study often seemed, to a beginner, revolting and disgusting. Yet this source of repulsion had been, and daily was, overcome. Men sat patiently for many hours, inhaling the nauseous odours, exploring with their scalpel the winding intricacies of vein and nerve, steadfast, patient, victorious. They had suppressed the suggestions of the scene by firmly fixing their minds on the object of their task. It was not because their sensibilities had become obtuse, but because their power of abstraction had overcome the solicitations of suggestion.

While anatomy furnished the material substratum of physiology, there were other studies equally necessary in the investigation of the phenomena of living matter. Botany and chemistry were only second in importance to anatomy; and, though it is the fashion nowadays to decry botany and to advocate its abolition from medical studies, Professor Tweedy entertained a very strong opinion that in the whole range of natural science there was no subject so well adapted for initiating a student into the inductive method. It encouraged observation, it afforded the opportunities of generalisation, and, at a very small expenditure of time and money, enabled the student to gain an insight, pure and experimental, into the operations of living matter. Standing, as it did, midway between the animal and vegetable worlds, botany, it had been observed, indicated their relation to each other, and at different points touched the confines of both. It threw great light on the functions of nutrition, and on the laws of development: while, from the marked analogy between animals and vegetables, there was every reason to hope that its further progress, assisted by that of electricity, would prepare the way for a comprehensive theory of life to which the resources of our knowledge were still unequal, but towards which the movements of modern science were manifestly tending. Botany, it was true, might not now be of the same technical value to the practitioner as formerly, but its educational value to the student had correspondingly increased. It would be an evil day for medicine when all its studies were regulated only by considerations of utility. This word "utility," as the lecturer explained by the most forcible arguments, is the bane of modern education.

The lecturer then advised his listeners not to forget that diligence and industry will make up for many intellectual imperfections. The student must train his senses, his understanding, and his reason, and have all his faculties under the governance of a resolute and vigorous will. "All our knowledge," said Kant, "starts from the senses, goes on from them to the understanding, and ends with Reason, than which nothing higher is found in us, either to work up the material which we derive from the intuitions of sense, or to evolve the highest unity of thought." To be, then, useful and accomplished men, it was necessary to engage in those exercises which would train the external senses, cultivate the understanding, and refine and ennoble the reason. The medical curriculum embraced studies adapted to each and all these purposes. There were two extremes to be avoided; both equally dangerous, though in different ways—working too much was almost as bad as working too little; perhaps of the two the more grievous damage was done by excess. Literature, music, the drama, the fine arts, and the society of persons of refined, though simple, tastes, afforded abundant opportunities for instruction and amusement, and facilities for the best æsthetic culture. Out-door exercises, as walking, riding, boating, cricket, and volunteering—whether in the service of Mars or Hygeia, to shoulder the rifle or attend the ambulance—would invigorate the body, refresh the mind, and repair the damage which the student's growing frame sustained in the noxious atmosphere of hospital, laboratory, and dissecting-room. These exercises, too, supplied the only opportunities of witnessing and admiring the natural beauty of earth, and sky, and sea, the variegated hues of gem and flower; the painting of insect, bird, and beast; the brightness of sunshine, the iridescence of the rainbow, the rippling of the shallow stream, the sheen of still water, the flash and roar of storm and tempest.

No education should be exclusively technical or even intellectual,

and certainly not that of a medical man. Hippocrates gave ethical dignity to medical practice. No one showed more respect than he for patients, more solicitude for their welfare, or at least for their solace and consolation. No one more than he admired useful discoveries, or took more trouble to perfect them. While maintaining a conscientious deference to all his upright professional brethren, he utterly repudiated those practitioners who were careful only for their fortune and reputation, making a parade of their knowledge and learning, humouring the prejudices of the vulgar, and ruling their own conduct by considerations of the profit which they were likely to receive. No one had ever had a nicer and more correct appreciation of the relations which should exist between medical men themselves and between the medical practitioner and his patient and the public. Guy of Chauliac, who flourished in the middle of the fourteenth century, was equally exalted in his ideals. "A surgeon," he said, "should be learned, expert, ingenious, and well mannered; he should be bold when sure, cautious in danger; kind to patients, gracious to colleagues, modest in giving an opinion; chaste, sober, pitiful, and merciful, and not greedy of gain." These were noble teachings, which each of us might follow, however haltingly and afar off.

It was Knowledge that purified our nature; it was Science that gave moral dignity and value to our calling. To a worldly-minded man the rewards of medical labour were not worth the toil. The remuneration was not adequate to the anxious and arduous care of professional life; to the struggles against opposition, adversity, and disappointment; to the lack of honours, luxuries, and even comforts. But to a mind imbued with the modest and unselfish spirit of science, the rewards of a good conscience and of a sense of duty properly performed, were sufficient. All of us were engaged in the pursuit of this science, and in a work of humanity and love. On our efforts, collectively and individually, would depend, to a large degree, the character and the influence of our art and our science during the coming generations. The way in which we discharged our duties and fulfilled our obligations to the profession, to ourselves, and to the world, would influence, for good or for evil, medical and social life for years to come.

The lecturer concluded by adding his own good wishes to those of his colleagues for the health, happiness, and success of the students who are about to commence their studies at University College, London.

WESTMINSTER HOSPITAL.

THE Introductory Address was delivered by Mr. BOYCE BARROW, F.R.C.S., Assistant-Surgeon to the Hospital.

After the usual welcome to those who had just entered their names on the list of medical students, Mr. Barrow spoke of the high aims of the medical profession. No other calling could compare with it in point of utility, as is illustrated by the widespread good done by restoring an afflicted parent and breadwinner to health and activity, or by arresting the spread of fever by regulating sanitary arrangements, and by examples of lives saved in the hospitals. And what did man hold more dear than his life? Who would not sacrifice all his worldly possessions for it? It was a profession occupied in works of charity. Our hospitals bore witness of the truth of this; for what institution could have a more charitable purpose, and supply a want more urgently needed, than that of providing comfort and relief for the suffering poor? It was one of the glories of the profession that, although its members were not possessed of wealth, they were, nevertheless, armed with a means of co-operating with the wealthy in affording relief and comfort to the poor.

In surveying the subjects which formed the programme of study, the lecturer's confidence in offering to freshmen his congratulations increased, for these subjects were of such pleasurable and absorbing interest, that men of all ranks and professions pursued some one or more of them for the sake of amusement. As for the difficulties to be encountered in study, it must be remembered that, in most pursuits of life, a difficulty became an attraction. In making a tour among the Alps, the traveller took greater pleasure in climbing the highest mountain than the lowest; the student's progress in the study of the profession might be compared, in its steady gradual course, to the ascent of a high mountain.

Mr. Barrow reminded the students that the time allotted for their education was very short. An Italian philosopher expressed in his motto that time was his estate. It was well for the student to adopt this motto. Time was a more satisfactory estate to cultivate than a landed estate, for whereas the produce of the latter deteriorated after a certain number of crops had been grown upon it, each crop produced, each work accomplished, added to the value of time, and the amount of work which the student could perform in one hour would increase in each succeeding year of study, and the value of the present student's time as practitioner in days to come would be proportionate to the advantageous manner in which he was now utilising it. But a landed estate was not estimated by its extent, but by its productiveness; and so must time devoted to study be estimated by the results of its employment, and not by its length. In order to form a correct estimate of the value of time, and guard against its waste, the student should keep a diary, in which he might record how each hour of the day was spent, and note the result of its employment.

Anatomy afforded an excellent training for the powers of observation, as did physiology for the reasoning faculties. Before spending many days in the study of anatomy, there would not be one new student who would not complain of his memory. If appointed custodian of a number of valuable treasures, the future student would so arrange them that he could inspect them readily, and the frequency of his inspections would be in accordance with the fear he had of losing them. In the same way he must so arrange and associate in his mind his anatomical treasures, that he could inspect them easily, and with a frequency proportionate to the defects of memory, of which he would at first be sure to complain.

Mr. Barrow concluded with the following salutary advice to new students. "Lastly, let me draw your attention to the fact that the motive with which you pursue your studies will determine whether you find pleasure in them or not. You all enjoy a game at football. Contrast then the motives with which you play your game with those with which you study. Do you not find as much opposition in the one as in the other? Do you not meet equally agreeable companions? Does not the mental exercise create as much satisfactory enjoyment to the mind as the muscular? But does the game of football fit you to gain a livelihood—to assume the reponsibilities of a profession in which life and death will be repeatedly in the balance before you, and the turn of the scale will depend upon your good judgment and skilful treatment? Does not the thought that your parents and friends will eagerly watch your progress, and participate in the pleasure of your success or the disappointment of your failure, fill you with a heartfelt desire to keep steadily in the path of industry?"

ARMY MEDICAL SCHOOL AT NETLEY.

THE Introductory Address was delivered by Dr. DE CHAUMONT, F.R.S., Professor of Military Hygiene, the principal subjects discussed in his discourse being the recent epidemic of cholera in Egypt, and the questions it has evoked regarding the advantages of a system of quarantine, with a view to stop the entrance of the disease into other countries, compared with those of an already existing sanitary system for confronting it, or, in other words, the adoption of all those hygienic measures which are calculated to prevent it from gaining a hold and spreading, in case of its introduction. The almost uniform failure of quarantine for effecting its object was pointed out by numerous illustrations, while, on the other hand, the lecturer demonstrated the positive gains which had always resulted in proportion as hygienic measures had been properly carried into execution. Professor de Chaumont, in the early part of his remarks, congratulated his colleague, Dr. Aitken, who was present, on his recovery from a recent dangerous illness, and his congratulations were heartily responded to by the staff of the establishment, and others who were assembled in the lecture-room.

REVIEWS AND NOTICES.

OBSERVATIONS ON LITHOTOMY, LITHOTRITY, AND THE EARLY DETECTION OF STONE IN THE BLADDER. By REGINALD HARRISON, F.R.C.S., Surgeon to the Liverpool Royal Infirmary. J. and A. Churchill. 1883.

THE greater part of Mr. HARRISON'S work is devoted to the subjects of lithotomy and lithotrity, and the observations it contains are based, for the most part, upon cases which from time to time have been brought by the author under the notice of various medical societies. These observations, together with the Address in Surgery recently given by the author at the Liverpool meeting of the Association, are based upon a large experience of the treatment of

stone in the bladder, and deal with the important advances that have of late years been made in this branch of surgery. Mr. Harrison has had much success as a lithotomist, having performed this operation over forty times, with only two deaths, and these apparently unconnected with the operation. It would have added to the value of this work, we think, if the author, with less contempt for statistics, had published a table giving the nature of the operation in each instance, and the age of the patient. It is stated that a few median operations have been performed, and these, probably, have been included in the forty cases. There is no operation of corresponding importance, it is thought, which has yielded more satisfactory results than lithotomy. Mr. Harrison, however, has not neglected the claims of lithotrity, and alludes to certain conditions under which this operation may be practised on children. Bigelow's method is fully discussed and warmly advocated, although, in the author's practice, this operation seems to have been less successful than lithotomy, two cases out of twenty-eight having terminated fatally.

This very useful and suggestive little work concludes with an excellent chapter on sounding and the early detection of stone in the bladder, and with a description of a new method of tapping the bladder in cases of retention in association with enlargement of the prostate.

NOTES ON BOOKS.

Excision of the Knee-joint, with Report of Twenty-eight Cases. By GEORGE EDGEWORTH FENWICK, M.D., C.M., Professor of Surgery, McGill University; Surgeon to the Montreal General Hospital. Montreal: Dawson Brothers. 1883.—Dr. Fenwick has evidently paid much attention to the subject of excision of the knee-joint, and the success that has attended the performance of this operation by himself and his colleagues is very satisfactory. His work contains a few well-reported cases, a good table of cases, and some clear photo-lithographs. The object of the author in placing on record the statistics of the Montreal General Hospital in reference to excision of the knee has certainly been well carried out; but surely, at the present day, the prejudice against this operation existing with experienced surgeons is not with regard to the results of the proceeding, but to its indiscriminate application. A record like this of Dr. Fenwick's, as an addition to our knowledge of the subject, would have been valuable some twenty-five years ago, but now is quite out of date. The pathology is ancient; and no notice is taken of the researches of Volkmann, and of the important modifications in the treatment of diseased joints that have been practised by those surgeons who accept his views. The method of section of the bones to which Dr. Fenwick attributes so much of his success is not new, and was practised many years ago in London.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

MESSRS. SAVORY AND MOORE'S PORTABLE PEPTONISING APPARATUS.

THE use of predigested food is now so largely resorted to, both in the nursery and sick-room, that a convenient and portable peptonising apparatus is constantly required. The combination recently introduced by Messrs. Savory and Moore is by far the best we have seen, and answers the purpose admirably. The directions are so clear and simple, that the preparation of the food may be safely entrusted to the nurse, or even to an intelligent servant.

SIR,—In the article on the First Swiss Alpine Milk appearing in your JOURNAL of September 1st, an expression is used by which the inference is drawn, that the above-mentioned brand is the only unsweetened condensed milk. Such, however, is not the case; the company I represent, viz., the Swiss Milk Company of Gossau, whose pure unsweetened condensed milk is known as the Edelweiss Brand, have successfully sold their product in the English market for over a year. In that spirit of fairness advocated in your esteemed JOURNAL, I trust you will give publicity to this letter.—I am, sir, your obedient servant,

A. MOOS.

84, Basinghall Street, London, E.C., September 3rd, 1883.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 6th, 1883.

MEDICAL STUDY AND PRACTICE.

DR. ALLBUTT'S address at the opening of the Leeds School of Medicine, while it deals in an interesting manner with a variety of subjects, strikes into a groove rather different from the usual one. The address may be termed human rather than scientific. It comes from a man to men; from one who has travelled a considerable portion of the way, to the youthful audience who are only entering on the path which he has followed with distinction. When, in these circumstances, a man finds himself, in his turn, president of the school for the third time, it is natural that his thoughts should travel backwards over the years that have passed since he was in the position in which his audience are now, while it is equally natural that youth should look forward with hope and enthusiasm that reckon but little of the difficulties to be encountered, or the hardships to be overcome. "Of the past," says a poet just departed —"Of the past the old man's thoughts were: but the maiden's of the future." Not that the speaker has quite reached that position yet. But though many happy and successful years are, we may reasonably hope, before him, still the reflection forces itself on the mind that "he must now reckon himself among the elders." What then has he to say to the young men pressing on inevitably from the very fact of their youth, and facing the unknown future before them? What encouragement—what help? Naturally one of the first things that strike the retrospective mind is the great difference, the almost violent contrast, between the hopes of youth and the achievements of middle life. There is certainly a vast difference between the "five thousand a year and a four horse team to drive, or the best three brace of setters, and a grouse-moor," and the leading consulting practice in the district around the chief provincial English medical school. It is happy, indeed, for those whose retrospect is so satisfactory. We know of comparisons between hopes and achievements that tell less in favour of the latter. Fortunate are they who can bear with equanimity the reflection that the present is not altogether so satisfactory as they once hoped it would be. Most likely some of those who listened to the address may have to face such a reflection by-and-by. If it should be so, if difficulties turn out greater, and successes smaller than they expected, it is to be hoped that they will not lose the reward at least of a consciousness that they have made what use was possible of their opportunities, and that the motives that led them on their course were not low or vulgar. We are pleased to notice that the speaker emphatically set aside the desire of gain as a just motive for entering the medical profession. In this respect, the medical ought to be on a par with the clerical profession. Sordid motives must detract from the nobility of the work that is done. And yet the labourer (and happily we live in a time when this is fairly acknowledged) is worthy of his hire. Comfort, at least, and a mind free from pecuniary cares, are a part of the reward of the medical man who achieves an average success. If no large fortune falls to his share

he escapes a very questionable boon, and may indulge the complacency of mind that asked, as its best wish, for a lot neither of poverty nor riches. His family will fare as well as his neighbour's, if he behave circumspectly, and with a due regard to the fitness of things. If he imitates his wealthier neighbours, enriched by the accumulations of three or four generations, and sets up a large establishment and a carriage and pair, when two maid-servants and walking afoot would better suit his means, he will probably come to grief as he deserves. But a modest competence may be honourably earned, and still leave time for a little original research, and not a little quiet unremunerated work, while the good-will, and even the esteem, of those who surround him, is often offered more freely than if his income, or even a larger one, were derived from trade. And, on the whole, it is pretty certain that, taking the bad with the good, the disadvantages with the advantages, the lot of medical men is neither very much better nor very much worse than that of those about him; provided, that is, he keeps his health. On this point Dr. Allbutt has not touched, and yet it is one of the utmost importance to those he was addressing. The medical profession never has failed, any more than the military, in freely staking life for life when danger of pestilence, or infectious illness, demanded it; and we may take it as certain that they never will, whether the public glorify them or not in consequence. Dr. Allbutt's tribute to the noble self-sacrifice of Messrs. Burroughes, Swann, and Libby, only reminded us, in this respect, of what we all know and take for granted. But there is a recklessness of life, which doctors show in their own case, that is often very reprehensible. They certainly would not allow their patients to eat irregularly, to sleep too little, nor to continue to work long after the powers of jaded nature are quite exhausted; and yet these are things they are themselves prone to do. If some of this is due to the harassing nature and irregular incidence of their occupation, very much of it might be obviated by appeals to the consideration of the public, or, if it must be so, to their self-interest, and by firm determination on the part of the profession to do their duty to themselves, in order to be able to do it properly to their clients. How many brothers has every doctor known overborne in the struggle by the unselfish, and yet we fear it must also be termed unwise, neglect of themselves in order to serve the public. The profession is not long-lived, and, perhaps, never can hope to compete, in this respect, with the clergy or the lawyers; but determined efforts at regularity on their own parts, and some help from their patients, would certainly reduce the disparity that exists at present; and we trust that, as time goes on, both of these courses may be found to have greater play.

One note struck in the address, if sounding at first a little discordant, will, we are convinced, prove more harmonious with the true principles of melody, the longer it is listened to. To Dr. Allbutt's mind, the patching up of a man's clay conveys no necessarily inherent nobleness. A man, he says, may sell fish to the glory of God, and may practise the healing art, or even win souls, as the saying is, from motives that will not bear the light of scrutiny. The way in which work of any kind is done, as far as its purely moral value is concerned, depends on the spirit of the doer, and not on the character of the work. True, it is probably easier to supply fair quality of excellence of workmanship where human suffering is the material to be moulded, than in the ordinary work of trade and business. But let no man be so carried away by the assumed nobility of his calling as to work his profession for his own glory or gain regardless of the good of his fellows, or even of still higher aims. Motive, it is evident, must be the test of the morality of action, since work can be turned out, of apparently equal excellence, from the most opposite motives, from a wise egoism on the one hand, or a wise altruism on the other, for example; only the conscience of the doer and a higher power being capable of determining from which source it springs. We are happily spared the trouble of judging of other men's motives, since it is absolutely impossible in most cases to find them out; but to each man for himself it is the highest question he can ask, the honest answer determining for him the only verdict in which he has an abiding interest. It is the same with the effects of sanitary work. To live long is not the end of life. "Better fifty years of Europe than a cycle of Cathay." Good health is not an end, but a means; and, if it is not to be used for useful work, it were better that it had not been. But, while all this is true, it must not be forgotten that good health gives a man extra chances. The way in which he uses them is his chief concern; and, while we freely admit that some of the most delicate men that ever lived have also been among the noblest, we fail to see any necessary connection between weakness and high moral purpose, or any inherent incompatibility in theory and practice between strength of body and fine quality of mind. The world has lost much by the delicacy of Clifford and the premature decay of Keats; and, while we are no advocates for rash legislation founded on an immature science, we feel that in the interests of all it must be good to aim at the highest bodily health in combination with the finest qualities of mind. Weakly men have often, indeed, given the strongest promise; but most of the leaders in science, statesmanship, and literature, have at least had such constitutions as enabled them to see over the hill-top of life, while many of them have actually lived long. As things are now, particularly, it is almost hopeless for any man to achieve success or make his mark till the period of middle life begins to tend towards age.

A panegyric of general practitioners is not out of place in this address. The bulk of the profession must be found in this division of it. Specialism has, no doubt, been on the increase for some time, and we shall certainly see further developments of it; but, on the other hand, the specialism of one generation tends to become the general heritage of the next, and in this way the number of branches in which specialism is permanently possible tends to become smaller. If, therefore, medicine has done much that is of value in the past, we shall probably find many of her eminent names among her most numerous followers. In any case, we are pleased when a man of note stands up for the somewhat underrated general practitioner. Men who begin the day by prescribing for bronchitis, proceed to examine a throat, go on to remove a foreign body from the eye, and then lance a baby's gums, while they advise concerning the dysentery of another, next open an abscess in deep-seated parts, and, after a varied day, get up in the night to apply the long forceps above the brim or to perform cephalotripsy—such men must have good mental qualities, and among these must be reckoned skill, tact, acuteness of perception, promptitude, self-reliance, and fertility of resource, with a large amount of general information. When it is added that some of these men have a wide culture, and possess philosophic powers of mind which perpetual interruptions alone prevent them from using in a permanent manner, we feel that, while such men need no panegyric, we are yet pleased that it has been so generously offered. If it be true that they have their faults, some of which have been faithfully mentioned to them, we believe that these are gradually disappearing before the influences of the wider culture they now possess; and we are in hopes that, as time goes on, we shall witness, not, indeed, perfection, but as much improvement over the present as the present, on the whole, shows over the past.

THE WALTHAMSTOW MURDER.

THE decision of the Home Secretary in this case is both satisfactory and unsatisfactory. It is satisfactory, because it spares us the shocking spectacle of the execution of a lunatic; and it is unsatisfactory, because it proves the existence of very grievous defects in our judicial system. Those who know the practice of the Home Office in reviewing capital sentences, will understand that Sir William Harcourt has only intervened in this case on the most conclusive evidence of the prisoner's insanity being submitted to him

It may be taken as demonstrated beyond reasonable doubt that Gouldstone was insane when he murdered his children; and yet this indubitable lunatic was found guilty by the jury without the slightest hesitation, was sentenced by the judge without hope of mercy, and would have been executed, had not the medical profession interfered on his behalf. It will be remembered that the judge made light of the evidence of insanity, and that several leading organs of public opinion approved the verdict and sentence. But for the strong representations of the medical press, and of individual medical men, Gouldstone would have atoned by this time with his life for the crime of being afflicted with a terrible disease, which has scourged his family for three generations, and a powerful inducement would have been thus held out to other madmen to go and do likewise; for, as Dr. Guy has shown, the execution of a lunatic is generally followed by a copious crop of lunatic homicides. It is scarcely an exaggeration to say that, in the present state of the law, the medical profession in this country has to play the part of a vigilance committee in connection with trials for murder, and has to interpose every now and then to prevent the shame and scandal of the strangling of a miserable being bereft of reason, so slow are the courts to recognise insanity, so antagonistic are they to science, and so little is it anybody's business to ascertain whether a prisoner put on his trial for his life is of sound mind or not. The duty thus thrown on the medical profession is invidious, and brings some obloquy; and the fearless manner in which it is discharged, perhaps, accounts in some degree for the scant courtesy with which members of the profession are not unfrequently treated, when they appear as witnesses in courts of justice. Mute acquiescence in judicial decisions, or a deferential acceptance of the deliverances of judicial wisdom on all subjects in heaven and earth, would secure for the profession, with the bench and bar, a reputation for sagacity and moderation higher than that which it now enjoys. But, fortunately, the medical profession never listens to the suggestions of mere worldly prudence where scientific truth and practical humanity are at stake. No matter how distasteful its utterances may prove in high quarters, it speaks out boldly when it thinks a miscarriage of justice has taken place; and, setting an example to all other professions in this respect, exerts itself, actuated by a sense of public duty only, to insure that right be done. As long as the medical profession is constituted as it now is, it will not shrink from what it regards as its duty; but it seems neither fair nor politic that it should be called upon any longer to correct judicial blunders which ought never to have been committed. The time has arrived for a radical reform in the conduct of murder-trials in which the defence of insanity is set up. It cannot be tolerated any longer that this momentous question —momentous alike to the prisoner and the public—should be determined by some fusty maxims, and some snatches of hap-hazard evidence, founded on a ten-minutes' examination, at the last moment, of a reticent or trembling wretch. It is almost as well known beforehand in which cases of murder the defence of insanity will be set up, as it is in which cases the theory of poisoning will be advanced by the prosecution; and it is as easy to be prepared for the defence in the one set of cases as for the prosecution in the other.

Let us have two or three competent medical men appointed by the Government annually, as the State analytical chemists now are, on the nomination of the Presidents of the Colleges of Physicians and Surgeons, or other high medical authority, to inquire into the mental state of all persons charged with murder, about whose sanity there is the smallest doubt; and let facilities be given to them for carrying out their inquiries; and we shall have no more disputes over the responsibility of a convict lying under sentence of death. The testimony of such witnesses would be beyond any suspicion of bias, and would be founded on a broad basis of observation. It would put a stop to mere specul ive allegations of insanity in murder-cases, and carry conviction he public mind, relieving it, once for all, from the anxious misgivings by which it is now so often disturbed in cases in which the death-penalty is involved. The reports of these witnesses would afford safe guidance to the judges, saving them from those errors the subsequent rectification of which now entails some discredit upon them, and easing them of a load of responsibility.

The necessity for a change in the present practice in dealing with murder-cases in which mental derangement is suspected, might be illustrated in a great variety of ways; but there is one argument in its favour which will weigh powerfully with the English people, and that is that the existing system is uncertain, and might be perverted by unscrupulous officials to grave abuses. Why, it might be asked, has not the youth Benn, who murdered his father at Matlock, been brought to trial? He was committed, but has never appeared at the assizes; and the statement is, that he has been removed to an asylum. We have no doubt that he was insane, and that all necessary legal formalities have been observed in his removal; but it is certainly open to observation that such different treatment should have been meted out to him and to Gouldstone. Both of them perpetrated unnatural murders, which looked like the acts of madmen; both of them were committed for trial, but one of them was immediately sent off to an asylum, while the other was brought before a jury, condemned to death, and has very narrowly escaped hanging. Some private inquiry, which satisfied the Home Office, must have been held into Benn's mental state between his committal and the date fixed for his trial; but what we contend for, is no such secret investigation, but a systematic and prolonged examination between committal and trial in all such cases, the results of which shall be stated in open court, and be subjected to criticism there. We should have thought it an established and unassailable principle that every prisoner charged with murder should be brought to public trial, unless it should appear that the trial would put his life in imminent peril, and, under these circumstances, evidence to that effect should be submitted in open court. To admit that it is ever allowable for officials to put a bar to trial, and to remove a person charged with crime to an asylum, is to open the door to the possibility of serious evils. We are justly proud of the purity and high-mindedness of our officials, and know that they act with a single eye to the public welfare; but a time might come when the State had less immaculate servants, and then the rich murderer might go to Broadmoor, and the poor one to the gallows if the present duplex system of dealing with prisoners alleged to be insane were permitted to continue.

THE INTRODUCTORY ADDRESSES.

THE introductory addresses this year, of which we furnish abstracts, treat more than is usual of public questions, and show traces of a quickening of public interest and a more active attention to larg social and professional questions, which we mark with great satisfaction. It has long been our object, in view of the great purposes of this Association and its aims, to animate the whole body of the profession with a sentiment of dignity, solidarity, and common interest in professional and public affairs. Medical occupations tend naturally, and in virtue of that scientific side of medicine which presents itself as one of its noblest and most essential purposes and occupations, to the contemplation of the individual and of the abstract. This scientific side of medicine, leading to the worship of the idols of the cave, we would wish also to exalt. It is that which makes the medical man rise superior to many other callings, in the unselfishness and the prominence of the philosophic character of his work; but the profession as a whole needs to regard itself as a body charged with duties to the entire community, which duties year after year, become more important and far-reaching. The medical man of to-day is not only the healer, the philosopher, and the biologist, he is also the central spirit and the inspirer of a great social movement which aims at the physical elevation of the stand

ard of health, of the habits of life, and of the physiological soundness of the whole community. His work now permeates all those living associations which are operating for the welfare of the people. It is for him to direct and to expand the work, largely due to medical influences, which is being carried out by such associations as the Commons Preservation Society, the Open Spaces Society, the Social Science Association, the National Health Society, the Sanitary Institute, the Smoke Abatement Institute, the Coffee Taverns Association, and the great temperance associations. It is for him to study and consider the organisation of our 'poor-law system, of our national health system, of the Public Health Acts, of the network of hospitals and dispensaries, of the provident medical associations which play so large a part in the amelioration of our national life, and the physical and moral improvement of the people. Looking back to the last quarter of a century, it is easy to see how much medical effort, medical information, and unselfish devotion of individuals and officials connected with our profession, has done to initiate, to popularise, and to strengthen the great work which is going on for the social elevation of the masses. This is probably what is meant by the increasing demand for expansion of the political power of the profession, and for the acknowledgment of its claim to the highest social status. At any rate, it is largely upon work such as this that these claims must rest, and in virtue of them that such a claim will be accepted. The high tone of the introductory addresses will not fail to make its impression upon the public mind, nor will men of culture and education have failed to notice how largely a spirit of reverence inspires the references which more than one of these addresses contains to the relations of biological science to moral and religious principles. No more eloquent or convinced exponents of this pervading sentiment could have been selected than Dr. Acland, Mr. Le Gros Clark, and Dr. Handfield Jones; and their weighty words will undoubtedly sink deeply, not only into the hearts of those who heard them, but will impress upon the public mind a truer view of the prevailing tone of medical opinion on these subjects than that which generally prevails. Mr. Tweedy, Mr. Bennett, and Mr. Pearce Gould have delivered addresses which will be read with particular satisfaction, since they come from accepted representatives of the rising generation of the profession, and are imbued with sound political views and earnest feeling of hopeful interest in the political future of the profession. On the whole, it may, we think, be fairly said that seldom has any series of public addresses been issued on the 1st of October more full of earnest sentiment, or marked by a larger and more philosophic outlook, in reference to the prospects of medicine and the medical profession.

INTESTINAL WORMS.

DURING the last few years we have frequently referred to discoveries in human helminthology, both as regards parasites and pseudo-parasites. In 1882, Leuckart, of Leipzig, made some interesting researches which threw much light on the development of *Distoma hepaticum*; whilst Braun, of Dorpat, has worked out the life-history of *Bothriocephalus latus*. Leuckart has also turned his attention to the development of a round-worm, originally described as the recognised cause of an endemic form of diarrhœa in Cochin China, but since found in natives of Switzerland and Italy. In the fæces of a patient in the Julius Hospital, Würzburg, who had resided for several years in Acheen and in Mexico, he found young specimens of a nematoid worm, termed *Anguillula stercoralis* by Bavay. Perroncito had discovered the same worm in the intestines of workmen who died during the boring of the St. Gothard tunnel, from the effects of another intestinal parasite, the *Ankylostomum duodenale*. Dr. Bugnion contributed, it will be remembered, a valuable paper on the St. Gothard epidemic to the BRITISH MEDICAL JOURNAL, in 1881 (vol. i., p. 382), where full references to Dr. Perroncito's work will be found. The *Anguillula* of Bavay has been placed by Perroncito in a new genus, *Pseudo-rhabditis*, on account of its resemblance to a non-parasitic genus *Rhabditis*. By cultivation, Leuckart succeeded in rearing young specimens taken from the fæces. In thirty hours they became sexually mature. The females laid eggs which hatched: the embryos, only measuring 0.22 millimètre at first, soon grew to the length of half a millimètre. They then cast their integument, and lost the form of a *Rhabditis*, becoming more like young strongyli or filariæ, but differing from these in the character of the œsophagus and tail. This fresh generation, artificially reared, did not reproduce its kind, but soon died out. Hence Leuckart concluded that it is necessary for this filaria-like form to live in the human intestine before it can attain sexual maturity. A similar peculiarity and alternation has been observed in *Rhabdonema nigrovenosa*, a worm allied to *Ascaris*, and infesting the lungs of frogs. Leuckart believes that his artificially-reared filaria-like offspring of *Pseudo-rhabditis* has been observed before, and not suspected, to be a form of *P. stercoralis*, but has been reckoned as a different species, *P. intestinalis*. This supposed second species has been recognised by Grassi, and placed in a new genus, *Strongyloides*. But this *P. intestinalis* is but the young of *P. stercoralis*, living in human fæces containing its parent. Contamination of water from such fæces causes the introduction of this miniature form into other human subjects, and once in the intestine it develops to the perfect *P. stercoralis*. Dr. Bugnion's article, to which we have above referred, describes how the *Ankylostomum* was introduced in a similar manner. Hence Perroncito found the two species in company. Professor Leuckart, whose researches on this subject are published in the proceedings of the *Königliche Sachsische Gesellschaft der Wissenschaften* for 1882, simplifies matters by abolishing the names *Rhabditis* (or *Pseudo-rhabditis*) *intestinalis* and *stercoralis*, and naming the species *Rhabdonema strongyloides*.

THE Clinical Society will hold its first meeting for the present session on Friday next, October 12th.

ONE of the wards in the new wing of the West London Hospital has been named the "Foresters' Ward," in recognition of the long-continued kindness shown by the members of that ancient order.

WE publish in our editorial columns, this week, details of interest concerning most of the metropolitan and some of the provincial medical schools, both as regards improvements in school-buildings and brief accounts of inaugural festivities. The new arrangement for the better supply of subjects to the dissecting-rooms of London medical schools appears to us to be particularly satisfactory.

THE Portsmouth correspondent of the Press Association says it is stated in well-informed naval circles that the Admiralty are dissatisfied with the result of the suspension of the Contagious Diseases Acts, and that a scheme to overcome some of the objections of Mr. Stansfeld's party will shortly come into operation, but the details have not yet been elaborated.

SOME alarm was created last week at Naples by a report that yellow fever had broken out at Torre Annunziata. According to more exact information, after a *post mortem* examination of the bodies of two of the four persons who have died, the doctors, with one exception, have agreed that none of the characteristics of yellow fever were recognisable; but that death had been caused by a serious form of infection of no determined type, but having a certain analogy to typhus. Of three other persons who have been attacked, one case only is serious. Strict regulations for isolation and disinfection have been enforced, and the Sanitary Council has been convoked. Attention is drawn to the fact that Torre Annunziata has

no communication with South America, from whence yellow fever would be imported, and that those who have died were not engaged in commerce.

AT a meeting of Governors, on Thursday last, Dr. Norman Moore was unanimously elected assistant-physician to St. Bartholomew's Hospital. Dr. Moore has held the office of warden of the college for resident students, at the hospital, for ten years, and has long held the appointment of demonstrator of morbid anatomy. He is also well-known for his contributions to the Pathological Society's *Transactions*, and for the active part he has taken in the discussions at the meetings of that Society.

THE open scholarship of 125 guineas in classics, mathematics, and modern languages, at Guy's Hospital Medical School, has been awarded to Mr. George Herbert Pennell, and that of 125 guineas in chemistry, physics, botany, and zoology, to Mr. Ernest Henry Starling. The medical entrance exhibitions at University College, London, have been awarded as follows. The first exhibition (£80) has been divided between Messrs. E. B. Hastings and G. E. Rennie, who are bracketed as equal, and the second exhibition (£40) to Mr. C. H. Fernan.

THE *Journal of Mental Science* for October publishes a very strong remonstrance on the subject of the recent lunacy appointments in the sense which we have already expressed, intimating a strong opinion that in such appointments special qualifications ought to be considered, and that for the appointment of Commissioner of Lunacy a gentleman should be chosen who has had considerable experience of public or private practice in lunacy. The remonstrance is powerful and well written, and comes from a source which of itself commands attention, even if it did not evidently express the views of the whole department as well as those which, we believe, are universally held in the profession of medicine on the subject.

OBSTETRICAL SOCIETY OF LONDON.

THE Obstetrical Society, under the Presidency of Dr. Gervis, opened its winter session on Wednesday. An interesting paper by Dr. Henry Bennet, containing much information concerning the history and progress of Gynæcology, from the time of Sir James Simpson down to to-day, was read and listened to by a crowded meeting. Drs. Barnes, Edis, Playfair, Aveling, Heywood Smith, and others joined in the discussion which ensued.

A CANADIAN SANITARY ASSOCIATION.

A SANITARY association, based upon the lines of the American Public Health Association, has been formed in Canada by representative men from all parts of the Dominion. The object of the association is to consider all sanitary questions, strengthening the hands of local and provincial boards of health, and bringing to the notice of Parliament sanitary matters needing reform. The first discussion-meeting is to be held at Montreal, at the same time as the British Association meeting.

UNIVERSITY COLLEGE MEDICAL SOCIETY.

THE annual public meeting will be held in the Botanical Theatre, University College, Gower Street, W.C., on Wednesday, October 17th, 1883, when an address will be delivered by Henry Maudsley, M.D., F.R.C.P., late professor of medical jurisprudence in University College, on the subject of Heredity and Disease. The chair will be taken by the president, H. Montague Murray, M.B., at 8 p.m. The Flaxman gallery, general library, and college museums, will be open from seven till ten. There will be a microscopical exhibition in the general library, showing specimens of sense-organs, bacteria and parasites.

DR. ROCHARD.

THE Paris correspondent of the *Daily News* telegraphs:—The Medical Inspector-General of the Fleet, Dr. Rochard, uncle of M. Camescasse, prefect of police, while walking home in the Avenue Gabriel, Champs Elysées, on Wednesday evening, was shot in the back, and now lies very seriously injured. He does not know who was his assailant, nor what can have been the motive for the crime The police have not yet found his assailant.

DEATH FROM THE SELF-ADMINISTRATION OF CHLOROFORM.

ANOTHER death has again shown the fatal danger which attends the self-administration of chloroform. Last week, an inquest was held respecting the death of Walter Woodcock Wilmot, a medical student, aged eighteen years, who was found dead in bed in his father's house, with a bottle containing chloroform in his right hand. Evidence showed that death was due to the inhalation of chloroform, and that the deceased had long been in the habit of employing the anæsthetic for the purpose of inducing sleep.

THE REMAINS OF HARVEY.

WE are requested by the Registrar of the Royal College of Physicians to state that the remains of the illustrious Harvey, now lying in the vault under Hempstead Church in Essex, will be removed, with the sanction of Harvey's next-of-kin, to the Harvey Chapel, and placed therein in a sarcophagus provided by the Royal College of Physicians. The ceremony will take place on Thursday, October 18th, being St. Luke's day; and Fellows of the College intending to be present on the occasion must signify the same to the Treasurer or Registrar of the College on or before Thursday, the 11th instant, from whom all necessary information may be obtained.

PROFESSOR LISTER IN BUDA-PESTH.

PROFESSOR LISTER has been spending a few days at Buda-Pesth. A Vienna telegram announces that on Saturday night he received an enthusiastic ovation from the medical students of that city, who held a torchlight procession in his honour. On arriving at the Queen of England Hotel, Pesth, where Professor Lister was staying, the students drew up in a line in front of the building, and Professor Lister appeared on the balcony, surrounded by a number of professors of the medical faculty of the University of Buda-Pesth. One student then addressed the distinguished surgeon in Hungarian, and a second presented the homage of his fellow-students in English, Professor Lister returning his thanks in German.

LUND TESTIMONIAL FUND.

THE past and present pupils of Mr. Edward Lund, F.R.C.S., Professor of Surgery at the Owens College, Manchester, are about to present him with a testimonial on the occasion of his retirement from active service as a surgeon at the Manchester Royal Infirmary. The testimonial is to take the form of a portrait by Mr. J. H. Partington, and plate. As many of Mr. Lund's friends have expressed a wish to join in the testimonial, and as some of his former pupils may not have received a circular, the subscription-list will remain open for a short time longer. Communications may be addressed to F. A. Heath, Esq., 118, Portland Street, Manchester, Chairman of the Testimonial Committee, or to Dr. Leech, Mosley Street, Manchester, Treasurer of the Fund.

GRATUITOUS MEDICINE.

A SAD case of fatal poisoning by laudanum is reported from Tuxford. An elderly man, feeling unwell, suggested to a neighbour that "a sup of laudanum" would ease his pain. A girl was accordingly despatched with a cup to a farmer's wife, and the girl asked for "a drop of laudanum." Three teaspoonfuls of the drug were measured out into the cup; and so little idea had the generous donor

of the potency of the opiate, that at the inquest she stated that she did not think she was sending too much, even if the man had taken it all. One teaspoonful of the laudanum was taken; and it is probable that the patient subsequently took a second, or even a third, teaspoonful, and thus lost his life through the kindly, but ignorant, act of a woman who was more than ordinarily ignorant of the usual dose of laudanum.

A LITHOPÆDION.

AT a recent sitting of the *Académie des Sciences*, Dr. Sappey exhibited a fœtus which had died at the end of six months' extra-uterine gestation, and had afterwards been retained in the mother's abdomen for fifty-six years. The mother became pregnant at the age of twenty-eight, but labour did not come on at term nor afterwards. At the age of eighty-four she went into the infirmary at Quimperlé, where she died three weeks after admission. At the necropsy a large hard cyst, with calcified walls, was discovered adjoining the uterus. This was divided by a saw, and found to contain a fœtus in a state of almost perfect preservation. The skin, lungs, muscles, and other parts had preserved their normal softness and appearance. M. Sappey explains the preservation of the fœtus by means of Pasteur's theory concerning the exclusion of air and aerial germs. It is a noteworthy fact, that these cases of lithopædions have been in the most authenticated instances of extra-uterine origin.

THE DEPTFORD VACCINATION CASE.

AT a meeting of the Council of the Poor-law Medical Officers' Association, held at their rooms, 3, Bolt Court, Fleet Street, on October 2nd, it was resolved: "That this Council, having read the statements that have been made relative to a recent inquiry held at Deptford, has to express its regret that any erroneous opinion should have been given by any practitioner concerning an eruption occurring in four children out of twenty-one vaccinated from the same child, thereby leading to an inquest being held on one of the children who died, two months after vaccination, from pneumonia, and the Council begs to tender its sympathy with Dr. Kavanagh on the unjust aspersion on his character which the rider to the verdict of the coroner's jury conveyed. The Council congratulates Dr. Kavanagh on the recognition of the injustice of such rider by so high an authority as Dr. Stevens, Government Inspector of Vaccination; and trusts that the Medical Council will mark its sense of the impropriety (if not something worse) of the written statement of the medical man upon whose allegation a coroner's inquiry was considered necessary.

WORKHOUSE STIMULANTS IN LANCASHIRE.

THE question of workhouse stimulants has been exciting considerable discussion recently in Lancashire. A statement having been published showing a larger consumption of intoxicants in Preston Workhouse than in many other unions, some of the members of the Preston Board have been endeavouring to repel the accusation. An examination of the return presented to the House of Commons, on the motion of Mr. B. Whitworth, of the amount of intoxicating liquors consumed in workhouses in England and Wales during the year 1881, at once discloses the truth, and has afforded data for an interesting comparison between the expenditure on stimulants in various unions in the county referred to. The average consumption for the thirty Lancashire unions was 3s. 3¾d. per head per annum, the average in Preston having been 3s. 10d. Burnley expended no money on alcohol; Garstang, 4¾d.; Salford, 8¼d.; Manchester, 10d.; Bury, 1s. 2d.; Oldham, 1s. 2¾d.; and Bolton, 1s. 3d. For spirits the cost per head was 2s. 0½d. per annum at Preston, 7¼d. at Manchester, 5¼d. at Salford, 4½d. at Rochdale and Bolton, 3¾d. at Garstang, and only ½d. at Oldham. On wine Preston expended 5d. per pauper, while the cost in several of the remaining unions in the county ranged from ¼d. at Salford and ½d. at Oldham to 2½d. at Ashton-under-Lyne. Preston spent in malt liquors 1s. 4½d. per inmate on an average, while there were no drinks of this description used at Garstang, and the charge at Manchester was only 1½d. per inmate. Such discussions, with that elucidation of the actual facts which open discussion generally brings about, will, if conducted in a fair and conciliatory spirit, greatly promote the welfare of the poor themselves and the interests of the ratepayers. Medical officers would do well to note the signs of the times, and to carefully investigate the action of alcohol, so that they may sanction the use of alcoholic drinks only when these agents are really necessary for the benefit of the sick. This spirited controversy in Preston is another tribute to the powerful influence wielded by the resolutions passed at the recent poor-law medical officers' conference at Liverpool, and it would be a wise step if a copy of these resolutions, moderate yet emphatic as they are, was sent to every Board of Guardians throughout the kingdom.

PROPAGATION OF DISEASE BY BOOKS.

WHEN preventive medicine is searching out and checking all possible means by which infectious and contagious maladies are spread, the part which books may play in the propagation of disease should not be overlooked. There can be no doubt that the specific contagia of many zymotic disorders, and especially of scarlatina, small-pox, and typhoid fever, in the form of particles of material emanations from the bodies of patients, may attach themselves to the covers and pages of books, and so be carried from the sick to the healthy. In private families, all books and periodicals used by a patient during his illness from a zymotic disease had best be burnt upon his convalescence. In general hospitals in which zymotic diseases are treated, scrupulous care should be taken that all literature used by patients suffering from contagious and infectious maladies shall be reserved exclusively for use in the special wards devoted to such disorders. We are afraid zymotic diseases are sometimes spread by books through the agency of lending-libraries and second-hand book-shops; and it would be well if the literature of such establishments were occasionally subjected to efficient disinfection. Persons recovering from zymotic disease should remember that it is one of their duties to take all care to avoid their infection of the healthy, and they should be taught to refrain from handing to others the books they have used during their illness.

THE SPREAD OF SCARLATINA.

DURING the last few months, scarlatina has been epidemic to a very serious extent in many populous districts in the three kingdoms. Although we do not yet know all the circumstances which determine the exceptional and epidemic prevalence of the disease, medical science has certainly ascertained, and repeatedly proved, the measures by which alone the disorder can be stamped out, and it has established, beyond all doubt, that every case of scarlatina is spread by the material emanations from some previous case, and that there is no such thing as the origination of the disease *de novo*. What are the vehicles of its contagia, and the usual modes of its propagation, and how scarlatina may be exterminated, are questions which have been frequently and fully discussed and explained in our pages. We revert to these subjects again, because we are convinced that much ignorance concerning them prevails outside our profession, and because we feel sure that it is not until all classes of the community shall fully appreciate the ascertained truths of zymotic prevalence, and act intelligently upon their teachings, that we can hope for any generally effectual and continuous restraint upon the spread of such a disease as scarlatina. Practical facts about scarlatina which should never be forgotten are, that its contagium is mainly propagated by the material particles of epidermis which are shed from the surface of the body during the period of desquamation, which period is most active after the disappearance of the

characteristic rash; that such desquamated particles are apt to adhere to textile fabrics, such as articles of clothing, and that, in such relationship, they long retain their power of communicating disease, and that the desquamation of such infectious particles may continue for some weeks after the rash of scarlatina has disappeared, and when the patient has apparently quite recovered, and become able to resume his occupation. Scarlatina is a zymotic fever which especially affects children, and the malady is undoubtedly mainly spread by allowing children who have recently acquired the disease, but who, to the non-professional eye, have quite recovered from it, to mix with other children, in schools and other places, while their skins are still desquamating, and scattering abroad their infective epidemic particles. Once these truths are appreciated, it will be seen that our only means of checking and preventing the spread of scarlatina is by efficient inspection, isolation, and disinfection—by inspection to find out propagating cases, by isolation to keep such cases from contact with healthy persons, and by disinfection to destroy the infective power of their emanations. But proof of the efficiency of these means rests on stronger grounds than mere *a priori* considerations. Whenever they have been fairly and fully tried, they have never been known to fail.

HOSPITAL ACCOMMODATION FOR INFECTIOUS DISEASES IN LIVERPOOL.

THE writer of the article on this subject writes in reference to the statement of Dr. S. Taylor in our last issue:—The facts and arguments, of the inaccuracy of which Dr. J. Stopford Taylor complains, are all of them either directly stated in official and other documents which have been for a long time published, and have been quoted in Liverpool newspapers; or are inevitable inferences from alleged facts that have been so stated; and which, as they have not previously been publicly disputed, were necessarily held to be accurate. Whatever refutation may have been offered to the Health Committee could, in the absence of publication, of course only have been known to members of that body. In a pamphlet, entitled "Remarks addressed to the Mayor and Council of the City of Liverpool on the Remedy for Typhus, having special reference to the late Report of the Medical Officer of Health," by T. Fox Morrish, M.R.C.S., one of the medical officers for the district of Toxteth, the following words introduced the case of Wainwright: "David Wainwright had three children ill with scarlatina. His own private doctor was in attendance. The Sanitary Authority heard of the case, probably through the School Board. They forthwith reported it to the relieving officer, with what result the following correspondence will show." Then follows the letter which was quoted. This pamphlet has been published for some months. The house is such as it is stated to be in the article. From the words "sublet lodging-house," used by Dr. Taylor with reference to it, those who are not accustomed to nice distinctions might imagine it to be either a common lodging-house, or one of those houses but just above the common lodging-house, where the front door is always open, and people pass in and out without let or hindrance. It is, however, entirely different from either of these, and has an external aspect of great respectability. The common practice in Liverpool, whenever the medical officer of health judges that there is not proper lodging and accommodation, but where removal to hospital is, notwithstanding, resisted, is to obtain a justice's order to make that removal compulsory; and that no such order was obtained in the case of Wainwright's children must be taken as satisfactory evidence that, in the end, the space was considered sufficient. The object of the article was to state what was being done towards providing Liverpool with a hospital for infectious diseases, and the circumstances which led up to this; and it is to be presumed that the following facts are indisputable—viz., that the Toxteth Board of Guardians refused to allow their officer to pauperise non-pauper residents by removing them to the workhouse hospital, on the mere certificate, or by the direction of, the Medical Officer of Health for Liverpool; that they illustrated the justice of their refusal by a number of cases which had been brought under their notice, of which Wainwright's was one; that the Medical Officer of Health for Liverpool, in a report to the Health Committee, complained that the Board of Guardians did not second his efforts to diminish disease as they might do, and, particularly, that they allowed people to remain in their homes when they ought to be removed to hospital; that the Health Committee proposed a conference with the Board of Guardians, which was agreed to by the latter body, on the understanding that the whole subject of dealing with those who were infectiously diseased, including what had been done in the cases alluded to, of which Wainwright's formed one, should be considered; that the Health Committee declined the conference; and that, finally, they instructed the Medical Officer of Health to report to them as to the needs of the city with reference to hospital accommodation for infectious diseases.

THE MORNING BATH.

THE morning bath holds a well-established place among domestic arrangements. Cold water is usually and properly preferred for this purpose by those who can bear it. Apart from its cleansing property, which is valuable as promoting excretion from the skin, and so relieving deeper excretory organs, especially the kidneys, we can, by means of cold water, apply a degree of cold to the surface of the body which, when suitably regulated, is both salutary and agreeable. Such a shock essentially constitutes a check upon the peripheral blood-vessels, causing their contraction and a concentration of the blood contained in them on the heart and internal organs. Associated with this, and practically inseparable from it, is nervous shock, of which the sensation of cold is the indication. This vascular repression, however, has its natural and unfailing counterpoise in the reaction by which a healthy heart, stimulated by the temporary and unwonted resistance, redoubles its action to overcome it, and succeeds in flushing anew the surface-channels of the circulation. We may thus regard the action of cold, in moderation, on the muscle of the heart, as a means of seasonably exercising this most important of our vital organs, and thus of maintaining its tone. It is clear, from the above remarks, that we do not oppose the practice of morning bathing, but rather approve it. But a caution must accompany every general statement, and this is no exception. There are those whom a cold bath injures, instead of invigorating. The readiest test of benefit is the glow of free surface-circulation, or at least the absence of any decided sense of chill after immersion. Some do not experience this. Among these are the subjects of heart-weakness, arising from whatever cause; it may be consequent on organic disease of the heart, on old gout or rheumatism, or on overwork and underfeeding, in which case it is a part of a general debility. Again, there is in some a tendency to engorgement of one or other deep-seated organ with blood, a kidney, the liver, etc. This is commonly the result of a previous inflammatory attack, or of visceral disease at the time existing. Surface-cold aggravates the congestive tendency. Obviously, therefore, such persons, if they bathe, ought to use tepid water; and, in renal disorders, this method is often advantageous. In slight cases, cold is not injurious if the ablutions be expeditiously gone through, and restricted to periods of summer weather. The aged should avoid cold-baths, and commonly do. Infants, if ordinary despatch is used in bathing and in dressing, have no reason to fear them. Their powers of reaction are excellent. We will not say that children suffer seriously from the maternal dread which warms their morning tubful; but they lose somewhat by the want of that salutary exercise of the circulatory organs which we have mentioned. In the absence of actual disease, debility, if present in a decided degree, contraindicates sudden cold affusion. We say decided, because there are lesser degrees of atony which are the better for it. These are not far below the level of health, and retain

a fair measure of latent energy capable of development. All persons in health and of average strength may use a cold bath daily, in summer at least. In winter, we have mornings of extreme frost, which try the strongest constitution. Only the strongest are likely to benefit by a plunge on these occasions. Fortunately, with us they are rather the exception than the rule; and, for the most part, individuals of moderate powers and free from disease may carry the cleanly practice of summer through the winter months. A word on the bath itself. Those who take to it should begin in summer, not winter, and so become gradually accustomed to its lowest temperature. No one should linger over it; three or four minutes are ample. After immersion, the body should be quickly and well dried and rubbed before dressing. Light gymnastic, dumb-bell, or club-exercise, may occupy the next few minutes, the clothes being partly on if the weather be cold, and breakfast, or a cup of warm tea or coffee, should shortly follow, to prevent chilling.

DANGER FROM FLIES.

DR. GRASSI is said to have made an important, and by no means pleasant, discovery, in regard to flies. It was always recognised that these insects might carry the germs of infection on their wings or feet, but it was not known that they are capable of taking in at the mouth such objects as the ova of various worms, and of discharging them again unchanged in their fæces. This point has now been established, and several striking experiments illustrate it. Dr. Grassi exposed in his laboratory a plate containing a great number of the eggs of a human parasite, the *tricocephalus dispar*. Some sheets of white paper were placed in the kitchen, which stands about ten mètres from the laboratory. After some hours, the usual little spots produced by the fæces of flies were found on the paper. These spots, when examined by the microscope, were found to contain some of the eggs of the tricocephalus. Some of the flies themselves were then caught, and their intestines presented large numbers of the ova. Similar experiments with the ova of the *oxyuris vermicularis* and of the *tænia solium* afforded corresponding results. Shortly after the flies had some mouldy cream, the *oïdium lactis* was found in their fæces. Dr. Grassi mentions an innocuous and yet conclusive experiment that every one can try. Sprinkle a little lycopodium on sweetened water, and afterwards examine the fæces and the intestines of the flies; numerous spores will be found. As flies are by no means particular in choosing either a place to feed or a place to defæcate, often selecting meat or food for the purpose, a somewhat alarming vision of possible consequences is raised. Dr. Grassi invites the attention of naturalists to the subject, and hopes that some effectual means of destroying flies may be discovered.

ŒSTRUS IN MAN.

WE referred last March (page 574) to a case where masses, composed of the larvæ of a species of fly (*Anthomyia cuniculina*), were passed from the rectum. Dr. Voelkel, of Berleburg, has described, in the *Berliner Klinische Wochenschrift*, a genuine instance of the presence of the larval gad-fly in man. A lad, aged thirteen, came under his care last February. The patient's skin was healthy, except at certain points, where numerous small red spots were present. These spots were elevated, and tender on pressure. From three of these, grubs were extracted, which Professors Leuckart and Braner found to be the larvæ of *Œstrus*. The fly must have deposited its ova during the course of the preceding summer. Cuvier and Latreille refer to Humboldt's observations concerning a tubercular eruption which is frequently seen on the abdomen of South American Indians. But, though the explorer and the two scientists all agree that presumptive evidence strongly favours the supposition that the eruption was due to an *Œstrus*, no larvæ appear to have actually been removed from natives affected in this manner. Since the days of Humboldt, however, the parasitic nature of this affection has been authenticated by Howship and others. Tilbury Fox refers, in his well-known text-book, to cases where the larvæ of *Œstrus bovis* have been found in the human subject in Scotland and the Shetland Isles. In the human subject, the larvæ appear to settle in the spot where they hatch out, and to emerge from it only on leaving the pupal state.

NEW VIEWS ON BRIGHT'S DISEASE.

AT a recent meeting of the Académie de Médecine of Paris, Professor Semmola of Naples communicated to the Society the result of his latest experiments on Bright's disease, under which term he understands chronic parenchymatous nephritis only. The primary cause of albuminuria in that disease is, according to some, a lesion of the kidneys themselves, while others explain it either by a pathological condition of the albumen in the blood, or by a combination of these two causes. Semmola's experiments go far to show that the lesion in the kidneys is a secondary process. He injected daily under the skin of dogs ten to seventy grammes of white of egg; after four to five days, there were signs of a congestion of the kidneys, which led to hæmorrhage when the dose of albumen was large. After seven to ten days, leucocytes were found in the urine, and the renal epithelium began to show signs of fatty degeneration. This, after a fortnight, was well-marked; and about the twenty-fourth day, there was evidence also of an interstitial lesion of the kidneys. The introduction of albumen into the blood produces a peculiar dyscrasia, and the quantity of albumen eliminated by the urine is larger than that which has been injected; in the animals experimented upon, the bile contained albumen, which is also the case in patients suffering from Bright's disease. As for the cause of the peculiar dyscrasia alluded to, Semmola thinks that it is an alteration of the nutritive functions of the skin. He tried also the subcutaneous injection of blood-serum, yolk of egg, and milk; the first caused a slight albuminuria, but the last two had no effect.

HARD LABOUR AND INSANITY.

AT a time when much attention is being bestowed on the employment of the insane as a curative agency, especial interest attaches to the observations of Dr. Kempster of the Wisconsin Northern Hospital for the Insane, who has found that hard labour is a prolific source of insanity in that part of the world. Of the patients admitted into the asylum under his care, 75 per cent. present indications, he says, of overwork and slow starvation. These patients have broken down under the unremitting toil, the hardships and exposure, which are incident to the life of a settler in a new country; and, among the hardships which they have to undergo, underfeeding is the most deleterious in its results, frequently leading not only to insanity, but lung-disease. It is not to be inferred that these patients have not had enough to eat; they have abundance of food of a kind, but it is not varied, wholesome, nor well cooked, and thus fails to nourish them. It may be said of some of them, that they fill themselves with wheat no one will buy, and are starved, but not empty, the nourishment of which they partake being inadequate to meet the demands of the system, especially when hard labour is engaged in. Of the inmates of pauper lunatic asylums in this country, a certain proportion have certainly broken down under circumstances somewhat analogous to those under which the backwoodsmen of Wisconsin become insane, insufficient nourishment and wearing toil having undermined the health of the nervous system. And even amongst the insane of the affluent classes, here as in America, there are many who have gone mad because they have turned a deaf ear to the gospel of recreation, and have worked on while impaired digestion was interfering with nutrition. The *ennui* of idleness and the exhaustion of reckless industry may alike disturb mental equilibrium; and it is only in moderate exercise and the preservation of a just balance between waste and supply, activity and repose, that safety lies. When insanity

has been brought on by hard labour, rest is, of course, more important than employment as an element of treatment. But rest is not lethargy; and the real difficulty is so to adjust and vary the occupation of the insane that it shall interest but not fatigue, and insure sufficient exercise without inducing either exhaustion or a sense of oppression.

SCOTLAND.

IMPORTANT BEQUEST TO ST. ANDREW'S UNIVERSITY.

THE University of St. Andrew's has received a magnificent windfall by the munificence of the late Sir William Taylour Thomson, K.C.M.G., C.B., or, at least, will receive it on the decease of his brother, who is to enjoy the life-rent of the large sum of £30,000. This sum is to found bursaries in the University of St. Andrew's "for students of both sexes, in equal numbers; and, in the case of females, to assist them, as far as practicable, in qualifying themselves to enter the medical profession."

SICK CHILDREN'S HOSPITAL, EDINBURGH.

DURING the month of September there were treated in the wards of the Royal Hospital for Sick Children, Edinburgh, 90 cases. Of these, 43 were admitted during the month, while 47 remained in at the end of August. The average number of patients during the month was 49. Thirty-seven were discharged, 31 of whom had recovered, and 6 were relieved. In the outdoor department, 738 patients were treated, and 21 were vaccinated. Edinburgh and Leith contributed the bulk of the cases.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General, for the week ending September 22nd, show that the death-rate in the eight principal towns was 20.0 per thousand of estimated population. This rate is 1.9 above that for the corresponding week of last year, and 0.3 above that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 11.9 per thousand; and the highest in Paisley—viz., 27.2 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.0 per thousand, or 0.6 below the rate for the previous week. Diarrhœa was the most fatal miasmatic disease. There were 81 deaths from acute diseases of the chest, or 4 more than the number registered during the previous week. The mean temperature was 54.2, being 0.2 above that of the week immediately preceding, and 2.7 above that of the corresponding week of last year.

CONVICTION FOR THE SALE OF TAINTED HORSEFLESH.

A CASE of some importance to the public was tried in Edinburgh on Monday, in which a butcher, having a shop in one of the poorest localities in the city, was charged with exposing for sale horseflesh which was in an unsound condition, 82½ lbs. of it being found on his premises. One portion of it was hanging in the front shop among other meat, two portions were in the back shop, and another portion was in a mincing machine. The principal of the Royal Veterinary College, Professor Walley, as a witness, testified to it being horseflesh in an unsound condition and unfit for human food, and, in reply to the procurator fiscal, stated what were likely to be its effects if taken as human food. This evidence was corroborated by one of his colleagues, and other evidence having been given, a conviction was secured. The magistrate, in sentencing the butcher to the full penalty of £20 or sixty days' imprisonment, stated that his judgment was founded, not upon the meat being horseflesh, but upon its having been unsound and unwholesome. He also very properly remarked that the poor people in the Cowgate (where the shop was), ought to be protected in matters of this kind not less thoroughly than those who lived in better quarters.

THE DUNOON CONVALESCENT HOMES.

AT the fourteenth annual meeting of the supporters of these institutions, held on the 1st instant, a very satisfactory report was presented and adopted. Throughout the past year, 2,679 persons have been admitted, comprising 1,297 men, 1,178 women, 92 boys, and 112 girls. Of these, 2,478 were perfectly restored, 46 were very much improved, 20 were but partially benefited, 118 did not improve, 6 died, and 148 were now in the homes. Every effort seems to be made to make these institutions useful adjuncts to the infirmaries, and serviceable to those of the working classes convalescing from severe illnesses or suffering from overwork, so that an opportunity may be afforded them of completely re-establishing their health by change of air, with rest and good diet. Seeing that, during the fourteen years these homes have been in existence, no less than 23,938 persons have experienced their healing and health-giving benefits, they have evidently met a decided want; and it is satisfactory to note that, during the past year, increased sympathy and support have been extended to them, so that both the record of work and the financial statement have surpassed any previously presented. The ordinary revenue of the year was £4,701, while the total expenditure amounted to £4,632. It was decided to make an appeal to the public for funds to erect a separate home for mothers and children.

THE CENSUS OF SCOTLAND.

THE second volume of the Census of Scotland, which has recently been issued as a Parliamentary Blue Book, contains much interesting matter that had no place in the first volume, and which gives us a more correct idea of the national life of the country, and of the condition and progress of the people. During the ten years from 1871 to 1881, the total increase of the population of Scotland has been 375,555, or 11.17 per cent., the increase of the males being at the rate of 2 per cent. more than that of the females. Males preponderate over females up to the age of twenty, but after this the females are greatly in excess of the males. The total number of blind persons in Scotland is 3,518, of whom 1,556 are males, and 1,605 females, so that the proportion of blind to the population is one in every 1,182 persons. An improvement seems to have taken place during the decennium in the numbers of deaf and dumb, for in the former census there was one deaf and dumb person in every 1,610 inhabitants, while now it is one in every 1,744. The figures with regard to imbecility show an increase over the previous census, one imbecile in every 727 of the population having been returned on that occasion, while the present figures show one imbecile in every 623 of the inhabitants. The same feature is presented in regard to the number of lunatics in Scotland, the figures showing no improvement, but rather the reverse. When we turn to the tables dealing with the occupations of the people, we find that the proportions of the professional, commercial, and industrial classes to the total population have increased, whereas those of the domestic and agricultural have decreased. Many other details are given, but we have furnished sufficient instances to show that the statistics contained in this second volume of the Census for Scotland, furnish us with very valuable information as to the progress made by the country during the past ten years, and that they will amply repay perusal.

IRELAND.

SCARLET fever is still prevalent in Londonderry, and last week eight deaths were registered from the disease.

DR. DRAPES, late visiting physician to Enniscorthy District Lunatic Asylum, has been elected medical superintendent, in the vacancy created by the lamented decease of Dr. Joseph Edmundson

THE salary of Dr. McDowell, of Carlow Union, has been increased by £15 per annum.

HOUSE OF INDUSTRY HOSPITALS.

MR. T. NEWTON DICKINSON having resigned the assistant-surgeoncy of these hospitals, Mr. Austin N. Cooper has been elected to the office for the usual term of three years, from the 1st instant.

COMPULSORY ATTENDANCE ON LECTURES.

IN May last the Branch Medical Council for Ireland sent to each of the five licensing bodies in its division of the kingdom, the following recommendation of the General Medical Council:—"That no certificate of attendance on lectures be accepted from any student unless it certify, under the hand of the lecturer, that the holder has attended not less than two-thirds of the total number of the lectures delivered by him." Having considered the replies received from the several medical authorities, the Registrar of the Branch Council, Dr. Heard, has been directed to make public the announcement that the Branch Council has received full assurances from all the medical authorities in Ireland that they are prepared to enforce the recommendation of the Council with respect to the attendance of medical students on lectures.

HEALTH OF BELFAST.

DURING the four weeks ending September 22nd, the births registered numbered 588, and the deaths 350, or a natural increase of 238 individuals. There were 92 fatal cases of zymotic diseases, which included 3 from small-pox and 43 from scarlet fever. Phthisis caused 46 deaths, and diseases of the respiratory organs 54, making a total of 100 deaths from diseases of the lungs. The average death-rate from all causes was 21; from diseases of the lungs, 7; and from scarlet fever, 2.6. During the month, the public health was satisfactory; and, with the exception of scarlet fever, no zymotic disease caused any anxiety. It is to be regretted that, among the working-classes, there should exist such an objection to have their children, when, affected with this disorder, removed to the hospital for contagious diseases; for as intercourse among neighbours is not usually prevented, the infection is spread from one family to another. If people could be persuaded to have all cases of infectious complaints sent to the hospital, or have the sick isolated as much as possible, and when convalescing have the separation from the healthy still carefully observed, the spread of these diseases would undoubtedly be greatly limited.

THE SCHOOL OF PHYSIC.

As was predicted in this column some weeks ago, Dr. Daniel John Cunningham, of the University of Edinburgh, and Professor of Anatomy in the Royal College of Surgeons in Ireland, has been appointed, by the board of Trinity College, University Professor of Anatomy and Chirurgery in the School of Physic of the University of Dublin. The successor of Dr. Macalister, to the chair which he resigned on accepting a similar professorship in the University of Cambridge, is a scientific anatomist of high repute. He is the author of a *Dissectors' Guide*, and of *Reports on Marsupialia*, collected during the *Challenger* expedition, in addition to being the contributor of several papers to the literature of his special subjects. Dr. Cunningham has been but a short time connected with the school of the Royal College of Surgeons in Ireland, having only been elected in January, 1882. His loss to the school, however, will be considerable, as, during his brief connection with it, he has, with the assistance of his co-professor, put the anatomical department of the school in a very forward position. The election of a successor to Professor Cunningham in the College of Surgeons, will be held on November 1st.

THE SANITARY CONGRESS.

THE sixth congress of the Sanitary Institute of Great Britain commenced on September 24th, at Glasgow. Professor HUMPHRY delivered the inaugural address at St. Andrew's Hall, in the evening. He remarked that the importance of the work in which the Institute was engaged could scarcely be over-estimated; and, pointing to the close connection between the mental, the moral, and the physical, he showed that their interdependence in man was such that an improvement or a deterioration with any one was certain to be attended by an improvement or a deterioration in the other two. In referring to some of the points which, he said, professional experience had impressed upon him, the President condemned what he described as "those mischievous two yards of calico which wound round so many infants," constricting and hindering the expansion of that very region of the body where important organs were struggling to grow and do their work. Of the three demands of the infantile period—liberty of movement, fresh air, and good food—it seemed strange that the first two should be limited by smothering bedclothes, swathers, long petticoats, and other dress-devices, together with imperfect ventilation of rooms; while the last was liable to be supplied sometimes in insufficient quantities, of bad quality, but often, whether good or bad, in superabundance. Swathers and thin shoes might well be regarded as among the insidious and fertile forms of disease. On the subject of ventilation, he pointed out that good fresh air and light were the first requisites for health. In the prosecution of the work of the Institute, it could scarcely adopt a surer and better method than in carrying out its provisions for the examination of surveyors and inspectors. He trusted that those examinations might each year have a wider influence, and commended to the Institute the serious consideration of the importance of the formation of a separate and efficient department of Government for the superintendence and improvement of the sanitary condition of their towns and villages, of the army and navy, of their ships and their cargoes, as well as of their cattle and of their food-bearing vegetables; and they should also take the necessary steps for a proper education, tested by examination, of all who were appointed inspectors of nuisances, sanitary surveyors, and medical officers of health. That he felt to be the great desideratum of their time, the thing they should most strenuously strive to obtain. One means of effecting it would be the promotion of a better representation in Parliament of the medical profession, and of those who had shown themselves to be interested in sanitary improvements.

On Tuesday, September 25th, Professor W. T. GAIRDNER delivered the presidential address to the Sanitary Science and Preventive Medicine Section. He remarked that if it were true that medical science had not always been in a position to initiate discoveries, or to take the leading part in legislation in the direction of sanitary progress, it might be claimed for his profession that it had very cordially accepted and energetically carried out sanitary reforms of every kind, so soon as they came within the scope of practical application by the physician. It could not be said that they had encountered the reforms of the last forty years in a hostile or narrowly professional spirit. There was, indeed, an evident possibility that it might have been otherwise. To work towards the prevention of disease, deliberately and effectually, was not only not remunerative but might have been construed as directly attacking their sources of income. Yet he believed it would be readily admitted that with all but an utterly insignificant fraction of the noble profession, this consideration had been practically devoid of influence; while the names of John Simon, William Budd, Murchison, Parkes, Snow, the late Dr. Lankester, and many others, showed that even a considerable measure of success as medical practitioners is in no way inconsistent with eminence and originality of research in the department called "Sanitary Science and Preventive Medicine." Professor Gairdner went on to express his sense of the enormous debt which sanitary and medical science owed to the late Dr. Farr, and suggested whether it would not be possible, by a combination of influences emanating in part from this institute, to secure a co-operation of medical and sanitary inquiries all over the world, to get reprinted one or more volumes of his invaluable papers, which would be the best of all possible monuments to their author.

Dr. W. J. SIMPSON, Aberdeen, then delivered an elaborate address on the "Geographical Distribution of Phthisis."—Dr. J. CHRISTIE, Hillhead, read a paper on "Cholera Epidemics," with special reference to quarantine. In summing up his remarks, he said there was no specific for the cure of cholera, and it was to be hoped that none would ever be discovered. But there was a specific for its

prevention—namely, to have done with its haunts of filth.—Dr. J. F. SUTHERLAND, Glasgow, read a paper on "Typhoid Fever." It had, he said, been demonstrated that typhoid fever was intimately connected with sewers, privies, and cesspools. All legislation to be effectual must put an end, as far as possible, to the possibility of these pollutions, and the sanitary area must be enlarged by adopting the county, or combination of counties, as the unit of administration. There must be a thorough reform of what had been termed the "building regulations." These had reference to house construction, house drainage, size of rooms, and cubic feet per head.

A paper on "The Dwellings of the Middle Classes," by Mr. H. C. BURDETT, dealt with evils attaching to the present system of erecting middle-class houses, and the remedies for their removal. The remedy he proposed was, first, the formation of a Local Householders' Association, part of whose duties it would be to prosecute offending builders. Further legislation on some points would follow, and local government bodies should be made liable to some sort of punishment if they failed seriously in their duties. On the 28th, the papers read at Glasgow were those of the section of engineering and architecture. The president of the Section, Professor T. Roger Smith, F.R.I.B.A., opened the proceedings by reading a paper "On London Dwellings." He discussed the questions of soil, building materials, etc., at length, and instanced a number of special cases coming within his own professional experience, as showing that much of the older parts of London consisted of houses that were unhealthy, owing to defective sites, bad drainage, bad plumbing, defective water storage, the absence of proper air space, the dampness and foulness of basements, the unsoundness of attics and upper storeys that were neither damp proof nor heat and cold proof, and the narrowness of the thoroughfares in which they stood. But the extent to which systematic neglect of proper precautions and paring down of everything to the minutest shred was carried was almost incredible. All those appliances connected with drainage and water-supply, which are, in our wisdom, considered as best to hide from sight, were almost always ill done and generally ill understood, so that a direct danger to health lurked behind skirting and pipe-casing and below the floors of many a showy suburban villa, or neat semi-detached residence.

Papers were also read by Dr. William Wallace, Glasgow, "On Some Sanitary Aspects of House Construction"; by Mr. John Young, Glasgow, "On Scavengering of Towns"; by Mr. J. Wallace Peggs, Carlisle, "On Ventilation of Sewers and House Drains;" and by Mr. W. P. Buchan "On Ventilation of Street Sewers."

In the evening, Dr. B. W. RICHARDSON, F.R.S., delivered a lecture on "Felicity as a Sanitary Research." He observed that felicity, in the widest sense, means health, which is made and unmade by numerous influences under human control. Man might do much to obtain felicity; he could remove the unnatural conditions which he himself makes: he can improve towns and the sanitary conditions of life; he can avoid giving excessive labour to the young mind, and he can act on the principle that no success, no wealth, no power gained by torture of effort for it ever brings felicity.

The papers read on September 28th were those in the section of Chemistry, Meteorology, and Geology.

Dr. R. ANGUS SMITH, Manchester, the President of the section, read an address on "Air as a Sanitary Agent." The lecturer noticed the works of Pasteur, and especially one of his latest discoveries, namely the attenuation of the virus of at least one disease, that of chicken cholera, by the action of oxygen. He (Dr. Smith) did this as an introduction to what he had to say on the advantages of pure air. They found how wonderful was the difference noticed between places and objects which have been closely shut up and those which had the clear sweep of the air of heaven upon them. A current of air either carried away the organic matter with it, decomposing it, and turning it into gases; or, if this were not possible for the oxygen alone to do, it might happen that the oxygen destroyed those minute forms which have been shown to be concomitant with putrefaction and decay. A similar mode of thought had previously led him to consider that it was the want of this excess of oxygen that caused confined sewer gases to be so dangerous, whilst the enormous amount of gases coming from decomposing matter, such as floated on the Clyde, seemed to pass away, leaving comparatively little effect beyond the disgust and the sickness of the present. If nature had contrived no method of destroying such seeds of death, larger populations would never have grown up, and what was the method? That method was, first, putrefaction; at least he knew of none other, except the concluding portion of the work, namely thorough oxidation. It was clear that rivers could purify themselves in time, and organic matter be thoroughly removed. It was clear that organic substances, that germs of disease, that micro-organisms and the smallest organisms themselves, were all subjected to this universal and unsparing attack of putrefaction and oxidation. There was one stage of putrefaction which seemed to be more efficient in breaking up the compounds than any other, and this took place when the sewage had a certain amount of air allowed to it. Within that limit thorough putrefaction began, organic substances rapidly disappeared, and gases in great abundance came from them. It was this grand breaking up of fœtid organic matter which nature had contrived in order to produce purification. He concluded by a reference to the improvement that might be made on the condition of towns by extracting the ammonia from smoke, which could be done with profitable results.

Papers were read by Mr. W. R. E. COLES, London, on "Smoke Abatement," and by Dr. WALLACE, Glasgow, on "The Comparative Merits of Fine and Coarse Flour as Articles of Food."

At the business-meeting which afterwards took place, Professor HUMPHRY in the chair, Dr. CARPENTER, President of the Council, said that an influentially-signed requisition had been received from Dublin, asking that the Congress of 1885 should be held in that city. The Council unanimously agreed to recommend this accordingly.

A letter from Professor Chadwick, C.B., to Professor Humphry was read, in which the writer recommended that the Government should be approached on the subject of extending the sanitary service as suggested in the President's opening address; and also of providing systematically for the physical training of children. These suggestions were remitted to the Council for further consideration. The usual votes of thanks brought the proceedings to a close.

MEDICAL PROVIDENT ASSOCIATION.

MEMORANDUM ON RATES OF PAYMENT AND BENEFITS OF FRIENDLY SOCIETIES.

THE following communication has been received from a gentleman intimately acquainted with the affairs of large groups of friendly societies in England, and will be found to supply valuable information which will be of service in the formation of the proposed Medical Provident Association.

It will be laid before an early meeting of the Provisional Committee; and, meantime, comment is invited.

TO ERNEST HART, Esq.,—Dear Sir,—On receipt of your letter, I made an attempt to collect a group of rates of contributions and benefits from the various industrial friendly societies, but abandoned the idea, as I became convinced that such information would be practically valueless. The great diversity of systems of reduction of sick-pay after certain periods, the varied and sometimes fanciful limitations of benefit, and many other points of difference, render it impossible to arrive at general broad conclusions of any value from the facts. Above all, the fact that these societies are only just beginning to apply scientific tests to their position, and that, without such measurement, there is no method of determining what societies are, and are not, prospering, renders it unadvisable, at present, at all events, to take their rates, etc., as safe models. It is well to remember, too, that the same reasons will apply to any set of returns embracing a limited area of observation, and, above all, not including a full proportion of lives at the higher ages. It is only after at least fifty years' working that the real pressure on reserves manifests itself, and I fear that the apparent success of many young benefit societies would not prove to be real on closer examination.

This being so, I have thought it best to go to the first source of information, and present you with calculations based on what the experience of the industrial societies show as the proper rates for certain benefits. Fortunately, several comprehensive and careful tabulations of such sickness and mortality have been made—namely, by the late Mr. Neison, from the Government returns, 1836-40; thrice, in 1846-8, 1856-60, and 1866-70, from the returns of the Oddfellows, by the late Mr. H. Ratcliffe; by Mr. A. G. Finlaison, from the Government returns 1846-50; and, lastly, by Mr. F. G. P. Neison, from carefully collected and collated returns of the Foresters' experience, 1871-5. Of course, the various results differ somewhat, but not to any large extent; and I have thought it best to take the latest work, as being, perhaps, the most complete and carefully prepared.

The main question in preparing any tables is whether any, and what, reductions of sick-pay shall be made in cases of continued sickness. Some misapprehension appears to exist as to the practice of the ordinary friendly societies, it being seemingly assumed that they do not give permanent sick-pay. As a matter of fact, such relief is commonly given; but, in order to place the contributions within the reach of men with small means, the practice is, in continued sickness, to reduce the pay by one-half, and then to one-fourth, the latter rate usually being permanent. There is, however, a growing feeling that this is an unwise system, as help is certainly most needed after a long period of illness, and this is likely to lead to a nearer approximation in the amount of full and reduced pay. Believing this will be generally endorsed, I have not thought it desirable to provide for reduction below half-pay. Another important consideration is the amount of interest at which the reserves are invested; and, for the purposes of comparison, I have prepared rates on the assumption of three and four per cent.; but it must be remembered the investments should be of a secure and non-speculative character, and the whole of the capital should

realise at least an average of the rate assumed. There is one other matter to which attention should be drawn, namely, the variation of the rate of contribution, according to the age on joining. It is the principle of an uniform payment throughout life that the savings of the earlier years (when the average sickness is light) provide for the later years (when the average sickness is heavy). This being so, it is obvious that persons joining at advanced ages must pay a heavier rate, having fewer years in which to create the necessary reserves.

The following tables give the rates that should be paid for the benefits stated, according to the Foresters' experience, in a mixed membership from rural, town, and city districts combined:

Annual Premium, payable by monthly or quarterly instalments, to secure £1 per week in sickness, with and without reduction of pay after continuous sickness for six months.

Interest on investments—3 per cent.

Age at joining.	Full-pay in all sickness.	With reduction to half-pay after six months' sickness.
	£ s. d.	£ s. d.
20	1 17 0	1 12 0
25	2 3 6	1 16 0
30	2 11 0	2 2 0
35	3 0 0	2 8 6
40	3 12 6	2 17 6
45	4 8 6	3 9 0
50	5 10 0	4 5 0
Interest on investments—4 per cent.		
20	1 13 0	1 9 6
25	1 18 0	1 12 6
30	2 5 0	1 17 6
35	2 14 0	2 4 0
40	3 6 0	2 13 0
45	4 2 0	3 4 6
50	5 4 0	4 0 0

Of course, how far these rates would apply to professional men would depend entirely on whether their health-experiences were inferior or superior to that on which the tables are based, which could only and easily be ascertained by periodical valuation. Should the health-experience, as is, perhaps, probable, prove more favourable, a surplus would be brought out, part of which would be in hand, and part prospective, and the realised portion might well be placed to the credit of the members for payment on their decease.

As there is power under the Friendly Societies' Act to arrange for assurances not exceeding £200 in all, to any one member, and as such benefits would not appreciably add to the trouble or cost of management, it might be desirable to provide such a system. The following table shows the necessary contributions to secure a benefit of this description.

Annual Premium necessary to secure £10 at death.

Age at joining.	Investments 3 per cent.	Investments 4 per cent.
20	3s. 2d.	2s. 10d.
25	3s. 8d.	3s. 3d.
30	4s. 3d.	3s. 10d.
35	5s. 0d.	4s. 7d.
40	5s. 11d.	5s. 6d.
45	7s. 2d.	6s. 8d.
50	8s. 8d.	8s. 3d.

In the whole of the above rates, no provision is made for the cost of management, etc. Of course, this might be met in a variety of ways, but it is of the first importance that it should be defrayed out of a separate fund, and in no way become mixed up or allowed to trench upon the payments made to provide benefits. Of course, if found necessary, the premiums might be loaded with a certain percentage to meet this expense, but even then the amount should always be set aside and kept separate, or it would be quite impossible to apply the necessary tests, from time to time, to ascertain the position of the society. It may be taken for granted that the percentage necessary for management would decrease as the society grew, it being possible to conduct a large organisation at a proportionately lesser cost than a small one.

In conclusion, it may be well to point out that the above calculations are strictly in the lines of mutual assurance, and do not contemplate any extraneous aid, or the raising of any capital other than that provided by the savings from the contributions of members to provide for their future needs. With a sufficiently large membership to give the principle of averages scope to operate, and with ordinary good fortune, a society on these lines should succeed from the first, more especially if members joined with the understanding that no benefits should be claimed during the first six months' membership.

PERSONAL VOTING AT THE COLLEGE OF SURGEONS OF ENGLAND.

A PETITION, signed by over 380 Fellows, has been forwarded to Mr. Cadge, for presentation to the Council of the Royal College of Surgeons, in support of Mr. Cadge's motion in support of non-personal voting at the election of the Council of the College.

FISH AS A FOOD.—The master of the Brighton Workhouse has reported to the guardians the result of six weeks' experiment of adopting fish in lieu of meat for dinner once in each week. The result has been most satisfactory. Comparing the cost of diet during the corresponding period of last year, notwithstanding that the daily average of consumers in 1883 was fifty-one more than in 1882, there was a saving of £18 13s.; and what is rather wonderful, the inmates generally were in favour of the change. The only thing wanting was the certainty of a continuous supply.

THE OPENING OF THE MEDICAL SCHOOLS.

HOSPITAL DINNERS AND CONVERSAZIONES.

ST. BARTHOLOMEW'S HOSPITAL.

THE annual dinner of old students was held in the great hall of the hospital on Monday evening, October 1st. Mr. Thomas Smith, surgeon to the hospital, was chairman, and numerous distinguished medical and scientific guests were present, including Professor Burdon Sanderson and Sir F. Abel. The Chairman and Sir James Paget, in the course of their observations, when proposing the usual toasts, dwelt with satisfaction on the flourishing condition of the medical school. In 1842, but thirty-six students commenced their professional studies at St. Bartholomew's Hospital; in 1873, the entries amounted to one hundred; in 1881, notwithstanding the raising of the fees, they reached the large figure of one hundred and sixty-four. This success in itself caused a reaction, for it was rumoured that the mass of students thronging the lecture-rooms and wards entailed physical inconvenience on each other and on the hospital-patients, and it was also asserted that the teaching staff was insufficient; but, when the entries were about 90 students yearly, that staff consisted of 17 teachers; whilst in 1881, when 164 fresh students entered, the staff was composed of 46 lecturers and demonstrators, fairly remunerated, and invested with the power of turning their teaching capacities to the best account. There has recently been a marked increase in love of intellectual culture amongst students. In 1850, not half a dozen students at the hospital had studied at Oxford or Cambridge; now over fifty were graduates or undergraduates of the latter university alone. Ten years ago, but seven per cent. of the students of St. Bartholomew's Hospital graduated at London University; at present, the proportion was twenty per cent.; and more than ever competed for the Fellowship of the College of Surgeons. The recent depreciation of the value of land had done great harm to numerous charities; but, thanks to the admirable management of those who controlled the finances of St. Bartholomew's Hospital, not one single bed had been suppressed, and no restrictions had been forced on the medical officers. The treasurer, Sir Sidney Waterlow, now in Japan, was pre-eminent for his practical philanthropy, for not only did he discharge his onerous local duties at the hospital itself, but he had instituted convalescent establishments, which were a great boon to the poor patients.

GUY'S HOSPITAL.

THE usual annual *soirée* was held at Guy's Hospital on the evening of October 1st, and was not less successful than in former years. Entering the hospital from Maze Pond, the visitor was able to see his own programme, a most ornate quarto-sheet of thick paper, printed in two colours by Messrs. Ash and Co., and could then pass on to a small room where Messrs. Stanley exhibited a phonograph and demonstrated its action. The curious performances of this ingenious instrument seemed to excite much amusement. On the first floor, several disused wards had been fitted up as reception-rooms by Messrs. Gillow, who had not only covered the floors with Turkey rugs and hung the walls with graceful drapery, but had sent for exhibition cartoons from the Royal Windsor Tapestry Works, and oriental embroideries of great beauty. Messrs. Salviati lent some fine specimens of Venetian glass; Messrs. Mortlock and Messrs. Phillips, china vases and mirrors; and the Coalbrookdale Company had fitted up, in one of the small rooms, a "Kyrle grate," which is said not only to consume its own smoke, but to be economical. The grate and overmantel were of extremely pretty designs. Telephones were shown by the United Telephone Company; and the electric light with which the reception-rooms and museums were lighted, were fed by Faure's accumulators, supplied by the Hammond Electric Light and Power Supply Company. A large number of microscopes, and scientific and surgical instruments by Messrs. Crouch, Beck, Swift, Down, Pickard and Currie, Elliot Brothers; and Mr. Heason showed one of his "incubators" adapted to the cultivation of bacilli in fluids. As was the case last year, one of the rooms was given up to the "Anthropometric Laboratory," whence the visitor could have his or her height, weight, power of pull, grasp, breathing capacity, pulse-tracing, state of vision and of hearing, condition of blood, and "rapidity of thought" estimated and recorded on a sheet which accompanied the programme. During the evening the staff of the hospital assembled in the concert-room, and Mr. J. S. Gilliat, governor of the Bank of England, and one of the governors of Guy's Hospital, made some appropriate remarks to the successful students of last year, and subsequently dis-

tributed the prizes. The *soirée* was very well attended; and it is estimated that not less than three thousand visitors were present.

ST. GEORGE'S HOSPITAL.

THE Annual Dinner of past and present students of St. George's Hospital, was held in Willis's Rooms, on Monday, October 1st. The chair was taken by Professor Humphry, F.R.S., of Cambridge, who was supported by Sir Prescott Hewett, Bart., on the left, and by the Dean of the Medical School on the right. The dinner was very successful, over a hundred sitting down. The usual toasts were proposed. The Dean responded to the toast of "Success to the Medical School of St. George's Hospital," and Colonel Heygate (treasurer), to the toast of the Governors. Dr. Long Fox, and Dr. Harrington returned thanks for the old pupils. Sir Prescott Hewett, Bart., was universally congratulated upon the honour recently bestowed upon him by Her Majesty, and Professor Humphry expressed the hope that Sir Prescott's services would be preserved for the school as an occasional lecturer.

KING'S COLLEGE HOSPITAL.

A DINNER, attended only by the staff of the hospital, was held this year, the public (old students') dinner being held only on alternate years.

ST. MARY'S HOSPITAL.

THE annual dinner of the past and present students of the medical school of St. Mary's Hospital took place on Monday, October 1st, at Limmer's Hotel, George Street, Hanover Square. The occasion was one of unusual interest, in connection with the opening of the new school premises at St. Mary's Hospital, in which are provided dissecting rooms of rare beauty and perfection, with facilities for practical, scientific, and histological work in accordance with methods of advanced medical teaching. The interest of the occasion was enhanced by the chair being taken by Mr. T. Spencer Smith, the first dean of the school, to whose personal influence and high character, and constant and affectionate interest in the students, so much of the remarkable success which has attended the establishment and maintenance of the school was due. Mr. Spencer Smith received a very warm welcome from a great gathering of students and friends, which completely filled the fine dining hall. Mr. Field, the new dean, was also greeted with enthusiastic acclamations, which testified to the popularity of his appointment, and the favour with which it has been received by the staff and students. The speeches of the evening were animated, and referred especially to the large and distinguished contingent which the school had furnished to the public services. The claims of Surgeon Mahon, R.N., to public distinction, for the distinguished services which he rendered at Majuba Hill, were great; and Mr. Daniel Grant, M.P., had promised that he would willingly submit them to the attention of Parliament. Reference was also made to the high social position and useful public work of many of the old students, of whom some were present. The evening was enlivened by the singing, of much more than amateur quality, of Mr. Anderson Critchett, Mr. F. St. George Mivart, Mr. Ernest Lane, and others. Professor Roddick, of Montreal, replied for the visitors.

UNIVERSITY COLLEGE.

A DINNER of former and present students of the medical department of University College took place, at the Freemasons' Tavern, on Monday evening. Mr. Erichsen, Emeritus Professor of Surgery and Clinical Surgery, occupied the chair; and among those present were Professors Marshall, Graily Hewitt, Flower, Christopher Heath, Charlton Bastian, and F. T. Roberts; Berkeley Hill, Poore, Dr. A. Henry, Mr. J. B. Scriven, Mr. F. J. Gant, and others, amounting in all to nearly one hundred. In proposing the toast, "Prosperity to University College," Mr. Erichsen referred to the want that had long been felt of a more permanent social connection between the pupils of the College—a want which would be supplied by gatherings like the present. "Prosperity to the College of Surgeons" was proposed by Mr. Gant, and responded to by Professor Marshall, President of the College; and Mr. Christopher Heath proposed, in well chosen terms, the health of the Chairman. The proceedings were enlivened by some excellent singing by members of the professional staff and other gentlemen, and a very pleasant evening was spent.

MR. THOS. BAKER, M.R.C.S., L.S.A., Medical Officer of the St. George's Infirmary, Fulham Road, S.W., was presented on the 27th ult. (by the medical superintendent, chaplain, nurses, and other officers) with a testimonial of plate and an address, as a mark of their appreciation of his merits and services during the past five years.

PRIZES IN THE MEDICAL SCHOOLS.

THE following are lists of the successful candidates for prizes in the Medical Schools during the session 1882-83.

ST. BARTHOLOMEW'S HOSPITAL.—Lawrence Scholarship and Gold Medal: T. W. Shore, S. Paget, T. N. Vogan. Brackenbury Medical Scholarship: T. W. Shore. Brackenbury Surgical Scholarship: J. Berry. Senior Scholarship in Anatomy, Physiology, and Chemistry: G. L. Wells. Open Scholarships in Science: F. W. Andrewes, W. S. Whitcombe. Preliminary Scientific Exhibition: A. W. Laing and C. H. Hands. Jeaffreson Exhibition: C. S. Pethick. Kirkes Gold Medal: F. Creswell, S. Paget. Hichens Prize: W. G. Spencer. Harvey Prize; H. D. Rolleston; 2. F. M. Wright; 3. W. G. Spencer; 4. C. W. F. Young; 5. W. J. Gow; 6. J. Soutter; 7. F. S. Barber; 8. J. J. G. Pritchard. Practical Anatomy, Junior: Treasurer's Prize, F. W. Green; 2. F. W. Andrewes; 3. F. S. Arnold; 4. M. C. Moxham; 5. W. H. Hamer; 6. O. C. P. Evans; 7. W. H. R. Rivers; 8. J. Nixon; 9. H. C. L. Scofield. Practical Anatomy, Senior: Foster Prize, F. M. Wright; 2. E. Humphry; 3. W. G. Spencer; 4. H. D. Rolleston; 5. J. W. Cockerill; 6. R. H. Combes; 7. R. F. Jowers; 8. A. H. Davis and J. J. Pritchard (equal); 10. A. C. Dove; 11. W. J. Gow and J. A. Rigge (equal); 13. L. M. Snow.

CHARING CROSS HOSPITAL.—Llewellyn Scholarship: Certificate and £25, G. Morgan. Golding Scholarship: Certificate and £15, G. H. Baker. Governors' Clinical Gold Medal: G. Morgan. Pereira Prize: Certificate and £5, A. D. Jollye. Anatomy, Senior: Silver Medal, L. J. Pisani; Certificates, E. T. Gregory, G. H. Baker, F. O. Stedman, E. Raghib, G. H. Charlesworth. Anatomy, Junior: Bronze Medal, W. R. Ackland; Certificates, J. S. W. Chitty, E. Edwards, and W. J. Colborne (equal). Physiology: Silver Medal, J. S. W. Chitty; Certificates, W. R. Ackland, E. Edwards, E. Cooper. Practical Physiology: Silver Medal, F. O. Stedman; Certificates, G. H. Baker and E. Raghib (equal). Chemistry: Silver Medal, J. S. W. Chitty; Certificates, C. P. Oliver, C. H. Duncan. Practical Chemistry: Silver Medal, A. E. Hardy; Certificates, G. H. Baker and F. O. Stedman (equal), G. H. Charlesworth, T. H. Goodman, J. A. Coleclough. Medicine, Senior: Silver Medal, G. Morgan; Certificates, J. C. Smith and C. W. Ward (equal). Medicine, Junior: Bronze Medal, E. T. Gregory; Certificates, L. J. Pisani, G. H. Baker. Surgery, Senior: Silver Medal, G. Morgan; Certificate, A. Bowhay. Surgery, Junior: Bronze Medal, G. H. Baker; Certificate, L. J. Pisani. Botany: Silver Medal, F. O. Stedman; Certificates, A. E. Hardy, H. D. Rowan. Materia Medica: Silver Medal, L. J. Pisani; Certificates, G. H. Baker, E. Raghib. Midwifery: Silver Medal, G. Morgan; Certificates, E. J. Norris, C. W. Ward. Forensic Medicine: Silver Medal, A. S. Loftus; Certificates, E. J. Norris, F. A. Saw. Pathology: Silver Medal, H. A. Sheppard; Certificates, F. A. Saw and C. W. Ward (equal). Dental Surgery: Certificate and £6 6s., W. R. Ackland; Certificate and £1 4s., P. Sprague Oram; Certificate, R. W. Stainer.

ST. GEORGE'S HOSPITAL.—Brackenbury Prize in Medicine: H. Pinching. Brackenbury Prize in Surgery: H. Pinching. Treasurer's Prize: — Arnold. Thompson Medal (not awarded). Sir Benjamin Brodie's Clinical Prize in Surgery: W. P. Davis. Acland Clinical Prize in Medicine (not awarded). Henry Charles Johnson Memorial Prize: G. F. Smith. Pollock Prize in Physiology: R. Kirkpatrick. Sir Charles Clarke's Prize for Good Conduct: J. Collyer. General Proficiency Prizes: First year, H. E. Mann; second year, R. Kirkpatrick; third year (not awarded).

GUY'S HOSPITAL.—Open Scholarship in Arts: J. L. Roberts. Open Scholarship in Science: W. F. Clarke. The Treasurer's Gold Medal for Medicine: T. Carr. The Treasurer's Gold Medal for Surgery: W. Hind. Gurney Hoare Prize for Clinical Study: W. Hind and J. H. Targett (equal), £12 10s. Beaney Prize for Pathology: W. Hind. Mackenzie Bacon Prize for Ophthalmoscopy: E. Roberts. Sands Cox Scholarship for Physiology: F. Lever. Michael Harris Prize for Anatomy: J. W. Washbourn. Fourth Year's Students: First Prize £25, A. Martin; Second Prize £10, G. H. Rodman; Certificates, H. E. Counsell, J. H. H. Manley, T. H. Miller, W. H. Dodd, A. E. Larking. Third Year's Students: First Prize £25, G. E. C. Anderson; Second Prize £10, E. W. Phillips; Certificates, W. H. Bowes, C. Caldecott, R. M. H. Randell. Second Year's Student's: First Prize £25, J. W. Washbourn; Second Prize £10, S. Wacher; Certificates, F. Lever, S. W. Owen. First Year's Students: First Prize £50, H. W. Drew; Second Prize £12 10s., F. F. Burghard and H. Vaughan Rake (equal); Certificates, F. S. Hawkins, A. Scott, W. F. Clarke.

KING'S COLLEGE.—Senior Scholar: S. S. Merrifield and A. M. Vann (equal). Second Year Scholar: A. Carless. Junior Scholars: A. E. Hensley, P. H. Hensley, F. W. Jollye. Warneford Exhibition: Class II, F. Penny; Class I, H. P. Ward, F. W. Jollye, and A. J. Macnab (equal). Sambrooke Exhibition: R. J. Stephens. Daniell Scholarship (Chemistry): A. Eiloart. Clothworkers' Scholarship (Science): E. L. Muir, A. E. Hensley. *Winter Session*, 1882-3.—Jelf Medal: T. Webster. Warneford Endowment: O. Johnson, C. D. Greenwood. Leathes Endowment: H. D. James, A. F. Dimmock. Anatomy Prize: F. A. O'Meara; Certificates, P. R. Harris, J. Wheatley. Physiology Prize: A. Lindow; Certificate, F. A. O'Meara. Chemistry Prize: P. G. Lewis; Certificate, A. Lindow. Medicine Prize: C. D. Greenwood; Certificate, T. S. Short. Clinical Medicine Prize: T. S. Short; Certificate, S. S. Merrifield. Surgery Prize: C. P. Childe; Certificates, A. H. Gordon, C. L. Sansom. Clinical Surgery Prizes: A. H. Gordon, J. T. Cheves; Certificates, C. G. Lermitte, C. L. Sansom. Comparative Anatomy and Zoology Prize: P. H. Hensley; Certificate, W. K. Mackenzie. *Summer Session*, 1883.—Tanner Prize: F. J. Warwick. Obstetric Medicine Prize: F. A. O'Meara; Certificates, J. F. Freeland, R. C. Priestley. Forensic Medicine Prize: C. H. East. Materia Medica Prize: A. Carless; Certificates, F. W. Jollye, G. H. O'Reilly. Practical Chemistry Prize: B. J. Wright; Certificates, R. T. Hewlett, C. L. Blakiston, A. J. Macnab. Botany Prize: A. J. Macnab; Certificates, R. J. Stephens, W. K. Mackenzie, J. Penny. Carter Prize for Botany: Gold Medal and Prize, G. T. Gifford. Pathological Anatomy Prize: A. C. De Renzi; Certificate, F. J. Warwick. Practical Physiology Prize: A. J. Macnab; Certificates, G. H. O'Reilly, G. B. Flux. Practical Biology Prize: G. M. Turner; Certificates, R. J. Carter, H. P. Ward. Former Students recommended for the rank of Associate: P. Boobbyer, J. O. Coles, H. L. R. Dent, C. E. Goddard,

S. S. Merrifield, J. Phillips, S. Rabbeth, B. H. Stivens, St. C. Thomson, A. M. Vann.

London Hospital.—Entrance Science Scholarships: £60, H. Smith; £40, E. B. Smith. Buxton Scholarships: £30, L. Raby; £20, F. R. Ozzard. Clinical Medicine: £20 Scholarship, A. T. Schofield; Certificate, P. W. McD. Howse. Clinical Surgery: £20 Scholarship, P. W. McD. Howse; Certificate, O. C. Jones. Clinical Obstetrics: £20 Scholarship, P. W. McD. Howse and A. T. Schofield (equal). Duckworth Nelson Prize: P. W. McD. Howse; Certificate, A. T. Schofield. Anatomy, Physiology, and Chemistry: £25 Scholarship, H. Cropley; Certificate, F. J. Smith. Dressers' Prizes: £15 Prizes, C. R. M. Green, H. Cropley; £10 Prizes; F. J. Smith, A. Cropley; £5 Prizes, W. E. Raw, F. Preston.

St. Mary's Hospital.—1882. Open Scholarship in Natural Science, J. J. Clarke; Second, S. A. Tidey. Scholarship in Anatomy: A. H. Stewart.—1882-83. Scholarship in Pathology: C. H. Hale and G. W. Hill (equal). Prosectors: J. Q. Bown, H. Tanner.—*Summer Session*, 1882. First Year, Materia Medica: Prize, G. N. Caley; Certificates, J. Q. Bown, F. F. White. Botany: Prize, G. N. Caley; Certificates, J. Q. Bown, G. Spear, S. A. Tidey. Practical Chemistry: Prize, J. Q. Bown and G. N. Caley (equal); Certificates, T. E. Honey, C. C. V. Lyle, G. Spear. Second Year, Midwifery: Prize, H. Tanner; Certificates, J. B. Drew, W. H. French. Medical Jurisprudence: Prize, H. Tanner; Certificate, P. A. Lloyd.—*Winter Session*, 1882-83. First Year, Anatomy: Prize, G. A. Barton; Certificates, J. J. Clarke, W. Williams. Chemistry: Prize, S. G. Vinter; Certificates, G. A. Barton, J. C. Rossall. Second Year, Anatomy and Physiology: Prize, H. Tanner; Certificates, J. Q. Bown, G. N. Caley, P. A. Lloyd; and R. Sleman (Physiology only). Third Year, Medicine: Certificate, S. G. Allen. Surgery: Prize, S. G. Allen; Certificate, K. U. Dutt. Practical Surgery: Prize, C. E. L. Gilbert; Certificates, J. B. Drew, W. R. N. Maloney. Third and Fourth Year, Clinical Medicine: Certificate, G. W. H. French. Clinical Surgery: Prize, J. P. Fernandez; Certificates, G. Callender, C. E. L. Gilbert.

Middlesex Hospital.—Broderip Scholarships: 1. H. J. Thornton; 2. P. B. Bentlif. John Murray Medal and Scholarship: W. H. Crago; proxime accessit, H. J. Thornton. Governors' prize: C. L. Hudson. Exhibition in Anatomy (first year): H. Lloyd Williams. Medicine: Prize, C. L. Hudson; Certificates, L. M. Guilding, A. F. Stace, E. H. Freeland. Surgery: Prize, E. Stewart; Certificates, E. H. Freeland, C. L. Hudson, A. F. Stace, A Kirby, A. Y. Reily, L. M. Guilding. Pathology: Prize, C. L. Hudson; Certificates, L. M. Guilding, A. F. Stace, E. H. Freeland, W. Livermore. Practical Surgery: Prize, T. H. Williams; Certificates, L. E. Salmon, B. Lawson, C. J. Tabor. Anatomy: Prize, T. H. Williams; Certificates, B. Lawson, A. B. Hinde, E. Nicholson, G. S. Ware, F. C. Brodie, I. Davis. Physiology: Prize, A. B. Hinde; Certificates, B. Lawson, C. J. Tabor, I. Davis, L. Powne, F. C. Brodie, E. Nicholson. Chemistry: Prize, W. A. Furmston; Certificate, F. W. Clark. Midwifery: Prize, J. K. Frost; Certificates, T. H. Williams, B. F. Hartzhorne, W. E. Newey. Forensic Medicine: Prize, T. H. Williams; Certificates, C. L. Hudson, E. B. Holland. Materia Medica: Prize, W. A. Furmston; Certificates, H. R Beckett, W. R. Clay, E. E. Kershaw, H. Bartlett, W. Reily. Practical Chemistry: Prize, W. A. Furmston; Certificates, F. W. Clark, H. Lloyd Williams, H. R. Beckett, W. R. Clay, H. Bartlett, W. J. England, C. Pound. Botany: Prize, F. W. Clark; Certificate, H. L. Williams. Practical Physiology; Prize, W. A. Furmston; Certificates, H. Bartlett, H. L. Williams. Comparative Anatomy: Prize, E. Davis; Certificate, A. Y. Reily. Psychological Medicine; Certificates, B. F. Hartzhorne, A. Y. Reily. Dissections: Certificate, C. J. Tabor. Medical Society's Prizes: L. M. Guilding (Paper); C. L. Hudson (Histology). Entrance Scholarships, October 1882: 1. J. H. Dawber, B.A.; 2. L. L. Preston.

St. Thomas's Hospital.—*Summer Session*, 1882.—First Year's Students: College Prize (£15) and Certificate, J. S. Hutton; College Prize (£10) and Certificate, K. Totsuka. Certificates, G. T. Quiller, H. C. Kidd, S. Warren, C. de Gruchy, S. H. Jones, J. Hewan, A. Brockat, A. J. H. Montague, C. Brown, A. E. Godfrey, E. Gooddy, W. F. Ward, W. Staveley, F. Parsons. Second Year's Students: College Prize (£15) and Certificate, R. F. Cann. Third Year's Students: College Prize (£15) and Certificate, C. D. Green; College Prize (£10) and Certificate, W. B. Tomson; Certificate, H. B. Robinson. *Winter Session*, 1882-83.—Entrance Science Scholarships: Scholarship (£100) and Certificate, H. Duncan; Scholarship (£60) and Certificate, E. D. Shirtliff. First Year's Students: William Tite Scholarship (£30) and Certificate, H. P. Hawkins; College Prize (£20) and Certificate, H. Duncan; College Prize (£10) and Certificate, H. G. Smyth; Certificates, S. B. Cook, H. J. Macevoy, E. C. Stabb, W. F. Brook, E. Solly, L. A. Bidwell, S. W. Wheaton, H. Hudson, C. T. Quiller, C. Brown, T. H. Godfrey. Second Year's Students: Musgrove Scholarship (£42) and Certificate, College Prize (£20) and Certificate, S. H. Jones and K. Totsuka (equal); College Prize (£10) and Certificate, E. S. Gooddy; Certificates, H. C. Kidd, F. D. Crowdy, J. S. Hutton, S. Warren, A. E. Godfrey. Third Year's Students: Second Tenure of the College Scholarship (£42), H. H. Lankester; College Prize (£20) and Certificate, T. Scutt; College Prize (£15) and Certificate, R. Lawson; College Prize (£10) and Certificate, W. G. Mackenzie. Anatomical Assistant: Certificate, A. B. Woakes. Prosectors: Prizes and Certificates, S. H. Jones, F. Parsons; Certificates, W. Staveley, A. L. Achard. Grainger Testimonial Prize (£20) and Certificate, C. S. Sherrington. Practical Medicine: Mead Medal, F. F. Caiger; Special Mention and Certificate, A. E. Charpentier. Surgery and Surgical Anatomy: Cheselden Medal, G. D. Johnston; Special Mention and Certificates, F. F. Caiger, C. D. Green. Resident Accoucheurs: Certificates, A. E. Wells, G. F. Cooper, S. W. Sutton, T. D. Savill. House-Physicians: Certificates, A. E. Wells, W. Wansbrough Jones, C. W. Haig Brown, W. Fell, L. W. Bickle. Assistant House-Physicians: Certificates, F. E. Marston, G. F. Cooper, C. W. Haig Brown, E. F. White, H. M. N. Milton, L. W. Bickle, W. Fell, W. J. Sheppard. House-Surgeons: Certificates, W. A. Duncan, C. W. H. Brown, H. M. Milton, A. E. Wells. Assistant House-Surgeons: Certificates, H. M. N. Milton, W. Fell, G. F. Cooper, W. Hull. For General Proficiency and Good Conduct: Treasurer's Gold Medal, W. B. Tomson; Special Mention (qualified to receive the Medal), C. D. Green.

University College, London: Session 1882-83.—*Winter Session*. Entrance Exhibitions: £100, H. P. Dean; £60, W. P. May; £40, C. W. Jecks. Atchison Scholarship (£55 *per annum* for two years), W. A. Gostling. Atkinson-Morley Surgical Scholarship (£45 *per annum* for three years), E. T. Thring. Bruce Medal, W. A. Gostling. Cluff Memorial Prize, H. H. Brown. Practical Surgery: Erichsen Prize, E. Wilson; Certificates, *2. H. R. Spencer and H. H. Wigg (equal); *4. W. H. Evans and T. P. Gostling (equal). Anatomy: Gold Medal, H. H. Brown; First Silver, R. Johnson; Second Silver, W. A. B. McCabe; Certificate, *4. C. E. Sunder; Second Class, E. R. St. Clair Corbin, H. S. Walker; Third Class, C. E. Adams, E. L. de Chazal, P. W. Fraser, G. M. Jones, W. Permewan, F. C. Hart Smith; Junior Class, Silver Medals, H. P. Dean and W. P. May (equal); Certificate, *3. C. W. Jecks; Second Class, K. N. Bahadhurji, H. E. L. Canney, J. N. Lewis, E. B. Randail, F. S. Toogood. Third Class, W. R. Bacot, E. F. Bour, W. C. Carter, H. T. Herring, S. P. Hosegood, G. H. L. Jauffrett, F. G. Martin, F. B. Morse, C. P. O'Connor, H. W. Rickards, J. O. Tunstall, G. A. Williams, R. H. Williams, R. W. Young. Physiology: Gold Medal, H. H. Brown; Silver, Raymond Johnson; Second Class, J. R. Bradford, E. F. Bright, C. E. Sunder; Third Class, W. M. Bayliss, E. R. St. Clair Corbyn, J. Hamel; Junior Class, Silver Medal, W. P. May; Certificates, *2. H. P. Dean; *3. F. S. Toogood; *4. C. W. Jecks and J. O. Tunstall (equal); *6. H. E. L. Canney; *7. S. E. Holder; *8. E. B. Randall; *9. A. B. Kingsford and G. A. Williams (equal); *11. K. N. Bahadhurji and W. E. Redman (equal); *13. A. P. Blenkinsop; *14. W. R. Bacot and R. H. Williams (equal); *16. W. H. Duce; *17. H. T. Herring and H. W. Rickards (equal); *19. F. G. Martin; *20. W. C. Carter; Second Class, S. P. Hosegood, G. H. L. Jauffrett, F. B. Morse, F. Savery; Third Class, W. H. Blake, F. Boxall, L. Harris-Liston, E. D. Kell, A. J. Lang, P. J. Le Riche, W. Newnham-Davis, W. H. F. Noble, C. P. O'Connor, W. S. Routledge, L. M. Stocken, R. W. Young. Chemistry: Gold Medal, E. E. Graves; Silver, S. Rideal; Second Class, F. W. T. Krohn, W. J. Saint; Third Class, J. P. Parkinson, O. K. Williamson. Medicine: Gold Medal, W. A. Gostling; First Silver, J. H. E. Brock; Second Silver, P. E. Maitland, J. J. Powell, and A. J. Turner (equal); Second Class, J. R. Adie, H. R. Spencer. Surgery: Gold Medal, R. H. Peck; First Silver, H. Littlewood; Second Silver, R. H. Marten; Certificates, *4. T. P. Gostling and W. A. Gostling (equal); Second Class, J. H. E. Brock, W. H. Brown, A. J. Turner, T. Wilson; Third Class, T. F. Gardner. Clinical Medicine: Fellowes Medals: Gold, W. A. Gostling; Silver, J. J. Powell; Certificates, *3. E. Clarkson and H. R. Spencer (equal); 5. H. Littlewood and H. H. Wigg (equal); 7. T. F. Gardner and T. Wilson (equal); 9. J. R. Barefoot, J. E. Jefferis, E. F. Ross (three equal); 12. W. Shand; 13. J. E. Blomfield; 14. H. Bird. Junior Class: Fellowes Medal, Silver, F. G. Penrose; Certificates, 2. A. J. G. Barker and A. F. Voelcker (equal); 4. W. T. Cocking and H. R. Woolbert (equal); 6. S. C. Jones, P, D. Turner, J. E. Walker (three equal); 9. J. W. Carr and J. H. E. Brock (equal); 11. C. Andrews, G. M. Bluett, C. B. d'E. Chamberlain, Hyde Marriott (four equal); 15. J. R. Adie, A. J. Drew, W. G. Earle (three equal); P. Fleming, H. L. Kempthorne, N. Macgillicuddy, C. G. Satchell; 22. C. B. St. George and H. Craven Smith (equal). Clinical Surgery: Liston Medal, J. E. Jefferis; Certificates, *2. C. J. Arkle.—*Summer Session*. Materia Medica: Gold Medal, Raymond Johnson; First Silver, E. R. St. C. Corbyn; Second Silver, E. H. Young; Certificate, *4. J. M. France; Second Class, J. H. Garrett; Third Class, G. M. Bluett, A. Delve, R. R. Pearse, W. Shand. Botany: Third Class, C. H. Fernau, E. B. Hastings, W. J. C. Ross. Practical Chemistry: Gold Medal, A. W. Rogers; First Silver, J. P. Parkinson; Second Silver, S. E. Holder; Certificates, *4. E Buckell; *5. K. N. Bahadhurji; *6. H. W. Rickards; *7. E. B. Hastings; *8. D. Conway; *9. W. J. Gilpin; *10. R. W. Young; *11. A. P. Blenkinsop; Second Class, C. Ayres, R. W. Baker, W. H. Blake, F. H. Cooke, T. Cooksey, T. Dyall, J. E. Dyer, C. H. Fernau, F. P. Kitson, C. A. Locke, W. H. F. Noble, L. W. Powell, W. E. Redman; Third Class, H. Armstrong, S. V. J. Brock, H. H. Browne, E. C. de Segundo; Senior Class, Gold Medal, E. F. Bright; First Silver, J. H. Garrett; Second Silver, J. M. France; Certificates, *4. H. P. Dean; *5. E. R. St. Clair Corbin; Second Class, C. E. Sunder; Third Class, W. C. Carter, E. K. Macartney. Organic Chemistry: Silver Medal, A. G. Green; Certificate, *2. Albert Tarn; Second Class, Samuel Rideal. Midwifery: Senior Class, Gold Medal, H. R. Woolbert; Silver, F. Hinds; Certificates, *3. S. L. Clift; Second Class, A. J. Drew, G. S. Gent; Junior Class, Silver Medal, J. W. Carr; Certificates, *2. J. H. E. Brock and A. F. Voelcker (equal); *4. S. C. Jones; Second Class, W. T. Cocking, P. Flemming, W. Permewan; Third Class, H. Marriott, E. H. Young. Medical Jurisprudence: Gold Medal, P. Flemming; Silver, J. W. Carr and H. R. Woolbert (equal); Certificate, *4. A. F. Voelcker; Third Class, G. S. Gent, T. Rushbrooke. Pathological Anatomy: Filliter Exhibition of £30, J. H. E. Brock; Silver Medal, P. Flemming; Second Class, J. W. Carr; Third Class, J. E. Jefferis; F. G. Oliver. Physiology—Practical Histology: Gold Medal, H. P. Dean; Certificate, *2. E. R. St. Clair Corbin; *3. C. W. Jecks; *4. E. B. Randall; *5. F. S. Toogood; *6. W. E. Redman and J. O. Tunstall (equal); Second Class, F. G. S. G. Martin; Third Class, E. Buckell, H. E. L. Canney, W. C. Carter, W. H. Duce, A. J. Lang, W. P. May, F. B. Morse, M. A. Rüffer. Histology: Silver Medal, H. P. Dean; Certificates, *2. C. W. Jecks and J. O. Tunstall (equal); *4. W. P. May; *5. F. S. Toogood; *6. E. R. St. C. Corbin; *7. E. B. Randall; Second Class, H. E. L. Canney; Third Class, W. H. Duce, A. J. Lang, F. B. Morse, W. E. Redman. Zoology and Comparative Anatomy: Gold Medal, A. E. Durham; First Silver Medal, G. E. Rennie; Second Silver Medal, C. H. Fernau; Certificate, *4. E. H. Hankin; Second Class, H. Armstrong, K. N. Bahadhurji, R. W. Baker, A. W. Boning, R. W. Boyce, S. V. J. Brock, F. W. T. Krohn, L. W. Powell. Ophthalmic Medicine and Surgery: Silver Medal, S. L. Woolmer; Certificate, *2, J. H. E. Brock. Hygiene: Silver Medal and Prize, T. Wilson; Second Class, F. R. Hasluck, J. Richardson. Clinical Medicine: Fellowes Medals, Gold, T. Rushbrooke; Silver, W. Shand; Junior Class, Fellowes Silver Medal, C. J. Arkle; Certificate, *2, J. S. H. Roberts; *3. F. G. Oliver; *4. R. F. Bowie and H. D. Buss (equal); Third Class, L. Barnett, W. Bowden, F. W. Burton, W. M. Ellis, J. P. Evans, F. Hinds, W. H. Paine, W. Permewan, T. Phillips, A. C. Shaw, S. L. Woolmer. [*Obtained number of marks qualifying for a Prize.]

Westminster Hospital.—Entrance Scholarship: E. O. Cox, Ferne (£40); H. Brackenbury and H. S. Cooper (equal). Exhibition in Anatomy and Physiology (Treasurer's Prize, £10 10s.), H Brackenbury and H. S. Cooper (equal). Scholarship in Anatomy and Physiology (President's Prize, £21), A. Hardwick. Chadwick Prize, J. Swain. Frederick Bird Medal (no award).

Leeds School of Medicine.—Medicine: Medal, H. Child, Certificates, 1. G. F. Stericker; 2. J. N. Hawtin. Surgery: Medal, H. Child; Certificates, 1. G. F. Stericker; 2. H. J. Robson. Forensic Medicine: Thorp Prize, 1. O. Scattergood; 2. Herbert Child. Anatomy (Senior): Medal, C. W. Turner; Certificate,

H. Herbert. Anatomy (Junior): Medal, F. W. Halliday; Certificates, 1. C. F. M. Althorp; 2. S. Tordoff. Physiology: Medal, H. Herbert; Certificate, C. Nicholson. Practical Physiology: Medal, S. Tordoff; Certificates, C. F. M. Althorp and Russell (equal). Pathology: Prize, H. Child; Certificate, O. Scattergood. Botany: Medal, H. Hebblethwaite; Certificates, C. F. M. Althorp and Russell (equal). Chemistry: Medal, C. F. M. Althorp; Certificate, H. Hebblethwaite. Practical Chemistry: Medal, C. F. M. Althorp. Midwifery: Medal, J. T. Simpson; Certificate, W. E. Bennett. Materia Medica: Medal, J. Holt.

Owens College.—Turner Scholarship, £25, W. Thorburn, B.Sc. Platt Physiological Scholarship, £20, G. J. Haslam, M.D. Dumville Surgical Prize, £20, W. Thorburn, B.Sc. Platt Physiological Exhibitions, £15, Second Year, B. Melland, B.Sc.; First Year (no award). Dauntsey Entrance Scholarship, £100, N. C. Haring and C. F. Marshall (divided). Class Prizes: Principles and Practice of Medicine, O. J. Kauffmann; Principles and Practice of Surgery, G. F. W. Braide; Practical Surgery, E. Somers; Surgical Pathology, J. H. Jones; Pathology and Morbid Anatomy, E. Somers; Descriptive Anatomy, First Course, J. E. Thompson; Second Course, R. B. Wild; Practical Anatomy, First Course, J. E. Thompson; Second Course, F. H. W. Cottam; Physiology and Histology, First Year's Course, W. P. Stocks, A. E. Vaughan; Second Year's Course, B. Melland, R. B. Wild; Zoology, C. F. Marshall; Practical Zoology, C. F. Marshall. *Summer Session.*—Midwifery and Diseases of Women, E. Somers; Diseases of Children, C. S. Earle; Medical Jurisprudence, R. T. Williamson; Hygiene, E. Somers; Materia Medica and Therapeutics, First Course, J. Blacklock; Second Course, F. C. Bury, F. G. Finley; Ophthalmology, E. Somers; Practical Histology, J. E. Thompson.

Queen's College, Birmingham.—Medicine: Medal and First Certificate, A. F. Messiter. Surgery: Medal and First Certificate, C. E. Purslow; Second Certificate, A. F. Messiter. Anatomy: Senior Division: Medal and First Certificate, C. D. Fitch; Second Certificates, L. A. Taylor, C. E. Oldacres. Junior Division: Medal and First Certificate, E. Teichelmann: Second Certificates, A. H. Nott, W. R. Jordan. Practical Anatomy: Senior Division: Medal and First Certificate, F. W. Emery; Second Certificate, C. D. Fitch. Junior Division: Medal and First Certificate, E. Teichelmann; Second Certificate, A. H. Nott. Physiology: Medal and First Certificate, W. R. Jordan; Second Certificate, L. A. Taylor. Practical Physiology: Medal and First Certificate, E. Teichelmann; Second Certificate, L. Whitehead. Practical Physiology: Medal and first Certificate: S. Barwise. Chemistry: Medal and First Certificate (not awarded); Second Certificate, E. Teichelmann. Practical Chemistry: Medals and First Certificates, T. E. Hill, A. H. Nott; Second Certificate, J. H. Blakeney. Materia Medica: Medal and First Certificate, A. H. Nott; Second Certificate, M. H. Vinrace. Forensic Medicine and Toxicology: Medal and First Certificate, F. W. Emery; Second Certificate, C. D. Fitch. Botany: Medal and First Certificate, W. R. Jordan. Midwifery: Medal and First Certificate, F. W. Emery; Second Certificate, C. D. Fitch. Pathology: Medal and First Certificate, H. Jefferies; Second Certificate, A. F. Messiter. Ingleby Scholarship (£10): W. E. Purslow. Queen's Scholarship: W. R. Jordan. Sands Cox Prize: (not awarded). Clinical Prizes: Senior Medicine, J. F. Vince; Junior Medicine, S. H. Harrison; Senior Surgery, C. J. Evers; Junior Surgery, C. D. Fitch; Clinical Midwifery, C. E. Purslow.

University College, Bristol: Medical School.—*Summer Session*, 1882. Practical Chemistry: Prize, C. J. Glassom; Certificates, W. J. Hill, H. F. Semple. Practical Physiology and Histology: Prize, A. J. Tomkins; Certificates, J. E. Trask, H. L. Evans, C. W. Lockyer, C. E. Dew, H. F. Semple, A. W. Riddell. Materia Medica and Therapeutics: Prize, T. Richards; Certificates, H. B. Densham, P. W. Menzies. Obstetric Medicine: Prize, P. W. Williams; Certificates, W. G. Thorold, A. M. Gray, F. L. Davis, H. F. Parsons. Practical Surgery: Prize, W. G. Thorold; Certificates, P. W. Williams, G. C. Helps. Operative Surgery: Prize, W. J. T. Barker; Certificates, F. W. Weir, H. C. Thurston. Pathology and Morbid Anatomy. Prize, W. J. T. Barker.—*Winter Session.* Anatomy and Physiology, Junior Class: Prize, W. M. Barclay. Junior Anatomy: Lecturer's Prize, A. H. Joseph; Certificates, H. F. Semple, W. J. Watkins, C. E. S. Flemming, C. T. Hudson, A. Leche. Junior Physiology: Certificates, A. H. Joseph, C. E. S. Flemming, H. T. S. Aveline, T. R. Baker, H. A. Burleigh, R. F. W. Tucker, E. Ward, W. J. Watkins, H. F. Semple, C. T. Hudson. Senior Anatomy: Prize, A. J. Tomkins; Lecturer's Prize, H. I. Pocock; Certificates, L. H. Williams, F. S. Hawkins, C. W. Lockyer, W. T. Ord, C. J. S. Shaw, J. B. Webb, C. J. Glasson, A. R. Aubrey, J. E. Trask. Senior Physiology: Prize, A. J. Tomkins; Certificates, H. I. Pocock, H. L. Evans, L. H. Williams, A. W. Riddell, C. J. S. Shaw, W. C. Swayne, F. S. Hawkins, A. R. Aubrey, T. Richards, J. E. Trask. Practical Anatomy: Prize, L. H. Williams. Chemistry: Prize, W. M. Barclay; Certificates, E. Ward, H. T. S. Aveline, A. Leche, R. J. Marks, H. F. Semple, W. J. Watkins, G. Banbury. Medicine: Prize, A. N. Little; Certificates, W. J. T. Barker, W. G. Thorold, W. Basset. Surgery: Prize, W. G. Thorold; Certificates, A. N. Little, W. H. Stevens, W. Bassett, P. W. Williams.—Bristol Royal Infirmary. Suple's Surgical Prize, W. G. Thorold; Suple's Medical Prize, H. C. Thurston; Tibbits' Memorial Prize, H. H. Tomkins; Crosby Leonard Prize, H. H. Tomkins; Pathological Prizes, G. G. Adams, W. D. Duffett, H. C. Thurston.—Bristol General Hospital. Clark Scholarship, F. Morton and H. W. Windsor-Aubrey (equal); Sanders' Scholarship, F. Morton; Second Sanders' Scholarship, H. W. Windsor-Aubrey; Lady Haberfield Prize, W. J. T. Barker; Pathological Clerkship Prize, C. E. Evans.

University College (Liverpool) Royal Infirmary School of Medicine.—Lyon Jones Scholarships: B. Sumner, F. H. Barendt, G. W. Chaster, A. A. Kanthack, A. J. Burrows. Derby Exhibition: H. A. Bredin.—*Winter Session.* Third and Fourth Year Subjects: Medicine: Silver Medal, J. Walker; Certificates, H. A. Bredin, T. G. Laslett. Surgery: Silver Medal, H. A. Bredin; Certificates. A. Overton, J. Walker. Pathology: Silver Medal, J. Walker and E. P. P. Macloghlin (equal). Obstetrics: Silver Medal, G. S. Wild; Certificates, T. G. Laslett and A. W. Collins (equal). Second Year Subjects (Advanced Anatomy and Physiology): Torr Gold Medal, F. J. Knowles; Bronze Medal, E. Buxton; Certificates, F. Tyndall, G. L. Travis, W. G. Moore. First Year Subjects (Elementary Anatomy and Physiology and Chemistry): Bligh Gold Medal, A. A. Kanthack; Bronze Medal, R. J. M. Buchanan; Certificates, J. H. Lightbody, J. E. Stott, J. H. Abram. Histological Prizes: J. Cunningham, J. M. Vaughan.—*Summer Session.* Medical Jurisprudence and Toxicology: Silver Medal, J. E. McDougall; Certificates, C. B. Cooper, A. W. Collins. Materia Medica: Silver Medal, W. J. Neale; Certificates, A. W. Collins, W. G. Moore and J. E. Nevins (equal). Botany: Silver Medal, J. Cunningham and J. E. Stott (equal); Certificate, J. H. Abram. Practical Chemistry: Silver Medal, R. J. M. Buchanan and J. Cunningham (equal); Certificates, J. E. Stott, J. H. Mawson, J. H. Abram. Student's Debating Society's Prizes: First Essay, A. A. Kanthack; Second Essay, — Barendt; Third Essay, — Charlick; Reports of Surgical Cases, H. A. Bredin; Debating Prizes, A. W. Collins and J. E. Nevins (equal).

University of Durham College of Medicine, Newcastle-on-Tyne.—Charlton Scholar, H. M. Fenwick.—*Winter Session*, 1882-1883. Medicine: Medal and First Certificate, H. M. Fenwick. Surgery: Medal and First Certificate (——); Second Certificate, H. M. Fenwick. Public Health: Medal and First Certificate, C. C. Caleb; Second Certificate, J. M. Lazenby and Simpson Powell (equal). Anatomy (Senior): Medal and First Certificate, F. Proud; Certificates, 2. H. T. Platt; 3. J. A. Hancock; 4. William Baigent. Anatomy (Junior): Medal and First Certificate, A. F. Bradbury; Certificates, 2. B. G. Sumpter; 3. E. R. Lyth; 4. W. G. Laws. Physiology (Senior): Medal and First Certificate, F. Proud; Certificates, 2. J. A. Hancock; 3. H. T. Platt. Physiology (Junior): Medal and First Certificate, A. F. Bradbury; Certificates, 2. E. R. Lyth; 3. W. G. Laws; 4. T. A. Robson. Dissections: Medal and Certificate, W. Baigent.

Glasgow Royal Infirmary School of Medicine.—*Summer Session*, 1882. Practical Medical Chemistry: Certificates, W. T. Thomas, C. Fraser, R. H. Parry, R. Morgan, R. Steel. Forensic Medicine: First Prize, T. B. M'Farlane; Second Prize, A. E. Tunstall; Certificates, J. Humphreys, W. Middleton, E. Warters, W. Morris, A. Taylor, S. P. Clark, P. B. Wilson. Midwifery: First Prize, T. B. M'Farlane; Second Prize, J. Humphreys; Third Prize, W. Chalmers. Pathology, Systematic Class: First Prize, H. L. Smith; Second Prize, A. E. Tunstall; Certificates, J. Cable, J. Gillies, W. Middleton. Practical Class: First Prize, H. L. Smith; Second Prize, A. E. Tunstall; Certificates, D. P. Gage, James Gillies and Robert Jope (equal).—*Winter Session*, 1882-83. Chemistry, Chemical Division: Prize, R. Hamilton; Certificates, W. Mackinlay, W. Cochrane, D. G. Crighton; Medical Division, Prize, H. K. Young; Certificates, R. Greenhill, A. E. Thorpe, L. Macdonald. Anatomy, Senior Division: Prize, W. T. Thomas; Certificates, R. H. Parry, C. L. Fraser, E. Thomas, R. Morgan; Junior Division, Prize, H. K. Young; Certificates, F. W. Ord, A. E. Thorpe, J. S. Sergeant, J. M'Clymont. Practical Anatomy (in alphabetical order), Senior Division: H. H. Davies, J. J. Foulds, C. L. Fraser, J. Jones, K. Jones, R. Morgan, R. H. Parry, E. Thomas, W. T. Thomas, W. Valentine; Junior Division, A. M'Arthur, C. S. Bowker, G. A. Fox, A. C. Hunter, A. E. Thorpe, H. K. Young. Physiology: First Prize, W. Thomas; Second Prize, C. L. Fraser; Certificates, R. H. Parry, E. Thomas. Surgery: Gold Medal, J. A. Moon; Silver Medal, J. G. Anderson; Commended, J. Lang, O. Fergus, J. M. Davidson; Certificates, D. M. Nairn, A. C. Boothman. Medicine: Prize, J. A. Moon; Certificates, R. Price, S. P. Clark, A. C. Boothman, R. W. Morgan. Materia Medica: First Prize, J. A. Moon; Second Prize, R. Price; Certificates, S. P. Clark and A. C. Boothman (equal), R. D. Morgan.

School of Medicine, Edinburgh.—Chemistry (Dr. Stevenson Macadam): Class Medals, D. G. Braidwood, A. E. Nevins; Certificates, 1. D. G. Braidwood; 2. A. E. Nevins; 3. T. Stephenson; 4. J. Sutherland; 5. R. T. Paton; 6. C. D. Musgrove; 7. E. E. Jones; 8. J. K. Coutts; 9. H. Dardier; 10. "Scandium' and J. P. Boyd (equal); 11. A. J. M'Cracken; 12. T. R. Sandeman; 13. H. H. Williams; 14. C. Fleming; 15. A. Mollières; 16. M. J. Morgans; 17. D. Hume; 18. R. D. MacGregor; 19. F. F. Stewart; 20. W. H. Carter; 21. H. F. Bell; 22. J. L. Semple. Practical Chemistry (Dr. Stevenson Macadam): Class Medals, R. A. Johnston and C. D. Musgrove (equal); Certificates, 1. R. A. Johnston and C. D. Musgrove (equal); 2. J. K. Coutts, W. Scot, and G. A. Sutherland (equal); 3. B. G. Brock and F. F. Stewart (equal). Medical Jurisprudence (Dr. Littlejohn): 1. Gold Medal, J. Priestly; 2. A. Aikman; 3. J. W. Ballantyne. Public Health (Dr. Littlejohn): 1. J. Walther; 2. J. Priestly; Essay on Public Abattoirs, H. U. Walker; Highly commended, J. W. Ballantyne, J. Priestley, T. Rhodes. Clinical Surgery (Mr. Joseph Bell): Prizes, 1. K. M. Scott; 2. J. M. Campbell; 3. A. Aikman and H. W. Pilgrim (equal); 5. A. Macqueen; 6. R. W. Felkin; Certificates, 1. N. P. Walker; 2. J. MacGibbon and T. S. Tanner (equal); 4. E. W. Clarke; 5. J. D. Black and "Victor in arduis" (equal): 7. A. Hawkyard and F. C. Thorp (equal). Surgery (Mr. A. G. Miller): Senior Division, Prizes, 1. D. Prain; 2. W. Gibb; Junior Division, Prizes, 1. K. Marx; 2. P. Campbell. Practice of Medicine (Dr. John Wyllie); Prizes, 1. G. C. Macdonald; 2. J. E. O'Hara; 3. P. E. Perot; 4. F. G. Tooker. Surgery (Mr. Duncan): Senior Division: 1. A. Fuller; 2. G. Nicolet; 3. J. S. Haldane; 4. H. Hartley; 5. J. W. D. Hooper; 6. S. A. Comber; 7. H. Barron; 8. J. W. Pedroza; 9. H. Walker; 10. R. B. Graham. Junior Division: 1. H. C. M'Ewen; 2. E. T. Pritchard; 3. A. C. Roberts; 4. J. D. Black; 5. F. Laird; 6. E. J. Thomas. Clinical Medicine (Drs. Claud Muirhead, Brakenridge, and Wyllie): 1. J. F. L. Whittingdale; 2. A. H. W. Clemow; 3. G. F. Alexander. Materia Medica and Therapeutics (Dr. W. Craig): Silver Medal, 1. L. G. Lawson; Certificates, 2. J. D. Black; 3. H. A. Walker. Chemistry (Mr. J. Falconer King): Medal, H. Prain; Second Prize, A. H. Gibson; Third Prize, R. H. W. Johnston; Certificates, R. H. Kennedy, J. M. Nicol, J. Barr, W. C. Baker, J. Johnstone. Diseases of the Ear (Dr. Kirk Duncanson): First Prize, T. G. Churcher; Second Prize, S. S. M'Farlane and E. T. Pritchard (equal); Third Prize, H. H. Ashdown. Institutes of Medicine or Physiology (Dr. James): Medal, G. A. Gordon; Prize, J. Macgregor; Certificates, W. H. Campbell, W. Booth, V. E. R. Ardagh, J. K. Coutts and A. O. Davies (equal). Midwifery and Diseases of Women and Children (Dr. Charles Bell): Silver Medal, A. T. Leonard; Certificates, J. Moran, H. Bradley. Chemistry (Dr. Drinkwater): Silver Medal, 1. J. G. Ross; Bronze Medal, 2. W. H. Priestley; Certificates, 3. W. A. M'Neil; 4. W. S. Armitage; 5. W. Visser; 6. T. Dawson; 7. W. K. Mitchell; 8. W. G. Findlayter. Practical Chemistry (Dr. Drinkwater): 1. W. G. Findlayter; 2. D. MacRitchie; 3. W. K. Mitchell; 4. F. H. Carlyon; 5. J. Fraser. Anatomy (Mr. J. Symington): Senior Division: J. MacGregor (Medallist), V. Ardagh, W. Felkin and G. A. S. Gordon (equal), E. J. Laurence, G. H. Wilson,

W. W. Paterson. Junior Division: J. M. Nicol (Medallist), D. D. Black, J. G. Munro and R. H. W. Johnston (equal), A. W. Cormack and G. T. S. Hughes, W. H. Carter, A. O. Davies. Practical Anatomy: First Year's Students: D. D. Black (Medallist), T. H. Ward, S. B. Fenn, R. H. W. Johnston and T. F. M'Farlane (equal), J. G. Munro, J. H. Conyers, J. M. Nicol, L. A. Hawkes, E. A. C. Hindmarsh, B. B. Grayfoot, E. A. Hall, G. Hilliard and A. R. Russell (equal), F. Buckham, A. O. Davies, F. H. Clarke, R. H. Walter and W. H. Carter (equal). Second Year's Students: Q. M. Wallace (Medallist), A. F. Davenport, T. F. Plunkett, J. MacGregor, V. Ardagh, E. S. Fry. Third Year's Students: E. J. B. du Moulin, E. Carmichael, R. H. Lucy and F. Bond (equal), W. Sneddon, T. A. Pockley and B. E. Jastrzebski (equal), R. C. Strode, D. M. Brown, W. Mackay, M.A., and T. Hood (equal), S. Hughes, J. C. Robertson and W. H. Hill (equal), T. C. Churcher, A. C. Purchas, T. A. Brown, G. L. Somerville, A. Paterson, G. L. Bonnar, T. Easton, J. J. Paterson, J. E. Gemmell. Practice of Physic (Dr. J. O. Affleck): Senior Division: 1st Prize, H. G. Haines; 2nd Prize, J. Small. Certificates: 1. L. G. Lawson; 2. H. Hartley; 3. W. F. Clark and W. Gibb (equal); 4. H. U. Walker; 5. J. W. Pedroza; 6. K. Wingvist and J. F. Thomson (equal). Junior Division: Prizes: K. R. Marx and H. Huybertsz (equal). Certificates: 1. J. Mungle; 2. J. D. Black. Institutes of Medicine (Mr. James Hunter): Class Medals: 1. L. Vallée; 2. G. Hughes. Honorary Certificates: J. M. Nicol, J. Johnstone. Practical Physiology (Mr. James Hunter): Class Medal, L. Vallée. Honorary Certificates, M. Fitzgerald, R. Caunter.

UNIVERSITY OF ABERDEEN.—*Summer Session*, 1883. Practical Anatomy and Demonstrations: Dissections; First Class Certificates of Merit, A. Milne and J. B. Milne (equal Prizes), J. Barclay, J. C. G. Duffus, J. D. Thomson (three equal), J. M. Lamb, W. Sheard, J. Galloway, W. Milligan, W. Robertson (three equal), W. B. Simpson, W. V. Morgan, J. C. Myles, G. Scott, A. Simpson (three equal), A. S. Jameson, J. W. Fraser, A. B. M. Gunn, J. Williams (three equal), T. B. Gibson, R. H. Mackay, A. D. M'Kinnon (three equal), A. W. Dalgarno, D. Simpson, W. B. Skinner, J. M. Young (four equal), A. E. Henderson; Second Class Certificates of Merit, M. Anderson, F. A. Foy, F. Macrae, G. Milne, J. W. Smith, C. F. White (five equal), J. MacKenzie and C. Smith (two equal), H. G. D. Mackay, H. F. Forbes, W. Coutts, A. G. R. Ingram, J. T. Macpherson, J. Melvin, J. Thomson, G. N. Wilson (six equal), G. Findlay, H. Dalton, E. G. W. Deane, W. Greig, J. E. Holden (three equal), W. Deason, A. E. Paterson, D. Taylor (three equal), C. Anderson, J. M. Barnes, W. R. Cheves, C. H. J. Souter, A. D. Forbes, P. J. Lumsden, H. B. T. Symons (three equal), A. T. Brown, J. Taylor, and G. Williamson (two equal), G. B. D. Macdonald and D. A. Shirres (two equal), A. Allan and J. F. Craig (two equal). Microscopic Anatomy: First Class Certificates, J. D. Thomson (Prize), J. C. G. Duffus (Prize), J. Thomson, G. Findlay, G. B. D. Macdonald, J. Galloway and J. W. Smith (two equal), W. Greig, E. G. Coward; Second Class Certificates, C. H. J. Souter, A. Simpson, and G. Williamson (two equal), H. F. Forbes, A. B. M. Gunn, C. F. White (three equal), F. Macrae, J. W. Fraser, W. Milligan, A. S. Jameson, A. W. Dalgarno and E. R. Orchard (two equal), J. R. Anderson, E. C. Curtis, D. G. G. Macdonald, J. F. Binnie. Osteology and Dissection (Beginners): First Class Certificates, J. Don (Prize), A. C. Ferguson (Prize) and A. G. Jamieson (two equal), J. Russell, J. J. Y. Dalgarno, C. Angus, J. N. Black and W. Scatterty, F. W. Counter and T. H. Thompson (two equal), R. H. Nicolson, J. Shand, G. Davidson, W. Alexander, J. Bryce, J. M. Mackay, J. A. Sutherland; Second Class Certificates, J. L. Adam, J. Webster, D. R. Macgregor and J. Ritchie (two equal), J. Packer, R. H. Cook, D. Harvey, T. M. Rae, R. Rannie, W. Thomson (five equal), R. Gregg, G. Henry, J. E. Jones, W. C. Dickson, B. E. Jones, G. C. Milligan, H. L. Phelps (four equal), W. J. Gordon and J. Smith (two equal), F. Booth and W. Masson (two equal), C. F. G. Mann and R. Thomson (two equal), S. S. Dunn. Botany—First Year's Students: Prizemen—A. T. G. Beveridge, P. C. Mitchell, A. M. Saunders, J. P. Miller. Certificates, J. Lumsden, W. S. Wilson, J. Littlejohn, A. S. Williamson, J. Williams, E. T. Martin, J. R. Anderson, A. R. Galloway, C. W. Sleigh and A. C. Ferguson (equal), F. W. Counter and W. Greig (equal), G. B. D. Macdonald, T. H. Thomson, G. Davidson, G. N. Wilson. For Collections with Preparations to Illustrate the More Important Orders of British Plants: Prizeman—C. F. Forbes. Certificates, J. P. Millar, J. L. Adam, A. M. Saunders, C. W. Sleigh (three equal). Second Year's Students: Prizemen—W. Milligan, W. Thomson, A. Don (three equal); Certificates, J. Thomson, J. Russell, H. Angus, D. G. G. Macdonald, R. T. Stephenson, A. Mackay, A. F. C. Clark. Practical Chemistry: First Year's Students—First Class Honorary Certificates, G. Findlay and J. Thomson (equal), W. Milligan, G. H. Ede, H. F. Forbes, W. Greig, C. F. White, J. E. Holden, W. D. Urquhart, R. T. Stephenson, E. R. Orchard, A. Mackay, J. Taylor, W. Thomson, A. T. G. Beveridge, E. G. Coward, W. S. Gill; Second Class Honorary Certificates, A. G. R. Ingram, W. Scatterty, J. Mackenzie, A. F. C. Clark, E. T. Martin, J. Russell, G. Williamson. Second Year's Students—First Class Honorary Certificates: A. W. Chapman, J. G. Mellis. Natural History—Junior Division: Medallists, J. Williams, J. W. Fraser and A. R. Galloway (equal). First Class Certificates: J. Pirie, F. Beetham, F. L. Collie and A. Mackay (equal), H. F. Forbes, A. F. C. Clark, A. W. Chapman, E. G. Coward. Second Class Certificates: P. J. Nicoll, G. W. Wilson, A. Milne, A. C. Ferguson, J. Taylor and C. A. Arnold (equal), C. F. White, J. Nicol, A. W. Dalgarno, C. F. Forbes, W. Greig, A. Zimpel, A. B. M. Gunn, J. R. Anderson, J. Crevie (three equal). Senior Division, Medallists, G. Findlay, G. Henry and G. Battiscombe (equal). First Class Certificates of Merit: P. C. Mitchell and W. G. Beveridge (equal), A. G. B. Ingram, H. Angus, J. Thomson, W. Milligan, W. S. Wilson, D. G. G. Macdonald, A. S. Jameson, A. Forbes, E. T. Martin. Second Class Certificate: J. F. Birnie, C. Reid, W. D. Urquhart, R. B. T. Stephenson, E. R. Turner, A. A. Philip, G. Williamson, J. Souter. Practical Zoology—Junior Division; Section 1: Medallist, A. F. C. Clark. First Class Certificates: W. Greig, J. R. Anderson. Second Class Certificates: H. F. Forbes, E. G. Coward, C. F. Forbes, A. W. Dalgarno. Section 2: Medallist, R. Smith. First Class Certificates: A. Milne, J. Taylor. Second Class Certificates: P. J. Nicoll, A. Mackay, J. Pirie. Senior Division—Section 1: Medallist, G. Findlay. First Class Certificates: W. G. Beveridge and P. C. Mitchell (equal). Second Class Certificate: A. Innes. Section 2: Medallist, J. Thomson. First Class Certificates: W. Thomson, W. Milligan, H. Angus, W. S. Wilson. Second Class Certificate: D. G. G. Macdonald. Practical Pharmacy: P. W. Rattray, J. Murray, and T. G. Paterson (equal); J. M. Lamb. Practical Physiology: Medallists, F. G. Jones and P. W. Rattray (equal). First Class Certificates, J. Murray, J. M. Lamb and A. Milne (equal). W. V. Morgan, J. B. Milne. Second Class Certificates, G. N. Henry, H. W. Godfrey and W. Robertson (equal). Practical Pathology: T. B. Gibson (Medal), A. M Whitehead (Medal), W. B. Simpson, H. W. Godfrey, C. A. Butchart, R. D. Presslie, J. Gordon. Operative Surgery: First Prize, Medal, and First Class Honours: T. G. Paterson. Medal and First Class Honours: F. G. Jones. First Class Honours: J. B. Milne, W. B. Simpson, A. E. Roberts, J. M. Lamb, G. N. Henry, P. W. Rattray, J. Murray, L. Durno, A. Milne, W. V. Morgan, F. MacRae, W. Robertson, J. S. Dickie. Second Class Honours: J. Reid, J. G. Dallas, H. Ross, W. S. Geddie, C. S. Anderson, J. M. Barnes, D. Gill, D. Taylor, A. Whyte, M. F. Anderson.

UNIVERSITY OF GLASGOW.—Brunton Memorial Prize: J. Innes Dunlop, M.B. Forensic Medicine: Medallist, John Clerk. Midwifery: Medallist, John Kerr. Therapeutics and Materia Medica: Medallist, C. O. Hawthorne. Materia Medica and Practical Pharmacy: Medallist, Andrew B. Fulton. Practice of Medicine: The Cullen Medal, Benjamin Blaine and John Kerr (equal). Clinical Medicine: The John Hunter Medal, John Kerr; Prize for the Best Clinical Notes, John C. Wilson. Clinical Medicine: Senior Division: Medallist, Benjamin Blaine. Junior Division: Medallist, J. W. A. Murdoch. Surgery: Senior Division: Medallist, R. Gourlay. Junior Division: Medallist, Robert Livingstone. Clinical Surgery: Medallists, J. Hinshelwood and J. Parker (equal). Clinical Surgery: University Medallist, A. Bryce. Institutes of Medicine: The John Hunter Medal, A. Bryce. Practical Physiology: John Hunter Medal and Prize, J. Wilson. Anatomy: Senior Division: Medallist, W. Rankin. Junior Division: Medallist, J. H. Carslaw. Natural History: Zoology: W. Hunter (Medal); J. H. Carslaw. Practical Zoology: R. O. Wood (Prize); W. Seright. Geology: W. Hunter (Medal); J. Knight. Botany: W. Hunter (Medal); W. Huntly; Herbarium Bronze Medal, J. Stewart. Chemistry: J. Black (Medal); W. Snodgrass.

THE DISSECTING-ROOMS OF THE LONDON MEDICAL SCHOOLS.

WE are glad to hear that the supply of subjects for dissection has been this year very much more satisfactory than for many years past. Owing to arrangements made by the teachers of anatomy in the metropolitan schools, with the exception of the London Hospital, in conjunction with the Inspector of anatomy, the subjects are now supplied to the various schools in exact proportion to the legitimate demand, regulated by the number of students pursuing their studies at each school. The work of dissection at the various schools was begun, almost without exception, on October 2nd or 3rd; and, during the course of this week, fresh bodies will be placed upon the tables, to meet the requirements of the students. The supply at each school is, as we have stated, good; and, in addition to the numbers mentioned below, bodies are held in reserve to meet the demand sure to arise next week. It will be seen that the dearth to which we drew attention last year has been replaced this year by plenty. Thus, at Guy's Hospital, nineteen subjects are already on the tables; at King's College, seven; at St. Mary's, three; at the Middlesex Hospital, seven; at Westminster, three; and at University College, eighteen are available. At the London Hospital, where the teachers have, for various reasons, not joined in the agreement above mentioned, dissection was commenced on October 1st, nineteen bodies being already available.

THE ENTRIES AT THE MEDICAL SCHOOLS.

IT is impossible, until more than a fortnight has elapsed, to speak with any approach to accuracy of the numbers of students who have entered this year at the various medical schools, as the time within which entries may be made is extended by the present regulations of the examining bodies to October 15th. We understand, however, that on the whole the entry is likely to be a large one. At University College, at King's College, and at St. Bartholomew's and Guy's Hospitals, the entries on the first two days were even larger than usual, and Charing Cross Hospital also had a good entry on the first day of the session. From St. Mary's Hospital Medical School, we hear less encouraging accounts; but probably, when the improvements mentioned in another column become known, the numbers of students will rapidly increase. St. Thomas's will probably be found to more than maintain its former position; but the Westminster Hospital may not improbably, we understand, show a falling-off in numbers. At the Army Medical School, Netley, twenty-five candidates for commissions in the public services have entered for the session; twenty for the British Army Medical Service, and five for the Indian Medical Service.

THE MEDICAL SCHOOLS: ALTERATIONS IN THE BUILDINGS.

UNIVERSITY COLLEGE HOSPITAL.—The Out-Patient Department of University College Hospital has been considerably enlarged, and very materially improved, by alterations which have been carried out during the recess under the superintendence of Mr. A. E. Barker, and Mr. Newton H. Nixon, the Secretary. A large room on the west side of the hospital, which was at one time used as the nurses' dining room, has been added to the area available, and is fitted up

as a surgical out-patient room; it is well lighted from above, and its large dimensions will greatly facilitate the task of seeing a large number of patients. Opening off this room is another room, subdivided by wooden partitions into four "dressers' cubicles"; each cubicle is provided with washbasin, hot and cold douche, boiling water, and with seats for the patients; the floor is covered with sheet lead and drained by a gulley and trap. Patients, after they have been seen by the surgeon, will be drafted into the cubicles to receive the attentions of the dressers. In addition, an improvement often recommended in these pages, has been introduced in the shape of two small casualty wards, containing one bed each; these beds are to be used only at night, and for cases which cannot be sent away, but which it would be undesirable to introduce into the general wards in the middle of the night to the annoyance of the other patients; such as cases brought in unconscious and where the diagnosis between "drunk or dying" cannot be made, patients noisily drunk or uproarious, and unruly: three "Casualty-Nurses" have been provided; two are to be on duty during the day to assist in the out-patient and casualty rooms, and one at night, who will be in charge of the two casualty-beds. The following rules are proposed for the management of the casualty-beds. "1. The casualty-beds shall be under the charge of, and be only filled by order of, the resident medical officer, house-physician, or house-surgeon on duty. 2. The casualty-beds must only be occupied between the hours of 8 P.M. and 8 A.M., and the mattresses and bedding must be put away in the place provided for the purpose punctually at 8 A.M. Should any casualty require further indoor treatment, it must be transferred to the wards. 3. The casualty-nurses are absolutely forbidden, on pain of immediate suspension from duty, to apply a plaster, bandage, etc., or to prescribe or give medicine to a patient, except under the directions and personal supervision of the house-physician or house-surgeon attending the case. 4. The casualty-beds may be used for either males or females, as occasion may demand." Further improvements in the out-patient department have been an enlargement of the physicians' room, of the dispensary, and of the casualty-room. It is, however, the surgeons who have chiefly benefited; and we anticipate that the alterations will notably increase their usefulness as teachers, by allowing of a very great economy of time. The appointment of house-surgeons to the out-patients has also been a good move in this direction, since these gentleman now sift all surgical cases, and reserve for the surgeon only the important cases among the old patients; by these means, the time at the surgeons' disposal for teaching is very materially increased, and we have no doubt that both students and teachers will find great benefit from the new arrangements.

In University College, the chief change affecting the Medical School has been caused by the departure of Professor Burdon Sanderson, his successor, Professor E. A. Schäfer, now has at his disposal the whole, or almost the whole, set of laboratories. The space which was, perhaps, a little limited, when it had to supply the wants of two professors, will now, no doubt, be found ample, though we understand that it is likely to be fully utilised, owing to the large number of independent workers who intend to avail themselves of the opportunity of studying under so distinguished a histologist as the present Jodrell professor.

St. Mary's Hospital.—During the last few months, extensive alterations and improvements have been made in the buildings occupied by the Medical School of St. Mary's Hospital. The range of buildings, as now completed, forms, on a scale adapted to the wants of the school, as perfect an equipment as that of any school in London. An increased amount of space has been taken in, and the building has been remodelled. The lighting of the museum has been improved by cutting new windows and by painting roof and wood-work of a light colour; opening off the museum is a large new "room for special classes," which occupies part of the site of the old anatomical theatre, and, adjoining this, another room has been constructed, which will be used as a committee and examination room. The chemical theatre has also been improved, and a new laboratory has been fitted up. On the northern side of the building, the whole of the first floor is occupied by the physiological laboratory, and the theatre for the anatomical and physiological lectures; the theatre is lofty, well proportioned, and excellently lighted, and is provided with retiring rooms for the lecturers and store rooms; there is also a gallery entrance to the theatre from the third floor. The physiological laboratory occupies the room formerly used as a dissecting-room; it has been fitted up, under the direction of Mr. Walter Pye, F.R.C.S., with all the various apparatus and appliances required by the modern methods for practical instruction in physiology. The microscopes have been obtained from Messrs. Parkes of Birmingham, and are of a pattern novel in this country, and apparently possessing great advantages for instruments liable to the rough usage which "school" microscopes are sometimes apt to meet with. On this floor, and opposite to the anatomical theatre, is a large and commodious room which will be used for anatomical classes. Above the physiological laboratory is the new dissecting-room, which also has north lights, and in addition a skylight; the walls are covered with glazed tiles. New urinals and water-closets have been erected in the basement of the building, and a new entrance has been built in South Wharf Road. An improvement which we doubt not will be fully appreciated by students is the new "Students' Club", opened for use this week. The whole of the basement of the new wing has been assigned to the use of the Club, which is constituted under the presidency of Dr. Sieveking, and is managed by a committee of seven, consisting of the Chairman, the Treasurer (Mr. H. W. Page, Surgeon to the Hospital), the Dean, and four students. The Club is managed under the ordinary club rules, and has three large rooms: a library, a smoking-room, and a dining-room which contains a refreshment-counter. The library will, we fear, be rather dark; and it is gratifying to find, under these circumstances, that the necessity for providing proper ventilation for the gas-lamps has been recognised. The Club can be entered from the hospital yard, but has also direct communication with the hospital corridors. The convenience of the students has been still further considered in the establishment of telegraphic communication between the hospital-porter's lodge and the rooms of the Club; the arrival of each member of the staff is signalled at once to the library and smoking-room, and in this way, the waste of time formerly caused, and in too many hospitals still caused, by the necessity for the dressers, clerks, and other students waiting about in the corridors and doorways for the arrival of their chief, is avoided. We may remind our readers that a new out-patient department, containing commodious consulting-rooms fitted with every modern appliance, was opened last May; a description will be found in the British Medical Journal, May 19th (p. 975).

Middlesex Hospital.—The buildings of the medical school of the Middlesex Hospital were enlarged about two years ago, but since the commencement of last winter session an important addition has been made in the shape of a new *post mortem* room. The room occupies an independent building, and can be entered only from the open air. Its ventilation has received special attention, and is, in part, artificial; air is delivered into the room by one of Verity's air-propellers, driven by water, and a large air-shaft, carried up above the roof of the hospital, acts as the outlet. Immediately after the necropsy has been made, the body is removed from this room to a small well-appointed mortuary at some little distance from the hospital itself. Extensive alterations are in progress at the south-east angle of the hospital, where a considerable area of new ground has been acquired at the corner of Cleveland Street and Mortimer Street. A new out-patient department is in process of erection on this site. A new dispensary also will be built, as well as a few new wards for special purposes, designed to relieve the pressure in the hospital wards, and to somewhat increase the accommodation for cancer patients. Meanwhile, the out-patients are seen in the brick building in the courtyard of the hospital, which has given rise to some animadversions, owing to its extreme plainness, and its want of harmony with the hospital itself. The erection is, however, we are informed, only temporary, and will be removed as soon as the out-patient department is ready for occupation.

Owens College.—In order to give the fullest possible opportunities for teaching and investigation in the department of physiology, pathology, and materia medica, a great extension of the medical school buildings has been made. This addition to the original medical school buildings in Compland Street, which has been in progress of erection for the last two years, comprise a series of laboratories and lecture rooms for the use of the three great departments of physiology, pathology, and materia medica, which in extent and completeness are unsurpassed by any other in England. The basement contains the large suite of rooms belonging to the Manchester Medical Society. The first room is the library, containing upwards of 26,000 volumes, which are intended for circulation among the members of the Society, and are available for reference purposes by the students of Owens College; passing from the library proper, through an archway and down a few steps, we reach the reading room for students, which will accommodate some forty to fifty readers, and contains shelving in the room itself for holding copies of the text books most in demand, duplicates

of which are provided by the College. Six tables stretching across the room give every facility for studying and note-taking on the far side of the room, and opening into it by means of a pair of folding doors, is the reading-room for the members of the Medical Society, a spacious hall to be used also henceforth as the room for its monthly meetings. The fittings and appointments of the new room leave little to be desired, and the Society may be congratulated upon being, at last, so sumptuously housed. The meetings have hitherto been held in the council room of the College, which was quite inadequate for the accommodation of the members who attend the meetings, as the insufficiently ventilated condition of the room towards the close of the evening amply testified. When required, these three rooms are so arranged that they can be thrown into one, and thus make a spacious suite of rooms admirably adapted for a *conversazione* or reception. On the same floor, there is a large well-lighted materia medica museum, about 43 feet long by 32 broad, fitted up with glass cases and lockers for the display of the large collection of objects of materia medica belonging to the College. In close proximity to the museum, we find a students' laboratory, 25 feet by 34 feet, fully appointed for teaching pharmaceutical chemistry and pharmacy; adjoining this is a private laboratory of the same size, used by the professor of materia medica and his assistants for special investigations in pharmacology. Passing upstairs from this department, we enter the pathological laboratory, 29 feet by 25 feet, fitted up with working benches for forty-eight students. There is every convenience for microscopic work, the several benches being well provided with gas, water, and sets of reagents, both for chemical and microscopic work. It is intended to have this laboratory open to the students for several hours every day, and thus to enable senior students to prosecute original research. Next to this is a private pathological laboratory for the professor of pathology; a well lighted room, 24 feet by 17 feet, fitted up for microscopical and chemical work, and for experimental pathology. In addition to these principal laboratories, there is a room, 24 feet by 21 feet, for surgical pathology, which contains a series of teaching preparations, both microscopic and naked-eye specimens, to which the students can have free access. The latter are so mounted, that they can be taken out of the jars and freely examined. This room also contains elaborate appliances for microscopical investigation and experimental pathology. In connection with the pathological department, there is an assistant-curator's room, 15 feet by 10 feet, where specimens are mounted, and where reagents are stored; and also a small dark room on the ground-floor, fitted up for micro-photography.

The physiological department, under the care of Professor Arthur Gamgee, next claims our attention. It comprises a large lecture-room, which will accommodate from 100 to 120 students, and which can be darkened absolutely in a few seconds. The lighting of the room is accomplished in dark weather by means of gas (also used as a means of ventilation) and the Swan light, the arc light being used for lantern projections. A very elaborately fitted lecture-table, with hot and cold water, as well as compressed air, laid on, and containing tanks for the demonstration of experiments on the circulation, runs across one end of the room; the ventilation of the room is excellent, the foul air being constantly removed by extractors, fresh air being admitted by means of Tobin's tubes. On the next floor there is a physiological work-room for students, furnished with work-benches, the walls being lined with cases of physiological instruments, grouped in accordance with their several uses. In this room also is a clock, which makes and breaks an electrical contact every second, actuating several sets of recording apparatus. The room is fitted up with tanks, and a large pendulum myograph is suspended from the wall. From this room we pass into a large room intended for researches on physiological optics and electro-motive properties of muscle and nerve. It contains high and low resistance galvanometers mounted in position, for electro-motive experiments upon animal tissues and thermo-electric researches respectively, a photometer and opthalmoscope lamps, and other apparatus to demonstrate the optical parts of physiology. The room can be rapidly rendered absolutely dark on the lightest day, and one window is specially fitted up for a heliostat for those experiments where a single beam of sunlight is required.

Adjoining this room there is a small room for photographic purposes, with a red and yellow glazed window, a series of tanks, and an ophthalmoscope lamp, which can also be used for laryngoscopic demonstration. This room can also be absolutely darkened, and has a special contrivance for ventilation which acts well. Like the last room, it is fitted up with gas and Swan lights for alternate use. In connection with this department there is a small, well-lighted balance-room, containing five sets of balances standing on a slate table. A gas-engine in an upper floor works the "dynamo" which supplies the electricity for the Swan and arc lights, and also actuates a series of revolving shafts which, by means of an endless cord, works registering apparatus in any part of the laboratories, thus enabling a whole class to be engaged at recording work at once. A small room with a concrete floor, containing mercurial pumps for experiments on respiration and circulation is well worth a visit. It is so arranged, that any mercury accidentally spilled finds its way into a circular gutter, and thence into a receptacle placed to catch it.

Before leaving this department, reference must be made to the laboratory for physiological chemistry, which is fitted up with working benches for twenty-four students, every two students having the use of a draught or fume-chamber, and a set of drawers and cupboards containing reagents and apparatus. On the left-hand side of the room stands an elaborately fitted up demonstrator's table. Adjoining the laboratory is the professor of physiology's retiring-room, containing special sets of physiological apparatus, and shelves for reference-books on physiology.

It is almost impossible, in a short description such as this, to do justice to the numerous contrivances for efficient ventilation and addition to the comfort of teacher and student, and the detailed elaboration of the fittings in the various departments, which goes far to render the new building the most complete in the British Isles. The entire building was thrown open for work on Tuesday last, when Dr. Arthur Gamgee, Brackenbury Professor of Physiology, delivered the inaugural address, which was followed by a luncheon in the reading-room of the Medical Society, to which the members of the medical profession in and around Manchester attended on special invitation.

EDINBURGH MEDICAL SCHOOL.—The Winter Session in Edinburgh has commenced in the University, College of Surgeons, and Minto House, by the opening of the dissecting rooms in these institutions. The preliminary examination in the University was held this week, and 400 names were entered. The first professional examination in chemistry, botany, and natural history is at present going on, and for it over 300 names have been entered. Of course in neither of these cases does the number estimated mean that all are new candidates, as many of them have appeared before, and now appear for partial examination. The capacity of the new university buildings and the appliances for teaching, will therefore be submitted to a severe test on the number that are likely to attend the various classes. The election of Lord Rector during the early part of November, and its necessary or at least usual excitement may be expected to be a disturbing element during the first week of the session, but it is happily of short duration; the candidates at present announced are the Right Hon. Sir Stafford Northcote, Bart., M.P., and the Right Hon. G. O. Trevelyan, M.P., a third candidate in the person of Emeritus Professor Blackie is also spoken of, who would be the candidate of neither political party.

THE SIXTH DECENNIAL REVISION OF THE PHARMACOPŒIA OF THE UNITED STATES, AND THE PHARMACOPŒA GERMANICA, EDITIO ALTERA.

[CONCLUDING NOTICE.]

AMONG the many important drugs and preparations contained in the United States and German Pharmacopœias, but not to be found in our own, is apomorphia hydrochloride. This substance is becoming more and more used in English practice, and may deserve the attention of the compilers of a new edition of the *British Pharmacopœia*. Argenti nitras dilutus *U.S.P.* consists of equal parts of nitrate of silver and nitrate of potassium fused together. Argentum nitricum cum kalio nitrico of the *Pharmacopœa Germanica* is a mixture of one part of silver nitrate with two of potassium nitrate. Argenti nitras fusus *U.S.P.* contains some chloride to give toughness. Both root and flowers of arnica montana are official in the United States, the flowers only in the German, and the root only in our own Pharmacopœia. Auri et sodii chloridum is newly added to the *United States Pharmacopœia*, but existed in the first edition of the *Pharmocopœa Germanica*, and is still in the present edition as auro-natrium chloratum. In each case, it is a mixture of equal parts of auric and sodic chloride. Caffeina finds a place in *the United States Pharmacopœia* for the first time; but it has existed in the *Pharmacopœa Germanica* from the first. Camphora monobromata is official only in the *United States Pharmacopœia*, and is newly

added. It has attracted some attention in this country as a remedy in those cases in which the alkaline bromides are useful, such as epilepsy, chorea, nervous headache, and the like. Chinoidinum appears in the *United States Pharmacopœia* for the first time, but it is in both editions of the *Pharmacopœa Germanica*. Under the name of quinoidin, it is known as a mixture of alkaloids, mostly amorphous, obtained as by-products in the manufacture of the crystallisable alkaloids from cinchona. Of the crystallisable bark alkaloids and their salts, the *United States Pharmocopœia* contains cinchinidinæ sulphas, the alkaloid cinchonina, cinchoninæ sulphas, quinidinæ sulphas, the alkaloid quinina, quininæ bisulphas (sometimes spoken of as soluble sulphate), quininæ hydrobromas, quininæ sulphas (corresponding to quininæ sulphas (*B.P.*), and quininæ valerianas.

The *Pharmacopœa Germanica* contains chininum bisulfuricum (soluble sulphate), chininum hydrochloricum, chininum sulfuricum (quiniæ sulphas *B.P.*). It may be useful to note here that the disulphate of quinine of the *London Pharmocopœia* corresponds to the quiniæ sulphas *B.P.*, and not with quininæ bisulphas *U.S.P.*, or with chininum bisulfuricum *P.G.*

The two last mentioned contain one molecule of quinia combined with one molecule of sulphuric acid. Quiniæ disulphas *P.L.*, quiniæ sulphas *B.P.*, quininæ sulphas *U.S.P.*, and chininum sulfuricum *P.G.*, all contain two molecules of the alkaloid combined with one of sulphuric acid.

Codeia is newly added to the *United States Pharmacopœia*. It is contained in both editions of the *Pharmacopœa Germanica*. It may be recognised in the next edition of the *British Pharmacopœia*, as it seems to be the principle of opium upon which the effect of that drug depends in diabetes.

Decocta and infusa in the *United States Pharmacopœia* and the *Pharmacopœa Germanica* have, with a very few exceptions, general directions given for their preparation. This plan might with advantage be followed in the next edition of the *British Pharmacopœia*, and so a large amount of reiterated detail be avoided.

Elaterinum *U.S.P.* is now rendered official for the first time. It is a valuable addition, inasmuch as it is perfectly definite in character, fully represents the properties of elaterium, and may very well be employed in place of the latter, since elaterium itself varies very much, according to the amount of care employed in its preparation. It is a pleasing surprise to find only one elixir in the Pharmacopœia of the land of elixirs; the *Pharmacopœa Germanica* possesses three.

Neither eucalyptus nor any of its preparations finds a place in the *Pharmacopœa Germanica;* but the leaves of *Eucalyptus globulus*, the fluid extract, and the volatile oil, distilled from the leaves, are introduced into the *United States Pharmacopœia* for the first time.

Erythroxylon (coca leaves) now finds its way into the *United States Pharmacopœia*. It will not, in all probability, find a place in the next edition of the *British Pharmacopœia*. It has never gained any very great favour with English prescribers.

An attempt is made in the *Pharmacopœa Germanica* to define the various degrees of consistency that extracts should possess, thus: Extractorum, quæ ad spissitudinem attinent, tres sunt gradûs: 1. Tenuiorum, quæ sunt densitate mellis recentis: 2. Spissiorum, quæ refrigerata effundi non possunt: 3, Siccorum, quæ conteri possunt.

The fluid extracts are very numerous in the *United States Pharmacopœia*, and have received a very large addition to their number in the present revision; but glycerine is not so indiscriminately used as a solvent as before.

Among the added iron preparations in the *United States Pharmacopœia* there is ferri oxidum hydratum cum magnesiâ. This corresponds with antidodum arsenici, *Ph.G.*, and consists of a solution of persulphate of iron, suitably diluted, kept in one vessel, and a mixture of magnesia (magnesium oxide) and water in another, kept separately, but ready for mixing and immediate use in case of need. Among other iron preparations of the *United States Pharmacopœia* not contained in the *British Pharmacopœia* are ferri chloridum (solid perchloride), ferri citras, ferri et ammonii sulphas, ferri et ammonii tartras, ferri et strychninæ citras (1 per cent. of strychnia), ferri hypophosphis, ferri iodidum saccharatum, ferri lactas, ferri oxalas, ferri pyrophosphas, and ferri valerianas. The *Pharmacopœa Germanica* contains ferrum lacticum, ferrum oxydatum saccharatum solubile, and ferrum pulveratum. The leaves of gaultheria and its oil (consisting chiefly of acid salicylate of methyl), and the root of gelseminum sempervirens, remain official in the *United States Pharmacopœia*.

The leaves and flowering tops of grindelia robusta, which have been used to some extent in this country as a remedy for bronchitis, whooping-cough, and asthma; the leaves of hamamelis virginica, also possessing a reputation here as a remedy for uterine congestion and hæmorrhages; and guarana, find a place for the first time in the *United States Pharmacopœia*. Hyoscyamine sulphate is also newly introduced. Iodoform is a substance in both the United States and German Pharmacopœias which must find a place in the next edition of the *British Pharmacopœia*. Donovan's solution remains officinal in the *United States Pharmacopœia*. Lithii benzoas, lithii bromidum, and lithii salicylas, *U.S.P.*, are new. Lupulinum, *U.S.P.*, and glandulæ lupuli, *P.G.*, consists of the glandular powder of the strobiles of the hop. As these glands contain practically all the active matter, the substance might, with advantage, be introduced into the next edition of the *British Pharmacopœia*. Magnesii citras granulatus, *U.S.P.*, and magnesium citricum effervescens, *P.G.*, are true magnesium compounds, with some sodium salt. Effervescing citrate of magnesia of English commerce is very commonly simply sodæ citro-tartras effervescens, *B.P.*, or something like it. Malt and its extract are officinal in the *United States Pharmacopœia* for the first time. Mangani sulphas, *U.S.P.*, manganum sulphuricum, *P.G.*, morphinæ sulphas, *U.S.P.*, and morphinum sulphuricum, *P.G.*, may receive attention from the compilers of the next edition of the *British Pharmacopœia*. Oleo-resinæ, *U.S.P.*, form a series of preparations not known by that name in English pharmacy. They existed in the previous edition of the *United States Pharmacopœia*, and the following is a complete list of them: Oleo-resina aspidii (corresponding to extractum filicis liquidum, *B.P.*), capsici, cubebæ, lupulini, piperis, zingiberis. They are made by exhausting the drug with stronger æther and preserving the residue on evaporation of the æther. In oleo-resina piperis, the piperine is rejected. Oleum æthereum, *U.S.P.*, is a mixture of equal volumes of heavy oil of wine and stronger æther. It is used for making spiritus ætheris compositus (Hoffmann's anodyne). Both were officinal in the *Pharmacopœia Londinensis*, but they were somewhat different in composition from the *United States Pharmacopœia* preparations.

Oleum myrciæ, *U.S.P.*, is officinal, and enters into spiritus myrciæ, *U.S.P.* (Bay rum). Oleum santali (oil of sandal wood) is newly official in the *United States Pharmacopœia*, but it enters into no preparation. Oleum calami, *P.G.* (the oil distilled from the rhizone of the sweet flag), and oleum cocos, *P.G.* (cocoa-nut oil), are not likely to come into use in English practice.

The methods given for the assay of opium differ in the three *Pharmacopœias*. Opium *B.P.* should contain six to eight per cent. of morphia; opium *U.S.P.* at least nine per cent.; and opium *P.G.* (dried sufficiently to render it capable of being powdered) should contain ten per cent., when each is treated by the processes prescribed in the respective *Pharmacopœias*. Opium denarcotisatum, *U.S.P.*, is newly introduced. It is prepared by exhausting opium with stronger æther, rejecting the æthereal solution, and mixing the dried residue with sufficient sugar of milk to bring it up to the original weight of opium taken.

No processes are given for the manufacture of pepsinum saccharatum *U.S.P.*, and pepsinum *P. G.* The former enters into liquor pepsini, and the latter into vinum pepsini. This method of making liquid preparations of pepsin, by treating dried pepsin with solvents, hardly commends itself. A much more powerful preparation might be obtained by making a glycerine solution of the fresh mucous membrane, and adding a sufficiency of hydrochloric acid to this. Such a solution is practically free from peptones and proteids, and is very active.

Petrolatum, *U.S.P.* (petroleum ointment), is newly introduced. It is the purified residue of the distillation of American petroleum, and it may be said to be the officinal name for vaseline.

Physostigminæ salicylas, *U.S.P.*, physostigminum salicylicum, *P.G.*, is newly introduced into both *Pharmacopœias*. The alkaloid is commonly called eserine in English practice, and the sulphate is more frequently used. Picrotoxin, *U.S.P.*, a neutral principle obtained from cocculus indicus, is newly introduced. It is very seldom used in this country, and is not likely to receive recognition in the next edition of the *British Pharmacopœia*.

Pilocarpus (leaflets), *U.S.P.*; pilocarpinæ hydrochloras, *U.S.P.;* folia jaborandi, *P.G.;* and pilocarpinum hydrochloricum, *P. G.;* are of real importance. Jaborandi, and its alkaloid pilocarpine, are constantly used in English practice, and they both should be included in the next edition of the *British Pharmacopœia*.

Of potassium preparations, the *United States Pharmacopœia* contains the following which are not in the *British Pharmacopœia*; potassa cum calce (Vienna paste), the cyanide, the hypophosphite, and the sulphite. The *Pharmacopœa Germanica* contains none which are not mentioned in the *British Pharmacopœia*.

Of sodium salts, the following, not officinal in our own *Pharmacopœia*, have a place in the *United States Pharmacopœia*; the benzoate, the bisulphite, the bromide, the chlorate, the hyposulphite (as a medicine), the iodide, the pyrophosphate, the salicylate, the santoninate, the sulphite, and the sulphocarbolate. The *Pharmacopœa Germanica* has natrium benzoicum, natrium bromatum (*bromide*), natrium jodatum (*iodide*), natrium salicylicum, and natrium sulphuricum siccum.

Among a number of other substances not in the *British Pharmacopœia*, but included in the *United States Pharmacopœia*, the following may be noticed as having been used to some extent in English practice—Prunus Virginiana (bark), pulsatilla (herb), quillaia (soap bark), resina copaibæ (possibly the diuretic portion of copaibæ), rhus toxicodendron (the leaves of the poisonous ivy), salicinum, salix (bark), sanguinaria (blood-root), spigelia (pink root, known among herbalists here as Indian pink), spiritus frumenti (whisky, which the *United States Pharmacopœia* wisely orders to be at least two years old), staphisagria (stavesacre seeds (the fixed oil of which is occasionally used here for destroying pediculi), strychninæ sulphas, syrupus calcii lactophosphatis, syrupus ferri quininæ et strychninæ phosphatum (Easton's syrup), syrupus hypophosphitum, thymol, triticum (the rhizome of *Triticum Repens*, the couch grass), chrysarobinum (Goa powder) and its ointment, viburnum (black haw bark), and the bromide, iodide, and phosphide of zinc.

Triturationes are a series of preparations in which ten parts of the drug are thoroughly rubbed down with ninety parts of sugar of milk.

General directions only are given in the *United States Pharmacopœia* for making suppositories, which are made with oil of theobroma alone as an excipient. There are no suppositories in the *Pharmacopœa Germanica*. In the latter volume, among many other drugs, the following not already mentioned and not contained in the *British Pharmacopœia*, are of interest. It is remarkable that Cortex condurango should be officinal; we thought that the notion of this drug possessing any virtue whatever had been very effectually exploded. Folia farfaræ (coltsfoot), folia altheæ, fungus chirurgorum (polyporus fomentarius), carrageen, laminaria, lycopodium, minium (red lead) potio Riveri, pulvis aërophorus anglious, semen fœnugræci (we presume fœnugreek seeds are for veterinary purposes), talcum, tartarus boraxatus, all officinal in the *Pharmacopœa Germanica*, possess some little interest, but perhaps are not sufficiently important to be included in our next *Pharmacopœia*. Tubera salep, *Pharmacopœa Germanica*, recalls the time when salep coffee was sold at the street-corners, and eagerly drunk by workmen, on the supposition that a cup of it supplied about as much sustaining power as a beefsteak.

Thymol is made officinal for the first time, and strychninum nitricum is the only preparation of strychnia official in the *Pharmacopœa Germanica*. It is very convenient, from its solubility in water.

In comparing the three *Pharmacopœias*, it must at once be conceded that the *United States Pharmacopœia* is incomparably the best. The previous revision was very poor, but the present revision is a very great improvement on the last. It contains an enormous mass of information, which is, however, chiefly of use to the pharmacist. Nevertheless, it contains almost every possible preparation which can be needed by the medical practitioner. It has freely adopted the best features of the *British Pharmacopœia* of 1867; and we can perhaps claim some credit for having shown our American *confrères* the way in many matters—notably in the adoption of volumetric solutions, in the general system of arrangement, in the matter of cross references, etc.

With regard to our own *Pharmacopœia*, it is needless to say more than this. In 1867, it stood unrivalled as the best *Pharmacopœia* extant. Sixteen years, however, have elapsed since its publication; and it is hardly necessary to say that the "additions" do not quite represent what has been done in medicine and pharmacy in that time. The fact must be recognised that our *Pharmacopœia*, as it stands, is lamentably behind time; and it is to be hoped that the new edition may be speedily produced; and that, when produced, it will be as great an advance on its predecessor as the edition of 1867 was upon that of 1864.

The *Pharmacopœa Germanica, editio altera*, is an improvement upon the last issue. It is impossible, however, to say much in its praise. Its chief features are the absence of many little-used and very complex Galenicals present in the first edition, and the better means given for testing and assaying substances. It is very faulty in many respects. The insufficient index; the total absence of cross references; the grouping of vegetable drugs under the heads of folia, herba, tubera, etc.; the occasionally doubtful Latin; the absence of any list of preparations of drugs, and of any translation of any of the Latin words, render it, to the pharmacist at least, one of the most irritating books of reference possible. The medical man will find nearly all the drugs mentioned which are now used in German practice; but, if he wish to ascertain what officinal preparations of a drug he can prescribe, he has no resource, unless he know the new edition by heart, but to laboriously struggle through the whole index to obtain his information.

MEDICAL PRACTICE IN CEYLON.

In a recent letter to the *Ceylon Times*, Mr. John H. Campbell, a leading planter in Ceylon, and Chairman of the Haputalic Medical Aid Committee (the members of which are gazetted to this appointment by the Government), directs public attention to a scheme of the Colonial Government, for substituting the services of half-educated native medical men for those of the highly trained staff of European surgeons, who have for years been holding appointments under Government, tacitly understood to be held for life, or during good behaviour.

Mr. Campbell, who, from his position, must be entitled to speak with some authority on this matter, points out the gross injustice to which these gentlemen are to be subjected, and which is aggravated by the manner in which they were curtly informed that their services would be dispensed with at the end of the year 1882. For no fault of theirs, but simply because the Colonial Office has taken the idea of encouraging native talent into its head, a number of properly qualified medical men, who have been induced to leave positions in the United Kingdom, where they might by this time have obtained lucrative practices, are to be cast adrift to commence the world anew. If this were all, and there were any real advantage to be gained, the individual hardships involved might be accepted as inevitable. But the real injury and injustice does not stop here. The planters and their families will be, quite as much as the surgeons, sufferers, if the compromise which they have proposed be not accepted, even at the eleventh hour, by the Colonial Office. That compromise, as we understand Mr. Campbell's letter, is, that the present fully qualified European surgeons be permitted to attend the coolies on Ceylon estates, at the same rate as it is proposed by Government to pay to the half-educated Sinhalese and Tamil youths who have qualified as dispensers in the Ceylon School of Medicine.

Surely nothing could be more reasonable. We have been assured by those who have spent a lifetime in India, that none of the natives have the same confidence in these "dispensers" and "acting assistant surgeons" as they have in European medical men; and that the planters and their wives and families would rather do without medical assistance altogether than call in natives, whose nerves seem to forsake them when the responsibility is cast upon them of treating Europeans. To place the legally qualified European in at least as good a position as the legally unqualified native (for the provisions of the Medical Act of 1858 extend even to Ceylon), is surely the least that may be expected of the Colonial Office; and we shall be much surprised if Earl Derby, coming fresh to the Colonial Secretaryship, with his instinctive shrewdness and common sense, does not recognise the justice of the claim of our professional brethren there.

We cannot hold out much hope of interference by the Medical Council in this matter; but our own Association, on which seems to be gradually concentrating most of the responsibilities which formerly attached to the Colleges of Physicians and Surgeons, can probably give very effective aid to any representations which may be made to the House of Commons on the subject, through its Parliamentary Bills Committee.

The fact of the Governor of Ceylon having, as we are informed, earnestly recommended the Secretary of State to comply with the reasonable request of the planters, is a strong one to approach Earl Derby with, and, in any case, one effect of the agitation of this subject will no doubt be, as he suggests, to deter members of our profession from accepting employment in Crown colonies without very careful investigation previously.

The *Times* of Ceylon, referring to this matter, states that it would be impossible to speak in too strong terms of the way in which the surgeons now in the coffee districts, appointed directly by the Government, are to be treated under this amending-amended ordinance. When an opportunity was given the Government of making a proper and graceful concession to them, and the planters amongst whom they have been engaged so long, it was rudely thrust aside

by a direct negative, a false step which the Governor and his advisers may yet live to regret. The present Government, from His Excellency downwards, have not so much popularity that they can afford to disregard the fair and just demands of a large and important class of the community. If this most iniquitous measure *must* be passed, it will be well that the Government render it as little obnoxious and offensive as may be possible.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

A MEETING of the Council will be held on Wednesday, January 16th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., December 26th, 1883, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 17th day of October next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, September 16th, 1883

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia at the end of the year. Cases are therefore urgently needed during the next two months.*

Applications should be addressed to
The Secretary of the Collective Investigation Committee
September, 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The autumnal meeting will be held at the Railway Hotel, Taunton, on Thursday, October 18th, at 5 o'clock. The question, as settled by the Council to be discussed after dinner, is "What is your personal experience as to the etiology of diphtheria?" Dr. Prideaux will exhibit Preparations of Bacteria of various diseases, and will show, if possible, a case of extroversion of the bladder. Gentlemen wishing to bring communications before the meeting, are requested to give notice to the Secretary.—W. M. KELLY, Honorary Secretary, Taunton.

EAST AND WEST SURREY DISTRICTS: SOUTH-EASTERN BRANCH.—A conjoint meeting of the above districts will be held at the White Hart Hotel, Reigate, on Thursday, October 11th, 1883, at 4 P.M., T. F. Lloyd, Esq., of Reigate, in the chair. Dinner will be served at 6 P.M. precisely; charge, 6s., exclusive of wine. All members of the South-Eastern Branch are entitled to attend and to introduce professional friends.—The following communications, etc., have been promised. Watson Cheyne, Esq.: Antiseptic Surgery as Applied to Country Practice. Geo. Abbott, Esq.: Note-taking by Notation, with Special Reference to Collective Investigation. Thos. M. Butler, Esq.: A Case of Interest. J. Croft, Esq., will give a Demonstration of a New Method of Splint-making. Dr. J. Milner Fothergill: The Uses of Ipecacuan. H. A Reeves, Esq.: Orthopædic and Gynæcological Cases, with Remarks.—J. Herbert Stowers, Honorary Secretary East Surrey District, 23, Finsbury Circus, E.C. A. Arthur Napper, Honorary Secretary West Surrey District, Cranleigh, Surrey.—N.B. Gentlemen having filled up cards of the Collective Investigation Committee, will oblige by bringing them to the meeting.

EAST ANGLIAN BRANCH.—The autumn meeting of the East Anglian Branch will be held at the King's Head Hotel, Bungay, on Thursday, October 25th, at 1 P.M. There will be a *dejeuner* at 4.30, after the meeting. It is requested that notices of papers or communications be sent at once to either of the Honorary Secretaries, W. A. Elliston, M.D., Ipswich; M. Beverley, M.D., Norwich.

BORDER COUNTIES BRANCH.—The autumnal meeting of the above Branch will be held on Friday, October 19th, 1883. Gentlemen intending to read papers, show specimens, etc., are requested to communicate as soon as possible with either of the Secretaries, W. Russell, M.B., Carlisle; J. Smith, M.D., Dumfries.

STAFFORDSHIRE BRANCH.—The tenth annual general meeting of this Branch will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, October 25th, at 4 P.M. An address will be delivered by the President-elect, Dr. C. Orton, Newcastle-under-Lyme.—VINCENT JACKSON, General Secretary, Wolverhampton, October 1st, 1883.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The first meeting of the session will take place on Thursday evening, October 18th, at half-past 8 o'clock, at the Hackney New Town Hall; Dr. Hare, President of the Metropolitan Counties Branch, in the chair. The times and places of meeting during the session will have to be settled at this meeting. A resolution will be submitted that "all the meetings take place at the Town Hall, Hackney." Dr. Wilks will deliver an address in support of Collective Investigation of Disease.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, N.

NORTH OF IRELAND BRANCH.—A general meeting of this Branch will be held at the Belfast Royal Hospital on Thursday, October 25th, at 12 o'clock. Gentlemen intending to read papers, to exhibit specimens or patients, are requested to communicate, at their earliest convenience, with Dr. DEMPSEY, Honorary Secretary, Clifton Street, Belfast.

CORRESPONDENCE.

MEDICAL PROVIDENT ASSOCIATION.

SIR,—At a meeting of the Midland Branch of the British Medical Association, held at Matlock Bath, on September 27th, it was proposed and carried unanimously that, "This Branch tenders its thanks to Mr. Ernest Hart for the interest he has taken in the formation of a Medical Provident Association, and for having obtained the advice of a professional actuary at his own cost, and expresses its cordial approval of the movement." Dr. Webb, of Wirksworth; Dr. Harvey, of Wirksworth; Dr. Moxon, of Matlock; and Dr. Scriven, of Duffield, desire me to forward their names, that they may be included in the list of those who intend to join the Association on its formation.—Yours truly,

JOHN A. SHARP, Hon. Local Secretary.

Derby, September 30th, 1883.

MEDICAL PROVIDENT SOCIETY.

SIR,—I am directed by the Jersey Medical Society to inform you that at a meeting held September 20th, 1883, the following resolution was adopted:

"The members of the Jersey Medical Society view with pleasure the efforts being made to establish a Medical Provident Fund under the auspices of the British Medical Association; and will be glad to help in the furtherance of the same in so far especially as regards sick-pay during illness, and a permanent pension in cases of disablement."

The society requests me to forward £2 2s. towards preliminary expenses. I have pleasure in enclosing P.O.O. payable from myself to E. Hart.

The following suggestions were unanimously adopted; and the society will be glad if their consideration be entertained when the rules of the Provident Fund are being considered. 1. (Permanent) Sick-pay during illness, and in cases of incapacity from whatever cause (age or disease) essential. 2. Non-payment, unless a member of, say, twelve months' duration, in order to create a fund. 3. Establishment of sliding scale, in order to meet pecuniary position of individual members. 4. Limit of age. 5. Varied scale payment according to age and health. 6. What about surrender value and increased premiums for residents abroad?—I am, sir, yours faithfully, W. H. SUTCLIFFE, Librarian J.M.S.

40, David Place, September 21st, 1883.

SIR,—The letter of Mr. Edwin Child, in your JOURNAL of September 8th, 1883, page 508, states what is required—viz., a "weekly allowance in case of sickness only." Other insurances, accidental or life, are easily to be had; but, in case of sickness, the poorer mem-

bers of our profession have very often nothing to fall back upon. I believe "many" would join a provident society started on that basis; premiums, of course, on a sliding scale, to produce so much more or less. I should be glad to join such a society.

COUNTRY PRACTITIONER.

OBITUARY.

HENRY FINCH, M.D., M.R.C.S., L.S.A., Lond.; Cert. San. Sci. Camb., 1876.

WE regret to record the death of the above-mentioned gentleman, at the early age of 44, which occurred on September 19th, at Colchester. He was a native of Cambridge, and passed his medical examinations at the Cambridge University and University College, London, in which he gained many honourable distinctions—among others, the Gold Medal for Anatomy and Physiology; and, after being house-surgeon at various hospitals, he made two long voyages in the emigration service and under the Peruvian Government. On his return, he settled for a short time at Newbury, whence he removed to Colchester, where he was in practice upwards of twelve years, and where his integrity, upright conduct, genuine good-heartedness, and gentlemanly prepossessing manners, gained him many firm friends, and the respect of all.

His death was accelerated by excitement consequent on gaining a new and larger practice, into which he was about to enter when his life was cut short. A man of great ability, much shrewdness and penetration, always keeping well up in the ever-advancing knowledge of his profession, his early death will be a real loss. He leaves a wife and five young children.

JOSEPH J. H. BARTLETT, L.R.C.P., M.R.C.S., L.S.A.

WE regret to announce the death of Mr. Joseph James Bartlett, late of Notting Hill. Mr. Bartlett was educated at University College, and, as a student, he displayed considerable aptitude for original research. He contributed to the various journals several meritorious original papers; and, just before his death, he completed the correction of some proofs of a paper connected with natural history.

Mr. Bartlett will long be remembered by those who had the happiness to know him, as a firm and consistent friend. He was a highly skilful doctor, and his kindness and attention made for him fast and warm friends of his patients. He was an upright honourable gentleman.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE RECENT INQUIRY AS TO THE DEATH OF JOHN SIMMONDS, ST. GEORGE'S-IN-THE-EAST.

AN inquest was conducted by Mr. G. Collier, Deputy-Coroner for East Middlesex, relative to the cause of death of John Simmonds, aged 51, who, it was alleged, had died from the effects of having been kept at work, in oakum-picking, after a certificate had been given that the deceased was in such a state of health as to be endangered by such occupation.

The inquiry lasted several hours, and proved very distinctly how scant was the consideration shown to the opinion of the medical officer by the resident officers and guardians, to whom the interests of the sick poor are confided by the ratepayers of St. George's-in-the-East. But, as we read the evidence, we do not see that the statements made by Dr. Cooper, the senior medical officer, were in any way invalidated by those brought forward in the interests of the guardians, as shown by the summing up of the coroner, who commented in marked terms on the care shown by Dr. Cooper in his examination of the deceased, and his condemnation of the work on which he was engaged as being incompatible with the continuance of life in a person so broken by chronic disease.

Ultimately, the jury returned a verdict that deceased died from cerebral hæmorrhage, and that the death of the deceased was accelerated by being kept at oakum-picking after the medical officer had advised that it was dangerous to his health; and the jurors further recommend that the attention of the Local Government Board be drawn to the matter.

We call special attention to this case, first, because it is clear from the evidence that the deceased never ought to have been put to pick oakum at all, and certainly not continued at it after this work had been prohibited by the medical officer; and, secondly, because we learn that the guardians have attempted to shift the responsibility from themselves and their subordinate officers, and to throw it upon their medical officer. The matter, however, is to be referred to the Local Government Board for inquiry. We feel satisfied that as the question raised is one purely medical in its character, Dr. Cooper may fairly rely on that element in the Local Government Board to see that justice will be done.

THE POOR-LAW MEDICAL SERVICE.

SIR,—I quite concur with the letter which appears in the BRITISH MEDICAL JOURNAL of September 29th, written by an "Irish Dispensary Doctor." We have too long remained dormant under our grievances, but I trust that they will soon be clearly brought before the medical profession and the public at large. I have written to some of our oppressed medical brethren on the advisability of calling a meeting (say, in Dublin), at some pre-arranged date, when a committee could be appointed, a petition drawn up setting forth our grievances (which could not be made more grievous than what they are), and this forwarded to some member of Parliament who will interest himself on our behalf, and have the matter laid before the House next sitting. As our duties have increased owing to the distress existing in the country, and as we are at present receiving very little for private practice on account of agricultural depression, it is very difficult for us to exist at all on our present incomes. There is, I believe, no class of public servants so badly remunerated as dispensary doctors for the work which they are required to do amongst the ignorant and generally thankless poor. The officers of the Royal Irish Constabulary, as also those of the Army, who have not the same amount of day-work and none of the night-work that falls to the lot of a dispensary doctor, are in every way better remunerated.—I am, sir, yours, etc.,

WE WANT BUT LITTLE HERE BELOW, NOR WILL WE WANT THAT LITTLE LONG.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 29th ult., that the death-rate was recently equal to 37.1 in Bombay, and 42.8 in Madras; 96 deaths from cholera were reported in Bombay, and 74 in Madras, while fever mortality showed an excess in both cities. According to the most recent weekly returns, the mean annual death-rate in twenty-four large European cities was equal to 24.5 per 1,000 of their aggregate population; this rate was 5.4 above the mean rate last week in twenty-eight of the largest English towns. The rate in St. Petersburg was equal to 26.4; the 471 deaths included 91 from diarrhœal diseases and 18 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate was only 17.3, the highest rate being 20.7 in Copenhagen, where 3 deaths from whooping-cough were recorded. In Paris, the death-rate was equal to 21.1 per 1000, and the deaths included 36 from typhoid fever, and 20 from diphtheria and croup. The 193 deaths in Brussels were equal to a rate of 24.4, and included no fewer than 11 from small-pox. In Geneva, but 25 deaths were returned, the rate not exceeding 18.6. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 20.5, the highest rate being 24.2 in Amsterdam, where no fewer than 26 fatal cases of diphtheria and croup were recorded. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 25.7; it ranged from 19.4 and 22.2 in Vienna and Hamburg, to 27.9 in Berlin and 30.8 in Breslau. Diarrhœal diseases again showed exceptional fatality in Breslau and Munich; diphtheria caused 54 deaths in Berlin and 14 in Dresden; scarlet fever 13 in Hamburg, and small-pox 20 in Prague. In the four principal Italian cities, the death-rate averaged 29.6, the highest rate being 34.0 in Naples, where 32 fatal cases of measles and 18 of typhoid fever were recorded. Small-pox caused 2 deaths in Turin, and measles 6 in Rome. The death-rate in four of the largest American cities averaged 23.0, and ranged from 21.9 in Brooklyn to 23.4 in New York. Diphtheria was somewhat fatally prevalent in Baltimore and New York, and scarlet fever in Philadelphia.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ASTON RURAL.—In his last report on this district, Dr. Hickinbotham makes an urgent plea that the notification of infectious disease may be made compulsory. At the present time, he observes, a case of small-pox or scarlet fever may arise in a house, the persons living in the house may mix freely with others, the children may be sent to school, a servant who begins to be ill may be packed off to her home, in a public conveyance, with the disease upon her, and not a single precaution be taken; while the first information

the health-officer gets is received a week after the death of the patient, from the returns of the registrar. These difficulties are far from imaginary, and Dr. Hickinbotham makes especial note of a case which demonstrates the facility with which disease may be disseminated in the absence of notification. A servant-girl who had contracted typhoid fever at her master's house, where an inmate was suffering from the disease, was sent home without the slightest intimation of her condition having been given, and it was not until a sister had caught the fever from her, that the case was brought under the notice of the authority. The mortality-statistics present few points of medical interest, the total number of deaths being 259, against 219 in 1881, and the rate per 1,000, excluding the workhouse, 14.06. This increase, Dr. Hickinbotham is inclined to attribute to atmospheric causes, producing a lowered tone or impaired vitality. The prevalence of zymotic diseases, notably scarlet fever and small-pox, at Birmingham, has led to the termination of the agreement for sending there cases of infectious diseases occurring in this district, and it is satisfactory to note that steps are being taken for the erection of a separate hospital by the Aston authority.

BACUP.—In dealing with the zymotic mortality registered in this district during 1882, Dr. Brown gives a brief account of a serious epidemic of diarrhœa and gastro-intestinal diseases which occurred in the earlier part of the year. The cause of the outbreak seems to have been due to the pollution of a particular supply of water by sewage. In 74 houses occupied by 401 persons, there were 146, or over one third, who suffered from diarrhœa. The inhabitants were warned of the danger of drinking the water, and other sources of supply were afforded until the causes of the pollution had been removed. Defective sanitary conditions are held responsible for the seven deaths from enteric fever, the most common being untrapped sinks, which were found in almost all the houses where the disease appeared. The district was remarkably free from diphtheria, not a single case coming under notice, but mild epidemics of scarlatina cropped up in different places. At no time was the disease very prevalent, and no necessity occurred for the closing of the public schools, which do not seem to have played an important part in the dissemination of the disease. Dr. Brown records the common experience of most health-officers when he states that the infection was spread by the indiscriminate visiting among neighbours, and he regrets the absence of some form of notification of this class of disorder. One case of small-pox occurred during the year, and the means of isolation which the authority possess in the Sourhall Hospital undoubtedly saved the district from a serious epidemic. The deaths from zymotic diseases numbered 37, representing a rate of 1.4 per 1,000, while from all causes the rate was 20.90. Evidences of sanitary progress are not wanting in the report, and Dr. Brown notes with satisfaction that the condition of his district was never better. It is to be regretted that the authority of this rising borough have not thought it necessary to put the report of their health-officer in type.

GRAVESEND.—Dr. Gramshaw's last report fails to deal in an adequate manner with the sanitary requirements of this growing district; and there is, moreover, serious reason for doubting the soundness of his advice. Thus, in referring to the contaminated condition of certain of the wells, he suggests that they might with advantage be converted into cesspools "which would scarcely ever require emptying." The practice of turning disused wells into cesspools is a most vicious one, fraught with the greatest danger, and we are surprised that such a recommendation should have been made. During 1882, there was a serious prevalence of diphtheria, the disease being fatal in each of the nine cases that came to Dr. Gramshaw's notice. In one instance, a cesspool was situated partially under a sitting-room, and, in others, conditions very injurious to health were discovered. Dr. Gramshaw states that those defective arrangements have been satisfactorily disposed of; but there is no account of the measures adopted during the outbreak, which, however, only occupied a few weeks, and has not since recurred. There were thirteen cases of small-pox during the year, the disease, in eleven cases, being traced to contagion outside the town. All the cases were treated at the sanatorium, and, with one exception, all recovered. The deaths from all causes numbered 395, representing a death-rate of 17.7 per 1,000. Reference is made in the report to the sanitary condition of the town, which seems in pressing need of a proper system of drainage.

HALIFAX URBAN DISTRICT.—Mr. Ainley's account of the sanitary history of Halifax during 1882 is too meagre for an important borough containing a population of nearly 75,000 persons. The most important part of the report is that which is devoted to a record of the working of clauses of the Halifax Corporation Act of 1882, requiring the compulsory notification of infectious disease. Mr. Ainley announces that, "during the four months' working of the Act, not a single hitch has occurred of any moment. Most of the objections and difficulties raised beforehand prove to be very imaginary in the presence of a generous application of the Act." Altogether, 154 cases were notified, of which 103 were cases of scarlet fever, and 31 of typhoid. The Infectious Hospital, wherein 60 patients were treated, was of conspicuous value during a slight prevalence of small-pox. The general death-rate (20.3 per 1,000) was the lowest ever recorded in the borough since civil registration was established. The chief sanitary work of the year seems to have been the further ventilation of the sewers.

HASTINGS.—Calculated on the total recorded deaths in Hastings during 1882 (715), the death-rate represented 16.16 per 1,000; but, making allowance for visitors, it would be as low as 13.81 per 1,000, a very favourable rate, and one calculated to maintain the reputation of the borough as a health-resort. In common with many other towns, Hastings suffered in the early part of the year from a large increase in the mortality from measles and whooping-cough, which in Hastings caused, together, 58 deaths out of a total of 90 recorded from the principal zymotic diseases. The death-rate from these causes was 2.03 per 1,000, being 1.04 per 1,000 higher than last year, and 0.61 per 1,000 in excess of the annual average for the past eight years. Of 96 cases of scarlet fever reported, five proved fatal; and, in referring to this mortality, Mr. Knox Shaw observes that several cases strikingly illustrated the difficulty health-resorts experience in keeping free from infectious disease. Instances now and again occurred in which convalescents from scarlet fever were sent down before they were quite free from infection; and Mr. Shaw reminds those who receive such people that care should be taken to see that their rooms, bedding, etc., are thoroughly disinfected before being again used. A new building for the accommodation of patients suffering from small-pox has been completed, but, fortunately, it was not required. The old hospital was of considerable service during the prevalence of scarlet fever, and admitted 73 cases of this disease. In regard to sanitary work, the present report shows a distinct advance upon its predecessor; and, although the health-officer is unable to announce the completion of any work of great sanitary importance, he shows that improvement is being made—notably, in the adoption of a code of by-laws relating to new streets and buildings.

HOLSWORTHY RURAL.—Mr. Linnington Ash continues to work energetically and well, and he contrives to secure improvements, in spite of the small encouragement he receives from a somewhat apathetic authority. The principal work of importance completed during the year 1882 was an appreciable extension of the water-supply of several villages. No drainage-improvements were effected during the year, and Mr. Ash again repeats his old complaint about the Holsworthy sewage outfalls, which remain in an unfinished and dangerous state. Why this important matter fails to receive the attention of the authority is beyond comprehension; since, as Mr. Ash pointed out in his report for 1881, there is ample land upon which the sewage, which now flows into and pollutes the river, might be utilised by irrigation. Reference is also made to the deficient and dangerous character of the privy-accommodation, and to the numerous nuisances which still remain unabated. "In all parts of the district," writes Mr. Ash, "one meets, at every stage of inquiry, with one or other of these nuisances, caused not so much by structural deficiencies as by inattention to common details on the part of occupiers." The district is still unprovided with hospital-accommodation or means of disinfection, and there are, unfortunately, no signs that the authority are disposed to provide their district with these pressing requirements. During 1882, there were 151 deaths registered, representing a death-rate of 16.7 per 1,000. There was a large increase in the infant-mortality; while nearly 40 per cent. of the total deaths occurred in persons over sixty years of age. Several outbreaks of infectious disorders arose during the year, but happily, with the exception of measles, none proved serious or widespread. The epidemic of measles was remarkable in demonstrating the influence of schools in disseminating infection. A boy, who had been visiting a relation in whose house measles had existed, attended an elementary school, and was the cause of infecting the whole community of scholars, about fifty of whom were struck down with the disease almost at once. The disorder was directly carried into all parts of the district, and assumed severe and widespread proportions, but proved fatal in one case only. There was an outbreak of typhoid fever, the origin of which was not clearly proved; but the spread was distinctly traced to the use of water

from a specifically polluted well, which was immediately and permanently closed.

HOLME VALLEY COMBINED DISTRICT.—Mr. Scougal has done well in preparing a report on this combination as a whole, independently of a separate report on each district. Although this is not actually insisted upon by the Central Board, its utility is so evident, that, with few exceptions, health-officers of combined districts invariably adopt this method of summarising their work. Mr. Scougal had been in office but four months at the close of the year, and his report, being for that period only, is necessarily incomplete. He appears, however, to have lost no time in becoming practically acquainted with the condition of his district, and in investigating the causes of several limited outbreaks of infectious disease. The population at the middle of 1882 was estimated at 21,358 persons; and during the last four months of the year there were, excluding those in the workhouse, 222 births and 106 deaths registered, representing rates of 31.18 and 14.93 per 1,000 respectively. The death-rates varied from 7.94 per 1,000 in Fulstone to 19.84 in Wooldale; but the statistics are of little value for comparison, as they relate to a third of the year only. Excluding the deaths from diarrhœa, zymotic diseases were fatal to three persons only. An epidemic of typhoid fever occurred in the autumn, which seems to have been due to a polluted water-supply. At Scholes, measles assumed epidemic proportions; but information of the outbreak did not reach the health-officer until it had practically exhausted itself. In referring to these and other outbreaks, Mr. Scougal repeats the complaint so common with health-officers, of absence of notification of disease and of hospital accommodation. The question of hospital provision can, as suggested in the report, best be met by combination for the erection of a small building, which should be open to all the authorities. The general sanitary condition of the district is far from satisfactory. Overcrowding prevails in many houses, which consist usually of two rooms only, without proper ventilation. Privy-accommodation is very defective; and, as there is no general water-supply, or complete system of drainage, the adoption of the pail-system, or some dry-earth system is suggested. Mr. Scougal's short experience has already taught him that the difficulty of dealing with a combination of this kind, consisting of a number of small districts, is not an imaginary one; and that, if sanitary work is to be proceeded with, the fusion of some of the authorities is greatly to be desired.

OKEHAMPTON RURAL.—Mr. Linnington Ash has contrived in a very creditable manner to produce an interesting report from some rather commonplace details. Fortunately, the year was characterised by an absence of any serious or widespread epidemic of infectious disease. Ten deaths only were registered from the seven principal zymotic disorders, as against 16 in the previous year, and 37 in 1880 and of these 7 were from diarrhœa. There was an outbreak of typhoid at Drewsteignton; and although the introduction of the poison could not be traced, the spread was clearly attributable to the specific pollution of the drinking-water. Of twelve persons who used this water, eight contracted fever, and two died. There were 225 deaths registered in the district from all causes, representing a death-rate of 14.73 per 1,000, against 15.9 recorded in 1881. Twenty-nine persons succumbed to heart-disease. From phthisis there were but 11 deaths, as against 30 in the previous year, 23 in 1880, and 24 in 1879—a remarkable diminution, but one which is probably purely accidental. The sanitary authority are again reminded by Mr. Ash of the urgent need for improvement in many directions; but it should be noted that some progress is slowly and gradually being made in respect to excremental removal, which has so long been a matter of complaint. The authority have, however, much work to accomplish before their district can be considered in a satisfactory condition.

STRETFORD.—Mr. Pettinger's report errs on the side of brevity. While it cannot be said that any point of importance is overlooked, the part devoted to an account of the prevalence of zymotic disease would certainly bear expansion. Of the 295 deaths registered during the year, 113 were under five years of age, yielding a death-rate of 5.65 per 1,000, or 38 per cent. of the total number. There were 62 deaths in persons aged sixty years and upwards. From all causes the death-rate was 14.75 per 1,000; and from zymotic disease, 1.95. Two cases of small-pox appeared in the district; but early notification of their occurrence and the prompt measures adopted for their treatment, prevented any spread of the disorder. Mr. Pettinger returns 6 deaths from typhoid fever, and 2 from enteric fever; but it is not quite clear why the two definitions have been used. Most of the infected houses had defective sanitary arrangements, which were remedied after inspection. There was an increased mortality from diarrhœa, the largest number of deaths happening, as usual, in the third quarter of the year.

TORQUAY.—Mr. Karkeek has a very satisfactory state of things to record for 1882. The death-rate—a matter of no small importance to the town as a health-resort—was as low as 14.6 per 1,000, while there was but little prevalence of zymotic disease. There were two deaths from typhoid fever, both of which were found in association with defective sanitary conditions; and some few cases of measles and scarlatina. Two persons suffering from this last disorder were found living at a house where the businesses of a dairy and laundry were carried on. The objectionable relationship of these trades is obvious; but in the present case the proprietor was somewhat astonished at the health-officer's objection to their continuance under the same roof, and unwillingly submitted to their severance. Considerable progress was made in the sanitary arrangements of the district, the most important being the commencement of the new sanitorium and the completion of a new main sewer. Active steps have also been taken for the extension of the water-supply, which, when completed, will enable the inhabitants to enjoy a constant service.

WALKER-ON-TYNE.—The fatal prevalence of scarlatina, which accounts for 62 out of the 92 deaths in Walker attributed to zymotic cases during 1882, seems to have been greatly assisted by the widespread ignorance and carelessness of the people. Mr. Hurst remarks that, with scarcely an exception, the inhabitants seem to be entirely ignorant of the fact that scarlatina is an eminently infectious disease, and that the poison by which it is spread is most persistent and active, and is readily carried about in the clothes. This, unfortunately, is a common experience with most health officers, who have abundant reason for deploring the remarkable ignorance displayed by people generally with regard to infectious disease. As many as 37 cases of small-pox occurred in the township in 1882, some of which were of a very severe type; but there were only two deaths registered from the disease, one being an unvaccinated infant seven weeks old, and the other an adult whose constitution was much debilitated previous to the attack. This low rate of mortality is accounted for by the fact that vaccination is most thoroughly and efficiently carried out in the district. The death-rate from all causes, which was as high as 23.4 per 1,000, was considerably augmented by the fatality from scarlet fever. Of the 115 deaths of children under five years of age, no fewer than 56 were from zymotic causes, diarrhœa accounting for 14, and scarlet fever for 38. The sanitary condition of the district is in a very defective state; and despite Mr. Hurst's reiterated recommendations, he is unable to convince his authority of the urgent necessity for improvement.

WELLINGBOROUGH RURAL.—Mr. Thomas has done well in framing his first report on the lines set out in the selected reports issued by the Central Board for the guidance of health officers. The report contains a fairly complete analysis of the zymotic mortality and the local distribution of deaths, and concludes with a statement of the general sanitary condition of the district, and a record of the progress made during the year, with some practical suggestions for further improvement. Scarlet fever was generally prevalent throughout the district, and altogether as many as 200 cases occurred, with 6 deaths. The inherent carelessness of parents seems to have been responsible, in a great measure, for the fatal spread of measles and whooping-cough, which together destroyed 22 lives. Of 13 deaths registered from typhoid fever, 7 occurred at Irchester, where the disease assumed a severely epidemic form. The first case was probably caused by the use of polluted well-water; and the general unsanitary condition of the village, notably overcrowding, favoured the rapid spread of the disorder. In another portion of the district the infection was diffused through the clothes of the first patient having been sent to be washed without previous disinfection; but here, as in other villages, the sanitary condition was far from satisfactory. The death-rate from all causes was 15.6 per 1,000, and from zymotic diseases, 2.2. The sanitary authority have much to do before their district can be considered in a wholesome state. Generally speaking, the water-supply is defective, and the house-drains are too often very imperfect. In some villages, a system of scavenging has been successfully carried out, but there is still ample room for extension. The report, however, indicates that the authority are beginning to recognise the need for action, and Mr. Thomas seems quite capable of keeping their work prominently before them.

CARLTON URBAN.—Of the total deaths recorded in this newly constituted district, sixty-one, or more than one-half, occurred in children under five years of age, while forty-four had not completed

twelve months of existence. Mr. Knight holds exposure, errors of diet, and defective sanitary arrangements to be responsible for this mortality. Measles, he observes, is a disease the complications of which appear to be totally disregarded by many parents until the sufferers are dangerously ill. This is a common experience with health-officers; and but little improvement can be looked for until parents are convinced that this disease is not a trivial form of malady, which can be lightly neglected. Reference is made to the common practice of feeding infants with large quantities of bread and other indigestible food, and to the ignorance displayed by parents in this respect. The death-rate—18.18 per 1,000 of population—although not so high as in previous years, is far from satisfactory. Zymotic diseases caused twenty-one deaths, whooping-cough and measles being each responsible for six. Mr. Knight has lost no time in becoming practically acquainted with the sanitary condition of his district, which is in a deplorable state; and he does not hesitate to remind his authority of the imperative necessity of decisive steps being at once taken.

FROME RURAL.—Mr. Parsons has a very satisfactory state of things to record for the past year, which was marked by an almost total absence of zymotic disease. There were some isolated cases of scarlatina of a very mild type, but the measures adopted prevented any general spread of the disorder. The mildness of the attacks, however, caused some difficulty; for Mr. Parsons found it no easy task to impress upon parents the importance of warding off from others a malady which seemed to cause so little suffering or danger to their own children. A severe case of enteric fever occurred at Murtrey; and an examination of the premises revealed a very unwholesome condition of water-supply, the same cause being probably responsible for an outbreak of fever of a low type at Beckington. Steps were taken to improve the water-supply of these and other places; but the whole question is one which calls for the immediate and sustained attention of the sanitary authority. The mortality-statistics are very imperfectly dealt with in the report. The deaths in the different districts are given, as well as the causes from which they were registered; but the birth and death-rates are not calculated.

WINDSOR.—Dr. Casey did not enter upon his duties as health-officer for this district until January of the present year, so that his report for 1882 is necessarily incomplete. He has, however, prepared an interesting analysis of the mortality-statistics in a manner which augurs well for future reports. The death-rate from all causes represented 16.3 per 1,000, and that amongst children under five years, 5.5 per 1,000. This last rate, however, showed a wide divergence in the two divisions of the borough, for while of 1,000 children born alive in Windsor parish, about 835 would reach their sixth year, of a corresponding number born in Clewer parish, probably 270 would perish in their first five years. As Dr. Casey well observes, it would not be an exaggeration to say that one half this number are sacrificed through ignorance or carelessness of the laws of health. Twenty deaths were recorded from zymotic causes, 10 being referred to diarrhœa, and 6 to whooping-cough. The fact that no fatal case of enteric fever has occurred in the district for two successive years, is a matter of no small import, and is a fair subject for congratulation. Dr. Casey concludes his report with a well-timed reference to the mortality from phthisis in Windsor, which he thinks is higher than it should be. In pointing out to his authority the known influence of dampness of site in fostering this disease, he urges them to adopt rigorous measures for regulating the construction of new buildings.

ALTON URBAN DISTRICT.—In this small urban district, which has a population of 4,500 persons only, 156 births and 77 deaths were registered during 1882, representing rates of 34.6 and 12.4 per 1,000 respectively. In commenting on the prevalence of zymotic diseases, Dr. Edward Leslie has little of interest to record, but he notes with satisfaction that no death occurred from either diarrhœa or dysentery, and that during the last three years small-pox, diphtheria, and typhus fever have been unknown in the town. To measles eight deaths are referred, but the report contains but little account of the circumstances attending this fatality, nor does it show from what diseases the 65 patients were suffering who were admitted into the cottage hospital. Indeed, in most respects, the report would well bear expansion.

BATH URBAN.—Dr. Brabazon gives an interesting instance in his report on this district for 1882 of the value of sanitary efforts, and of their effects in the diminution of infectious disease. During the period between October 1863 and September 1864, scarlet fever prevailed in an epidemic form in the city, and destroyed 214 lives out of a total of 1,331 from all causes, while, in 1882, scarlet fever was responsible for 21 out of a total of 1,035 deaths. Dr. Brabazon thinks that when the duration and fatality of the epidemic of 1863-4 is contrasted with the conditions and consequences of the same disease as it occurred in 1882, the greatest sceptic in sanitation must allow that something more than mere accident must exist to produce the favourable results proved by contrasting the effects of the recent and remote invasion of this troublesome and preventible disease. The validity of this argument is, however, open to serious question, and the comparison would have possessed greater weight had the figures for the years 1863 to 1882 appeared in the report. Excluding scarlet fever, zymotic diseases were not present in any severe form, and accounted for 33 deaths out of a total of 1,035. The general death-rate, 19.5 per 1,000, maintains the average of the past five years, a noticeable feature of the statistics being the large number (106) of persons who were aged 80 and upwards at the time of their death. Phthisis was fatal to 106 persons, bronchitis to 111, and heart-disease to 105.

BECCLES.—The past year was very uneventful in Beccles; and, in addition to reporting a satisfactorily low rate of mortality (13.8 per 1,000), Mr. Crowfoot has to record but three deaths from zymotic diseases. In referring to these, the health-officer notes that almost every year some peculiarity, either in the prevalence of one disease in preference to another, or in peculiarity in the form or character of the disease itself, has occurred. In one year, measles and whooping-cough are the prevailing diseases; in another, scarlet fever and chicken-pox; and in different years, different types of these several disorders prevail. The summer-diarrhœa, which usually makes its appearance between July and September, was absent again in 1882, as it was in the previous year and also in 1879, the state of the weather during these years being unfavourable for its production; while in 1880, when there was at this particular season a high temperature, combined with great dryness of the atmosphere, an outbreak of the disease occurred. During the summer and autumn months, there were several cases of an eruptive disease amongst children, very similar in some respects to scarlet fever, yet differing entirely in other respects. The disease was characterised by an eruption on the soft palate and on the skin, exactly similar to the appearance presented by a case of scarlet fever; it was also associated with the same high temperature and constitutional disturbance during the time the eruption lasted. In no case that came under the health-officer's notice, however, did the disease terminate fatally, or present any grave constitutional symptoms. It is a pity that Mr. Crowfoot's thoughtful and interesting report is not printed in some more worthy shape.

BRANDON AND BYSHOTTLES.—Climatic influences appear to have played an important part in the mortality among young people and aged people in this district during 1882. In the month of June, there were thirty deaths registered, and upwards of a third of them were referred to whooping-cough and diseases of the chest. This month was considerably colder and more cloudy than usual, and the rainfall was in excess of the average. The month of December was remarkable for the deaths amongst infants caused by acute bronchitis and pneumonia, the result of an outbreak of measles. During the latter part of November and the following month, upwards of 200 cases of this disorder occurred, but Mr. Blackett was unable to trace the origin of the outbreak. He comments in severe terms upon the gross carelessness and culpable negligence of some of the parents, and he instances one case where he found a child running out of the house after its mother without shoes or stockings, with the snow lying knee-deep, and with the rash of measles on the child's skin. Having regard to this and similar instances of neglect, it is not remarkable that twenty-five out of a total of thirty-eight deaths from bronchitis and pneumonia should have occurred among children under five years. Referring to the prevalence of zymotic diseases, which destroyed fifty-eight lives, against twenty in the previous year, Mr. Blackett thinks that some of the mortality must be held to be due to the influx of about 1,430 persons of migratory habits into the district. The report contains but a brief account of this increased fatality, the reader being referred to the appended monthly statements for further details, an arrangement open to grave objection. From all causes, the death-rate represented 19.6 per 1,000 of population. The sanitary condition of the district appears to have received considerable attention at the hands of the health-officer, who gives a succinct account of the improvements effected since the visit of Mr. Spear, of the Local Government Board, and of the injurious conditions that yet remain to be removed.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 27th, 1883.

Appleford, Stephen Herbert, Finsbury Circus, E.C.
Clayton, Geoffrey Sherborne, Fairfax Road, N.W.
Skardon, Charles Chapman, Westbourne Park Crescent, W.
Wilson, John Grant, Monmouth.

The following gentleman also on the same day passed his Primary Professional Examination.

Forden, George, Stafford Infirmary.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH ASYLUM, Birmingham.—Clinical Assistant. Applications to the Superintendent.

BOROUGH OF OKEHAMPTON, Devon.—Medical Officer of Health.—Salary, £16 per annum. Applications to R. Fulford, Clerk, by October 16th.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon. Salary, £140 per annum. Applications by November 5th.

BRISTOL ROYAL INFIRMARY.—Assistant Resident Medical Officer and Pathologist. Salary, £80 per annum. Applications by October 23rd.

CHICHESTER INFIRMARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications by October 22nd.

CHICHESTER INFIRMARY.—Assistant House-Surgeon. Salary, £20 per annum. Applications by October 22nd.

CITY PROVIDENT DISPENSARY AND SURGICAL APPLIANCE ASSOCIATION, 164, Aldersgate Street, E.C.—Surgeon. Applications to the Secretary.

ENNISCORTHY DISTRICT LUNATIC ASYLUM.—Visiting and Consulting Physician. Salary, £100 per annum. Election on October 18th.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—Resident Medical Officer. Salary, £120 per annum. Applications to the Honorary Secretary, 13, Kilburn Park Road, Maida Vale, W., by October 10th.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum. Applications by October 17th.

QUEEN'S COLLEGE, Belfast.—Professor of Anatomy and Physiology. Candidates to forward testimonials to the Under-Secretary, Dublin Castle, not later than the 20th October.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Assistant-Physician. Applications by October 6th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Surgeon. Applications by October 6th.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road.—Pathologist. Applications by October 6th.

SOUTH LONDON MEDICAL AID INSTITUTE, 300, Waterloo Road.—Medical Officer. Applications to the Honorary Secretary.

MEDICAL APPOINTMENTS.

ACLAND, T. D., B.M., appointed Assistant-Physician to the West London Hospital, *vice* D. A. King, M.B., resigned.

ALEXANDER, J., M.D., appointed Extra-Professorial Examiner in Medicine in the University of Edinburgh.

ANDERSON, J., M.D., appointed Extra-Professorial Examiner in Medicine in the University of Edinburgh.

CAMPBELL, A., M.D., appointed Extra-Professorial Examiner in Medicine in the University of Edinburgh.

FOTHERBY, H. A., M.R.C.S.Eng., L.S.A.Lond., appointed Assistant Medical Officer to St. George's Union Infirmary and Workhouse, *vice* Thomas Baker, M.R.C.S., L.S.A., resigned.

GANDEVIA, N. J., M.R.C.S., appointed Junior Resident Medical Officer to the Great Northern Hospital, *vice* F. J. Hebb, M.R.C.S., resigned.

HALLIBURTON, W. D., B.Sc., M.R.C.S., appointed Sharpey Physiological Scholar, University College, London.

HAWKYARD, A., L.R.C.P., appointed Assistant Medical Officer and Dispenser to the Leeds Union, *vice* T. B. Thomson, M.B., resigned.

JACKSON, John Henry, M.B., appointed Senior House-Surgeon to the Royal Albert Edward Infirmary and Dispensary, Wigan, *vice* J. A. Webster, resigned.

LLOYD, J., F.R.C.S., appointed Honorary Surgeon to the Queen's Hospital, Birmingham, *vice* J. F. Weft, F.R.C.S.

MOORE, J. W., M.R.C.S., appointed Casualty Surgeon to the Queen's Hospital, Birmingham, *vice* J. Lloyd, F.R.C.S., resigned.

PAGE, F. J. M., B.Sc.; F.C.S, elected Demonstrator of Practical Chemistry at the London Hospital Medical College.

PROWSE, Arthur B., M.D.Lond., F.R.C.S.Eng., appointed Assistant-Physician to the Bristol Royal Infirmary.

SKEETE, F. de C., M.R.C.S., appointed Resident Clinical Assistant to the East London Hospital for Children, Shadwell, E., *vice* F. W. S. Stone, M.R.C.S.

VINCENT, G., M.B., appointed House-Surgeon to the Worksop Dispensary, *vice* E. Fielding, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BROCK.—On the 25th September, at the Old House, Dorking, the wife of Alexander Cameron Brock, L.R.C.P.Lond., M.R.C.S., of a son.

LLOYD.—On the 22nd September, at Tynycoed, Barmouth, the wife of H. J. Lloyd, L.R.C.P., L.S.A., etc., of a son.

REID.—At St. Helens, Lancashire, on the 28th September, the wife of James Reid, M.B., C.M., of a son.

MARRIAGE.

VORES—HAZLERIGG.—October 3rd, at Goadby, Leicestershire, by the Rev. W. Vale Bagshawe, assisted by the Rev. J. C. Davenport, Arthur Vores, M.R.C.S., fourth son of W. Vores, Esq., M.D., of Yarmouth, to Gwendoline Frances, youngest daughter of Sir Arthur Grey Hazlerigg, Bart., of Noseley Hall.

THE General Organising Committee of the eighth International Medical Congress, which will be held in Copenhagen from the 10th to the 16th of August, 1884, is composed of the following members, living either in or near Copenhagen:—President, Professor Dr. P. L. Panum; Secretary-General, Professor C. Lange; Secretaries, Dr. O. Bloch, Dr. C. F. Salomonsen, and Surgeon-General John Moller; Honorary Treasurer, Professor Dr. E. Hansen Grut; besides the presidents of the special committees of—the Section of Anatomy, Professor Chievitz; Physiology, Professor Dr. P. L. Panum; General Pathology and Pathological Anatomy, Professor Dr. C. Reiss; Medicine, Professor D. F. Trier; Surgery, Professor Dr. Holmer; Hygiene and State Medicine, Dr. E. Hornemann; Military Surgery and Medicine, Director-General of the Medical Department of the Army Salomon; Mental and Nervous Diseases, Professor Dr. Steenberg; Obstetric Medicine and Surgery, Gynæcology, Professor Dr. Stadfeldt and Professor Dr. Howitz; Diseases of Children, Professor Dr. Hirschsprung; Ophthalmology, Professor Dr. E. Hansen Grut; Diseases of the Skin and Syphilis, Professor Dr. Hasland; Diseases of the Ear, Dr. W. Meyer; Diseases of the Throat, Dr. W. Meyer. The special committees formed for the aforesaid sections have, when they found it useful, completed their number by members living outside Copenhagen, partly in Denmark, partly in the other Scandinavian countries. In order that the meeting of so many distinguished medical men, whom they hope to see on this occasion, may be as advantageous as possible, the Organising Committee, following the example of the later Congresses, will communicate with distinguished men of different branches and of different countries, in order to prepare a programme. This programme, as well as the rules, will be forwarded to those who are supposed to take an interest in the work of the Congress, and who might be inclined to participate in it. In order that the programme may be ready as soon as possible, it is desired that the communications referring to the work of the Congress, be sent to Dr. Lange, the Secretary-General, before October 1st. The programme and rules will be forwarded, as soon as possible, to everyone qualified to participate in the Congress, who within the limited time, has announced to the Secretary-General his interest in the Congress, and his eventual intention of participating in it; if possible, also, which section be chiefly intends joining.

THE FOLLOWING GRANTS, amongst others, for scientific purposes, were recommended and approved at the recent meeting of the British Association for the Advancement of Science at Southport. Biology—Professor Newton, Zoological Bibliography, £50; Mr. P. L. Sclater, Natural History of Timour Land, £50; Professor Ray Lankester, Table at the Zoological Station at Naples, £80; Mr. J. Park Harrison, Facial Characteristics of Races in the British Isles, £10; Sir J. Hooker, Exploring Kilimanjaro and the adjoining Mountains of Equatorial Africa, £500; Mr. J. Cordeaux, Migration of Birds, £20; Dr. M. Foster, Coagulation of the Blood, £50; Mr. H. T. Stainson, Record of Zoological Literature, £100.

IT is understood that Dr. Orange, the medical superintendent of Broadmoor, who was recently sent down to Chelmsford to see the convict Gouldstone, entertains no doubt of his insanity. His mother and aunt were both insane, and his great uncle committed suicide. He himself appears to have had a suicidal mania, and it is believed that he went out with the intention of drowning himself on the very day that he murdered his children. His wife, who is a very respeetable young woman, says that he has shown signs of madness for the last twelve months.

THE Chapel-en-le-Frith Guardians have increased the salary of Dr. Anderson, the Medical Officer for the parish, from £40 to £5 per annum.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Hunterian Society, 7.15 P.M. Council. 8 P.M. Dr. Stephen Mackenzie: On Some of the Rarer Skin-Diseases.

THURSDAY.—Ophthalmological Society, 8.30 P.M. Address by the President, Mr. Hutchinson, F.R.S. Dr. S. Mackenzie: Cases of Retinal Hæmorrhage. Dr. Sharkey: Case of Homonymous Hemianopia due to a Cortical Lesion. Mr. Nettleship: 1. Case of Homonymous Hemianopia due to Lesion of Chiasma or Tract; 2. Case of Sympathetic Iritis following Immediate Excision of Eye for Injury. Living specimens at 8 o'clock. Dr. J. A. Ormerod: Left Hemiplegia, with Subsequent Contraction of the Field of Vision of the Opposite Eye. Dr. Brailey: Two Exceptional Cases of Glaucoma.

FRIDAY.—Clinical Society of London. Dr. Goodhart: Three Cases of Peritoneal Abscess in Children. Dr. Bastian: 1. An Anomalous Case of Cerebro-spinal Sclerosis; 2. Rupture of a Large Aneurysm in the Left Corpus Striatum, with Intraventricular Hæmorrhage, and Extreme Lowering of Rectal Temperature; 3. Apoplexy in a Boy aged 15, with Intraventricular Hæmorrhage, Convulsions, and Death in Four Hours. Dr. Althaus: Case of Syphilis of the Cerebral Arteries, with Gummatous Tumours permeating the Dura Mater.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annua and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MR. HIND.

SIR,—We are requested to inform you that a meeting of the friends and former pupils of Mr. George Hind, F.R.C.S., will take place at the Briton Life Office, West Strand, to-morrow (Thursday), at 5 P.M., to consider the best means of organising some plan of speedy and permanent relief of Mr. Hind, who, in his eighty-first year, is not only straitened in circumstances, but incapacitated for work by serious illness. Your attendance at the meeting will oblige.—Your obedient servants,

A. J. PEPPER, } Secretaries,
THOMAS WAKLEY, jun., } *pro tem.*

122, Gower Street, October 3rd, 1883.

MEDICAL REPRESENTATION IN PARLIAMENT.

SIR,—Surgeon-Major Alcock's suggestion for the creation of a medical parliamentary association seems to me very valuable. He proposes, however, to go no farther than to defray the expenses of contested elections, and to refund actual outlay incurred in the performance of parliamentary duties. I am one of those who advocate "payment of members." Were members of Parliament paid a moderate but sufficient stipend, one of the results would be to supplant many of those rich men, whose leading notion is that the House of Commons is "the best club in London," by useful, hard-working members of scientific and literary distinction. Amongst these, it cannot be doubted, would be found a fair proportion of medical practitioners. But the chances of the adoption of the practice of payment of members by the country at large are, I dare say, remote. A considerable interval must elapse before this becomes a burning question. Meanwhile, I quite concur with Dr. Alcock in thinking that the medical profession cannot, under existing circumstances, "achieve political power without paying for it."

R. T. R. asks for particulars of any institution in the vicinity of London in which a patient of his, a man of weak intellect, who simply requires attention and looking after by somebody with a little firmness of character, can be placed. He is unable to say exactly what the patient's relations are disposed to pay for his board and residence, but thinks they could afford from twenty to twenty-five shillings per week.

TEMPERANCE AND HEALTH.

SIR,—I read with great interest the letter from "An Abstainer of Thirty Years Standing," which appeared under the above heading in your issue of September 22nd.

I was greatly surprised to note that he was so much disappointed at the effect of total abstinence on health. Excluding drunkards, he says of those who abstain, "there is assuredly no distinct improvement of health." Do facts support this gloomy view? In the United Kingdom Temperance and General Provident Institution, it is found that, out of equal numbers, 67⅓ of the total abstainers die for 100 of the general section. In the Sceptre office, only 60 abstainers die for 100 in the general section. The Rechabites have but little more than half the annual sickness of the Oddfellows, and about two-thirds their death-rate; and the experience of the Sons of Temperance is about the same. These facts would go to show that total abstinence greatly improves health; and the immense preponderance of cases, actually caused by drink, at our dispensaries and hospitals, exhibit whole classes of illnesses to which abstainers cannot be subject. The report of the Collective Investigation Committee seems to point to the same fact.

The writer of the letter brings an apparent charge against temperance which is surely undeserved: "illegitimacy is quite, I believe, as common among the teetotal young people." The principles of children can have no effect on their origin; but the adoption of good principles may prevent the evil being repeated in another generation. With regard to the women of ill fame who are abstainers, the important questions are: Were they abstainers when they first fell? and, now that they are abstainers, is any opportunity afforded them of entering a refuge?

There are few subjects of greater general interest than the effects of alcohol on health, and none on which authoritative information would be of greater use. Either alcohol is of use, or it is not; in the latter case, few could hesitate to try and abolish the use of a luxury which is working such evils around them. The Collective Investigation Committee would earn widespread gratitude by undertaking the collection of the experience of the members of the profession on this point.—Faithfully yours,

E MACDOWEL COSGRAVE, M.D.

TREMORS AMONGST LENS-POLISHERS.

SIR,—I shall be much obliged to any of your correspondents who will inform me of any case of tremors, spasm, or paralysis occurring in the arms of those whose occupation it is to polish lenses, or to perform similar work, involving continuous pressure against a rapidly revolving cylinder or wheel.—I am, etc.,

H. DONKIN.

60, Upper Berkeley Street, Portman Square, W., October 3rd, 1883.

Lawn-tennis Elbow.

Sir,—In the Journal for September 15th there appeared a communication from Mr. Morris, in which he attributes the above affection to a sprain of the pronator radii teres and adjacent fascia. In my humble opinion, this explanation will scarcely account for all the symptoms of which complaint is usually made. I am inclined to believe that the pain and weakness felt in the arm are brought about by injuries inflicted on the nerves, arising from their being pressed upon, or pinched, by the adjacent muscles during their sudden and jerky action. Dr. Major, in relating his own personal experience, complained of "the annular ligament around the head of the radius, and the triceps muscle" having been affected. Now the position of the musculo-spiral nerve, as it winds round the humerus, between the two heads of the triceps, renders it extremely liable to be compressed in more ways than one. In the case of the posterior interosseous nerve (one of the main branches of the musculo-spiral), it passes through the substance of the supinator brevis muscle, where it would be all the more liable to become pinched by any unusual action of the muscular fibres.

With regard to the pronator radii teres, this muscle may frequently become sprained as Mr. Morris has pointed out; yet, even in this case, we must not leave out of consideration the important fact that the median nerve passes down the arm between the two heads of the muscle. I should not have ventured to have contributed to the discussion of this subject, had I not been sincerely anxious to arrive at the truth.—I am, sir, yours faithfully,

Shefford, Beds, September 18th, 1883. C. E. Winckworth.

"THE FAIRY TALES OF SCIENCE."

(Inscribed to the "Red Lions" of the British Association.)

Strange are all the tales of olden ages,
All the wondrous lays of fairy lore,
Shrined in legends on the well-thumbed pages,
Dear to childhood's heart for evermore.
Though the elves have left the leaves and roses,
Fled perchance to unknown lands afar,
Still more strange each tale the Century knows is—
Records of the land and sea and star.

Puck could girdle earth in forty minutes—
So said Shakespeare's elf with boastful mind;
Electricity can start and win its
Wondrous race, and leave the fay behind.
Send a maiden telephonic greeting,
Where the Mississippi's waves are curl'd,
You shall hear how true her heart is beating,
Under all the seas of half the world.

Yonder child with Fever's hand is s'ricken,
Science comes to ease the labouring breath,
Shows how germs are born and how they quicken;
Air and water may be charged with death.
See the microscope new scenes preparing,
In the Wonderland its bright lens gives,
And the physiologist declaring,
That great paradox, "Life dies, death lives."

How mankind, in ages prehistoric,
Lived on lake, in cave, or by the sea,
Science tells, and how, with meteoric
Speed, his flinty arrowheads would flee.
Mastodons would walk the woods primeval,
Pterodactyls mighty wings would raise,
When the ichthyosaurus lived coëval
With the Mammoth monsters of old days.

See the pale astronomer unsleeping,
Galileo's spirit in his soul,
Watches, as some comet's train comes sweeping
Where the immemorial planets roll.
Star on star shines on beyond all naming,
Haply Principalities and Pow'rs;
All the mighty Universe proclaiming—
There are certes other worlds than ours,

List, then, to the Fairy Tales of Science,
Solemn and stupendous and sublime;
Nature's voice speaks out in proud defiance
To the puny sceptics of our time.
Age to age speaks on, each generation—
Finds new wonders coming at its call,
While wise men, be sure, of every nation,
Recognise the First Great Cause of all!—*Punch.*

The Ammoniacal Decomposition of Urine.

Sir,—In his address before the Section in Biology of the British Association, Professor Ray Lankester is reported to have said that microscopical research has shown that the ammoniacal decomposition of urine in inflammation of the bladder is entirely due to the activity of a bacterium, which is at once killed by weak solutions of quinine. I shall be glad if anyone will inform me of the proper strength for the solution, as, in a case in which I tried it, the result was utter failure.—I am, sir, yours faithfully, W. K.

Mr. J. W. Lax.—In Chemistry: Miller's *Elements of Chemistry*, vol. ii; or Thorpe's *Inorganic Chemistry*, vols. i and ii; or Roscoe and Schorlemmer's *Treatise on Chemistry*, vols. i and ii; or Fownes's *Manual of Chemistry*. In Botany; Henfrey's *Elementary Course of Botany;* Pranth and Vines' *Text-book of Botany;* Thorne's *Botany;* Bentley's or Balfour's *Botany*.

The Origin of Cholera.

Sir,—I have no work to refer to, but, if I remember rightly, butyric acid, when taken internally, produces symptoms like cholera; and the acid is formed when dead animal-matter is left for some time in water. If this be right, then, as the Ganges and the Nile have presented the conditions favourable for the formation of the acid, may not some of the cholera near both rivers be accounted for? A great outbreak of cholera occurred in Shanghai in 1863, after the Taeping rebellion, and when the rivers contained numerous dead bodies.—I am, etc., T. M.

Bombay, September 3rd, 1883.

A Correction.

Sir,—Please notify the following corrections in my letter on the death-rate of anæsthesia in last week's Journal: *for* "both together 1 in 13,038," *read* "1 in 5,156;" instead of "1 in 966" for the death-rate at University College, *read* "1 in 866;" *for* "To sum up, the average mortality will be 1 in 1,448," *read* "1 in 1,540."—Yours, etc., W. Roger Williams.

1, Bentinck Street, Cavendish Square, W., September 29th, 1883.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. H. Baptist Crofts, Nottingham; Dr. Willoughby, London; Dr. P. Boevner, Berlin; Mr. R. Little, Rathoe; Dr. C. M. Campbell, London; Mr. E. L. Freer, Birmingham; Mr. W. Hamilton Allen, Bardney, Lincoln; Town Clerk, Hastings; Dr. J. Wickham Barnes, Poor-Law Medical Officers Association: The Secretaries of the Briton Life Office; The Sanitary Institute of Great Britain; Dr. R. Beales, Congleton; Dr. Macpherson, London; Dr. Klein, London; Mr. C. G. Wheelhouse, Leeds; Dr. Arthur Pearce, Salcombe; Dr. Fairlie Clarke, Southborough; Dr. W. Hale White, London; Dr. H. Donkin, London; Mr. Eastes, London; The Secretary of the Faculty of Physicians and Surgeons, Glasgow; Dr. Brailey, London; Mr. Treves, London; Dr. Murdoch Brown, Edinburgh; Dr. G. Beatson, Glasgow; Dr. Heedman, Liverpool; Dr. Sidney Coupland, London; Dr. J. M. Redmond, Dublin; The Honorary Secretaries of the University College, London; Dr. Carter, Liverpool; Mr. C. W. Thorp, Todmorden; Mr. W. Arnold Thomson, Ampthill; Our Dublin Correspondent; Mr. J. N. Spilling, Manchester; Mr. Horace Turner, Norwich; Mr. J. H. Stride, Brighton and Hove Dispensary; The Honorary Secretary of the Meath Hospital; Mr. A. H. Barrett, Wallingford; Mr. E. Blacker, Midsomer Norton; Mr. R. Tudor-Risk, Harrow; Mr. J. W. Anderson, Barrow-in-Furness; Mr. H. A. Pitman, London; Dr. Walter, London; Dr. Grimshaw, Dublin; The Secretary to the East York and North Lincoln Branch; Dr. Robinson, Dublin; Dr. E. H. Monks, Wigan; Dr. Bartlett, Birmingham; Dr. A. B. Frowse, Clifton; Dr. G. Brown, London; Our Glasgow Correspondent; Dr. Halliburton, University College; Dr. Finney, Dublin; Mr. George Terry, Wells, Frome; Dr. Emrys-Jones, Manchester; Mr. McHarry, Belfast; Dr. S. Ringer, London; Mr. John A. Sharp, Derby; Dr. W. Scott, Aughnagloy; Dr. E. C. Anderson, Darlington; Dr. William Walter, Manchester; Mr. E. Crowther, Manchester; Dr. A. H. Newth, Hayward's Heath; Dr. H. W. Webster, London; Mr. C. J. Bond, Leicester; Our Aberdeen Correspondent; Dr. Sawyer, Birmingham; Mr. R. E. Tower, Portsmouth; Mr. Bennett May, Birmingham; Mr. Arthur F. Mickle, London; Dr. Stirling, Aberdeen; Dr. A. W. Wallace, Parsonstown; Sir Joseph Fayrer, Craigsanguhar; Dr. A. H. Hassall, London; Dr. D. J. Leech, Manchester; Dr. W. A. Herdman, Liverpool; Mr. Tweedy, London; Mr. Boyce Barrow, London; Dr. Crichton Brown, London; Dr. Mackie, Alexandria; The Secretary of the Local Government Board; Mr. G. E. Herman, London; Mr. E. Henderson Smith, London; Dr. G. R. Leeper, Kesh; Dr. Grant Bey, Cairo; Messrs. Allen and Hanburys, London; Professor E. A. Schafer, London; Dr. Murrell, London; F. H. T.; Mr. Vincent Jackson, Wolverhampton; Dr. C. E. Glascott, Manchester; Office of Sanitary Company, Punjaub; Dr. J. E. Dowlery, Ballymoe; Dr. W. Roger Williams, London; Messrs. Wilson and Son, Harrogate; Mr. H. Finch, Colchester; Dr. Arthur Gamgee, Bowdon; Mr. C. J. Power, London; Dr. Strange, Worcester; Mr. F. T. Paul, Liverpool; The Secretary of the Apothecaries' Hall, London; Mr. W. T. W. Greathed, Bristol; Dr. F. T. Paul, Liverpool; The Secretary of the National Association for the Promotion of Social Science; Mr. E. Soulby, Great Grimsby; The Secretary of the Pharmaceutical Society of Great Britain, London; Mr. P. Maguire, Manchester; Dr. C. Allbutt, Leeds; Mr. W. H. Bennett, London; Dr. F. Barnes, London; Dr. P. F Foster, New York; Mr. W. J. Mackie, Turney; Messrs. J. Lloyd, Bullock and Co., London; Dr. Joseph Rogers, London; A Colonial Member; Dr. W. H. Sizer, Havre; Dr. Gordon Holmes, Londou; Mr. Talfourd Ely, London; Messrs. Hughes and Lancaster, Chester, etc.

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INTRODUCTORY ADDRESS

ON THE

INTERVENTION OF THE STATE IN THE AFFAIRS OF THE MEDICAL PROFESSION.

Delivered at the Annual Distribution of Prizes at the London Hospital Medical College.

BY PROFESSOR HUXLEY, P.R.S., ETC.

THE duty that I have just had the honour to perform, ladies and gentlemen, is an exceedingly pleasant and a very easy one, and, so far as I am concerned, I could wish that my duties this evening ended at the present point, because I am under orders to follow up the proceeding which has now taken place by an address, and that, at any rate so far as I am concerned, is not quite so easy or quite so pleasant. But, in turning over in my mind the topics upon which it might be expedient to address a few remarks to you, I imagined that my audience would be composed entirely of busy professional men, or of students who, as we know, are always immersed in the laborious acquisition of the knowledge which is required for their profession, or of those ladies who are devoting themselves to a familiarity with the not less important duties of attendance upon the sick bed. But I observe that my audience is not entirely composed of these purely professional elements. On the other hand, if I mistake not, there is a very large infusion of the general public, and therefore I count it as a fortunate circumstance that I happen to have hit upon a topic which has an enduring and very great interest for the profession, and yet, at the same time, concerns the general public more than they think. That topic is the question of the intervention of the State into the affairs of the medical profession.

Many of you may, perhaps, wonder why I should have chosen a topic of this kind, and I fear that a great many may suspect me of some presumption in meddling with a question with which it is notorious that I have had nothing practical to do for the last thirty odd years, namely, the practical duties of a medical man. And, indeed, it is that time since I had anything to do with the important duties which all those who are studying in this hospital are endeavouring to learn to perform. But although the course of my life turned me aside from the practical business of the medical profession at that remote date in the past, I may say that I have never failed to prize very highly the honour and the privilege of being a member of that which is, in my judgment, the noblest and the most useful of all professions. And if I had been disposed to forget that fact (Could I have been so ungrateful as to ignore that which was of infinite service to me as an introduction to my own special career?), yet circumstances have kept me in constant relation with the profession. For some dozen years I was an examiner in the University of London, and quite recently, within the last two years, I had to take part in the proceedings of a certain royal commission which had to deal with the so-called Medical Acts, and to advise Her Majesty as to the course which should be taken with regard to them, and I assure you that in this last business I think there was no question which had a bearing upon the practical interests of the medical profession which was not, somehow or other, brought under my notice at a very sufficient length—sometimes, perhaps, at a more than sufficient length. It occurred to me then, and it occurred to me still more when I learnt that it was my duty to address you to-night, that people's ideas about these matters are very often very vague, and that it might be useful, without pretending for a moment that the particular view of the matter which I have been led to take is right or wrong, without entering upon that question at all, yet to put before you as medical men, and as part of the general public, the way that the thing has struck a person who was obliged to give his mind to it pretty carefully.

Now, with respect to the intervention of the State in the profession of medicine, the first question that one is disposed to ask oneself is this, Why should the State interfere with medicine any more than it does with the profession of engineering? Anybody may be an engineer. The State confers no particular title upon an engineer; it does not profess to tell everybody whether he is a qualified or an unqualified engineer. Why should not the like happen with respect to the medical profession? And when we deal with that question, supposing that we find any ground for intervention, there comes the further question as to what should be the extent of that intervention. What is the limit of it? But there remains still yet one more question following upon this, and that is: Supposing intervention up to a certain limit be proper and right and justifiable, what is the best mode of carrying it into effect? And I desire, as I say, if you will kindly be patient with me for such time as may be needful, to put before you the answers to these several questions as they strike me; and then you can settle for yourselves whether they are right or wrong.

With respect, in the first place, to this question of the intervention of the State—as to what is the justification of it—the views which people take upon that matter are extremely divergent; and a large number of persons seem to be of opinion that the State is bound, in these matters, to take care of the general public, and to see that it is protected against incompetent persons, and against quacks and impostors in general. I do not take that view of the case. I think that it is very much wholesomer for the public to take care of itself wherever it can do so, and to look out for itself in this as in all other matters; and, although I am not such a fanatic for the liberty of the subject as to plead that interfering with the way in which a man may choose to be killed is a violation of that liberty, yet I do think that it is far better to let everybody do as he likes. And, whether that be so or not, I am perfectly certain, as a matter of practice, that it is absolutely impossible to prohibit the practice of medicine by people who have no special qualification for it. It would surely be a monstrous thing that a man having the toothache should not go into the first druggist's shop and ask the man behind the counter to give him something that would do him good. And I would have you think of the terrible consequences of attempting to prohibit practice by persons who are not technically qualified. I am far from saying a word as to whether they are otherwise qualified or not. If you just picture to yourselves the sort of general *émeute* and rebellion that would take place among all the old ladies all over the country, if you forbid them from exercising their special pastime of prescribing for their neighbours in all sorts of domestic calamities, the thing is impracticable. But whether it can be done or not, it appears to me that the justification of the State in intervening in the affairs of the medical profession rests upon a totally different ground, and upon a ground so sound and so safe that it is entirely beyond contravention. It is for the interest of the community, and a very important interest of the community, that no person shall die without some official recognition of the ground of his death. It is a matter of the highest importance to the community that the law shall be able to have recourse, in civil and criminal causes, to persons who have the right to give evidence as experts in such cases; and there can be no doubt that, considering the enormous number of medical appointments, civil, military, and naval, it is of the utmost importance that the State shall be able to place in those appointments persons as to whom they have evidence that they are competent to perform the duties of their station. And it appears to me, that here lies the justification of the intervention of the State. It says, or, in my judgment it should say, "Practise medicine if you like; do as you please. Go to anybody you like. Let the medical practitioner have a qualification, or let him not have a qualification, if people do not mind it; but if the State is to receive your certificate of death, if it is to take your evidence as that of an expert, if it is to give you any kind of civil or military appointment, then we can call upon you to comply with our conditions, and to produce evidence that you are, in our sense of the word, 'qualified.' Without that, we will not place you in that position."

Now, as a matter of fact, that is the relation of the State to the medical profession in this country; and I, for my part, think it an extremely healthy relation, one which I should be very sorry even to see altered, except in so far that it would probably be better if greater facilities were given for the swift and sharp punishment of those who profess to have the State qualification, when, in point of fact, they do not possess it.

That, to my mind, enables us to put on one side the question of the justification of the State for intervention, and the question of the limit of the intervention. I do not think that there is much to be done in the way of improving the relations of the State to the profession in those respects. But, if we come to the mode of exercising intervention, then there is a great deal to be said. It is now, I am sorry to say, something over forty years since I began my

medical studies, and at that time the condition of affairs was extremely singular. I should think that it is hardly possible that it could have obtained in any country but such a country as England, which cherishes a fine old crusted abuse as much as it does its port wine. At that time, there were twenty-one licensing bodies, that is to say, bodies whose certificates were received as evidence that the persons who possessed those certificates were medical experts. How those bodies came into existence is a very curious chapter in history, on which I cannot dwell now. They were partly universities, partly medical guilds and corporations, and partly the Archbishop of Canterbury. Those were the three sources from which the licence to practise came in that day. There was no central authority. There was nothing to prevent any one of these licensing authorities licensing upon any conditions they thought fit. The examination might be a sham. The curriculum might be a sham. It might be bought and sold like anything in a shop; or, on the other hand, it might be very good. But there was not the smallest guarantee, except the personal character of the people who composed the administration of each of these licensing bodies, as to what might happen. It is really difficult to imagine such a state of things. It is still more difficult to depict the consequences of it, because they would appear now like a gross caricature. But it may be said that there never was a system, or want of a system, which was better calculated to ruin the students who came under it, or to degrade the profession as a whole. My memory goes back to a time when the Bob Sawyers of Dickens's caricatures had a very great many models from which they could be taken. That state of things lasted until the year 1858, when the so-called Medical Act was passed, which introduced two immense improvements. One of them was what is called the *Medical Register*, upon which the names of all persons recognised by the State are entered; and the second was a sort of power, rather more legal than moral, exerted by the body known as the Medical Council, which is a kind of Medical Parliament. Well, I will not say that they exerted that power in enforcing uniformity in the lowest standard of examination, for they have no power to do that; but, at any rate, there is a moral influence which has worked in that direction. And, partly for that reason, and partly through the general change in our ways of looking at things of late years, which are very much improved, there has been a steady, distinct, and, in some senses, marvellous improvement from that time onwards. One of my sons was commencing his medical career the other day, and I was perfectly astonished when I contrasted the course of instruction, and the requirements, and the kind of examination and of examinations, which are needed from him, with the very small and perfunctory necessities of my time. I confess that I very much rejoice in the improvement which has taken place. I do not think that anybody, at this present time, who is familiar practically with the requirements of the present licensing bodies, which are now reduced to nineteen—the Archbishop of Canterbury having retired, and one of the remaining licensing bodies having merged with another—I do not think that any candid person, cognisant with the facts, could doubt that the licence of the great majority of the licensing bodies, at the present day, is a very fair and good test of professional qualification. Unfortunately, it is equally certain that there remain two or three black sheep—licensing bodies which simply trade upon their privilege, and sell the cheapest wares they can, for shame's sake, supply to the bidder. And there is still another defect in the existing system, even where the examination has been greatly improved; and that is, that there are certain licensing bodies which give the qualification for an acquaintance with either medicine or surgery alone, whereas, in the present state of things, it is perfectly monstrous that anyone should be allowed to practise medicine who has not a thorough elementary knowledge, at any rate, of the three great divisions of medical knowledge—medicine, surgery, and midwifery. Hence the two great things that are wanted now are, in the first place, some means of enforcing such a degree of uniformity upon all the examining bodies that none shall present a disgracefully low minimum of pass-examination. That is the point. And the second point is that some body or other shall have the power of enforcing upon every candidate for the licence to practise the study of the three branches—the tripartite qualification. Leaving out minor matters, I think that I may say—and I think that those who are my colleagues on the Commission will say—that these were obviously the two great things that had to be done. But then, while there was a great agreement upon the two things that had to be done, the way of doing them was not so easily agreed upon. Leaving myself entirely out of consideration, I may say that it struck me as being a remarkably good Commission, made up for the most part of clear-headed and strong-willed men. But, although that is a great advantage in many ways, it makes a difficult team to drive; and I used to think sometimes that our very admirable and patient and amiable chairman, Lord Camperdown, must have rather bad times of it, while his team were all turning their heads different ways as they constantly were doing. There were eleven commissioners, and the upshot of the deliberations of that body was that there were altogether, taking the long and the short, seven more or less different reports. There was a main report and there were six little ones which diverged from it. The majority of the commissioners recommended the adoption of a plan which is known as the conjoint scheme. Now, I have no intention of criticising the scheme; it would be quite out of place here to do so; but I am bound to tell you my opinion about it, because it was the foundation of my opposition to it. I think myself that it is a very elaborate, complex, and rather clumsy contrivance of superseding a number of institutions which up to this time have done their work exceedingly well, and are doing it better every day, without the least assurance, on the basis of experience, that the scheme can ever be got to work at all. Now, I dare say that opinion may be quite wrong—a great number of extremely competent persons think it is wrong, and therefore I beg you to take it simply as my view. My own notion of the matter was that all that is wanted might be done without any interference with vested interests, without any unjust interference with the *prestige* of institutions which have been and still are extremely valuable, without any question of compensation arising; and that everything needful might be achieved by simply adding a couple of clauses to the existing Medical Act to this effect: that, from and after such a date, no person shall be placed upon the *Medical Register* who has not the threefold qualification (that is Clause 1); and that, from and after this date, no examination shall be accepted as satisfactory from any licensing body except such as has been carried on in the one part by examiners appointed by the licensing body, and in the other part by coadjutor examiners of equal authority, appointed by the Medical Council or other central authority, and acting under their instructions. In laying down a rule of this kind, the State confiscates nothing, interferes with nothing, meddles with nobody, but simply acts within its definite right of laying down the conditions under which it will confer certain privileges upon certain medical practitioners. No one can say that the State has not the right to do this; no one can say that the State interferes with any private enterprise or corporate interest unjustly in laying down its own conditions for its own service, and those conditions which it will accept. And the plan would have the further advantage that all those corporate bodies which have obtained (as many of them have done) a great and noble *prestige* by the admirable way in which they have done their work would retain the effect of that in the thronging of students henceforward, as formerly, to obtain their qualification; while those who have neglected their duties, and in one or two cases, I am sorry to say, actually disgraced themselves, would sink into oblivion and come to a happy euthanasia, in which their misdeeds and themselves would be entirely forgotten. I have never been able to imagine yet what were the practical objections to this scheme. Several of my colleagues entirely agreed with it, and they were not those who had the least acquaintance with the practical administration of examinations.

As to the notion that there would be any difficulty in getting examiners, or working the thing, you have had the experience of Scotland, in which all universities appoint their coadjutor-examiners, who do their work just in the way proposed. However, I suppose this plan must have had some great fault about it, or its merits would have been recognised. But I must leave it now to your consideration; and, whether it is to take effect by the way I have just spoken of, or by the conjoint scheme, this is perfectly certain—the two things I have referred to have to be done. You must have a threefold qualification, you must have the limitation of the minimum qualification also; and any scheme for the improvement of the relation of the State to the profession which does not profess to do this thing thoroughly well has simply no chance of finality.

Let us suppose that all things have been done: that you have got in your Medical Council more real power now than you actually possess, that you have your minimum fixed, and your threefold qualification. Is there anything else that remains that any one seriously interested in the welfare of the medical profession—as I may conscientiously declare myself to be—would like to see done? I think there are three things. I am quite aware that examiners are considered to be a kind of *feræ naturæ*, a wild race of creatures who delight

in the destruction of the innocent. Well, it may be, but I beg to say that is not my character, and all the time that I was appointed an examiner for the medical faculty of the University of London, and since, I must confess that I have been filled with regret at the disadvantageous circumstances under which young men coming to study, especially in London, are placed. In the first place, even now, when a four years' curriculum is required, the time is all too short. A young man beginning at eighteen to study, is probably absolutely ignorant of the existence of such a thing as physical science, or of anatomy, or physiology, or anything else of the kind. He comes into an entirely new world; he addresses himself to a kind of work with which he has not the smallest experience. Up to that time his work has been with books, and he rushes suddenly into the work which is worked with things, and which is as different from books as anything can be; and I am quite sure a very considerable number of young men spend a large portion of their first session simply learning how to learn in a fashion that is entirely new to them. And yet, recollect, that in this period of four years they have to acquire a knowledge of surgical anatomy, of physiology, of pathology, of medicine, of surgery, of obstetrics, of medical jurisprudence, of general pathology, and so forth; and anybody who knows what these things are, and who knows what is the kind of work which is necessary to give a man the confidence which he requires to stand at the bedside, and say, to the satisfaction of his own conscience, what should be done and what should not be done, knows that to a man who has only four years to do all this in, it is a very serious and very embarrassing consideration. But it is not even that that state of things exists; but the young man comes absolutely ignorant, probably, of the existence of science. He has never heard of chemistry, of physics; he has not the smallest conception of the outlines of pathological science; all these things have to be learned and crammed into a space of time which in itself is barely sufficient to allow of the acquisition of a sound and fair knowledge of all that which is requisite for the satisfactory discharge of his professional duties. Therefore, it is quite clear to me that, somehow or other, the curriculum must be lightened. It is not that there is anything in it which ought not to be known; and, therefore, there is no alternative but to engthen it. Now, I think everybody will agree with me that the practical necessities of life are such that, for the average medical practitioner, it is hopeless to extend the period of professional study beyond 22, at the outside. Taking the general run of practitioners, you cannot extend the period of study forwards. The only thing to be done, then, is to extend it backwards; and the question is, How can that be done. My own belief is that if the Medical Council, instead of insisting upon the general education examination—which I am sorry to say I believe to be entirely futile—if, instead of insisting upon that, they were to insist upon a knowledge of elementary physics, and chemistry, and pathology, they would be taking one of the greatest steps which at present could be made for the improvement of medical education. It is perfectly easy, for the great majority of young men who are going in for the profession have practically completed their education when they have arrived at 16 or 17. If the interval were employed in getting a practical acquaintance with elementary physics, and chemistry, and biology, in my judgment it would be as good as two years added to the course of medical study. And for two reasons: in the first place because the subject-matter of that which they would learn is germane to their future studies and is so much gained; and in the second place you might clear out of their professional study a great deal of that which at present occupies time and attention; and last but not least, they would then come to their medical studies prepared for the learning from nature, which is what they have to do in the course of the becoming skilled medical men, and for which at present they are not in the slightest degree prepared by their professional education. I have been crying in the wilderness this doctrine for some years, and I thought this might be an opportunity of crying it again. I hope something may come of it.

The next point concerns London especially, and I may speak of it briefly as the economical use of teaching power in the London schools. At this present time, every great hospital in London—and there are ten or eleven of them—has its complete medical school, in which not only branches of practical medicine are taught, but also those studies in general science, such as chemistry, elementary physics, and general anatomy, and a variety of other topics which are what used to be called—and the term was an extremely useful one—the "institutes of medicine." Now that was all very well half a century ago; it is all very ill now, simply because these general branches of science, such as anatomy and physiology, and chemistry, and so forth—physiological chemistry and physiological physics—have now become so large, the method of teaching them is so completely altered, that it is utterly impossible for any man to be a competent teacher of them, or for any student to be competently taught. When I say "competent," I mean in relation to an ideal conception of competency, without the devotion of the whole time of the person who is engaged in the teaching business to these subjects. I will undertake to say it is hopelessly impossible for any man at the present time to keep abreast of the progress of physiology, unless he gives his whole mind to it, and the bigger the mind is, the more scope he will find for it; and, if he is to teach, then, inasmuch as the study has now become practical—and very properly so—this also will involve a large expenditure of time. Now the fact is, you cannot support people in frittering their power away among ten or a dozen places. If students in their first year were taught in two or three central institutions the "institutes of medicine," it would be perfectly easy to have those subjects taught thoroughly and effectually by persons who gave their whole mind and their whole attention to them; while, at the same time, the medical schools and hospitals would remain what they ought to be, great institutions in which the largest possible opportunities are laid open for practical acquaintance with the phenomena of disease. So that the earlier half of the medical education would take place in the central institution, and the final half be devoted altogether to practical studies in the hospitals. I happen to know that this conception has been entertained not only by myself, but by a great number of persons who are most interested in the improvement of medical study, for a considerable number of years; but I do not know whether anything will come of it this half century or not; but the thing has to be done. It is not a speculative notion; it lies patent to everybody who is accustomed to teach, and who knows what the necessities of teaching are; and I should very much like to see, as a first step, people making up their minds that it has to be done somehow or other. And then, the last point to which I will advert is one which concerns the action of the profession itself more than anything else. We have arrangements for teaching, we have arrangements for testing of qualifications, we have marvellous aids and appliances for the treatment of disease in all sorts of ways; but I do not find in London at this present time—in this little place of four or five millions of inhabitants, which supports so many things—I do not find any organisation or arrangement for advancing the science of medicine, considered as a pure science. I am quite aware that there are medical societies of various kinds; I am quite aware that we have lectureships in the College of Physicians and the College of Surgeons; there is the Brown Institute; there is the Society for the Advancement of Medicine by Research; and I dare say some other bodies which do not at this present moment occur to me; but there is no means, so far as I know, by which any person who has the inborn gift of investigation and discovery of truth, and who desires to apply that to the improvement of medical science, can carry out his intention. In Paris, there is the University of Paris, which gives degrees; there are also the Sorbonne and the Collége de France—places in which professorships are established for the express purpose of enabling men who have the power of investigation, the power of advancing knowledge, to exercise their ability, and thereby reacting on the power of doing that which it is their special mission to do. I do not know of anything of the kind in London. I do not think there is anything of the kind; and if it should so happen that a Claude Bernard or a Ludwig should turn up in London among you gentlemen at the present time, I really do not know what we should do with him, I have not the simplest notion; I do not think we could turn him to account. I think we should have to export him to Germany or France. Whether that is a good or wise condition of things, I do not know. I do not think it is a condition of things which can exist for any great length of time, now that people are becoming more and more awake every day to the importance of investigation, to the importance of abstract science, and to the astounding and unexpected manner in which everywhere it reacts on practical pursuits. I should look upon the establishment of such an institution as a recognition, on the part of the medical profession in general, that, if their great and beneficent work is to be carried on, they must, like other people who have great and beneficent works to carry on, turn to the advancement of knowledge for the only way in which experience shows that it can be advanced, namely, by pure scientific investigation.

It remains only that I should thank you for the great kindness and attention with which you have listened to this rather long speech.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON THE OPERATIVE TREATMENT OF UTERINE FIBRO-MYOMATA.

Introduction to a Discussion in the Section of Obstetric Medicine.

BY J. KNOWSLEY THORNTON, M.B., C.M.,
Surgeon to the Samaritan Free Hospital.

THE subject of the surgical treatment of uterine fibro-myomata has been so much discussed during the last few years, that it is difficult, nay impossible, to approach it without going over old ground. I propose, therefore, simply to place before the members of the Association my own experience, and the views which have been founded upon it. In so doing, I do not forget that what I have seen, heard, or read of the experience of others, has probably helped to form my present views. The object of my paper is, however, simply to invite discussion; to attempt an exhaustive criticism of a subject of this magnitude would be obviously absurd. The absence of references to the work of others is, therefore, not due to want of appreciation, but to want of time and space.

As we are only to consider the surgical treatment of these common growths, we can dismiss at once the great majority of cases, with the remark that more than half the patients who are the subjects of them would never suspect their presence, but for the chance discovery of a painless lump in the abdomen, or for the statement of their medical attendants that they have a tumour. Whatever the future success of surgery in the treatment of these tumours, the great mass of cases require no treatment at all, or merely such slight palliatives as may be best left to the physician to administer. I am, at any rate, one of those who, fully recognising the benefit which the surgeon may confer upon certain extreme cases, still strongly object to operative interference in ordinary cases. I fully agree with Dr. Keith, who says, in one of his published papers, "the cases that do well are those which ought not to have been operated upon," or words to that effect. I would adopt the usual classification, because I believe that it is not only more anatomically and pathologically correct, but also more practically useful from a surgical standpoint, than any other which has been suggested.

1. *Subperitoneal Fibro-Myomata.*—These may be single or multiple, pediculate or sessile. They rarely occur alone, but are more generally accompanied by intra-mural growths, or general enlargement of the uterine wall. When they do occur alone, they seldom lead to the necessity for operation, but they may do so in certain exceptional cases. If single and pediculate, they may be removed with as little or less danger than that which attends a simple ovariotomy. Such operations are purely operations of expediency. The small amount of danger attending them would render them more often justifiable, were it not for the fact already alluded to, that these outgrowths are frequently accompanied by intramural growths; and it is often impossible to make a perfectly certain differential diagnosis as to the presence or absence of these accompanying intramural growths. If multiple and pediculate, they may still be removed with but little danger, but the same or increased difficulties in accurate diagnosis present themselves, and the presence of intramural growths may either lead to an imperfectly curative operation, or to the performance of a much more dangerous one than the patient and her friends had been led to expect.

2. *Intramural Fibro-Myomata.*—These may also be single or multiple, and are more apt to give rise to a combination of symptoms, which justify surgical interference. I would include in this group those general enlargements of the uterine wall which we frequently meet with, because it is often quite impossible to distinguish between multiple intramural growths and this general enlargement, and also because the same surgical treatment is suitable for both conditions.

3. *Submucous Fibro-Myomata.*—These, again, may be single or multiple, and may be complicated by the presence of either of the other varieties. Usually, however, it is a single growth which makes itself so obnoxious, that it calls for surgical interference. When this is the case, rapid dilatation by means of Hegar's wooden dilators, and immediate enucleation, is the plan which I advocate. I always take the precaution to thoroughly cleanse the vagina, and, if it be possible, the uterine cavity also, by antiseptic irrigation, before I commence dilatation; and, after the removal of the growth, I thoroughly sponge out the wound and uterine cavity with pure tincture of iodine, before using perchloride of iron, if that should be necessary to arrest hæmorrhage. Since adopting the rapid dilatation and the free use of iodine, I have never had the smallest anxiety after enucleation.

It will often happen, however, that after the successful removal of a submucous growth, which one hoped was single, another or others will present themselves, and they may slough as the result of the first operation, and give rise to much trouble and anxiety. I am, therefore, more and more inclined to abandon the vaginal treatment of these cases, unless it is quite clear that there is only a single growth, or unless the growth has already so thinned or destroyed the mucous membrane before the patient seeks advice, that it has left one no choice. I shall allude to this subject again, when speaking of the removal of the uterine appendages, or perhaps I may as well say at once that I believe the majority of this class of cases are better treated by this latter operation, certainly so if the growths are multiple.

Having thus briefly noted the chief varieties of growth, I will return to Class I. We occasionally, but rarely, meet with large pediculate, subperitoneal fibroids, which we are able to diagnose as such. I think that, if in any such case we can be quite certain of our diagnosis, and can define a fair pedicle, we are justified in recommending the removal of the tumour, even though it may only cause inconvenience at the time our opinion is asked. I have already pointed out that the operation is one which is easy of performance, and attended with little risk, and very likely it is a matter of much moment to the patient to get rid of the unsightly swelling. I have recently operated in such a case with perfect success; the lady was a young governess, and her size was a very serious inconvenience to her, and threatened to deprive her of her calling in life, from the unkind suggestions it called forth. I have operated twice before under similar circumstances, and all three patients have recovered without trouble of any kind. In each case, one large and main tumour was removed, and from one to three smaller outgrowths, and a healthy uterus was left behind. In one case, I found a small cystic tumour of the left ovary, and removed it also. The pedicle of these growths may be treated by the cautery, the *serre-nœud*, or the silk ligature. I much prefer the latter, but will give one caution as to the method of applying it. If the pedicle be transfixed, as in ovariotomy, hæmorrhage from the puncture is very liable to occur, and very difficult to control. I therefore first secure the pedicle by a ligature tied firmly round the whole of it; then threading an end of this ligature through the needle again, transfix the pedicle on the distal side of the first tie, and proceed to ligature in halves, or smaller pieces if necessary. This method renders slipping of ligature, or hæmorrhage from puncture, impossible.

Still keeping to the question of subperitoneal growths, I would ask, Are we ever justified in operating when the growths are sessile? I think we do occasionally meet with cases in which, without sufficient gravity of any one symptom to justify operation, the aggregate sufferings of the patient from free loss (not serious hæmorrhage), pain, and inconvenience from size and pressure on other organs, are sufficient justification. I have operated three times on such cases, and have again preferred to deal with the cut surfaces by ligatures and sutures. One of the three died, however, from recurrent hæmorrhages. The wire *serre-nœud* is out of court for such cases, and I do not believe that the cautery would answer any better; the raw surfaces are often very extensive, and the tissue too contractile for its use. I shall refer to this class of cases again, when speaking of the removal of the uterine appendages.

I have omitted fibro-cysts of the uterus from my classification, because I think they may be much better studied along with ovarian tumours, with which they have greater affinities, both as to certainty of growth and danger to life. I may, however, mention that I have operated five times for uterine fibro-cyst, and all the cases have done well. One was treated by the Wells's ovariotomy-clamp, two by enucleation and ligatures, one by cautery and ligatures, and one by simple transfixions and ligatures. The weights of the tumours, with fluid contents, were respectively 62 lbs., 8 lbs., 4 lbs., 23 lbs., and 6 lbs.

We have now to consider Class II, the most important of all in the present connexion, because it is the intramural fibro-myomata which most often lead to the necessity for the greater surgical operations. Operations for the removal of such growths by abdo-

minal section are, however, far more serious and dangerous than those we have been considering. In the present class of cases, the operation nearly always involves the opening of the uterine cavity, and we are at once exposed to the risks of septic conditions. The result is seen in an immensely increased mortality—a mortality still so great that we must pause here, and carefully consider what are the conditions which justify us as surgeons in performing these formidable hysterectomies and partial hysterectomies. There can be no doubt that, since it has been generally recognised that operations in which the uterine cavity is opened should be concluded by bringing all the cut surfaces outside the peritoneum, the mortality has sensibly decreased; but it is still far too heavy for these operations to take rank along with ovariotomy, even if the diseases for which they are undertaken were as certainly deadly as ovarian tumour. Those operations involving the opening of the uterine cavity should not, in my opinion, be undertaken unless the life of the patient is actually in danger from hæmorrhage, rapid growth of tumour, or interference with the function of the bowel or other vital organ. I trust that one outcome of this discussion will be to reveal the true mortality of these formidable operations, and check their too frequent performance.

There are two methods which aim at the same end—viz., the complete exclusion of wounded surfaces from the peritoneum. One method is by suture, the raw surfaces being turned into the uterine or cervical cavity; the other is by some form of clamp or *serre-nœud*, the raw surfaces being brought out between the lips of the abdominal wound. Both methods have their advocates; and the former may sometimes be adopted, when it is impossible to apply clamp or *serre-nœud;* but I have no hesitation in strongly advocating the use of the *serre-nœud* (Kœberlé's is a very good one) as the safer and better plan of the two. I have performed partial hysterectomy three times, and all the patients died. Once I used the Wells ovariotomy-clamp, and it caused a slough which extended in the wall of the uterus, and caused death from septicæmia; then I tried ligatures and sutures of the flaps, and the patient died of septicæmia; then I tried simple ligatures applied by transfixion, and the patient also died of septicæmia. I shall not again in any case attempt a partial hysterectomy, as I am convinced that it is both safer and easier to remove the whole organ, and deal with the cervix, instead of the uterine wall.

I have performed complete supravaginal hysterectomy twelve times, on each occasion removing both ovaries. The first three cases were treated by transfixion, ligature, and dropping of the cervical and ovarian pedicles. The first recovered; and the other two died—one of septicæmia, and one of hæmorrhage from slipping of one of the ovarian arteries. The next case I treated by Wells's clamp, applied so as to include the cervix and both ovarian pedicles. She made an excellent recovery. In the next case, I was obliged to use ligatures; and, after a good deal of fever and trouble, she made a good recovery. Then came a hopeless case, in which the bladder was opened, and an enormous tumour enucleated, vessels being tied where they bled. She sank in a few hours. Then came two cases in which I was able to use Kœberlé's *serre-nœud*, and both made good recoveries. Then came one in which I did not intend to perform hysterectomy, but got such hæmorrhage from a tear in removing adherent appendages, that I was obliged to go on and remove the uterus. I used the *serre-nœud;* but it was impossible to bring the stump up into the incision, and I attempted, by sewing the peritoneum round it, to make a half intra- and half extra-peritoneal arrangement. I have once again attempted this plan, and both cases have died of septicæmia; so that, if ever I find myself in like difficulties, I shall remove the wire, and use ligatures and suture of the flaps.

In two other cases I have used Kœberlé's *serre-nœud*, in one removing a large ovarian tumour along with the fibroid uterus; and both have recovered. I have, therefore, twelve cases of complete hysterectomy, with seven recoveries and five deaths; and I have a total of thirty-one operations for uterine tumour of one kind or other, with ten deaths. These are not satisfactory figures; and, if I saw no hope of improving them, I should be compelled to admit that I thought it better to abandon the operative treatment of these tumours, except in cases in which life was in *immediate* danger. We must remember, however, that my experience extends over a period of seven years, and that the chief mortality occurred in the earlier cases. Since the extraperitoneal treatment has been adopted whenever possible, results have improved; all my cases in which it was possible to bring both the uterine and ovarian stumps into one clamp or *serre-nœud* outside the wound have recovered. Unfortunately, some of the cases which most urgently call for operation are unsuitable for any really satisfactory extraperitoneal method.

I will now turn from what may be called the direct surgical treatment of uterine fibro-myoma to the indirect method, in which we obtain a gradual cure by the removal of the uterine appendages. If I have drawn a somewhat gloomy picture of the results and probable results of hysterectomy, I am glad to be able to give a silver lining to the cloud. I believe that there is a great future before this operation of removal of the appendages for the cure of fibroid—a future so free from mortality, and so satisfactory in its after-results, that we shall eventually be justified in performing the operation in a far larger number of cases than we could ever have hoped to justify the more dangerous operations which we have been considering.

I feel sure that, with a little more experience, we shall be justified in recommending the removal of the appendages in cases which are troublesome from hæmorrhage, pain, etc., before they grow large enough to raise the question of the more dangerous operations. My experience has at present been limited to fifteen cases; but I have selected them with care, not only as cases likely to be cured by the operation, but as cases which, from their variety, would demonstrate its scope. All the fifteen patients have recovered; ten have entirely ceased to menstruate, and have entirely lost their tumours; one still has some irregular menstruation, but the tumour is a third of its size at the time of operation, and, from its condition, I feel certain will soon disappear; one has had no return of menstruation, and the tumour is going fast, but it is yet too early to expect its disappearance; one has continued to menstruate, and the reduction in size is not very marked, but she no longer floods and she has lost her pain. In this case, I removed two cystic tubes, and was unable entirely to remove one of the ovaries. Two other cases have been operated upon too recently to speak with any certainty as to the future, but they both promise well.

I would remark here that the case to which I have just referred, together with one in which I removed both tubes for pyo-salpinx, and left both ovaries, seem decidedly opposed to the notion that the tubes influence menstruation. The tubes were thoroughly and closely removed in both cases; but in one about two-thirds of one ovary was left, and in the other both ovaries were left, and both patients continue to menstruate regularly. In calling attention to this fact, I am, however, far from wishing to imply that I consider it a matter of no moment whether the tubes are removed or not. I believe that, in order to obtain good results, not only must the ovaries and tubes be thoroughly removed, but they must be removed in such a way that the blood-supply to the uterus is very materially influenced by their removal. In other words, the ligatures which transfix the broad ligaments must be so applied as, not only to enable us to cut the ovaries and tubes away safely, but, at the same time, to cut off from the tumour the very important blood-supply which it obtains from the enlarged ovarian, tubal, and other vessels.

My own small experience has brought out strongly the practical fact, that tumours with pelvic adhesions, and enlarged uterine arteries, though they do in time disappear after the removal of the appendages, are slow in doing so. The cases which respond most quickly to the operation are those in which the whole uterus is uniformly enlarged, and they are also the cases which grow most rapidly, suffer most pain and loss of health, and often flood terribly.

My paper is, I fear, already too long for one which is simply intended to invite discussion; but I must briefly record the reasons which induced me to remove the appendages in the fifteen operations I have performed.

The first was hæmorrhage; the second, rapid growth of multiple sessile fibroids in a young servant girl; the third, fibro-cyst of the uterus so involving even the cervix that Freund's was the only other possible operation—I opened the cyst, and left it to drain into the peritoneum; the fourth, fifth, and sixth were for hæmorrhage and pain; the seventh was commenced as an exploratory operation, a soft fibroid growing rapidly, and thought possibly to be a recurrence in an old ovarian pedicle; the eighth and ninth, for hæmorrhage; the tenth, for rapidly growing intra-mural growths in a patient with phthisical history and tendencies; the eleventh and twelfth, for hæmorrhage and pain; the thirteenth, for life-long invalidism from multiple tumours, blocking the pelvis and extending high up into the abdomen; the fourteenth, for small fibroid with intense menstrual suffering (membranous dysmenorrhœa); and the fifteenth also for a small fibroid and ovarian pain, causing permanent invalidism. In several of the cases, cystic ovaries or tubes, or both matted together, were encountered, and in some the adhesions made the operations very difficult.

I think the credit of suggesting the operation belongs to Hegar; but we must undoubtedly award to Mr. Lawson Tait the merit of establishing it in this country. I only wish that he had stuck to Listerism; and then, I think, he might have had the satisfaction of recording with me an unbroken series of successes, instead of having to admit, in his paper recently read before the Obstetrical Society of London, a mortality of 5.5 per cent.

I attribute my large mortality in hysterectomy, as compared with that of ovariotomy (under 4 per cent.), and that of removal of the uterine appendages for fibro-myoma, hydrosalpinx, or pyosalpinx, ovarian pain, etc. *(nil)*, as entirely due to the fact that, in the majority of the former operations, it is impossible to carry out strict antiseptic or aseptic surgery.

In conclusion, I would strongly urge that hysterectomy should be reserved for those cases which have, before they are seen by the surgeon, passed beyond the reach of the safer operation of the removal of the uterine appendages; the size of the tumour being our guide. There will thus remain a legitimate, though limited, field for complete hysterectomy; but I am certain that its death-rate will exceed that of ovariotomy by as much as that of the operation for the removal of the appendages should fall below it. I am also prepared to maintain that, while strict Listerism will give us perfect results in the removal of the appendages, it is to the perfecting of our antiseptic precautions that we must look for improved results in hysterectomy.

ON MYOMOTOMY.

Read in the Section of Obstetric Medicine.

BY CARL L. E. SCHROEDER, M.D.,
Professor of Midwifery in the University of Berlin.

THE prognosis of the removal of large solid tumours of the uterus by laparotomy depends altogether upon the development of the technical methods of operating. The important points that are requisite are: 1. A method of operating without great loss of blood; 2. A method of forming a good pedicle, safe against hæmorrhage. I believe that I have now found such reliable and not too difficult methods as to make it possible to operate on even the most difficult cases.

In cases of subserous myoma with narrow pedicles, the operation is very simple. The pedicle is transfixed with a needle armed with a double thread; this is ligatured on both sides, and the tumour cut off above the ligature. This operation does not differ essentially from simple ovariotomy, and has a similar prognosis. Tumours situated so favourably are, unfortunately, very rare; and usually, when they are found, there is no indication for removing them. In one case I extirpated three subserous myomata in the sixteenth week of pregnancy. These tumours were supplied with blood through adhesions with the omentum, and had reached such a size that they would have prevented the further growth of the pregnant uterus. The patient was delivered by forceps of a healthy child at the normal end of her pregnancy.

Subserous or interstitial fibroids of the fundus uteri, extending upwards, can generally be extirpated without removing the uterus and its appendages. For this purpose, a thin solid India-rubber ligature is placed temporarily around the body of the uterus, and the tumour then removed through incisions in the form of a V applied at its base; or it can be removed by incising its capsule, and peeling it out of its bed. In many cases, it is easy to stitch the two surfaces of the stump together; in others, it is necessary first to prepare those surfaces by cutting away a little more tissue, and thus producing the desired wedge-shape of the stump. Different layers of stitches are now applied; those of the first layer, uniting the deepest parts, are cut short and covered up by others placed a little more superficially. This process is repeated, until at last a row of close sutures unites the divided surfaces of the peritoneum. These last sutures alone remain visible, showing the spot from which the large tumour has been extirpated.

When the fibroids develop deeper downwards along the sides of the uterus, they push the Fallopian tube and the ovary upwards on one or on both sides; and it is then impossible to spare the organs. In such cases, however, it is again my principle to save as much of the uterus and of its appendages as possible. Let us consider a case in this category. The uterus is found enlarged by a large interstitial fibroid, dislocating upwards the appendages on both sides. In this case, it is not possible to place the India-rubber ligature around the cervix; besides, there is no pedicle; the first thing, therefore, is to form one. For this purpose, I sever the appendages by first doubly ligaturing the infundibular pelvic ligament with its spermatic vessels, and dividing between these ligatures; then by repeating the same process with the round ligament, which generally is found to be in a hyperplastic state. After this has been executed on both sides, it is easy to separate the tumour from the surrounding tissue without causing any considerable hæmorrhage; and now the India-rubber ligature is placed around its base. The tumour is then cut away with the uterus above this ligature. Care must always be taken to catch the stump in a vulsellum as soon as part of the tumour is divided, for this prevents the rubber ligature from slipping off. After thus securing the stump, the remaining part of the tumour is cut away. Next, the cavity of the uterus or the cervical canal are cauterised with a 10 per cent. solution of carbolic acid in order to destroy any infectious germs that may be present. I now treat the stump in a similar manner to that above described. The denuded surfaces are again first united in the depth near to the mucous membrane of the uterus; these sutures are covered up by several rows of other sutures, uniting the walls of the stump; finally, the peritoneum is pulled over the stump, and attached to it and to the peritoneum of the other side by a line of closely-placed stitches. On the sides of the stump, at the spots on which the large blood-vessels have been divided, and on which the peritoneum covers the stump only loosely, the tissues are firmly fastened to the stump by a separate deep suture. After removal of the India-rubber ligature, the stump is seen with a smooth covering of peritoneum united by a neat row of sutures. At each side of the stump, the divided but not stitched broad ligaments are visible; in front we have the ligatured round ligaments, and towards the pelvic wall the ligatured spermatic artery, etc. There is no dragging on the tissue whatever around the stump, and the peritoneal covering is perfectly smooth. Any hæmorrhage occurring after removal of the India-rubber ligature is easily stopped by placing a few more stitches at the spots whence it comes.

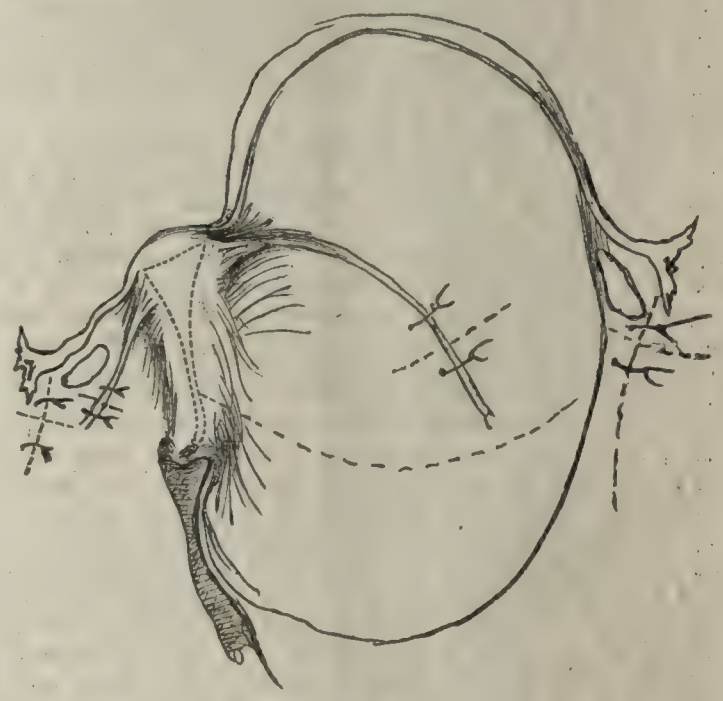


Fig. 1.

The difficulties of the case become very numerous when we have to remove a fibroid developed at the lower part of the uterus, and extending into the cellular tissue of the pelvis. These are cases which have hitherto been considered unfit for operation. The uterus is sometimes dragged upwards on one side so far that it is impossible to reach the os with the finger. In such cases, I again ligature the appendages as explained above, and I then enucleate the tumour out of the pelvic cellular tissue. This latter manipulation is generally very easy. Tumours firmly located in the pelvis are thus made free from the surrounding tissue, and appear attached only to the cervix. The India-rubber ligature is then applied around the cervix, the tumour is cut off above it, and the stump stitched up according to the principles described above. There remains, however, a cavity out of which the tumour has been enucleated. This can be treated in different ways. If I do not expect a very abundant secretion from it, I leave the walls of the cavity simply to close upon each other, and drop the whole into the abdomen. In other cases, I

insert a drainage-tube from the cavity into the vagina, and close the wound towards the abdominal cavity by stitching the peritoneum over it. (Figs. 1 and 2.)

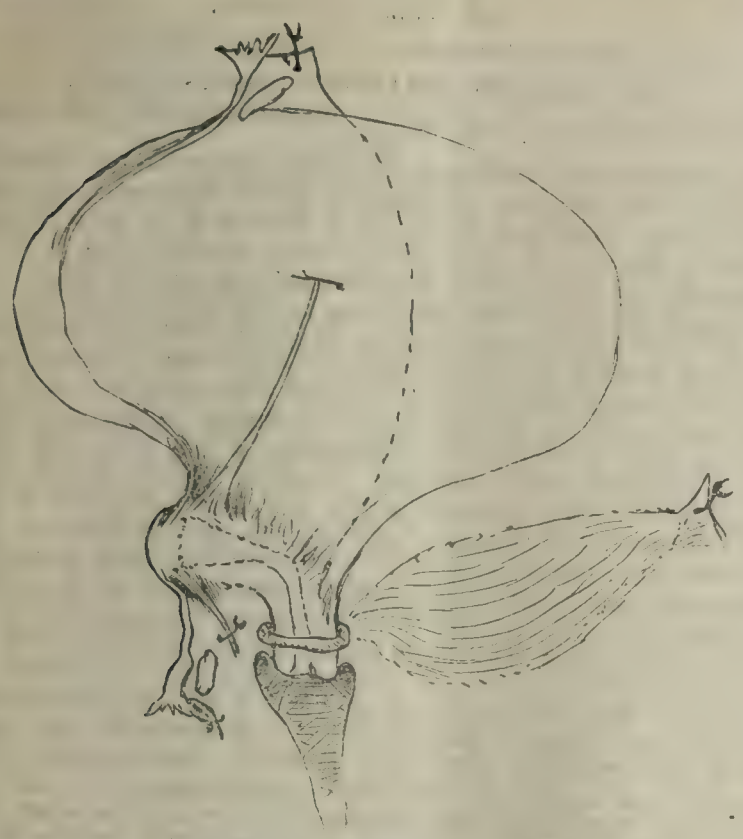


Fig. 2.—Fibroid of the left side of the Uterus, extending deep into the Pelvis. Broad and round Ligaments ligatured on both sides. Peritoneum and Capsule of the Tumour divided by a circular incision, running from the spot where the Ligaments have been divided up to the side of the Uterus. Enucleation of the Tumour out of the Pelvic Cellular Tissue, leaving the Fibroid attached only to the Cervix. Temporary ligature of the Cervix with India-rubber Ligature (*b*). No Drainage. Recovery.

In cases such as the one just alluded to, it sometimes occurs that the bladder is dislocated high upwards, making the access to the peritoneal cavity possible only above the navel. It is then necessary to enucleate the tumour from the back surface of the bladder, and to stitch the detached lobe of the bladder on to the rest of the uterus. In these cases, even the India-rubber ligature can be of no service, and the operator must depend entirely upon enucleation. I have found that the hæmorrhage is generally not very profuse during such operations. Even very large tumours can thus be enucleated without fearing it. (Figs. 3 and 4.)

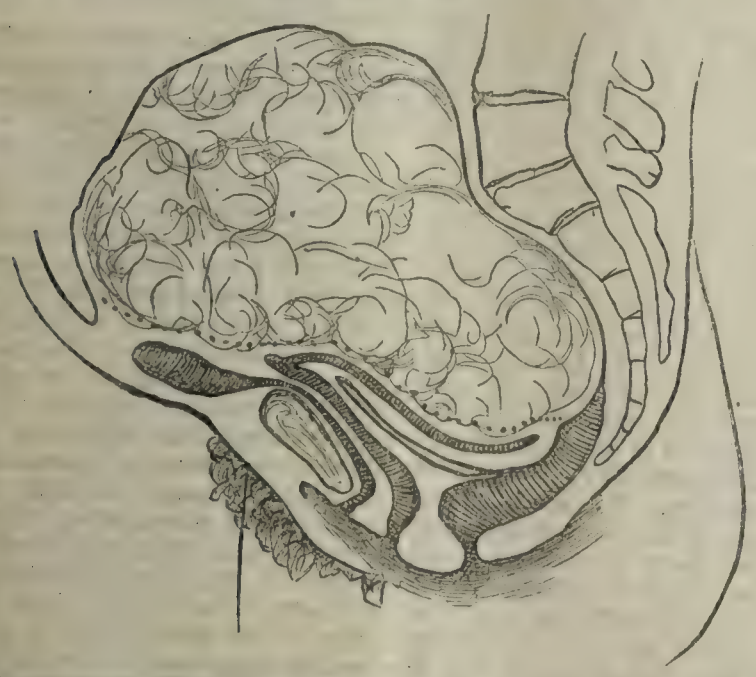


Fig. 3.—Very large Fibroid, dragging the Bladder upwards to above the Navel. Tumour was enucleated from the Bladder, and removed, together with the Uterus and with its Appendices. The Posterior Surface of the Bladder stitched to the Stump of the Cervix. Stump dropped. No Drainage. Recovery.



Fig. 4.—Very large Fibroid developed upwards, end on the left side of the Uterus, and extending far into the Broad Ligament. Enucleation. Posterior Surface of the Bladder stitched to the Anterior Surface of the Stump. Death, twenty-two days after the Operation, from complicating Pyosalpinx.

Tumours situated mostly in the cervix, or on the lips of the vaginal portion, protruding far downwards, must be treated in a similar manner. I removed by laparotomy, a short time ago, a solid tumour of the size of a man's head, situated in the distended posterior lip. (Fig. 5.) The patient, unfortunately, died of peritonitis. The

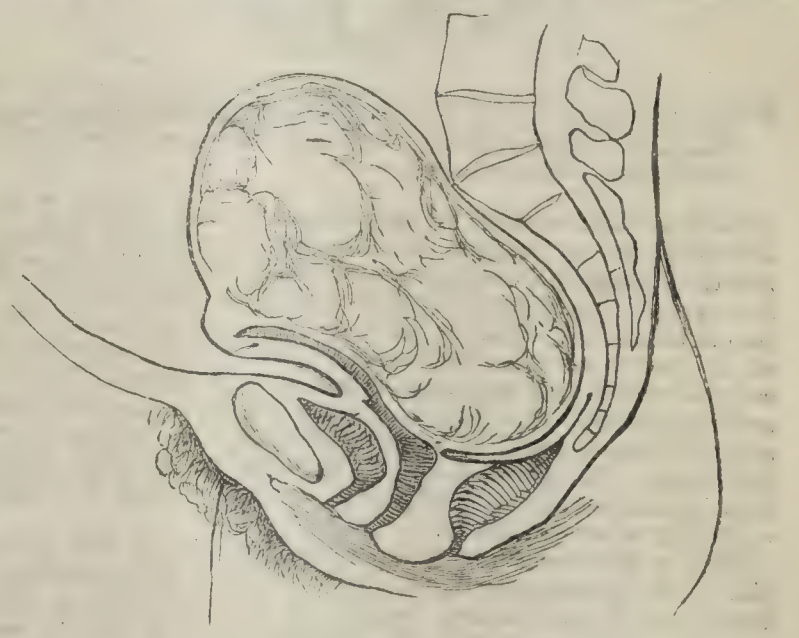


Fig. 5.

case, however, has convinced me that it is possible to operate, even under such difficult circumstances. After opening the abdominal cavity, I found the fundus uteri lying high up above the symphysis. Behind and below it was the tumour. I made a long incision into it in the sagittal direction, beginning from the fundus, dividing the peritoneal covering and the capsule of the tumour. I then enucleated the fibroid out of its bed and out of the depth of the pelvis. The hæmorrhage was slight; there remained an enormous cavity in the wall of the uterus and in the posterior lip; but, like after Cæsarean section, the muscular mass of uterus, including the walls of the cavity, contracted to such an extent that the whole capsule could be stitched together with different layers of sutures, forming, at the end of the operation, a round protuberance on the posterior wall of the uterus. (Fig. 6.) A drainage-tube was finally placed in the cavity, connecting the latter with the vagina. The patient died on the fifth day of infectious peritonitis. The necropsy convinced me that the wound would have healed if infection had not ensued.

Henceforth, it will thus be possible to remove by enucleation and with the India-rubber ligature any fibroid, if there be an urgent indication justifying the operation.

As to the indications for the operation, it is not my object to discuss them here. I will only remark that they are of a different nature altogether from those leading to ovariotomy. According to my opinion, ovariotomy is always indicated, because ovarian tumours always threaten life through their tendency to grow incessantly, or on account of their very frequent malignant degeneration. Every ovarian tumour, with the exception of the retention-cysts of the Graafian follicles, ought therefore to be removed as soon as it has been diagnosed. The fibroids, on the other hand, often cease growing as age advances; besides, they never show malign degeneration. There must, therefore, always be in each case a certain urgent indication justifying their removal. Now, these indications are seldom absolutely determinate—such as incessant growth threatening the patient's life in a measurable space of time,



Fig. 6.—Very large Cervical Fibroid developed in the Posterior Lip. Incision in sagittal direction, beginning from the Fundus and running backwards. Enucleation without temporary Ligature. Drainage of the Cavity towards the Vagina. Death from Peritonitis.

or such as incarceration of the tumour in the pelvis. I have, for instance, once performed the operation successfully in the fourth month of pregnancy, on account of two large fibroids situated under the ovum, obstructing the cervix completely. Generally, the indication is individual, differing for each case. A patient, for instance, of the better classes, who does not need to work, and who can take care of herself, can well stand a menorrhagia now and then; whilst another patient, belonging to the working-class, may be brought by a similar menorrhagia into such a state that she can no longer earn her living. The other symptoms may also reach such a degree that it is impossible for the patient to work, and that she prefers an operation to being starved.

This is the reason why it is so very difficult to find general decisive principles regulating the indications for this operation. It is, therefore, of the greatest importance to improve more and more the methods of operating. It may then be hoped that the prognosis will not be much inferior to that now arrived at in ovariotomy. A statistical table will, however, only be of value if the cases are all operated according to the same method.

Of 66 patients on whom I have operated, I have lost 20 (30 per cent.); of the last 40 cases, however, I have only lost 9 (22.5 per cent.); and I ascribe this result to my having operated in these latter cases according to my method described above (India-rubber ligature, method of suturing, enucleation). Compared with ovariotomy of now-a-days, these results are not very brilliant. It must, however, not be forgotten that the majority of ovarian tumours are simple cases, and the tumours easily removed; whereas, there being no indication to remove the simple cases of fibroids, only the difficult ones are operated upon. Besides, patients with ovarian tumours generally come into our treatment in a state of general good health, whereas patients affected by fibroids are always anæmic and worn away by the disorders which form the indication for the operation.

Dr. ARTHUR W. EDIS, of the Middlesex Hospital, has consented to give an address at the opening of the session of the Cardiff Medical Society, on the subject of the treatment of metrorrhagia.

ON THE DIFFERENTIAL DIAGNOSIS OF THE VARIOUS FORMS OF FIBROID TUMOURS OF THE UTERUS.

Read in the Section of Obstetric Medicine.

BY ALFRED MEADOWS, M.D., F.R.C.P.,
Physician-Accoucheur to, and Lecturer on, Obstetrics at St. Mary's Hospital.

THE increased and increasing experience which we are almost daily gaining of the surgical treatment of fibroid tumours of the uterus; the courage, tempered wisely, as I believe it is, with discretion, which is leading us on to attack these growths, that were, until comparatively recent times, regarded as lying outside the domain of legitimate surgery; these and similar considerations make it a matter of the utmost importance that our diagnosis of the several varieties of these growths should be carefully conducted, be based upon a true and correct estimate of the clinical phenomena which they present, and so lead to the avoidance of mistakes in our surgical interference, and to consequent diminution of the risks and dangers which such interference entails. I believe that our knowledge and experience of these growths is now sufficiently extensive to enable us to diagnose with tolerable certainty the class of cases in which operative interference is not only justifiable, but likely to lead to a successful issue, at least as regards the removal of the growth. As a general rule, I am persuaded that a correct diagnosis can be made of the exact situation of these tumours, and therefore of the treatment applicable to them. I confess I have not yet arrived at the conclusion that they ought all of them to be subjected to surgical interference, though I see indications that that is the rule towards which all experience seems to be tending. Undoubtedly, that experience has taught us that, with proper safeguards, and under favourable conditions, the peritoneal cavity may be opened with comparative impunity; so that, if then the growth be of a kind, in regard to its situation and relations, that its removal can be effected with but little difficulty, the risk will be in proportion; if, on the other hand, the difficulties and consequent dangers be very great, then we may resort to what I would term the physiologico-surgical method of treatment, which not only involves comparatively slight risk, but, in all probability, gives an assurance of ultimate cure by physiological starvation, if I may coin such an expression. I am, of course, alluding to the operation of removing the ovaries for the arrest of menstruation, and the consequent stoppage of that blood-supply and functional activity which necessarily accompanies ovulation. The experience of careful observers has taught us that, with the decline of functional activity, arrest of these growths ensues; and the obvious conclusion to be drawn from this fact, which is of almost universal application, is, that surgical interference can anticipate that event; and, since experience has demonstrated the tolerance of the peritoneum in cases where it is opened, the removal of the ovaries for the arrest of these growths becomes as it were a necessary corollary to all that has gone before.

These latter remarks apply with almost equal force to all the varieties of uterine fibromata, whether growing in the substance of the uterus itself, or situate upon either its subserous or submucous coats. And this leads me to say a few words in regard to the classification of these growths. It has been recently suggested that we should discard the classification of these tumours hitherto generally accepted, and that their individual characters should be the basis of our classification, wholly irrespective of their situation and relation to the uterine walls. I confess I am unable to agree to this proposition; and my objection to it is based solely on the want of clinical precision, and the utterly negative value of the classification which Mr. Lawson Tait proposes should supplant the one now commonly received. In my opinion, the one is founded on clinical experience, while the other is only of *post mortem* interest; the one enables us to diagnose with accuracy and precision, while the other fails apparently to recognise the clinical importance of characteristic symptoms. The study of the one leads to sound scientific treatment, from a correct appreciation of clinical phenomena, while the other leads to nothing, and only begins and ends with itself. In what I have to say, then, on the subject of the differential diagnosis of the various forms of uterine fibromata, I shall regard those forms simply or primarily in relation to the uterine walls, for it is to this relation, and this only, that the leading symptoms have reference.

I may remark, in passing, that microscopical examination of these growths has long since taught me that they are widely dissimilar in their minute structure. Sometimes they seem to be little more than simple hypertrophies of the ordinary uterine tissue, but they

are never entirely so, for there is always a considerable proportion of cellular elements; and in some cases these abound to the almost entire exclusion of the fibrous character. I have noted also that the proportion of these cellular elements varies partly with the rate of growth of the tumour, being found much more abundant in those tumours which have grown rapidly; and partly also the proportion varies according to the situation of the growth, so that tumours which are subperitoneal are more fibrous and less cellular than those which are interstitial or submucous, and the converse equally obtains. It follows also that the latter, being more cellular, have a much more rapid growth than the former. This rate of growth, then, not only indicates a distinct peculiarity of microscopical structure, but it also points to a particular site as occupied by the growth, while this again affords information in regard to the treatment required for its removal.

I have said that there is an obvious advantage, from a practical point of view, in classifying these tumours according to their situation in relation to the uterine walls; because, when we come to study them at the bedside, we shall see that all their symptoms point distinctly to this one fact; and the practical value of this classification consists in this, that, according to the situation of the growth, so will the treatment be regulated. A tumour, for instance, which can be diagnosed as entirely intra-uterine, will require a mode of treatment wholly different to that which one situate upon the peritoneal surface necessitates; and it is obviously important to be able to differentiate between these two, especially from a study of their clinical phenomena; this, to a very great extent, I am satisfied we are able to do. I adhere, then, to the old system of classification of these growths into the three varieties of submucous, subperitoneal, and those, lastly, which lie between these two, but which are neither the one nor the other, though they may incline at one time more to the one than to the other—I mean the interstitial variety, or those growing within the substance of the uterine wall, being surrounded on all sides with uterine tissue, to the assistance of which we look in our management of this variety by the process of enucleation.

A few words on each of these three varieties will fitly lead up to a description of their several symptoms, and to their consequent differential diagnosis. First, then, as regards the submucous group. These are originally developed immediately under the mucous membrane, and as they grow they project more and more towards the uterine cavity, which they invade and distort to a greater or less extent, according to the size of the tumour. When very minute, they are, of course, interstitial, but they become submucous as they develop. It has been thought, and I incline to the belief, that, by the active efforts of the muscular fibres behind or beneath them, they are gradually projected from the bed in which they were originally developed, and hence they grow in the direction where there is least resistance, which is in this case the uterine cavity; and some authorities have suggested that by a further development of this process, the growth is actually extruded, its point of attachment narrowed, and so ultimately it becomes polypoidal in character, with a more or less slender stalk, and covered all over with uterine mucous membrane. I have already alluded to the microscopical characters of this variety, to the fact that they generally possess more of cellular and less of fibrous elements, and that they are also of more rapid growth.

The subperitoneal variety are the exact opposites of these submucous forms. They are believed to originate in the uterine wall, very near to the peritoneal surface, and to be gradually extruded in precisely the same way as the other variety, viz., by muscular action forcing them also in the direction of least resistance; and, in some cases, leading by the same process to the formation of a pedunculate or polypoidal form of growth, hanging in the peritoneal cavity instead of in the uterine cavity. This variety grows much more slowly than the former, and is characterised by a much greater preponderance of the fibrous elements over the cellular forms of structure; they are accordingly much harder, and sometimes present almost a cartilaginous feel.

Both of these growths have, as I shall show presently, well marked and distinctive features, which separate them not only from each other as regards their clinical characteristics, but also from the remaining group; viz., the interstitial, or intramural. These, according to my observation, grow much more quickly than either of the other two, and are, in consequence, largely composed of cellular elements. The greater freedom of blood-supply probably accounts for this fact. As they grow they may incline more to one or other of the uterine surfaces, and in proportion as this occurs, so will the uterine cavity be more or less influenced, distorted, or enlarged, a point which is obviously important from a diagnostic point of view, and one which is happily within our cognisance by means of the uterine sound.

Of all these growths, it may be remarked that they are much more frequently developed in the fundus and body of the uterus than in the cervix. Indeed, it is very rarely that we meet with them in the latter situation. Moreover, they are more often met with in the anterior than in the posterior wall—at least, according to my observation—and I may add that, for purposes of enucleation, there is more risk and greater liability of failure when they are situated in the anterior than in the posterior wall. I believe that the greater risk is due to the presence of more cellular tissue in the anterior than in the posterior *cul-de-sac*, and to consequent greater liability to the occurrence of cellulitis, abscess, etc.

As regards the symptoms of these several varieties and their differential diagnosis, these may all be classified under three heads, namely, disordered menstruation; irregular discharges, either of mucus or blood; and, lastly, pain. These all exist, but in very varying degrees, in all cases of uterine tumours of the kind we are considering; and, moreover, the differences in degree in which these appear afford us valuable indication as to the site and character of the growth; so that the more one or other of these three symptoms preponderates, the more easily can we assign to any given tumour its proper place in the classification I have adopted as regards the relations and attachments of these growths; and when such an assignment is strengthened by careful and complete local examination, both with and without the aid of an anæsthetic, then, in truth, we shall be able to arrive at a diagnosis as accurate as the nature of the case can possibly admit of.

Broadly speaking, I have observed that the two chief symptoms, pain and discharge, whether of mucus or of blood, are invariably proportioned the one to the other; so that if there be much pain there is generally very little discharge; and, *per contra*, hæmorrhage is seldom associated with severe pain. Again, I have observed, as a clinical fact, that the existence of great pain on the one hand, or of severe hæmorrhage on the other, may be taken as a tolerably sure indication of the position of the growth in its relation to the uterine walls. In the former case, the tumour will probably be near to the peritoneal surface, while in the latter it is near to the mucous surface. Pain thus associates the tumour with the peritoneal coat; while discharge, whether of mucus or of blood, refers the tumour to the mucous or discharging surface: and the more the tumour projects into the uterine cavity, the more polypoidal it becomes, and the larger the exposed surface of mucous membrane with its capillary circulation, the more full, as a rule, will be the discharge. In the submucous variety, therefore, this is the one characteristic feature. In the interstitial variety this also holds good, though to a much less extent.

The above remarks refer more especially to the menstrual discharge; but it is not only in this respect that there is so great an increase of the flow, for in the intermenstrual periods also there is often a very considerable discharge in the submucous variety of uterine fibroma. Here the discharge is of a watery mucous character, more or less tinged with blood. This symptom is altogether wanting in the subperitoneal variety, and is often absent, or but very slight, in the interstitial form of growth. Sometimes this intermenstrual discharge takes the form of very free hæmorrhage, especially when the tumour is polypoidal. Such a thing seldom or never occurs in the subperitoneal variety, and is nearly as rare in the interstitial, while it is almost universal as a symptom of polypoidal tumour, and, when it exists, the amount of discharge bears a far nearer relation to the situation than to the size of the growth; a very small tumour which is wholly polypoidal will bleed or discharge far more than one which is much larger, but is situate in the substance of the uterine-wall. Hence the diagnostic value of this symptom as differentiating the different varieties of uterine tumours; for an uterine fibroid which is not accompanied by any watery discharge, and does not give rise to excessive menstruation or to irregular discharge of mucus or blood, is not, as a general rule, so placed that it can be surgically treated *per vaginam*, but must be attacked, if at all, abdominally.

Sometimes intra-uterine tumours take on a sloughing process, and the discharge then becomes peculiarly offensive. This occurs more often when the tumour is projecting through the os into the vagina, and a casual examination might easily lead to such a growth being mistaken for cancer of the cervix. I have more than once known this to occur, but the differential diagnosis is easily made by carefully observing that in the one case the finger can be passed all round the mass, and feels a ring of healthy tissue—the cervix—

through which the sloughing mass is protruding; while, in the case of carcinoma, the cervix being the part affected, no such ring of healthy tissue can be made out, for all is infiltrated with the cancer.

So much for the discharges which are present in, and characteristic of, these uterine fibromata; by noting the amount of this, very important conclusions may be drawn as to the situation of the growth, and as to the mode by which, according to its situation, it may best be treated by surgical interference.

There is yet one other symptom which affords very valuable aid in the differential diagnosis of the three varieties of uterine fibromata, I mean pain. I have already said that, as a general rule, pain and discharge are inversely proportioned the one to the other, and they indicate very plainly the situation of the growth in regard to the uterine walls. An uterine polypus, or a submucous fibroid, may grow to a very considerable size without occasioning any pain. An interstitial tumour may give rise to some pain; but a subperitoneal growth not only may, but will cause very considerable pain, and especially during the menstrual period, though it is by no means confined to that time; nor is the pain at all proportioned to the size of the growth, but it will have close relation to its situation. For instance, a subperitoneal fibroid will be much more painful on the anterior than the posterior wall of the uterus, and the nearer it is to the fundus, the greater will be the amount of pain, and the more constant will it be. Sometimes it will cause a flexion of the fundus on the body of the organ, and then mechanical difficulties in the escape of the menstrual fluid will occasion dysmenorrhœa. There is nothing peculiar or distinctive about the character of the pain in these uterine fibromata, except in this respect, that the situation of the tumour will determine the seat of pain. For instance, if the pain is felt in the lower dorsal or upper lumbar region, then probably the tumour is growing from the fundus uteri. If, on the other hand, the tumour is more limited to the body of the uterus, then the pain will be felt in the lumbar region alone; and, lastly, if the cervix be the seat of disease, then the pain will be felt mostly over the sacral region. In all these respects, there is nothing which specially characterises these tumours, for disease of any kind in the parts of the uterus thus indicated will give rise to pain in these several localities, and in all cases it is due to the anatomical arrangements and distribution of the nerves of the different parts of the uterus, the fundus, body, and cervix uteri being supplied by nerves derived from different parts of the sympathetic system, and being also in communion with different nerves of the spinal system. We may, however, differentiate between the merely mechanical pain produced by flexion in menstruation, and that due to fibroid tumour, by the fact that, in the former, the pain is felt chiefly, if not entirely, in connection with menstruation, while in the latter it is constant, being due to the ever present fibroid. Vaginal examination is, however, that upon which the diagnosis will chiefly turn; and then it will be found that though probably the cervix will maintain pretty much its normal size, shape, and position, both in the cases of flexion and of small subperitoneal fibroid, yet its tissue will be changed, so that in the former it will probably be softened, while in the latter it will most likely be hardened. In flexion, there will generally be much tenderness and softness in the flexed part, while in fibroid tumour there will be little or none of either. Speaking generally, too, the fibroid will be more mobile than the flexed fundus, though this will depend, in the case of the former, upon the extent of attachment of the tumour to the uterus. The more pedunculate it is the greater will be the mobility.

But, it is in the employment of the uterine sound that we must look for greater accuracy of diagnosis; for in the case of flexion, the sound will enter the flexed portion, while, in the case of fibroma, no such direction is observed. The sound in this latter case passes onwards, leaving the lump referred to wholly unaffected by it. When this is the case, flexion of course is excluded, and the lump is probably either an ovarian or a uterine tumour; if the former, we shall find that, while the sound is *in utero*, movement of the tumour has little or no effect upon it; but, if the latter, then the slightest movement of the tumour affects the handle of the sound, which thus becomes an index, pointing to the uterus, rather than the ovary, as the seat of the growth. No doubt, there is often difficulty in the differential diagnosis of small ovarian and uterine fibroid tumours; but in the former the tumour and the pain are both unilateral, in the latter they are central; in the former there is no increase of menstrual discharge, nor any menorrhagia or other irregular discharge of mucus or blood, in the latter all these are present; in the former the tumour is elastic and tense though firm, in the latter it is hard and solid; the former feels like an India-rubber bag tense with fluid, while the latter feels like a solid India-rubber ball.

Where the tumour is much larger, there is generally less difficulty in the differential diagnosis, not only of ovarian and uterine tumours, but also in the different varieties of the latter. In the case of the submucous form, the uterine cavity is necessarily elongated, and the measure of its length indicates not only the nature of the case, but the probable size of the tumour. In the subperitoneal variety, the cavity of the uterus is not necessarily, nor even commonly, enlarged, at least not to any degree corresponding to the size of the tumour. The sound, in these cases, affords no indication as to the size of the growth, which must be judged of by external palpation, but it gives almost conclusive evidence as to the uterine character of the growth; for, with the sound *in utero*, any movement of the tumour internally is communicated at once to the uterus, and may be seen by its effect on the handle of the instrument. This point is seen with even greater distinctness in the case of the two other varieties; for, with them, the very slightest movement of the tumour is at once transmitted to the handle of the sound. In the case of an ovarian tumour of large size, the evidence afforded by the use of the uterine sound is entirely negative in character; it is, in fact, a simple negation of all I have just described. Moreover, the clinical history is very dissimilar in the two cases. Fibroid tumours of large size are almost invariably associated with menorrhagia, metrorrhagia, or intercurrent uterine hæmorrhage, and more or less watery discharge. Ovarian tumours, on the other hand, have none of these things. Uterine fibroids have usually a very long history, extending over many years, and often producing comparatively slight constitutional disturbance. Ovarian tumours, on the other hand, grow much more rapidly, often produce great emaciation, and generally give rise to some constitutional disturbance. Then, as regards the tumour itself, this is central in the uterine variety, lateral in the ovarian; freely movable in the former, comparatively fixed in the latter; nodular or otherwise irregular in shape, hard, solid, and nonfluctuating in the case of uterine growths; exactly the opposite in the ovarian, their shape is generally uniform, very seldom nodular, always, or with very rare exceptions, fluctuating, seldom or never hard, and scarcely ever solid. Percussion is the same in both cases. Auscultation occasionally, but by no means frequently, gives, in the case of fibroid tumour, a distinct *bruit*. This is extremely rare in ovarian tumours; but I have met with it now and then, so that it cannot be relied upon for diagnosis. *Per vaginam*, the tumour is found much more closely related to the uterus in the uterine than in the ovarian tumour; especially in the submucous and interstitial rather than in the subperitoneal variety. So, again, hardness, solidity, and irregularity of surface are found in the one; while elasticity, rotundity, and a sense of fluctuation are met with in the other. As a general rule, it may be said that there is more deformity and more displacement of the uterus, as revealed by vaginal examination, in the case of uterine fibroma than in the case of ovarian tumour. In the above remarks will, I believe, be found a brief epitome of all the leading differential symptoms of the several varieties of uterine fibromata.

A CASE OF HYSTERECTOMY FOR UTERINE FIBROMATA.

Read in the Section of Obstetric Medicine.

BY W. WALTER, M.A., M.D.,

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ON the 3rd of last November, I was sent for to see Mrs. S., aged 29, who had been married nearly two years, and for the last ten months had been suffering from an abdominal tumour. She was for ten or twelve weeks previously confined to bed, suffering intensely from constant pain and discomfort through the pressure exercised by the tumour on the parts within the pelvis, as well as by repeated attacks of peritonitis. Her family history was good, both her parents being alive and healthy. I was informed by the patient's medical attendant that, for several years, she had been subject to asthma, but otherwise had been healthy. The catamenia commenced when she was twelve years of age; the periods, invariably recurring with the greatest regularity, were never profuse, but on the first day of the flow marked dysmenorrhœa was always present.

My attention was particularly drawn to the fact that menstruation had suddenly ceased three months ago, that the breasts were gradually enlarging, and now contained a little milk. The patient expressed a belief that she was "in the family way," but stated she never had been pregnant before. The abdomen was so universally

tender as to render anæsthesia requisite before a thorough examination was possible; and whilst she was under the influence of chloroform I noted the following facts.

The abdominal parietes were of moderate thickness, no œdema existed, and slight enlargement of the superficial veins was visible. The lower part of the abdomen was occupied by a globular tumour of smooth outline, and firm consistence. It reached in an upward direction as high as the umbilicus, and extended laterally to each iliac fossa. The entire area of the swelling was dull on percussion, and nowhere was it possible to detect fluctuation; it was almost immovable, and auscultatory sounds were not audible. On careful examination *per vaginam* and bimanually, it was impossible to feel the uterus; but a very small depression or dimple could be felt in the roof of the vagina, just behind the pubes, and this undoubtedly represented the os uteri. Owing to the probability of pregnancy existing, I did not attempt to pass an uterine sound, but, a few days later, I inserted, through the depression just referred to, a very fine whalebone-probe, and ascertained that it could easily be passed to a distance of four inches. The entire pelvic brim, and upper part of the pelvic cavity, were encroached upon by a hard swelling, plainly continuous with the tumour felt through the abdominal wall; and from its posterior surface extended downwards an offshoot that evidently pressed against the rectum.

The diagnosis seemed finally to rest between a fibro-myoma of the uterus *plus* early pregnancy, and an ovarian tumour of probably a dermoid nature. The rapid growth of the tumour and absence of all uterine hæmorrhage pointed rather to the latter view being correct, which even the milk in the breasts and the amenorrhœa did not contra-indicate, whilst, on the other hand, one had to remember not only the hardness of the tumour, but its uniformity of consistence and outline, as well as the suddenness and completeness of the amenorrhœa that preceded the characteristic alterations in the mammary glands.

In discussing the treatment to be adopted, the urgency of the patient's condition left us no choice but to recommend that an exploratory incision should be made, and then, if it seemed feasible to remove the tumour, to do so by whatever method appeared at the time most likely to be followed by success. The patient cheerfully assented to the advice given, and, on November 25th, the operation was performed.

The anæsthetic chosen was bichloride of methylene. Dr. Emrys-Jones was the administrator, and Mr. Arthur Winterbottom assisted me. No vomiting occurred; but, before full anæsthesia was induced, the patient's pulse became weak, and it was thought advisable to add an equal bulk of ether to the methylene, and the alteration in the anæsthetic was at once followed by improvement in the pulse.

I commenced the operation with an incision in the linea alba, four inches long. Very little hæmorrhage occurred from the parietal incision; but four veins required compression. On cutting through what appeared to be the peritoneum, we found another layer requiring division; but even then we did not seem to be within the peritoneal cavity, and several more layers were cut through before the tumour was reached. It was now evident that the anterior surface of the tumour was closely adherent to the abdominal wall. I therefore extended the incision upwards well above the umbilicus, and, introducing my finger into the abdominal cavity beyond the superior surface of the tumour, succeeded, after some time and much trouble, in separating the adherent parietes from above downwards. A small quantity of straw-coloured fluid now escaped. At first, it seemed to be ascitic; but it proved to be from a very small superficial cyst on the front wall of the tumour. A trocar, plunged some distance into the tumour, failed to discover the presence of any fluid. To trace the origin of the tumour was not an easy task, so numerous were the adhesions, not only to the abdominal walls, but also to the great omentum and mesentery. Several of these adhesions required to be ligatured; and when all were divided or separated, and the tumour made capable of being drawn forwards through the abdominal incision, we found it was attached to the right side of the lower segment of the uterus immediately above the roof of the vagina, and was partly enveloped by the right broad ligament.

The uterus, as was suspected to be the case, contained a fœtus of about four months. Every effort was made to enucleate the tumour from its uterine attachment; and, in doing so, we found it impossible to avoid opening the cavity of the uterus. The funis of the fœtus escaped through the aperture, and was found to be pulseless. The fœtus was then extracted through the artificial opening, and the enucleation of the tumour completed.

We now discovered the existence of a second tumour as large as a small orange, attached to the uterus very low down on its posterior aspect, and which proved to be the prolongation into Douglas's pouch already referred to as pressing against the rectum. How to remove this, as well as the remains of the various attachments from which the larger tumour had been enucleated, was very carefully considered; and the course that seemed best to adopt was to make a pedicle of the supravaginal portion of the neck of the uterus, secure it with Kœberlé's wire-clamp below the attachment of the second tumour, and remove along with it the uterus and appendages. By cutting off in this way the escape of any discharges from the pedicle into the peritoneal cavity, we hoped that the chances of septicæmia would be at the same time lessened. As soon as the clamp was tightened, the pedicle, measuring across its cut surface a diameter of an inch and a quarter, was transfixed with two strong pins placed at right angles to the abdominal incision. In this way, it was kept in the lower angle of the wound, and prevented from falling back into the abdominal cavity; whilst all oozing from its surface was caught in the external dressings.

The abdominal wound measured about ten inches in length, and its edges were secured with carbolised silk suture. The adhesions that required ligaturing were also tied with fine silk. The dressings were of thymol gauze, over which were placed pads of cotton-wool, and were retained in position with strips of plaster and a many-tailed flannel bandage. The spray was not used, but in every other respect antiseptic precautions were exercised.

The large tumour weighed 10 lbs. 1 oz.; and the small tumour, with uterus attached, weighed 1 lb. 5 oz. A microscopical section of the tumour showed the appearance of an ordinary myo-fibroma of the uterus.

When the operation was completed, the patient quickly recovered consciousness, but for a couple of hours remained cold and very weak; she then rallied, and her spirits became cheerful; but for twenty-four hours she suffered a good deal from pain referred to the neighbourhood of the pedicle. After two days, the pain abated, but returned again to some extent on the seventh day, when there was also a good deal of tympanitis, causing the edges of the wound to become separated where some of the sutures had been removed on the previous day. Four sutures were re-inserted, and strips of plaster applied underneath the dressings. Each day the wire of the clamp was tightened; and on the eighth day the dressings were extremely fœtid, and she was fretting on account of the sutures having given way. She partook less freely of nourishment; her pulse rose to 144; and her temperature, from 98.8°, rose to 100.6°. She continued like this until the day following, the ninth from the operation, when her hands and arms became cold and clammy, and her pulse increased to 150; and she died, retaining her consciousness to within ten minutes of her death. The highest rise of temperature was 101.8°, in the evening after the operation.

Post mortem examination revealed evident signs of peritonitis. The great omentum had become adherent to the posterior surface of the wound, as well as to the intestines, which latter were also matted together with recent lymph. The pedicle also bore traces of lymph, close to which the intestines were much congested. The wire of the clamp was found to have nearly cut through the pedicle, the distal portion being in a condition of black slough. In the pelvis were found several ounces of very fœtid, muddy, sanguineous fluid.

Sir SPENCER WELLS (London) agreed generally in the opinions expressed by Mr. Thornton as to the limitation of operations upon uterine fibro-myomata—whether by removing the tumours or by removing the ovaries and Fallopian tubes—to those cases alone where the tumour threatened the life of the patient or caused her any great suffering. In many cases, the tumours, after the cessation of the catamenia, underwent a process of spontaneous involution, and disappeared more or less completely. In other cases, tumours of considerable size caused so little inconvenience, that no operation was justifiable. But, in some cases, either from recurring serious bleeding, or from the size or presence of the tumour, there was the choice of removing the ovaries and appendages, or the tumour. In some cases, the latter proceeding was decidedly preferable. In others, nothing but the removal of the tumour could be done. Then there was the choice of the two methods of dealing with the uterine stump—extraperitoneally by the clamp or some kind of *serre-nœud*, or by the intraperitoneal method; sewing up the divided uterine wall by one row of peritoneal sutures, or, as advised by Dr. Schroeder, by two rows—one uniting the mucous membrane of the uterine cavity, the other the peritoneum. The German operators also used large drainage-tubes. The objection to these was the great difficulty of avoiding sepsis: and the sutures of the

mucous membrane might also be objectionable, by leading to accumulation of fluids between the two rows of sutures. Further experience carefully recorded was required before these questions of practical detail could be decided, but there was sufficient proof already recorded to give good ground for hope that the large mortality of these operations as hitherto performed would become very much smaller as experience increased.

Dr. WALLACE (Liverpool) remarked that he had asked Mr. Thornton what percentage of cases he had operated upon during the seven years, as it had an important bearing upon the question of operative interference. Five per cent. of cases, or nearly, was the reply; which meant that about 600 cases were seen in seven years. Now, in Liverpool, fibromata, like cancer, prevailed; and yet, during the last seventeen years, he had never seen a patient die from hæmorrhage from fibroma; and, in the present chaotic state of opinions as to whether excision of one or other, or all of the uterine appendages, would produce the menopause and stop hæmorrhage, the procedure seemed a dubious one. It was at best only experimental. Dr. Wallace objected to operations, as inapplicable to cases where other and safer treatment might cure the patient, because these growths did involute under treatment; and hæmorrhage could always be controlled; and generally, after a prolonged climacteric, the hæmorrhage ceased, though not always. Operations should only be resorted to when the life of the patient was rendered insufferable from distension and pain; and in such cases, Dr. Wallace had sometimes yielded to the entreaties of the patient, against his better judgment, and performed extirpation. He detailed five or six cases in which he operated by excision, by enucleation, and by the extraperitoneal method, with two recoveries and four deaths. The extraperitoneal method was likely to be most successful.

Dr. MORE MADDEN (Dublin) expressed his coincidence with Dr. Wallace's views. In Dublin, as in Liverpool, a larger proportion of cases of uterine fibroids came under observation than seemed to be the case elsewhere. In the hospital with which he was connected, he had, during the last few years, been forced by necessity to operate in a large number of cases of fibroid tumour of the uterus, and he believed that the results had been satisfactory, and there had been as many recoveries as in the practice of other hospitals. Still, Dr. More Madden could not help thinking that, of late years, there was too great a disposition to operate in all cases of this kind. And, from his own experience, he believed it possible, by judicious constitutional local treatment, in many instances, to arrest hæmorrhage from uterine tumours, and not only keep the patient alive for many years, but also, in some cases, to assist in the arrest or even the disappearance of such tumours. At the same time, he was fully aware of the great value and necessity of operative interference in other cases, and mentioned some instances of recovery after operations of this kind, under even very unfavourable circumstances.

Dr. EDIS (London) thought the Section was much indebted to Mr. Thornton for bringing the subject so forcibly and ably before the notice of the profession. He was a pioneer in this direction, and his observations, so liberally made for the advantage of his professional brethren, deserved our gratitude and careful consideration. Dr. Edis felt sure there were numbers of patients scattered over the length and breadth of the land who were suffering from fibromata, whose lives were merely living deaths, they being quite unfitted for the duties of their station. In such cases, operative interference was perfectly justifiable, not only in prolonging many lives, but in restoring patients to health and activity. Until our experience in these cases was much greater than at present, of course much must remain *sub judice*, but as to the justifiability of the operation there could be no reasonable doubt. Dr. Edis had enucleated numbers of fibroids, varying in size from a hen's egg to that of a child's head, and with marked success in patients where no other form of treatment was of the slightest service.

Dr. GRAILY HEWITT (PRESIDENT) expressed his concurrence with what fell from Dr. Edis. He would, however, like to recur to the point as to the necessity for operations. He had seen, during past years, many cases in which the tumour had disappeared under careful treatment, and he doubted whether sufficient attention had been paid to this.

Dr. LLOYD ROBERTS (Manchester) believed that, in cases where uterine tumours were producing severe constitutional symptoms from pressure or other mechanical impediment, it would be necessary to deal with them by operation. It was only occasionally that hæmorrhage alone was proved to produce such severe symptoms as to imperil life. Although the best means of dealing with the pedicle was still *sub judice*, he thought that the intra-abdominal method would be found the best.

Dr. W. R. ROGERS (London) thanked Mr. Thornton and Dr. Schroeder for their admirable papers. He agreed with what had fallen from Dr. Edis on this subject; and, while agreeing with what had been said by the other speakers, he must dissent from the opinion expressed by Dr. Roberts, that the dropping the pedicle or stump into the pelvic cavity, and closing the peritoneum, was the most successful mode of treatment. He had never himself operated by opening the peritoneum, but had many times removed fibromata by enucleation after dilated cervix uteri; he had, however, seen many of these operations performed by his colleagues, as well as by others, and he had come to the conclusion that keeping the pedicle or stump externally, where it could be done, was the most successful mode of procedure. One of the great causes of death in such cases was from hæmorrhage by the slipping of the ligatures, no matter how placed, for the pedicle would shrink, and bleeding take place, the ligature ceasing then to be effective. While, the pedicle being secured outside, external hæmorrhage was guarded against, he certainly must give his testimony to the great success that had followed this plan in the hands of one of his colleagues, and also by others who had adopted it.

ON THE VARIOUS FORMS OF ARTIFICIAL TYMPANIC MEMBRANES, AND THEIR COMPARATIVE VALUE.

Introduction to a discussion in the Section of Otology.

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IN accepting the request of the secretaries of this Section, that I should introduce a discussion on the above subject, I felt that a short time might be well spent in reviewing the present position of this portion of our specialty. The conditions of the normal membrana tympani for which artificial membranes are useful are of two kinds: 1, Perforation; and, 2, Relaxation.

Perforation.—The membrana tympani may be perforated in any form, size, number, or position, but not with equal importance. The ossicles may be uninjured, or entirely destroyed, and the membrane may also be completely removed. Perforation of Shrapnell's portion of the membrana tympani is a portion of the membrane in which, I believe, an artificial drum has never been found of any service; and anatomical reasons would indicate this. As long as there are signs of healing, a perforation should, as a rule, be induced to close up; although, in some cases, a greater amount of hearing is obtained from a perforation fitted with an appropriate artificial drum, than when the perforation is cicatrised. It would be well if any preliminary conditions could be made out by which aurists might be guided as to which of these courses should be adopted in each case. The most suitable perforations in which to devise the greatest benefit from artificial membranes, are those of moderate size, in which the stapes is retained, and the hearing-distance without the membrane is from one to five inches.

If the entire membrane be destroyed, and the mucous membrane of the middle ear be hypertrophied, some aurists (Roosa) consider no good can be done, and that incurable deafness remains, but my experience is opposed to this. The majority of perforations are ovoid in shape, and situated in the antero-inferior quadrant, the body of the incus and malleus being retained; and attached to the latter, on its inner surface, are the tensor tympani ligament and muscle.

Relaxation.—In these cases, the incudo-stapedial joint has become loosened, and the membrane flaccid. In this condition, the use of the artificial membrane is beneficial, although Roosa denies that artificial membranes are of service in any but partial or complete loss of the drumhead.

The action of artificial membranes for the ear is of two kinds:

1. Anatomical, in which an endeavour is made to restore the hearing by supplying a loss of substance of the natural membrane, and with it the protective function of the normal membrane to the middle ear.

2. Mechanical, in which no such object is aimed at, but an attempt is made to supplement the natural condition, as in cases of relaxation, and constitutes Erhardt's treatment of deafness by pressure on the ossicles and labyrinthine fluid. Perhaps, also, by

transudation of fluid from moist cotton through the membrana tympani to the dry middle ear. The physiologico-therapeutic action of artificial tympanic membranes is of three kinds: 1. By supporting the ossicles; 2. By pressure on the labyrinthine fluid; 3. By enclosing the sound-vibrations within the middle ear by a perfect closure of the perforation.

Yearsley and Erhardt held that the first theory named was the correct explanation; and that "the incus and stapes having become detached by inflammation of the mucous membrane of the tympanic cavity, the continuity of the sound-conductors was destroyed."

The second theory, that the improved hearing is due to pressure on the labyrinthine fluid, is almost inseparable from the first, although Politzer distinctly states that the benefit is due to the pressure on the fluid, and not merely to the bracing up of the ossicular chain.

The third theory of the action of artificial membranes, by enclosing the sound-vibrations by perfect closure of the perforation, was long held by Toynbee, who believed that sound is conveyed through the tympanic cavity partly by air, and partly by the ossicles. Although these views are not now the burning question they were thirty years ago, it is well to bear them in mind in selecting the most suitable form of artificial membrane. Experience has fairly decided in favour of the views of Yearsley, who subsequently converted Toynbee to them.

I do not propose to describe all the membranes that have been invented; but, in enumerating the chief, many of which are only of historic value, I shall select the most important from the following list.

Bauzer (in 1640); Lescheven (1763); Autenreith (1815); Giampietro, Lincke (1840); Yearsley (1848); Toynbee (1853); Westropp (1855); Clarke (1859); Gruber, Politzer (1867); Lochner, Hartman, Biot (1874); Field (1875); Turnbull and Blake (1876), have each given us distinct forms of artificial membranes, besides many others who have modified previous types.

Autenreith's instrument was a short leaden pipe, over one end of which was stretched a piece of wet fish-bladder, afterwards varnished. Most of the early membranes were made upon this principle, but of various substances. The object of this instrument was rather to protect the middle ear than to improve the hearing; indeed, the latter was often made much worse.

The principle of the modern artificial membrane dates from the investigations of Yearsley and Toynbee, by their advocacy of the cotton pellet and India-rubber disc respectively. Westropp and Lucae's membranes were India-rubber tubes, variously modelled, and covered at one end by a delicate membrane, and were clumsy revivals of the old principle of construction. Clarke's membrane was an egg-shaped disc of rubber, concave inwards, with a stem attached at one end of the disc, and curved away from its attachment. Politzer and Gruber modified Toynbee's membrane by fixing the wire at one side of the disc, or by using silk instead of wire. Lochner's membrane consisted of thin, gold-plated, silver-wire, twisted into two rings, between which a thin rubber disc was fixed. Hartman's instrument consisted of a loop of very fine whalebone, covered over with cotton-wool. Mr. Field's artificial membrane is a combination of the membranes of Yearsley and Toynbee, and applied by means of a wire stem. Turnbull advocates a fine steel oval disc, to which a steel stem is attached at one side, the whole covered with a layer of rubber. Czardo proposes discs of antiseptic silk; and Blake the use of sized writing or blotting-paper; and similar discs of linen, flannel, gold, oil-silk, and gutta-percha tissue, have been found serviceable. Nor must we forget the value, as artificial membranes of a temporary kind, of powders, tenacious fluids (like oil and glycerine), and of water, which often act very efficiently.

In considering the comparative value of artificial membranes, we must distinguish, in each case, the chief object to be aimed at, whether solely to improve the hearing, or to act as a curative agent, in draining the ear of discharge, and protecting the middle ear; or with both purposes in view. Here I may interpose a reminder of some objections which have been made by competent authorities to the use of artificial membranes in general. Burnett, for reasons not given, thinks that children should not, in any case, wear them; and that no person having one ear normal can obtain any appreciable benefit to the hearing from any form of artificial membrane. Buck, who rarely uses them, seems to consider the presence of such a foreign body in the meatus, and in close contact with the membrana tympani and malleus, as more annoying than advantageous to the patient. I think the majority of aurists in this country will agree with me that this view is not shared by them, and that, on the contrary, as Hinton says, the continued use of the artificial membrane does, more than produce a temporary improvement in the hearing; that, in many cases, it produces a permanent bracing up of the ossicles, and in time it dispenses with itself.

The three forms of artificial membrane which alone appear to me worth considering are Toynbee's and Yearsley's, and their modifications by Field, and the discs advocated by Blake, Keene, and others.

The longer my experience, the less satisfied am I with Toynbee's wire and rubber drums. They are very liable to break, and not so easily obtainable as the other forms, require constant removal at night, are not free from danger when worn, do not embrace the part affected thoroughly, and cannot act as an absorbent or drain with the therapeutic efficiency possessed by some other kinds of membranes. In the relaxed membrane and ossicles, I think Toynbee's wire-drum is, perhaps, preferable to any other, as additional pressure can at any time be applied; and medicinal applications are not required in such cases. Yearsley's cotton-drum, with silk-thread attached, is best soaked with vaseline, pressed into wafer-shape, and passed by Hassenstein's forceps along the roof of the meatus, towards the posterior superior quadrant of the membrana tympani, and thence to the perforation, where it should be placed so as not to cover the entire aperture, but to include the stapes or other remaining portion of the ossicles, not reaching far enough to touch the inner wall of the middle ear. In estimating the degree of improvement in the hearing from the use of the Yearsley artificial membrane, Knapp finds that about one-third of the normal distance is the maximum improvement he obtained; and this only in those whose hearing without it reached from ten to fifteen inches. I am convinced, from cases of my own, that in a few cases I have obtained a return of hearing to the extent of fifty per cent.; and I think careful observations are needed as to hearing-distance, without and with the various forms of membrane. The advantages of the cotton-drum, in pellet or wafer-form, are its simplicity of structure and material, its freedom from irritation, its absorbent, drainage, and curative action, by soaking up discharge, keeping therapeutic remedies in contact with the diseased surface, and keeping the exposed locality protected from the dangers of impure atmospheric influence by its filtering qualities. The cheapness of Yearsley's form of membrane is not to be lost sight of in our dealings with the poor, who require to retain such an apparatus longer than could be done with Toynbee or Turnbull's membranes. Yearsley's membrane is available, also, when applied to the membrana tympani in the relaxed form of deafness.

An increased experience in the use of the discs of linen, flannel, and of Buck's paper, with central thread attached, and inserted by means of a fine India-rubber tube, with lateral aperture, has enabled me to think highly of this form of artificial membrane; and I consider they will, in the future, be much more largely used. Though rather more difficult to adjust, they are simple and inexpensive, and retain a certain amount of any remedial solution in contact with the membrane. Though less absorbent, they are equally as protective as the cotton-pellet, and appear to be more favourable to cicatrisation when the healing process is not entirely absent. These discs should be cut rather larger than the perforation; and, though a little more irritating to the meatus, when introduced, than Yearsley's membrane, they are quite as useful in the form of relaxed membrane as Toynbee's, and have a more vibratory character than the cotton-pellet.

If the linen disc be soaked in a solution of gutta-percha in chloroform, a useful and more durable form of Toynbee's membrane is obtained; and if to this the central thread is carried through a layer of flannel or sponge, all the advantages of the combined membrane which Mr. Field advocated are obtained.

Of the use of small India-rubber bladders, filled with air or fluid, I have no experience, though they are well spoken of, and would, no doubt, in suitable cases, approach a true vibrating membrane more completely than other forms of artificial membranes. Taking into consideration the manifold qualities which I stated at the outset are sought for in the use of the artificial membrana tympani, I do not, at present, see that any form answers all these objects so satisfactorily as the cotton-wool form in its original or modified shape.

I need, in conclusion, only remind you of the necessity that (as with artificial teeth and eyes) the surgeon should insist that each form of drum should be worn by the patient a sufficient length of time to overcome the novelty of the sensation, and train the part to the exercise of a renewed activity.

PRACTICAL OBSERVATIONS ON THE VALUE OF THE COTTON-PELLET (YEARSLEY'S ARTIFICIAL TYMPANIC MEMBRANE) AS AN AID TO HEARING.

Read in the Section of Otology.

BY THOMAS BARR, M.D.,

Aural Surgeon to the Western Infirmary, and Lecturer in Aural Surgery in Anderson's College, Glasgow.

YEARSLEY, in 1848, was the first, in this country, to draw attention to the improvement in hearing which is sometimes produced by placing a moistened pellet or ball of cotton-wool over the remains of the tympanic membrane in cases of perforation. Toynbee, making use of this suggestion, introduced, in 1853, his so-called artificial drum, consisting of a disc of India-rubber connected with a silver wire. The use of the cotton-ball or pellet of Yearsley, or some modification of it, is now generally preferred by aural surgeons to the India-rubber disc. The cotton is sometimes used dry, especially when it is intended to soak up moisture in the ear; but a moistened ball of cotton is, in my experience, much more effective in improving the hearing than dry cotton. I generally moisten it with glycerine, well diluted with water, or with vaseline; if there be still suppuration, I find it advantageous to the suppurative process to soak it in a suitable astringent or antiseptic solution. The cotton may have the form of a ball, or it may be disc-shaped; in the latter case, I employ two or three layers of surgeon's lint, connected together with thread, in preference to cotton-wad; while a piece of thread attached to it, and which lies in the canal of the ear while the cotton is in position, enables the patient to remove it at will. When I am satisfied of the usefulness of the cotton-pellet, I carefully instruct the patient in the method of introducing and withdrawing the cotton by means of fine forceps having a weak spring. Very frequently, after such training, the patient becomes much more dexterous than the surgeon in manipulating with the cotton in the ear.

The use of the cotton has the following advantages over Toynbee's artificial membrane. 1. It is softer and excites much less irritation. 2. It is a convenient medium for applying astringents or other medicaments to the interior of the ear. 3. It does not cause disagreeable noises in the ear during chewing, as does the wire of Toynbee's membrane. And 4. It is not visible at the orifice of the ear.

The efficacy of the cotton depends very much on the precise place to which it is applied and the degree of pressure exerted by it. The situation where it is most likely to be beneficial is the upper and back part of the inner wall of the tympanum, over the situation of the stapes. The next most likely place is the upper part of the manubrium. If the perforation is small, I generally try the application of a small cotton-disc over it. But in determining whether, in a given case, this mode of treatment will prove useful, we must patiently and carefully try the moist cotton-pellet on one spot after another with varying degrees of pressure. In many cases, before admitting failure, I repeat these efforts at two or three different times. As a rule, when we hit upon the proper place, we have the good effect immediately; but I have known patients who found no benefit until it had remained in the ear several hours.

When we find that this method of improving the hearing is successful, great caution should at first be exercised, so as to avoid irritating the ear and producing inflammation or suppuration. Great varieties are met with among patients in regard to the irritability which may be produced by such a foreign body as a piece of cotton. In a small number it is quite impossible to wear it, owing to the irritation produced, even by contact for half an hour; while, on the other hand, I not unfrequently meet with those whose ears can tolerate the contact of moist cotton-wad for months at a time without inconvenience. In a large number of persons, it is well, at the beginning, to limit the use to one hour each day for a few days, gradually extending the time until we reach eight or ten hours per day. Unless there is remarkable tolerance of its contact, it should not be used at night. During the first few days, I see the patient daily, and the cotton employed has a piece of thread attached to it, so that the patient may, after the allotted time has expired, remove it. When acute inflammation exists in the ear, or when there is profuse suppuration, I apply no form of artificial membrane, until these conditions have been removed. It must not be persisted in when its most limited use excites inflammation or giddiness. It is also inapplicable to young children. I never recommend it in persons whose hearing is very good in one ear, or even, although both ears are affected, where the deafness is not marked.

These artificial helps to hearing have sometimes a capital effect, rescuing deaf persons from solitude to all the enjoyments of society. Many persons without such aid can hear speech only when spoken close to the ear; while, with the aid of a pellet of cotton properly adjusted, they hear ordinary conversation perfectly well. Even in cases of almost total deafness, decided improvement is occasionally effected; although, as a rule, when the deafness is extreme, no benefit is produced by the artificial tympanic membrane. Slight improvement is very common, and even such moderate improvement may be of great value, perhaps averting exclusion from public meetings. My experience accords with that of Politzer, that an occasional pause of a few days is often followed by still better hearing. I have, now and again, found that improved hearing has continued for some time after the removal of the cotton.

It has to be admitted, however, that in a number of cases the artificial support has no effect in improving the hearing, although, with greater experience, most aural surgeons feel that the number of such cases becomes less.

We cannot in any given case determine merely from the pathological conditions present whether this mode of treatment will prove beneficial. The test of experiment is our only guide. Such a test is sometimes provided by the patient before coming to us. If he informs us that the pouring into the ear of a few drops of oil, glycerine, or water, has the effect of improving the hearing for a time, we shall, with great probability, find that the moist ball of cotton will have a beneficial effect on the hearing. Lately, I met with a somewhat remarkable instance of the application of fluid to the interior of the ear as a means of improving hearing. It was the case of a young gentleman in whom large perforations existed in both ears, and the deafness was a serious hindrance to the performance of his duties. He discovered that water poured into his ear had a striking, though somewhat temporary, effect in improving his hearing. For fully a year before coming to me, he had, generally as often as twenty times in a day, resorted to the pouring of cold water into his ear, in order to enable him to snatch for a time as much hearing-power as enabled him to get on in his business. His delight was great when he found that a pellet of cotton soaked in glycerine and water had as good, and far more permanent, effect.

The way in which the improved hearing is brought about by the artificial tympanic membrane is not fully understood. It is certain that this is rarely due to the mere closure of the gap in the membrane; indeed, this has often an injurious effect on the hearing. The good effects are probably produced, in most cases, by pressure exerted upon some part of the ossicular chain, either directly or through the intervention of the remnant of the tympanic membrane.

When, on account of disarticulation between the incus and stapes, or when a portion or the whole of the incus has been removed, the continuity of the ossicular chain is lost, and the stapes is deprived of its due support, and fails to exercise a due amount of pressure upon the fluid of the labyrinth, the application of the cotton-pellet, by pressing upon the manubrium or upon the long process of the incus, probably restores the continuity of the chain; or, if the incus is gone, the pressure exercised upon the stapes by the artificial support may restore the due amount of pressure upon the labyrinthine fluid. I frequently find that the cotton has to be well pressed into the situation of the stapes before a beneficial effect is secured.

I think there are some cases in which the improvement is due to diminishing the tension of the chain of ossicles, and thus relieving improper pressure upon the fluid of the labyrinth. This is Knapp's theory of its action. In these cases, the pressure of the artificial support is exerted upon the short process of the malleus, which is above the axis of motion of the ossicular chain, and the upper arm of the lever is pressed inwards, while the lower arm, together with the incus and stapes, is moved outwards.

I have rarely seen advantage to the hearing derived from the pressure of a moist disc of cotton-wad upon the tympanic mem-

brane, when the latter was not perforated. We may suspect, in such rare cases, that the continuity of the chain of bones has been, from some cause, disturbed.

Gentlemen, in giving my experiences in this paper of the cotton-pellet as an artificial aid to hearing, I do not claim to have stated anything with which you are not already acquainted. But I feel that, for this method of treatment, there is in the future more extended usefulness. There is, for example, room for improvement in the shape, size, and kind of material used, and in the mode of applying and removing it by the patient. It is only by careful observation and painstaking trials that this method may yet find a much greater range of usefulness. And the interchange of each other's experiences, in such a meeting as this, must in so practical a matter be productive of great benefit.

Mr. J. NELSON (Belfast) said that, of all the forms of artificial membranes, he had found the disc of cotton-wool, saturated with vaseline, the best; and, in a recent case which he had, the hearing was raised from 7 or 8 inches to 18 or 20 inches for a watch heard at 50 inches. He had also observed improvement not to occur until after a few days' application of the discs; and he believed that this was due to the parts becoming softened, and made more flexible, by the contact with the vaseline. With regard to Dr. Barr's remark, that artificial membranes were not applicable to young children, he would agree with him only so far as saying, that the proper application of these aids in young children must necessarily be rather difficult; for the same reason that, in children, the sooner errors of refraction could be averted the better it was for their sight, so, the sooner artificial aids could be applied to the ear, the better for the hearing. Owing to errors of refraction, eyes were often not used; and, under these circumstances, became amblyopic. This amblyopia could in a large measure be overcome, if correcting glasses were used early in life—the younger the better. In like manner, the sooner aid was applied to the ear, the greater was the likelihood of hearing being preserved. Of course, this could not well be carried out in hospital-practice; but in private cases, where the specialist could be adequately remunerated for loss of time, it would probably be worth while to try it.

Dr. THOMAS BARR (Glasgow) had not found the application of any form of artificial tympanic membrane desirable in children, owing to the tendency to recurrence of the purulent secretion—an evil which would not counterbalance any improved hearing. In regard to the use of collodion, he had found it serviceable in cases of great relaxation of the membrane; and when very temporary, improved hearing, with great bulging of the membrane, took place immediately after inflation. In these cases, the application of collodion immediately after inflation had the effect of rendering the improved hearing more permanent.

Mr. LITTON FORBES asked for information as regarded collodion, as a real and efficacious means of closing a small perforation. He had frequently tried it, but without any very satisfactory result.

Dr. J. WALTON BROWNE (Belfast) had used collodion in the treatment of chronic catarrh of the tympanum, but not with much benefit to the hearing. It had been of service in perforations of the membrana tympani. He had had several cases of tinnitus, in which it proved of vast benefit within a few minutes. In the application of it, the membrana tympani should be well illuminated, and great care taken not to apply too much; the moment pain occurred, the patient's head should be turned to the opposite side, and any collodion remaining in the external meatus should be removed.

DR. CHARLES WARDEN (Birmingham) said that, of artificial drums, he had used Yearsley's, Toynbee's, and Field's chiefly. He had found his own, one made of India-rubber, in imitation of a flower, the cyclamen, with a silver wire attached corresponding with the stem of the flower, of much use, but had abandoned it on account of difficulty in getting it made.

Dr. JOHNSTONE MACFIE (Glasgow) would like to make two remarks, one with regard to the use of Yearsley's cotton-plug, and another with regard to the value of collodion applied to the membrana tympani for the relief of deafness and tinnitus. In many cases the cotton pellet did good, and the patient, with practice, often became more successful than the surgeon in placing the plug in the best position. This was explained, he thought, by the fact that, in all cases, the patient had the advantage of feeling exactly how far the plug had been pushed into the ear, and could regulate the force in accordance with what he felt. But, farther, Dr. Macfie thought that in many cases the best results were obtained when the cotton did not touch the membrane or ossicles, and it seemed merely to act in those cases, when not so large as to fill the meatus, in giving a different direction to the column of air, and then transmitting the sound in such a manner that it could be utilised by the internal parts. With regard to the use of collodion, soon after its first mention by Dr. McKeown, Dr. Macfie used it frequently in relaxed and indrawn membranes. He certainly saw several cases in which the application relieved the tinnitus, and a smaller number in which it increased the hearing-distance, but he saw none in which either was permanently improved.

Mr. T. H. PINDER (Manchester) had on several occasions made use of an eyelet made of dried flexile collodion, and soldered by the same fluid. In one case only, where it was retained two or three months, did it do any good. The patient was a boiler-maker, who suffered from tinnitus, chiefly on one side, and he expressed himself almost entirely relieved. As to incision of the membrane for the dry form of catarrh, he had done it on many occasions without harm, but with scarcely appreciable good.

Mr. T. MARK HOVELL (London) stated that he had found in many cases tinnitus relieved by the application of a weak continuous current, even when it had existed for a considerable period.

The PRESIDENT (Mr. G. P. FIELD) said that he was in the habit of recommending the most simple drum-heads, and preferred the cotton-pellet of Yearsley to any other. He taught the patient, and then recommended him to use it for a fortnight. If, after repeated trials, the patient was unable to get any benefit, he generally suggested the use of Toynbee's, or some other modification.

Dr. WARD COUSINS (Southsea) submitted to the Section last year an ear-protector against the injurious effects of cold air and water. It was especially adapted for bathers, and as a substitute for cotton-wool generally. The instrument was intended for a sound-deadener. It would, when introduced firmly into the meatus, take off the shock of sound, and reduce it to the extent of two-thirds. It consisted of a conical vulcanite plug, shaped like a rifle-bullet, closed by a thick disc of the same material. It formed an elastic and very comfortable protection, which could be very conveniently put in and taken out in a moment. It was recommended by Dr. Cousins for persons working in loud noise, such as artizans in factories, soldiers and sailors during the discharge of cannon, and all who were painfully affected by noise. Many were, under those circumstances, permanently affected, and this little apparatus was proposed as a sound-deadener, and, therefore, a preserver of the ear against those chronic changes which a life of labour amidst noise was liable to produce. The plug must not be merely introduced into the ear, but firmly pressed and screwed round the meatus. It was made also fixed in spring-supports, which passed behind the head, the cushion being supported on a little stem, and the pressure regulated by a screw.

ON THE OPERATION FOR HARE-LIP.

Read in the Section of Diseases of Children.

BY HENRY G. RAWDON, M.D.,
Surgeon to the Liverpool Infirmary for Children.

As the time permitted for reading papers at our meetings is necessarily short, I purpose confining my observations on the operation for hare-lip to a few points which I look upon as particularly worthy of attention, more especially in their relation to the period of infancy.

The first consideration is the question of the advisability of operating early; that is to say, within a day or two after birth. My personal experience has been entirely in favour of operating early, and has amply confirmed the validity of the main reason adduced in its favour—viz., that new-born infants are, for the most part, healthy and well-nourished, and far better able to bear an operation within twenty-four hours of birth than possibly they may be for weeks or months subsequently. We frequently notice how soon such infants, unless exceptionally well managed, suffer from inanition, wasting often progressing rapidly after the third week. It would appear as if their innate strength could no longer tolerate improper feeding and mismanagement; and, unless the mothers obtain proper instruction as to the feeding before it is too late, death is inevitable. In fact, the health and vigour of an infant is of more consideration to the surgeon in coming to a decision whether to operate or not, than the actual age.

As affecting the question of early operation, cases of hare-lip may be divided into two classes: first, those in which, with proper management, operative treatment gives to infants the capacity to suck as soon as the sutures are removed, which may generally be done on the sixth or seventh day. This class includes cases com-

plicated with incomplete cleft palate; that is to say, cases in which the fissure is limited to the alveolar portion of the bone. And, secondly, those in which, owing to the coexistence of complete cleft palate, the power of suction cannot be given. In the first class of cases, I do not hesitate to say that it is our bounden duty to operate early, unless some special reason to the contrary exists; but in the latter case also the surgeon is, I believe, fully justified in operating immediately after birth. Not only is the mother thus saved from the shock which the sight of her deformed infant would necessarily cause her, but all the advantages accruing to the infant are attained more completely than if the operation were put off till a later period. The alveolar cleft closes more quickly and more thoroughly; the general symmetry of the nose and lip is more secured; the difficulty in feeding is manifestly lessened; and the disposition to catarrh and bronchitis observed in these cases is also diminished.

As regards the feeding of infants subject to hare-lip and complete cleft palate, I have the following remarks to offer. From their absolute inability to suck, such infants are necessarily subjected to the disadvantages of spoon-feeding, and too often of improper food. One result of this which I have noticed is, that a spot of ulceration is invariably present on the lower border of the vomer, caused by the careless use of the spoon. In feeding these infants, there are, no doubt, difficulties to be encountered, which, however, may be lessened by proper management. Thus the tendency of fluids to escape by the nostrils may be obviated by simply raising the child up while it is being fed. It is most desirable that all the mother's milk obtainable should be given; yet we constantly find this source of nourishment neglected, and the milk suffered to leave the mother's breast without an effort to preserve it for the infant's use. The old-fashioned flat feeding-bottle, provided with a large teat with a good-sized hole in it, is much to be commended. The bottle should be slowly raised to pour out a little milk after each act of swallowing.

Passing now to the operation itself, I beg to draw your attention to the great importance of freely separating the lip on each side from its subjacent bony attachments. The object of this is to enable the lip to move freely over the bones, so that the vivified margins may be readily brought into apposition.

In a general way, I believe the importance of this procedure has not been sufficiently realised by surgeons; and certainly in some of our surgical works it is not sufficiently insisted upon. I venture to assert that its inadequate accomplishment has been a more frequent cause of non-union—in cases which otherwise promised well—than all other causes of failure put together.

In the simpler cases of hare-lip, this separation of the soft parts from their bony connections will be but little required; while in complicated cases, without doubt, the thoroughness of the detachment is the guarantee of success.

In such cases, the lip and ala nasi, and the contiguous cheek, require a free but careful separation from the bone for a considerable distance outwards. A modification of this practice, which I have found of special advantage, consists in carrying the knife round the base of the ala nasi, and continuing the incision in a curved direction upwards, following the natural groove between the ala and the cheek. This upward incision does not need sutures, for, when the lip is brought together, the ala (or alæ, as the case may be) falls readily into position, and the resulting cicatrix is scarcely discernible. In following this practice, the alæ should not be detached from their bony connections, for, when freed from the bone, they manifest a tendency to evert and show more of their inner aspect than is quite natural.

The method now indicated is particularly useful when the two portions of the lip do not come at all well together, and the distance between the nose and the line of the lip appears to be deficient in depth. This procedure may be carried out on one or both sides, as considered desirable. In double hare-lip, the incision should be practised on both sides.

The next point I shall refer to is the appropriate treatment of the prominent alveolar process in cases of hare-lip complicated with cleft palate, where the alveolar ridge on one side is much in advance of that on the other.

The practice very generally followed in such cases is to divide the process partially some little distance from the cleft, and forcibly press it into position. I strongly advise, however, that, whenever the two portions of the lip can be brought over the projecting process, and secured without undue tension, the permanent bone should not be divided and bent into position. In the greater number of these cases, even when the gap in the palate is wide, and the projection of the alveolus not inconsiderable, a successful result may be assuredly expected without any such interference. The curing of the hare-lip alone is sufficient to diminish the gap and depress the advanced alveolus to a remarkable extent, even in one week; while, in a month or two, the gap will be found closed, and the alveolus reduced to its proper level. Such is the powerful action, upon the bony process, of the comparatively slight pressure of the restored lip.

There is, moreover, a cogent reason why we should avoid interference with a bone whenever a cure is practicable without doing so. There is no doubt that, in a few of these cases, where the bone has been partially divided and bent into position, a degree of septicæmia has seemed to be engendered, making itself apparent a week or ten days after the operation, although the lip has united and healed perfectly. The child becomes low, the digestion is impaired, pustules often appear on the body, and from this condition it is not easily rescued.

Now this falling away after the operation is, in my experience, absolutely and entirely limited to these particular cases, and I believe it results from the injury to the bone, and possibly to the tooth-sacs also. I admit that only a very small percentage of such cases go wrong, but enough to teach the lesson—Do not touch the bone if you can avoid doing so.

When, to accomplish the operation, it is clearly necessary to reduce the level of the projecting alveolus, a pair of fine bladed bone-nippers, or a strong pair of surgical scissors should be used in preference to the ordinary bone-forceps, which crush the structure too much. They should be applied in front of the lateral incisor, and in such a way as to divide the bone partially, and enable it to be pressed backwards into the position desired. Lately, to effect this object, I have employed a small and very fine osteotomy-saw. It is only necessary to cut through the anterior plate of the alveolus, partially, as high as the nostril, after which I have found that the bone could easily be bent backwards into position. By this method no tooth-sac can be injured.

I now come to the last point which I desire to bring before you. It is the question of retaining or removing the intermaxillary bones, or præmaxillæ, in cases of double hare-lip, in which non-union of these bones with the superior maxillæ exists on both sides. I have come to the conclusion—in opposition, I am well aware, to several authorities—that in all such cases the præmaxillæ had better be removed, and at the time the operation on the hare-lip is performed. The central tubercle, or prælabium, should, however, always be preserved and utilised.

The præmaxillæ, having been dissected clear of all soft parts, are readily removed by torsion, or by the cutting pliers applied behind them. The artery in the vomer is at once accessible, and any bleeding from it may be arrested with a point of actual cautery, or by a catgut-ligature passed through the bone. It is very generally recommended to bend the intermaxillary bones back into the mouth, and, to facilitate this replacement, to cut partly through the vomer, or even to remove from it a triangular wedge. Now, this division of the vomer is apt to be attended with serious hæmorrhage which may be very difficult to arrest.

Let us assume that the surgeon has replaced the intermaxillary bones—has, perhaps, taken care to vivify the opposed surfaces of the præmaxillæ and superior maxillæ—possibly secured the bones in position with sutures, and that the hare-lip operation has been finally successful. What is the result? Bony union rarely, if ever, takes place between the præmaxillæ and superior maxillæ, while the teeth springing from the intermaxillary bones, as even the advocates for retaining them allow, always acquire abnormal positions, are in the way, and have to be removed. The great objection which I have to urge against retaining these bones is that they operate as a wedge, keeping the superior maxillæ wide apart, and, in point of fact, precluding the practicability of any operation for closing the cleft palate being subsequently attempted.

It is an error to suppose that when these bones are removed a permanent gap in the front portion of the palate results. Mr. Bryant and Mr. Thomas Smith confirm me in this opinion. The former says, "the maxillary bones subsequently approximate, and the lateral incisor teeth often assume the position of the central."

Another objection that has been brought forward against removal of the intermaxillæ is, that the profile subsequently presents an underhung look. Now this statement is misleading, all the more because there is an element of truth in it. The fact is that, even when the bones in question have been carefully replaced and retained, the patient's profile will undoubtedly possess an underhung look. This effect is, I am convinced, mainly attributable to a want of rela-

tion between the lower and the upper lip, the upper lip being too short from one angle of the mouth to the other to correspond with the lower. Hence, the lower lip looks disproportionately large.

Mr. JOHN H. MORGAN (London) pointed out the desirability of watching these cases for some years after operation; if that were done, and the condition of their lips at the first observation were referred to, much valuable information might be gained. Following this practice, he was able to speak from a recollection of many cases on which he had operated in public and private. His practice was, always to use great freedom in dealing with the neighbouring parts, and to cut them at some distance from the fissure. He preferred always to put the præmaxilla into position two days previously to operating on the tissues of the lip; and this he usually did by making a V-shaped incision with scissors in the septum. He had never observed any condition of septicæmia follow these operations; and he ascribed the occasional falling away of these patients after operation to the pain suffered by the patient, and the ignorance of the parents who should care for them. Under these circumstances, he always refused to operate unless the patient was admitted into hospital. He had seen cases where the præmaxilla had been removed, and the effect was very unsightly. Early operation tended to the amelioration of the condition of cleft palate when it coexisted, and he had never seen a case in which the hæmorrhage was of consequence.

Mr. R. W. PARKER (London) said that the time to operate depended, he thought, on whether the case was or was not complicated with cleft palate. Dr. Rawdon said it facilitated feeding; in his own experience, a simple hare-lip did not prevent sucking, while the closure of the cleft in the lip did not facilitate it if there were a cleft in the palate. Among the children of East London, he found many of those who were afflicted with hare-lip suffered also from atrophy, and that neither feeding nor care availed in a certain number of cases to ward off a fatal result. In such cases, he himself refrained from operation. In a certain few, the operation seemed to set going such a condition of atrophy, and death took place at variable periods subsequently. Such cases should be fed with a spoon, and, if possible, the mother's breast should be drawn and the milk given, as a better food than any other which could be got.

Dr. RAWDON replied to Mr. Morgan's remarks, maintaining his own position. In answer to Mr. R. W. Parker, Dr. Rawdon said he advocated operation early, before atrophy, so commonly observed, had supervened.

CASE OF CROUPOUS PNEUMONIA IN A CHILD, TREATED SUCCESSFULLY BY THE COLD BATH.

Read in the Section of Diseases of Children.

BY WILLIAM H. DAY, M.D.,
Physician to the Samaritan Hospital for Women and Children.

W. A., aged 13, a healthy boy, but small for his age, came home ill from school on December 16th, 1882. He had never suffered from any serious illness, except an attack of scarlatina some years since. The family history was good. For a week before his return home, he complained of cold, constipation, and slight cough. He, however, took his food with appetite on the 16th, but went to bed early with a headache, and vomited at 9 P.M. On the following day (December 17th), it was reported that he had passed a restless night, continually talking in his sleep. Early in the morning, he took some compound liquorice powder, which had no effect upon the bowels. He was feverish, and vomited whatever he swallowed. His skin was hot, and his pulse rapid. A physical examination of the chest revealed nothing abnormal. The abdomen being tender and distended by flatus, a large linseed-meal poultice was applied over it.

On December 18th, he had had another restless night, and coughed a great deal. In the early morning, he was feverish, and vomited; the abdomen was still tender. Six grains of compound scammony-powder were given, which were followed by free purgation, the motions being lumpy and offensive. The lungs were examined, but neither dulness nor *râles* was detected. One minim of tincture of aconite was given, in water, every quarter of an hour for six doses.

On December 19th, he passed a bad night, was delirious, and attempted to get out of bed. The pulse and temperature ran high. The aconite was continued, but it neither reduced the fever nor caused perspiration. On December 20th, he was reported to have had an equally bad night, and was restless and feverish, still feeling pain in the abdomen. I saw him for the first time at 2 P.M., when there was great stupor, with heaviness of expression and restlessness. Only unintelligible answers could be got from him; but it seemed that he felt pain in his abdomen, which was rather tympanitic; and he drew up his legs when the hand was laid upon it. The pulse was 140, with some tension; respiration 56; temperature 104.2°. The lips were dry; the tongue was loaded with a creamy fur; the pupils were contracted. On examination of the chest, the lower half of the left lung posteriorly was impaired in resonance, and the respiratory murmur was harsh and dry. Notwithstanding this, I was inclined to regard the case as one of typhoid fever. At 6 P.M., as the temperature remained the same, and he was extremely restless, and becoming more unconscious, he was put into a bath of 90°, lumps of ice being gradually added till the temperature fell to 70°. He remained in the bath seven minutes, and was taken out before shivering had commenced. He was quickly rubbed dry with a towel, and then rolled up loosely in a blanket. At this time, the temperature was 100.6°, and he lay quiet and tranquil for two hours, when the temperature was 102.0°; at 8 P.M., it had risen to 104.0°; and, as he was extremely restless and wandering, the bath was repeated for eight minutes, when the temperature fell to 100.6°. He drank iced water freely. Salicylate of soda in ten-grain doses, and solution of acetate of ammonia, were given every four hours. At 9.30 P.M., the pulse was 140; respirations 50; temperature 103.4°. The abdomen was rather tympanitic, but there was no appearance of an eruption.

December 21st. At 9 A.M. it was reported that the patient had passed a restless night, and that it had been difficult to keep him in bed; pulse 140; respirations 40; temperature 104.2°. The bath was repeated for five minutes, when the temperature fell to 102.0°. At mid-day, as the temperature had risen to 103.6°, and the pulse and respiration were respectively 140 and 50, he had another bath for five minutes, and the temperature fell once more. At 3 A.M. the temperature rose to 104.8°, then he had another bath; at 5 A.M. the temperature had fallen to 102.4°; at 7 A.M. it was 103.8°, at 9 A.M. 104.2°; pulse 120; respirations 40; had a bath; at 9.43 temperature 103.4°; at 11.35 the temperature was 104.8°. A bath at 12 reduced it, and at the end of two hours it had fallen to 102.0°. At 2 P.M. he passed urine unconsciously; temperature 104.0°; at 3.30, 104.8°, and he was very delirious. A bath reduced the temperature at 4.40 to 103.4°; at 6.40 the temperature rose to 104.8°; at 7 P.M. another bath, and in half an hour the temperature fell to 101.2°, with the effect of producing quietude and sleep. At 9.40 the temperature was 102.8°; pulse 130. At 10.40 he had a bath, and at 11.20 the temperature had slightly fallen, and he was more intelligent. The urine was acid and high coloured, with a slight trace of albumen. At midnight, on December 22nd, the temperature was 103.4°, and half an hour later he had a bath. At 1.35 A.M. the temperature had fallen to 102.0°; he passed water unconsciously. At 3 A.M. the temperature rose to 103.8°; pulse 140; respirations 60. At 3.25 A.M. he had a bath, and in half an hour the temperature had fallen to 101.4°. At 5 A.M. the temperature was 102.0°; respirations 50; he slept for an hour. At 6.15, the temperature having risen to 104.8°, he had another bath; an hour later the temperature was 102.2°. He was much refreshed, and seemed to know those about him; pulse 120. At 8 A.M. the temperature was 103.6°, and at 8.30 it had risen to 104.0°, when he had another bath. At my visit at 9.30 the temperature was 103.2°; characteristic crepitant rhonchus was heard throughout the lower half of the left lung posteriorly, tubular breathing and bronchophony above; the dulness was chiefly confined to the middle lobe. It was now certain that the patient was suffering from pneumonia. A large linseed-meal poultice was applied over the entire left lung. I now packed the arms in towels, wrung out of cold water and laid on waterproof. The baths were discontinued. A mixture of chlorate of potash and bark, with five minims of ipecacuanha wine, was given with each dose every four hours. At 11 A.M. the temperature had fallen to 102.0°; at mid-day to 100.8°. As he seemed weak, the packing was discontinued and warmth applied to the feet. At 1.30 P.M. the temperature had not varied; at 3.30 it had fallen to 100.0°; he had passed urine consciously, and at this time was quietly sleeping. At 5.30 the temperature ran up rapidly to 103.4°; pulse 140; respirations 68; a large circumscribed scarlet patch appeared on the left cheek, and there was a short harassing cough. At 6.30 the temperature fell to 102.6°, and he had slept at intervals; at 7.15 it was 102.0°, and at 8.30 it rose to 103.8°; at midnight it was 103.0°. The urine was acid, and high coloured; specific gravity 1020; and no trace of albumen.

December 23rd (eighth day of the disease). The report states that at 4 A.M. the temperature was 101.4°; pulse, 120; respirations, 50. At

6 A.M. he was not so well, the temperature rose to 103°; pulse, 140; respirations, 70. At my visit at 9.30, the temperature was 103.4°; there was discomfort in the abdomen, and the patient's condition did not appear satisfactory. A soap-and-water enema was used; it acted freely and quickly, and the temperature fell to 101.6°; an hour later it rose to 103.4°; at 2 P.M. it was 102.8°; at 3 P.M., 103.4°; at 6 P.M., it rose to 104°, when the arms were again packed. The cough was very troublesome, and unaccompanied by expectoration; pulse, 120; respirations, 44. At 12 P.M. the temperature was 100.6°; pulse, 120; respirations, 44.

December 24th. At my visit at 9.30, it was reported that he had enjoyed seven hours of sleep. He asked what his temperature was, and seemed better than he had been since the beginning of his illness. The temperature had fallen to 99°; pulse, 96; respirations, 41. Later in the day he coughed a good deal, and complained of pain in his abdomen.

December 25th. The temperature fluctuated between 99° and 101.6°; the cough was troublesome, and he was restless during the day; crepitation was heard throughout the left lung. He took a mixture of bromide of potassium with carbonate of ammonia, and a few minims of ipecacuanha wine.

December 27th. He had slept well, and was much better; air entered the lung from apex to base, and scarcely any crepitation was heard, except on deep inspiration; dulness diminishing; temperature, 98.4°; pulse, 80; respirations, 36; tongue cleaning; bowels open.

On December 30th he was not so well; there was considerable dulness from the spine of the left scapula to the lower third of the lung; loose crepitant *râles* and bronchophony were also heard; the face was flushed, and he complained of pain in his side; weather close. A weak solution of tincture of iodine (one in four) was painted over the affected part of the chest night and morning. He was ordered a mixture of iodide and bromide of potassium, with tincture of bark.

January 1st and 2nd. Morning temperature, 98.4°; evening, 101°; crepitation was heard throughout the upper half of the left lung; increased dulness and bronchophony; considerable cough, but no expectoration.

January 4th. The temperature was normal in the morning, but rose to 102.2° in the evening; there was a flush on both cheeks, but the state of the lung was a little more satisfactory. I was inclined to regard this condition as due to some unhealthy deposit thrown out in the lung which might be tuberculous; or it was possibly due to the excitement caused by seeing visitors.

January 10th.—The report states that for the last three days the temperature had been 99° in the morning, and 103° and upwards each evening. The patient was pale, but seemed to be going on well, and there was neither sweating nordiarrhœa. On examination of the left or affected lung, dulness and bronchophony were discovered over and for an inch below the scapular spine. Air everywhere entered the lung, and scarcely a trace of crepitation could be heard. Over the lower lobe posteriorly the resonance was a little impaired. In front the note was clear, and there was no crepitation. The cough was frequent and hacking, irritation being referred to the larynx. Quinine, with small doses of morphia, were ordered three times a day.

January 15th.—Since last report the evening temperature had been high, the cough trying, and the nights restless and sweating. This morning he commenced spitting up a little thick tenacious semi-purulent matter, and there was much loose crepitation to be heard. Three days later, the temperature being normal, both morning and evening, he was removed into a larger room.

On the 22nd, all sweating and expectoration had subsided, tongue clean, appetite good, slept well. The dulness over the lung had disappeared, and air entered without any crepitation. Ten days later he went to the seaside, where, at the end of a month, he recovered his health.

REMARKS.—Although one case tells little or nothing in favour of any particular line of treatment, it is by the addition of every single case that the foundation of all success in practice is laid. The case was one in which a diagnosis could not be made before the sixth day of illness after coming under treatment. The slightly harsh breathing, and the absence of cough and pain in the side at my first visit, scarcely justified the view that it was pneumonia, whilst the dry lips, sordes on the teeth, delirium and wandering, with high temperature and tenderness of the abdomen were, so far, such indications of typhoid fever, that I was inclined to think this was the disease with which I was contending. It was the reason why I employed the cold bath. Professor Bozzolo has made a number of observations on the effect of the cold bath and the gradually cooled bath in pneumonia, and his experience in some respects confirms the conclusions I should draw from this case, which are that they lower the temperature rapidly and keep it down for some time, that they may be repeated every three hours, and that the mortality of patients thus treated is lower than that recorded under any other treatment. Professor Flint has treated patients in pneumonia with the wet sheet when they were strong, the fever high, and the disease uncomplicated. He did not find it advantageous unless the temperature was above 103.5°. The patient was rolled in a sheet dipped in water at 80°. Every ten or fifteen minutes the sheet was sprinkled with water of the same temperature. If chilliness were complained of, the patient was covered with a blanket, which was withdrawn when the feeling of cold passed away. When the temperature was lowered sufficiently, the wet sheet was removed, and re-applied when the temperature became high again. From four experiments, Professor Flint considers that the method is free from danger, and acts quickly and beneficially (see *Practitioner*, vol. xxviii, 1882, p. 29).

Now, it seems to me that a high temperature in pneumonia, say 104°, would be the strongest indication for this mode of treatment; but, even then, I would not employ it unless delirium or other urgent symptoms resulting from a continued high temperature were present. If the pulse and respiration were neither much accelerated, and the fever was not high enough to reduce rapidly the patient's strength, I should prefer to wait and see what assiduous cold sponging of the face and arms would effect, with water at 40° or 50°, together with such remedies as salicylate of soda and solution of acetate of ammonia; for it must be remembered that these remedies are sometimes beneficial, as are those that produce active perspiration.

Shortly after this case recovered, a little girl came under my care with croupous pneumonia, when, on the fourth and fifth days of the disease, the temperature ranged from 103° to 104.5°, and yet there was no delirium, nor even wandering, in the strict sense of the term. The pulse never exceeded 120, nor was the respiration above 38 per minute; the lung was much impaired in resonance; there were tubular breathing and bronchophony, with fine crepitant rhonchus. Hence the physical signs of pneumonia were evident. Thirst, frequent cough, and pain in the side were considerable. It is also worthy of note that the movements of the thorax on the affected side were much restricted.

It is clear from the report that the cold bath never failed to reduce the temperature, and to mitigate the excitement and delirium, producing sleep and quietude; but it is also evident that the baths might have been longer continued on each occasion with advantage. I was not able to superintend their use myself, but there can be no doubt that they might have been safely employed till the temperature had fallen much lower, and they had produced greater shock to the constitution. In any similar case coming under my notice, I should unhesitatingly adopt this plan. It would be a hasty deduction to say that recovery was due to the method employed, but it is certain that the baths were well borne, and that they never produced any bad effect. In the hyperpyrexia of acute rheumatism, and in typhoid fever, we have gradually come to the conclusion that the cold bath is one of the best, if not the only, means of preventing an undue rise of temperature, and it may be there are other diseases in which it may prove beneficial. Altogether, fourteen baths were taken in the space of forty-three hours, and they were only discontinued when I became satisfied that I was not dealing with a case of typhoid fever. That these baths never failed to reduce the temperature for a time, and to subdue excitement and restlessness, is evident from the report.

In looking back, two errors were committed (if errors they can be called): firstly, the patient might have safely remained longer at each time in the bath till the temperature was reduced much lower; secondly, the temperature should not have been allowed to run so high before repeating the bath.

When the physical signs of pneumonia were developed, I discontinued the use of the cold bath (although the temperature ran high) for the reason already mentioned, that I had never employed it before in this affection. In place of it, I had recourse to the packing and cold sponging; soon afterwards, the temperature fell to 100.8°, and the patient showed signs of exhaustion. Notwithstanding the temperature rose again, it soon fell, and sweating and expectoration were indications that cold was no longer desirable.

It is so difficult to judge of the merits of this or that treatment in a few cases, that we are naturally reluctant to attach undue importance to it, but it seems to me that the cold bath was indicated by the restlessness, the delirium, and the serious effect that the high temperature was producing upon the nervous system. Though

the temperature may be high in another case of pneumonia I may meet with, I should not on this account solely be inclined to adopt the cold bath, unless other urgent symptoms were present. A high temperature, in some cases where the neurotic temperament is strongly marked, is deceptive; it means absolutely nothing, and it leads to nothing.

CASE OF CÆSAREAN SECTION IN A DWARF: RECOVERY OF THE MOTHER.

By CLEMENT GRAY, M.R.C.S., Newmarket.

It is happily rare that such a formidable operation is required as the removal of a child from the uterus by abdominal incision; but when the pelvis is too distorted to allow the head to pass through it, and craniotomy cannot be undertaken, the Cæsarean section offers the only chance of saving the life of the mother and her child.

The following case of operation, performed under the most disadvantageous circumstances, without antiseptic precautions, and amid the most unsanitary conditions, is probably unique of its kind, and will be read with interest by the profession.

On July 8th, 1883, at 9.30 A.M., I was requested to visit a single woman, aged 41, who was suffering from abdominal pains. She was of very diminutive stature, being only four feet in height. Her head was of unusual dimensions, and the carpal extremities of the radius and ulna were much enlarged. At the age of 8 she ceased to grow; at 24 she had a severe attack of rheumatic fever, which laid her by for nine months. From that time she had led an active life, and was regarded with much sympathy by her neighbours. Although her abdomen had been getting prominent for some time, not the slightest suspicion of pregnancy was raised by her friends. Three days previous to my visit the membranes had ruptured, and there had been a drain of watery fluid from the vagina ever since. The os uteri was dilated sufficiently to admit the tip of the finger through the narrow brim of the pelvis. I came to the conclusion that she was in labour, and that the fœtus was dead. As the antero-posterior diameter of the pelvis was only three quarters of an inch, it was impossible at this visit to ascertain the nature of the presentation. It being evident that delivery *per vias naturales* would be impossible, and the patient's strength must soon succumb if the only available remedy were not resorted to, I decided to perform Cæsarean section without further delay. With the assistance of Dr. Gray, Mr. Fyson, Mr. E. Fyson, and Mr. Hutchinson of this town, I proceeded to operate at 10 P.M. The cottage in which the patient lived is situated in a small yard, off the main street in Newmarket, and the drainage and ventilation are very defective. The bedroom in which the operation was performed was barely large enough for the four medical friends who gave me their assistance; one of them, indeed, was obliged to stand on the top of the passage-stairs. The wretched apartment was so close and the weather so sultry, that we were compelled to keep the window wide open during the operation. The patient having been placed on a common deal board, in a half-sitting posture, and the bowels and bladder having been emptied, Mr. Hutchinson proceeded to use the ether-spray. When the integuments of the abdomen had become insensitive to the knife, I made an incision in the line of the linea alba, commencing just below the umbilicus, and terminating within an inch of the pubes. The tissues were carefully divided down to the peritoneum; and, a director having been introduced, it was opened to the extent of the abdominal incision. The uterus now coming into view, I laid it freely open by a longitudinal incision. Both wounds (uterine and abdominal) were held together by the fingers of Mr. E. Fyson, placed within the extremities of the incision, whilst I rapidly extracted the fœtus and placenta. The fœtus weighed 7 lbs., and had been dead about a week. It was grasped by both hands, and extracted breech first, the head quickly following. The placenta was easily detached. The uterus contracted so closely, that the sides of the incision were soon in apposition. There was no escape of blood into the abdominal cavity, which was, therefore, only lightly sponged. Five equidistant wire sutures, including the peritoneum, brought the wound together, which was now covered with a compress of lint, supported with bands of adhesive plaster and a broad bandage. The operation lasted twenty-five minutes. After the patient had been removed to her bed, a grain of opium was given by the mouth, which secured a good night's rest.

I was amazed to find, on the following day, five children down with the measles, in the only available room for the use of the family, eight in number; the narrow stairs connecting this with the dwarf's room above, which thus received the foul air from the lower apartment. A catheter was passed night and morning. The condition of the patient for the first few days following the operation was discouraging enough; the breathing was hurried, and both pulse and temperature ran high. There was much abdominal pain and distension, and great care was necessary lest the sutures should give way. Small doses of opium and a saline mixture were prescribed. The diet consisted of milk, and from first to last no stimulant was administered. On the fifth day following the operation, the urgent symptoms began to subside; and on the eighth day the urine was passed naturally, and there was a still further improvement. The bowels acted naturally on the thirteenth, when the last suture was removed. From this time, the progress towards recovery was uninterrupted; and on August 8th the wound was healed, and the patient quite well. Uterine discharge commenced immediately after the operation, and continued for three weeks. The patient had no nursing beyond that given by a neighbour, who ran in and out when she could spare time; but it is hardly necessary to say that I watched her with the closest attention.

ON THE CONVEYANCE OF CHOLERA IN INDIA.

By SURGEON-GENERAL JAMES IRVING, M.D.,
Bengal Army (Retired).

In the JOURNAL of September 15th, a letter appeared from "An Indian Medical Officer," asking the opinion of the Editor regarding the following passage in the Eighteenth Annual Report of the Sanitary Commissioner with the Government of India. "The experience of fairs and other gatherings in this country has again and again testified to the truth of the conclusion that cholera is not carried by persons from one locality to another, so as to cause persons not themselves exposed to the necessary local influences to become affected by the disease. Coincidences certainly can be cited in which the arrival of persons from a cholera-affected district has been closely followed by an outbreak of the disease; but even these coincidences are far fewer than is generally supposed."

In reply, it is indicated that these views are not in accordance with facts as observed by competent authorities in this country, on the Continent of Europe, or in the United States of America, as well as being contrary to the teaching of the professors at Netley; and it is added: "If the innumerable examples in which the propagation of cholera has been traced to human intercourse—and, we may add, water defiled by cholera-excreta—can be dismissed as 'mere coincidences,' there is an end to all medical evidence. This is a question quite independent of 'epidemic influence,' whatever that may be, a means of propagation the activity of which no one denies."

During twenty-two years that I was Civil Surgeon of Allahabad, I saw several severe epidemics of cholera, and confess that I held views pretty much the same as those above quoted. I was, however, led to believe that I might be wrong, after reading a report that was submitted to me, as Deputy Surgeon-General of Dinapore, by an able medical officer, Surgeon-Major H. B. Purves, then Civil Surgeon of Darjeeling, regarding an outbreak of the disease that occurred in his district in the year 1876. On the plains and in Indian towns it is, from various causes, exceedingly difficult, if not almost impossible, to trace out first cases of any epidemic, but Darjeeling is more favourably situated in this respect. The station is on the Himalayas, forty miles from the plains, about 7,000 feet above the level of the sea, and is approached by a single road, while the population of the district is scanty. From the "terai," or unhealthy belt of jungle at the foot of the mountains, to many miles beyond the station, there are numerous tea-gardens, which, as a rule, are managed by European gentlemen, who may have one or more European assistants. The coolies or native labourers live in huts close to the manager's house, and he, in his own interest, takes the greatest care of the health of his coolies, as the supply is often limited. The climate is such that one may go about in the open air freely at all times of the day.

Mr. Purves, a copy of whose report lies before me, visited a tea-garden in the "terai" on January 18th, 1876, and found that, in that and an adjoining garden, there had been thirty cases of cholera since December 28th. The disease was confined to the "terai" till April, when cases occurred at Kurseong, which is 4,845 feet above the sea-level, and about eighteen miles from Darjeeling. The report says: "Early in June, there was a regular cholera-wave over the

whole district, lessening in the plains, but rapidly increasing among the hills. Large gangs of coolies who had bolted from the lower ranges had entered the hills, and were roaming about the forests, in some instances carrying their sick with them." In July, a great and general improvement took place, and by August the disease had disappeared. The mortality reported by the police (who are the collectors of medical statistics in India) was 1,729 out of a population of 94,712, though Mr. Purves considers that there were at least twice as many deaths.

Mr. Purves instances "special cases where human intercourse seemed undoubtedly to be the immediate cause of the appearance of cholera." He does not name the gardens referred to, but alludes to them by numbers.

Garden No. 1.—The disease had been prevalent for some time at an adjoining estate. No case occurred until a man happened to go to the infected garden to bury his sister, who had died of cholera. Shortly after his return, he was attacked, and died; and the result was a severe and fatal outbreak, causing a mortality of 150 among a population of 1,500.

Garden No. 2.—The manager states that the infection was distinctly traced to communication with a bazaar close by. Seven hundred deaths.

Garden No. 3.—It was discovered that new coolies from an infected garden had lately settled in the lines when the first case occurred. Eighty-five deaths among 650.

Garden No. 4.—The outbreak was traced beyond doubt to the advent of new coolies from infected parts of the terai. Two hundred and eight deaths in 1,700.

Garden No. 5.—Eight new coolies offered themselves for employment at a garden near Darjeeling, and were entertained. Shortly afterwards, cholera broke out among them, and every one of the eight died. It was ultimately discovered that they had fled from an infected garden in the terai. The other coolies, who had hitherto been healthy, were also infected by the newcomers.

Garden No. 6.—Seven new coolies from an infected part of the Kurseong neighbourhood arrived at a hill-garden on which there had been no signs of cholera. Shortly afterwards, the disease broke out; and, in twenty days of June, 72 died from the disease, out of a total population of 100 souls. It is worthy of note, that a few villagers living in scattered huts in the same garden, but not working as coolies, escaped entirely.

Garden No. 7.—A man left the infected terai in order to visit his friends at a garden near Darjeeling. He felt unwell at Pankabaree, and, when near Kurseong, purging and vomiting began. His wife left him, proceeded to their intended destination, returned with two men, who carried the cholera-stricken husband up the hill, and deposited him in his garden. Although the disease had been prevalent in another garden close by, not a case occurred here till some days after the man's arrival and death.

Only eleven fatal cases occurred within the station of Darjeeling and, with one or two exceptions, they were traced to people coming from the infected part of the district. At Kalimpong, about twenty-five miles from Darjeeling, across the Teesla and nearer the snows, where a terrible mortality occurred, a man arrived from Darjeeling ill of cholera, and died. A female who attended him was the next victim, and after this the disease spread rapidly. The report alludes to the immunity of Europeans as being remarkable, though they did not entirely escape. Many of them attended the sick personally, and had even to bury the dead when the panic-stricken natives had fled; and one planter told Mr. Purves that he had to carry on his back two corpses in order to inter them.

OBSTETRIC MEMORANDA.

DISPLACEMENT OF UTERUS BY DISTENDED BLADDER AFTER LABOUR.

On going round the workhouse some weeks ago, the nurse called my attention to a woman who had been confined during the night. She said she was going on very well in every respect, but she had noticed "a tumour" in the patient's right side. I found the patient quite comfortable. She complained of no pain; her pulse was normal, and she had passed urine. Upon examination, there was a hard rounded swelling, about the size of a fist, in the right hypochondrium, to the outer side of the nipple-line and partially under the cover of the ribs. I at first thought it must be some tumour connected with the liver, possibly hydatid or enlarged gall-bladder; but further examination showed it to be quite free from the liver. It could be grasped and moved about in all directions. Mr. Samuel Stretton, who was with me, also examined it, but was unable at first to express an opinion on it. We found what appeared to be the uterus large and firm, but extending to midway between the symphysis pubis and the navel. This was quite distinct from the tumour. I thought it just possible that what we had taken for the uterus was in reality a distended bladder, and that the "tumour" was really the uterus. I at once passed a catheter, and drew off between seventy and eighty ounces of urine, the "tumour" gradually subsiding into its proper place. It was the uterus.

This case is well worthy of publication, I think, for the absence of any symptoms, and the fact that the patient had passed urine were certainly misleading; and had not the nurse discovered this "tumour," it is very unlikely that my attention would have been called to it until the woman's life was in danger. As it was, she made an uninterrupted recovery, the catheter only being necessary two or three times.

J. Lionel Stretton, 27, Church Street, Kidderminster.

DEATH FROM PULMONARY EMBOLISM AFTER PARTURITION.

Mrs. N., a delicate lady, was confined on April 27th, 1883, for the second time, and died very unexpectedly twelve days afterwards, with the following symptoms. The labour was instrumental (forceps), but with no injury to either mother or child; and with the exception of some trouble from loaded bowels, there was no unfavourable symptom until the evening of the tenth day, when she had pain in her left leg, and was rendered nervous and sleepless by some mental excitement. For this a morphia-draught was prescribed, and some rest and sleep thereby produced. On the following day, a sudden collapse occurred; the patient became cold, almost pulseless, with urgent dyspnœa; and died in the course of a few hours. Dr. Beverley of Norwich saw her shortly before death, in consultation with me; and, in the absence of any uterine or abdominal complication, attributed the cause of death to pulmonary embolism.

Horace Hastings, East Dereham.

SURGICAL MEMORANDA.

CASE OF CALCULUS IN THE NOSTRIL.[1]

I was requested to see a lady, about twenty-three years of age, who was annoyed by excessive fœtor of the breath, and who fancied there was something in the left nostril. She looked thin and sallow; there was no discharge from the nose; nothing could be seen in it, and at first the probe detected nothing. But on directing the instrument well down to the floor of the nostril, a hard moveable substance was touched. Owing to its size, its extraction was difficult, but it was got out with no other damage than some abrasion of the mucous membrane. The fœtor of the breath passed off in a few days, and the patient had no further trouble. The substance proved to be a calculus; its length was almost one inch, its breadth eight-tenths of an inch, its thickness six-tenths. It required many washings to free it from bad smell. When thoroughly dry, it weighed forty-six grains. Touched with dilute acid, a few minute bubbles of gas were disengaged. It was of a light drab colour, and could be broken by moderate force. In the centre was a fragment which appeared to be of bony structure. Cases of nasal calculi are mentioned in Ranking's *Abstract*, vol. ii, 106; vol. vi, 132; and vol. xxxi, 158.

W. E. C. Nourse, F.R.C.S.

TOXICOLOGICAL MEMORANDA.

CASE OF POISONING BY CYSTISUS LABURNUM.

The following case may be considered worthy of being placed on record. On the evening of the 16th, a boy, aged 7, swallowed twelve unripe pods of the laburnum tree. In two hours, he was seized with vomiting and purging, accompanied by severe gastric pain. The vomited matters contained a quantity of green pods and seeds. His pulse was weak and rapid, his countenance pale, the skin was cold and clammy, and the pupils enormously dilated. Vomiting was encouraged by emetics of mustard and water. He then complained of feeling drowsy, and desired to lie down. One teaspoonful of aromatic spirits of ammonia, largely diluted with water, was ad-

[1] The calculus was shown at the meeting of the South-Western Branch, January 11th, 1883.

ministered, with the effect of completely arousing him. Twenty drops of the same were given each hour for six hours afterwards, when the patient was permitted to fall into a deep sleep, awaking in eight hours, apparently well.

The case calls for little remark. The narcotico-acrid properties of the plant were clearly exhibited. The large quantity taken, by causing early vomiting, probably saved the little sufferer from more injurious consequences. The seeds, protected by their legumes from the digestive action of the stomach, may also have had some influence in retarding the action of the poison.

ALEX. J. SINCLAIR, M.D., Edinburgh.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

MIDDLESEX HOSPITAL.

A DEATH DURING THE ADMINISTRATION OF NITROUS OXIDE GAS.

By W. ROGER WILLIAMS, F.R.C.S., Surgical-Registrar to the Middlesex Hospital.

THIS patient, a well-nourished and fairly-healthy man, aged 57, was admitted into the Middlesex Hospltal on August 21st, 1883, under the care of Mr. Andrew Clark, to whom I am indebted for permission to publish the case. He then presented a considerable cancerous enlargement of his tongue, which was hard and fixed, and in places slightly ulcerated. The induration extended from near the tip as far back as the circumvallate papillæ, and involved most of the organ. There was dribbling of saliva. The submaxillary and submental glands on both sides of the neck were enlarged and hard. There was no obvious interference with the respiratory function, but the mouth could not be opened to its full extent. He had been subject to small ulcers on the tongue for several years previously; when young, he had chancre and bubo; there was no other history, or sign of constitutional syphilis. He could not remember having had any serious illness since childhood. His general health had previously been good. There was no history of phthisis, tumour, or cancer in his family. Three months ago, he first noticed hardness and stiffness of the left side of the tongue, at about its middle, which, he said, started in connection with a small sore previously there. The tongue had since been getting larger and harder, but he had had no pain in it. The glandular enlargement was first noticed only a few weeks before his admission into hospital.

On the morning of September 15th, he was sent to the Dental Hospital, in Leicester Square, to have some teeth extracted. Gas was administered by the house-surgeon, the patient sitting in the arm-chair in the usual way. The requisite degree of anæsthesia was produced, as far as could be judged, in about thirty seconds. No alarming or unusual symptoms were noticed until the operator was about to begin the extraction, when the patient seemed breathless, and even lifeless; then the tongue was drawn forwards, water was dashed on the face, and artificial respiration was resorted to, and various other means of reviving were tried for upwards of half an hour, at the end of which time they were abandoned, as the patient was evidently dead. About a week previously, he had some teeth extracted without the gas, and no unfavourable symptoms occurred then.

I made the necropsy, forty-nine hours after death, the weather being close and fine. The body was well-nourished and fairly muscular, and there was a slight degree of *rigor mortis* present. The back of the head, neck, trunk, and thighs presented a deep purplish discoloration. In reflecting the scalp from the forehead, the quasi-fluctuating swelling in this situation, which had been taken for a sebaceous cyst, turned out to be a lipoma. The dura mater was very firmly adherent to the calvarium, and came off with it. In other respects, the brain was normal; it weighed fifty-five ounces. The heart was examined *in situ*. There was about the normal amount of fluid in the pericardial sac. Near the apex, the visceral pericardium presented a few small whitish patches of fibrous thickening. The organ was rather large, and its chambers patent; it weighed twelve ounces. Each ventricle contained about a drachm of fluid-blood; but the auricles were quite empty. The valves were normal, with the exception of a soft miliary fibrinous vegetation on one of the aortic valves, and, as far as could be judged, they were competent. The muscular substance appeared healthy, and there was no indication of fatty degeneration. Evidently, the heart's action had been arrested in diastole—death resulting from syncope. The right lung was firmly bound to the chest-wall, throughout its whole extent, by old fibrous adhesions; its lower lobe was collapsed, atrophic, and non-aerated, the liver having encroached here on the chest-cavity. The left lung was large and slightly congested, presenting a few small emphysematous sacculations along its free anterior border; in other respects, it was perfectly healthy. There were no subpleural ecchymoses, or other signs of asphyxia. The left lung weighed nineteen ounces, the right thirteen. The liver was normal; its weight fifty-five ounces. The spleen weighed nine and a half ounces and was rather large, but otherwise normal. Both kidneys were congested, and presented several small cysts and a few small cicatrices on their surfaces. There were several fibrous patches in both testes, where the secreting structure was destroyed. With regard to the blood, the only obvious change was the absence of clots in the great vessels. A firm, whitish mass of cancer, about the size of a small apple, occupied the greater part of the tongue, but the mucous membrane over it was not extensively ulcerated, presenting only a few small erosions; it extended as far back as the circumvallate papillæ. Neither the epiglottis nor the glosso-epiglottidean folds, nor any part of the larynx, was invaded by it. The vocal cords, the rima, and the ventricles were normal. The mucous membrane of the bronchus and its primary divisions was lined with viscid mucus, and its capillary vessels were injected. There were some enlarged and cancerous glands on both sides of the neck.

REVIEWS AND NOTICES.

SAN REMO CLIMATICALLY AND MEDICALLY CONSIDERED. By ARTHUR HILL HASSALL, M.D.Lond. New edition, small octavo, pp. 285. London: Longmans, Green, and Co. 1883.

THIS is the work of an accomplished physician, and of one well known in the most scientific branches of the profession. His long connection with the Ventnor Hospital has made him especially familiar with the diseases of the respiratory organs, for which, after all, the great majority of patients visit the sunny south.

Dr. HASSALL'S work contains everything that it is possible for the physician to wish to know about the climate of San Remo and the diseases for the treatment of which it is suitable; and, if Nice was fortunate in having Dr. Barèty to describe it, San Remo has been equally so in the present author, who, in this new edition of his book, produces what is practically a new work, the result of larger experience.

One of the great merits of the book is, that its statements are always well considered, and there is no extravagant laudation of San Remo. The opinions of other authors are fairly and fully given wherever it is desirable to have them. Besides an account of the locality, the book supplies a very full history of the botany and of the zoology of the place, as indicating the mildness of its climate. In looking into this portion of the book, we observe that the author maintains a judicious reserve respecting the medicinal virtues of the eucalyptus, which were lately so lauded by the French; and also respecting its real or supposed febrifuge qualities. He also offers some interesting observations about mosquitoes, which will be new to many; and the writer can confirm his statement that they have established themselves in certain London hotels, where it has been necessary to furnish the beds with mosquito-curtains.

The climate is described exhaustively. Its advantages and disadvantages are fairly stated—the sunny days, which are so attractive and so beneficial; while the drawback of the difference of temperature between the sun and the shade is not overlooked; and the necessity for having fires during the greater portion of the winter months is not forgotten.

Dr. Hassall alludes to the great immunity from deaths from the affections of the respiratory organs along the Riviera, according to such statistics as have been hitherto published; and, while not doubting the comparative immunity, he thinks that the statistics are too favourable. However, far the most important question on the Riviera, or among the Swiss mountains, of which Davos is the representative, is how pulmonary patients that we sent there prosper, not how the natives of the country fare. Among subsidiary aids, Dr. Hassall discusses the inhalation of antiseptics, with the view of destroying the bacilli of phthisis. He remarks—and, we believe, with perfect justice—that it is very doubtful whether any portion of the antiseptic substances so employed make their way into the lungs and reach the seat of disease at all, or in any quantity not

so minute as to be wholly insufficient to exert the slighest influence on the course of the disease. Dr. Hassall hopes to have a chamber ready at San Remo by the beginning of this season, in which the air will be duly charged with the requisite antiseptics.

We have only been able to glance at the more salient points in this book; but, to show that it gives good practical advice, we make the following extract.

"Most people make two great mistakes—first, in arriving too late at San Remo, which they ought to reach by the middle of October; and, second, in leaving for England far too early. Many act as if their only object in coming were to escape the rigours and trials of an English winter, and seem altogether to forget that further and still more important object, a radical and permanent improvement in their health, which can only be rationally expected as a consequence of a prolonged sojourn, and this under the most favourable conditions of climate and weather. No sooner do the early signs of spring show themselves than very many persons begin to grow impatient, and hasten their return home, ignoring the fact that it is still cold, cloudy, and even wintry, in England. They should not leave earlier than the middle, or, better still, the end, of May. I am convinced that, were a different proceeding adopted, and were sufferers from pulmonary disease to prolong their sojourn abroad in suitable localities for several years, both winter and summer, a large proportion of their lives might be prolonged to a good old age. The plan of going abroad for a short winter, and returning to a cold and variable climate for the rest of the year, is thoroughly wrong."

As everything said of San Remo applies, with some slight modification, to all the health-resorts of the Riviera, we think that this work will be a most useful guide to practitioners who are thinking of sending their patients abroad for the winter; and although we have an objection to the laity reading works on the diseases from which they suffer, still we think that the more intelligent class of patients, who are able to read such a book as this, would be all the more likely to carry out the orders of their medical men. "Many patients," as Dr. Hassall justly remarks, "seem to forget that the question for them is one of life or death; and, in place of throwing away or making light of their opportunities, they should settle themselves resolutely to the task of getting well, aiding the efforts of their medical attendant, and strictly following his recommendations."

Our author, while he fully sets forth the merits of San Remo, is not blind to its faults. It is rather a dull place; it wants variety of walks; the construction of a new esplanade is a great desideratum; and the cost of living has increased much of late, but this is the case with all the stations along the Riviera.

THE PATHOLOGY, DIAGNOSIS, AND TREATMENT OF THE DISEASES OF WOMEN. By GRAILY HEWITT, M.D.Lond., F.R.C.P., Professor of Midwifery in University College, etc. A new American Edition from the fourth revised and enlarged London Edition, with 236 illustrations. Edited, with Notes and Additions, by HARRY MARION-SIMS, M.D., Attending Surgeon to St. Elizabeth's Hospital. In two vols. New York: Bermingham and Co. 1883.

WE had occasion, some time ago (vol. i, 1883, p. 1285), to speak favourably of the last edition of Dr. GRAILY HEWITT'S treatise; and it is gratifying to do so again in regard to this new American edition.

Dr. HARRY MARION-SIMS has added some sixty or seventy pages to the work, and has given us minute details for the treatment of some affections not fully discussed by the author, and important for the consideration of the busy practitioner. For instance, the operative procedures necessary in the treatment of uterine fibroids, of stenosis of the cervix uteri, of vaginismus, of vesico-vaginal fistula, and other important subjects, are all treated at length and demonstrated by appropriate woodcuts, which add greatly to the value of the book.

The editor's notes are concise, and always to the point. His description of the operation of vesico-vaginal fistula, illustrated by woodcuts from Savage's *Surgery of the Female Pelvic Organs*, is a model of clearness and precision. Naturally and justly, he gives all credit to his illustrious father for originating and perfecting this operation, which is now "performed successfully everywhere." His views of the surgery of the uterus and its appendages are in accord with the teachings and works of his father, all of which are fully appreciated and accepted amongst us, if we except his radical method for the treatment of stenosis of the cervix uteri.

We congratulate Dr. Graily Hewitt on his selection of Dr. Harry Marion-Sims to edit the American edition of his classic work, which he has done in a very creditable manner.

The publishers, Bermingham and Co., have issued the work in handsome style, and have given it a circulation (in their "Library Edition") of ten thousand copies in the last three months.

ELEMENTS OF HISTOLOGY. By E. KLEIN, M.D., F.R.S. Cassell and Co., Limited. 1883.

THIS manual, although primarily intended for students of medicine, will be read with advantage by all who are interested in the science of histology. It contains, in a concise form a complete account of the present state of knowledge in that subject, and, being copiously illustrated, it will be found intelligible by the beginner, as well as useful for occasional reference by advanced students. The size of the volume does not permit the introduction of discussions on doubtful and disputed points; and Dr. KLEIN has wisely contented himself with an exposition of histology as it appears to him after many years' practical study.

The book is the opposite of a mere compilation. In the preparation of the Atlas of Histology and the Handbook for the Physiological Laboratory, the author was necessarily taken over every section of his subject, and the results of this minute study are apparent on every page of this manual.

The work will tend to confirm Dr. Klein's acknowledged position as one of the ablest exponents in this country of the science to which he has so perseveringly devoted himself, and in its preparation he has given most effective aid to medical students who find it necessary to obtain an accurate acquaintance with the principles of histology. Its cheapness and compactness (although minor advantages) will help to secure for it a wide circulation.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE MIDWIFERY FORCEPS LEVER.
AS PROPOSED BY WILLIAM HENRY TAYLER, M.D.

THE employment of the forceps in the ordinary manner in a very hard midwifery case is attended with great fatigue, and to a very corpulent accoucheur, or one suffering from debility, is a difficult and exhaustive operation. Moreover, the exercise throws the operator into a profuse sweat, from which he is likely to take cold on going into the cold or night air. This instrument is designed to remedy or lessen these evils, and also to allow of a more easy and natural delivery.



It consists of a square block of wood, scolloped out on its under surface to make it fit well into the bed or mattrass. In the centre of the block is a perpendicular lever, working in a ball and socket joint. To this lever is attached a leather strap with a ring, which works up and down the lever in circular grooves about one inch apart, according to the height required. To the other end of the leather strap is fixed a hook for attachment to the forceps. On one side of the block, that placed towards the foot of the bedstead, is attached another leather strap, with holes at intervals and a hook at the end. This strap is passed round the rail of the bedstead, and the hook

inserted into one of the holes according to the length required, and keeping the block in the desired position.

Each handle of the forceps terminates in a flat ring, the two, when placed together, forming one ring, in which is inserted the hook on the strap attached to the lever; the forceps are also fitted with an improved catch, which easily and securely fastens them when locked.

In using this machine, the woman having been placed in the proper position, and the lever-block placed on the bed and fastened according to the distance required, and which can be readily shortened or lengthened, the forceps are introduced, locked, and fastened by the improved catch: then the hook of the strap attached to the lever being inserted within the ring on the handles of the forceps, the instrument is ready for use.

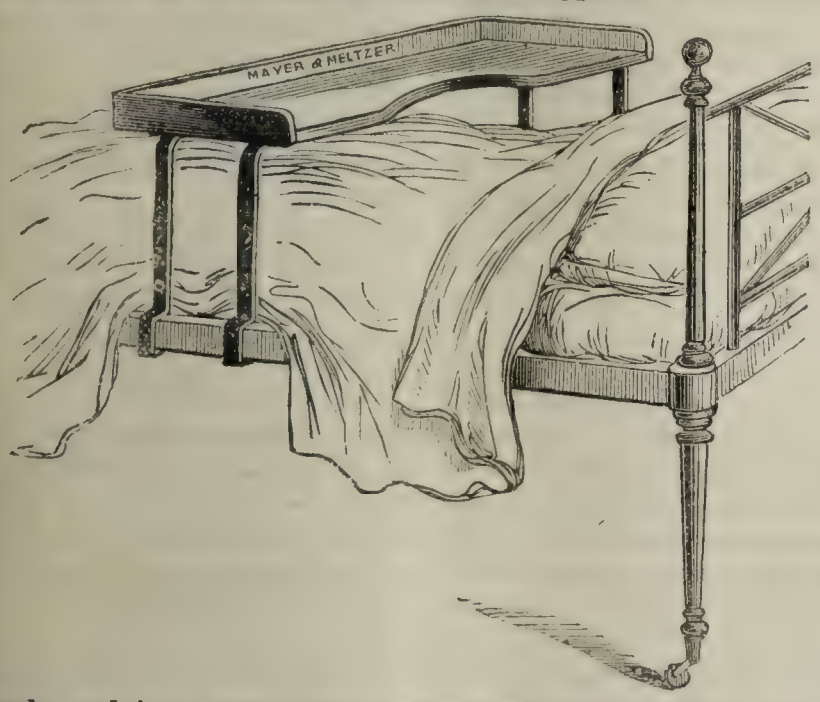
The accoucheur, sitting by the side of the bed, places one hand on the lever, and manipulates with the other to feel the gradual descent of the head, and so regulates the force of the lever, that the traction can be increased or lessened with the greatest nicety and precision, while the leather strap allows the head and forceps to rotate at will. The lever being fixed with a ball and socket joint, the extension can be made in any direction. As soon as the head has been brought sufficiently low down, the lever can be unhooked from the forceps, and the head brought through the vulva in the ordinary manner.

The advantages claimed for the midwifery forceps lever are—1, increase of power with less exertion; 2, it allows of the proper rotatory movements of the head; 3, it works on a level plane; 4, there is an easy graduation of the force employed; 5, it enables the accoucheur to work in a sitting comfortable position; 6, it can also be used for reducing dislocations.

Messrs. Weiss and Sons, the makers of this instrument, have prepared it with their usual excellence of workmanship, and have taken great pains in carrying out my idea, as also in fitting up the forceps with the ring and making the improved catch, with which any midwifery forceps can be readily fitted.

BED-TABLE.

THIS table, which is the invention of Mr. Newton H. Nixon, the Secretary of University College, is of very simple construction, and not liable to get out of order; the supports by which the table is attached to the bedstead are steel, and the table is retained in position simply by the tension of these steel-supports. It is firm and



steady, and is a great boon to patients who are compelled to lean forward on the elbows during attacks of asthma, or in orthopnœa from any other cause. In other cases, it is a convenient table for reading, writing, or during meals, and is useful in the dressing of surgical cases. Messrs. Mayer and Meltzer, of Great Portland Street, are the manufacturers.

MEDICAL MAGISTRATES.—Dr. John Richards and Dr. Hughes, both of Bangor, have been placed on the Commission of the Peace for Carnarvonshire.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 13th, 1883.

EDUCATIONAL OVER-PRESSURE.

THE report of the proceedings of the Social Science Association at Huddersfield will leave very little doubt on the mind of the candid reader that educational over-pressure is menacing the health of the country. To the medical profession that report will convey the intimation that it is its duty to take up the parable of Dr. Clifford Allbutt and Mr. Pridgin Teale, and preach to a well-meaning but deluded generation the gospel of prudence and moderation even in respect of such good things as the acquisition of knowledge and the training of the intellect. In discharging this duty, however, the medical profession will have much opposition and many difficulties to encounter. In the first place, the facts will be disputed, as indeed they were at Huddersfield, and have been since in the annual oration of the Chairman of the London School Board. Education has been long and loudly extolled as the panacea for all the diseases and disorders of the body politic, and an idea has gone abroad that its influence is wholly benign; and to many, therefore, it will sound like rank blasphemy to hint that this supreme remedy covers a hidden poison; and that, if rashly and indiscriminately applied, it is as likely to kill as to cure. There are a large number of persons interested in the maintenance and extension of our educational system, and their prepossessions will unconsciously incline them to listen to everything that is to its advantage, and to turn a deaf ear to all complaints that are made against it. They will defend the *status quo* with ingenuity and tenacity, and the assaults of the doctors they will endeavour to fight out on the ground of statistics.

Now, we are willing to admit that statistics must ultimately decide the points at issue; but what we would protest against is any premature or partial appeal to them. A long time must elapse, and much careful observation must be carried out, before statistics of such a character as to be final and convincing on the questions involved can be amassed; and in the meantime we must be wary that spurious and misleading figures are not palmed off on the public, so as to prejudice the case, or snatch a verdict in favour of the perpetuation of evils which ought to be recognised, and put a stop to, long before their consequences have assumed such huge dimensions as to stand out prominently in Blue Books. We must not allow ourselves to be lulled into inactivity by the soothing assurances and optimistic dreams of ardent educational reformers, backed by a magnificent array of tables, but must keep constantly in view the fallacies which underlie vital statistics, and the possibilities of honest but interested manipulation. We must set a statistician to catch a statistician, and warn the public to receive with reserve the statistical demonstrations which will be submitted to them, proving that reading, writing, and arithmetic are the tripod on which health rests, and that the most highly educated children are always the soundest in body and mind. It has ever been the rule that medical opinion has been in advance of statistical demon-

stration. Case-law precedes statute-law, and many of the conclusions at which the Registrar-General has arrived were entertained by medical men long before he commenced his invaluable labours. Had Jenner waited for statistical evidence of the efficiency of vaccination in preventing small-pox, humanity might never have enjoyed the boon. He trusted to his own observations and experiments and reasoning, and so to-day medical men come forward with no formidable phalanx of figures to support their allegation, but with sufficient experience to justify it, declaring that inordinate and ill-directed education is working havoc amongst the rising generation, and that a stern penalty will have to be paid hereafter for the physiological improvidence of to-day. They have seen healthy children grow sickly under the pressure of school-tasks, and revive again when these were interrupted. They have seen clever children turn dull and stupid under the burdens laid on their sprightly but immature minds. They have seen delicate and badly-nourished children break down altogether under their work, and die of school-bred brain-disease. Their professional experience convinces them that educational pressure is being applied injudiciously, in the attempt to make the weak keep abreast of the strong, and that young, tender, growing nervous systems cannot, without detriment, pass through the educational ordeals that are now required of them. They see true education lost sight of in a confused turmoil of examinations and cramming, and they would be culpable if they did not protest against the pernicious system in vogue.

When Lord Stanley of Alderley called attention to educational over-pressure in elementary schools, in the House of Lords, in July last, and endeavoured to connect with it the increase of insanity that is going on, he was, of course, at once led into a statistical *imbroglio*. He was assured that he was quite mistaken, and that insanity, instead of increasing, is diminishing in proportion to population. Figures were quoted which seemed to warrant his contention, for they showed that, whereas, in 1859, the total number of lunatics of all classes under official cognisance in England and Wales was 36,762, in 1882 the number had risen to 76,765; and that, whereas, in 1859, the proportion of lunatics to every 10,000 of population was 18.67, in 1882 it had risen to 28.68; but, of course, it was immediately explained that these figures were deceptive, and meant exactly the opposite of what they seemed to mean. The number of registered insane persons has increased thus enormously, it was explained, not because insanity has increased, but because chronic lunatics have been caudled up so that they live much longer than they used to do, and because great numbers of stray lunatics have been gathered into the fold of official inspection. Well, all that can be said is, that mighty must be the power of caudle, and searching the explorations of the shepherds of lunacy, to have secured such results. The fact is, that the lunacy departments rashly committed themselves some years ago to the view that lunacy is not increasing, and they will adhere to that view to the end of the chapter, for the obstinacy of officialism is something quite superhuman. The more abundantly the proofs of an increase of lunacy accumulate, the more diligently will they be explained away by theories the worth of which may be indicated by a reference to some criticism of lunacy statistics in connection with Ireland. The increase of insanity in Ireland, in spite of a diminishing population, was accounted for by the fact that the Irish emigrants left all their insane relations behind them, and the increase of lunacy in New York was accounted for by the fact that the emigrants were so much attached to their domestic idiots and lunatics, that they carried them across the Atlantic along with them, and made them burdens on the New World. We cannot pretend to decide between these two facts, but must leave them, Kilkenny cat fashion, to destroy each other.

But the real truth of the matter would seem to be that insanity is both increasing and diminishing. The registered lunacy of the kingdom is a great moving shifting mass, which is perpetually expanding in some directions and contracting in others, but of which the aggregate bulk becomes, year by year, greater and greater. Insanity is not one disease, but a group of diseases, which have their roots in multitudinous causes, some of which wax while others wane. A certain proportion of cases of insanity are residual to small-pox, typhoid fever, and other zymotic diseases; and, if these diseases be curtailed in their ravages by vaccination and sanitary precautions, then there will be a proportionate reduction in the number of lunatics. Twenty per cent. of the insanity of the country is traced to intemperance; so, if an improvement take place in the drinking habits of the people, there will be a corresponding diminution of insanity.

But, of all the causes of insanity, probably the most prolific are those connected with the abusive functional activity of the brain—those habits of life which interfere with its nutrition, and render it unstable in action, either in the individual or his offspring; and, of all forms of abusive functional activity, probably the most hazardous are those which operate during its developmental period, amongst which must be included its premature and overstrained exercise in school-work. Were it established that insanity, instead of advancing, as it appears to do, with giant strides, is really stationary or retreating, that need not weaken the conviction that educational over-pressure leads, and will lead, to an alarming increase of mental derangement. It would be only necessary, under such circumstances, to suppose that the increase due to the specific cause was counterbalanced, or more than counterbalanced, by the decrease due to the more restricted operation of other causes, or that the former had not had time to make itself felt. Insanity does not practically come under official notice, nor is it often developed, in persons under twenty years of age; and our present educational system is not yet twenty years old, and has only been applied to such an extent, and with such a severity as to make it dangerous to mental health, in comparatively recent years. We must wait a little to see its effects in crowding our lunatic asylums with its hapless victims; and, in the meantime, we can obtain foreshadowings of what we may expect. An increase in the number of suicides cannot be refined away like an increase of insanity, and suicides have been increasing in number all over Europe, and have in all places advanced *pari passu* with education. The revival of suicides in Europe has almost exactly coincided in time with the modern extension of schooling, and suicide is now most abundant in the very regions in which schooling is most extended.

But it is neither in insanity nor in suicide that the pernicious effects of educational over-pressure must be looked for at the present moment, but in other directions, to which we shall advert on another occasion.

REVIVED THERAPEUTIC AGENTS.

THE history of the human race makes clear that neither the evolution of ideas nor the development of doctrines and principles is uniformly progressive; for, whichever it may be, ideas, doctrines, or principles of action, if some may be traced onwards from the earliest stages of human existence to the present, exhibiting progressive development, although marked unavoidably by variations in form, and others lie almost latent, there is yet a third class which have exhibited outbursts, and afterwards declensions—at one period being approved and extolled, at another neglected and despised. The history of medicine is replete with examples of each division. A revulsion of sentiment is now apparent in the profession in respect of baths and of rubbing and anointing the body, considered as therapeutic expedients. Among the ancient Romans, and especially after the establishment of the empire, the employment of baths, in every variety, was resorted to, as well for cleanliness as for luxury and medical purposes, to an extent that has never been approached among other peoples; but, after the fall of the empire

and the incursions of the barbarians, the use of baths became almost lost sight of, and might have become well-nigh extinct, had not the Mahomedan conquerors of the Eastern Empire adopted the practice of those they conquered, and perpetuated baths in the form they have handed down to us, known as Turkish baths. The revival of such baths among western nations is an affair of our own times. From a medical standpoint, however, the value of Turkish baths has yet to be scientifically and thoroughly examined and reported upon, for their employment generally in sickness is not guided by satisfactory principles or rules. An excellent field for accurate observation is, we feel confident, yet open with respect to these baths as therapeutic agencies.

But the revival of the system of hot-air baths has, moreover, aroused attention to other forms of baths and bathing, and of the application of hot and cold water; forms, indeed, not new, but, for the most part at least, understood and practised by the physicians of classic antiquity. The revival is exemplified in the multiform practices of the so-called hydropathists, and, more rationally, in the application of baths to reduce fever, as especially advocated by German medical writers, and sanctioned by the growing results of experience on the part of physicians in every land. In this matter, again, of the use of hot and cold baths, applied for the purposes of treatment, we have much to learn, much of precise instruction to acquire, to elevate it to the platform of rational therapeutics.

As we have been willing to take a lesson from the practices of the old Romans in the use of baths in medical treatment, so now we have to proceed a step farther, and discover the value of the "aliptic art" as practised by them. It is well known that, in connection with their bathing processes, the Romans also used friction, both with the hand alone and more largely with the addition of various oils and fatty preparations, for the most part at the conclusion of the bath, but likewise, in some instances, before it. The act of thus rubbing with oil, as well for mere luxury as for promoting health and curing disease, is the "aliptic art," so designated by the writers of antiquity. Rubbing, weak and strong, shampooing and kneading the muscles, are examples of survival of practices associated with the use of baths with which we are all familiar. Such, moreover, are daily becoming more popular; and a clumsy French word, "massage," has of late years acquired a place in our language to express these mechanical processes, and the still more objectionable terms "masseurs" and "masseuses" have been applied to the male and female operators respectively. The affectation of foreign words will, it is to be feared, relegate to the category of vulgar expressions the good old English words rubbing and rubbers, but we will yet hope otherwise.

To return to the "aliptic art:" it is rubbing, and something more; this latter being an essential part of the proceeding—*i.e.*, the inunction of oil. To rub the body in pain may be taken as a primitive and a normal reflex act; and, to make rubbing more easy, the resort to an oleaginous material is a natural expedient; and no lengthened period would elapse before mankind discovered that certain medicated oils gave additional efficacy to simple friction. It would seem left to the Romans to fully appreciate this inunction of oils, to make it an every-day practice for health and pleasure, and to apply it systematically to the treatment of numerous maladies. But, unlike the Roman baths, the aliptic art did not so completely die out in Europe, at least in its medical aspects. It survived to our days, with different degrees of popular esteem, in the form of liniments and ointments. Among the common people of every country, these external medicaments have found more favour than among the learned in the medical profession; and it is now clear that the art, in its widest application, and in a systematic shape, is reviving amongst us, and will demand careful investigation. The indefatigable panacea-loving Germans have already invented an "oil-cure," to rival their other "cures" by grape-eating, sun-scorching (insolation), and other mortifications of the flesh. And, now that attention is drawn to it, the diligent explorers of libraries find that frictions with oils and oil-baths have been promulgated, as curative agents, by various medical writers of the present century. Consequently, there is every prospect of oil being resuscitated as a marvellous subduer of diseased commotions of the body, as it has of late been credited to be of the stormy motions of the sea.

Active rubbing with and without oil has been, however, very recently, put on a respectable footing, as a therapeutic agent, by the weighty authority and experience of Dr. Weir Mitchell; and we have its value still further enforced upon us by Dr. Playfair, whose lectures on its utility, in cases known as hysterical paralysis and cognate affections, not long since, so vividly impressed the profession.

It is not to our present purpose to discourse on the application of the "aliptic art" to particular maladies. What we have written will suffice to call attention to the esteem in which the art was held in antiquity, and to awaken interest in its future possibilities, especially as it now comes before us with the sanction of physicians of reputation, as a curative proceeding of great promise.

PROFESSOR HUXLEY ON MEDICAL REFORM AND EDUCATION.

ADDRESSING a crowded audience of students, nurses, doctors, and laymen on Tuesday last at the London Hospital, Professor Huxley explained at length his views on the question of State intervention in medical affairs. Many of his hearers must have regretted the subject chosen, and, with Mr. Jonathan Hutchinson, would have preferred to listen to one of those "lay sermons" by which the new President of the Royal Society gained so much of his earlier popularity. This feeling of disappointment was not lessened when it was found that Professor Huxley had little or nothing to add to the views expressed in the memorandum which is appended to the Report of the Royal Commission on the Medical Acts. On this subject, Professor Huxley is a Conservative; he thinks that the Medical Act of 1858 did almost all that was really necessary, and that the corporate bodies have made good use of the powers given them by that Act; he arrives at this opinion partly by contrasting the curriculum required from the student now, with that required thirty years ago, and more especially by contrasting the student of the present day with the student of the earlier days, when, according to Professor Huxley, there were many who fully deserved the satire of Dickens. He would increase the control of the Medical Council over the examinations, and would associate with the examiners appointed by the corporate body an equal number appointed by the Medical Council; and he would insist on a "threefold qualification," but beyond this he would not go. For further improvement, he would turn to the students themselves, and would reform the kind of preliminary education; he would endeavour still more to specialise the profession. Assuming it to be impossible to extend the curriculum to cover an age beyond twenty-two years, he would extend the period backward, and, sweeping away the examination in general knowledge now required by the Medical Council, would substitute an examination in physical science. Professor Huxley professed to think that this scheme was never to be realised, and that there was some fatal objection to it unknown to him, and as yet undeclared; we may be permitted to doubt, however, whether he permanently takes this view of his position; he is not a man to waste words in combating a foregone conclusion. Is there not some reason to believe that this address is a vacation speech, such as those with which the daily papers are now filled; speeches designed partly to arouse the hopes of fainting partisans, and partly to test the strength of public opinion?

We regret to find this distinguished scientist marching in the rear rather than in the van of the great question of medical reform. The profession has long ago made up its mind irrevocably to demand

all that he asks in medical reform, and more. It was a pity to use the chair on this occasion at the London Hospital, for a lost cause in which the Royal Commission, the medical profession, and the Government, have decided to go further than Professor Huxley has thought necessary.

Upon one other point Professor Huxley spoke with the confidence of strong conviction; there is, he contends, a waste of teaching power in such subjects as anatomy, physiology, and chemistry; he objects to the smaller schools attempting to teach these subjects, on the ground that in the case of physiology especially, an efficient teacher must give all the time that can be spared from the duties, now so largely practical, of teaching, to the study of his subject. In order to keep himself abreast of its advance, the teacher must be a specialist, and must have a sufficient number of pupils to provide the funds for an income and for laboratory expenses. Therefore the "institutes of medicine," as they used to be called, ought to be taught in London, not in eleven medical schools, but at two or three central colleges; "the thing" he said, "will have to be done." There are many, however, who doubt that it will ever be done, and who also question its expediency; it would, they argue, inevitably tend towards the still greater divorce of physiology and of chemistry from practical medicine—a separation which has already gone too far for the advantage of medicine. Do we want, it is asked, specialised physiologists to teach medical students? or do we not rather require a class of men such as existed in the past, and such as still exist in most of our schools, who are acquainted with the real wants of the students who throng our hospitals to learn the art and science of medicine, and not to spend some of the best years of their lives in the minute study of subjects which have, as yet at least, no direct bearing on medicine?

Further than this, another danger is pointed out—a danger that these two or three pure physiologists, who would have to teach the whole of the medical students of London, might specialise themselves still more; giving themselves up to the electrical phenomena of muscles, to the colouring matter of the urine, to the chemistry of the brain, or to some other subject far more remote in its methods and details from the real wants of the student than any work involved in clinical medicine. Whatever may be the case with the smaller schools of medicine in London, it may be fairly doubted whether there be not room for at least half-a-dozen fully equipped schools, where the object aimed at is the more close knitting together of clinical medicine and the institutes of medicine, and where the student, in the latter part of his career, and after he has finished his studentship, may pass directly from the wards of his hospital to the laboratory or lecture-room of the professors of the "institutes of medicine."

RAILWAY UNPUNCTUALITY AND PUBLIC HEALTH.

In the discussion which has been carried on so freely of late respecting the short-comings of certain railway companies, the effect of these on the public health has not been referred to, and yet it is certain that they are of a very serious description. If all railway trains kept time, the death-rate of the country would fall to a perceptible extent, and if the comfort of travellers was adequately provided for, we should have much less sickness and disability than we have at present. There is no more common cause of colds, bronchitis, and pleurisy in this country, than exposure to the weather in ill-constructed stations while waiting for unpunctual trains, or to draughts in ill-constructed railway carriages, and there is perhaps no more prolific source of minor nervous disorders than the incessant worry which the untrustworthiness of the iron horse occasions. Many a heart is seriously strained or breaks down altogether, in the hurry to make up for time lost on the railway, and many a case of apoplexy is attributable to the vexation and increased effort rendered necessary by sluggard trains. Indigestion and dyspepsia of every type are produced on the large scale by the derangement of diet and general irregularity of life which unpunctual trains daily inflict on tens of thousands of people. Railway spine, as a consequence of the collisions which unpunctuality leads to, has been long familiar to medical men, and railway brain, a state of irascibility and chronic despondency bordering on insanity, and produced by "the train's delays, the insolence of office and the slights which patient merit of the unworthy takes," is now often brought under their notice, especially in city men, who have worn themselves out in expostulations to station-masters and guards, and who have not had the good sense to relieve themselves by a letter to the *Times*. The fact is, that railways are rapidly becoming a national tyranny and a serious danger to health, and no time should be lost in compelling them to conform to sound hygienic principles. "'Tis true 'tis pity, pity 'tis 'tis true," that Parliament is overweighted with greedy railway directors and ambitious lawyers, and the necessary reforms in railway administration can scarcely be hoped for until a little science and humanity have been introduced into the great council of the nation. One practical reform seems to us to be very urgently required, and that is the provision of a lift at every underground station in London. The amount of human energy expended daily in climbing the flights of steps that form the only means of egress from these stations, would be startling if it could be summed up, and, for our own part, we have no doubt that a vast amount of mischief is done to invalids and persons past middle life, by the exertion required to raise themselves from the stiffling tunnels in which they have been travelling, to the street-level. We should be inclined to attribute some portion of the increase of heart-disease amongst us to the strain imposed on the circulatory system by the metropolitan tread-mill, as these weary stairs might be not inappropriately called.

It will be noted with satisfaction that the weekly issue of the Journal is again increased, to meet the demands of its continually growing circulation.

A conference on the medical aspects of the temperance question was held in Birmingham on Wednesday last; among the speakers were Drs. Heslop, Batten (Gloucester), Hickinbotham and Crispey.

Mr. C. Gray's remarkable case of Cæsarean section in a dwarf described in full by the operator at page 729 of the present number of the Journal, is, from all points of view, a most interesting contribution to the records of abdominal surgery, on the part of a British country practitioner.

The annual public meeting of the Medical Society of University College, London, will be held on Wednesday, October 17th, 1883. Dr. Henry Maudsley, formerly Professor of Medical Jurisprudence, will deliver an address on Heredity and Disease. The Flaxman Gallery and College Museums will be open, and a microscopical exhibition will be held in the General Library.

In contradiction of the report of M. Dutrieux, published by the *Moniteur Egyptien*, supporting Surgeon-General Hunter's theory of the endemic character of the recent outbreak of cholera, the *Official Journal* has recently published a declaration of the Minister of the Interior disclaiming all responsibility for the publication of M. Dutrieux's statement, and declaring the endemic theory to have been disproved by all competent authorities.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

On Tuesday, October 23rd, the first meeting of the session, Dr. Ferrier, who at the last annual meeting in March was awarded the Marshall-Hall Prize, will deliver an address containing an account of his work in the physiology and pathology of the nervous system.

FEMALE NURSES FOR OUR NAVAL HOSPITALS.

A committee has recently been sitting to investigate the nursing system in naval hospitals; and its report will shortly be presented. We understand that the conclusions arrived at are favourable to the employment of a certain proportion of female nurses in these establishments, and that the recommendations of the committee will be to that effect. These recommendations, if approved, will be carried out early next year.

WESTMINSTER HOSPITAL SCHOOL.

We understand that, at a special meeting of the governors of the Westminster Hospital, held on September 25th, the purchase of a site a few minutes' walk from the hospital, suitable for the erection of school-buildings, was agreed upon, and a subcommittee appointed to make further arrangements. By removing the school from the hospital—where, in consequence of the increase in the number of students during the last few years, it has been cramped for space—a much needed improvement in the out-patient department will be effected.

COLOUR-TEACHING.

The School Board for Boston, U.S.A., has just introduced the systematic teaching of colours as part of the regular course of school-work. The colour-chart of Magnus, as arranged for use by Joy Jeffries, is the one adopted. Various advantages are claimed for this chart, one being that a colour-blind pupil cannot, one series of the coloured discs being loose, recognise and point out the colour by means of its position. In consequence of this, the chart becomes incidentally available for the purpose of detecting colour-blindness, a thing of considerable importance to a child at the commencement of his career in life. Colour-instruction is already given in the Government elementary schools of this country, but certainly not on so complete or scientific a plan as that now inaugurated in New England.

DEATH OF DR. HAUGHEY.

We regret to record the death, as the result of a carriage-accident, of Dr. Alexander Richardson Haughey, of Crewe. Just after midnight, on the morning of the 2nd instant, Dr. Haughey was returning in his dog-cart, with his groom, from visiting his patients, when his horse, taking fright, ran away, and dashed down Victoria Street, Crewe. At the corner of Charles Street, the vehicle came into forcible collision with a lamp-post, and Dr. Haughey was thrown violently into the road, sustaining serious injuries to his head, and being at once rendered insensible. He never regained consciousness, and died from his injuries on the 5th instant. Dr. Haughey was a member of the Association; he graduated in the University of Edinburgh in 1866. He was much respected in his neighbourhood, where he enjoyed an extensive practice.

INQUIRY INTO INFECTIOUS DISEASE.

Mr. H. E. Armstrong obligingly sends us copies of a form which as health-officer for Newcastle, he has prepared for inquiry into infectious diseases notified to his department under the Newcastle Improvement Act, 1882. The forms are printed on paper of five different colours; viz., red for scarlet fever, green for enteric fever, lilac for small-pox, grey for typhus, and white for diphtheria and other infectious diseases. The particulars are noted by the disinfector, and in many cases may be given by striking out certain of the printed words on the form, after the manner adopted by the Collective Investigation of Disease Committee of the Association. The completed forms are filed for future use. Each form will take about half an hour to fill up; but the work will be a good training for the disinfector, and the information will certainly be worth the time spent in acquiring it. The particulars which the person filling up the form is charged to obtain appear to exhaust everything that can possibly be wanted for the assistance of the sanitary officials; and, if the forms are intelligently filled up, they will, in course of time, be invaluable for the purposes of the Health Department.

THE SUSPENSION OF THE CONTAGIOUS DISEASES ACTS.

The *Western Morning News* has the following statement on the subject:—As illustrating the state of affairs in the Three Towns since the suspension of the Contagious Diseases Acts, a few figures relating to the Naval Hospital are an interesting study, bearing in mind that, previous to the success of Mr. Stansfeld and his party, the average number of men in that hospital suffering from the diseases dealt with under the Acts was under one hundred. A few days ago, of, roughly speaking, 500 men in the hospital, considerably over 300 were on the surgical side, and of these about 200 were suffering from these diseases. Of 51 entries made on one day, 40 were due to them. These facts speak for themselves. It is also stated that the type of disease is of a more obstinate nature than before, although mild in comparison to what will appear in course of time if no precautionary measures are taken.

INFLAMMABLE STORES UNDER A HOSPITAL.

The recent explosion at the rocket-factory at Woolwich has caused attention to be directed to other places in the garrison and district where fire-risks are great, and where especial dangers would be likely to arise upon the occurrence of a fire. The basement of a large hospital is not a safe place for the storage of inflammable articles. We learn from a contemporary that the basement of the Herbert Military Hospital at Shooter's Hill, one of the largest of its kind in England, is stored with a large quantity of spirits of wine, turpentine, oils, wooden cases, and other inflammable articles, besides being the depot of medical supplies for an army corps, always kept in readiness for immediate shipment in case of a foreign war. The medical authorities of the hospital have called attention to the disastrous consequences which would ensue if, by any unforeseen accident, a fire should break out in these stores, as the hospital often contains 500 sick, many of whom are bedridden. It is consequently proposed to have an inspection of the place by the officials of the Metropolitan Fire Brigade; and it is considered probable that, before long, the stores will be removed to a more harmless place. The value of the stores alone is estimated at upwards of £200,000.

COLLECTIVE INVESTIGATION OF DISEASE IN LONDON.

The cards and temperature charts for the recording of cases of typhoid fever, initiated by the Collective Investigation Committee of the Metropolitan Counties Branch, have been forwarded, with an explanatory memorandum, to all members of the Branch residing in London, as well as to other practitioners residing in St. Pancras and its immediate vicinity. A moderate number of the cards and charts have been already filled-up, and returned to the Honorary Secretary of the Committee of the Branch. A meeting of the East London and South Essex District will take place at the Hackney New Town Hall on Thursday next, the 18th inst., at 8.30 P.M., when Dr. Hare, the President of the Metropolitan Counties Branch, will occupy the chair; and Dr. S. Wilks, F.R.S., will give an address in support of the Collective Investigation of Disease, in which he is expected to show in what various ways the family physician may aid in the clinical investigation of facts connected with certain diseases, such

as zymotic and others, which come constantly under the observation of the general practitioner, whilst they are but rarely witnessed in hospitals. All practitioners are invited to attend.

A CONCOMITANT OF LEUKÆMIA.

In a Hungarian medical journal, Professor Kétli, of Buda-Pesth, has described a case of leukæmia, accompanied with priapism. A man, aged 35, was seized last October with a severe attack of paludal fever, followed by bronchitis; ever since then, priapism had been present. At first, the erections occurred daily, lasting for several hours, and totally unaccompanied by subjective phenomena of any kind; but, for the last two weeks that the patient was under observation, priapism had been continuous, and very painful. The morbid condition was confined to the corpora cavernosa, the glans being perfectly unaffected; the urethra became so compressed by the swelling of the cavernous part of the organ, that the catheter had occasionally to be used. The spleen was enormously enlarged, and the proportion of colourless corpuscles in the blood was greatly increased. No enlargement of the lymphatic glands could be detected. Lupulin and bromide of potassium had been given as remedies for the priapism, but without effect, as might be supposed, since the symptom was related, more or less directly, to a constitutional affection that needed other treatment than the administration of sedatives. Professor Kétli observes that Longuet describes a case of leukæmia, where priapism came on, and lasted for six weeks. Salzer found the same condition in five out of eight cases of leukæmia under his care. The true relation of the symptom and the constitutional disorder remains as yet unknown.

QUINIDINE AND ITS ALLIES.

Researches into the action of the secondary alkaloids of opium resulted in the valuable addition of codeia to the *Pharmacopœia*. The investigations of M. Laborde give reason to hope that benefit may arise to medicine from the further study of the alkaloids other than quinine, which are found in cinchona bark. That observer has lately given much attention to the study of the physiological action of quinidine. This principle he finds to agree with cinchonine and cinchonidine in producing convulsive movements of the body; while quinine appears to be incapable of doing so. A guinea-pig, beneath whose skin some sulphate of quinidine was injected, quickly passed into a stupid semiconscious state, and was seized with opisthotonic convulsions. Tonic and clonic muscular contractions succeeded one another till death by asphyxia ensued three-quarters of an hour after the injection. Cinchonine and cinchonidine possess the convulsive property in a more marked degree than quinidine. This drug, therefore, holds a middle position between the alkaloids just mentioned on the one hand, and quinine on the other; but its affinities are stronger on the side of the former group. An impure specimen of sulphate of quinine, experimented with in like manner, gave the convulsive reaction; thus proving the presence of the other alkaloids, and illustrating a remark of M. Laborde, that one advantage gained by his experiments is the establishment of a physiological test of the purity of these substances.

THE CAUSES OF TYPHOID IN THE CHANNEL FLEET.

Public attention has been justifiably directed to the undue occurrence of cases of typhoid fever, and of its persistence, in some of the ships of the Channel fleet, especially in the *Agincourt*, *Northumberland*, and the *Sultan*. There is here undoubtedly room for careful inquiry; for it cannot be doubted that such fever on board ironclads could only have been imported under preventable circumstances. The fever is not a contagious one, but is due to local unsanitary conditions in food, air, or soil. Now, as it certainly cannot be in the air, and the character of these ironclad ships prohibits the supposition that the case could be due to what, on shore, would be termed soil, it unquestionably must be looked for in the first instance in the food, and especially in the water. These ships are provided with tanks and steam-condensers; and, on inquiry, it will, we have reason to believe, be found that adequate care is not exercised by the commanders in respect to the supervision of the water-supply; and there is a tendency, when lying off such stations as Malta, Gibraltar, and elsewhere where the water-supply is apt to be readily contaminated, to take on board shore-water, and to lessen as much as possible the use of the condensers, so as to reduce the amount of trouble in respect to their use, and the necessary cleaning of engines, etc. This may not be the only explanation, but the subject is certainly one which requires to be looked into, for typhoid fever is preventable everywhere, and especially on board ship. Her Majesty's ships ought at least to be as free from it as are Her Majesty's prisons.

PURE WATER FOR CATTLE.

Under the above heading, Mr. G. Bowles has been writing to the *Times* asking the aid of that journal to impress upon the Government that it ought to insist that holders of land should in every case provide pure water for cattle to drink. If the Government inspectors, Mr. Bowles adds, would only look at the ponds at present provided for drinking purposes, they would see how very foul the water often is, and that it contains numbers of animalculæ. The complaint that farmers are not careful to supply their stock with wholesome drinking-water is doubtless just and much needed, and it is by no means unreasonable to ask that Government should take the matter up, and instruct their inspectors accordingly. However, Mr. Bowles, who is an authority on the subject, brings a specific charge against foul water, furnishing very strong grounds for interference. He says if milk be taken from cows that have drunk this water and kept two or three days, the same animalculæ will be found in it; and that he learns from a friend, who thoroughly understands the question, that if milk be set to make cheese at a temperature, say, of 70°, the curd will develope life of the same species that was in the water. Mr. Bowles concludes by hinting at a connection between sewage-water drunk by cattle and frequent outbreaks of typhoid fever, and asserts that "foot and mouth disease arises from the drinking of these impure waters." Certainly the allegation is comprehensive, and full of interest to all. We can only draw solace from the reflection that Mr. Bowles, who is not a biologist or pathologist, may have been mistaken, and that the animalculæ found in the kept milk were not the same as (or the descendants of) those in the contaminated water. We trust the publication of Mr. Bowles' observations may induce some competent scientific man to investigate this most important topic.

CORONERSHIP OF NORTH DEVON.

A vacancy having occurred in this important office, we are glad to hear that the freeholders of North Devon are so fortunate as to have a candidate of peculiarly high qualifications, and possessing that thorough knowledge of State Medicine and Medical Jurisprudence which is so valuable in such an appointment, and the possession of which conduces so much to secure the economical and efficient conduct of the duties of this important office. The investigation of the causes of death, which it is the duty of the coroner to conduct, should, as all authorities are now agreed, be carried on by the light of the medical and scientific knowledge which can alone effectually fulfil, in all cases, the object of rapidly and securely determining whether or not the causes of death are natural or violent, whether the general conditions or particular acts to which the death is due are such as to call for the further intervention of the State, or to require the attention of the public authorities on public grounds. The coroner has to sit in a court in which he is frequently without the aid which, in criminal courts, experts called on one side or the other are present to afford. He has often to de-

termine whether or not the circumstances are such as to require the aid of a medical expert, and whether the conditions of death are due to such unsanitary neglects, or possibly due to such personal misconduct or omissions on the part of others, or by the act of the deceased person, as to require further investigation and comment in the public interest. To determine this point requires a medical and scientific education, as well as an acquaintance with the principles and practice of State Medicine and Medical Jurisprudence. Such qualifications are possessed by few lawyers, and, indeed, by only a certain proportion of medical men. In this instance, the candidate, Dr. Slade-King, is a licentiate in State Medicine, well acquainted with sanitary science, and well versed in Medical Jurisprudence. He is favourably known as a medical officer of health of great ability and discretion; and it may be hoped that the electors of North Devon will, by an overwhelmiug majority, appoint him to the office for which he is a candidate.

A SEVENTH SENSE.

SIR WILLIAM THOMSON, the eminent Professor of Mathematics in the University of Glasgow, in his inaugural address, delivered last week, as President of the Midland Institute, at Birmingham, broached the idea of the existence of a magnetic sense. This sense he called the seventh sense, to distinguish it from our other six senses—namely, those of sight, hearing, taste, smell, heat, and force. He said that, in speaking of a possible magnetic sense, he in no way supported that wretched grovelling superstition of animal magnetism, spiritualism, mesmerism, or clairvoyance, of which they had heard so much. There was no seventh sense of a mystic kind. Clairvoyance, and so on, was the result of bad observation chiefly, somewhat mixed up with the effects of wilful imposture, acting on an innocent and trusting mind. If there were not a distinct magnetic sense, it was a very great wonder that there was not. The study of magnetism was a very recondite subject. One very wonderful discovery that was made in electric magnetism was made by Faraday, and worked out very admirably by Foucauld, an excellent French experimenter, showing that a piece of copper, or a piece of silver, let fall between the poles of a magnet, would fall down slowly, as if through mud. Was it conceivable that, if a piece of copper could scarcely move through the air between the poles of an electric magnet, a human being or living creature, in the same position, would experience no effect? Lord Lindsay got an enormous magnet, so large that the head of any person wishing to try the experiment could get well between the poles; and the result of the experiment was marvellous, the marvel being that nothing was perceived. Sir William Thomson, however, was not willing to admit that the investigation was completed. He could not but think that the quality of matter in the air, which produced such a prodigious effect on a piece of metal, could be absolutely without any perceptible effect whatever on a living body. He thought the experiment was worth repeating; and it was worth examining whether or not an exceedingly powerful magnetic force was without perceptible effect on a living vegetable or animal body. His own speculations had led him to conclude that there might be a seventh or magnetic sense; and that it was possible an exceedingly powerful magnetic effect might be produced on living bodies that could not be explained by heat, force, or any other sensation.

THE ATTIRE OF NURSES.

IN their costumes, no less than in their customs and character, a great and general improvement has been seen in nurses, and especially in hospital nurses, during the last five and twenty years. To-day the satires of Dickens on the Gamps of his time, terribly true when they were written, are only amusing anachronisms, which the younger generation can scarcely realise as faithful historical portraits. While, however, in personal fitness for her work, in manner, intelligence, kindness, training and skill, the average nurse of a well-conducted hospital now presents a great and in all respects admirable advance upon many of her predecessors of a quarter of a century ago, we still observe that there is room for further improvement in several distinct details of our nurse's attire. The particulars we notice must not be regarded as trivialities which are of no practical moment; we only refer to points which we deem of substantial importance in regard to their effects upon the comfort and progress of the sick persons whom nurses attend. Persons who are ill usually have time to notice, and usually are so hyper-sensitive as to be fretted by a great many comparatively minor details which do not annoy those who are whole, even when they attract their attention. In hospitals a distinct "uniform" is now generally worn by nurses, and this generally consists of a dress of a certain chosen colour and texture, and a white cap or head-dress of some approved pattern. Why should the colour of the nurses' dress usually be black? That lugubrious tint can neither please the senses of the sick nor awaken happy associations in their minds. Dresses of some bright and pretty pattern would be far preferable to the melancholy garments now affected by many hospital nurses, and especially by some who belong to ecclesiastical sisterhoods. Apart from its colour, there is one cardinal quality of a nurse's dress which is not always to be found: the texture of the garments ought to be so soft that the dress adapts itself noiselessly to the movements of its wearer, and does not keep up that monotonous rustling which is so peculiarly irritating to nervous patients. It is obvious that a nurse's tread should be as free from noise as possible; this consummation cannot be attained unless her foot presses a sole which is of even thickness throughout, and unless her whole shoe is so flexible as to be wholly free from the irritating vice of creaking. Heels added to boots or shoes give a stumping noise in walking peculiarly their own. A nurse should wear slippers, without heels, and made of a material so soft as never to give a suspicion of a creak. Whatever her other qualities and characteristics, a sick-nurse may do much to brighten a sick-room and to save her patient from annoyance, and so to add to his comfort and favour his recovery, by scrupulous attention to her own appearance and attire, so that she may be good to look upon, and able to move about her duties without needless noise.

SUGAR AS A DRESSING FOR WOUNDS.

DR. F. FISCHER, writing in the *Centralblatt für Chirurgie*, says that in the Strasburg Hospital, where he is assistant in the surgical department, Professor Lücke has since May used powdered cane-sugar as an antiseptic dressing to wounds. Hitherto, it has been used in combination with naphthalin (equal parts) or with iodoform (1 part to 5 of sugar). In cases of wounds united by suture, the mixture is put up in gauze and applied to the part; where there is loss of skin, the sugar is sprinkled direct over the part. The sugar-dressing is fixed in place by some layers of gauze deprived of fat, over which a layer of gutta-percha is applied, and the whole is secured by a bandage. The sugar-dressing may remain from eight to fourteen days, without the sugar dissolving; the secretion from the wound is equally distributed through the sugar, and it is only when the layer of sugar is too thick (more than about one-fifth of an inch) that lumps are formed. The wounds have a healthy appearance under the sugar, the dressings are not offensive, and bacteria cannot be found in them. Healthy granulations, with no tendency to bleed, are developed; and cicatrisation proceeds rapidly. In wounds united by suture, healing by the first intention has always been observed. Dr. Fischer is not able to say whether the sugar is decomposed, or what new products are formed. Writing in the *Allgemeine Medicinische Central-Zeitung* in reference to Dr. Fischer's communication, Dr. Windelschmidt of Cologne says that he has used sugar alone as a dressing, with good results. He finds that for

small wounds and ulcers powdered cane-sugar is not inferior to iodoform as a dressing, while iodoform is necessary in many cases such as chancres and mammary abscesses. He calls attention to the fact that powdered sugar is a very old popular remedy in cases of fungous granulations, ichorous eczema, and erysipelas of the face. Whether the action of sugar is antiseptic, is not certain: that it is aseptic, is proved by its use in confectionery. In spite of his success, Dr. Windelschmidt has for several months desisted from the use of sugar as a dressing; partly because the patients found out the nature of the powder that was applied and ceased to trust in it, partly because they treated themselves and so passed from his observation. He thinks, however, that sugar, like iodoform and naphthalin, has its sphere of application; and joins with Dr. Fischer in recommending that it be more extensively tried.

A MARINE OBSERVATORY.

SIMULTANEOUSLY with the receipt of a letter from our Paris correspondent, published this week in the JOURNAL, where a very complete account is given of the marine observatories in Europe, it is satisfactory to learn that a proposal for the foundation of an observatory on the British coast has just been issued, bearing the signatures of Professor Owen, Dr. Carpenter, Professor Burdon Sanderson, Professor Ray Lankester, Sir John Lubbock, Professor Michael Foster, Mr. Adam Sedgwick, Dr. Romanes, Professor W. H. Flower, Professor Jeffery Bell, Mr. P. Sclater, Mr. H. N. Moseley, Dr. Milnes Marshall, and other scientific men. The proposed observatory would be in charge of a competent resident superintendent, and fitted with the same kind of apparatus that is employed in similar institutions abroad. It is calculated that £8,000 would be sufficient to secure a site and erect and furnish a suitable building; whilst £500 a year should be secured as a minimum income for the purpose of paying a salary of £250 a year to a resident superintendent, minor salaries to fishermen and attendants, and of meeting the small current expenses. The income of the institution might be materially aided by the payment of a fee (say, £5 a month) on the part of those naturalists making use of its resources. The opportunity for securing the £20,000 necessary for the inauguration of such a zoological observatory has presented itself in connection with the International Fisheries Exhibition. Should there be, as there is reason to hope, a large surplus fund in the hands of the Committee of the Exhibition at its close, it is proposed to bring the suggestion of the establishment of a marine zoological observatory before the Committee, and to endeavour to obtain the support of that body for the scheme. It is earnestly to be hoped that an observatory may be successfully established, as the study of obscure forms of submarine life cannot fail to throw light on some of the most profound questions of biological science.

INTEMPERANCE AND INSANITY.

DR. MAJOR, in his report on the West Riding Asylum, which contains upwards of 1,400 lunatics, calls attention to the influence of intemperance in the production of insanity. Of 428 patients admitted to the asylum during last year, 185 were supposed to have become insane in consequence of alcoholic excesses. Of these 85 victims of intemperance, 68 were men and 17 women. It would appear that intemperance plays a larger part in the production of the mental disease in the West Riding of Yorkshire than in most other districts of England. As far as Dr. Major's experience goes, no diminution has occurred in the amount of insanity referable to this agency. In a great majority of the cases that have fallen under his observation, long-continued intemperance has led to serious brain changes, and the gravest forms of mental disease. Dr. Major ought, perhaps, to have added that many of the most transient attacks of insanity are due to the toxic effects of alcohol on the brain and nervous system, and that the list of recoveries in most asylums is considerably swelled by cases of delirium tremens, mania â potu, and ephemeral mental disorder due to intemperance. The example set by several other asylums, has been followed by the West Riding Asylum, and beer has been discontinued as an ordinary article of diet. As malt and hops cost the asylum £1,523 during 1882, it is evident that the beer supplied to the inmates of that institution must have had considerable nutritive value. At a moderate computation for the cost of labour and plant, the cost of beer must have been twenty-five shillings per head per patient. Some compensatory addition in the shape of meat, milk, cheese, sugar, and bread, ought certainly to be made to the diet of the patients, now that beer has been withdrawn.

THE DISCOVERY OF THE ANÆSTHETIC PROPERTIES OF SULPHURIC ETHER.

THE committee appointed by the Medical Association of South Carolina to investigate the claims of the original discoverers of the anæsthetic properties of sulphuric ether and the successful application of the same in surgical operations, presented a report at the recent meeting of the Association in Yorkville (*Med. News*, May 12th), in which they drew the following conclusions:—1. For more than fifty years the inhalation of sulphuric ether as an excitant has been common in some parts of Georgia, though not practised in the colleges. 2. Dr. P. A. Wilhite, now of Anderson, S. C., was the first man to produce profound anæsthesia, which was done accidentally with sulphuric ether in 1841. 3. Dr. Crawford W. Long, of Athens, Ga., was the first man intentionally to produce anæsthesia for surgical operations, and this was done with sulphuric ether in 1842. 4. Dr. Long did not by accident hit upon it, but reasoned it out in a philosophic and logical manner. 5. Wells, without any knowledge of Long's labours, demonstrated in the same philosophical way anæsthesia by the use of nitrous oxide gas in 1844. 6. Morton, desiring to use the gas in dentistry, asked Wells to show him how to make it in 1846. 7. Wells referred Morton to Jackson, as the latter was a scientific man and an able chemist. 8. Jackson told Morton to use sulphuric ether instead of gas, as it possessed the same properties and was as safe and easy to get. 9. Morton, acting upon Jackson's suggestion, used the ether successfully in the extraction of teeth in 1846. 10. Warren, Haywood, and Bigelow performed important surgical operations in the Massachusetts General Hospital, October, 1846, on patients etherized by Morton, and this introduced the practice throughout the world.

Dr. Wilhite, to whom credit is here given as the first man to produce profound anæsthesia, is the last and only survivor of those laying claim to the honour of this discovery. His claim is supported by his own affidavit and fully corroborated by the affidavits of Sam. B. Weir and Mrs. C. Weir, who saw a negro boy put to sleep with sulphuric ether administered by Dr. Wilhite in 1841.

NAVAL MUSEUM OF HYGIENE.

THE Army Medical Museum and the Library of the Surgeon-General's Office, have long been peculiarly sources of honour to the American Government and the envy of European nations. Surgeon-General Wales, the Director-General of the United States Navy, has persuaded Congress to give to his department the credit of having established the third museum of hygiene in the world. One year ago, says the *Maryland Medical Journal*, upon his petition, Congress appropriated 7,000 dols. for the renting of a building, and for the other expenses connected with the maintenance of such an institution, such as the transportation of contributions, preparation of models and drawings for illustrating the progress of sanitary science, etc. The plan designed by Dr. Wales also embraced the establishment of a course of lectures by eminent sanitarians from this country and abroad, and a library of works upon sanitary science which

shall be accessible to all interested in this subject. What has been accomplished during the year towards the realisation of the wishes of the founder, is stated in a report just published. Among other things, a large quantity of specimens have been collected illustrating every department of sanitary science, whether in relation to communities or individuals. Drainage and sewerage, water-supply, lights, pavements, disposal of the dead, architecture, hospitals, schools, baths, tents, morgues, ventilation, heating, pipes, traps, fireproof arrangements, furniture, stoves, wall-coverings, all the arrangements on board ship, clothing, waterproofs, uniforms, means of protection against fire, water and lighting, ambulances, litters, etc., all receive or will receive their appropriate illustration. In a short time a nickel-plated Ericsson caloric pumping engine will be set up in order to supply the motor force required to keep the various apparatus in motion. There is also being constructed in Brooklyn a model of a crematory, designed to exhibit the actual process of cremation, rats, cats and dogs being utilised in the experiment. It is said that much assistance has been rendered at the museum in perfecting the plans of many of the residences recently erected in Washington, and the officers are always obliging in giving aid and counsel whenever consulted, so that what may be termed a National Hygienic Kindergarten is being gradually established at the capital of the country, whose influences for good, by instructing the people in practical sanitation and the preservation of health and life, cannot fail to be in the highest degree beneficial. An important feature of the museum is the laboratory, where it is designed to submit to thorough tests all kinds of food and material. Another important feature is the library, which now includes nearly 5,000 bound volumes, of foreign and domestic works, reports of boards of health, society transactions, etc. This library regularly receives 117 periodicals devoted to hygiene and cognate subjects. Some idea of the immense development of which the institution is capable, can be formed from an examination of the list of subjects given above. Already it is stated that the space in the building—a large residence at the corner of Eighteenth and G Streets, one square west of the State Department—is inadequate, and that the Naval Hospital building will probably be utilised for the purposes of the museum. The extraordinary development of the work shows the great need there was for it, and must be peculiarly gratifying to its founder, since it so completely justifies his wisdom in establishing it. At the same time, the *New York Herald* claims that "it may be looked upon as indicating in some degree the vigour and greatness of our nation; it must gratify every one's national pride to see with what energy and success we take hold of great designs and push them forward to immediate success. The museum is under the charge of Medical Director J. M. Browne, United States Navy, who is assisted by Surgeons Streets, Hanneberger, Griffith, and Dr. White." There can be no more gratifying sign of true progress than national pride in the energetic development of humanitarian profits such as this.

DEATHS FROM HYDROPHOBIA.

Two deaths have lately occurred from hydrophobia. Last week an inquest was held at St. Thomas's Hospital relative to the death of a female domestic servant, aged 43 years. It appears that the poor woman was bitten in the hand, last May, by a cat "which appeared to be mad." No notice of the injury was taken at the time, and the deceased continued her duties as usual up to September 22nd, when she became ill, and was removed to the hospital. One of the house-surgeons stated that the patient was suffering from hydrophobia when admitted, and that she died from that disease consequent upon the bite of a cat. An inquest was also held in Manchester last week upon the body of a boy, six years old, who died from canine rabies. In August he was bitten by a retriever dog. Some men sucked the wound, and a chemist cauterised it. He was subsequently attended by a surgeon, and the wound was healed. A few days before death he presented symptoms of hydrophobia, from which disease he died. It is reasonable to expect that medical science will some day discover an efficient remedy for hydrophobia; but the further investigation of the disease, and the search for means for its cure, are practically prevented, at least in this country, by the legislative restrictions which hamper the progress of physiological and pathological research. In the meantime, when a person is bitten by a dog, cat, or other animal suffering from rabies, the promptest and most efficient measures ought to be taken to prevent the systematic absorption of poison from the wound. Water, diligently used for the thorough cleansing of the wound as soon as possible after the infliction of the injury, is a reliable remedy, and one which is almost always at hand. The efficiency of this simple method of preventing hydrophobia in a person who has been bitten by an animal which is the subject of rabies, has been repeatedly proved. In the collected works of the late Dr. Withering, F.R.S., we find an interesting reference to this subject from the pen of the celebrated Dr. Haygarth, of Chester. Commenting on three fatal cases of canine madness which occurred at Wrexham in 1788, Dr. Haygarth wrote: "These melancholy cases spread a general alarm. But it ought to give great comfort and satisfaction to anyone who may be bit, to know that there is a safe, easy, and effectual method of preventing infection, which can seldom give pain, or require skill, and is in the power of every person to employ. The spittle of a mad animal, infused into a wound, is the only cause, hitherto known, that can communicate canine madness to the human body. This poison does no immediate mischief, but is slowly absorbed into the blood, and sufficient opportunity is given to remove it before any danger can arise. Whenever a person is bit, the plain and obvious means of preventing future injury is, first, to wipe off the spittle with a dry cloth, and then to wash the wound with cold water, not slightly and superficially, but abundantly, and with the most persevering attention; in bad cases, for several hours. After a plentiful affusion of cold water, warm water may be employed with safety and advantage; a continued stream of it, poured from the spout of a teapot or teakettle, held up at a considerable distance, is peculiarly well-adapted for the purpose. The ablution should be accomplished with great diligence and without delay, and may be performed by the patient or by an assistant. However, as the apprehension of this dreadful disorder always excites the greatest anxiety, a surgeon's advice and assistance ought to be obtained as soon as possible, in all cases where the skin is injured; he will execute these directions most dexterously and completely. In a bad wound, the poison may be conveyed deep into the flesh by long teeth, or by lacerations. In such circumstances, he will open and wash every suspicious place; and whenever any uncertainty can remain that may occasion future solicitude, he should cup and syringe the wound. By this method of purification, it cannot be doubted that every particle of poison, and, consequently, that every cause of danger, may be effectually removed."

SCOTLAND.

THE weather in Scotland during the past week has been characterised by the sudden passage of a wave of heat all through the country. This remarkable and exceptionable rise in temperature is quite unusual at this season of the year.

AT a recent meeting of the Faculty of Physicians and Surgeons of Glasgow, Dr. Andrew Fergus was elected President for the ensuing year. Dr. R. Scott Orr still continues to be the representative of the corporation on the General Medical Council.

A new asylum, known as the Smyllum Orphanage, for the deaf, mute, and blind, has just been opened at Lanark. The system of

education to be carried out for the deaf-mutes is to be that of articulation and lip-reading.

PROPOSED HOSPITAL FOR CONTAGIOUS DISEASES, ST. ANDREW'S.

A SITE at St. Mary's Street, St. Andrew's, has been selected for the erection of a hospital for the treatment of infectious and contagious diseases. This site has received the approval of the Board of Supervision. It is hoped that a considerable sum may be derived from the Bell Fund to enable the Police Commissioners to erect the hospital.

ABERDEEN UNIVERSITY COURT.

AT a recent meeting of this Court—Dr. Bain, Lord Rector, presiding—*inter alia*, the following assessor examiners in medicine were appointed for one year: Dr. John Alexander, Western Infirmary, Glasgow; Dr. James Anderson, London; Dr. A. Campbell, Dundee; Dr. G. M. Edmond, Stonehaven; Mr. Frederick Treves, London; Dr. R. M. Wilson, Old Deer.

ROYAL MATERNITY AND SIMPSON MEMORIAL HOSPITAL, EDINBURGH.

THE arrangements for the first part of the winter session in the Royal Maternity Hospital are: The physician on duty will be Professor A. R. Simpson, who succeeds Dr. J. Halliday Croom, whose term of office this year expires on November 1st; the resident physicians will be Mr. David Smart, M.B. and C.M. (Buchanan Scholar 1882), and Mr. G. Forbes Alexander, M.B. and C.M. (James Scott Scholar, 1883), who succeed Mr. W. F. A. Haultain, M.B. and C.M., and Mr. J. F. T. Whittingdale, B.A.Cantab. and M.B.

DUNDEE UNIVERSITY COLLEGE.

THE Dundee University College, founded by Miss Baxter, of Balgavies, and the late Dr. John Boyd Baxter, was formally opened on the 5th instant by Lord Dalhousie. Professor Stuart, of Cambridge, delivered the inaugural address, in which he spoke of the growing necessity for technical instruction in all centres of industry. Of the £140,000 given by Miss Baxter, £40,000 has been spent on the site and present buildings; the remaining £100,000 has been invested for carrying on the work of the College. The staff consists of a principal and four professors. The present buildings are temporary, with the exception of the chemical laboratory, which will form part of the permanent structure. The laboratory is considered one of the best-equipped in Scotland, and the chemical will be the principal department of the College. In all the departments, however, the facilities for the prosecution of study are considered to be quite equal to any school of science in the kingdom. Students of both sexes over fifteen years of age will be qualified to attend the College.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General, for the week ending September 29th, show that the death-rate in the eight principal towns was 20.6 per thousand of estimated population. This rate is 0.4 below that for the corresponding week of last year, but 0.6 above that for the previous week of the present year. The lowest mortality was recorded in Leith—viz., 17.6 per thousand; and the highest in Greenock—viz., 24.7 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.0 per thousand, or the same as the rate for the previous week. Diarrhœa continues to be the most fatal miasmatic disease. In Glasgow, 10 deaths were attributed to whooping-cough, and 9 to scarlet fever. Acute diseases of the chest caused 75 deaths, or 6 less than the number registered during the previous week. The mean temperature was 53.5, being 0.7 below that of the week immediately preceding, but 1.5 above that of the corresponding week of last year.

THE BEN NEVIS OBSERVATORY.

NOTWITHSTANDING the hindrances from the variations in the weather, with the attendant snow and sharp frost, great progress has been made with the work on this station, and it is confidently hoped that everything will be sufficiently advanced to have the opening ceremony on October 17th as proposed. The first portion of the cable has been brought to the summit, and has been already laid. For those interested in the work, it may be as well to mention that there has just been issued a small pamphlet giving full particulars of the Ben Nevis Observatory, of the work of Mr. Clement Wragge in connection therewith, together with a list of the principal high-level meteorological stations in the world, of the chief mountains of Great Britain and Ireland, and a map of Ben Nevis and its surroundings. The information thus brought together by the Committee cannot but be useful to the general public.

THE HEALTH OF GLASGOW.

FROM Dr. Russell's report for the fortnight ending September 29th, we learn that there were 449 deaths registered, being a death-rate of 23 per 1,000 living. There were 33 deaths from diarrhœal diseases this year against 14 last year; but in all the other classes of zymotic diseases the returns of the past fortnight are somewhat lighter than those of the corresponding fortnight of last year. There were 128 deaths from pulmonary diseases, and 14 from fever, of which 10 were from enteric, 2 from typhus, and 2 undefined. The number of deaths from the infectious diseases of children was 39, namely, 18 from whooping-cough, 17 from scarlet fever, and 4 from measles. The deaths from scarlet fever are five fewer than in the previous fortnight. There are at present in the city hospitals 422 cases, as compared with 255 at the corresponding date of last year. During the fortnight, 119 cases have been admitted to the Fever Hospital, while 106 were dismissed well, and 13 died. A memorial has been presented for the removal of the present Parliamentary Road Fever Hospital.

CURIOUS TEMPERATURE CHANGES IN SCOTLAND.

ON Sunday and Monday the temperature in the north and east of Scotland was exceptionally high, higher, indeed, than during any part of the summer. At Aberdeen, on Sunday, the thermometer registered thirteen degrees higher than on Saturday; at Nairn, fourteen degrees higher; and at Stornoway, fifteen degrees higher; while at Wick there was actually a rise of twenty-one degrees, the weather at the same time being bright. The actual temperatures in Stornoway, Wick, and Aberdeen were higher than any recorded during October, in these places, during the preceding twelve years. At Aberdeen the temperature was 74, which is two degrees higher than at any time this summer. On Sunday the temperature at Aberdeen was absolutely seventeen degrees higher than at London. No satisfactory explanation has yet been hazarded; but to those in the north and east of Scotland who have hungered for some summer heat and got little, the bright warm weather lately experienced has been most acceptable and enjoyable.

IRELAND.

DEATH FROM CHLOROFORM.

THE death from chloroform of an adult male, while undergoing an operation for strabismus, is reported to have occurred in the Belfast Royal Hospital last week.

PROSECUTION UNDER THE PHARMACY ACT.

AT the instance of the Pharmaceutical Society, a prosecution was entered, at the Armagh Petty Sessions, against John and William Gray, of that town, for compounding medical prescriptions without

having been previously registered as pharmaceutical chemists, or chemists and druggists under the Pharmacy Act, 1875. Under a second count, they were charged with assuming and using the title of chemist and druggist without having been previously registered in accordance with the said Pharmacy Act. The defendants were found guilty on both counts, and fined £2 in each case, with £2 costs.

HEALTH OF ARMAGH.

FROM the report of Dr. Gray, medical officer of health for Armagh urban sanitary district, it appears that in the quarter ending September 30th, the death-rate was 12.71 per 1,000 inhabitants. This, when compared with the corresponding period last year, shows a reduction of over 3 in the 1,000. The death-rate from preventable diseases for the same period was 0.8. A few cases of gastric (typhoid?) fever occurred in the neighbourhood of the gaol, due to an old and bad sewer being opened. The sewer has been repaired, pottery pipes laid down, and no fresh cases have appeared for some time.

BELFAST HOSPITAL FOR SICK CHILDREN.

A CONCERT was recently held for the benefit of this institution, and the large sum of £118 5s. 3d. obtained, a sum which has enabled the committee to have the hospital thoroughly painted throughout in the most satisfactory manner. Lady Clanmorris, with a view to benefit the convalescent patients, has made arrangements that the Cottage Hospital at Bangor, which is under her special care, shall be so far associated with the work carried on in the Children's Hospital, that convalescent patients from the wards shall be received on payment of five shillings per week for each child admitted. During the past six months 145 children were admitted to the wards, while 7,082 were attended to at the extern department of the hospital.

EXAMINATION AND CRAM.

THE President of Queen's College, Galway, in his recent annual report, draws attention to the rapid extension of the examination system—particularly in its competitive form—and the predominant part it has begun to play in the general education of the country. This system, he remarks, is steadily advancing in extent and importance, and bids fair to become the director and regulator of education. It is complained that the true ideal of education is losing ground under the pressure of competition, and apprehensions are expressed that the time is coming when, under the influence of this system, the whole educational machinery of the country will be converted into an apparatus for encouraging and facilitating "cram." He does not acquiesce in an indiscriminate condemnation of the competitive examination system; and, apart from its indispensable use as a test of results, it must be admitted that the examination system tends to check desultory and unproductive reading, to give definiteness to a student's purpose, and to make his knowledge readily producible. Nay, even the much-decried practice of "cramming," he regards as not an unmitigated evil; it is, at least, a reaction against the slow teaching, the drowsy and sterile routine of the old educational methods. It has been said that knowledge should be pursued for its own sake, but every teacher finds a class of intellects so blunt or so inactive, that every kind of inducement is useful to stimulate the flagging energies of the remiss, or to awaken the emulation of the apathetic. The President is strongly of opinion that the efficiency of examinations would be much increased by considerably enlarging the *vivâ voce* part in certain departments, and assigning it a higher value in the aggregate of marks. He believes that, by a searching oral examination, a test might be applied to the fulness and coherence of many parts of a student's knowledge, which would be more efficient and trustworthy than written answers afford.

DEATH OF SURGEON-GENERAL CRANE.

(BY ATLANTIC CABLE.)

[FROM A SPECIAL CORRESPONDENT.]

SURGEON-GENERAL CRANE, U.S.A., the head of the Army Medical Department of the United States, died suddenly this week at Washington. The death was quite unexpected, and was due to sudden hæmorrhage from the mouth, arising from non-malignant ulceration of the tongue. Dr. Billings is designated by universal opinion as his successor. His great knowledge, untiring industry, administrative power, and literary ability have rendered him conspicuous. His services to medical literature in connection with the unique Medical Library at Washington and its unrivalled catalogue, have laid the whole professional world under obligations. Dr. Billings made a conspicuous figure at the International Congress in London, and he lately refused tempting offers from the Johns Hopkins University at Baltimore.

GRANTS FOR SCIENTIFIC RESEARCH.

AT the last annual meeting of the British Medical Association, held at Liverpool, it was decided, on the recommendation of the Scientific Grants Committee, to authorise the Council to offer two research scholarships, of the value of £150 each *per annum*, tenable, at the discretion of the Scientific Grants Committee, for three years. Application should be made at once, addressed to the Honorary Secretary to the Scientific Grants Committee, in order that they may be placed before the Scientific Grants Committee at their meeting on the 17th instant.

The following scientific grants were also made. Dr. A. Waller: A grant of £20 for defraying the expense of work being carried out for Dr. Waller by Messrs. Elliot, for an examination of certain points relating to Animal Electricity, more especially Electrotonic Phenomena and Internal Polarisation. Dr. Thin: £20 in aid of the expenses of a research into the Bacillus Lepræ, and its Transmissibility to Animals by Inoculation. Dr. A. Lingard: £50 in aid of an inquiry into the Pathology of a Peculiar Contagious Ulcerative Disease in Calves, resembling Noma (Gangrenous Stomatitis in the Human Being). Dr. Sidney H. Martin: £5 in aid of a research into the Action of Papain. Dr. Imlach: £50 renewed grant in aid of a Methodical Investigation of the question of the Transmission of Bovine Tuberculosis to Calves and other young Animals through the Milk. Dr. Francis Warner: £25 renewed grant for a research on Muscular Movements by means of the Graphic Method, such movements being considered as signs of the conditions of the Nerve-centres. Dr. Astley Cresswell: £30 for an observation on the Temperature of Adults, under varying circumstances, during Sea-voyage. Dr. Heneage Gibbes: £20 towards the expenses of an investigation into the Chronic Change of the Blood during Inflammatory Action.

AWARDS OF THE PRIZES OF THE SWISS INTERNATIONAL RED CROSS SOCIETY.

WE announced in February 1882 that the International Committee of the Red Cross at Geneva had offered three prizes, each of the value of 2,000 francs (£80) for the best essays on (1) improvisation of means of treating wounded; (2) improvisation of means of transport; and (3) improvisation of field-hospitals in time of war. The essays, which had to be forwarded to Geneva by the end of March of the present year, have since been examined by the jury appointed to determine their respective merits, and the conclusions they have come to regarding them have just been communicated to us. The jury awards the prize of 2,000 francs for the first question (improvisation of means of treatment) to Oberstabsarzt Dr. Port, of Munich, with an additional prize of 500 francs to Dr. W. Cubasch, of Stanzstad in Switzerland. They also award the second prize of 2,000 francs to Oberstabsarzt Dr. Port, for his essay on the improvisation of means of transport, with an additional prize of 500 francs to Dr. Carl Roese of Ham-

burg. The jury do not recommend the first prize of 2,000 francs to be given on the third question (improvisation of hospitalisation on the field), though they award a second prize of 500 francs on this subject to Médecin-Principal Dr. Cuignet, of the French army medical service. The jury accords two "honourable mentions" in addition to the prizes before named, viz., one to Dr. M. W. C. Gori, of Amsterdam, and the second to M. Haser, architect, of Paris. The jury were composed of Dr. L. Le Fort, of Paris; Dr. E. Gurlt, of Berlin; and Dr. A. Socin, of Bâle, Switzerland. The adjudicators were unanimous in the decisions which have been announced by them. The essays were required to be written in French, German, and English.

SOCIAL SCIENCE CONGRESS.

Cosmopolitan Sanitation.

The first meeting of this Congress was held at Huddersfield on the 3rd instant. Sir Richard Temple delivered the inaugural address, and, in the course of it, made the following remarks.

"The aim of our study (by whatsoever name it should be called) is to render mankind not only prosperous materially, but also happy and wise, as individuals and as members of an organised community. Though we may have faith that there is a light that can irradiate even the darkest prison-house, still, for the most part, we know that happiness and wisdom cannot be attained without a reasonable degree of physical comfort. It is practically vain to inculcate morality upon those who are huddled together in squalid tenements. It is impossible to obtain proficiency from half-famished scholars whose brain-power is enfeebled by hunger. The standard of physical comfort, then, has always been kept before the student's mind, and may constitute the primary division of my address. Herein the foremost topic has been the improvement of dwellings. For this object, something is being attempted at home, though we are saddened by the thought of how much remains to be done. Now, in India or in Egypt, the self-same need presents itself to philanthropists. Amidst the villages, the peasants pen up the cattle inside the dwelling-houses. Amidst the largest cities, the artisans are crowded together in the compartments of houses many stories high, wherein, to all the miseries which exist in these cool latitudes, there are added the heat and malaria of the tropics. The dwellings of the poorest classes close to the centres of civilisation, both in the east and in the west, often exemplify terribly the Eastern proverb that the dark is deepest right underneath the candle. In the colonies, again, we hear that while the settler dwells in the comparative discomfort of draughty huts, with chinks that admit the outer air, he remains healthy. But when the squatter population begins to congregate into villages, and cottages of another sort are built, then typhus and zymotic disease appear. Again, the quality of food-supply is a matter with which our studies are rightly concerned at home, and this subject is almost, though not quite, equally important abroad. Respecting adulteration of food, there is not the same temptation in the thinly-peopled and abundantly-productive colonies as in a densely-peopled island like Great Britain. In the East, the natives have not yet acquired much proficiency in that dark science, although they might prove but too teachable if once this black art were to gain ground at home. For instance, on one occasion, when a malignant disease broke out in the port of Calcutta, the native contractor for the supply of water to the shipping was found to have adulterated the pure liquid from the waterworks with some impure fluid from the river! Still, irrespective of what may be termed artificial evil, imagine the natural evil to which articles of food or drink are liable in the tropics—such as the exposure of meat in the burning heat of an oriental city, or the fish in coast-districts where fish is extensively cured, and where the curing is but too often imperfect. If the pure and wholesome quality of food for the masses of humanity congregated in the British metropolis is a theme for study, equally must this be the case for a city like Bombay, where 700,000 people are compressed into a little island situated at some distance from the main sources of sustenance. Again, the subtle conveyance of poison through the medium of milk causes solicitude here. But the danger is even more active and urgent in the East, where, from the habits of the milkmen, the milk is but too frequently affected by poisonous ingredients. If time permitted, I could give signal instances of valuable lives being lost from milk-poisoning, not by any evil design, but simply through reckless ignorance. The purification of water for drinking and for bathing has always been among the objects of our studies, and some benefit has accrued from persistent advocacy. There is dreadest impurity in this element should produce untold evils in the United Kingdom; but we know that in India it has produced more physical mischief than any cause whatsoever, and perhaps as much mischief as all other causes put together could produce. In the capital cities, the Indian Government and people in combination have constructed waterworks very much after the scientific models established in the United Kingdom, in every instance with a marked benefit to the public health. In the lesser towns of the interior, waterworks have been or are being built; in every case, some local diseases, ignorantly believed to be unavoidably endemic to the locality, disappear as if by magic. Still, among the villages of vast territories, some have water from running streams and others have not. Those which are thus destitute add to the natural difficulty by recklessly defiling what little water they have. Time does not admit of my adducing instances of the epidemics traceable to the state of the water, when the scanty tanks and wells had been reduced to their dregs. We see at home illustrations of wells being poisoned from sewage. I remember a case where a large garrison of European troops was decimated and disorganised by cholera, which, after inquiry, was attributed to percolation from cesspools through the solid ground into the drinking-wells. In times of famine, mortality has occurred, not only from the withering of crops, but also from the drying up of the drinking-water. The State might convey food for famishing multitudes, but could not bring water for thirsty millions. Much of this evil is preventable by water-supply provided during years of plenty, and here is a field abroad for that engineering science which has wrought wonders at home. It were almost superfluous to call to remembrance the successful efforts put forth at home respecting sanitation, drainage, and sewage. We have but lately beheld the terrible example afforded by the cholera in Egypt. If this fell foe be generated somewhere else than in the localities actually attacked, and be, as it were, floating in the air, still its attack is generally, though not invariably, attracted by insanitation or averted by sanitation. The angel of death is, so to speak, hovering over a doomed land, and he descends on those spots which are the foulest. We can imagine what the physical surroundings of the Egyptians in the cholera-stricken places must have been, from our knowledge of the like conditions in other countries of the East. In India, the capital cities have drainage-works constructed in the manner which has approved itself to engineers at home, whereon some millions sterling have from first to last been expended, to the marked diminution (among other things), indeed almost to the prevention, of epidemic cholera—though sporadic cholera still appears sometimes. Drainage works are also undertaken in all the lesser towns of the interior. But the faults of sanitation, still remaining in the great cities and the lesser towns, are legion; while the conduct of the rural people in most of the villages in the matter of sewage is so culpably fatuous as to be incredible to any save those who have witnessed it. Some attempt is made to diffuse a smattering of sanitary science among the rustics; but it is uphill work to reclaim a population from the habits of centuries. If anything could aggravate the regret with which this disposition of the people must be regarded, it would be the thought that the utilisation of sewage, even in the smallest quantities, is peculiarly needed for Indian agriculture, which ordinarily is very deficient in manure. Though much is attempted in this matter at some central places, yet, in the country generally, quantities of sewage, which might have fertilised the fields, are left to breed poison for man. As the proportion of the urban population to the whole people increases, and as the congregation of inhabitants into dense masses proceeds apace, there is no profession more vitally important than that of sanitary engineering. This profession at home has attained a considerable growth, and will thus afford the means of forming similar professions abroad. But even yet the faults in domestic as well as in public sanitation here are sometimes appalling, and cause new evils even worse than that which the arrangement was intended to obviate. How much more must this be the case abroad—in the rising colonies, where towns spring up with startling rapidity before proper arrangements can be made; in the East, where the work has to be done through native agency under novel conditions that breed mischief with perplexing effect. Already in the East the fear that sanitation, while averting some familiar diseases, is actually producing typhoid sickness, gives rise to a prejudice among the natives against Western sanitation. Nothing but a more rigid attention to sanitary engineering can set this right. So frequent are the sanitary faults in new-built houses in urban localities at home, that some authorities recommend the professional inspection of every new house before it is occupied, and private companies are formed for this purpose. This must be equally wanted in the colonies, and assuredly it is needed in the capital cities of the East. The preparation of those vital statistics, which are essential

to good administration, is doubtless accomplished well in the United Kingdom—perhaps in the colonies also; and the difference in the death-rate between town and country tells a terrible tale of the physical ills which humanity brings on itself by the conditions of social existence. In the East, however, this work has hardly advanced beyond its infancy. It is, indeed, hard to ascertain the facts of births, of disease, and death, for so vast a population; and as yet they are but partially ascertained, though progress towards ascertainment is being gradually made. For the principal centres, and for some selected districts in the interior, the facts are known; and they reveal death-rates that are always higher than those of Europe, and are sometimes miserably high. Hospital management at home is a subject to which the attention of this association has been constantly directed, and at its instance a conference of hospital authorities has assembled, whose deliberations will doubtless prove fruitful in results. This subject is of at least equal importance in the East, where the founding of hospitals and the opening of provident and charitable dispensaries are regarded by Asiatics as among the fairest features of British rule. If at home errors in management arise, and peculiar diseases are generated within the very walls of these institutions, how much more must this be the case in the East, where to inherent difficulties are superadded the tropical conditions and the habits of an Oriental people. I remember a case where a hospital, superbly constructed with a generous outlay, was plagued with gangrene and erysipelas, manifestly produced within its precincts. At length, inquiry revealed the proximity of certain underground drains. On the drainage being rectified, the hospital recovered, and we all realised the scientific dictum: '*Cessante causâ, cessat et effectus.*' In all matters relating to the public health, the Eastern nationalities must be brought under sanitary education. Unless they learn how to save themselves, and become imbued with a desire to practise what they learn, the utmost effort of the State for saving them will fail. Therefore, sanitation must form a prominent branch in the national instruction, sanitary primers must be used in the schools, sanitary regulations elaborated by the native municipalities, and sanitary treatises circulated, so practical that he who runs may understand them."

Education and Health.

On October 4th, the Education and Health Departments met to discuss the important question: Is the Modern System of Education Exerting any Deleterious Influence upon the Health of the Country? In a paper, entitled "The Influence of Modern Education," Dr. Clifford Allbutt stated that, dealing first with the classes educated, he considered the board-school system fairly satisfactory. The accusations of overwork against elementary schools were exaggerated; for average children the plan worked well, but a more even justice might be done to the sickly and excitable ones by granting to teachers increased discretion as to non-attendance, and by removing all temptation to raise averages by forcing the quick. The great blot upon the system is the pupil-teacher, who should be utterly abolished. He injures his scholars, being inexperienced and raw, incapable of giving sympathy or awakening interest, or of enriching his instruction with his personal qualities; injures his master by taking up his much-needed leisure, and wearing him out with extra labour; and injures himself with over-work at an age of peculiar susceptibility, teaching by day and learning by night, so that many, especially girls, suffer permanently from this strain. The system is an unmixed abomination, and should be completely swept away and replaced with training schools. As to middle-class schools, many of these, especially for boys, are admirable. Competition with permanent schools ensures their efficiency; their temptation is towards forcing and cram, in order to obtain the advertisement of success. Private schools for girls are, as a rule, utter failures—suppressing the animal spirits and giving no true education, developing neither mind nor body. High schools are happily changing much of this; but the tendency of the new colleges, while fostering much that is beautiful and hopeful, is not entirely healthy. The public school education of boys is excellent. Its great evil is the competitive examination system, which now faces a boy at every turn. Its influence is uniformly baneful; cramming instead of feeding the mind, and producing mechanical uniformity of mental mould, while it works terrible mischief to the body. There is no single agency comparable to this for straining and exhausting the brain and nervous system, and it is the most wasteful of work and health that could be devised. Its evil effects appear afresh in the next generation, increasing the nervous affections of children. To deal a hard blow at this and at the vicious pupil-teacher system was the special object of this paper.

Mr. J. H. Hume, Clerk to the Ipswich School Board, read a paper on this subject. He said that complaints of over-pressure in primary education commenced a few years after 1870; and, although attributed to various causes, were due to the effect of compulsion, which had driven an ignorant and irregular class of children into the schools, and the instruction of this class greatly increased the labour and anxiety of the teachers. Overwhelming evidence existed to show that the requirements of the code were well within the capacity of the children. The school hours were very short, and were judiciously broken up by intervals of rest and long holidays. The evidence as to failures of health among the children was very small in quantity, and not direct in its application. An immense decrease in juvenile mortality had taken place since 1870; and brain-disease among children had also diminished. In the opinion of the best authorities, nearly all cases of brain-disease among children were due to the effects of intemperance. The argument that the children were imperfectly nourished was frequently used in a sufficiently sweeping manner to include half the children in elementary schools; but social danger would result if this were correct. A careful classification of the children in the elementary schools of several districts showed that not more than 11 per cent. were imperfectly nourished, 24 per cent. were poor, but were fairly fed and clothed, and 65 per cent. were in satisfactory circumstances. The children suffered more from bad air, impure water, and defective sanitary arrangements, than from lack of nourishment. An extensive knowledge of the homes of the children in the slums of the metropolis led to the conclusion that, given any possible mental effort during school hours, the removal of the children from the foul air of their own dwellings into the well-ventilated board-schools must be attended with benefit, and the vast improvement in their physical as well as mental and moral condition in the last ten years was so marked as to be outside all question. It was certain that some cases of failure of health among teachers could be instanced, as in other professions, but these cases needed investigation before the conclusion could be drawn that they were due to the system, and not to individual circumstances of constitutional ill-health, or of unnecessary overwork; the general evidence clearly showed that the teaching profession was an exceptionally healthy one. The pupil-teachers had double the work of the teachers and scholars, and laboured under trying conditions at a critical period of life. They suffered, especially the girls, from overphysical more than overmental exertion, and should be allowed to sit at least one lesson in the morning and afternoon. The work for their own examinations in addition to the school-work was too much, and half the present number of their examinations should be effaced. The question under discussion should be answered in the negative; and, although there were abuses to be remedied, they were not inherent to the system, and their effects should not be charged upon it. The requirements of the code were so moderate, and the school-hours so short, that, unless the children were burdened with home-lessons, and the school-hours extended, it was impossible that any injury to health could result. Home-lessons and "keeping in" could not be enforced if the parents objected, and medical men who heard rumours of these practices should interfere. The craze for examinations was to be deprecated, as the annual examination by Her Majesty's Inspector was fully sufficient. A special danger to health was caused by the unsanitary condition of many dame-schools, and of some of the older public schools, and this question needed careful consideration. Greater opportunities for physical exercises should be afforded for the children, and their sports should be organised as in middle-class schools. The increase of intelligence would give rise to a greater regard for the decencies of life, and for those habits of cleanliness, temperance, and morality which were essential for the promotion of health, and for the progress of social improvement.

Mr. Edgar A. Browne, Surgeon to the Liverpool Eye and Ear Infirmary, considered the most frequent evils noticed as directly occurring in school-children were (1) headaches, due (*a*) to defective formation of the eyes, and remediable by spectacles; (*b*) to overwork, or premature exercise of the brain, curative by rest, or tending to result in various forms of nerve-complaints, and especially in artificial stupidity. (2) Short-sight due to over-employment of the eyes on print. Bad illumination, bad print, and ill-constructed desks are the main causes. (3) Lateral curvature of the spine is closely connected with the foregoing, but has a common origin in the muscular feebleness induced by sedentary life. The real reason why so many children broke up under school-work was to be sought in the conditions of town-life. Parents who lived in town be-

queathed to their children less power of resistance than parents who had lived healthy outdoor lives in the country. Girls suffered more than boys, because they had not the counteracting influences of outdoor sports. In Germany, where the boys were of sedentary habits, the boys suffered more (as regarded eyesight) than the girls. Unfortunately, pressure was becoming greater at a time when children were less able to withstand its injurious influences. A rational town-hygiene should precede or accompany a rational school-hygiene. Hours of working should be shortened, subjects should be diminished in number, and the details of print, illumination, and ventilation more thoroughly studied.

Mr. H. BENDELACK HEWETSON, Ophthalmic and Aural Surgeon to the General Infirmary at Leeds, entered into the discussion of the production of myopia (short sight), amongst the Germans, from their educational code, when first brought into operation years ago, and passed on to consider the large increase of ailments of the eye due to the strain on the sight from recent educational pressure. Many such were entirely the products of modern education, notably spasm of the muscles of focus in the eye, which, so far as could be judged, was until of late unknown. Headaches from defects of vision, due to educational pressure, were also touched upon. The severity of the sewing tasks was dealt with; and it was shown that the required practice with the needle was so severe as to be trying to the most acute mature sight. The height of desks and their slope were discussed, also the direction which the light ought to take in a school. It was urged that children's complaints should be listened to at once when their sight was affected, and not put off, as they too frequently were at present, to the detriment of the future stability of the child's eyes.

Dr. CAMERON (Huddersfield) deprecated the system of over-pressure which he believed existed in many of the elementary schools in England, and argued that the terrors of the annual examination might be got over by increasing the frequency of the examination by having them at least once a fortnight, so that the children would get accustomed to them, and think nothing of them. He said that statistics on this point were of no value whatever; he and every medical practitioner did not say that this forcing of education added to the death-rate; but what he did allege was that, in many cases, it injured the children so severely that they felt the effects of it for life. The Doctor instanced the case of a boy of eight whom he was called in to attend, and who was withdrawn from the examinations for three years. The boy was all right, but, when the examination was renewed, the illness again attacked him. From a medical point of view, it was a very wicked thing to map out one's work so that it would not hurt the strongest. The proper way to prepare such work would be to do so in a manner that it would not hurt the weakest. The present system of our competitive examinations in England, from a medical point of view, must inevitably do harm. The system of forcing developed the scholars' faculties, but destroyed the scholars mentally and physically.

Mr. ROWLAND HAMILTON advocated a proper system of medical examination for all those who took part in teaching. Knowing, as he did, the loyalty of the medical profession, he would urge upon them to do their duty in this matter. Pupil-teachers of a weakly constitution were sometimes given certificates to say they were in good health. He most earnestly beseeched the medical prefession to assist their weaker brethren, weaker in mind or circumstances, that they might fearlessly and impartially do their important portion of this special work.

Dr. CAMERON explained that he meant that weak children should be withdrawn from examinations. To examine a weakly child was abominable.

Mr. TEALE believed that cases were extremely rare in which certificates were given when the persons to whom they were given were not in a good state of health. At the same time, it was, indeed, very desirable that some one in authority, and accustomed to examining people, should be authorised by the educational authorities of the different towns to grant certificates. He believed, and everyone would agree, that England was now over-examined.

Mr. S. B. TAIT (Huddersfield) had had some experience in school-work, and that experience showed him that there was to some extent over-pressure in elementary schools. This over-pressure affected the minority, not, perhaps, to the extent of driving them into the lunatic asylum or increasing the death-rate; but it was a source of evil. There were three classes affected by this over-pressure, and they were those who attended school irregularly, delicate children, and dull children. As education advanced, they might hope that the irregular attendance would disappear from the land; but delicate and dull children they would always have with them. Over-pressure injuriously affected delicate children; but dull children, as a rule, were more robust, and could stand forcing without any injurious effect.

Dr. MACMILLAN wished to bear his testimony to the fact that there was an overstrain in school-work, and said that he had added to his list of diseases one which he would call "examination-fever." He advocated that the children who attended the elementary schools of the country should be periodically medically inspected.

MILK AND ZYMOTIC DISEASE.

On October 5th, the special question for discussion in the Health Department was: "Is it desirable to take any, and what, further measures to prevent the spread of zymotic diseases through the milk-supply of our towns?"

Mr. FRANCIS VACHER, medical officer of health, Birkenhead, read a paper pointing out the following defects in the milk-supply. 1. Proper inspectors were not appointed, and only very rarely men who had not other duties to perform. 2. The question of the fitness or unfitness of dairy-premises was decided by a committee or sub-committee (appointed by the local authority) often quite arbitrarily, instead of being determined by the advice of the medical officer of health. 3. The storing and selling of milk was allowed in all sorts of general shops. 4. Samples were rarely taken for analysis except owing to specific complaints. Some additional powers were, however, wanted, especially as regards three matters, viz., to allow every local authority (1) to veto the sale of milk by vendors coming from without the authority's boundary, whenever there was reason to believe the vendor's premises were infected, or from any cause unfit for dairy-premises; (2) to require all milk-sellers, wholesale or retail, to notify as early as possible all cases of infectious disease appearing on their premises; (3) to close infected premises till the removal or recovery of the infected subject, and the disinfection of the premises. The authorities should have power to make compensation to these sustaining loss by reason of the exercise of the power to close premises.—Mr. THOMAS BRITTON, M.D., medical officer of health for Halifax, read a paper on the same subject, and expressed a belief that great improvements might be made in the nature of our milk-supply.

THE SANITARY REGULATION OF THE MILK-TRADE.

Mr. ERNEST HART, in a paper bearing this title, said that impure milk was the probable exciting cause in 53 outbreaks of enteric fever. These epidemics had attacked 3,500 persons with typhoid fever, 800 with scarlatina, and 700 with diphtheria. These cases had occurred during the last dozen years. The chief remedies were the transference of the duty of registering dairies from the veterinary authority to the sanitary authority, and the prohibition of the carrying on of a milk-business without a licence. It should not be granted until the medical officer of health had inspected the premises. The water-supply should be from an unpolluted source. The dairy should not be connected with any living-rooms. Persons attending to the sick should not be allowed to milk cows or handle the milk-vessels.

Dr. BRITTON said that, in some cases, the public interests demanded legislation to secure former rights of drainage and water-supply which had been lost through the land being built upon.

The discussion was continued by Dr. Cameron, of Huddersfield, Mr. S. Knaggs, Dr. Dolan, of Halifax, Mr. Seaton, of Nottingham, Mr. H. H. Collins, Dr. Macmillan, of Hull, and Mr. Porrit, of Huddersfield.

Mr. ERNEST HART said that all the precautions that had been mentioned could be taken by the smallest farmer. The present difficulty arose from the Act being carried out in boroughs, and not in counties. He moved: "That in view of the large amount of disease reported to this Section as due to the spread of zymotic illness through the milk-supply, amounting to eighty-two recent epidemics, affecting upwards of five thousand persons, the Council of the Social Science Association is requested to take into consideration the advisability of recommending to the Government the adoption of further measures to prevent the spread of zymotic disease through this channel, by transferring the duty of the regulation of dairies and dairy-farms from the Privy Council to the Local Government Board, and from the veterinary to the sanitary authorities; and, further, by the issue of by-laws for the licensing of milk-sellers, and the regulation of the water-supply, premises, and drainage of dairies and dairy-farms, and the compulsory notification of cases of infectious disease in dairies or dairy-farms."

Mr. KNAGGS seconded the motion, which was carried.

Ambulance Work.

Mr. J. Furley, Deputy-Chairman of the St. John Ambulance Association, read a paper on "The Carriage of Sick and Injured Persons, and on Ambulance Work in the Time of Peace." The carriage of sick and injured persons had been promoted by the St. John Association, and its action was being emulated even in Germany. There were now thousands of men who knew that, in most cases, a costermonger's barrow was a better vehicle than a cab for an injured person. Men had been taught to improvise stretchers. The pattern used in hospitals was best; but, outside, feet were required. In some cases telescope-handles were useful, but there must be no separate parts. At the international conferences, conclusions had been formed as to the placing of stretchers in wheeled vehicles. Carriages for the transport of invalids had been improved. Lighting and ventilation through the roof alone shocked patients by suggesting resemblance to a hearse. They should be constructed for any kind of pavement, and to turn in their own length. *Personnel* and *matériel* ought to be found in every town and village. The transport of invalids was now possible to the rich, but not to the poor. Organisation would place well-trained bearers at the disposal of all, and put all sufferers from disease or accident on an equal footing.

Mr. Barber (Halifax) said that the introduction of the St. John Ambulance Association had done much to alleviate the suffering of those who had to be moved about while suffering from injury or illness.

The Chairman (Mr. T. Pridgin Teale) expressed an opinion that, as the benefits of ambulances were more understood, they would be secured by every city and town throughout the country.

SANITARY INSTITUTE OF GREAT BRITAIN.

Dr. Carpenter on Public Health as a Working Man's Question.

The last meeting in connection with the Sanitary Congress of 1883 was held in St. Andrew's Hall, Glasgow, on Saturday evening, when Dr. Alfred Carpenter addressed a large gathering of the working classes on the above topic. Dr. Carpenter said that the statement was frequently made that sanitary science had nothing to do with the working man; but he hoped to show conclusively that it was in a great measure a working-man's question. The working men had a great deal more to do with the health of a given district than any other men who lived in it. The rich man, the professional man, or the merchant, could take away his wife and family if there was anything wrong in the city, but the poor man must stop near his work; he must keep his work, or else he would lose his income altogether. In the district in which he resided, the condition of things with regard to the water-supply was most unsatisfactory while he was chairman of the water company of the place; and he impressed on his colleagues that, so long as the water-supply and fittings were of the kind that existed, the community was in the greatest danger, and liable to the incidence of disease of a very severe character. He persuaded the committee to agree to certain alterations; and as at that time it happened his term of office expired, he had to go before the electors. The owners of property went about the electors of the district, and said, "If you vote for Dr. Carpenter, and these alterations which he suggests are carried out, we shall be obliged to raise your rents;" the result being that, instead of heading the poll, as he had previously done, he was at the bottom. After speaking of typhoid fever in connection with water-supply, Dr. Carpenter observed that there were other ways in which the health of a people was affected by a water-supply —in its effect upon what was called the death-rate of a district. In his (Dr. Carpenter's) own district—a healthy district—two were down on a bed of sickness every day of the year for every one death. If they considered that, they would see how the death-rate affected the working-man. A death-rate of 36 meant that 72 persons per 1,000 were on a bed of sickness every day throughout the whole year. If, then, they had reduced the death-rate from 36 to 26 per 1,000 in Glasgow, an enormous saving had been made to the working man, and that by the introduction of the grand water-supply, and the other measures that were being carried out by the municipal authorities for the purification of the city. The question of how many deaths had taken place in a year was one thing, but the question of how much sickness, how much suffering, how much infelicity there had been amongst the people during the same time was a very much larger question. He should take the average sickness of a working man at seven days per year, and he should tell them how he got that average. It was from the returns of the great benefit societies, the Oddfellows and the Foresters. Now, in a certain district he had been inquiring into, there was a manufactory which was reported to be of an unhealthy character, and in which the workmen were thought by outsiders to be following an unhealthy trade. That factory had a benefit society of its own. Now, he found that in that factory, which was managed on the most strictly sanitary principles, the amount of sick pay that had been paid during the last two years and a half had only been at the rate of three days and a half per annum per member. There was a great saving to the working man in the difference between three days and a half and seven days' sickness per annum. Now, taking seven days as the average sickness in London each year, and reduce it to six or raise it to eight—and that was probably nearer the figure in Glasgow—they would see what an enormous difference was the result. Supposing there were 50,000 members of benefit societies in Glasgow, and each member had seven days' sickness in the year, that was 350,000 days' sickness per year which members drew pay for. By a very slight reduction in the death-rate, they would save to the working men 100,000 days of sickness per year, and not only that, but they would thereby enable them to earn their usual wages. Dr. Carpenter said this showed conclusively how much the question of health was a working man's question. Dr. Carpenter went on to refer to a paper he heard read in 1874 by Baillie Morrison, who then gave certain causes as accounting for the high mortality of Glasgow. Mr. Morrison held that character and occupation had a great deal to do with the high mortality. He (Dr. Carpenter) contended that character and occupation were not reasons at all for high mortality, and he instanced the fact that there were no healthier districts than those that suffered from the cotton-famine a number of years ago. It was the case, on the other hand, that with high wages and plenty of work there was always a high mortality. It was a very serious reflection that the more prosperous Glasgow was, *pari passû*, the higher would be its mortality. Character might have something to do with it, but men were not vicious from choice. Overcrowding was not a complete reason for the high death-rate of Glasgow, because there were districts in London, like Shaftesbury Park and Peabody Buildings, where there were more than 1,000 persons to the acre, and where the death-rate was only 14. Why was that? It was because nearly the whole of the occupants of those dwellings were total abstainers. Among the circumstances to which he attributed the high death-rate of Glasgow there were two over which the people themselves had no control. One was that the houses were built of stone, and were not pervious to air in the same way as the jerry-builders' houses of London. No air penetrated the walls of the Glasgow houses, and one of the results was foul air in the compartments. He had a proof of that in the fact that cold weather at once raised the death-rate in Glasgow. The people kept the fresh air out of their houses in trying to shut out the cold. That was one other reason, foul air, which was mentioned by Baillie Morrison, who also referred to the high infant-mortality in Glasgow. Thirteen per cent. of all the babies born in Glasgow died in the first year of their life, and nearly one-half did not reach their sixth year. This sad state of things was brought about by the evils he had been speaking of. Worse even than the foul air, however, was the whisky-shop. The money that should go to the support of their children went, in too many cases, down the throats of the fathers and mothers in the shape of whisky. The other circumstance he wished to speak of as contributing to the unhealthiness of the city, and yet over which the people had no control, was the water-supply. Serious evil followed from the city's pure water, because the purer the water was, the more absorbent did it become. Before it was consumed, it would imbibe in foul matters that were in the atmosphere, and would thus tend to diminish the health of those who consumed it. Passing from this subject, Dr. Carpenter pressed upon his hearers the necessity of having more than one apartment in their houses, if they were to be strong and well. He then spoke of the savings bank, paying a high compliment to the working men of the city, that they should be saving more money, *pari passû*, than any other working men in the kingdom. He wished to give them an advice on this subject, however, and it was this: that they should not starve their wives or their children, or put up with one-room houses for the sake of thrift. Roomy houses and fresh air promoted felicity, about which they had been hearing so much. There was another thing which promoted felicity also, and that was good cooking. Speaking of the importance of pure atmosphere, he advocated the use of gas-apparatus for cooking purposes. If they used gas-apparatus for that purpose, their expenditure would be less than at present, and

they would have the satisfaction of knowing that they were helping to diminish that impurity of the atmosphere which certainly did much to injure the citizens of Glasgow. In sailing down the Clyde, he was utterly astonished at the immense volumes of dense black oily smoke turned out into the atmosphere by steamers and manufactories. The owners of these had no more right to pollute the atmosphere we breathed, than to pollute the streams running through the estates of the landlord. He wanted the working men to take that question in hand, and determine that public opinion in Glasgow would insist upon a stop being put to these dense volumes of smoke sent out to destroy their comfort and happiness. In doing that, they would do the manufacturer or steamship-owner no injury. If they were compelled to consume in boilers the tons and tons of carbon and oil sent into the atmosphere in smoke, the owners would be amply repaid the cost. While the present condition of things went on, the community could not have that pure atmosphere so necessary to the enjoyment of health. Referring to the importance of good sanitary arrangements from an economic point of view, Dr. Carpenter instanced the case of the army. Each soldier in Her Majesty's army cost on an average £100 to whip him out of the raw recruit into a state fitting him for service. Not very long ago the death-rate among the soldiers at Gibraltrar was 21½ per 1,000, and now it was only 5½. He asked his hearers to consider the important saving that meant. The death-rate in the London police was only 5 in the 1,000. The death-rate in the army was 9 per 1,000, and in the navy 6 9-10. He attributed the lower death-rate in the navy to the circumstance that those connected with that branch of the service were not exposed like the soldiers to the influence of the whisky-shops and gin-palaces.

SHEFFIELD SCHOOL OF MEDICINE.

THE introductory address at the opening of the session was delivered by Mr. Arthur Jackson. The lecturer began by remarking that fourteen years had elapsed since he had the honour of delivering the introductory address, and during that time many changes had taken place. They were now about to build a new school, to be incorporated with Firth College; but they were obliged to ask the people for help. He proceeded to give an account of the medical history of old Sheffield and its Medical School, and afterwards, addressing particularly the students of the school, said that they must make people feel that they had primarily only one object in view, the health of the people, in which was wrapped up the morality and prosperity of England. Some of the things they ought to speak about much more strongly were the education of the young, natural heritage, the keen race for wealth, extravagance in religion of whatsoever kind, intemperate work, intemperate play, and intemperate travelling, they all had an important bearing on the health of the country. In the education of the young, some attention should be paid to the temperament, the development, the natural strength or the natural weakness of the individual; and legislative codes should make allowance for individual differences in the capacity for receiving instruction. Having spoken of the collective investigation work of the British Medical Association, a work which, he said, was yet in its infancy, but which would become a power for good, not only in England, but in Europe, Mr. Jackson passed on to the subject of natural heritage, the laws of which, he observed, played an important part in the health and morality of a nation. If these laws were broken, there was no vitality strong enough to defy at once assault from without and disintegration from within, as history abundantly testified. Intemperance in a desire for wealth, in the pursuit of religion, of work, and of recreation, was another of the great social problems which would require their careful consideration, their most accurate observation. It was steadily on the increase, and was promoting a daily addition to our nervous and other diseases. The feverish anxiety caused by the continued absorption of the mind of many an Englishman engaged in mercantile, financial, and commercial pursuits, was liable to cause a deterioration of nature which would be transmitted as an evil heritage to his children. The lecturer then made some reference to unhealthy excitement, due to certain sectarian influences, and then dwelt on the evils of over-work, and of the now equally frequent evils of exhausting recreations and fatiguing holidays. The faculty of laziness was one that all hard-working men and women should cultivate; it would add to the length of their days, to their happiness, and to the comfort of those around; and when the time for laziness was over, they would do their work better and quicker than they otherwise would. In conclusion, Mr. Jackson spoke of the rewards and disappointments which awaited his hearers in the life which they had chosen. He thought he might say that all who worked well might expect fair competency; but there were few walks in life where more money might not be acquired. One other drawback he might mention, and that was that the medical professor had, as a medical man, no position in the country. Some individuals might have it, but they owed it to external circumstances, and not to their profession. This influenced sanitary and preventitive legislation. It led to their not being asked their opinion upon important sanitary measures, and to their being ignored when they ventured to give it unasked. No more striking instance of this could be quoted than the fact that when the profession of Sheffield gave their opinion against surrounding one of the dams, which supply the town with water, with houses, no notice was taken of it whatever. With the exception of these drawbacks, he knew no life more interesting, more fascinating than medicine. Medical men were constantly brought in contact with the higher life, with the better side of human nature, which should tend to rouse their own better feelings. During the proceedings at the opening of the school, when Mr. Jackson's address was delivered, it was mentioned that a movement was far advanced for incorporating the Sheffield School of Medicine with Firth College. New buildings were about to be erected; the lecturers having already secured a site, in the centre of the town, from the Corporation of Sheffield, at a cost of £1,400. Large subscriptions had already been promised by the people of Sheffield and the lecturers; and it was hoped that, before the next winter session commenced, a new school would be erected, with every facility for carrying on medical education.

LIVERPOOL UNIVERSITY COLLEGE.

THE opening of the session of University College and the Royal School of Medicine, Liverpool, took place on Saturday, September 29th, when the prizes were distributed to the students of the medical faculty by Lord Derby, in St. George's Hall. Professor Rendall, Principal of the College, read the honour-list, and the Dean of the Faculty, Dr. Caton, read the annual statement with reference to the school of medicine. The number of students in attendance is at present 150. In the interests of the College generally, and especially of the medical department, Dr. Caton hoped that the association of the College with Victoria University might be carried out within the present academic year. Lord Derby joined in that wish, and observed that, unless the Medical School of Liverpool were put in a position to obtain degrees for its students, it would be at a disadvantage to Owens College, Manchester, and lose its present status. The introductory address was delivered by Dr. Herdman, Professor of Zoology; it consisted of an eloquent discourse on the relations between biology and medicine. Although the former science was once almost monopolised by medical men, it had become so complicated, that it now required a special course of education, for the medical curriculum was no longer the best kind of training for the biologist. Notwithstanding this separation of the sciences, the study of biology had brought about discoveries of profound practical interest to the physician and surgeon, so that it was necessary to encourage science-teaching and the intelligent utilisation of museums in every establishment of a collegiate character. Civilised man required a scientific education in order to survive in the struggle for existence, and consequently he must be supplied with it. Dr. Herdman spoke highly of the great scientific qualities of Mr. Darwin, much to the approval of the noble chairman, who, in returning thanks to Dr. Herdman for his address, observed that the great evolutionist, with whom he had been intimately acquainted, could not help knowing that he had made an epoch in the history of human thought; yet never in any being was there a more entire absence of egotism and self-assertion. Professor Rushton Parker proposed a vote of thanks to Dr. Herdman, which was seconded by Dr. Banks, and carried by acclamation; and Dr. Herdman, in reply, again advocated the greater use of museums as a means of instruction, even to the working man and the street-arab, who thus might gain perhaps the only chance of ever acquiring the great truths of biology. After Lord Derby had received a vote of thanks, proposed by Mr. C. Bushell, and seconded by Mr. E. Lawrence, his lordship remarked, in conclusion, that, from the beginning, he had taken a very warm and deep interest in the Liverpool University, and he would continue to do so.

CONVERSAZIONE AT THE LONDON HOSPITAL.

A CONVERSAZIONE was held at the London Hospital on Tuesday evening, October 9th. Professor Huxley distributed the prizes to

the successful students and probationer nurses, in a marquee erected in the grounds behind the hospital, and delivered an address, which was listened to with great attention by a large audience. Mr. J. H. Buxton, the chairman of the House Committee, thanked Professor Huxley for the interest shown in the school by his presence, and congratulated Sir Andrew Clark, Bart., on the honour which Her Majesty had conferred upon him. Sir Andrew, in a highly eulogistic speech, proposed a vote of thanks to Professor Huxley; and, after a few words from Mr. Jonathan Hutchinson, the resolution was carried by acclamation. Mr. F. J. Smith, in the name of the students of the hospital, thanked the visitors for their presence, and expressed the regret of the school at the retirement of Mr. Jonathan Hutchinson. Several exhibition-rooms had been fitted up, and the visitors had an opportunity of inspecting Messrs. Piggott's models of hospital-tents for infectious diseases. Microscopes by Messrs. Beck, H. Crouch, How and Co., and Baker; painted china, sculptured glass, and other artistic objects had been lent by Messrs. Phillips, and a large number of paintings by Charles Whymper, Esq.

ST. THOMAS'S HOSPITAL.

THE old students' annual dinner was held in the Court-room of the hospital subsequently to the delivery of the inaugural address by Mr. Le Gros Clark, F.R.S., on Monday, October 1st. The meeting was well attended, nearly 100 old St. Thomas's men being present. Mr. John Croft took the chair, and the presence of several of the governors testified to the interest taken by them in the medical school, and the excellent feeling existing between that body and the medical staff. The usual toasts were given and responded to: the Chairman by Mr. Le Gros Clark; the School by Dr. Acland, F.R.S., a guest on this occasion, responded to by the Dean, Dr. Ord; and the Visitors, in a humorous speech by Dr. Bristowe, F.R.S., responded to by Mr. G. Crispe Whiteley. The meeting was in every way a success.

SCHOLARSHIPS IN THE MEDICAL SCHOOLS.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.—The Senior Scholarship in Science, of the value of £130, tenable for one year, has been awarded to Mr. Major Brown, B.A., of Downing College, Cambridge, and Mr. James George Ernest Colby, B.A., of Wadham College, Oxford, equal; the Junior Scholarship in Science, of the value of £130, tenable for one year, to Horatio George Adamson and Mr. Frederick Frost Blackman, equal; and the Jeaffreson Exhibition, of the value of £50, to Mr. John Wilkie, B.A., of Trinity College, Cambridge.

CHARING CROSS HOSPITAL SCHOOL OF MEDICINE.—The Entrance Scholarship of £30 has been awarded to Mr. Raymond Edward Fasnacht, and that of £20 to Mr. William John Radford.

THE LONDON HOSPITAL MEDICAL COLLEGE.—The Entrance Scholarship of the value of £60 has been awarded to Mr. G. G. Borrett, and that of the value of £40 to Mr. C. R. Killick.

THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.—The Entrance Science Scholarship of £50, has been awarded to Mr. H. A. Kidd; the Entrance Scholarship of £25, tenable for two years, to Mr. W. B. Cockill; and the Entrance Scholarship of £20, tenable for two years, to Mr. C. G. Matthews.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—The Entrance Science Scholarships of £50 each, have been awarded to Mr. J. Bays, Mr. N. C. Ridley, Mr. W. A. Bottomley, Mr. H. A. Kidd; and two Exhibitions of 25 guineas each, to Mr. M. M. Bird, and Mr. L. P. Gibson.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—The Entrance Scholarship of £100, has been awarded to Mr. Cecil Whitehall Cooke, and that of £60, to Mr. Frank Fawssett.

THE LONDON SCHOOL OF MEDICINE FOR WOMEN.—The Entrance Scholarship of the value of £30, has been awarded to Miss Jane Louisa Jarrett Hasken.

GENERAL HOSPITAL, BIRMINGHAM.

MR. J. JAFFRAY, of Edgbaston, has made a munificent offer to the Committee of the General Hospital, in an interesting letter which he has addressed to the committee. In a report, submitted in 1876 by Mr. Alfred Baker, then senior surgeon of the hospital, to the committee of which Mr. Jaffray was at that time chairman, he strongly recommended the erection of an institution, in connection with the hospital, for the treatment of chronic cases of disease, so that the pressure on the wards might be relieved. Mr. Baker pointed out that a hospital of this kind would be of great benefit, in enabling patients to obtain pure air, good food, and the necessary medical treatment, for a certain period after active treatment had been discontinued. At a hospital of this kind, many varieties of chronic disease, which are at present treated under disadvantages in an urban hospital, might be more effectually treated with the advantages offered by a rural site. At the centenary of the hospital, his recommendation was revived, and favourably considered. It had not, however, up to the present time, been carried out. Mr. Jaffray has now determined to erect, at his own expense, and as a free gift to the General Hospital, a building with accommodation for fifty beds, if the governors will undertake the cost of its maintenance. The maintenance of the new hospital will involve an annual expenditure of £2,500 a year for the number of beds at present proposed, and the question of raising the necessary endowment fund will be considered at a meeting of the governors convened for November 7th. We understand that several of the leading citizens of Birmingham have already expressed their intention of making liberal contributions to this fund, and several munificent donations, referred to below, are already promised.

Mr. Jaffray's offer is a noble and excellent one; it is worthy of the great town for whose benefit it is made, and affords an example that, we hope, will find numerous imitators. His letter is characterised by the highly honourable and generous sentiment that recognises the debt due from the possessor of wealth to the community in which it has been acquired. Such a sentiment is all the more honourable as it is rare.

In proposing to make over this gift to the governors of the General Hospital, Mr. Jaffray has afforded the strongest testimony to his high appreciation of that institution, with the working of which he has had such admirable opportunities for becoming well acquainted.

The suggestion of a suburban hospital solely for chronic cases is new to hospital management, but is one which appears likely to prove of great utility. Convalescent institutions are numerous, but there is an almost entire want of provision of suitable hospital-accommodation, in good country air, for the reception of those chronic cases which occupy valuable beds for such lengthy periods in our city hospitals. There is good reason to believe that this proposal will tend, not only to abridge considerably the sufferings of the patients, but, by expediting their recovery, will eventually prove an administrative economy. At the same time, it cannot be denied that the proposed building will add considerably to the expenses of the General Hospital, which now manages to maintain a balance between income and expenditure only by judicious economy.

The governors are, therefore, entitled to expect from the public some substantial aid in maintaining this branch hospital; and already a very generous disposition to anticipate this expectation has been manifested. Donations of £1,000 each to the endowment fund have been promised by Mr. H. Wiggin, M.P., Mr. William Middlemore, Mr. James Hinks, Mr. Balph Heaton, and Mr. John Wilkes. Starting as it does with so much substantial support, we have no doubt any difficulties in the way of the scheme will be readily overcome. We have much pleasure in expressing our warm approbation of this proposal, and congratulate the town of Birmingham on the munificence of its citizens and the prospect of so valuable an addition to its medical charities.

OUTBREAK OF ENTERIC FEVER IN ST. PANCRAS.

ON Wednesday Mr. Shirley Murphy presented to the vestry of St. Pancras his report on the recent outbreak of enteric fever in that district. He showed that the average number of cases in St. Pancras, during the three months of July, August, and September, was from 30 to 40 cases in each month; and that, during the present year, no increased prevalence of enteric fever was observed until the last week in July. From that date, however, fresh cases continually occurred until, by the first week in September, as many as 431 cases in 276 houses were known to have arisen. The chief incidence of the disease was found to be upon persons living in the north rather than in the south of the district. Mr. Murphy pointed out that the outbreak could not be due to a contaminated water-supply, since the houses attacked received their water from two different sources; neither could so sudden an outbreak be attributed to defective drainage, for the condition of the houses attacked did

not differ materially from those that escaped. But early in the inquiry suspicion fell upon a particular milk-supply, for the reason that most of those persons attacked with enteric fever were among the customers of one tradesman. Dr. Edward Squire, at the request of the milk-vendor, then inspected the farms from which he received his milk; but at this time no evidence against the farms could be found, and the supply, which had been discontinued during the inspection, was resumed. The disease continuing to increase, Mr. Murphy, who was then on the Continent, was communicated with and immediately returned. On his arrival, he found the evidence against the milk-supply stronger, but by no means conclusive; nevertheless, pending his inquiry, he requested the milk-vendor to draw his supplies from other sources. After investigation he found that of the 431 persons who had been attacked, 220 were among the list of customers supplied with milk by Mr. X., a milk-vendor in the neighbourhood. Of the remaining 211, 130 received the same milk at their place of business or elsewhere. The number of houses invaded followed the same rule, and Mr. Murphy estimated that if other houses in the district had been attacked in the same proportion, there would have been, instead of 276, as many as 3,475 houses attacked, and this estimate does not take into consideration those persons who, without being on Mr. X.'s list, drank his milk and suffered in the same way. The same line of argument was then applied to the Regent's Park sub-registration district, where the majority of the cases occurred, showing conclusively that this incidence of the disease was due solely to the fact that Mr. X. had a larger number of customers in that neighbourhood. Dealing with the deaths which had occurred from the disease, and the cases which had been admitted into hospitals, evidence was found which confirmed the view that the outbreak was due to Mr. X.'s milk. A number of streets in the district were also visited, and an exact record made of the milk-supply, and of the amount of disease in each house; it was invariably found that while the houses supplied by Mr. X. were attacked, those who received their supply from other milk-vendors escaped. Mr. Murphy then discussed the cases of illness among the *employés* of the milk-vendor, and showed from the date of attack in each case that these were the result rather than the cause of the outbreak. An account was then given of the manner in which the milk was distributed, and how persons who received the largest amount of milk coming from St. Albans, suffered at twice the rate of the other customers. It was also found that the milk from some of the farms had been used without harm, and that this was true for one of three farms on the Midland Railway, which came especially under suspicion owing to the fact that a number of porters at the Kentish Town Station had been attacked with enteric fever. Other circumstances tended to exculpate the milk supplies coming by other railways, suspicion therefore rested upon two farms, and particularly upon that at St. Albans. An inquiry in that city brought to light the fact that 12 persons had been attacked with enteric fever during the present year, and that all these persons either received their milk-supply direct from the suspected farm, or indirectly through a shop in the neighbourhood. Only one exception was found which, strange to say, was a man who received the same milk while in Kentish Town, London, where he had evidently contracted his disease.

Finally, cases of enteric fever were traced to the farm itself, a visitor and one of the farmer's sons being themselves the victims. The dates of their attacks, however, correspond with those of persons who suffered in London, and thus the first cause remains still to be discovered. Mr. Murphy found reasons for criticising the proximity of a cesspool to a well from which water was drawn for washing the pails, but he stated that he was not satisfied as to the origin of the outbreak, and that his inquiry was still proceeding. He had, however, thought it well to place these facts before the Vestry, in order to give them the assurance that the cause, whatever it was, was no longer operating in their district.

The report is illustrated by numerous instances of persons who, under special circumstances, drank the milk, and developed enteric fever as the result.

In conclusion, he urged strongly that all milk should be boiled, and stated that the outbreak afforded some evidence that the infection in milk could be destroyed in that way.

MESSRS. PARKE, DAVIS, and Co. (Detroit) have been awarded a gold medal for their exhibits at the first International Pharmaceutical Exhibition, Vienna.

AT the last quarterly meeting of the Bristol Royal Infirmary, Dr. Prowse was unanimously elected assistant-physician.

COLLECTIVE INVESTIGATION OF DISEASE.

LIST OF RETURNS RECEIVED IN SEPTEMBER 1883.

I.—PNEUMONIA (39).

Wm. Berry, Esq.; M. G. Biggs, Esq.; G. F. Blake, Esq.; E. O. Daly, M.B.; T. W. H. Garstang, Esq. (2); Fred. H. Haynes, M.D.; E. H. Howlett, Esq.; H. W. Laing, M.D.; J. Roche Lynch, Esq.; J. A. Mackenzie, M.B.; James Mackinlay, Esq.; F. B. Mallett, M.D.; John M. H. Martin, M.D. (2); J. Matthews, Esq.; T. H. Moorhead, M.D. (3, with letter); H. G. Plimmer, Esq.; A. C. Rayner, M.D.; George Shearer, M.D. (3); Thos. F. Raven, Esq. (9); H. Coupland Taylor, M.D.; T. W. Thursfield, M.D.; W. J. Tyson, M.D.; S. Warren, M.D.; Vere G. Webb, Esq.; Thos. F. Young, Esq.

II.—CHOREA (5).

Wm. Berry, Esq.; R. Kilkelly, M.B.; J. Milne Bramwell, M.B.; E. O. Daly, M.B. (2).

III.—RHEUMATISM (15).

J. Alexander, Esq.; M. G. Biggs, Esq.; H. R Hadden, M.D.; Stanley Haynes, M.D.; J. A. Mackenzie, M.B. (2); F. B. Mallet, M.D.; J. M. H. Martin, M.D.; T. H. Moorhead, M.D.; H. G. Plimmer, Esq. (2); Thos. F. Raven, Esq.; C. B. Richardson, M.D. (2); H. Coupland Taylor, M.D.

IV.—DIPHTHERIA, CLINICAL (6).

James Barr, M.D.; J. Roche Lynch, Esq. (with letter); Robert J. W. Oswald, Esq.; H. Coupland Taylor, M.D.; W. J. Tyson, M.D. (2).

IVa.—DIPHTHERIA, SANITARY (2).

James Barr, M.D.; J. Roche Lynch, Esq.

V.—SYPHILIS, ACQUIRED (2).

R. Atkinson, Esq.; J. Roche Lynch, Esq.

The Committee beg also to acknowledge a report of an epidemic of pneumonia by Dr. James Finlayson.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

A MEETING of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room, Exeter Hall, Strand, London, on Wednesday, the 17th day of October next, at 2 o'clock in the afternoon.

Committees and Subcommittees will meet as follows. At 161A, Strand, W.C.—Tuesday, October 16th, 1883: Scientific Grants Committee, 4 P.M. Wednesday, October 17th, 1883: The Trust Funds Subcommittee, 11 A.M.; the Journal and Finance Subcommittee, 12 noon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, October, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia at the end of the year. Cases are therefore urgently needed during the next two months.*

Applications should be addressed to
The Secretary of the Collective Investigation Committee
September, 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

WEST SOMERSET BRANCH.—The autumnal meeting will be held at the Railway Hotel, Taunton, on Thursday, October 18th, at 5 o'clock. The question, as settled by the Council to be discussed after dinner, is "What is your personal experience as to the etiology of diphtheria?" Dr. Prideaux will exhibit Preparations of Bacteria of various diseases, and will show, if possible, a case of extroversion of the bladder. Gentlemen wishing to bring communications before the meeting, are requested to give notice to the Secretary.—W. M. KELLY, Honorary Secretary, Taunton.

EAST ANGLIAN BRANCH.—The autumn meeting of the East Anglian Branch will be held at the King's Head Hotel, Bungay, on Thursday, October 25th, at 1 P.M. There will be a *déjeuner* at 4.30, after the meeting. It is requested that notices of papers or communications be sent at once to either of the Honorary Secretaries, W. A. Elliston, M.D., Ipswich; M. Beverley, M.D., Norwich.

BORDER COUNTIES BRANCH.—The autumnal meeting of this Branch will be held in the King's Arms Hotel, Dumfries, on Friday, October 19th, 1883. The chair will be taken at 3 P.M. Communications have been promised from Drs. Brown, Lediard, and Russell, Carlisle; and Smith, Dumfries. Gentlemen intending to read papers, show specimens, etc., are requested to communicate as soon as possible with either of the Secretaries.—W. RUSSELL, M.B., Carlisle, J. SMITH, M.D., Dumfries, Honorary Secretaries.

STAFFORDSHIRE BRANCH.—The tenth annual general meeting of this Branch will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, October 25th, at 4 P.M. An address will be delivered by the President-elect, Dr. C. Orton, Newcastle-under-Lyme.—VINCENT JACKSON, General Secretary, Wolverhampton, October 1st, 1883.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The first meeting of the session will take place on Thursday evening, October 18th, at half-past 8 o'clock, at the Hackney New Town Hall; Dr. Hare, President of the Metropolitan Counties Branch, in the chair. The times and places of meeting during the session will have to be settled at this meeting. A resolution will be submitted that "all the meetings take place at the Town Hall, Hackney." Dr. Wilks will deliver an address in support of Collective Investigation of Disease.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, N.

NORTH OF IRELAND BRANCH.—A general meeting of this Branch will be held at the Belfast Royal Hospital on Thursday, October 25th, at 12 o'clock. Gentlemen intending to read papers, to exhibit specimens or patients, are requested to communicate, at their earliest convenience, with Dr. DEMPSEY, Honorary Secretary, Clifton Street, Belfast.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will take place at Gravesend, on Tuesday, November 13th. Gentlemen desirous of reading papers or exhibiting specimens, are requested to communicate as early as possible with the Honorary Secretary of the district, A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham.—October 5th, 1883.

YORKSHIRE BRANCH.—The autumn meeting will be held at Scarborough on Wednesday, October 31st. Gentlemen intending to communicate papers are requested to signify their intention to ARTHUR JACKSON, Secretary.

BATH AND BRISTOL BRANCH.—The first ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, October 25th, at 7.30; Edward Crossman, Esq., President. The following communications are expected. 1. A Case of Rupture of the Fallopian Tube, by R. S. Fowler, Esq. 2. Recurrent Fibromata of the Neck; their relation to the Branchial Arches, by H. W. Freeman, Esq. 3. The Use of Ergot in some of the Simpler Cases of Eye-Disease, by Louis J. King, Esq. 4. A Case of Death after Bone-Setting, by A. W. Pritchard, Esq.—RICHARD J. H. SCOTT, E. MARKHAM SKERRITT, Honorary Secretaries.—Bath, October 1883.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Newport, on Thursday, November 15th. Members wishing to read papers, etc., should send titles to either of the undersigned by the end of this month at the latest.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.—October 10th, 1883.

EAST YORK AND NORTH LINCOLN BRANCH.

THE autumn meeting of this Branch was held at the East Riding Asylum, Beverley, on September 26th, 1883, at 3 P.M. The President (Dr. LUNN) took the chair; and there were twenty members and visitors present.

The PRESIDENT having thanked Dr. Macleod, the Medical Superintendent, for his invitation to visit the asylum, and the Committee of Visitors for the preparations made for their reception, the Secretary read the minutes, and a communication from the General Secretary, conveying two resolutions on the subject of Homœopathy, passed by the Committee of Council on July 27th.

Typical Cases of Insanity.—Dr. MACLEOD then conducted the members over the asylum, explaining the arrangements. He took the opportunity of bringing forward some typical cases of different forms of insanity. It was difficult, he said, to find typical cases, because the same patient might exhibit many phases of insanity, even on the same day. Remarking on the varieties of the classification of insanity as found in books, he said we might divide insanity into cases of arrested development, diseases of the emotions, diseases of the ideas, decay of the nervous system, as shown in general paralysis and epilepsy, and the insanity of old age. Cases illustrative of these forms were then introduced.

The first case was that of an idiot, between twenty and thirty years of age, who might be described as a male being; he was entirely without senses of any kind, and, if not fed, would starve. The patient who supported him was also an imbecile, but of a much higher type.

Two or three cases of general paralysis were then exhibited. Dr. Macleod gave a brief outline of the history of the disease, It began with a nameless excitement, with delusions of grandeur, wealth, and strength. Then symptoms of organic disease commence, the lips tremble, the articulation is impeded, the words are clipped, the pupils are irregular, there is fibrillar trembling of the tongue, the gait is staggering and uncertain, there is loss of co-ordination; sensation is complete, but there is gradual loss of voluntary power. The disease lasts about three years. The paralysis increases, and there is general decay; convulsions may come on. The amount of paralysis varies from day to day, the patient being able to walk one day, and being paralysed the next. The habits are dirty, even from the first; at the latter stage the bladder is paralysed. In spite of every care, extensive bed-sores may form, whole limbs even mortifying. Some intercurrent disease, as pneumonia, often terminates the case.

A patient, aged 80, was next shown, whose nervous system was completely atrophied.

Two cases of delusional insanity were then exhibited.

Two women suffering from excitement depending on disorder of the sexual organs were brought forward. In such cases, there was either amenorrhœa, menorrhagia, or dysmenorrhœa. The attacks of excitement were markedly worse during the menstrual periods. The tendencies were sexual, and masturbation was common. Dementia might follow, and phthisis.

The President thanked Dr. Macleod for the interesting series of cases he had brought forward.

Remarkable Case of Ovariotomy.—Mr. DIX gave the history of this case. The patient, aged 24, had been married six years, and had had two children. She had noticed a tumour three years. This had been tapped several times; and once a fall caused a rupture at the umbilicus, with an escape of fluid. This was followed by peritonitis. Subsequently, she had pleurisy and constipation, with fæcal vomiting; but recovered after the use of injections. Seven days after this attack, she was operated on. There was nothing special about the operation. The tumour was solid, of colloid nature, adherent anteriorly, but quite free behind. When the tumour had been removed, there was seen to be a cavity, lined by a glistening membrane, but no intestines could be seen; the pelvic organs were also covered over by this membrane. On tilting up the uterus from the vagina, another tumour, of the size of a fist, was found on the right side. The covering membrane was torn through, and the tumour removed. When the wound was united, the abdomen presented a concavity, there being nothing to take the place of the tumour, which was of the size of the uterus at term. This was gradually filled up by the descent of the bowels. After two days, the temperature rose, and the cause was found to be a large accumulation of fœtid fluid. Two stitches were removed, and a drainage-tube put in. From this time, she made a steady recovery. —In the discussion which followed, Mr. Evans suggested that this was a case of a cyst within a parent cyst.—Mr. Howlett thought it possible that the friction of the tumour might have set up slight peritonitis, and caused the formation of a limiting membrane.—Several gentlemen also spoke.

Obstruction of the Bowels in Advanced Pregnancy: Induction of Premature Labour: Recovery.—Mr. HARDEY related this case. It was that of a young woman in her first pregnancy, 8½ months advanced. Injections by means of a long tube having failed to make the bowels act, premature labour was induced, and she was delivered of a living child. The day after, the long tube was again passed with the desired result. She made a rapid recovery.

In the evening the members dined at the Beverley Arms Hotel.

SPECIAL CORRESPONDENCE.

PARIS.

Marine Zoological Laboratories.

NEARLY all the European states except England have on their sea-coast marine zoological laboratories; it may, therefore, especially in view of the recent proposals of Professor Lankester, and the manifesto of biologists which has followed it, perhaps be interesting to your readers to peruse the following description of these laboratories, they will then be able to appreciate their utility, indeed absolute necessity, in order to study or pursue investigations in certain branches of science.

These seaside laboratories, or *stations zoologiques maritimes*, have nearly all been founded by zoologists for the purpose of advancing zoological science. Fortunately, they also help both students and scientists in other branches of science than that of zoology, the one to arrive at a proficiency of knowledge, the other to carry out interesting and valuable researches which, but for this brotherly help, would be impossible. The countless species of marine animals attract physiologists, histologists, and comparative anatomists to work in a field which may reveal facts hitherto undiscovered in that more limited area which is included in the study of terrestrial and fresh-water animals.

The success of these laboratories is doubtless increased by the fact that they are always in a healthy locality on a bracing seashore, so as to allow a realisation of the apparently anomalous combination of work and rest. The scientist, worn out by fatiguing researches made in town laboratories, finds fresh elements of health and a fresh field for research by passing three or four months at a seaside laboratory.

The first of this class of laboratory is the one founded at Naples by Herr Dohrn, a private enterprise almost exclusively German, which nevertheless has received substantial aid from the city of Naples, and in some years hence will become the town property.

In order to work in the Naples laboratory a heavy fee is exacted. Nearly all the tables are retained yearly by different universities or scientific societies; the British Association has two tables. The revenue is greatly increased by the fees of admission to an aquarium of marine animals.

This laboratory is admirably organised; there is an agreement between the authorities and the fishermen that the latter shall take to the laboratory all rare animals that they may chance to find; likewise there is every necessary arrangement for dredging-excursions and for diving into the depths of the sea to find such animals as are required for study. There are several sailing boats and a steam-boat belonging to the laboratory, which is also well provided with diving dresses. The animals are kept in a large tank which is large enough for specimens of considerable dimensions.

France, apart from the laboratory of the Science Faculty at Marseilles, which has an aquarium and a boat, possesses five seaside laboratories. They are distributed as follows: one at Villefranche, superintended by M. Barrois; one at Banyuls, near Port Vendres, superintended by M. Lacaze Duthiers; another at Concarneau, on the south coast of Brittany, superintended by MM. Robin and Pouchet; another at Roscoff, on the north coast of Brittany, superintended by M. Lacaze Duthiers; and one at Havre, superintended by M. Paul Bert. Besides these principal establishments, there are two or three others, such as those of Arcachon and Lucques, which have been founded either by provincial scientific societies, or by professors who have received some slight aid from the corporation of the towns where these laboratories are established; but these laboratories possess neither special tenants, boats, nor sailors, therefore they are only of use to their founders and a limited number of pupils.

The laboratories of Villefranche, Roscoff, Concarneau, Banyuls, and Havre are founded and kept up by the French Government; in some cases the corporations have given money or granted land. The laboratories of Concarneau and Roscoff present two varieties widely different.

The laboratory at Concarneau is situated at the entrance to the port; it was founded by Coste, the well-known embryologist, who wished to study the different conditions attending the reproduction of marine animals. The building consists of two stories; the ground-floor is used for the aquariums, three in number; on the first floor are the workrooms. The rocks facing the laboratory have been utilised and are transformed into eight basins or reservoirs of water, each from 300 to 1,200 feet square, and from 15 to 20 feet deep. The aquariums are filled with water by means of a pump set in motion by the wind. There is only one boat belonging to this laboratory, but the French Government always place a war-sloop at the disposal of its director; this summer some of the laboratory-workers wanted to dredge a long way out at sea, and the Government lent them a despatch-boat. The coast abounds in marine animals, but is poorer in invertebrates than that of Roscoff; it is more especially a coast for sardine-fishing. The surrounding scenery is lovely.

Roscoff perhaps offers greater advantages, though fewer attractions. Cabbage-fields and tracts of land devoted to the cultivation of artichokes, though a proof of the mild and delightful climate of this little sea-port, are by no means an acceptable substitute for the beautiful scenery of Concarneau, but the treasures of the sea here, more abundant than on the coast of Concarneau, or indeed on any other part of the whole French coast, are ample consolation to the crowd of workers who annually avail themselves of the facilities for studying and carrying out researches which the Roscoff laboratory, founded by M. Lacaze Duthiers, affords them free of cost.

The coast of Roscoff offers peculiar advantages for a sea-side laboratory, or, in French terminology, *station zoologique maritime*. The numerous boulders of granite serve as places of shelter for the neighbouring marine animals. It also presents a vast expanse of sand sea-shore and a large bay of slime, thus all the different kinds of marine animals are within reach.

Notwithstanding these remarkable qualifications which M. Lacaze Duthiers quickly detected, he had considerable difficulty to get a footing for his laboratory. It now consists of a large house bought by Government, to which has been recently added the village schoolhouse (*Ecole Communale*), abandoned, since education has become compulsory, for another affording increased accommodation. A third house, opposite to the one bought by Government, is hired for the convenience of the laboratory-workers. It must be remembered that Roscoff is only a little fishing village, and it is often difficult to find a room during the summer season, therefore M. Lacaze Duthiers offers a bedroom to all who work in his laboratory.

There are two sailors belonging to the laboratory; and one of the attendants from the Sorbonne laboratory is on duty at Roscoff during the summer months. The garden of the laboratory reaches down to the sea. A large reservoir, measuring 4,200 feet, has been constructed, where are kept marine animals, either at liberty or in cases. On a small island opposite the laboratory, there is a "bed" where animals of sedentary habits are kept almost at liberty.

The laboratory has three sailing boats adapted for taking excursions among the rocks, and on the neighbouring shores, also for dredging either with the usual drag, oyster-drag, or with a coral-fishing apparatus. The fishermen also take a considerable quantity of marine animals to the laboratory.

This Roscoff *station zoologique maritime*, which M. Lacaze Duthiers had so much trouble to found, is now in its fifteenth year. The French Government by degrees added to its local habitation, which, if even at the present time not perfect, is nevertheless of immeasurable utility to scientific workers, and therefore contributes to the progress of science.

The Roscoff laboratory is perhaps more frequented than any other, and is an enduring testimony to the patience and laudable determination of its founder and director. The expenses are defrayed from the fund annually voted by the French Parliament for public instruction. Here, as in all establishments in France for higher education, no fees are paid; but this success was hardly won, the necessary sum was with difficulty wrung from the Government, and the local authorities, notwithstanding the evident advantages such an establishment brings to the village, were equally tardy to grant the concessions eventually obtained, unlike those of Banyuls, who conceded a building site, also a yearly revenue, and subsequently presented the laboratory with a boat.

The most recently organised seaside laboratory is at Havre; the building it occupies was formerly a public aquarium, which the corporation handed over to M. Paul Bert. It is supported from Government and corporation funds, and is more especially destined to facilitate physiological research. Doubtless, when the arrangements now in course of completion are perfected, they will offer all the requirements for studying this branch of science, a qualification evidently all but absent in laboratories founded by zoologists.

It must be admitted that all these seaside laboratories, or *stations zoologiques maritimes*, taken both separately and in the aggregate, render important service to biologists of all nations. Every year there is a large per-centage of foreigners among the

workers, the English element bearing always the largest proportion, a proof that our countrymen fail to appreciate their good fortune in possessing a more extensive sea-coast than that of any other country, or they would be able to offer this useful form of hospitality as well as seek it. Nevertheless, considering the scanty encouragement given by the public and the English Government to biological science, it is to be feared that many years will pass by before *stations zoologiques maritimes* exist on the English coast.

The only similar laboratory in Holland belongs to the universities of Utrecht and Leyden. The Dutch coast is not rich enough in marine animals to suggest the advisability of establishing many zoological laboratories, therefore a movable or migratory laboratory has been organised, which consists of a wooden house, easily taken down and put up again; there are three rooms in it, a large workroom and two smaller ones used for the aquarium and fishing apparatus. At the beginning of every summer it is set up on the coast on a piece of land hired for the purpose, or more frequently lent by the nearest village; thus the Dutch scientists visit the entire coast, study its marine animals, and even that of their neighbours. Russia has a laboratory on the Black Sea, and Austria possesses one at Trieste.

ABERDEEN.

Visit of H.R.H. Princess Beatrice—Opening of a Bazaar in Aid of Sick Children's Hospital—Inauguration of Duthie Park—Trawling Commission—Poor-laws Conference—University Court.

ABERDEEN was *en fête* during the last week in September, and the whole town seemed to give itself up to affording a right loyal welcome to H.R.H. the Princess Beatrice, on the occasion of her visit to Aberdeen for the purpose of opening a bazaar in aid of the Sick Children's Hospital, and, at the same time, to inaugurate the Duthie Park. It is just six years ago since the Sick Children's Hospital was instituted in Aberdeen. The want had been long felt, but no steps were taken in the matter until Professor Stephenson was appointed to the Chair of Midwifery in the university. At Dr. Stephenson's suggestion, the establishment of a hospital similar to that existing in Edinburgh was discussed, and the project carried into effect, Dr. Stephenson and Dr. R. J. Garden being appointed medical officers thereof. At first, in 1877, the hospital contained only fourteen beds, which, within nearly as many days, were all filled. Gradually the number of beds increased to thirty-four, while the out-patient department underwent a great increase. The average number of patients treated during the six years the hospital has been open, is 1,485 *per annum*. A small convalescent home has been established at Culter on Deeside. The enormous benefits conferred on the poor by this hospital, have so increased the demands for admission, that it was felt that an energetic effort must be made to extend its usefulness. With this purpose, it was resolved to hold a bazaar to aid in this object. Under the distinguished patronage of H.R.H. the Princess Beatrice, the result has been all that could be desired.

Not less important is the princely gift of Miss Duthie of a public park to the citizens of Aberdeen. The park extends to about forty acres, and is most charmingly situated on the banks of the Dee. The total cost is estimated at over £50,000. This is the largest gift of the kind that has been made by any living donor in Scotland. The opening ceremony was performed by H.R.H. the Princess Beatrice.

Two other important events also occurred during the week, viz., the sitting of the Trawling Commission, presided over by the Earl of Dalhousie, and consisting of Professor Huxley, Mr. Brady, Inspector of Irish Fisheries, Mr. Caine, M.P., Mr. Majoribanks, M.P. A large number of line and net fishermen and trawlers were examined. The chief complaints of the fishermen against the trawlers—especially steam-trawlers—were that the trawlers caught many immature fish; that, since trawling began, line-fishers caught much fewer fish; and that the trawlers destroyed the fishermen's lines, and destroyed also the spawning-beds. Professor Huxley made particular inquiries as to what evidence there was that trawling destroyed the spawn of haddock and cod. No proof of this was adduced by any of the witnesses. The Professor wanted particularly to know if any of the fishermen had actually seen haddock or cod-spawn sink to the bottom; but, although several witnesses said they believed that the spawn of these animals was at the bottom, no one had any proof of the truth of his assertions to offer. It is well known that herring-spawn sinks to the bottom; and so fishermen are apt to conclude that this is the case with other ova. The well-known experiments of Sars proved that the spawn of the haddock floats; and, this being so, there is the greatest difficulty in seeing how trawling can in any way damage the spawning-beds of the haddock and those fish whose spawn floats. Moreover, there is the remarkable fact that, in Dublin Bay, where no trawling is permitted, within the last thirty or forty years, there has been a great decrease in the number and quality of the white fish.

A conference on pauperism and the administration of the Poor-laws was held in Aberdeen last week. This is the first conference of the kind that has been held in Scotland; and we trust that similar conferences may be held elsewhere. Poor-law administration is too apt to be ignored by the public, while we are only beginning to understand the manifold relations and complex causes of pauperism. On the last point, very important papers were read by Dr. Beveridge, and Dr. Simpson, medical officer of health. These papers bore upon the question of preventable disease as a cause of pauperism. When fever or any epidemic breaks out in a district, it always leaves a number of families dependent upon the parochial boards. Not unfrequently in these epidemics, it is the father—the bread-winner—who is cut down, and the families are left destitute. Apart altogether from epidemics, the mortality of adults—itself a pauperism-producing cause—might be greatly obviated. Tubercular disease would be greatly diminished by more sanitary dwellings, better food, and more favourable surroundings; and the same improved physical conditions and surroundings would also diminish the mortality from respiratory diseases; while zymotic diseases might be made to disappear with proper sanitary conditions. Dr. Beveridge calculated that, in Aberdeen, during the last four years, there has been an average yearly saving of 112 lives as compared with the four preceding years, and 327 as compared with the average of the twenty-three years ending with 1878. One has also to take into consideration the great saving in sickness, and the consequent increase of the earning-power.

In the University Court, which also met during the week, there are signs of activity. In addition to the appointment of examiners in medicine, whose names will be found elsewhere in the JOURNAL, the Lord Rector gave notice of an important motion in connection with the recently defunct University (Scotland) Bill; while Dr. Webster, M.P., gave notice of more specific motions on the same lines.

Altogether there has been a week of almost unexampled industry on the part of public bodies such as is rarely seen in Aberdeen or elsewhere.

CORRESPONDENCE.

DR. ROGERS AND THE WESTMINSTER GUARDIANS.

SIR,—Since your article on this subject appeared in a recent issue, I have learned that the Westminster guardians have suspended their medical officer from his duties, thus giving another proof of that "singular fertility of resource" in evil-doing which this particular board, at any rate, delights to exhibit. Not content with flying in the face of the President of the Local Government Board, by backing-up their incriminated master, they have shown their ill-feeling against an old public servant, whose sole offence consists in a zealous discharge of his duties, and in a manly refusal to be *particeps criminis* in the unhuman treatment of the sick poor.

But the question arises, What is to be done? For you, or for me, or for the whole Association to remonstrate with these pachydermatous gentlemen would be to run our heads against a mud wall. We should only soil our own clothes, whilst making no impression upon the wall.

I am aware that the President of the Poor-Law Board is well acquainted with the doings of these gentlemen who misname themselves guardians of the poor. He is also assured that Dr. Rogers only fulfilled his obvious and imperative duty in calling attention to the scandals which, for a long time, have existed in the workhouse at Westminster. But the power of persistence, even in wrong doing, is great, and the president may be unwilling to force these guardians to reinstate their medical officer, and to treat him with the respect due to his high character and lengthened service. Dr. Rogers is an old and honoured member of the British Medical Association. He has peculiar claims upon the sympathy and support of a large class of its members—viz., the union medical officers, of whom he has long been the trusted friend and guide. It is to be hoped that these gentlemen will not tamely see their chief trampled upon by an arrogant, and, as they have been pleased to exhibit themselves, an irresponsible Board of Guardians.

My personal acquaintance with Dr. Rogers assures me that no more tender-hearted, genial, and high-minded man exists in our Association. His case therefore calls aloud for our sympathy and help. Some of the ends for which this Association exists are identical with those objects which Dr. Rogers has spent many years of his life in an endeavour to obtain justice at the hands of the public and of the State; and a proper recognition of what is due to educated gentlemen by those whom accident may have placed in the position of their employers.

I would suggest, sir, that a deputation, consisting of some of Dr. Rogers' influential friends, and of some of the heads of our Association, should wait upon Sir Charles Dilke, and represent to him the indignation with which the treatment which the Doctor is receiving is viewed by the whole of our Association.—I am, yours obediently,

WILLIAM STRANGE, M.D.

Worcester, October 1, 1883.

*** We understand that memorials from influential ratepayers in the parish have been addressed to the Local Government Board, praying for the dismissal of the master and the reinstatement of Dr. Rogers.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MEDICAL OFFICERS OF HEALTH: CERTIFICATES OF PROFICIENCY.

SIR,—Would you kindly inform me if Parkes' *Practical Hygiene* embraces all the subjects of examination for the certificate of proficiency as a medical officer of health at Cambridge University? If it does not, please intimate what other subjects are required to be made up, and what works you would recommend to be procured for that purpose, and oblige, yours respectfully,

HYGIENE.

*** 1. Parkes' classic work is indispensable, but it was written for the army; the civilian, therefore, will have to go elsewhere for all that concerns the health of settled communities. 2. Captain D. Galton's *Healthy Dwellings* (Clarendon Press) is a clear masterly exposition of the principles of sanitary engineering in its whole extent, avoiding needless detail, and very readable; it is essential. So, too, is an acquaintance with the present and past birth and death-rates, death-rates from particular diseases and at certain ages; for which get (3) the Registrar-General's last Annual Report, the introduction and summaries only to be read. Read also (4) "Statistical Fallacies" in Rumsey's *Essays*, for without a knowledge of these no useful conclusion can be drawn from tables of mortality, and this need only be had from a library for the sake of the one essay. 5. The best and smallest book on Sewage Disposal is that by Robinson, published by Spon. (Corfield's is now out of date.) A knowledge of the typical pattern of sanitary appliances is expected; and those who are not practically familiar with these will find great help from (6) E. B. Denton's *Handbook of House-Sanitation*—a chapter from his father's great work, reprinted and revised, and a capital "picture-book" of everything from a hydraulic ram to a grease-trap. The Public Health Act, Artisans' Dwellings and Artisans' Dwellings Improvement Acts, Vaccination Acts, Sale of Food and Drugs, Rivers Pollution, Bakehouse Regulation, and a few others, must be got up; but the medical student will pass over great part of the Public Health and part of the Artisans' Dwellings Acts, and others which deal only with procedure, finance, etc. Irish laws will not be taken in place of English, but extra credit may be gained thereby. Lastly, Wilson's *Hygiene* may be useful, partly as a *resumé*, partly as being written by one who is practically familiar with the wants of rural populations. The Cambridge certificate does not profess to qualify for public analyst, but Bell's two little works on *Food Analysis and Adulteration*, published by the Science and Art Department, will well repay perusal. We are informed that Messrs. Collins intend bringing out next summer a comprehensive but concise text-book of hygiene arranged for the new Science and Art examinations by a writer well up in the requirements of the various boards.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

SANITARY SCIENCE EXAMINATION.—The following gentlemen have satisfied the examiners in both parts of the examination: A. G. Bartley, M.D.; P. Cowen, M.R.C.S.; W. W. Day, M.D.; F. W. A. East, M.B.; D. W. Finlay, M.D.; C. Glasier, M.B.; W. Gripper, M.B.; J. F. Herring, L.R.C.P.E.; R. B. Hill, M.D.; C. W. MacRury, L.R.C.P.E.; T. F. Pearse, L.R.C.P.; E. Penny, M.B.; M. Read, M.B.; J. Richardson, M.B.; G. J. S. Saunders, M.B.; R. D. R. Sweeting, M.R.C.S. Signed, A. W. Barclay, W. H. Corfield, F. De Chaumont, Alfred Carpenter, Examiners. October 6th, 1883.

We are informed that, of the above, eight were pupils in the Hygienic Laboratory at University College, London.

ABERDEEN UNIVERSITY.

AT a meeting of the Senatus of Aberdeen University on Saturday, it was arranged that Dr. Stokes, Lucasian Professor of Mathematics, Cambridge, the Burnett Lecturer for the next three years, should deliver his first course of lectures, four in number, in the first two weeks of November. Physical science has been prescribed by the trustees of the Burnett Lecture Fund as the theme of Professor Stokes's lectures; and, in terms of the trust, the subject has to be treated so as to show "that there is a Being all powerful, wise, and good, by whom everything exists."

OBITUARY.

ROBERT MOFFAT, M.D.

DR. MOFFAT, who had a most extensive practice in Falkirk, died at Bridge of Allan on October 5th. Death has been busy amongst the medical men of Falkirk of late. Espie, Hamilton, and Moffat, all are gone within a few brief years.

Dr. Moffat had, for some months past, been suffering from disease of the stomach, and, a few weeks ago, was with difficulty removed to Bridge of Allan, in the hope that the change would do him some good; but, unfortunately, that has not been the case, and he gradually lost strength to such an extent, that his friends were somewhat prepared for the result which has followed. The deceased was born at Musselburgh in 1831. He studied medicine at the University of Edinburgh, and obtained the degree of M.D. in 1856, after which he practised for some years in Kettle, Fifeshire. He subsequently removed to Polmont, where he speedily acquired an extensive and highly respectable practice; and, on the death of Dr. Girdwood in 1866, he came to Falkirk, where he has since occupied a leading position in his profession as the medical attendant of most of the principal families in the district, as well as of a large number of the general public in the town and neighbourhood. He was twice married, and leaves a family of two sons and two daughters by his first marriage. He will be much missed in the district, and universal sympathy will be felt for his family, as well as for his widow, to whom he was married only about eighteen months ago, on which occasion a magnificent silver tea and coffee service and a drawing-room clock were presented to him in token of the respect in which he was held by a large number of friends and patients, all of whom will now lament his loss, along with a large proportion of the public.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 4th, 1883.

Beresford, Ralph, Prince of Wales Road, Norwich.
Bullock, Thomas Warren, Spring Grove, Isleworth.
Hutchinson, Harry, Oakley Square, Camden Town, N.W.
Gostling, John Harry, Halesworth, Suffolk.
Scott, Arthur William, Coalbournbrook, Stourbridge.
Smith, Albert, Paris Villas, Wakehurst Road, Wandsworth End, S.W.

The following gentlemen also on the same day passed their Primary Professional Examination.

Bradbrook, William, London Hospital.
Llewelyn, Ithel Penderel, King's College Hospital
Skill, Geoffrey, St. Thomas' Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum. Applications to the Chairman of the Weekly Board by October 22nd.

BIRMINGHAM AND MIDLAND EYE AND THROAT INFIRMARY.—Assistant-Surgeon. Applications, addressed to the Medical Committee, by October 26th.

BOROUGH ASYLUM, Birmingham.—Clinical Assistant. Applications to the Superintendent.

BOROUGH OF OKEHAMPTON, Devon.—Medical Officer of Health.—Salary, £16 per annum. Applications to R. Fulford, Clerk, by October 16th.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon. Salary, £140 per annum. Applications by November 5th.

BRISTOL ROYAL INFIRMARY.—Assistant Resident Medical Officer and Pathologist. Salary, £80 per annum. Applications by October 23rd.

CHICHESTER INFIRMARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications by October 22nd.

CHICHESTER INFIRMARY.—Assistant House-Surgeon. Salary, £20 per annum. Applications by October 22nd.

CITY PROVIDENT DISPENSARY AND SURGICAL APPLIANCE ASSOCIATION, 164, Aldersgate Street, E.C.—Surgeon. Applications to the Secretary.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications to J. G. Marshall, Esq., M.B., House-Surgeon.

ENNISCORTHY DISTRICT LUNATIC ASYLUM.—Visiting and Consulting Physician. Salary, £100 per annum. Election on October 18th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Registrar and Chloroformist. Salary, £30 per annum. Applications by October 27th.

FEVER HOSPITAL, Monsall, Manchester.—Assistant Medical Officer. Salary, 50 guineas per annum. Applications to Dr. H. Tomkins.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistants. Applications by October 20th.

NORTH-WEST LONDON HOSPITAL, 19 and 20, Kentish Town Road, N.W.—Surgeon. Applications by October 23rd.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House-Surgeon. Salary, £80 per annum. Applications by October 17th.

QUEEN'S COLLEGE, Belfast.—Professor of Anatomy and Physiology. Candidates to forward testimonials to the Under-Secretary, Dublin Castle, not later than the 20th October.

SOUTH LONDON MEDICAL AID INSTITUTE, 300, Waterloo Road.—Medical Officer. Applications to the Honorary Secretary.

MEDICAL APPOINTMENTS.

BATHE, A. J., L.R.C.P., appointed House-Surgeon to the General Infirmary at Gloucester and Gloucestershire Eye Institution, *vice* W. Brown, M.B., resigned.

BOXALL, R., M.D, appointed House-Physician to the General Lying-in Hospital, York Road, Lambeth, *vice* F. Knight, M.R.C.S., resigned.

BOYD, J. C., M.B., appointed Medical Officer to the County Donegal Infirmary.

BRADSHAW, J. D., M.B., appointed Honorary Physician to the Western General Dispensary, *vice* H. Sainsbury, M.D., resigned.

CLAPP, R., L.R.C.P., appointed Assistant Medical Officer to the Devon County Asylum.

COLLIER, W., L.S.A., appointed Medical Officer to the Sheffield Union, *vice* W. Gill, L.R.C.P., resigned.

COLLINS, Thos., M.D., appointed Superintendent to the Aberdeen Royal Infirmary, *vice* E. W. Robertson, M.B., deceased.

COLLINS, W. J., M.D., appointed Surgeon to the Western Ophthalmic Hospital, *vice* R. M. Gunn, M.B., resigned.

DUCKWORTH, DYCE, M.D., appointed Physician to the St. Bartholomew's Hospital.

EDMOND, G. M., M.D., appointed Extra-Professorial Examiner in Medicine in the University of Edinburgh.

EYRE, J. J., L.K.Q.C.P.I., L.M., L.R.C.S.I., appointed Medical Officer to the Forest Hill Dispensary.

GRIFFITH, W., M.B., appointed House-Physician to the Leeds General Infirmary, *vice* J. F. W. Silk, M.B., resigned.

HERBERT, W. W., M.B., appointed Assistant Medical Officer to the North Wales Counties Lunatic Asylum, *vice* L. R. Jones, M.B., resigned.

LOWE, T. P., M.R.C.S., appointed House-Surgeon to the Royal United Hospital, Bath, *vice* P. H. Gardner, L.R.C.P., resigned.

MOORE, N., M.D., appointed Assistant-Physician to the St. Bartholomew's Hospital, *vice* Dyce Duckworth, M.D.

OLDHAM, H. F. B.M., appointed Resident Medical Officer to the Netherfield Institution for Infectious Diseases, Liverpool.

PAGE, F. J. M., F.C.S., appointed Demonstrator of Practical Chemistry to the London Hospital, *vice* C. M. Tidy, M.B., resigned.

PARK, G., M.B., appointed Assistant Resident Medical Officer to the Riccartsbar Asylum, Paisley.

REDMOND, J. M., appointed Joint Lecturer on the Practice of Medicine and Pathology in the Ledwich College of Medicine and Surgery.

SELLERS, W. H. I., M.B, appointed Senior House-Surgeon to the Liverpool Royal Southern Hospital, *vice* J. T. R. Davison, M.D., resigned.

SOUTAR, J. G., M.B., appointed Assistant Medical Officer to the Barnwood House, Gloucester, *vice* R. Clapp, L.R.C.P., resigned.

TREVES, F., F.R.C.S., appointed Extra-Professorial Examiner in the University of Edinburgh.

TRIMBLE, J. M., M.D., appointed Medical Officer to the Strabane Union, *vice* J. C. Boyd, M.B., resigned.

WALKER, C. E., L.R.C.P., appointed Medical Officer to the Aylesbury Union, *vice* R. W. Wilcox, M.R.C.S., resigned.

WALSHE, D., L.K.Q.C.P.I., appointed Medical Officer to the Graigne Dispensary of the Thomastown Union.

WILSON, R. M., M.D., appointed Extra-Professorial Examiner in Medicine in the University of Edinburgh.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

COATS.—At Capetown, South Africa, on September 10th, the wife of Surgeon-Major James Coats, A.M.D., of a son.

DUFFEY.—October 7th, at 30, Fitzwilliam Place, Dublin, the wife of George F. Duffey, M.D., of a daughter.

GAIRDNER.—At the College, Glasgow, on the 10th inst., the wife of Professor Gairdner, M.D., LL.D., of a daughter.

MARRIAGES.

MCDOUGALL—KNOWLES.—On the 3rd ult., at Chatton, Northumberland, by the Right Rev. Bishop McDougall, F.R.C.S.E., father of the bridegroom, assisted by the Rev. F. Bell, vicar of the parish, H. A. H. McDougall, M.R.C.S., L.R.C.P., of Hambledon, Hants, to Maud Knowles, daughter of Andrew Knowles, Esq., of Swinton Old Hall, near Manchester.

SWEETING—ROTHERY.—On the 9th inst., at Christ Church, Harrogate, by the Rev. D. S. Cowley, M.A, Richard Deane Roher Sweeting, M.R.C.S.Eng., S.Sc.Cert.Camb., eldest son of the late Richard Sweeting, M.D., of Clapham Park, S.W., to Selina (Neelie), third daughter of William Rothery, Forest Lodge, Harrogate.

DEATHS.

ADAM.—At Ardentigh, Port Bannatyne, Bute, on the 28th ult., aged 31 years, John Mitchell Adam, M.B., C.M., fifth son of the late James Adam, Flint Merchant, Glasgow.

BRUNTON.—At Lynton, North Devon, on the 6th inst., Carlina Louisa Stopford, second daughter of T. Lauder Brunton, M.D., of 50, Welbeck Street, London, aged 3 months.

EVANS.—On the 8th inst., at Penarth, suddenly, in a patient's house, Thomas Evans, M.R.C.S., L.S.A., of Crockherbtown, Cardiff.

THE attention of Dr. William Collingridge, Port of London Medical Officer, having been called to a quantity of bad meat, he, after examination, condemned 3,388 carcases of sheep from New Zealand. The destruction of the meat was carried out by Inspector W. H. Lewis.

THE HIND FUND.

AT a meeting of the friends and former pupils of Mr. George Hind, F.R.C.S., held, in the board-room of the Briton Life Offices, on Thursday, October 4th, Dr. Richardson, F.R.S., in the chair, an Executive Committee, consisting of the following, was formed:—Col. Richards, Dr. Semple, Berkeley Hill, Esq.; Charles Fuller, Esq.; Dr. Jackson; Dr. Hakewell; Dr. Duncan; T. Wakley, Esq.; Sir E. Saunders; Christopher Heath, Esq.; Dr. Royston; Dr. Rogers; F. E. Webb, Esq.; and J. Pope, Esq.

The meeting was of an influential character, and the various speakers expressed their high opinion of Mr. Hind's ability and reputation as a teacher, and bore especial testimony to his skill as a draughtsman, while universal tribute was paid to his probity and social qualities.

The meeting was adjourned to Thursday, November 1st, at 5.30 P.M., at the Briton Life Offices.

The following subscriptions have been received:—Dr. Jones, £21 F. E. Webb, Esq., £21; Messrs. Coutts and Co., £21; Sir Erasmus Wilson, £10 10s.; R. Quain, Esq., £10; S. W. Rayner, Esq., £5 5s.; Dr. W. J. Bryant, £5 5s.; G. A. Critchett, Esq. £5 5s.; Dr. Watson, £5; Dr. Luke, £5; Dr. Barton, £5; Thomas Wakley, Esq., £5; Dr. Wakley, £5; George Lawson, Esq., £5; Dr. F. J. Mouat, £5; J. C. Whaley, Esq., £5; Harman Visger, Esq., £3 3s.; Miss Adela Bosanquet, £3 3s.; Christopher Heath, Esq., £3 3s.; Berkeley Hill, Esq., £3 3s.; Dr. Horsefall, £3 3s.; A Friend, £3 3s.; Sir Ed. Saunders, £2 2s.; T. Wakley, jun., Esq., £2 2s.; Dr. Stiven, £2 2s.; Dr. Elliott, £2 2s.; Dr. B. A. Duncan, £2 2s.; F. Simms, Esq., £2 2s.; A. Benthall, Esq., £2 2s.; Dr. Rogers, £2 2s.; A. J. Pepper, Esq., £2 2s.; G. B. Sweeting, Esq., £2 2s.; J. Tweedy, Esq., £2 2s.; Dr. Domett Stone, £2 2s.; J. A. Gartley, Esq., £2 2s.; Dr. J. H. Lilley, £2 2s.; W. D. Dunn, Esq., £1 1s.; A. J, Purnell, Esq., £1 1s.; J. J. Pope, Esq., £1 1s.; John Messent, Esq., £1 1s.; J. Brown, Esq., £1 1s.; Surgeon-Major Spence, £1 1s.; C. E. Whiteford, Esq., £1 1s.; F. Magnuss, Esq., £1 1s.; T. M. Stone, Esq., £1 1s.; Mrs. Rawsetti, £1 1s.; Dr. Richards, £1 1s.; Dr. Collins, £1 1s.; T. Cooke, Esq., £1 1s.; Dr. J. B. Riley, £1 1s.; James T. Hyatt, Esq., £1 1s.; Dr. W. A. Satchell, £1 1s.; An Old Pupil, £1 1s.; T. Harley, Esq., Haverstock Hill, £1 1s.; J. Baines, Esq., Birmingham, £1; Surgeon R. W. Barnes, £1 1s.

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), Manchester Square; Professor Tweedy, F.R.C.S., 24, Harley Street, hon. treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower Street, and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe Gardens, hon. secretaries; or to Messrs. Coutts, Strand.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S, 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society, 8.30 P.M. Dr. Carrington: Lympho-sarcoma of the Gastro-intestinal Mucous Membrane. Dr. Hadden: Tumour of the Bladder. Mr. George Lawson: Congenital Growth in the Orbit. Mr. Kesteven: Tumours of the Brain. Mr. Hutchinson, jun.: Gastritis in a Bear. Mr. Poland: Sebaceous Cyst from Finger. Dr. Howard Tooth: Congenital Malformation of Heart. Dr. Frederick Taylor: Gumma of Dura Mater and Syringo-myelus. Mr. Sutton: Rickets in the Monkey (three cases).

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. A. Q. Silcock: Some Points in Connection with the Origin of Talipes Varus. Dr. W. Squire: On Normal Growth-rate in Infancy and Childhood.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annua and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

APPEAL: THE LATE MR. BOAST OF WYMONDHAM, NORFOLK.

SIR,—This is an appeal on behalf of the widow and four young children of the above-mentioned surgeon. After practising many years at Wymondham, he died last year, leaving his family almost totally unprovided for. He had a lingering illness, the expenses of which, including those of locum tenens, etc., swallowed up a considerable portion of what small means he had.

It is to be regretted such appeals should have to be made; every one, however, is an argument in favour of some kind of provident scheme.

I may mention that the above-named case is recommended by Mr. Wm. Cadge and Mr. Burton of Warwick, the latter of whom will act as secretary and treasurer of the fund to be subscribed. Subscriptions may, therefore, be paid either to him, to myself, or to Mr. J. D. Allman, care of Messrs. Hewlett and Son, Wholesale Chemists, 40, 41, 42, Charlotte Street, Great Eastern Street, E.C.

The following subscriptions have been promised:—

	£	s.	d.
Mr. Wm. Cadge	5	0	0
Mr. Haynes Robinson	3	0	0
Mr. S. H. Burton	2	0	0
Mr. D. W. Hughes	1	1	0
Mr. G. Jackson	2	2	0
Mr. J. D. Allman	0	10	6

Further subscriptions will be acknowledged in the JOURNAL.—I remain, yours sincerely,

GEO. JACKSON.

1, George's Terrace, Plymouth, October 6th, 1883.

DR. A. PROWSE'S contribution has been duly received.

THE RELATIONS BETWEEN CONSULTANTS AND GENERAL PRACTITIONERS.

SIR,—I should like to be allowed to make a few remarks in reference to Dr. Newth's paper on the Relations between Consultants and General Practitioners, as published in the JOURNAL of October 6th. No doubt Dr. Newth's observations contain much that is correct, and with which most of us will be inclined to agree. What he says about the prescription of "quack" medicines is especially true. I am afraid that it is too much the practice with some physicians and others to save themselves trouble by prescribing patent preparations, whereby quackery and the nuisance of advertising, from which we all suffer, are indirectly encouraged.

Certainly, also, physicians and surgeons should avoid, as far as possible, seeing patients independently of the latter's usual attendants. This, however, cannot always be avoided; and I believe that, as a rule, it is not intentionally done; and that, when it is, the fault lies more often with the patient, who, from motives of economy or for other reasons of his own, manages to avoid mentioning his usual attendant, than with the physician or surgeon. But Dr. Newth commences his paper with a very startling assumption. He assumes that there "has always been more or less tacit opposition between physicians and general practitioners." There are, of course, exceptions to every rule, "black sheep in every flock," among consultants as among general practitioners; but Dr. Newth appears to have been particularly unfortunate in his consultations, for I may safely say that, after upwards of twenty years' practice as a general practitioner, during which time I have had the pleasure of meeting a very large number of physicians and surgeons in consultation, I can only recall two instances in which my relations with the consultants have been otherwise than most cordial. These two cases, with the particulars of which I need not occupy your space, were quite exceptional. I have certainly never been "snubbed."

Our great Association has done much excellent work during its life of half a century, and its success cannot be denied; but I sometimes doubt whether our success has not been greater than is altogether good for us, and whether a little more wholesome opposition would not have been beneficial; for I fancy that often, when we attempt to preach professional morality, our doctrine is apt to savour somewhat too strongly of trades-unionism. I think, also, that there is something very undignified in the cry that is too often uttered for our "noble profession to be raised to the honour and dignity socially that the Army and Navy and the Bar occupy." I affirm that our "noble" profession has attained a social position fully as honourable and dignified as any of those named. It rests with each of us, I hold, to maintain its honour and dignity in our own persons.—I am, sir, yours faithfully,

C. H. ALLFREY.

Nowlands, St. Mary Cray, October 7th, 1883.

P.S.—Since the above letter was written, I have noticed and read Dr. Clifford Allbutt's admirable and healthy address. I am well pleased to find from it that my instincts led me to express opinions which appear to agree so closely with those he so well expresses.

The Politics and Finance of the Medical Profession.

SIR,—I think the very excellent letter of Dr. James Milward in the JOURNAL of July 14th is amply sufficient to convince even the greatest sceptic how the "noble profession" generally is situated socially and financially. I remember once having read in a periodical that the ranks of the profession were recruited from the middle and lower classes of society. Now, this is not strictly correct, but it is partly so, especially with regard to country practitioners; and it is concerning them mainly that I wish to speak.

Nowadays, owing to the poor income and social standing of the "country doctor," gentlemen's sons fight shy of medicine, and enter either the Church or some business; and, as we are going on now, I am sure they will continue to fight shy of it, unless they have philanthropy for their object, and treat the sick and needy for charity's sake alone, being independent of their profession for a livelihood. Why is this? Because the position of the modern country practitioner is now little better than that of a chemist; he prescribes medicine, which he dispenses himself; in other words, he sells it; he also provides instruments, and is, of course, obliged to sell them, with or without profit, no matter to us which. Moreover, he attends the poor who cannot, and the niggardly who will not, pay; the club-patient who thinks he can, as Dr. Milward justly says, "order you about at his sweet will and pleasure."

Do you think society does not know this, and look down upon the general practitioner with contempt for it?

Look at the Army Medical Service, too! Although the officers are too gentlemanly to say it, they undoubtedly do look down upon the "doctor," who is "attached" to them for a time only, and is not one of themselves, knowing that, as frequently as not, he is either too poor to share their sports and pleasures, or not a gentleman bred and born. And still this department is now comparatively well paid.

Financially, in these days of competition, bad trade, and railway facilities, the poor doctor is badly off. He does not raise his fees; if he do, his patients complain, and try some one else who charges less. Again, he cannot raise the club-subscriptions, or what happens? Another medical man is advertised for by the clubs, comes down to the town or village, and sets up in opposition. I say, therefore, with Dr. Milward, that the one thing requisite before any advance whatever can be made in either finances or society is union, and union in its entirety.

Now, how could or can this be effected? To be of any use, it would necessitate an alteration even in the rules of institutions, and of bodies granting diplomas and licences. The first thing would be to appoint local committees to fix upon minimum fees to be charged within their own districts. But how could the profession be bound to adhere to this plan? I myself see here a great difficulty. Would universities disallow the further use of their titles and diplomas in case their new laws (made to assist the decision of the local committees before-mentioned) were disobeyed? And then, again, our American and Continental friends would step in. What then?

As I have said before, nothing but union in its entirety could be of any service. Can any readers of the BRITISH MEDICAL JOURNAL offer suggestions here?

If ever a time did exist, now is the time for agitation. Medical reform is the movement of the day. Let it be thorough. And I would say, let medical practitioners make a stand against, and forsake for ever, the abominably degrading practice of dispensing for themselves, thereby equalising themselves with druggists. Let them read the correspondence in the BRITISH MEDICAL JOURNAL of March 31st, 1883, concerning it. Let them by all means raise their fees, instead of selling medicine, and let druggists be prevented from making up the same prescription more than once, unless it is stated to the contrary.

With regard to fees, I believe this to be a fact (deny it who can), that those who pay a bad price, must expect a bad article; in other words, a medical man cannot afford to give as much time and thought to a case for which he receives, say, 2s. 6d., as he could to one for which he received 7s. 6d. or half-a-guinea. At any rate, I do not think one man in ten does, when he is at all pressed for time, as must often be the case with those who receive small fees.

Again, I ask, Can a man study his cases, and refresh his memory from authorities, when he is so pressed for time? I hold that it would be far better for the public, as well as for the profession, if the general practitioner were paid well enough to allow him to give more thought and to dispense less medicine (or none at all) to his patients.

In conclusion, if we improve our position financially by union, which, too, would help medical etiquette, we should, without doubt, improve our social position tenfold.—I am, sir, yours, etc.,

MIDLANDS.

The South-Eastern Branch: East Sussex District.

IN the JOURNAL, September 29th, the name of the chairman who presided at the last meeting of the above Branch, East Sussex District, was inadvertently misprinted "Dr. Hewitt," instead of "Dr. A. H. Newth."

SURGEON-MAJOR MOORHEAD, Malines.—The universities in question deservedly occupy a place in the first rank as institutions for medical teaching. The University of Edinburgh is excelled by none.

Removal of the Thyroid Gland.

M.B. will find a full description of the operation for removal of the thyroid gland in an article by Dr. Patrick Heron Watson, in the *Edinburgh Medical Journal* for September 1883. The steps of the operation may be thus briefly given: A linear incision through the skin in the middle line of the neck, extending from the chin to the top of the sternum; division of the fascia passing across the front of the neck from the sterno-hyoid and sterno-thyroid muscles on one side to those on the other; deligation of the superior and inferior thyroid arteries, as close to their origin as possible, on both sides of the neck, the sheath and immediate fascial coverings of each of the vessels being included in the ligature; division of the capsule of the thyroid, and careful removal of this gland, its attachments being divided by means of curved and blunt-pointed scissors.

Mr. Lister has suggested and practised a modification of this operation (*Transactions of the Clinical Society*, vol. xiv, page xlv). After the preliminary deligation of the thyroid vessels, this surgeon would divide the gland in the middle line, so as, in the event of adhesion to the trachea, to be able to remove the two halves of the growth at leisure.

Dr. Watson's operation is described at length in the *System of Surgery*, by Holmes and Hulke, and also in Ashhurst's *Encyclopædia of Surgery*.

Medical Practice in the United States.

SIR,—Will you, or any member, kindly give some information on the following questions.

1. Is the practice of medicine open to anyone in America, and, if not, in what way is it restricted?

2. Are the laws, if any, applying to medical practitioners, as such, common to all the states, or has each state its own independent laws, or statutes in addition to such common laws?

3. Are the qualifications of any one state recognised by all the others, and would there be any difficulty regarding the recognition of a British qualification?

4. What drawbacks may there be connected with the climate, etc., in those parts of California recommended as healthy and suitable for people inclined to phthisis; and what prospects are there to a medical man as to making his living by his profession alone, or in combination with agriculture?—Yours, etc.,

X.

*** 1. The practice of medicine is open to any one in most of the states—California, Florida, Georgia, Illinois, Kentucky, Louisiana, Ohio, South Carolina, and Wisconsin, recognise European degrees and diplomas, which must, however, be registered according to the law of the state. New York requires a licence, or diploma, or a degree from one of the institutions of the state. Pennsylvania requires a degree of Doctor of Medicine, and a medical diploma, from some institution authorised to grant diplomas.

2. There is no common law regulating the practice of medicine in the United States. Each state has its own law—or, as is the case in the majority of instances, none.

3. The answer to this question is contained in the preceding answers.

Our correspondent should consult Dr. Hardwicke's *Medical Education and Practice in All Parts of the World* (London: J. and H. Churchill).

A Puzzling Case.

SIR,—I should be greatly obliged if any of your correspondents could give me a hint for the treatment of the following case. The patient is thirty-five years of age, and has had two slight attacks of gout. In 1874, there was slight hæmaturia, with muco-pus and large crystals of oxalates in the urine. Nothing further was noticed till 1876, when more muco-pus appeared, the urine always depositing more mucus than normal. In 1878, muco-pus again appeared, with a few drops of blood at the end of micturition for two or three times; with the exception of the continued deposit of muco-pus, nothing occurred till April of this year, when a severe attack of prostatitis, and probably cystitis, took place. The symptoms were frequent micturition, straining, severe pain in perinæum and neck of the bladder, and a little bleeding at the end of micturition, and the urine contained copious deposits of pus and mucus. Under treatment, the attack subsided, but the bladder became very irritable again about a month afterwards; and the present condition is: frequent and more or less painful micturition, disturbed nights, occasionally a few drops of blood, copious muco-purulent deposit in the urine, and a tendency to incontinence of urine at night. All the symptoms are referred to the neck of the bladder and prostate. The best advice has been obtained, and no satisfactory diagnosis made. The drugs tried embrace buchu, pareira, uva ursi, iodide of potassium, colchicum, copaiba, iron, ergot, Chian turpentine, lithium, and belladonna; but no relief has been given.—Yours faithfully,

A MEMBER.

*** A careful exploration of the urethra and bladder should be made with the sound and catheter, with the view of ascertaining the possible presence of stricture or calculus. The symptoms also suggest chronic cystitis, set up by some neglected urethral discharge, or tubercular disease of the genito-urinary tract.

Treatment of Hydrometra.

SIR,—I should be much obliged if any experienced obstetrician or gynæcologist among your readers would do me the favour of suggesting treatment likely to prove beneficial in the following peculiar case of hydrometra.

The affection first occurred in my patient about four years ago, after abortion resulting from a fall. It is characterised by sudden gushes of water, having the smell of liquor amnii; it occurs with equal frequency in the pregnant and non-pregnant state—perhaps rather more frequently in the former state—and occurred in both the earlier and later months of a former pregnancy; now with great frequency in the fifth month of her third gestation. Her age is about 35. The only premonitory symptoms which have been observed are: in the non-pregnant state, in addition to abdominal enlargement for an indefinite time before the discharge of the fluid, an attack of angina pectoris, from which she occasionally suffers independently of the affection, but when associated with it, it is immediately relieved on the escape of the fluid, or more slowly by inhalation of nitrite of amyl; in the pregnant state, the collection of fluid is announced by enlargement out of proportion to period of gestation, as well as by a tendency to faintness, with coldness and pallor of surface, which is often increased by the discharge; it is frequently so profuse as to saturate my patient's clothes, and to collect in a pool on the floor, even when sitting.

Among exciting causes seem to be overexertion, mental emotions, such as annoyance, fear, anger, or any sudden mental shock, also stimulants; but the attack sometimes occurs independently of these. There is a strong probability of hereditary gout; also an inherited neurotic tendency.—I am, sir, yours faithfully,

AN ASSOCIATE.

P.S.—I ought to have said that, when not pregnant, the menstrual periods are normal, and there are no symptoms of uterine disease.

A Question of Etiquette.

SIR,—A. sells his practice to B., and removes into another county. Some years afterwards, an old patient sends for A. to see him, but he is not under the care of B. Should A. attend? and, if so, can he charge for his attendance, without breaking his agreement with B. not to practise in the neighbourhood?—I am, etc.,

OXON.

*** Under the circumstances mentioned, A. should not enter into B.'s district, either for paid or for unpaid practice.

ASYLUM FOR IMBECILES.

SIR,—Can any of your readers tell me of a home or establishment, on a smaller scale than Earlswood and the Albert Asylum at Lancaster, where an idiot boy can be received? He is nine years old, and has been taught to read well; but it is thought desirable to place him now with other children in some home where he will be carefully taught and trained.—Yours, etc.,

Walsall, September 26th, 1883. G. A. PHILLIPS.

DELTA.—Gray's *Anatomy*, Green's *Pathology*, Barnes's *System of Obstetric Medicine and Surgery* and *Diseases of Women*, Parkes's *Hygiene*, Royle's *Materia Medica and Therapeutics*.

AN ADVERTISEMENT.

WE are asked to reproduce the following advertisement from *Lloyd's Weekly News*. It speaks so plainly for itself that comment upon our part is unnecessary.

"Loss of Nerve-Power—its cure. Dr. Watson Bradshaw, registered physician (formerly Staff-surgeon R.N.), of 43, Welbeck Street; author of "The Anatomy of Dyspepsia," "Brain and Stomach," "Deuteropepsia," etc., gives advice on nervous debility to poor patients for 5s. on Tuesdays and Fridays—Mornings, 9 to 10; evenings, 7 to 9."

SIR,—Would you, or any member, through the medium of the JOURNAL, kindly inform me what is a good or the best book published on the subject of Local Government Board orders and rules relating to the duties of boards of guardians, and also their medical officers?—I am, etc., GUARDIAN.

*** The most complete work on the whole subject is *The Orders of the Local Government Board—Poor-law, Sanitary, Vaccination, and Educational* (Knight, 12s.), prepared by some of the officials of the Local Government Board; Lumley's *Manual for the Poor-law Medical Officer* (Knight, 6s.); *The Medical Officer's Hand-book* (Shaw, 2s. 6d.); and Banke's *Poor-law Guardian* (Shaw, 5s.), may also be mentioned with approval.

QUÆRENS.—We understand that the publication of the report on the matter to which you refer must not be expected before Christmas. This seems, under the circumstances, particularly unfortunate.

THE BEST DEPILATORY.

SIR,—The only reliable way to remove an excessive growth of hair (Hirsuties) from the upper lip and chin of females is by electrolysis. By this method I have permanently removed over two thousand hairs from the face of one lady, as well as several smaller growths from the upper lip and chin, and on moles, etc., in other instances. The ordinary depilatory powders, containing sulphide of calcium or sodium, do not affect the hair-follicle, and are, therefore, but of temporary benefit. The method of applying electrolysis which I adopt is accurately described in Duhring's *Diseases of the Skin*, third edition, p. 425.—I am, etc., J. MAGEE FINNY, M.D.

19B, Baggot Street, Dublin, October 1st, 1883.

SURGEON-MAJOR, A.M.D., Peshawur, Punjab, can obtain a copy of the Report of Lord Morley's Committee from Messrs. Hansard, 13, Great Queen Street, London, W.C., or Messrs. Eyre and Spottiswoode, East Harding Street, Fleet Street, London.

TAPPING IN ASCITES.

SIR,—I have read with much interest Dr. Flint's paper on Early Tapping in Cases of Ascites. In it he mentions that the instrument he uses for aspirating is not that of Dieulafoy, but a simpler and cheaper contrivance, known in the United States by the name of Davidson's syringe. Perhaps he would kindly state where the above apparatus can be procured, and its probable cost?—I am, etc., GEORGE R. LEEPER, M.D.

Kesh, Co. Fermanagh, September 29th, 1883.

A MEMBER.—Under ordinary circumstances the payment would probably not be questioned. If it were refused, it might be difficult satisfactorily to prove agency.

A PRESCRIPTION FOR DISSOLVING PINS IN THE STOMACH.

SIR,—The following prescription came under my notice, given by a practitioner to a patient (a pregnant woman) who had, a few days previously, swallowed an ordinary pin. ℞ Ac. acetici *P.B.* ʒiv; mucilag. recentis ʒiv. M. ʒij in aquâ ʒj ter die. This mixture, it was stated, would dissolve the pin in about a week.

Knowing that most pins are made of brass wire tinned over, and also knowing the action of strong, and the non-action of dilute, acids upon them, I shall be glad if any member would kindly explain the *modus operandi* on the pin of the acetic acid *P.B.* mixed with equal parts of mucilage and the gastric juice of the stomach, and probably food. Would it be likely to have this solvent action?—I am, sir, yours truly, W. T. W. GREATHED,

16, St. James's Square, Bristol. Certificated Assistant Apothecary.

*** Such a prescription could exert little or no effect on the pin. On the other hand, metallic bodies become quickly and considerably corroded by the action of the juices in the alimentary canal.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. Davis A. King, London; Our Glasgow Correspondent; M.R.C.S.; Mr. G. H. Makins, St. Thomas's Hospital; Medical Officer of Health, Birkenhead; Dr. Neale, London; Mr. G. Lovepool, Llanfyllan; Dr. Rhys Jones, London; Dr. W. H. Arthur, London; Mr. J. Marshall, Doncaster; Mr. T. G. Horder, Cardiff Medical Society; Mr. B. G. Morison, London; Mr. J. W. MacDonald, Londonderry, Nova Scotia; Professor Greenfield, Edinburgh; The Secretary of the North of England Branch; Mr. E. W. King, Ilfracombe; Dr. A. H. Newth, Hayward's Heath; Mr. R. Mixon, Harrogate; Professor Rutherford, Edinburgh; Dr. F. Clarke, Southborough; A. H. Gibson and Co.; Mr. Henry Stear, Saffron Walden; Mr. W. Young, London; Mr. J. E. Looker, Levenshulme; The Examiners of Sanitary Science, Cambridge University; Dr. Sydney Ringer, London; Mr. J. B. Sincock, Bridgwater; Dr. Maurice G. Evans, Cardiff; Our Aberdeen Correspondent; Dr. J. Langdon Down, London; Mr. R. J. H. Scott, Bath; The Secretary of the Royal Medical Chirurgical Society; Dr. A. Y. Stewart, Waterford; The Secretary of the Pathological Society; Mr. G. Rendle, St. Thomas's Hospital; Mr. Alexander Forsyth, Greenwich; Dr. J. W. Martin, Sheffield; Mr. J. W. Bright, Forest Hill; Mr. W. T. Grant, Birmingham; Mr. J. V. Bourne, Liverpool; Mr. John Smith, Manchester; Mr. Bunce-Clarke, London; The Secretary of the West Kent Medico-Chirurgical Society, Lewisham; Dr. R. H. Semple, London; Dr. C. H. Allfrey, St. Mary Cray; Delta; Mr. R. Lyddon, Ramsgate; Sir William Smart, London; Mr. A. W. Loveridge, Wakefield; Dr. A. Kidd, Ballymena, Ireland; The Secretary of the South-Eastern Branch, Chatham; Dr. Sidney Coupland, London; Sir James Paget, Bart., London; Dr. Arlidge, Stoke-on-Trent; Dr. W. Orange, Crowthorne, Berkshire; Dr. M. Corner, London; Mr. P. A. Latham, London; Dr. Wilks, London; Mr. Radley, London; Mr. J. A. White, Pendleton; Dr. Green, London; Mr. W. G. Bacot, Blandford; Dr. E. A. Schäfer, London; Dr. B. O'Connor, London; Mr. C. MacNamara, London; Dr. H. Smith, London; Dr. W. H. White, London; Dr. Pye-Smith, London; Dr. S. O. Habershon, London; Dr. Roger Williams, London; Dr. Sawyer, Birmingham; Mr. John Reid, Rochdale; Dr. Rogers, London; Dr. J. Crichton Browne, London; The Honorary Secretaries of the Harveian Society; Dr. Michael Foster, Cambridge; Mr. J. W. Wood, Manchester; Dr. Collie, Homerton; Professor Hamilton, Aberdeen; Dr. Bond, Gloucester; Mr. H. O. Vell, Belfast; Mr. C. H. Thorp, Todmorden; Dr. Waller, London; Sir E. Lechmere, St. John's Ambulance Association; Mr. J. Gapal, Sanitary Commissioner, Punjaub; Mr. Arthur Jackson, Sheffield; Dr. C. J. Symonds, London; Professor Cleland, Glasgow; The Dean of Westminster Hospital School; Mr. G. Smith, Upper Clapton; The Dean of Westminster Hospital School; Mr. G. Smith, Upper Clapton; Dr. A. H. Bampton, Plymouth; A Member; Mr. H. Cribb, Bishop Stortford; Dr. N. Kerr, London; Mr. W. Johnson Smith, London; Dr. W. A. Brailey, London; Mr. George Jackson, Plymouth; Dr. Stopford Taylor, Liverpool; Dr. Mackie, Alexandria; Dr. M. Ribot, Paris; Mr. Shirley F. Murphy, London; Dr. R. J. Anderson, Belfast; Mr. P. Baillie, Bacup; Mr. W. Atkins, Matlock Bridge; Professor Stirling, Aberdeen; The Editor of the *Boys' Own Paper*; Dr. Rentone, Liverpool; Mr. Ernest Blacker, Midsomer-Norton; Dr. Saundby, Birmingham; Our Belfast Correspondent; Professor Humphry, Cambridge; Dr. Robertson, Devonshire Hospital; The Secretary to the Society of Medical Officers of Health; Dr. W. Dunnett Spanton, Hanley; Mr. H. W. Roberts, Lewisham; Dr. E. Dewes, Coventry; Mr. J. Booth Clarkson, Liverpool; Mr. Charles Knight, Ryde; The Honorary Secretaries of the "Hind" Fund; Dr. Holman, Reigate; Dr. Eustace Firth, Norwich; Dr. G. H. Fitzgerald, London; Mr. S. Plowman, St. Thomas's Hospital; The Secretary of the Perthshire Medical Association; Mr. Johnston Mackie, Glasgow; Mr. R. R. Anderson, Carmarthen; Mr. H. E. Armstrong, Newcastle-on-Tyne; Mr. Richard Davy, London; Dr. Norman Moore, London; Mr. J. F. Pink, London; Mr. W. F. Garbutt, Birmingham, etc.

BOOKS, ETC., RECEIVED.

Transactions of the Vaccination Inquiry. Part I. Edited by M. D. Makuna, M.R.C.S. Leicester: W. H. Lead. 1883.

The Present Aspect of the Antiseptic Question; being the Substance of the Oration for the year 1883 delivered before the Medical Society of London. By Edward Lund, F.R.C.S. Manchester: J. E. Cornish. 1883.

San Remo Climatically and Medically Considered. By A. H. Hassall, M.D. With numerous Illustrations. New Edition. London: Longmans, Green, and Co. 1883.

Study and Stimulants; or the Use of Intoxicants and Narcotics in Relation to Intellectual Life. As Illustrated by Personal Communications on the Subject from Men of Letters and of Science. Edited by A. Arthur Reade. Revised, with additions. Manchester: A. Heywood and Son. London: Simpkin, Marshall, and Co. 1883.

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AN ADDRESS

ON THE

RAPID DIFFUSION OF A KNOWLEDGE OF ADVANCES IN OPHTHALMIC THERAPEUTICS.

Delivered at the First Meeting of the Fourth Session of the Ophthalmological Society of the United Kingdom.

By JONATHAN HUTCHINSON, F.R.S., F.R.C.S.,
President of the Society.

After some detailed observations with regard to the business of the Society, Mr. Hutchinson proceeded as follows:—

The improvement of ophthalmic knowledge is unquestionably our first and by far our principal duty. I cannot but think, however, that it is possible that, in the future, such societies as ours may find another kind of work open to them, which is only second in importance. I allude to the systematic and strenuous endeavours to diffuse rapidly amongst the profession at large, for the prompt benefit of our patients universally, all items of new knowledge which may have been obtained. There are many directions in which thoughtful help might be given towards this end. We may, in the first place, endeavour to induce as many as possible to join us, and attend our demonstrations and receive our volumes. We shall not, however, in this way, reach any excepting London residents. We might, for instance, bring forward for discussion, occasionally, the commoner forms of eye-disease, such as are scarcely likely to be often made the themes of original communications. Not only would this help others, but it is very desirable, for our own good, that we should occasionally make recapitulation in public of our knowledge of common things, and thus ascertain how far our opinions have advanced towards unanimity.

There is another branch of the same topic on which I incline, if you will permit me, to enter into a little detail, since it offers, possibly, a sphere for much useful work in the future on the part of societies like ours. It is one, indeed, to which, perhaps, this Society, in particular, is more specially called than any other. I refer to the promotion of what may be named every-day therapeutics. It is obviously quite possible that the knowledge of diseases of the eye might be cultivated by a few up to a point of very high excellence, and with great finish of detail, and yet remain a possession of the specialist, and benefit but little the family practitioner and the public his patients. In some degree, this state of things is unavoidable, and in some departments of our practice we cannot hope ever to escape it. Still, however, it will be admitted by all to be a matter for regret. So far as we can do it, it is our duty to make such knowledge popular, to diffuse it over an area the widest that we can obtain. A practical knowledge of astigmatism is not to be expected from a general practitioner, possibly not even from all who are engaged in the treatment of eye-diseases as a specialty. The attempt to use the ophthalmoscope for purposes of diagnosis, although quite possible to a large section of the younger part of the profession, enjoying constant opportunities and fresh from hospital training, would probably, to by far the greater part, prove to be a source of error rather than a help. Skill in the diagnosis, and, as a necessary consequence, in the treatment of a not inconsiderable group of rare diseases of the eye, must always, despite any development of education which it is reasonable to hope for, and any artificial aid which can possibly be given, remain the possession of the specialist only.

But it is otherwise in respect to a majority of cases. Almost all the examples of the common forms of eye-disease come under the care, in the first instance, and often throughout, of those who are not specialists, and have, perhaps, never even had any training in an ophthalmic hospital. Circumstances over which no one has any control render this inevitable. Whether or not the surgeons concerned desire it, they must perforce take charge of "eye-cases" as well as of others. It is in reference to practitioners so placed that I would suggest that our Society has possibly a duty to perform.

If I trouble you with a few examples, I shall probably best be able to convey my meaning. Concerning the treatment of syphilitic iritis there is probably but little hesitation or difference of opinion amongst specialists; and perhaps I could hardly mention another disease respecting which the opinions of specialists are more widely known and accepted. That atropine should be used from the first, frequently, freely, and in strong solution, and that mercury and iodide of potassium are very useful, and ought always to be given, but in no degree compare in importance with mydriatics, I take to be the acknowledged canon; yet, in spite of our emphatic agreement in this matter, many eyes are lost every year for want of the prompt application of this knowledge. It would be easy to prepare an explicit *schema* for the treatment of this disease, giving the exact strength of the atropine, the frequency of its application, the precise dose of the mercurial, and suggesting a few of the more important means which help to success, such as a purgative, leeches to the temples, and low diet. This might be done in ten lines, and so printed in a visiting-list or pocket-book that it should be readily accessible to all. It would be better that such a *schema* should be propounded under the auspices of a society, than that it should come from an individual. In many parallel instances, the discussion and examination which such *schemata* of treatment would receive at the hands of our Society would, no doubt, be of great use in perfecting them, as well as in adding to their authority.

I do not doubt that there are, at the present moment, whilst I am speaking to you, in the homes, the schools, the workhouses, and the hospitals of England, some thousands of children who are suffering from ulcerations on the cornea, attended with intolerance of light, causing the patient great distress through many months, and destined often to leave disfiguring and incapacitating scars.

If my own experience may be trusted, I believe that three-fourths of these would be almost well in the course of a fortnight under the use of a very weak, yellow oxide of mercury-ointment. Many of them, no doubt, are getting it, but a considerable majority, probably, are not; for the rule of treatment is not yet universally acknowledged amongst specialists, and certainly not very widely known in the profession. If this Society could, after an examination of the subject, determine upon the recommendation of an explicit formula, which would be likely to result in the prompt cure of these very troublesome cases, it would confer an immense boon upon the public. Such a formula, so recommended, would be copied into every medical journal and into every manual. It would be reprinted over and over again, and would become the property of the whole profession.

Is it not somewhat humiliating to reflect that, if a quack were to bring out a very weak Pagenstecker's ointment, give it a telling name, and push it into notice as a specific for chronic inflammations of the eye, he would be a public benefactor? No doubt, it would often be used in error, but it would even then do little or no harm, and I have not the least doubt that the balance of gain would enormously preponderate. My own experience has been that, since I knew the virtues of this ointment, I have been able to abandon almost entirely the use of blisters, setons, and like painful measures, and to effect the cure in a tenth of the time. I have reason to think that a large majority of ophthalmic specialists have had a like experience. Yet we hesitate to come boldly before the general profession, and announce loudly an important item of progress. We fear to boast; we dread to impair the scientific spirit by the formation prematurely of general rules; and, seeking to quiet our consciences by reminding ourselves that, after all, the thing is no secret, we do nothing further in the matter. Our reticence is a loss to the nation; it is an injury to hundreds and thousands whom the benefits of modern ophthalmological science might reach, if we would only consent to throw aside our scruples.

Is it not a frequent failing amongst the more scientific part of our profession to become superfine? We dread the spirit of the charlatan and the self-seeker so much, that we come, like David when in presence of the sinner, to hold our peace even from good. In the individual, scrupulous care in these respects is most meritorious; nothing is less to be desired than that those who believe themselves to have made therapeutic discoveries, should deem it their duty to proclaim them ostentatiously. Let them be brought forward, in the first instance, quietly and under the cognisance only of those skilled to judge of them. But the fact that it is meritorious in individuals to abstain from pushing their favourite remedies, only throws the duty to which I have been alluding the more definitely upon public bodies like ourselves. No one could impugn our motives, or doubt our sincerity, and our verdicts would be received, not certainly as final, but as entitled, at any rate, to a temporary acceptance.

Let no one suspect me of wishing to stereotype knowledge, or to damp the ardour of any skilled person in the endeavour yet further to improve our therapeutic resources. There is no fear in that di-

rection; and what I am concerned to assert is this, that nine out of ten of the practising part of the profession would most thankfully receive from this Society detailed *schemata* for the treatment of various typical forms of eye-disease. Let me further add, without, I hope, hurting anyone's feelings, that I feel sure that the use of them would tend immensely to the benefit of their patients, as compared with the extemporised prescriptions now employed. It is not in the power, even of the most laborious of those engaged in family practice, to keep their minds well stored with details respecting the management of diseases, which, although very common with us, are rarities to them.

I might easily mention a number of special types and forms of eye-disease, purulent ophthalmia, rheumatic iritis, episcleritis, catarrhal ophthalmia, glaucoma, and the like, for which definite schemes of treatment could easily be laid down.

It will, I have no doubt, be objected that, after all, successful treatment depends upon the correctness of the diagnosis. This statement is almost as obvious as was the famous injunction to first catch your hare. It is no reason that, because diagnosis is difficult, therapeutics should be left in a muddle also. I might urge, further, that I believe, working in the same lines, this Society might do much to put the diagnosis of eye-diseases more easily within the reach of British practitioners in general. There is no one present who has not been pained over and over again by having to treat cases of glaucoma which were brought to him too late. In spite of all that has been done by specialists, and in spite of the fame which iridectomy-cures have obtained, it is still the fact that a large proportion of cases of acute glaucoma are unrecognised during the first fortnight by those under whose observation the patients come. Practitioners of the most scrupulous care, of wide general information, and the most conscientious regard for their patients' good, are yet very commonly misled by the acute congestion and severe constitutional symptoms which often attend the early stages of this disease. It was my fortune, some years ago, to operate upon three cases of this kind in one week, in all of which the proper time for interference had been allowed to pass by, on account of the patient's severe general illness. In one instance, I became acquainted with the facts of a case, in which a benevolent country surgeon, aided by two or three friends, was himself maintaining a lady who had lost her sight, and consequently her occupation, from double acute glaucoma. He had himself attended her from the beginning; and when I gently hinted at the possibility—to me a practical certainty—that iridectomy at the proper time would have saved the lady's sight for the rest of her life, he promptly replied, "that the eyes were so much inflamed in the first instance, and the patient so ill, that he was quite sure I should never have thought of operating. I said no more; for it would have been cruel to tell him that these were the very symptoms which denoted the necessity for an operation.

Some years ago, n the early days of the kerotome, I felt so strongly on this subject, that I had some thoughts of engaging a full page in a medical paper for a big red-lettered anonymous advertisement, so staring that all must read it, stating, in a dozen words, the symptoms and inevitable result of glaucoma, together with the certainty of its cure by operation. And now, looking back upon such impulses of enthusiasm, I do deliberately declare my conviction that a Society like our own would have been more than justified in taking such a step. At that time, acute glaucoma probably had, on British soil alone, its daily victim whom it left in irrevocable blindness. In the present day, the number has been greatly diminished, but it is still, no doubt, very considerable. Our confidence in the remedy which we then hailed has remained unshaken; and it is most certainly a very melancholy thought that there are thousands now living without sight who might have saved it very easily had there existed any efficient means for the rapid diffusion of the new knowledge.

I must not trespass further upon your patience in this matter. Briefly, what I desire to urge, is this: that we ought not to be content with doing our utmost to make knowledge perfect, and to secure its application in our own immediate spheres of action, but it is well worth a thought whether societies like our own have not duties to perform in respect to its diffusion. I will not for a moment doubt that a subject so important will receive from you such attention as your judgments may deem it entitled to.

Is it too much to hope that something of the nature of a compendium of ophthalmic therapeutics may sometime be prepared, which shall bear the authority of a society's consensus? Such a code should, of course, be destined to modification from time to time; but it would probably, from the first, be a great advance upon the statements of any individual, both in explicitness, in brevity, and in the amount of practical experience which it would summarise.

Should the Society see its way in the future to any action in this matter, much colateral advantage might be expected by the more detailed attention to therapeutics, which could be given by the committees appointed to report.

Had time permitted, I might have ventured to bring before you a few other suggestions, as to work which the Society might undertake collectively. Such, for instance, as systematic examination of symptoms, with the object of defining and describing them more accurately, of preparing detailed lists of the more rare types and forms of disease, and giving to each its concise description; and possibly, after this were done, of preparing nosological lists, which might assist the labours of hospital registrars.

CLINICAL LECTURE

ON

TIBIO-FEMORAL IMPACTION: A NEW METHOD OF PERFORMING RESECTION OF THE KNEE-JOINT.

(Delivered July 13th, 1883.)

BY RICHARD DAVY, M.B., F.R.C.S.,

Surgeon to, and Lecturer on Practical Surgery at, the Westminster Hospital and Medical School.

GENTLEMEN,—I shall endeavour to-day to interest you on an operation recently performed by myself on a patient in this hospital, and shall preface my lecture by some general observations on resection of the knee-joint, and then concisely state the clinical facts relating to this special case.

Resection of the knee-joint was originally practised by Park of Liverpool, and especially promoted by the late Sir William Fergusson; it is now generally practised by operating surgeons, except in the case of young children. I myself do not adhere to this exception; my reasons will be given later on. It is somewhat strange that comparisons are still made between excisions of the elbow and those of the knee. The two extremities are diametrically opposed both in function, in operative detail, and wished-for result after the operation. Let me briefly point out some of the many differences. Fergusson pithily states that "the upper extremity is carried; the lower has to carry." One is the representative instrument of the most varied, delicately educated motion; the other, the columnar support in locomotion. The one is active; the other, comparatively passive. In the two operations—excision of the elbow and knee—the first is carried out by a longitudinal, the second by a transverse incision; the elbow-case is set up in the flexed, the knee in the straight position; passive movement is granted to the one, the utmost fixity to the other. And the wished-for result, after an excision of the elbow-joint, is free and complete mobility; after an excision of the knee, the surgeon's aim is absolute and rigid osseous ankylosis. The two extremes meet in common, surrendering the articular ends of their component bones, and leaving somewhat shortened limbs.

I place before you twenty-one cases of excision of the knee performed by myself in this hospital, showing the duration of treatment, the disease, and the results. As you all know, no special antiseptic precautions in the way of dressings are practised by myself; only those which, I trust, are ever at the hands of well-trained, clean, and careful surgeons. A hair-brush will remove discharge painlessly; but, in my opinion, the less a wound is meddled with, the better. By good luck, I have never lost a case of excision at the knee-joint, and have only been compelled to amputate once (Case 14). This man had extreme rectangular deformity of his knee; and bringing his limb down to the straight line apparently stretched his popliteal artery so far as to cause flattening of its walls and more or less obstruction to the circulation of his leg and foot. Gangrene supervened, and was checked by amputation so planned as to divide only the soft structures which were left undivided by the previous excision.

My cases fully corroborate the views of Humphry and Pemberton, with regard to the non-symmetrical growth of the lower limb, after intrusion on the epiphysial ends of the femur and tibia. The following is the history of my last case.

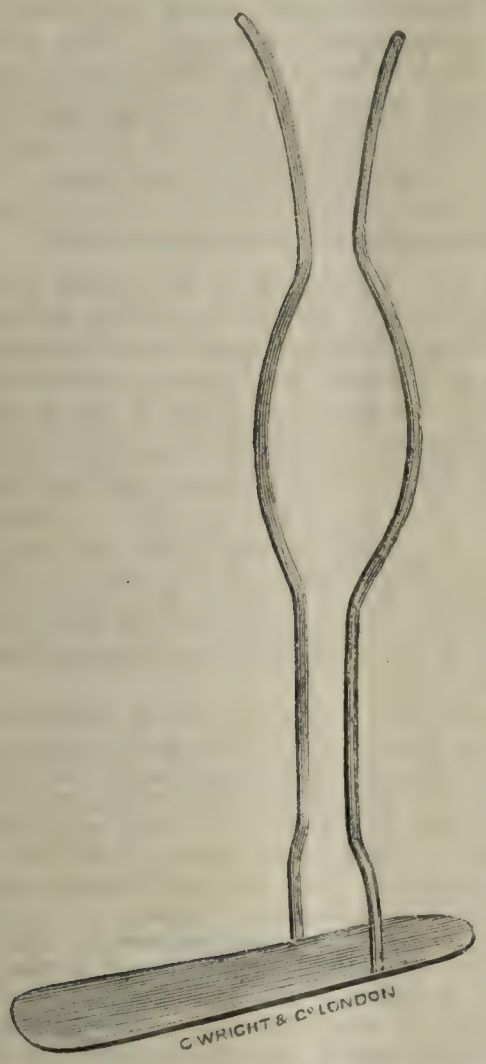
Susan Burls, aged 16, Brixton, was admitted into Percy Ward,

List of Cases: Resection of the Knee.

No.	Sex.	Age	Admission.	Year.	Day of Operation	Complaint.	Nature of Operation.	Days in Hospital.	Days after Operation.	Discharge	Result.
1	Boy	13	May 23	1871	May 30	Disease of the right knee: genu valgum	Excision of internal condyle of femur	84	77	Aug. 15	Recovery.
2	Girl	2	April 15	1872	May 14	Deformity: left ankylosis	Excision of bony wedge	78	48	July 2	,,
3	,,	1	Feb. 24	1873	March 4	Deformity: right ankylosis	Ditto ditto.	149	110	July 23	,,
4	Boy	8	July 21	1873	July 28	Suppuration of right knee-joint	Excision of right knee-joint	89	82	Oct. 18	,,
5	,,	4	Jan. 1	1874	Jan. 13	Suppuration of right knee-joint	Ditto ditto.	119	115	April 29	,,
6	,,	3	March 2	1874	March 24	Right fibrous ankylosis	Ditto ditto.	86	64	May 27	,,
7	,,	8	May 16	1874	May 19	Ankylosis: left deformity after resection	Excision of previously excised knee-joint	81	78	August 5	,,
8	Girl	11	April 14	1875	May 18	Right chronic synovitis with deformity	Excision	110	76	August 28	,,
9	Boy	14	May 25	1875	June 1	Right genu valgum	Ditto.	162	156	Oct. 28	,,
10	Girl	4	Nov. 2	1875	Nov. 9	Strumous degeneration and right dislocation	Ditto.	110	103	Feb. 20	,,
11	Boy	14	May 6	1876	May 9	Left deformity and ankylosis	Excision of the whole joint	72	69	July 17	,,
12	Girl	11	March 6	1878	March 13	Right synovitis	Excision	76	69	May 28	,,
13	,,	9	Feb. 15	1878	Feb. 26	Right acute synovitis	Ditto.	92	81	May 16	,,
14	Man	24	March 16	1878	March 19	Left rectangular deformity	Ditto.	54	51	May 9	,,
15	Girl	15	June 20	1878	July 2	Right rectangular deformity	Wedge freely cut out	104	92	Oct. 2	,,
16	Boy	5	Feb. 7	1879	Feb. 11	Dislocation: right old synovitis and necrosis	Wedge cut out	102	98	May 20	,,
17	,,	6	July 28	1879	July 2.	Right synovitis	Excision	109	108	Nov. 15	,,
18	Woman	30	May 16	1879	May 27	Left synovitis	Ditto.	63	52	July 29	,,
19	Boy	6	Jan. 5	1880	Jan. 20	Left ankylosis	Ditto.	152	138	June 7	,,
20	Girl	11	Jan. 14	1880	Jan. 27	Chronic right synovitis	Ditto.	68	55	March 23	,,
21	Girl	15	Feb. 5	1883	Feb. 13	Deformity after resection, 1870	Tibio-femoral impaction	138	130	June 24	,,

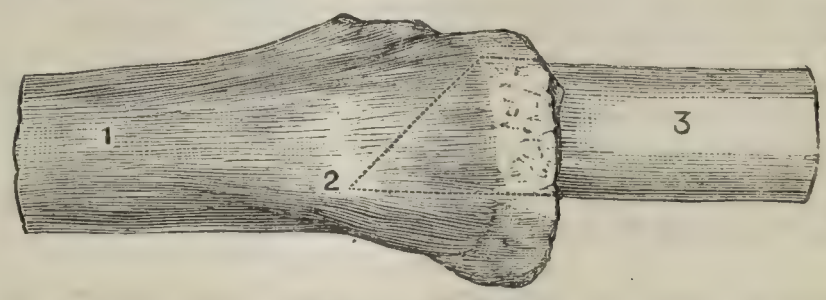
Osseous ankylosis occurred in all cases, excepting Cases 1 and 14.

under my care, on February 5th, 1883. In 1870, when three years old, she was admitted into St. Thomas's Hospital. Mr. Croft excised her left knee-joint for synovitis, set up by a fall on a greasy floor. She recovered; but, shortly after her leaving the hospital, her left leg was drawn back by the hamstring group, and by the superimposed weight of her body, until the back of the thigh rested on and touched the back of her leg. (A cast was shown of the deformity.) The patten on which she walked measured twelve inches; and she



had to stoop on the right leg to accommodate her left contracted one. On February 13th, 1883, I removed a rectangular wedge of bone from her femur and tibia, cut a mortise in the head of the tibia, and shaped the femur as a tenon; placed the femur in the head of the tibia, and applied direct pressure on the left foot, until impaction resulted up to fixity of tenure. The leg was placed in the splint here shown; and, without a single bad symptom, and without any dressings, the patient made a steady recovery. (Cast shown of the thigh and leg after operation.) She gained thirteen inches in height, and walks famously with a cork boot. My colleague, Mr. Macnamara, repeated this operation in my presence on July 14th, 1883; Mr. Macnamara's case had been a long sufferer, and her thigh had been condemned for amputation. She is yet in the hospital. The annexed woodcut shows well the result of the tibio-femoral impaction.

1. The tibia.
2. Wedge-shaped end of femur, driven into the head of the tibia, marked by a dotted line.
3. Shaft of the femur.



Tenon and Mortise.

We will now discuss the reasons for advocating tibio-femoral impaction in cases of resection of the knee; especially in cases of ankylosis, or relapsed cases. Let me impress on you two grand maxims bearing on this operation.

1. Maintain the bones in absolute fixity.
2. Do not meddle with the case from the day of operation until recovery is established.

By this new method of tibio-femoral impaction, osseous ankylosis (so to speak) is established before the patient leaves the operating table; and many surgical contentions are removed, such as the misplacement of the bones by startings, jerks, or inefficient bandaging. In Case XVII, the boy had convulsions for twenty-four hours after the operation; and, thanks to the sister's and my own bedside restraint of the ends of the bones, grating injury was partly prevented. The circumstance made a very forcible impression on my mind; and I consider that tibio-femoral impaction relieves the surgeon from this grave source of anxiety. I have constantly seen an excision case neatly and accurately adjusted on the operating table, displaced antero-posteriorly or laterally by the time the bedside is reached; due to the transit of the patient and involuntary spasm; and what surgeon worthy of the name has not felt a pang at so quick a secondary interference? Place your patient's limb at once in a swing cradle, hitching up the

side-irons to a convenient height, and, so far as possible, in a position comfortable to the owner. The splint engraved above is a very excellent one for the purpose; fixing the knee, the foot, and the limb; with wide margins at the heel, ankle, and knee; it is capable of the most accurate adjustment. And then, do withhold your interference, either by dressings or readjustments. If your antiseptic dressings are potent enough to kill the supposed germs, they run a risk of killing your patient; cleanliness is all that is wanted; and, in my opinion, the only advantage gained by the antiseptic method is to remind the careless to be careful. There are some who accept the variegated light of a stained glass window, and clerical formalities, as accessories to religious fervour; there are others who can do their duty perfectly well without them.

Lastly, we must allude to the comparisons which are made between the remnant after an excision of the knee, and a stump after amputation of the thigh. In my judgment, decision must be given in favour of the remnant after excision, both in length of limb, utility, and even appearance.

Some surgeons say that the intrusion on the epiphyses in excision of the knee interferes with the growth of the limb, and that such dwindled limbs prevent their performing this operation on children. Does not amputation of the thigh, by one fell swoop, interfere far more with the growth of the limb? Is not even half a limb better than no limb at all? Tibio-femoral impaction secures osseous ankylosis, and prevents relapsing distortion; and is not a human foot at the end of an osseously fixed limb (shorten it as you please) the best finish? Does there exist such an enthusiastic machine-maker as will pit his contrivance, however ingenious, against his Creator's model? I protest, in the plainest English at my command, against any operator pruning a limb so as to fit the stereotyped patterns of any tradesman. And with reference to appearance, I have never yet seen a stump so graceful as to drown the floating thought "abruptly unnatural." Strip the two cases naked, excision of knee, and amputation of thigh; the former will be less likely to offend our senses than the latter.

I must take exception to a common error, quoted by Fergusson and other surgeons, in comparing the advantages of excision of the knee with an amputation of the thigh. Fergusson speaks of an amputation of the thigh as "a formidable operation which involved great risk to life, and included the actual loss of wellnigh *one-fourth* of the frame." Feeling how exaggerated this argument was, I took the weight of an emaciated woman (*post mortem*); then amputated her right thigh as high up as the trochanters permitted, and weighed the limb. I found the proportion in pounds was as 56 (the whole body) to 6 (weight of the limb); so that the proportion relatively is reduced from one-fourth to about one-ninth or one-tenth.

I trust that in these comments on resection of the knee I have pointed out a mechanical plan of treating these operations which will help to ensure success, prevent relapse, and render the operation available for young persons. The same method of impaction is applicable also to ununited fractures, and will, may be, lead to further improvement in the practice of our surgical art.

TWO CASES OF URINARY ABSCESS FOLLOWED BY FISTULÆ IN PERINÆO: PERINEAL SECTION: CURE: WITH REMARKS.

Read before the West Kent District of the South-Eastern Branch.

BY F. BOWREMAN JESSETT, F.R.C.S.Eng.

CASE I.—J. B., aged 38, was, in May 1868, at a field-day, at Bangalore, in India. When attempting to jump a ditch, his horse refused, and he was pitched on to the pommel of the saddle, receiving a severe bruise in the perinæum and scrotum. This caused retention of urine, of which he took no notice for two days, when he was obliged to be carried to the hospital. At this time, there was extensive extravasation of urine into the scrotum and over the abdomen, extending as high as the umbilicus, the result of rupture of the urethra caused by the accident. He was placed under the influence of chloroform, and thirteen incisions made in the scrotum, perinæum, and abdomen. He remained in a very precarious state for some time; but, after several weeks, an improvement took place. The surgeon under whose care he then was, tried to pass a catheter, but failed; after this, the man became worse, but soon rallied, and shortly afterwards was discharged from the hospital, as he was getting low-spirited, and the surgeon thought a change would be beneficial to him. He was shortly afterwards invalided and sent home; during the voyage, all the wounds healed, and he arrived at Netley Hospital, convalescent, on November 2nd, 1869. On December 14th of the same year, he was discharged from the hospital and the service.

In March 1871, a swelling formed in the perinæum, for which he went to St. Mary's Hospital; here the surgeon endeavoured to pass a catheter, but failed. He was discharged after being in the hospital for ten days. Some time after this, an abscess formed in the perinæum and broke, and urine escaped through the opening. This did not prevent him from continuing his work. He kept in much the same condition until 1875, when matters became very much worse; there was much swelling over the perinæum and scrotum. He then went into St. Bartholomew's Hospital, where he was treated with hot fomentations and poultices, and, after many trials, a No. 3 gum-elastic catheter was passed into his bladder. After six or seven weeks, he was discharged, being told "that nothing more could be done for him;" he was sufficiently improved, however, to enable him to return to his work.

In 1879, he again became very much worse, and was admitted into the Erith Cottage Hospital under my care. I endeavoured to pass a catheter, but failed. At this time, he had three fistulous openings in the perinæum and one in the scrotum. The tissues of the scrotum and penis were very much thickened. The prepuce was elongated and infiltrated, and he had a very tight phymosis, so much so that it was difficult to hit upon the orifice of the urethra. The urine dribbled away by the urethra, but the larger quantity passed through the fistula. I placed him under chloroform, slit up the prepuce, and endeavoured to pass a catheter, but failed. He was kept in bed for some weeks, and hot fomentations and poultices applied. As he refused to submit to any operation, he was discharged, much improved in health, and passing much more urine by the urethra, although I was still unable to pass an instrument.

In September 1880, he returned, and I found him in a sad plight; scarcely any water passed by his urethra, and that only in drops. He had four or five fistulæ in his perinæum and two in his scrotum. The scrotum and prepuce were enormously hypertrophied, and the latter was so inconvenient that I determined to remove it. He had an enlargement in the perinæum, of the size of a chestnut, behind which the chief fistulous opening existed; this lump was hard and felt of almost cartilaginous consistence. The man was much affected in his mind, owing to his infirmities; his clothes always being saturated with urine, he smelt so that his wife loathed him, and his fellow-workmen shunned him; his life was a burden to him, and he got so low-spirited, that he often felt inclined to make away with himself. He now begged me to do anything for him I thought best. He had a tight stricture at the orifice of the urethra, and the whole canal was thickened and rough as far as I could pass an instrument.

After a good dose of aperients, on September 22nd, I had him placed under chloroform; and first removing the prepuce in the ordinary way, I passed a grooved staff as far down as I could. I had him tied up in lithotomy position, and made a free incision in the middle line of the perinæum down to the point of the staff, dividing the urethra upon the groove of the instrument, and bringing the point out through the wound. I then, keeping in the middle line, carried my incision freely and deeply, dissecting along the course of the urethra, when I came without difficulty upon the dilated end of the urethra on the cystic side of the stricture. Then, passing a No. 10 silver catheter in the place of the grooved staff, I, by means of a broad grooved director which I passed into the bladder through the wound, conducted the catheter into the bladder, and tied it in. The patient was then returned to bed, and given a full dose of opium.

I did in this case what I always do when having to tie a catheter into the bladder, that is, I fastened a long piece of India-rubber tubing on to the end of the instrument, and conducted it into a vessel under the bed. This I find in practice most useful; it saves an infinity of trouble to oneself and nurse, and inconvenience to the patient, besides having the advantage of always keeping the patient's linen sweet and clean, the bladder empty, and thus giving the wound a much better chance of healing.

After the operation, the temperature rose to 100°. He had no rigors, and in three days all the urine passed by the catheter. On the eighth day, I withdrew the catheter, and he passed a good stream of water by the urethra without pain or trouble, a very few drops passing by the wound. On the eleventh day, this had completely ceased, and the wound healed rapidly. An instrument was passed for him from time to time; and a few months ago I saw him, and he was quite well, there was no appearance of sinus, and he passed a good stream of urine.

CASE II.—A gentleman, aged 60, suffered some years ago from stricture of the urethra, of which he took little heed. About eight years since, he had a great deal more trouble in passing his water. At the same time, he complained of great pain in the perinæum, accompanied with swelling and pain in defæcation. Hot fomentations and poultices were constantly applied over the parts, and after a few days a free incision was made in the perinæum, and a large quantity of pus escaped. The abscess gradually closed up, leaving a fistulous opening, through which much urine passed. As this did not close, and only a small instrument could be passed into the bladder, a London surgeon, in consultation with his then medical attendant, decided to pass a full-sized catheter into the bladder, and lay the sinus freely open. This was done, and the patient made a good recovery.

Two years ago, he consulted me, complaining of pain in passing water about the neck of the bladder; "a sharp cutting pain" as he described it. I passed No. 8 catheter with ease, and without the least pain. There was no pain or tenderness on pressure over the perinæum; no swelling, nor anything to lead me to expect any serious mischief. I treated him with liquor potassæ and henbane, as his urine was rather acid, ordered hot hip-baths, and gave him a brisk aperient, restricting his diet, and denying all stimulants. As he did not improve, I took him to the surgeon who had operated on him six years before; he made a careful examination of him, but could find nothing to account for the symptoms, and suggested it was merely a catarrh of the neck of the bladder.

Two days after his return home, he had a slight shiver at bedtime, and the next morning there was distinct fulness in the perinæum. I ordered poultices and a hot hip-bath with aperients, and saw him again in the evening, when, the swelling being more pronounced, I, after passing No. 10 catheter into the bladder, made a free incision in the middle line of the perinæum, letting out some nasty unhealthy pus smelling of urine. I tied the catheter into his bladder for a week, when the wound cleaned, and commenced healing; and in two or three weeks he was convalescent.

I instructed him to pass a soft Jaques catheter every four hours, when he wanted to pass water, for some time. He kept this up for a time, when, feeling better, he left off doing so; and, a short time afterwards, sent for me, complaining of his old symptoms. I examined him very carefully, and felt a small swelling in his perinæum in the old situation. I at once made a free incision, letting out a little unhealthy pus; and, the next morning, a few drops of urine escaped through the wound.

I again tied a catheter into his bladder, and the sinus soon healed. I instructed him never to pass water without passing a soft Jaques catheter to draw it off, and told him to pass the instrument at stated times every four hours, and at night if necessary. He has done this regularly up to the present time, and has had no return of his trouble.

REMARKS.—These two cases are of great interest, as showing how one end may be obtained by two distinct means. In Case I, we have a man suffering from abscess in the perinæum, with urinary fistula, the result of external violence, which, through neglect, was allowed to become a most formidable case to deal with; while, in Case II, we have a perineal abscess, caused undoubtedly from ulceration of the urethra on the cystic side of an old stricture, the result of gonorrhœa.

In both these cases, had the patients in the early stages of their complaint, that is, when they first commenced to notice a difficulty in passing water, then taken a surgeon's advice, and had an instrument passed from time to time into their bladders, so as to keep the passage patent, undoubtedly they would have saved themselves all the pain and misery they endured, to say nothing of the risk to their lives.

In Case I, the operation of perinæal section was performed without difficulty; and, although I did anticipate difficulty in finding the cystic end of the urethra, there was none; neither have I found any difficulty in other cases on which I have operated; and I must confess I consider it far easier to dissect down, keeping strictly to the middle line of the perinæum, and find the cystic end of the urethra, which is nearly always much dilated, than it is to perform Furneaux Jordan's operation of cutting into the neck of the bladder, and passing a gum-elastic catheter from the bladder, along the dilated urethra, forward, to the stricture.

The most interesting part of Case II is, that, when the abscess formed two years since, and six hours after the operation of perineal section for the previous abscess and fistula, the urethra was perfectly patent, and freely admitted a No. 8 catheter. The question that arose in my mind was, Did the abscess commence from ulceration in the urethra, or, did it commence externally and open into the urethra? Taking all the circumstances of the case into consideration, I was convinced the abscess originated from a small ulcer in the urethra itself; and this was confirmed by the second abscess which formed a few months afterwards. My reasons for forming this opinion were: the pain was first noticed in the urethra; at this time there was neither fulness nor tenderness in the perinæum; and then, after a slight shiver, caused probably by the ulceration of the urethra extending through its walls, and a drop or two of urine gravitating into it, the following morning there was both swelling and tenderness, which increased most rapidly, and gave rise to considerable constitutional disturbance.

Now, with regard to treatment. Early and free incision into the perinæum, directly any fulness and tenderness is perceptible, is, I believe, the key to success. Even if no pus escape, the relief to the inflamed and distended parts is very great, and often prevents more deeply-seated mischief taking place. Then, if urine escape by the wound, pass in the largest catheter you can; if a stricture exists, divide it by internal urethrotomy, or split it up with Holt's dilator; the latter, in my hands, has proved of the greatest possible service, and excellent results have followed. A catheter having been passed and tied in, great comfort is derived from attaching a long India-rubber tube to the end, and conveying it to a vessel under the bed.

The fistula being closed and the wound healed, it is all-important to teach your patient to pass a catheter for himself; and these catheters (Jaques's patent), which I now employ, are admirably adapted for the purpose, as there is no fear of mischief; they are easily passed, and can always be carried either in a pocket-book or small case without trouble.

In such cases as Case II, it is in the highest degree important that the patient should not pass urine for some considerable time after the parts are all healed, without passing a soft elastic catheter, as this case most clearly showed, for, after the abscess of two years since, so long as the patient kept to this rule, he had no return of the mischief; within a very short time, however of his neglecting to do so, the trouble returned.

On one or two occasions, I allowed him to pass urine in my presence; and, when he had finished, passed a gum-elastic catheter; with the result in each case of drawing off about an ounce of muddy urine, which had clearly collected either behind the prostate, or in a *cul de sac* in the membranous portion of the urethra, behind the old stricture.

THE CITY AND THE PARKES MUSEUM.—On Thursday, September 20th, a deputation from the Parkes Museum of Hygiene waited upon the Court of Common Council at Guildhall, to present a memorial asking the Council to aid the Museum by a contribution of money to its funds. The deputation consisted of Dr. Poore, Vice-Chairman; Mr. Charles H. Parkes; Mr. E. C. Robins; Dr. Steele; Dr. Dawson Williams; Mr. Mark H. Judge, the late Secretary; and Mr. White Wallis, the newly appointed Secretary of the Museum. The memorial pointed out that the Museum was established at University College in 1876, where its collection was exhibited, free of cost, until last year, when the Museum was removed to premises in Margaret Street, and opened by the President, H.R.H. the Duke of Albany, in May last. As evidence of the economical management of the institution, it was stated that only £595 had been paid in salaries during the seven years ending June 30th last. On the motion of Mr. Alderman De Keyser, the memorial was referred to the Finance Committee, for consideration and report.

CYSTICERCUS CELLULOSÆ IN A DOG.—It has for long been understood that the immature form of the common tapeworm, *Tænia solium*, is peculiar to the pig, just as the cysticercus of *T. mediocanellata* is found in the ox, Leukart having failed to infect any other animal by adding the ova of the latter species to its food. M. Trasbot, in a recent number of the *Bulletin de la Société Centrale de Médicine Vétérinaire*, describes a case of cysticercus in a dog, which appears to have been kept in a yard where human excreta were frequently deposited. Its master observed that its body had become very tender, the most gentle pat causing the animal great pain. After death, all the voluntary muscles were found to be thickly infiltrated with cysticercus cellulosæ. The dog has hitherto been credited as the host of the mature *Tænia echinococcus*, the cysticercus of which has been found in the human brain, the vitreous body, and other parts, but M. Trasbot's case shows that the scolex of *T. solium*, the well-known cause of measly pork, can also live in the tissues of that carnivorous animal.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

NOTE ON THE DIAGNOSIS AND NATURE OF SO-CALLED PERFORATING TUMOURS OF THE DURA MATER.

Read in the Section of Medicine.

BY DAVID DRUMMOND, M.A., M.D.,

Physician to the Infirmary and Hospital for Children, Newcastle-on-Tyne; Joint-Lecturer on Pathology, University of Durham College of Medicine.

MY object in writing the following note is a three-fold one. In the first place I desire to place on record four rare and important cases which have lately excited the interest of several of my medical friends in Newcastle; in the next, I wish to enter, when dealing with the question of diagnosis, a strong plea in favour of the ophthalmoscope in general medicine, by attempting to show the importance of optic neuritis in doubtful cranial swellings, as furnishing at once a diagnostic clue, without which the case may be shrouded in obscurity. And thirdly, I shall claim your indulgence while I offer a few remarks upon the pathology of the so-called perforating growths of the dura mater.

I shall occupy very little time in relating these cases.

CASE I.—Walter A., aged 5 years, was admitted into the Children's Hospital, Newcastle, under the care of my colleague, Mr. J. R. Baumgartner (who has kindly given me permission to notice the case), on December 5th, 1882, for a swelling to the right of the top of the head, with headache and vomiting. His mother stated that the tumour was first observed about four weeks previously. He was always regarded as the most delicate member of the family, as he was unable to run about like other children of his age, on account of weakness and bowed legs. The family history was good. When he first came under observation, the cranial swelling was about the size of the closed fist, but with a wide base, so that it occupied a considerable portion of the surface of the skull in the neighbourhood of the vertex, and external to the right parietal eminence. The tumour felt soft and elastic, presenting an obscure feeling of fluctuation. A slight bulging was also apparent above the right zygoma. The anterior fontanelle was completely closed, and the skull was wide and rickety. The bones of the fore-arms, thighs, and legs were also rickety; in fact, as he lay in bed, with his bent legs and large head, he looked a typical example of a rickety child. For the first two or three weeks he complained of severe headache, confined mostly to the top and right side, *i.e.*, in the situation of the swelling. He also vomited very frequently, but subsequently these symptoms did not trouble him much.

From the first, there was well-marked Double Optic Neuritis. The growth rapidly extended, and soon affected the whole of the right side of the head, reaching to the left of the vertex, and bulging more especially there and above the right zygoma. The right orbit was then invaded, the new growth thrusting forwards the globe, which soon ulcerated and collapsed. About this time, a distinct tumour appeared in the centre of the forehead between the frontal eminences. The veins of the frontal region, coursing up from the right superciliary ridge and nasal eminence, gradually assumed large proportions, being of a dark blue colour, and appearing to the touch like deep channels running over the surface of the elastic mass. About the middle of February, a tumour was discovered in the body of the left inferior maxilla near the angle; this growth rapidly enlarged, and in a short time so deformed the mouth as to push a back molar tooth into the position of a middle incisor. On February 18th, the measurement round the cranium, just above the ears, *i.e.*, at the greatest circumference of the tumour, was twenty-four inches, and from ear to ear, across the vertex, eighteen inches. I may state parenthetically that the head of an average child of six years is twenty inches round, and eleven inches and a half across the vertex. In ten days, so rapidly did the growth increase, the circumference was twenty-six inches. The whole mass was now observed to pulsate strongly. At a still later period, the left testicle became enlarged. Thus the new growth had invaded the skull, jaw, and testicle.



Fig. 1.

During all this time, the little patient was remarkably intelligent, and took his food well. He could walk about when placed upon his feet, and was able to support his huge head both standing and sitting. There never was any paralysis in the true sense of the term. Fig. 1 represents the child's appearance on February 23rd.

On February 20th, the note with respect to the eyes was as follows "The right eye is destroyed by a tumour; in the left, the disc is atrophied, but some sight still remains."

He died on March 21st, about five months after the cranial swelling was first observed.

Post Mortem Examination.—The body was much emaciated, showing plainly the rickety character of the skeleton. *Post mortem* rigidity was absent. The enormous head presented a striking contrast to the wasted trunk and limbs; the scalp was free from ulceration. An excellent cast was taken of the head, which shows very clearly the size and shape of the growth.[1] The tumour was removed, with the brain and most of the cranium, leaving the scalp attached to a portion of the base of the skull, including the face. The mass covered the right frontal and right parietal bones, and part of the occipital, and extended over the middle line to the left side about four inches, so as to engage a considerable portion of the left parietal and frontal bones. The right frontal, and portions of the right parietal, were much thickened, and in places softened and infiltrated with the new growth, admitting of the ready passage of the knife through the tumour into the brain. The surface of the mass, after the skin was removed, presented a peculiar piebald appearance, being principally of a deep red colour, with patches of yellow and pink. The right frontal, parietal, and temporo-sphenoidal lobes of the brain were much compressed; and masses of soft red cancer-like new growth were attached to the cortex of the upper and pos-

[1] The cast, skull, with tumour attached, and water-colour drawings of the head, were shown in the Section of Medicine when the paper was read.

terior part of the first temporo-sphenoidal convolution, the supra-marginal and angular gyri, and part of the occipital lobe. On making a longitudinal section through the tumour and skull, the structure, which was soft and elastic, was seen to be of a deep red colour, presenting a highly hæmorrhagic appearance, especially the portion between the dura mater and the inner surface of the cranial vault. The whole thickness of the tumour was about two inches, of which nearly three-quarters of an inch lay beneath the skull. The tumour was firmly adherent to the external surface of the dura mater, which it pierced in places. Here and there, the mass was studded with bony spiculæ; or, to be more accurate, the growth invaded the bones, expanding, softening, and at the same time thoroughly infiltrating them. Fig. 2 is a drawing of the left and smaller half

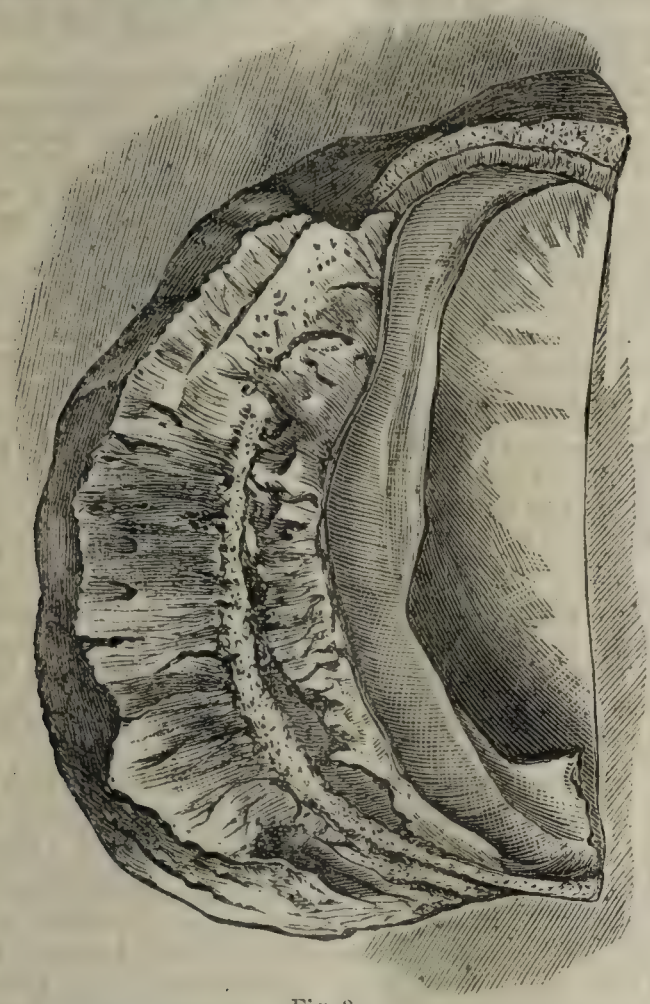


Fig. 2.

of the skull and growth: the section was made just to the right of the falx; the frontal portion is at the upper part of the figure. The tumour of the jaw and testicle were precisely similar in their macroscopical appearance. On microscopical examination, the structure was found to be sarcomatous, of the small round-celled variety, and highly vascular; in fact, scarcely to be distinguished histologically from some examples of vascular gliomata which have come under my observation.

CASE II.—Margaret H., aged 21, a pupil-teacher, was admitted into the Newcastle Infirmary on March 29th, 1883, complaining of a tumour on the head, with headache and giddiness. The only previous complaint of any note was a chronic discharge from the right ear, which lasted from childhood until the present time, and with which a frontal headache had been associated for some years. In August, 1882, the cranial swelling first made its appearance. It attracted attention in the first instance as a "little hard knob," situated in front of the left parietal eminence, which was not even painful to the touch. For a few weeks no change was noticed in this lump, then it somewhat suddenly began to increase, and grew rapidly until three weeks before admission, when it apparently ceased to enlarge. About the beginning of the present year, the surgeon under whose care she was at home, made an incision into the tumour, but blood only escaped. A fortnight later he again incised it, this time in two places, and "blood and water flowed from it." At the point where the first incision was made a fresh tumour grew, which soon stood out prominently from the rest of the swelling. Two or three months before admission into hospital, the headache, which had always been more or less a feature of the case, became much more intense. Vomiting then made its appearance, and giddiness, also a tolerably constant symptom, increased to such a degree as to cause staggering, with a tendency to fall to the right side. Latterly the patient lost flesh and strength considerably.

On admission, a very prominent tumour was found to the left of the top of the skull, lying over the frontal, parietal, and occipital bones. It reached in front to an inch and a quarter above the external angular process of the left frontal, and was bounded posteriorly by the lambdoid suture, extending one inch to the right of the vertex. The most elevated part of the growth corresponded to the parietal eminence. This mass had a circumference at its base of $19\frac{3}{4}$ inches, and the highest part was raised 2 inches above the skull; it measured $10\frac{1}{2}$ inches longitudinally and 8 inches transversely at its widest part. It was composed of two large tumours which were separated by a shallow channel, one lying behind the other. On the top of the posterior half of the growth was a mass the size of a large walnut; this marked the position of the first incision, and was supposed to result from it. To the touch the growth was soft and elastic, especially the posterior division, the anterior and more recent portion being firmer. The elevated part which sprung from the site of the incision was red and fungating, devoid of integument, and resembled an enormous raspberry. With this exception the skin was intact. Fig. 3 represents a profile view of the patient's head.



Fig. 3.

There was very marked double optic neuritis. The plantar reflex was slightly increased on both sides. The patellar tendon-jerk was considerably exalted in both legs. The right leg was analgesic. There was no motor paralysis.

During the patient's stay in hospital, she complained of very severe headache from time to time, the pain being chiefly confined to the region of the anterior tumour. Vomiting was also a trying symptom. The growth rapidly enlarged, especially the frontal portion, which made its way to the left orbital arch; and, on being informed that no operation could be performed, she left the hospital on April 21st.

CASE III.—Sarah T., aged 24, married, was admitted into the Newcastle Infirmary under the care of my colleague Dr. Luke Armstrong, one of the surgeons of the infirmary, on April 5th, 1883, complaining of a painful tumour on the right hip, of about ten weeks' duration. She was pale and emaciated, owing to the want of sleep and the intensity of her sufferings. The tumour, which was elastic to the touch and firmly fixed to the bone, occupied the position of the upper three or four inches of the right femur. The case was regarded as one of sarcoma of a malignant type; and, as there was evidence of a similar affection of the sacrum, amputation at the

hip was deemed unadvisable. A fortnight after admission, she complained of severe headache on the top of the head; and a swelling the size of a cherry, resembling a syphilitic node, made its appearance on the vertex. Vomiting ensued, and in a few days several small swellings appeared on the upper part of the cranium.

The following note of her condition was made on May 12th. "Patient has become extremely emaciated. The tumour on the hip has increased a good deal in size. The scalp is much thickened, and small nodules can be felt nearly all over it. The headache is very severe, with much vomiting. Is occasionally delirious." The patient died on May 20th, about sixteen weeks after the growth was first observed on the hip.

Post Mortem Examination.—The body was markedly emaciated. Rigor mortis had nearly passed off. A large globular tumour occupied the upper third of the right femur; it was soft and elastic to the touch. An incision into it showed that it was composed of a soft cream-coloured new growth, the bone being evidently quite destroyed. On removing the scalp, a large number of small tumours were observed, varying in size from a small walnut to a split pea. These growths were apparently subperiosteal, and altogether extracranial; they were soft and very juicy, and of a pale yellow colour. The skull was much thickened, and at places quite soft. The dura mater, which was remarkably thick, was firmly adherent to the surface of the cranial vault. Its internal aspect was mainly of a deep red colour, but mottled, having scattered over it a large number of minute tumours, which were like grains of boiled sago, only slightly saffron-coloured. The convolutions on the upper surface of the brain were somewhat flattened, but the brain itself was otherwise normal. The frontal bones above the superciliary ridges were very soft, and the frontal sinuses were packed with soft brain-like matter resembling the rest of the new growth. The posterior halves of both eyes were removed, *when the discs were seen to be swollen, and surrounded by numerous hæmorrhages* (*double optic neuritis*). No other malignant disease was discovered throughout the body. On microscopical examination, the growths were found to consist of cells which had an epithelial appearance, only rather smaller than epithelial cells, arranged in groups, which were separated by delicate fibrous septa. In fact, the structure was alveolar sarcoma.

CASE IV.—William M., a coal-miner, aged 58, was admitted into the Newcastle Infirmary, complaining of a painful swelling on the left side of his head. He stated that he had felt pain in the head, especially behind and above the left ear, for about four years. Many years previously, he had received a severe blow upon the head in this region, which laid him off work for seven weeks. The swelling was only observed three months before he came under observation at the hospital, and it had not advanced much since. He distinctly stated that "it appeared to come all at once." During the past twelve months, he had frequently vomited; and of late he had become emaciated, and his strength had failed.

A careful examination revealed a swelling, the size and shape of the half of a large orange, situated above and behind the left ear, and lying in the angle formed by the squamous and lambdoid sutures. The base was round, and had a circumference of nine inches and a quarter, while it was nearly four inches across, over the highest point. This swelling pulsated feebly; it appeared to be firmly fixed to the skull, felt soft and elastic, and communicated a sense of fluctuation to the fingers Upon applying firm pressure, the swelling almost entirely disappeared, when a round opening in the skull could be felt. This opening was about two inches and a quarter in diameter. No cerebral symptoms were induced by the pressure; but the pain, which was a constant feature, was considerably intensified. The optic discs were ill-defined and somewhat blurred, and the retinal veins were full, but the neuritis was much less pronounced than in the other cases. The patient remained in the infirmary for about a fortnight, during which time the growth slowly increased in size, and the pain was excruciating. At length, worn out by the intensity of his sufferings, and learning that nothing could be done for him, he left hospital, preferring, as he stated, to die at home. I afterwards heard, from the medical man under whose care he placed himself in the country, that he only lived a few weeks after leaving the infirmary, and that, after his death, as the friends refused a regular *post mortem* examination, it was only possible to make out the existence of a large circular opening in the skull, through which a mass resembling brain-matter bulged.

The records of cases of perforating tumour of the skull form an interesting chapter in the history of medicine, but one, unfortunately, which abounds in error of diagnosis. From the time of Ambrose Paré, who mistook such a growth for an aneurysm, down to the present day, comparatively few of the published cases were recognised during life. In considering the lines upon which a true diagnosis can be made, it is important at the outset to divide the cases clinically into two distinct classes: the first to include those new growths which appear to make their way through the skull by simply absorbing the bone, without implicating it further; and the second those which, in their progress, invade the cranial bones, and transform and infiltrate them. Case IV is an example of the first class, and Cases I, II, and III of the second. This distinction, it must be borne in mind, is purely clinical, as I am of opinion that the nature of the disease is essentially the same, whether the growth perforate or invade; indeed, in many of the cases, both processes proceed side by side.

It is evident that this disease attacks individuals irrespective of age or sex. The respective ages of the patients whose cases I have recorded here were 5 years, 21, 24, and 58. Chopart records a case in an infant aged 2 years; Louis gives one, a girl aged 2; Dupuytren, a boy aged 12; Coote refers to the case of a boy aged 15; Cruveilhier met with the disease in a man aged 65; and Ogle saw a case in a man aged 70.

Pain is nearly always a feature. In some cases, it is of a dull, boring character, while in others it is lancinating; in the majority, however, both varieties of pain are present. It often occurs in paroxysmal attacks, which, as in the case of most intracranial tumours, are usually attended by vomiting. In some cases, it is striking how little suffering is experienced. The boy whose case I have given first was for weeks at a time entirely free from pain.

The duration of the disease appears to vary very much. In one case referred to by Louis (*Obs.* 7), in his memoir on the subject, the tumour appeared nine years before the patient succumbed to the disease. In Case IV of those which I have adduced, the localised headache lasted for nearly four years before the tumour made its appearance. But, as a rule, death occurs in from five to ten months. Mr. Holmes, speaking at a meeting of the Clinical Society, on October 22nd, 1875, alluded to a case of perforating tumour of the skull, of a fibrous nature, which lasted for fifteen years; but this is almost an unique case, as true fibrous tumours in this situation are exceedingly rare.

Before the growth makes its appearance externally, which happens suddenly at times, a crackling sensation has been noticed in pressing upon the part. In the case which Louis met with (*Obs.* 1), the barber discovered this crackling while shaving the patient's head. Even after the tumour has appeared, this peculiar crepitus may be felt on handling it; such was the case in the boy, Walter A., but in him I only noticed it on one occasion, as it had vanished the next time he was seen. I think the explanation of the phenomenon which Louis has advanced the correct one—viz., that it is due to the bone being thinned out into such a brittle layer as to cause crackling when pressed upon. The occasional sudden development of the tumour is easily explicable; for the growth, being confined for a time beneath a very thin layer of bone, is set free at last, and then appears externally somewhat suddenly.

In some cases, the external tumour never grows large, the growth that destroys life being hidden beneath the skull, between the bone and the dura mater. In others, again, as in the case of Walter A. and Margaret H., the external growth assumes large proportions.

The tumours which perforate are generally soft from the first, and may present a pseudo-fluctuation. On the other hand, those which belong to Class 2, *i.e.*, which invade the skull, are often firm at first, and subsequently, as they progress, show a tendency to become soft. But the consistency is necessarily determined in every case by the histological nature of the neoplasm. The sense of fluctuation, which has been observed so frequently, has, unfortunately, too often prompted the surgeon to incise the growth, which operation has nearly always been attended with disastrous results. In the case which Ambrose Paré recorded, a zealous barber, thinking he had to deal with an abscess, opened the tumour, and the patient died in two days. Paré remarks, as quoted by Louis: "I was desirous to relate this history, in order to warn young surgeons not to open the head in similar cases." Pulsation has been observed in the tumour in numerous cases. Most frequently, this is due to the impulse it receives from the brain beneath; however, there may be pulsation in the growth itself, as some are exceedingly vascular. Cases in which the tumour invades, rather than perforates the bone, seldom pulsate. Another very important feature of these growths is the fact that they are fixed, *i.e.*, they cannot be moved about over the cranium. Louis laid great stress upon this as a diagnostic point;

and he quotes Marcus Aurelius, who emphasised the fact that simple growths upon the head were known by being movable under the skin. The growths belonging to Class 1 (the perforating variety) can often be made to disappear by pressure, when the opening in the skull can be felt, rendering the diagnosis easy.

It is a strange fact that the condition of the optic discs has not been referred to by any of the observers with whose records of perforating tumour of the skull I have met. On several occasions tumours of the dura mater have been shown at our leading medical societies, and, at times, the question of the presence or absence of optic neuritis has never been referred to; but when it has been raised, so far as I know, the reply has been uniform, viz., that the eyes were not examined. This is a misfortune; for, if I mistake not, as in the case of other intracranial tumours, optic neuritis will be found to be the most important diagnostic point. It was present, in a marked way, in three out of the four cases which have formed the groundwork of this paper. Its importance, I believe, cannot be over estimated; and I trust observers will, in future, give attention to the point.

In Cases I and II, this sign was conclusive. Some who saw Walter A. took the disease to be hydrocephalus with encephalocele; but the discovery of optic neuritis, which condition I have very rarely found in chronic hydrocephalus, and never in a pronounced way, left no room for doubt as to the nature of the disease. In the case of Margaret H., it was impossible to say, until the eyes were examined, that the sarcomatous growth, which stood so prominently upon the skull, had pierced the bone and invaded the dura mater.

The last clinical feature to which I shall refer, is the remarkable fact that, in many of the recorded cases, no paralysis was observed, or if it were present, it only developed some time after the tumour had appeared. According to Brown-Séquard—I quote from notes of a clinical lecture published in the *Medical Times and Gazette*, November 3rd, 1862—"irritation of the surface of the brain would often not produce paralysis, when the slightest injury to the dura mater would do so. Dr. Brown-Séquard believes that irritation of the dura mater is the most frequent cause of paralysis in intracranial tumours." In three of my cases, there was no paralysis, even though it was evident that the dura mater was seriously damaged.

Great diversity of opinion has prevailed among pathologists concerning the precise nature of these cranial swellings, and even now there does not appear to be decided unanimity. Some have regarded the fungoid growth as true cancer, while not a few have contented themselves with the statement that it is essentially malignant. A perusal of Louis's admirable memoir cannot fail to convince the reader that the author regarded the disease as a special form of tumour—a variety which was peculiar to the dura mater. We now know that this teaching is erroneous, and that the morbid growth may be found in a variety of places, and may only affect the head secondarily. According to Lebert and Virchow, these tumours are not malignant; but, I venture to think, the foregoing cases will scarcely bear out this view; and I agree entirely with the opinion of Lawson Tait, that they are, without doubt, malignant; but, at the same time, I must disagree with that writer, who ranks them among the cancers, for I should certainly place them amongst the sarcomas. Some appear to belong to the spindle-celled variety, others to the round-celled, and others to the alveolar; but I am firmly of the opinion that the disease is histologically sarcomatous. In the cases of true cancer, springing from the internal surface of the dura mater, which have come under my notice, there was no tendency to perforate.

The division into perforating and invading tumours must, as I have already said, be regarded as arbitrary and purely clinical, for the so-called fungus growth may either start from the external or internal layer of osteal cells (the subperiosteal, or the peri-dura-matral) from which the membranous bones of the skull are developed, and which subsequently maintain the process of repair, or from the bones themselves; and, as a matter of fact, the tendency is in every case for the new growth to invade, implicate, and destroy the bones. But, in some few instances, when the tumour increases beneath the cranial vault and grows along the surface of the dura mater, the process of absorption would appear to outstep that of invasion, until the bone, becoming gradually thinner and thinner, is eventually perforated.

M. CORNIL has presented to the Académie des Sciences a memoir on jequirity, a substance now much used for diseases of the eye; it provokes suppuration on the surface of the eyeball. According to M. Cornil, this action is due to the bacilli present in the new drug.

REMOVAL OF THE TONGUE BY MEDIAN DIVISION.

Read in the Section of Surgery.

BY W. MORRANT BAKER, F.R.C.S.,

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IN the *Lancet* of April 10th, 1880, I drew attention to an operation for removal of the tongue, which seemed to me well adapted for the larger number of the cases in which it was advisable to remove this organ, wholly or in part, with the *écraseur*. Since that date, I have continued to employ it, in preference to any other, in most of the cases on which I have operated; and as I still think, with increased experience, that it will be found more generally applicable than any other, I have ventured to bring it forward for discussion in the Surgical Section. At the same time, I would not by any means be supposed to assume that any one method of removing the tongue is, in all cases, better than another. Nothing can be more absurd, as it seems to me, than to suppose that any special method is necessary for the more simple cases with which we have to deal. If the disease be confined to the front part of the tongue, and the tongue be freely movable, it can be of but little moment to the patient or the surgeon whether he remove the disease with the knife, *écraseur*, or scissors, or by all the three. The one important matter in all cases is, that there shall be a large margin of healthy tissue removed with the cancer; and this is quite easy of performance by any method. Such cases, however, are exceptional; and, in the others, in which the disease extends at least to the level of the last molar tooth, or invades the mucous membrane of the floor of the mouth or the gum, or in which there is more or less abnormal fixity of the organ to neighbouring parts, the choice of operation is of consequence. As before, however, the most important question, by far, is this: How can the disease be most completely removed without undue risk to the patient's life?

I do not propose to consider here the comparatively rare cases in which the disease cannot be removed without complete division of the lower jaw. Such cases form a class by themselves, and may or may not be best dealt with by median division of the tongue and the use of the *écraseur*. I will assume that section of the bone is not necessary, and that the operator has decided to use the *écraseur*. Under such circumstances, the following is the plan which I believe is the best to be adopted.

A gag having been introduced, and any jagged teeth likely to be in the way of the operator having been extracted, two threads are passed through the tongue, about an inch behind the tip and half an inch on each side of the middle line. One of these looped threads is now given to an assistant to hold tightly; and the operator, holding the other, scores the dorsum of the tongue with a blunt-pointed scalpel, exactly in the middle line—extending the "cut" well through the mucous membrane into the surface of the muscular substance, and dividing the tip freely down to and through the middle line of the frænum. The cut may be extended back as far as the operator deems necessary—say, for an inch beyond the level of the posterior edge of the cancer. He then takes both threads, one in each hand, and, using the forefingers much in the same way that he would for tightening a ligature on a deep vessel, he splits the tongue into two halves. At this stage of the operation, the hæmorrhage is usually very trifling, if the operator has taken care to cut along the middle line; and, even if he is a little to one side or the other, the divided vessels are small and easily ligatured. The thread which tethers the diseased half of the tongue is now pulled quite taut, either by the operator or his assistant; while the former, with blunt-pointed scissors, snips, as far as he considers necessary, the mucous membrane and muscular fibres which connect the tongue with the anterior part of the lower jaw behind the symphysis, after the manner suggested many years since by Sir James Paget. He then "runs" the scissors along the floor of the mouth, immediately beneath the mucous membrane, keeping close to the ramus of the jaw, until he has cut, if possible, to a point beyond the level of the posterior edge of the cancer. Then, with his forefinger and occasional snips with the scissors, he frees the tongue as completely as may be requisite from its attachments in front and at the sides and in the floor of the mouth. The chief point aimed at, of course, at this stage of the operation, is to free the diseased half of the tongue in

such a manner that it may be surrounded by the loop of the *écraseur* at some distance behind the disease, and without danger of the cord slipping forward so as to embrace the neighbourhood of the cancer, and much less the cancer itself.

This is by far the most important part of the operation; and, should the surgeon be in doubt about his having sufficiently freed the tongue with his finger, he should again introduce the scissors, and cautiously divide any muscle or other structure which prevents the due loosening of the tongue. Having now freed the tongue sufficiently, one, and sometimes two, blunt curved needles (of the pattern shown) are now made to perforate it at some distance, an inch, or more if possible, behind the cancerous mass; and the loop of the *écraseur* is now slipped over the diseased half of the tongue, and adjusted behind the needles. With the screwing-up of the *écraseur*, this part of the operation is now completed, with the exception that, very commonly, at least when whipcord is employed, the main vessel and some other tissue, perhaps nerve-fibres, are pulled through the end of the *écraseur* after the softer substance of the tongue has been crushed through. Under these circumstances, a double ligature should be passed with an aneurysm-needle, and the strand of vessels and nerves divided between the two knots, when the *écraseur* will, of course, at once come away, and the main vessels will be left on the face of the stump securely ligatured.

In the event of both sides of the tongue requiring removal, an *écraseur* should now be slipped over the other half after it has been sufficiently freed from its attachments, and the diseased part guarded by a blunt-pointed needle. This part of the operation, on account of the space gained by the removal of half the organ, can be performed with comparative ease and rapidity.

After the removal of the tongue, wholly or in part, as the case may be, it should be carefully examined with reference to the question of how much healthy tissue has been removed with the cancer; and the floor of the mouth and stump of the tongue should be carefully examined also, with the same object in view. In freeing the tongue from the floor of the mouth, portions of mucous membrane, sublingual glands, and the like, are often loosened; and these can be readily dissected away when space has been gained by removal of the tongue. Lymphatic glands should also be searched for, especially in the submaxillary fossa. Should any be found, now or previously, an incision should be made through the skin over them, and they should be carefully enucleated.

In many cases, the removal of the tongue is greatly facilitated by previously dividing the cheek from the angle of the mouth to the anterior border of the masseter—a little below the line of the parotid duct—as recommended by Collis, Gant, Furneaux Jordan, and many others. This should be, I venture to think, always done if the disease extend far back. The scar is afterwards but trifling, if a little care be taken in applying the sutures of union.

It is often advisable, especially when the disease has advanced into the mucous membrane of the floor of the mouth, to extract three or four of the neighbouring teeth from the lower jaw; and, when the disease approaches or invades the gum, much valuable space may be gained (much more than would be imagined by one who had not done it) by cutting away also a portion of the alveolar border of the lower jaw.

With regard to the *écraseur*, the choice of instrument is a matter of secondary importance; at the same time, it is not unimportant altogether. The instrument which I have been in the habit of using of late is of very moderate length and weight, and is somewhat curved on the flat near the end. (Pattern shown.) The pattern is almost identical with that which my colleague Mr. Harrison Cripps has recommended for removal of the lower end of the rectum; but I prefer working both limbs of the looped cord at the same time, and therefore have a double instead of a single hook, and have no perforations at the shoulder of the instrument. The material of the cord which I much prefer to any other is a thick kind of whipcord. (Specimens shown.) It is more easily manageable than any kind of wire, and very much more than the linked chain. For some years past I have not met with any case in which the cord has broken under the strain of cutting through the tongue; nor have I ever had, so far as I can remember, any case of recurrent hæmorrhage after the operation. This last advantage I am inclined to attribute partly to the fact that a whipcord or wire loop, and more especially whipcord, will usually, after the tongue has been crushed through, drag through the end of the *écraseur* a small strand of tissue containing the chief vessels, to which a ligature can be applied before the removal of the *écraseur*. The being able to tie the main vessel at the end of the operation enables the operator to screw up the *écraseur* more rapidly than he would have otherwise ventured to do. I think it is a good plan to apply a ligature to the main vessel, if it can be seen on the face of the stump, if it has not been tied before the removal of the *écraseur*.

I have now removed the tongue, wholly or in part, thirty-six times, and in all but three by the method here described. Of the thirty-five patients (one of whom was operated on twice, at an interval of four years and a half, thus making the thirty-six operations), thirty recovered, and five died. Of the deaths, one was from diphtheria, beginning about ten days after the operation; two from septicæmia; and one from general debility, arising chiefly from other causes than the cancer of the tongue; and one died six weeks after the operation, from subacute pneumonia, the symptoms of which began about a week after the operation, with cough and slightly raised pulse and temperature, and consolidation of the base of the left lung. All the symptoms proceeded quietly to the last, the patient having recovered quickly from the immediate effects of the operation, and being able to take carriage-exercise for some weeks to within a day or two of his death. The sputa were offensive, and I have no doubt that the inflamed lung-tissue had in part broken down.

From the accompanying table may be gathered a brief record of the several cases.

TABLE OF CASES OF REMOVAL OF THE TONGUE.

No.	Sex.	Age.	Operation.	Result.	Remarks.
1	F	37	Left half of tongue removed	Death	Died from diphtheria, beginning ten days after operation.
2	M	64	Whole tongue removed	Recovery	
3	,,	45	Only a part of disease, including right half of tongue, could be removed	Death	Acute septicæmia: died fifth day after operation.
4	,,	62	Right half removed	Recovery	
5	,,	44	Whole tongue removed	,,	
6	,,	50	Whole tongue removed	,,	
7	,,	56	Whole tongue removed	,,	
8	,,	45	Left half of tongue removed	,,	
9	,,	52	Whole tongue removed	,,	
10	,,	40–50	Whole tongue removed	Death	Died sixth day after operation from septicæmia.
11	,,	40–50	Left half of tongue removed and sublingual gland	Recovery	
12	,,	50–60	Left half of tongue removed	,,	
13	,,	46	Whole tongue removed	,,	
14	F	30–40	Right half removed	,,	
15	,,	49	Right half removed	,,	
16	M	48	Whole tongue removed: cheek divided	,,	
17	,,	65	Anterior part of tongue and corresponding part of floor of mouth	,,	
18	,,	55	Right half and a part of left half removed	,,	
19	,,	50	Right half removed	,,	
20	,,	33	Left half in part removed with scissors	,,	
21	,,	64	Whole tongue removed: cheek divided	,,	
22	,,	33	A part of left half removed with knife	,,	
23	,,	45–50	Right half in part removed	,,	
24	,,	41	Anterior part of tongue with corresponding part of floor of mouth	,,	
25	,,	68	Left half, anterior part of	,,	
26	,,	60	Right half removed	Death	Died apparently from syncope on the day after the operation. A very feeble man, much crippled with gout.
27	,,	54	Left half removed with enlarged submaxillary lymphatic gland	Recovery	
28	,,	56	Left half removed: cheek divided	,,	
29	,,	53	Anterior part of tongue with part of floor of mouth	,,	
30	,,	54	Right half removed with submaxillary lymphatic gland enlarged: cheek divided	,,	
31	,,	54	Whole tongue removed: cheek divided	,,	
32	,,	40–45	Whole tongue removed: cheek divided	,,	
33	,,	47	Right half removed very far back: cheek divided	Death	Died six weeks after operation, from septic pneumonia.
34	,,	55	Right half removed with part of floor of mouth	Recovery	
35	,,	40	Left half removed		

A CASE OF REMOVAL OF THE TONGUE AND ONE-THIRD OF LOWER JAW.

Read in the Section of Surgery.

By W. MARTIN COATES, F.R.C.S.Eng.,
Surgeon to the Salisbury Infirmary.

GEORGE L., groom, aged 53, was admitted to the Salisbury Infirmary under me on April 23rd, 1881, with an epitheliomatous growth occupying two-thirds of the right half of the tongue, and fully a third of the left half. This growth adhered firmly to the gum at the inside of the jaw from opposite the first right lower molar to beyond the second incisor of the left side, and invaded the gum covering the inside of the symphysis.

The patient was a small, slight man, of good health, cheerful, and of great courage. On May 11th, 1881, the second right lower molar was extracted, and the first molar on the left, under chloroform, a gag having been first applied. A small whipcord was passed through the tip of the tongue, and another half an inch in front of the hyoid bone. An incision was made through the lower lip, and carried through the integument to a point immediately in front of the upper part of the thyroid cartilage. The lateral flaps were quickly reflected. The bleeding vessels were secured as I proceeded by Spencer Wells's forceps. The jaw was partly sawn through at the points from which the teeth had been extracted, and the division of the bone was completed by chisel and hammer. The separated bone was now seized at its middle portion with the lion-forceps, and rapidly removed by a few touches of a scalpel. The remainder of the gum on each side was separated from the jaw to near its angle. The tongue being now drawn forwards by means of the whipcord, the chain of an *écraseur* was carried to a point just in front of the farther whipcord, and, the upper end of its solid part being pressed well back, the chain was tightened. The handle of the instrument was worked once in twenty seconds by the watch until it had cut through the tongue and the parts below it. The vessels that bled, which were very few, were now tied, and the integuments brought together by carbolised gut sutures. The patient was fed for twenty-four hours by the rectum. A nurse sat by his bedside night and day for forty-eight hours, and drew the tongue forward whenever there was sense of choking. The man went on uninterruptedly well, and was discharged cured on June 25th, 1881, having been kept on as an out-patient for observation. He remains quite well, does his work as groom, swallows soft food, talks sufficiently well to be understood.

This operation undoubtedly was not so striking as that introduced and so brilliantly executed by Mr. Whitehead, and I volunteered to relate it if grouped with Mr. Whitehead's cases, not certainly with a view of claiming any credit, but to enable you to compare the two modes, and to come to an impartial conclusion. I have removed the tongue by knife and scissors, by the galvanic and thermal cautery, and by the chain *écraseur*. I infinitely prefer the last. There has been less bleeding, and the patient has escaped the putrid surfaces inseparable from the hot iron or wire, a very important point. The chain *écraseur* has the overwhelming advantage that you can conveniently and more safely remove the parts underneath the tongue, and so escape, more probably, malignant infiltration.

I feel this so strongly that, had I a tongue to be removed for malignant disease from my own person, I should elect to have it done by an incision below the symphisis, to a level of the cricoid cartilage, the mucous membrane being, on each side, separated from the inside of the jaw, and the chain *écraseur* applied so as to remove as much of the tongue and the parts underneath it as possible.

In this operation, there is much less blood lost, and much less peril from blood flowing back into the larynx and trachea, a very important matter.

That in Mr. Whitehead's hands the tongue can be removed by his method with a moderate loss of blood, I do not doubt; but surgical operations are not always done by Whiteheads, but much more frequently by ordinary surgeons. That being the case, it is of great importance that operations be made as easy and as bloodless as possible for patients whose powers have been weakened by pain, from deficient nutriment arising from the difficulty of mastication, and anxiety; and who, after a severe operation, and having to submit to an absence of solid food, can be expected to bear well loss of blood?

Dr. FENWICK (Montreal), during the last few years, had removed the tongue on eight or ten occasions, and in performing the operation he had employed a modification of the method suggested by the late Mr. Nunneley of Leeds, and he thought that by this means the entire organ, with the floor of the mouth, could be removed. In the last case in which he removed the tongue and floor of the mouth, it was found necessary to take away a portion of the alveolar body of the lower jaw-bone, and in its removal he cut into what appeared to be sound bone-tissue. This might be considered contrary to surgical rule, but he could not see what more could be done under the circumstances, as the removal of the entire lower jaw could not have been done without great risk to the patient's life. He could not bring as satisfactory statistics as were given by Mr. Baker. All his cases recovered from the operation, and all, save one, subsequently died from recurrence of the disease at various periods from three to six months. He would mention, however, the case of one man who suffered from extensive epithelioma of the tongue and floor of the mouth, and in whom the entire mass of disease was removed. The operation was performed in 1869, and the man was still living. No recurrence of the disease had, so far, been noticed.

Mr. BANKS (Liverpool) suggested that the particular method of removing the tongue was not a matter of vital importance so much as the performance of an operation, no matter what its details might be, which would ensure a thorough and complete removal. Individual surgeons became used to individual operations, and, provided the surgeon saw his way to a perfect clearance of the disease, he would do best to employ the plan with which he was most familiar. Mr. Banks mentioned that he had, in three cases requiring extensive removal of the tongue and floor of the mouth, done a preliminary laryngotomy. This took only a few minutes to do. The tube being inserted, the anæsthetic was administered through it, and the pharynx firmly plugged with a sponge. By this means no blood entered the lungs, and the operation could be done slowly and deliberately. It had the advantage, also, of diminishing the danger from septic pneumonia, which was undoubtedly often due to the putrefaction in the lungs of blood which had been sucked deeply into the air-cells during violent inspiratory efforts.

Mr. CLEMENT LUCAS (London) said that though the operation by *écraseur* was advocated as being less liable to be followed by hæmorrhage, it happened curiously that the only case he remembered in which secondary hæmorrhage followed removal of part of the tongue was an operation by chain *écraseur*. It was performed by a colleague, who had divided the jaw but not the parts over it, and had introduced the chain beneath the chin. Severe hæmorrhage followed, and when Mr. Lucas arrived, the man was blanched and almost dead. The parts over the jaw were divided, and the jaw turned up, as is done in the dissecting-room, to gain a side view of the tongue. In this way a good view of the bleeding lingual was obtained. The vessel was twisted, and the patient recovered. He had seen many cases treated by galvanic *écraseur*, and had not observed the ill-results attributed to this method by those who practised some other method. It was probably the simplest and best means of removing portions of the tongue. He would not bind himself to any particular operation, but just now they were trying Whitehead's method at Guy's Hospital. He agreed with Mr. Banks that it was most important to remove freely both glands and original growth, and where both could not be removed at the same operation, the glands should be first attacked.

Mr. BAKER replied that he agreed with Mr. Mitchell Banks in thinking that a preliminary tracheotomy was of great value in certain cases of extensive operation about the mouth or jaws. It was important that the pharynx should be plugged thoroughly under such circumstances, as without this, blood would more readily trickle into the larynx and trachea than when tracheotomy had not been performed. He could not agree with Mr. Lucas that the wire cautery was a good method of removing the tongue. With reference to secondary hæmorrhage, he thought the freedom from such in his cases had been largely due to the fact that he tied the main vessel either before or after the removal of the *écraseur*. Mr. Baker said that he quite intended to try the method introduced by Mr. Whitehead; and he was quite ready to believe that, in some cases, this method would be found better than any other.

ON AXIS-TRACTION IN DELIVERY WITH OBSTETRIC FORCEPS.

Read in the Section of Obstetric Medicine.

By J. F. LE PAGE, L.R.C.P.Edin., etc., Durham.

It is not a little remarkable that so great a diversity of opinion should exist in the profession as to the correct method of using obstetric forceps; and especially is it so when we remember that the foremost champions of each of the various modes are men of great professional reputation—men who are supported by the experience afforded by thousands of parturitions. Nor is it less remarkable that most writers on obstetrics appear to argue, in elucidation of their views, on purely mechanical principles, apparently overlooking the fact that the use of forceps is not a simple matter of art or mechanical dexterity. The delivery of a parturient woman with forceps is an operation demanding considerable skill, but skill resting entirely on scientific principles—an operation which should essentially be an *aid* to Nature when her powers prove insufficient for the performance of her own operations; and the assistance afforded should be at her dictation and on her own lines.

Let me here note in how far authors on obstetrics appear to endeavour to simulate Nature's unerring ways. Dr. Barnes tells us that traction is hardly called for at all; that force is economised by leverage; and that pure traction is impossible (*Lectures on Obstetric Operations*, p. 37). Dr. Smellie advocates traction always from ear to ear. Dr. Leishman enjoins the swaying motion (*System of Midwifery*). Englemann writes: "The oscillating motion antero-posteriorly should not be resorted to, and the less of lateral swaying the better for the maternal parts" (*The Obstetric Forceps*, p. 78). Dr. Edis has recourse almost invariably to a lever pendulum-movement (*Obstet. Trans.*). Gustav Braun says, "The action of the forceps as a lever is a delusion." Dr. Ramsbotham advocates, until the head is born, a slow, waving, pendulum-like sweep from handle to handle (*Principles and Practice of Obstetric Medicine and Surgery*). Dr. Playfair says that leverage-action must always be subservient to traction (*System of Midwifery*). Dr. Simpson directs side-to-side movement. Dr. Milne advises the movement of the handle in a circular direction (*Principles and Practice of Midwifery*, p. 259). Dr. Meadows writes of the efficacy of a slight side-to-side and up-and-down movement, in addition to axis-traction (*Manual of Midwifery*, p. 224). Dr. Matthews Duncan altogether repudiates lateral traction. Dr. Galabin demonstrates the pendulum-movement with mathematical precision (*Obstetrical Journal*). Notwithstanding that the vaginal walls on both sides have been lacerated and ploughed up by leverage-motion, if it can be demonstrated that pendulum, oscillatory, lateral swaying, seesawing, waving, up-and-down, and circular leverages are just imitations of the natural process, then let us oscillate and sway, and so on; or let us resort to any one of these procedures which may be in accord with natural device. But what do we find? We find that, in the wonderful mechanism of parturition, none of these ingenious methods are even suggested. We find that Nature has not found it necessary to adopt any of the rude, but no doubt clever and effective, mechanical contrivances to which I have referred.

The object we should have in view is to accomplish delivery, and to accomplish it as expeditiously as possible, but with perfect safety to the maternal structures; not to forcibly drag or wedge the head through the maternal parts somehow or anyhow, so long as delivery may be accomplished; but to accurately adapt whatever interference may be necessary to the insufficiency of Nature's abilities in the particular case. I do not mean to argue that these various plans, based on known mechanical principles, are not potent means at our hand for the extraction of a substance through a passage of inproportionate calibre; but, when a vital body has to be drawn through a delicate vital passage, powerful levers can scarcely be means adapted both to the end and to the conditions under which they are used.

Now, how does Nature accomplish delivery? That is to say, how is the force she uses applied, and what are the effects of that application? The energy developed by the contractions of the uterus, the abdominal muscles, and the diaphragm, is concentrated on the cervical vertebræ of the fœtus; and the effect of this is free movement of the head, whilst it is at the same time subjected to great pressure; so that throughout its entire passage its diameters may be adapted to those of the canal it traverses. Thus the most important movements—flexion, rotation, and extension—are, by the resistance of the pelvic planes, with facility effected. The force is intermittent axis-propulsion; and the intermissions, during which there is little or no pressure on the fœtus, afford it the opportunity of adapting its head to the easiest diameters. I do not mean that fœtal movements take place during every interval of propulsion, but that often they may be observed, and that they are a part of Nature's plan. If the accoucheur retain his finger in contact with the head during the intervals of pain, he will frequently observe them. After this adjustment of the head, it is again propelled forwards by the uterine effort. We then note that the force is always applied in the same line—that of the spinal column; that great freedom of movement is allowed by the freedom of the head on its axis; and that a little movement during the intervals of propulsion rectifies the relationship of diameters. Are we acting on these lines if we use powerful leverage on the soft parts; or if we forcibly drag the head, with no regard to the adaptation of diameters, through the delicate canal of the pelvis? I think not.

In using a tractor, the various movements of the head are no longer guided or controlled by the pelvic planes, but are at the hand, and under the control, of the accoucheur. Therefore a precise knowledge of the exact position and relations of the head is essential; and the traction which is to assist the uterine efforts should be made with a tractor capable of great freedom and range of movement, and the movements of which are unrestricted, and completely under the control of the operator. Having applied the forceps, steady traction should be made in the axis, of course during the uterine contractions; and, never forgetting Blundell's maxim, *arte non vi*, we should proportion the traction to the deficiency of propulsion, so that powerful traction may not be added to the forcible contractions of a strong uterus. Nor should we forget that in not a few cases the office of the forceps is not that of a tractor, nor a lever, but little more than that of a compressor. The position and relations of the head, during its whole course, should never be lost sight of, as the alterations in those relations must be assisted—sometimes entirely conducted—by the operator. Whilst traction, during the uterine effort, should always be made in the axis of the part, very gentle rotatory movements should be imparted to the head during the intervals of uterine contraction, to aid its adjustment, and in further imitation of Nature's own method.

If these facts are unmistakeable, it is certainly evident that neither the straight nor curved forceps are adapted to the conditions under which they are used. Here then is the *raison d'être* of the instrument I show you. The special characteristics of my instrument are its strong brim and perineal curves, and the adjustable lever. In adaptation to the irregular pelvic parabola, the curves are stronger than those of any other forceps. The handle is, nevertheless, in a line parallel with that of the blades, whilst the lever is in a line with the blades. Practically, therefore, it is a straight forceps, but, with the lever, traction can be made backwards in the axis of the brain; and with the use of the lever and handle combined, flexion, rotation and extension may be assisted, or altogether effected by the accoucheur, whilst, at the same time, the line of traction is independent and can be continued throughout without any variation from the true axis of the canal.

Mr. Vere G. Webb (Coleshill) said that the principle of axis-traction was essential to delivery by instruments, when the head was at the brim of the pelvis, if one would avoid injury to the maternal structures; and the object to be attained was to find an instrument, as simple as possible, which would always pull in the pelvic axis. There was no question that if the maternal parts could be disregarded, the long straight forceps would be most suitable. He exhibited a pair of forceps, a modification of Sir J. Simpson's long forceps (described in the British Medical Journal for October 1881) which would always pull in the proper axis if the operator were careful to pull at right angles to the handle.

Dr. A. Drummond Macdonald (Liverpool) said that since he first had the opportunity of using Simpson's axis-traction forceps, he had paid some attention to this subject, and had also been among the forceps-producers. The axis-traction forceps allowed delivery with much greater ease and less force than the usual form.

Dr. Wallace (Liverpool) remarked that a great deal of ingenuity had been expended in devising modifications of Tarnier's traction-forceps. It was Tarnier's so-called only, for the late Professor Inglis of Aberdeen first devised the treble-curved forceps; and that ingenuity, when tested by practical experience, would be proved to have been in vain. In the course of a prolonged experience of about three hundred cases of forceps-delivery, Dr. Wallace had never found the double-curve long forceps to fail in cases that were really suitable for delivering by long forceps; but he should hesitate to place

these forceps in the hands of young practitioners. He showed his students the traction-forceps as a curiosity, but recommended them to get a pair of forceps (Simpson's or Barnes's), become accustomed to the instrument, and stick to it. The traction-forceps in narrow pelvis, in occipito-posterior positions, must prevent rotation completely, and so jam the head and render delivery difficult or impossible. Rectification at the brim could be easily made by the long straight forceps, and the occipito-bregmatic diameter made to engage in the narrow pelvic brim.

Dr. McMILLAN (Melbourne, Victoria) wished to add his testimony to the value and efficiency of Dr. Simpson's forceps, having had nearly thirty years' experience of that instrument in all kinds of complicated cases. He had found it so simple in its mechanism, and so effective, as to leave nothing to be desired. He was of opinion that discredit had been brought upon Simpson's forceps on account of imitations wanting in the most important points by which Simpson's forceps was distinguished. For example, the blades of these imitations had not sufficient metal in their composition, rendering them too pliant or yielding, so that they slipped in the hands of the operator. Another important point insisted upon by Dr. Simpson was that the lock should be sufficiently wide to admit of their application even though not in exact apposition. This was the point disregarded by the imitators. These two defects rendered such an instrument almost useless. In Dr. McMillan's opinion, simplicity combined with strength and easy application were the great desiderata; and, above all, the operator should be thoroughly familiar with the instrument, whichever it might be that he had adopted.

Dr. HALLIDAY CROOM (Edinburgh) said that he could scarcely believe that either Dr. Wallace or Dr. McMillan had made use of the axis-traction forceps at all. He quite believed that, with the ordinary forceps, delivery could in most cases be easily enough effected. Still, ordinary forceps-cases were made more easy, and there were classes of cases constantly occurring in which delivery with traction-forceps was only used, in which the child's life could be saved. Further, in saving the perinæum, in rendering delivery rapid, in dealing with occipito-posterior cases, in admitting of rotation, and in managing all cases at the brim, the axis-traction, especially those of A. R. Simpson, offered an enormous advantage over the ordinary instruments.

Dr. MURPHY (Sunderland) had used Tarnier's forceps in between sixty and seventy cases, and had found it most satisfactory in every respect, though no doubt Barnes's forceps acted admirably in the majority of cases.

Mr. STANSFIELD (Birkenhead), after a considerable experience of forceps-deliveries, found Simpson's or Barnes's to fulfil every requirement. He further pointed out the danger of having forceps screwed up and made so that they could not be easily separated.

Dr. WALTER (Manchester) stated that, in his experience as Obstetric Surgeon to St. Mary's Hospital, he found that occasionally cases did occur of contraction in the antero-posterior diameter, in which one of the ordinary forceps in use, such as Barnes's and Simpson's, was not sufficient to deliver a living child. This was very rarely the case; but, even though it only happened once in fifty deliveries, it were quite sufficient to show that the axis-traction forceps filled a use in obstetrics that should be recognised. The axis-forceps of which Dr. Walter had considerable experience was Aveling's long forceps, and he most strongly recommended them. The forceps shown by Mr. Le Page had a serious drawback in the fact of the blades not being able to be easily and quickly separated, a matter of great importance in preventing continuous compression of the child's head, which, as everyone knew, meant almost certain death to the child.

Dr. ARCHIBALD CAMERON (Liverpool) did not think that in having forceps with a bent handle, axis-traction was always got. The question was that of a bent lever causing pressure on the walls of the vagina. Something like axis-traction might be got by hooking on something to the blades near the fenestral line, not by bending the handles.

Dr. ALDERSON (Hammersmith) said he must bear his testimony as to the efficiency and safety of Simpson's long forceps. He had used them very much, about sixty or seventy times, in 1,500 cases, and always with the best results after he had been sent for by other professional men, and asked to bring his forceps. One particular case he remembered of a lady, primapara, 36, who was most anxious to have a living child. Another medical man was conjointly in attendance; the labour had been long and tedious, the os rigid, and had taken long to dilate—this gentleman had observed that if he used his own forceps, his being straight and broad, he should "split the os." Dr. Alderson said he thought delivery could be speedily and quickly followed by the application of Simpson's long forceps, which he had with him, and by the consent of this gentleman he at once used, and quickly delivered a large and living female child; the lady made an excellent and quick recovery.

The PRESIDENT (Dr. GRAILY HEWITT) said that the introduction of axis-traction forceps should draw more attention to the necessity there is of using force in the exact pelvic axis, varying as that did at the levels of the different pelvic planes.

THERAPEUTIC MEMORANDA.

THE USE OF THE BROMIDE SALTS FOR ABDOMINAL NEUROSES.

THERE is so strong a bond of therapeutic association between the bromides and the neurotic troubles of head and chest, that we are apt to forget how useful the same drugs may be for sundry disturbances of the digestive organs; and yet all the physiological analogies of the subject would lend support to this doctrine. No one claims for the potassic and sodic bromides that they can clear away heterologous exudation, and mend damaged textures. But those of us who are still old-fashioned enough to believe in "functional derangements," or dynamic force temporarily perverted, can easily understand that there are certain aberrations of the cerebro-spinal system, which, being of the same kind wherever they are situated, may be expected to yield to the same medicines.

For an elderly widow lady, tormented rather often with "emotional diarrhœa," I prescribed a few years ago some ordinary astringent remedies, with minute doses of opium, to be taken according to her needs. But, for another malady, sleeplessness, I gave occasionally moderate quantities of bromide of potassium. She discovered, however, that the latter remedy did her diarrhœa more good than anything else, and that, whenever it was taken at bedtime, the next day passed without any alvine looseness.

Fourteen years ago, Dr. J. Waring Curran recommended potassic bromide for the vomiting of pregnancy; but its real value could not be determined, as other things were combined with it (*Medical Press and Circular*, July 14th, 1869). But I have given the medicine in its pure form, and simply dissolved in water, and never without marked, though perhaps only temporary, success.

The distant echoes of cholera justify us in recalling some important observations by the late Dr. James Begbie, who spoke of bromide of potassium as able to strip that dread disease of some of its terrors (*Edinburgh Medical Journal*, December, 1866). He gave it in the earlier stage of collapse, and in quantities of twenty or thirty grains, at hourly, or even half-hourly, intervals; and he records the cessation of vomiting, the arrest of cramp, and the speedy return of warmth and colour to the previously cold and livid surface. He tells us that the medicine was tried fairly, both in the Leith and Edinburgh Cholera Hospitals, and that its use in both institutions did not disappoint expectations. It is good to feel better fortified against the most painful and mortal of all abdominal neuroses.

Lastly, I may glance at the use of the bromides in the treatment of saccharine diabetes. Here again Dr. Begbie started a line of therapeutic inquiry which has been successfully worked by other practitioners; and, at this moment, I have under my care a lady, between 50 and 60 years of age, whose special diabetic symptoms are clearly kept much in abeyance by a large dose of bromide of ammonium every night. Would this illustrate what has been called the "alterative and absorbent effects" of the bromides on the liver?

JOHN KENT SPENDER, M.D., Physician to the Mineral Water Hospital, Bath.

HYPERPYREXIA DURING RHEUMATIC FEVER TREATED BY THE COLD PACK.

C. G., AGED 28, a mason, slightly built, fairly well nourished, was first seen on Wednesday, March 28th, 1883. He complained of pain in the limbs, with swelling and tenderness of the wrists and ankles. The knees were slightly swollen, the tongue was furred, the bowels confined. The urine was scanty, with a large deposit of lithates; no albumen. Temperature 101°; respirations were regular. He had been, a few days before, wet through, and had allowed his clothes to dry on him, and another day had walked in the river, up to his middle, after sticks, keeping on his clothes the rest of the day. A mixture, containing fifteen grains of the salicylate of soda to the dose, was given to him, one to be taken every hour for the first six, and

then every three hours. The affected joints to be enveloped in cotton-wool. A dose of sulphate of magnesia was also given.

Next day there was not any change in the condition of the affected joints, but he was sweating profusely. The temperature was 101°.

On the Friday, he said he felt a little better, but there was no material change. Temperature 103°. He was still perspiring freely.

He was not seen on the Saturday.

On Sunday, April 2nd, I was unable to see him till 5 P.M. He was perfectly free from pain, but was very deaf. The skin felt hot and dry to the touch. The temperature was 105° in the axilla. His attendants were ordered to pack him in blankets rung out of hot water, and to discontinue the salicylate mixture; one containing 16 grains of sulphate of quinine, 80 minims of tincture of aconite, 40 minims of diluted sulphuric acid, and 8 ounces of water—half an ounce to be taken every two hours—was given to him, and I promised to see him later in the evening. About 8 P.M. I called again, and found him in a comatose state. The pupils were dilated, the cheeks were blowing in and out with respiration, which was sighing and irregular. The pulse was very rapid and compressible, and not to be counted. The temperature in the axilla was 107.4°.

On enquiring if there was a bath in the house and finding there was not, and that there was nothing that could be utilised as one, I got two buckets-full of cold water, and two large sheets, and, stripping the patient, I had him enveloped in one of the sheets dipped in the water, changing it for the other every three or four minutes, and having the water also changed frequently to keep it perfectly cold. There was soon a great change for the better, as the temperature gradually fell, the respirations became quieter, and the pulse more distinct. In about an hour and a half the temperature was normal, and the pulse 112. The man was perfectly conscious, but thought he had been down to the river side. I gave him a double dose of his mixture, and ordered it to be continued every two hours. About an hour after, the temperature was 99°; next day it was 101°; it never rose higher, but gradually dropped to the normal standard, and the patient was convalescent in a week.

Before the temperature rose, he had lost all joint-pains and swelling, and on its falling he complained of a little stiffness in the knees, but he never had any pain or swelling elsewhere; there never was any cardiac murmur, nor pain in the præcordial region, during the whole of his illness. I met him two miles and a half from home on Sunday, June 20th, when he said he felt quite well again.

I think that in the wet pack we have a very efficient means for reducing the temperature rapidly, when it is impossible to get a bath or anything that could be used as one. The salicylate of soda failed utterly in reducing the temperature, although it induced profuse diaphoresis. The quinine and aconite seemed to keep it down when it had been reduced by means of the cold pack.

W. R. BATES, Addingham.

CLINICAL MEMORANDA.

ACQUIRED AND INHERITED SYPHILIS.

THE following cases may be of some interest at the present time, when the whole subject has been taken in hand by the Collective Investigation Committee of the British Medical Association.

During the latter months of 1882, a young woman, advanced almost seven months in her first pregnancy, conplained of constant and intolerable itching about the genitals. On examination, it was found that the whole of the labia majora, and the surface right back to and around the anus, were covered with mucous tubercles; the body, face, and limbs were smothered with circular spots of a deep purplish hue, but very few scales. She had been in this state for some time, and had been trying various domestic remedies. The treatment consisted in touching all the tubercles with the acid nitrate of mercury, and this was repeated three or four times, with a week's interval between each repetition. In the meantime, the parts were dressed with black wash. After the first application of the acid nitrate, the itching was relieved, and did not recur. Internally, five-grain doses of iodide of potassium with two minims and a half of liquor arsenicalis and sarsaparilla were given three times daily, and the whole length of treatment was two months, when, as she appeared to be quite well, she ceased attendance. One week after this, she was delivered of a healthy female child, well formed and well nourished. The child was vaccinated, when ten days old, from another baby who had been done with calf-lymph. The arm did well.

When two months old, the baby was brought to me, covered with an ecthymatous rash, wasted, and pallid. Mercurial ointment was applied to the rash, and, internally, one-sixth of a grain of hydrarg. *cum* cretâ was administered twice daily, together with one and a half-grain doses of iodide of potassium three times daily. This was persevered with, but the child died comatose on the fifteenth day of treatment.

The husband admitted having had syphilis, but declared he was cured before marriage, and there were no data to fix the primary infection of the wife. In the child, vaccination failed to bring out any characteristic rash, or to produce any suspicious ulceration.

M. G. BIGGS, London.

LUMBRICUS IN PANCREAS.

IN your issue of September 29th, you report that Dr. Oks, of Rasgrad, Bulgaria, describes in the *Vratsch* the case of a phthisical patient, at whose *post mortem* examination was found a lumbricus lodged in the common duct of the liver. Some years ago, when acting civil surgeon at Mercara, in India, I found, in a very emaciated patient, who died in the Civil Dispensary at that station, a lumbricus, six inches in length, coiled up in the pancreas. The rainfall at the station was unusually heavy, 200 inches during the monsoon, which probably accounts for the ova being washed into the tanks of drinking-water, and the cause of so many persons suffering from these worms; some of whom passed upwards of 100 after taking a dose of santonin and castor-oil.

JOHN PEARSON NASH, M.D., Surgeon-Major Madras Army, London.

TOXICOLOGICAL MEMORANDA.

POISONING BY STRYCHNINE.

AT 10.15 P.M. of August 13th I was called to see a young married woman who, I was informed, "had taken poison." I went at once, taking with me some sulphate of zinc and the stomach-pump. On my arrival at the house in three minutes, I found her with well-marked opisthotonos and tetanic convulsions, with slight remissions every half-minute. The teeth were, during the attacks, firmly closed, rendering the use of the pump impossible. The mouth resembled that of a bag below which a string had been tightly tied, the lips being puckered and everted; the legs were extended, the arms bent, and the legs rigid. The woman screamed piercingly on the approach of each paroxysm, and, in the interval, begged to have her life saved, and for forgiveness for her sin in taking the poison. The pulse was rapid and wiry, and bloody mucus was hissed through the clenched teeth.

I dissolved about half an ounce of sulphate of zinc in a quart of warm water; and, when I told her her life depended on taking it, she greedily drew it in between her teeth, vomiting taking place rapidly, and continuing after each draught, till she had consumed the entire quantity. I obtained some tobacco in the house, and rubbed it between my fingers in some hot water till I made an infusion of about half a drachm to four ounces of water. I could get no boiling water. This was strained through some muslin, and administered. In about ten minutes, vomiting again ensued, but not till the paroxyms were reduced to one in every three minutes and a half. I then gave her a second similar draught, and this was retained for a longer period, the paroxysms steadily decreasing both in frequency and intensity till, at 2 A.M., nothing remained but an occasional twitching of the muscles. She was then ordered warm milk and beef-tea alternately every two hours, and continued making satisfactory progress, the only symptoms present being those of dyspepsia, and cramp in the arms and legs. She admitted having swallowed the contents of a threepenny packet of Battle's vermin-killer, which she took at nine o'clock on the evening on which I saw her. In all the cases I have previously seen, death took place under three-quarters of an hour from the taking of the poison, which, strange enough, was always a threepenny packet of the same poison.

As an inducement to medical men to save life in these cases, where the people either cannot or will not remunerate them for their services, the State provides no payment. If the patients die, there is the prospect of at least a guinea fee from the coroner. In Germany, I am told, the medical man who attends in a case of emergency is paid by the State. Would it not be worth the while of the Association seeking such a measure of justice for British practitioners? The Thames waterman who recovers a dead body from the river is entitled to 7s. 6d.; and it is said—possibly, with

truth—that he is often careful that life is extinct before he lands it, as there is no reward for saving life. Surely, there should be some greater honorarium for the exertions of the medical man than that which is proverbially attributed to virtue, which is its own, and, in cases such as I have mentioned, often its only, reward.

E. T. BURTON, Birmingham.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

A CASE OF ACUTE AND CHRONIC BRIGHT'S DISEASE: HEART-DISEASE: CEREBRAL EMBOLISM AND CORTICAL SOFTENING: PARESIS AND FITS.

(Under the care of Dr. ROBERTS.)

[Reported by Mr. E. A. DINGLEY, M.B.Lond.]

GUISEPPE M., aged 22, single, a butler by occupation, was admitted on November 8th, 1882. He stated that his father and two sisters had died from "cold;" but his mother and two brothers were living and strong.

He had generally lived on the Continent, but had been in London for about two years. He had always drunk freely of *vin ordinaire*. When three years old, he had scarlet fever, being ill about ten days. Three years before admission, while in Paris, he caught cold, and had pain in his loins, but did not notice his urine. He had also had slight rheumatism in the left shoulder, caused by cold.

On or about November 4th, 1882, he noticed that his legs were swelling; about the same time, he began to vomit twice a-day, and his urine became scanty and very dark in colour; the œdema increased, and became general; he took to his bed on November 5th.

When examined on November 9th, the note made was that he was a well-built young man, and could lie in any position. The temperature was normal. He was well nourished, but there was considerable œdema of the lower extremities, and the arms and trunk were also slightly affected; the face was puffy and swollen, especially about the eyelids. The skin and mucous membranes were rather pale, but otherwise normal. He slept well. There was no paresis or defect of vision; he did not suffer from fits. The arteries were healthy; the pulse was 53, regular, short, and small. The veins were not dilated. The apex-beat of the heart could be seen and felt in the fourth space, half an inch inside the nipple-line; the impulse was strong and sustained. The cardiac dulness was slightly increased; the heart-sounds were normal, and no murmurs were heard. He had a slight cough, but no expectoration or pain. At the bases of the lungs posteriorly, there was deficient resonance; on auscultation, a few sonorous and sibilant *râles* could be heard over the chest, and at the bases behind a few liquid *râles*. Digestion was bad, and accompanied by troublesome flatulence and vomiting after food. The bowels were freely open. The tongue was pale, broad, indented by the teeth, and coated on the dorsum with a thin white fur. The abdominal walls were œdematous, but no free fluid could be detected in the abdomen. Thirty-nine ounces of urine were passed, of an amber colour, and of specific gravity 1025; it contained albumen one-fifth, but no blood nor casts.

November 16th. This morning he had passed 36 fluid ounces of urine, which contained a little blood, and albumen one-fourth; fatty and hyaline casts were also seen. The vomiting after food still continued, and the dropsy was increasing.

November 21st. For the last two weeks, he had been taking mistura camphoræ, and at first the secretion of urine increased, but latterly it markedly decreased. On this day, he was ordered half a drachm of liquid extract of jaborandi every four hours. This increased the secretion from an average of 35 fluid ounces to an average of 56 fluid ounces. Hot-air baths were also being administered.

November 27th. The œdema was about the same. He complained of pain on micturition, and the urine contained blood and one-sixth albumen. The jaborandi was left off, and twenty grains of citrate of potash were ordered three times a day. At first, the amount of urine fell to 44 fluid ounces, but afterwards increased to 70 fluid ounces.

December 5th. The œdema had greatly increased, and the sickness continued. The urine contained blood, albumen one-half, and granular and epithelial casts. Five-grain doses of citrate of iron and ammonia had been substituted for the citrate of potash, and the average secretion of urine had fallen to 54 fluid ounces.

December 9th. The œdema was still increasing. All previous treatment had been stopped, and five grains of citrate of caffein ordered three times a day. Under this, the secretion of urine was reduced to an average of 45 fluid ounces; but the sickness was entirely stopped.

December 15th. The œdema remained unaltered. Hot-air baths were administered. The urine contained blood, and albumen two-thirds.

December 20th. The caffein was discontinued, and one drachm of infusion of digitalis was ordered every four hours. He also had a quarter of a grain of elaterium, which caused hard stools. The urine contained albumen two-thirds, hyaline epithelial casts, and blood.

December 22nd. This morning, it was noticed that, when the patient protruded his tongue, it deviated strongly to the left, but he could turn it to the right. No difference could be made out in the face-muscles; but the left arm was decidedly weaker than the right, and the grasp was also less. No paresis could be discovered in either of the legs. He had no fit of any sort, and only noticed the weakness when he awoke.

December 30th. Three punctures were made in each foot, and a fine cannula was inserted in the scrotum. At 7 P.M. on the following day, 470 fluid ounces had escaped.

January 1st. The fluid was still running slowly. At 11.30 A.M., the patient had a fit, which commenced with violent clonic spasms affecting the right hand; these spread rapidly to the right arm, and then to the left side, and finally to the face, the eye-muscles being especially affected. The latter part of the time, the eyes were drawn upwards and to the left. He had no warning that the fit was coming on, but cried out when it began. There was no initiatory tonic spasm, and no lividity. The clonic spasms lasted three minutes and a half, and ceased by becoming less frequent, and not less forcible. For some minutes afterwards, the patient was unconscious; and there was total paralysis of the left arm, and considerable paresis of the right; but, half an hour afterwards, he was *in statu quo ante*.

January 3rd. At 1 P.M., he had another fit, and at 7 P.M. and 10 P.M. he had two more, which began in the left arm, but soon became general. The paresis was greatly increased for some time afterwards. He was given two drachms of castor-oil, which caused five liquid stools. This morning, he complained of great pain in his left foot, and the dorsum was red and swollen. The temperature was 101° Fahr. An attack of erysipelas occurred, from which he had nearly recovered on January 13th; but the œdema was beginning to increase again. The urine was very smoky, containing blood, albumen one-half, and every variety of casts.

January 19th. At 4.45 A.M., he had another fit. He said that he was conscious of its onset, and that it began with twitching of the left angle of the mouth; this spread, causing clonic spasms of all the facial muscles. The right arm and leg twitched a little, but he was able to control them, and they only lasted one to two minutes, whilst the face-muscles were affected seven or eight minutes. He was conscious all the time; and there was no increase of the paresis this morning, and no marked facial paralysis. Three small bed-sores were noticed near the left posterior iliac spines, and one near the left great trochanter.

February 4th. Last night, at 11 P.M., he had a severe fit affecting all the muscles of his body; it lasted five minutes, and was followed by stupor lasting a quarter of an hour. At 2.30 A.M., he had a slight fit, affecting the face-muscles only.

February 5th. At 2.33 A.M., he had another slight fit. The œdema was again very extensive.

February 9th. This morning he had an attack of dyspnœa, after which he was propped up in a chair, and four incisions were made in each foot. At the base of the left lung behind, harsh tubular breathing could be heard. There was no pain, and the temperature was normal.

February 10th. Since the incisions were made, he had lost 400 fluid ounces of fluid, and he seemed considerably relieved.

On the afternoon of February 11th, he had another attack, which greatly exhausted him, and after which he expired.

The necropsy was made forty-six hours after death. Rigor mortis had passed off, and decomposition was commencing. On opening the thorax, the left pleura was found to contain two pints and a half of fluid, and the right one pint and a half. The left lung was

slightly adherent at the apex. The bronchi of the right lung were full of blood-stained mucus. The apex showed old broncho-pneumonic patches. All the lung was œdematous but crepitated. At the lower border of the lower lobe was a solid wedge-shaped patch, one inch long, of a dirty light brown colour. Outside this was a smaller patch, half an inch long. The pleura was covered with lymph. The bronchi and apex of the left lung were the same as on the right. The lower lobe was of a dark chalky colour, very œdematous, and scarcely at all aërated. The heart weighed twelve ounces and a half; the pericardium was normal; the muscular substance was rather tough. The cavities on the left side contained a little *post mortem* clot. The mitral valve was normal, except that there were small fibroid vegetations at the attachments of the chordæ tendinæ. The aortic valves were slightly thickened and opaque. Below the corpus arantii of the right cusp were small fibroid vegetations, each two millimètres in diameter. At the junction of the anterior and middle thirds of the lower border of the right cusp there was a fibroid patch, one millimètre in diameter, continuous with the lower margin of the valve. The surface of the patch was smooth and shining, except about the centre. The orifice of the right coronary artery was placed above the junction of the anterior and right cusps, and, therefore, could not be covered by them. The tricuspid and pulmonary valves were healthy. The abdomen contained nine pints of muddy yellowish brown fluid. The liver weighed forty-seven ounces and a half, and extended completely across the abdomen; it was very narrow. The surface was smooth, and the edge hard. The capsule was thickened, and more adherent than normal. On section it was mottled, being pale yellow in places; the margins of the lobules were well defined; Glisson's capsule was increased throughout the liver. The liver-cells here and there were fatty. The spleen was elongated, and at one end there was a round dark swelling, surrounded by a depressed border, the breadth of the swelling 1.5 centimètre. On section the splenic pulp was dark red and very soft; the patch had a yellowish colour, and was solid. The left kidney weighed eight ounces, and was distinctly larger than natural; the surface was pale yellowish white. In the centre the pyramids retained their pale pink colour; the capsule stripped off easily. The density of the organ was slightly increased; the Malpighian bodies stood out clearly. The substance of the cortex was fatty. The right kidney presented the same appearance to a less marked degree.

All the cranial nerves at the base of the brain were normal. As the brain lay on the plate, the right hemisphere was notably smaller than the left. The pia mater covering the surface of the right hemisphere was thickened and closely united; the arachnoid was also thickened, especially over an area extending from the upper extremity of the fissure of Rolando to just in front of the level of the precentral sulcus, covering two-thirds of the breadth of the superior frontal convolution. The pia mater over the ascending frontal convolution was more vascular; this vascularity extended into the posterior third of the middle frontal convolution. The lower third of the ascending frontal convolution was flattened below the surface of the neighbouring convolution, this flattening extending up along the precentral sulcus as high as the superior frontal convolution. On lifting up the pia mater over this depressed area, and cutting into the brain beneath, it was found to be disorganised, and of a yellowish white colour. The right middle cerebral artery showed small patches of atheroma, especially one just behind the anterior limb of the fissure of Sylvius. Here the artery divided, one branch running superficially to the depressed area, and the other running into the centre of it, towards the precentral sulcus. On making sections through the hemisphere, parallel to the fibres of the corona radiata, the basal ganglia appeared to be perfectly healthy, but there was some *post mortem* softening of the corpus striatum on the surface of the caudate nucleus. The fibres of the corona radiata, leading from the cortex to the corpus striatum, were degenerated, the brain-substance being of a yellowish white colour. The white substance of the brain was everywhere opaque, and of a yellowish tint. The puncta cruenta were well marked. The fourth ventricle was normal. The cortex of the left hemisphere was normal. The puncta cruenta were well marked, except in the occipital region. The cerebellum was normal. The right crus appeared to be rather smaller than the left, especially at the inner side, and to be distinctly yellower than that on the opposite side, especially immediately beneath the inner end of the locus niger. In the middle line at the posterior third of the pons, the right descending fibres appeared to be rather smaller than those on the opposite side. The right pyramid opposite the middle of the olivary bodies was distinctly smaller than the left. There was a small recent bed-sore, a quarter of an inch in diameter, one inch to the inner side of the left posterior superior iliac spine. There were two other bed-sores of the same size, one an inch above the left posterior inferior iliac spine, and another just opposite the upper border of the left great trochanter. All were circular and irregular, with grey, sloughy floors.

CHARING CROSS HOSPITAL.

EXCISION OF RECTUM: GREAT IMPROVEMENT.

(Under the care of Mr. BELLAMY.)

[For the notes of this case, we are indebted to Mr. W. H. HAW, Dresser.]

EXCISION of the diseased portion of the rectum was determined on in this case, on the ground that the tissues involved appeared to be within tolerably easy reach of the finger, that the patient was in fairly good health, and free from any absolutely urgent symptom, and apparently not cachectic; and that, in the event of ulceration, the area would be minimised as much as possible.

T. B., aged 49, a gilder, was admitted on May 26th, 1883. He had had rheumatism and bronchitis. His father died of asthma, never having had any cancerous growth; his mother died of bronchitis; two brothers were alive and well; one sister died while undergoing an operation.

Twelve months before admission, he first noticed blood and what he described as "treacly-looking stuff with white fibres" coming away involuntarily by the rectum. No pain before the foregoing was noticed. He sought advice, and was treated for hæmorrhoids. He improved for a time (five months), but had been steadily getting worse for six months. By "getting worse," he meant that the discharge increased, and the pain at night was greater. He seldom experienced much inconvenience during the day, except after hard work, when he was obliged to lie down. He had been losing flesh for a year, and latterly had complained of trembling all over the body.

He was a middle-aged man, of slightly sallow complexion. The tongue was slightly coated, and appetite was good. The fæces were passed quite involuntarily, sometimes mixed with blood and what he described as "matter." No actual pain was felt, but a great sense of weight in the rectal region. The finger, on introduction into the rectum, felt a hard craggy mass, which surrounded the whole of the bowel, and did not extend beyond easy reach, except on the left and back part.

May 31st. Mr. Bellamy operated as follows, the patient being placed in lithotomy position. A sound was passed into the bladder, an incision was made round the verge of the anus into the fat and cellular tissue of the perinæum, and the lower end of the rectum isolated forcibly by the fingers, with the view of avoiding hæmorrhage. The rectum being well dragged into the wound (*en clochette*), Mr. Bellamy passed a long straight bistoury into the rectum in the medial line, and cut through its tissues down to the sacrum. Next, determining the position of the peritoneal fold, and as far as possible the extent of the disease, he seized each "flap" of the divided rectum with strong forceps, and, bringing it well through the wound, dissected it off the base of the bladder and neighbouring structure with long powerful scissors, which were not too sharp, so that the hæmorrhage again might be reduced by "crushing" the structures divided. No sutures were used. There was some bleeding, the patient showing signs of syncope immediately after the operation. The bleeding was stopped by plugging the fossa with sponges. After their removal, lint steeped in carbolic oil was applied, and continued for the first two or three days. A milk-diet was ordered.

June 1st. Morning temperature, 100.6°; evening, 101°. No motion had been passed.

June 2nd. Temperature: morning, 100.8°; evening, 100.8°.

June 3rd. Temperature: morning, 99.8°; evening, 100.8°. The temperature varied between these points for some days.

June 11th. The patient had his first motion involuntarily.

June 12th. Temperature: morning, 98.4°; evening, 102.4°.

June 16th. Temperature: morning, 98°; evening, 102.2°. The dressing now used was lint steeped in terebine. A good deal of mucus was discharged with the fæces. The lower end of the bowel could be felt at the upper part of the gap.

June 25th. The temperature was 101° Fahr. Soon after admission, the patient developed symptoms of bronchitis, so that he was ordered an expectorant mixture, with ten minims of liquor morphiæ. His appetite was fair; he had meat and potatoes on June 24th for the first time. He was conscious of the passing of his motion, and generally had time to call for the screens.

A microscopical examination showed the growth to be a cylindroma.

On September 17th, the patient was again seen. He was getting fat and well, and had great power over the parts. There was no evidence of return of the disease.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCTOBER 16TH, 1883.

J. WHITAKER HULKE, F.R.S., F.R.C.S., President, in the Chair.

New Volume of Transactions.—The PRESIDENT said that he had great pleasure in presenting to the Society the thirty-fourth volume of its *Transactions*.

Lympho-Sarcoma.—A number of specimens illustrating a malignant form of Hodgkin's disease were exhibited by Dr. CARRINGTON. The patient, a woman aged 55, had died in Guy's Hospital under the care of Dr. Goodhart. She stated that she had first noticed swelling of the glands on the left side of the neck in June 1882; in August following, the legs and abdomen became swollen. When admitted on February 7th, 1883, she was very anæmic and emaciated, and the subcutaneous tissues were generally œdematous; the cervical, submaxillary, axillary, and inguinal glands were enlarged; the spleen was very large, reaching as low as the crista ilii. An examination of the blood showed that there were about 4,720,000 red corpuscles to the cubic millimètre, and about 4.3 white corpuscles to every thousand red corpuscles. A week after her admission, she was seized with palpitation; there was no fever, but the urine was found to contain a trace of albumen, and the patient died the same day. At the *post mortem* examination, in addition to the great enlargement of the superficial glands noted during life, the mediastinal glands were found to be enormously enlarged, extending along the bronchi into the lung, but not involving the pulmonary tissues. The stomach was studded, on its mucous surface, with numerous cream-like flattened tumours; the pyloric orifice was involved, but the duodenum was free from disease. The valvulæ conniventes of the small intestine below the duodenum began to show disease, being firmer than natural, and swollen; lower down, they became polypoid and creamy. The solitary glands and Peyer's patches were enormously swollen; the cæcum contained a mass of growth that weighed half a pound; the spleen, though greatly enlarged, and weighing forty-four ounces, retained its natural form, and it was everywhere permeated by a soft new growth. Microscopic examination of the growth showed it to be of a lymphomatous nature. Dr. Carrington had been able to find only four similar cases recorded in the *Transactions* of the Society.—The PRESIDENT considered the case to be of great interest; he had never seen a similar one.—Dr. PYE-SMITH referred to a case of this kind recorded by Dr. Behier about twenty years ago, which was, he believed, the earliest on record; it was a case of lymphatic overgrowth of the lymphatic structures of the intestinal canal.—Dr. SYDNEY COUPLAND observed that an instance of this disease had been preserved by Cruvelhier in his Atlas; it was probably the earliest case of which any note remained.

Scirrhus of the Bladder.—Dr. W. B. HADDEN showed a specimen of scirrhus of the bladder which he had removed from the body of a man aged 63, who died in St. Thomas's Hospital, under the care of Sir William Mac Cormac. The chief symptoms were hæmaturia, and severe difficulty in micturition. These had been noted for three months. A large firm mass was felt *per rectum* in the position of the prostate. After death, a soft warty growth, made up of granulation-tissue, was found to be attached to the mucous membrane of the bladder at the right side, just beyond the neck. The anterior wall of the bladder was much thickened, white, and very hard. The growth extended upwards for two inches and a half; the prostate was not involved. There were two or three large hard glands behind the bladder, but no other secondary deposits. On microscopical examination, the growth was found to be scirrhus. The right kidney was very small, and contained a few cysts and some abscesses. Its outer surface was irregular and tuberculated. Dr. Hadden observed that, though Sir Henry Thompson held that scirrhous growth was the most common form of tumour of the bladder after villous growths, only two cases similar to this one had been recorded in the Society's *Transactions*.

Congenital Tumour of Orbit.—Mr. GEORGE LAWSON related the history of a case in which he had excised the eye of a child only two days old, on account of a congenital tumour of the orbit, which had completely extruded the eye from between the lids. The patient was taken to the Royal London Ophthalmic Hospital in May 1882, suffering from complete congenital exophthalmos, evidently due to an orbital tumour. Mr. Lawson removed the eye, and for a time the child did well. It lived until the middle of the August following, and had been in fairly good health until within two days of its death, when convulsions came on, which were followed by coma. The necropsy and the microscopical examinations were made by Mr. Mills, the curator of the museum. A large tumour was found, projecting from and filling up the right orbit. On opening the skull, the upper surface of the brain and its membranes were quite healthy; on the under surface, there was a distinct impression in the right middle lobe, produced by the projection of several cysts from the sphenoid bone. There was well-marked basic meningitis, confined chiefly to the right side. The tumour seemed to have originated in the body of the sphenoid bone, to have grown forwards, and filled up the cavity of the orbit. The tumour was pretty solid, but contained numerous cysts in its substance. Under the microscope, the tumour was found to consist of several varieties of tissue in different stages of development. The most noticeable were patches of hyaline cartilage, of a spherical or oblong shape, often surrounded by a zone of spindle-cells, with a distinct gradation from cartilage-cells. Numerous cysts of all sizes were scattered through the tumour. The walls of the cyst were usually lined by pavement epithelium. In places, small cysts were seen to be projecting from the walls of the larger ones. The more solid part of the tumour consisted of masses of round cells, like embryonic tissue, spindle-cells, and more fully developed fibrous tissue. There was evidence of formation of glandular structure at several parts. The microscopical examination showed that the tumour was evidently of embryonic origin, with an attempt to develop into the lower forms of connective tissue and gland-structure.—The PRESIDENT said that Virchow had described a somewhat similar case; in that case also the tumour had originated in the sphenoid bone, and was in large part cystic in structure.

Tumour of Brain.—Mr. HENRY KESTEVEN gave an account of the examination of the brain of a patient who had been under the care of Dr. James Grey Glover. After reading a short note descriptive of the symptoms observed during life, Mr. Kesteven described the condition of the brain. He had found eleven separate tumours therein, and he described the positions of these tumours and their structure, also calling attention to their bearing on the question of localisation of cerebral function.

Acute Gastro-Enteritis in a Bear.—Mr. JONATHAN HUTCHINSON, Junior, showed the stomach and the upper part of the intestine taken from a bear, which had died after a day's illness. The parts referred to were acutely inflamed, but the rest of the intestine was healthy; the stomach and the neighbouring part of the bowel contained much exudation, but no food. No torulæ or micro-organisms were found in the exudative material, but immense quantities of round cells, fibrin, and altered blood. The uterus, bladder, and trachea were in a state of acute catarrh; the other viscera were healthy. The author added that the disease was probably purely catarrhal; the wind was in the east at the time; the absence of fur from the tongue was an interesting point.

Sebaceous Cyst of Finger.—Mr. POLAND showed a cyst removed from the flexor aspect of the ring-finger of a man aged 59. The cyst had been noticed for about four years, and had become inconvenient owing to its increase in size; the cyst was lined with thickened epidermoid cells, but there was no distinct sac; he regarded it as sebaceous.—Mr. GODLEE had met with three cysts of this kind on the flexor aspect of the finger; one measured an inch long and half an inch broad; in the third case, which had occurred recently, he had noticed a small black point, such as was commonly seen in sebaceous cysts. He, however, failed to see how the occurrence of a sebaceous cyst in such a situation could be explained.—Dr. SAVAGE said that, twenty-three years earlier, Mr. Bryant had removed a sebaceous cyst from his forefinger; that cyst was undoubtedly sebaceous.—The PRESIDENT said that there were several cases on record of sebaceous cysts in the anterior chamber of the eye, which had developed after penetrating wounds of the cornea involving the iris; in these cases, it seemed probable that, at the time of the wound, some sebaceous gland had been transplanted on to the iris; this theory might explain the occurrence also of a sebaceous cyst on the flexor aspect of the finger.

Congenital Malformation of the Heart.—Mr. HOWARD TOOTH exhibited a heart which presented a rather rare and remarkable form of congenital malformation. The pulmonary artery arose from the

sinus of the right ventricle, and the aorta from the infundibulum; the foramen ovale was not quite closed, and the intra-ventricular septum was deficient at the base. The patient was a boy, aged eight years, who died of enteric fever; cyanosis had been noticed for six years; and, when admitted into St. Bartholomew's Hospital, under the care of Dr. Gee, there was, in addition to the symptoms of enteric fever, clubbing of the fingers and toes, a loud systolic murmur heard equally over the whole cardiac area, and bulging of the chest to the left of the sternum.

Gumma of Dura Mater and Syringo-Myelus.—Dr. F. TAYLOR showed a case of syringo-myelus associated with syphilitic spinal meningitis, and gumma of the spinal dura mater. The patient, a woman, with undoubted evidence of syphilis, had suffered from imperfect left hemiplegia for three years, and from paralysis of both legs, with rigidity, for one year previous to death. The necropsy showed that the spinal dura mater was very much thickened throughout the greater part of the cord, and at the level of the ninth dorsal vertebra was a gumma, which pressed upon the anterior surface of the cord, distorting it considerably. At this point the cord was softened, and secondary degeneration extended both upwards and downwards. The cord also contained a cavity, which extended nearly its whole length; its shape and extent laterally varied at different levels. It occupied uniformly the posterior half of the cord, either lying transversely behind the commissure, or occupying one of the posterior cornua, generally the right. In the cervical region, one section showed a cavity in each posterior cornu, the two being unconnected with each other. It had no defined lining membrane, nor any epithelium, its wall being formed by the tissue of the cord, which was a little denser than usual, and showed fibres and blood-vessels running parallel to the surface of the cavity. In all the sections which had been made, the cavity was entirely independent of the central canal, even where the cavity was at its largest, and occupied nearly half of the area of the cord in transverse section. The contents were not ascertained. Dr. Taylor had shown a similar case at this Society four years ago, and others had been recorded, chiefly in German literature. There was some doubt as to their mode of origin; and a distinction had been drawn between cases involving the central canal, and presumably arising from its dilatation (hydro-myelus), and others which, like the present, were independent of the central canal (syringo-myelus). Leyden had endeavoured to show that the two kinds of cases had all other features in common, and thought that even the latter might arise from irregularities of development of the canal, especially at the time when the central canal has a T shape, and might easily be constricted so as to form an anterior portion, the natural central canal and a posterior, which remained as the abnormal cavity here seen. This was an explanation which Dr. Taylor was more ready to accept than the hypothesis that tumour or inflammatory growth had first formed, and then softened down into a cavity, since there was, in his cases, little or no evidence of pre-existing changes of that nature. In this case, he attributed the paraplegia, which was more marked in the right leg, to the pressure of the gumma upon the spinal cord; and regarded the syringo-myelus, in accordance with the above views, as congenital.

Bone-Disease in Monkeys.—Mr. SUTTON said that during the past summer he had had many excellent opportunities for inquiring into the clinical history of rickets in monkeys, and he had been able to prepare several specimens; these consisted of two weeper capuchins from Brazil, and a spider monkey from South America. All of them were residents in the Zoological Gardens. When a monkey became affected with rickets, the most prominent symptoms were diminished activity, and paralysis of the lower limbs, so that the creature swung itself along, using the long arms as crutches. The upper extremities then bent from the weight. Gradually, the animal became completely paraplegic, and suffered from incontinence of urine and fæces; priapism was frequently observed. Death was most commonly caused by bronchitis, or broncho-pneumonia. The disease advanced very rapidly, and in some of the more severe cases ran its course in three or four months. The most interesting symptom was the paraplegia, to which he would return after describing the main features of interest in the skeleton. The capuchins exhibited in an extreme degree all the characteristic signs of advanced rickets—beaded rib-shafts, softened and curved bones, enlarged epiphyses and epiphysial cartilages, and deformed pelves, The skull of one was remarkably eroded, perforated, and slightly thickened; on either side of the foramen magnum was a large tabetic patch. The shafts of the long bones presented a most remarkable condition; for the compact tissue, instead of being arranged in the familiar concentric layers, was split into longitudinal lamellæ, separated by tracts of richly cellular connective tissue, which was readily seen to be continuous with the deeper layers of the periosteum. The medullary cavities were filled with dark red marrow. The epiphyses exhibited in the highest degree that condition to which he had assigned the name of diffuse epiphysis; further investigation had convinced him that the enlarged epiphyses met with in rickets were due to the ossific matter being deposited in a diffuse and irregular manner. In some cases, he had counted as many as thirty nuclei in the epiphysis for the condyles of the femur. In the spider-monkey, the disease seemed to have occurred in an older animal. In the shafts of the long bones, new bone appeared to have been deposited on the compact tissue of a well-formed bone. The thorax was transversely deformed, due to the distension of the stomach and upward displacement of the diaphragm. The stomach was so dilated that it reached from the diaphragm to the symphysis pubis. All monkeys in whom this disease assumed severe proportions became paraplegic, owing to gradual and slow compression of the spinal cord, due to the overgrowth and softening of the vertebræ, which gradually encroached upon and narrowed the spinal canal, not only in one place, but so as to cause a general narrowing of the canal. Not merely the cord, but the nerves also were pinched; for the softened laminæ allowed the intervertebral foramina to be encroached upon by the downward pressure of the weight of the body. This condition explained the pain, paraplegia, incontinence, and priapism. The condition was best seen in a transverse section across the column with the cord still *in situ*. When examined microscopically, the spinal cord exhibited all the changes found when it had been compressed from other causes, as Pott's disease or tumour. The bearing of this observation was important. In all the recorded cases of mollities ossium in man, pains, and in some, paraplegia, were the leading symptoms. In all the instances in which the disease had lasted long, softening of the vertebral column had been recorded whenever that portion of the skeleton had been examined at the necropsy. He thought it probable that the agonising pains of that formidable malady were due to the compression of the cord and pressure on the spinal nerves in the intervertebral foramina, due to the yielding of the softened vertebræ.—Dr. GOODHART asked Mr. Sutton if he could state the age of the monkeys? It was important to know this, because the monkeys mentioned in Mr. Sutton's earlier communication were probably all adults; if that was the case, then this monkey-disease was analogous to the disease known as "late rickets" in man, and it was doubtful whether this was rachitic in nature. Dr. Goodhart also enquired whether lardaceous disease had again been observed.—Mr. SUTTON replied in the negative to the second question; with regard to the age of the monkeys, it was extremely difficult to determine it, as they were not born in the Zoological Gardens. The state of the epiphyses was the only guide, and this was by no means reliable.

CARD SPECIMENS.—*Tubercular Ulceration of Large Intestine.*—Mr. A. Q. SILCOCK showed a specimen of very extensive ulceration of the mucous membrane of the lower part of the colon, sigmoid flexure and rectum, so that only small islets of membrane with undermined edges remained.

Dysentery.—Dr. FREDERICK TAYLOR showed specimens of abscess of the liver and of the brain, secondary to dysentery.

Peritonitis.—Mr. JONATHAN HUTCHINSON, junior, showed a portion of the stomach of a deer, which presented on its peritoneal surface small inflammatory areæ; the peritoneum also contained a small hydatid cyst.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 12TH, 1883.

SIR ANDREW CLARK, Bart., M.D., F.R.C.P., F.R.S., President, in the Chair.

President's Remarks.—Sir ANDREW CLARK congratulated the Society on its reassembling after the vacation, and hoped that its labours would result in the better treatment of disease. He would ask the surgical members for information upon one point, to introduce which he would cite a case. In 1870, a gentleman with slight incontinence of urine, apparently his only trouble, consulted him. He had no sign of other disease, and enjoyed life. He was told his case was surgical, and that he had better consult a certain surgeon, by whom he was told to establish catheterism. After two or three days, being again summoned, Sir Andrew Clark found the patient in bed, complaining that he felt very ill. He had employed catheterism. There was a little purulent matter in the urine; he loathed his food; his pulse was rapid; his temperature 100°. Two days

afterwards, he was a little worse; the temperature was still rising. In nine days he died. At the *post mortem* examination, the bladder was inflamed, but the kidneys were reported to be healthy. Since 1870, Sir Andrew Clark had seen four or five such cases a year. Some surgeons recognised their occurrence, but in no work, English or foreign, had he been able to find any information on the subject. The affection was almost uniformly fatal; and, as many patients were constantly entering on the catheter-life, he should be glad if surgeons could give some information on this important matter. He was not alluding to the rigors often felt soon after catheterism, but to the feverishness which set in in a few days, and, in his experience, proved fatal. In answer to Mr. EASTES, the President stated that, in some of his cases, the catheter had been constantly worn after being passed; in other cases, it had been removed, and passed a certain number of times each day. The fatal symptoms occurred with either set of cases.

Three Cases of Peritoneal Abscess in Children.—Dr. GOODHART read notes of these cases. The first was that of a girl, aged 11, who was said to have suffered from typhoid fever four months before she came under treatment. She had been in bed for eight weeks, and in the seventh week had chicken-pox. Soon after this, an abscess formed at the umbilicus, and opened. She was admitted into the Evelina Hospital with a sinus discharging pus copiously at the umbilicus. She was placed under chloroform, and Mr. Howse made a thorough examination with a probe. This left no doubt, from the freedom with which it passed deeply in all directions, that the pus came from the peritoneal cavity; but, seeing that there was now no febrile disturbance, it was decided to keep the child in bed, feed her well, and watch the course of events. She steadily increased in weight, the discharge gradually diminished, and after three months had all but ceased. She had now been for many months quite well.—The second case was that of a boy, aged 11, who had been quite well till shortly before admission. His illness, attributed to getting wet, began with rigors and vomiting. When admitted, he was extremely ill, and the case was very obscure; but gradually a diffused abdominal dulness became localised in the hypogastrium, and the abdominal wall began to bulge. After he had been in the hospital a month, Mr. Howse made a small incision into what appeared to be an abscess. This was followed by the escape of a quantity of thin pus and some fœtid gas. A long probe passed several inches in all directions into the peritoneal cavity. A quantity of fœtid pus continued to discharge daily, but his condition did not improve, and the opening was therefore enlarged; but neither did this mend matters, and, shortly after, an explanation of its failure was afforded by the fact that the left pleura began to fill with fluid. The chest was incised, and sixteen ounces of very fœtid pus came away. Before long, it became necessary to treat the left chest in the same way, and with considerable relief to the child for the time. The lung, however, became consolidated, and he ultimately sank. The *post mortem* examination showed that there had been a peritoneal abscess, for which no cause could be discovered; that this had localised itself in each hypochondrium, and had thence perforated the pleuræ, and on the one side had set up a destructive pneumonia. There was no evidence of any tubercular disease. The viscera were lardaceous.—The third case was a female child, aged 5. Her illness began, six weeks before admission, with inflammation of the bowels, and she was sent into the hospital for a supposed retention of urine, the abdominal swelling resembling a distended bladder. But the temperature was rather erratic. So, at the end of a week, an exploring syringe was introduced two inches below the umbilicus, and some thick, dirty, fœtid pus was withdrawn. A free incision opened a cavity, which appeared to be limited behind by intestine covered by omentum. A drainage-tube was inserted for a few days, but the discharge soon diminished so much as to allow of its withdrawal; and at the end of six weeks she was well. Dr. Goodhart thought the cases worthy of record, first, because of their rarity, and, secondly, because the question of treatment was not an easy one to determine satisfactorily. On the one hand, there was the risk of the pus gravitating to the hypochondria, as actually happened in one case, if a free opening were not made; on the other, there was the difficulty of draining the cavity of the peritoneum if it were made; though, on the whole, the cases pointed in the direction of the latter course as being the most advisable. It was probable that the surgeon might have no doubt upon the point; he would say that free drainage after abdominal operations presented few difficulties, and cases so treated were most successful; but it might be questioned whether the conditions after operation were quite parallel to those of pus in the peritoneum, and where there was a considerable tendency for the one collection to become distributed and to form several separate abscesses.—The PRESIDENT said that some three months ago he had been summoned to see a dignitary of the Church who had peritoneal trouble. Phlegmon seemed to be at the bottom of it. He had lost power over the bladder, was very ill, and for days almost completely collapsed. The heart was acting very feebly; there was fluid in the abdomen. He had been out of health for some time; and it had been surmised that the swelling which was apparent in the abdomen might possibly be a pre-existing growth coming to the front. At the third visit the swelling was fluctuating, but it was decided by the doctors not to operate, as it was thought he would not bear the operation. A relative proposed an operation, and that a surgeon should come; but he was overruled, it being considered better to leave the patient to the chances of nature. In three days pus appeared in the rectum in great quantity, and soon the patient rallied; then, after a few days, the flow of pus ceased, and a relapse occurred; but in three days pus again appeared, improvement began, and had since continued without interruption. In certain cases, it was probably better to leave the patient to the chances of nature than to operate.—Mr. GODLEE related the case of a child which had a discharge of pus and fæcal matter from a small opening at the umbilicus. It was decided to enlarge the aperture; but the child died after ten days, and then the coils of intestines were found matted together, and communicating with an abscess. There were certain cheesy spots in the mesentery, but no tubercle was found at any part of the body. In another case, a child had a tumour below the umbilicus, and the matter was discharging.—Dr. MAHOMED believed the cases of peritoneal abscess were not so very rare. He thought they tended to recovery. If they died, the *post mortem* appearances were obscure, so that the cause of disease was not discovered. In a patient admitted to the Fever Hospital, who was very ill, and supposed to be suffering from perforation after typhoid, and who had severe peritonitis, an exploration was made by Mr. Pepper. An abscess-cavity was found. The wound, however, closed, and the patient died in forty-eight hours. At the *post mortem* examination there was no evidence of typhoid fever, but two abscesses, which were found, appeared to be connected with suppurating mesenteric glands. In a female under the care of Mr. Davies-Colley, no tubercular disease was found, but general peritonitis of long standing. Sinuses were burrowing in various directions; there were openings between the abscess-cavities into the bowels, of what nature was not made out. Another case occurred in a boy, aged 14, who had had scarlatina. He was convalescing, when he became severely ill, with pain in the abdomen. The scrotum became swollen and inflamed. He died on the sixth day. At the *post mortem* inspection the peritoneal cavity looked as if a mixture of egg and milk had been smeared all over the intestines. They were matted together. There were also several collections of pus in the layers of the mesentery; and the glands of the mesentery were enlarged, but they were not suppurating. It seemed as if the suppuration might be in the lymphatic system of the mesentery. Possibly some unsuitable food might have caused it.—Mr. HOWARD MARSH also thought the cases not very rare. They needed discussion. He himself did not quite understand them. Did physicians know of fæcal fistulous openings on the surface after typhoid fever? This question he put with reference to the case of a little girl, aged 8, who had such a fistula. There was induration in the abdomen near the umbilicus, and a probe could be passed in for several inches in various directions. An opening was made into this pancake-like cavity in the abdomen, and the opening was kept open. The pus, after six weeks, had lessened in quantity and become very thin, and it was thought the child was nearly well when last seen. At any rate, she became robust and ruddy whilst in the hospital. Another child, two years old, became ill, and had protrusion of the abdominal wall at the umbilicus. An incision was made, and pus let out in large quantities. That child was nearly well when last heard of. A young man from Belfast had pain in the abdomen, and a deep brawny abscess appeared. It was opened at the umbilicus; but, as the abscess did not quite empty itself, it was opened again in the left hypochondrium. He then took, unadvisedly, a dose of aperient mixture, and had all the symptoms of perforation. He was collapsed, but recovered sufficiently to go to Belfast. He then became as if tuberculous; in six or eight weeks became suddenly much worse, and died. The abscess-cavity perhaps gave way at some part of its wall, and pus entered the peritoneal cavity. A girl in St. Bartholomew's Hospital had an abscess directly between the umbilicus and the pubes. She was thin and weak, and had albuminuria. He (Mr. Marsh) thought she was tubercular; but

Dr. Andrew considered the mischief was not tuberculous.—Mr. BARKER said that a woman came to the University College Hospitol, supposed to have a right femoral hernia. The tumour was œdematous and red. He cut down upon and examined it, thinking it might possibly be a femoral hernia which was beginning to suppurate. The sac was opened, and a large quanty of pus evacuated. There was, however, no sign of intestine, nor of omentum, and no obstruction at the neck of the sac; and the probe passed deeply into the abdomen. The pus welled up freely from the wound; but Mr. Barker made another opening in the abdominal wall above Poupart's ligament. and put a drainage-tube into each. The patient did well. The pus was in the abdominal cavity, and passed down to the thigh in the direction of an old hernial sac. The proper treatment seemed to have been followed. Such abscesses ought to be opened early, as in any other part of the body.—Dr. TAYLOR quite agreed with Mr. Barker, if the cases were obviously recognisable as abscesses. But many of them were simply localisations of pus which were at first peritonitic. In such cases, the pus became localised in the hypochondrium, and then burrowed up to the lung. Even if the abscess were diagnosed, it might be found in such a position as to be very difficult to treat. A girl had general peritonitis, and, after six or eight weeks, still remained ill, with heightened temperature. In ten weeks, an abscess came to the surface, and was opened. The temperature fell, and she convalesced.—Dr. HABERSHON said the cases alluded to in the discussion were of quite a distinct character to those brought forward by Dr. Goodhart; they were very interesting, but of a different nature. Some were due to local inflammations of the parietes, phlegmons, which might open internally. Sometimes the mischief had arisen from a blow; a blood-clot was produced, degenerated, and an abscess was the result. Or typhoid fever might originate the trouble; whilst, in other cases, mischief began at the umbilicus, as in young infants. A blow might fall on the abdomen, and produce local inflammation, and suppuration.—Dr. EDIS said these cases of encysted abscess were not unknown amongst gynæcological patients. A girl caught a chill at a funeral. Her temperature rose to 103°. She had vomiting; the bowels were confined; she took aperient pills, and became worse. After eight or ten days, the pulse was scarcely perceptible, the vomiting continued, and became stercoraceous. She had a dry tongue, and was evidently sinking. It was doubtful if there was any pelvic complication. Dr. Edis was then asked to examine her, and, at the roof of the pelvis, found a cyst-wall, probably that of an abscess. The sac was of the size of a child's head, and the pus was encysted. Aspiration was recommended, with a long aspirating trocar. About twenty ounces of pus were withdrawn, and the cavity was washed out with Condy's fluid. Brandy was given; the vomiting ceased, and the patient convalesced. In a fortnight's time, she was well. Such cases were often overlooked. A child fell from a tree, and had a high temperature. After eight or ten days, pus escaped, to the extent of thirty ounces, into the bed, and the child recovered.—Dr. GOODHART said that his paper related to cases of peritoneal abscess in children—not in adults—in young children up to nine or ten years of age. At the age of 14 or 15, perityphlitis was found to occur; at the younger age, it was rare, and was given in the books as occurring after scarlatina. He had, therefore, been interested to hear of the same from Dr. Mahomed as happening in the patient at the Fever Hospital, although at a later period of life. He was not wedded to the treatment by early incisions. The cases might often be left to see what nature would do. As in the cases related by Mr. Godlee, and in one referred to by Dr. Mahomed, one abscess might be opened, and half-a-dozen found behind it; so that he thought nature might be possibly left, in some cases, to her own resources.—The PRESIDENT remarked that several speakers had alluded to cheesy deposits apart from tubercle; but nearly all cheesy deposits were said to be tubercular.

An Anomalous Case of Cerebro-Spinal Sclerosis.—Dr. CHARLTON BASTIAN read an abstract of the notes of this case. Joseph H. had been under observation at University College Hospital since 1877. He died on March 24th, 1882, being then sixty-two years of age. There was a neurotic history; no syphilis. In August 1868 (then aged 49), he fell down a flight of stone steps. The patient dated his illness from eighteen months after the accident, when he began to complain (1) of dragging of the left foot in walking, (2) of tingling at the tips of left fingers, and (3) of deafness in left ear. After twelve months, the first of these symptoms had disappeared; the other two remained. Four and a-half years later, his left leg again began to be weak. This was soon followed by weakness of the right arm and leg, and deafness on the right side. From August 1876, he became gradually worse. He was first admitted into the hospital in October 1877. He then suffered from paresis in all limbs; tingling in both hands; deafness and noises in both ears; giddiness; occasional headache, and pains in the eyeballs. There was no optic neuritis then or later on. There was no definite mental defect, but speech was indistinct and slow, with separate pronunciation of each. syllable. The motor cranial nerves were not distinctly affected. Deglutition was natural. He stood and walked only with much difficulty. There was considerable rigidity of both legs, and some loss of power over the bladder. Knee-jerk was present, and equal on two sides. There were no tremors, either spontaneous or on movement, in either lower extremity. He left the hospital early in 1878, walking slightly better, but otherwise in much the same condition. Early in July 1880, the patient was again admitted. His intellect was unimpaired, his voice even more drawling and slow, the deglutition natural. The chief alterations in his condition were these: Loss of all power of walking and of standing without assistance; loss even of power of raising feet from bed; loss of power over right hand (so that he could not feed himself or write with it as previously), with slightly increased force of grip on left side; much more paralysis of trunk muscles; the occurrence of the so-called *tache cérébrale* and of "factitious urticaria" after slight and more severe irritation respectively of skin; burning pains in trunk and limbs. The joints of the upper extremities were now rigid, and the muscles were wasted. The right leg was slightly flexed at the knee, the left extended at all joints, with some rigidity on both sides. Muscles were irritable to mechanical stimuli, and the interrupted current produced a tetanic condition of the muscles of the lower extremities to which it was applied. Both ankle-clonus and exaggeration of knee-jerk were well marked, especially on the left side. There were still no spontaneous tremors or fibrillary twitchings in any parts, and no tremors on movement. Morning temperature was often above, and evening temperature often below, the normal: 99.5 and 97.5 respectively About this time, too, the patient became more emotional, crying and laughing frequently, and on slight provocation. He left the hospital on October 14th, 1880, but was again admitted on January 2nd, 1882, with no intellectual impairment. Speech and deafness were as before. Deglutition was still unimpaired. The tongue was protruded in a straight line. No tremors. The right upper extremity was rigidly flexed and motionless. On the left side, slight power of movement at all joints existed. There was no power of moving any part of either lower extremity, nor control over fæces. There was also retention of urine, with dribbling and some cystitis; breathing wholly diaphragmatic; intercostals almost completely paralysed; widespread numbness, with diminution of sensibility; superficial reflexes all abolished; knee-jerk exaggerated as before; ankle-clonus easily obtained on left, absent on right side, though it returned two or three weeks later, and factitious urticaria still easily obtainable. During the next two months the patient suffered from frequent emotional disturbances—strange dreams of a terrifying nature, and many painful subjective sensations. On March 15th it was found that the patient had wasted considerably since the beginning of January. About this time his appetite failed, his tongue became thickly furred, and his temperature rose slightly. Fresh cystitis, with blood in the urine, appeared; and bronchitis, from which he had been suffering slightly for about a month, became gradually worse. He died asphyxiated on March 25th, having been quite unable to expectorate any mucus. Details of treatment were given in the paper. Necropsy, twenty hours after death. Brain: meninges healthy; slight amount of subarachnoid serum. On the under surface of the pons two superficial grey patches were seen. One of them, a quarter of an inch in diameter, was situated near the middle line, contiguous to the extremity of the left anterior pyramid of the medulla, which was flatter than natural, and had a greyish tinge almost uniformly throughout its substance. The right anterior pyramid on section was also found to show much grey degeneration, though less than its fellow. Sections through other parts of the medulla and through the pons showed many greyish-red patches of sclerosis, varying in diameter from that of a pea to a mustard-seed. The root of the right auditory nerve for nearly half an inch was distinctly grey and semi-translucent. On the left side this was less marked in the superficial portion of the auditory root. The other cranial nerves were apparently healthy. The white substance of both cerebral hemispheres, but especially that of the posterior half of the left hemisphere, showed small grey areas here and there. In one section, through the region mentioned, about fifteen small patches were seen within a space of about two square inches and a half. None of them seemed to implicate the cortical grey matter. The lining membrane of the lateral ventricles was thickened, and very tough, and grey patches of discoloration were seen here and there on the surface of

the thalami. On section similar patches were found through different parts of the interior of both thalami, but the corpora striata and the cerebellum were free from them. Spinal Cord: meninges healthy. Cord presenting no unnatural appearances externally. When sections were made, the antero-lateral columns seemed to occupy an area relatively smaller than natural. No distinct changes of texture were recognisable by the naked eye on the cut surfaces in the eight or nine places in which sections were made. But after the cord had been immersed for some time in bichromate of ammonia, areas of degeneration were easily recognisable when fresh sections were made. A well-marked patch was seen, for instance, in the left cervical region, implicating a large portion of the lateral column, as well as a portion of the contiguous grey matter. Smaller patches also existed in this region, in the lateral column of the right side. In the lower dorsal region, a distinct tract of sclerosis occupied the central portions of the posterior columns on each side of the middle line. In other portions of the dorsal, and in the lumbar, regions, no very distinct patches of degeneration were seen with the naked eye; but on subsequent microscopical examination, a diffuse overgrowth of connective tissue (not taking the form of limited patches or tracts) was seen in many parts of the lateral and of the posterior columns. The nerve-cells also, but especially in the lumbar region, were very notably atrophied. The central canal was enlarged throughout the whole of the cord, and densely packed with small round cells. The patches of degeneration in the medulla and other parts of the brain presented all the typical characters of areas of sclerosis in nerve-tissue. Charcot, in his admirable account of "disseminated sclerosis," says: "It rarely shows itself after thirty years. The age of forty seems, on the other hand, to be the outside limit to which patients attacked with disseminated sclerosis attain." It is worthy of note, therefore, that, in the case of J. H., the disease first showed itself when he was over fifty years of age, and that the patient lived to attain the age of sixty-two. In regard to etiology, the only points to attract attention were—first, some evidence of a neurotic tendency; and, secondly, the fall over a flight of steps eighteen months before the first distinct signs of the disease. The arrest of the disease for four and a half years, and the symmetry of its manifestation after this date, were interesting features. Although the patches of degeneration were so numerous in the medulla and in the pons, convulsions were absent from first to last. Again, it was worthy of note that the characteristic tremors on movement, which so frequently constituted a marked feature in this disease, were also absent from first to last. The early weakening of cerebral control over the bladder was probably due to the existence of an extreme amount of disease in both anterior pyramids. Although the sclerosis of the anterior pyramids (and especially of that on the left side) was so marked, yet nothing like a secondary degeneration existed in either lateral column of the cord. This was in harmony with what might have been expected, since it was well known that in these patches of sclerosis, the axis-cylinders were not commonly destroyed, although they were more or less pressed upon and damaged. It could not be expected, therefore, that the same results would follow from a patch of sclerosis, however well-developed, involving the anterior pyramids, as might be looked for from a destructive lesion (*e.g.*, a traumatic section or a complete softening). It seemed probable that the hallucinations and abnormal sensory phenomena which occurred, especially during the last few months of life, were due to the late development of patches of sclerosis in the thalami, as well as in the white substance of the posterior third of each cerebral hemisphere. The power of provoking in this case, over a period of several years, both a *tache cérébrale* and "factitious urticaria" were interesting facts in themselves, and especially from the point of view of the pathogenesis of this latter condition. In regard to diagnosis, it was pointed out that, in the early stages of this patient's illness, all the symptoms were to be accounted for by a disease of the medulla oblongata, and that the evidence, even at that time, was clearly against the existence of a tumour, and in favour of disseminated sclerosis involving this region in such a way as successively to abolish the functions of the auditory nerves without interfering with the portio dura, and again of impairing the power of articulation whilst it left that of deglutition intact. The subsequent progress of the case was felt to strengthen the diagnosis of disseminated sclerosis.—In reply to the PRESIDENT, Dr. Bastian said that no degeneration of the vessels of the base of the brain or of the cord was found.—Dr. ALTHAUS thought the absence of tremors was unusual, as tremors were generally one of the most characteristic symptoms of the disease. He had seen their absence in another case. All the other symptoms in that instance were present in the lower limbs, with nystagmus. Was nystagmus found in Dr. Bastian's case? Was there also any increased mechanical irritability of the muscles? This was often present early when other symptoms were absent.—Dr. LONGHURST made some remarks.—Dr. MONEY inquired if the fact that the corpora striata and cerebellum were affected had not possibly to do with the absence of tremors.—Dr. BASTIAN, in reply, said there was no distinct nystagmus. When the patient attempted to look on one side, there was a jerky movement of the eyeballs. He was not disposed to regard the fact of the implication of the corpora striata and cerebellum as the cause of the absence of tremors, but he thought it possible the early and considerable disease of the anterior pyramids cut off the brain-influence from the muscles below. In many cases probably injury had to do with chronic spinal disease; possibly small extravasations of blood occurred, which might be the starting points of sclerosis, which did not show themselves by symptoms for some months. But he did not think that in this particular case the injury was the cause of the subsequent disease, as it was eighteen months before the first affair, and then four more years before it appeared on the other side.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, OCTOBER 11TH, 1883.

JONATHAN HUTCHINSON, F.R.S., President, in the Chair.

President's Address.—The PRESIDENT, in opening the fourth session of the Society, said that he desired, in the first place, to thank the Society for the honour which it had conferred upon him by electing him to the office of President. In Mr. Bowman, it had enjoyed the services of a president of unequalled fitness and ability; it was pleasant to find that he retained the interest in the work of the Society which he had always exhibited. Mr. Bowman, having learned that the Society was embarrassed by the demands made upon its funds by the rent for the beautiful new premises which it now occupied, had generously offered to defray the cost of all the fittings necessary for the proposed museum and library, and to make a gift annually, for twenty years, of fifty pounds. The pecuniary advantages which this most liberal gift conferred were extensive and durable; but it was an even greater pleasure to find, from this fact, that one so competent to judge should, in so emphatic a manner, express his approbation of the efforts of those who had founded the Society. By a remarkable coincidence, the Council had had, for some months before Mr. Bowman's offer was made, a proposition under consideration to recognise his pre-eminent position, by founding a lectureship, to be known as the Bowman Lecture. It was intended that a Bowman lecturer should be appointed each year, and invited to prepare a critical summary of the best extant information upon some special subject to be approved of by the Council of the Society. It was also intended to form a library of reference, as well as a collection of instruments and appliances, but for the present, at least, not to attempt to make a pathological collection; probably a collection of drawings and other forms of graphic illustrations would, also, be gradually formed. If funds ever became available, he would suggest that the Society should cause to be copied and classified, from all available sources, such illustrations of eye-disease as were passably good as to execution, and duly authenticated and described. He had pleasure in presenting to the Society the new volume of its *Transactions*. The President then proceeded to deliver to the Society an address on the diffusion of a knowledge of ophthalmic therapeutics, which will be found in full at another page.

Vote of Thanks.—Dr. GEORGE JOHNSON said that he had heard of Mr. Bowman's munificent gift to the Society with peculiar pleasure. To those who knew Mr. Bowman personally, this munificence would not be a surprise; he felt sure that he was only expressing the general sense of the Society in proposing a cordial vote of thanks to their late President for his opportune gift.—The motion was briefly seconded by Mr. WORDSWORTH, and carried by acclamation.—The PRESIDENT undertook to wait upon Mr. Bowman, and convey to him the thanks of the Society.

LIVING SPECIMENS.—*Contraction of the Field of Vision and Optic Atrophy affecting only the Right Eye, occurring in a Case of Hemiplegia.*—Dr. ORMEROD showed a man, aged 44, who had suffered a sudden attack of left hemiplegia fifteen months earlier. He had suffered from syphilis. Atrophy of the right optic disc began about May 1883. On the outer side of the optic disc, towards the periphery of the retina, was a smooth swelling of a white colour, pushing the retina forward. The field of vision was limited to the lower and inner quadrants.—Mr. NETTLESHIP observed that it was most

important to arrive at a diagnosis with regard to the intra-ocular tumour. He thought that the probabilities were in favour of its being a sarcoma of the choroid in an early stage.—Mr. J. E. ADAMS said that the case very closely resembled two cases of sarcoma which he had seen at a very early stage.—After some conversation, it was agreed to refer the case to a committee.

Sequel to a Case of Tumour at the Sclero-corneal Junction.—Mr. FREDERICK MASON (Bath) showed a patient who had been the subject of a communication to the Society on December 8th, 1881 (BRITISH MEDICAL JOURNAL, 1881, vol. ii, p. 981). The growth had not recurred.

Chronic Tuberculosis.—Mr. W. H. JESSOP showed a girl, aged 12, with a strong family history of phthisis, and herself suffering from phthisis of both pulmonary apices. In the left eye, at the yellow spot region, was a rounded swelling, projecting one millimètre, of a brilliant white colour when seen with the ophthalmoscope, and ill defined towards the periphery; between the disc and the swelling were eight small brilliant white spots. He considered the larger swelling to be most probably tubercular.

Glaucoma.—Mr. PIGEON showed with Dr. BRAILEY a boy aged 14, in whom glaucoma had succeeded a blow on the eye with a cork. The lens was not dislocated, but, three weeks after the blow, opacities had begun to appear in it. Vision had improved under the use of eserine.

Case of Homonymous Hemianopia.—Mr. NETTLESHIP read notes of a case of blindness of one eye with hæmianopia of the other, due to the pressure of a tumour on the optic nerve, chiasma and tract on the same side as the blind eye. The man came under care first in 1876, at the age of 30, for recent failure of the left eye. The disc showed slight atrophic changes, and was said by an earlier observer to have been inflamed. Subsequently this eye became nearly blind, the disc atrophied, and the patient lost the right half of the visual field in the other eye, the disc of which also became atrophic. The hemianopia was sharply defined, and the boundary-line passed through the fixation-point. The left third nerve also became paralysed. At the same time discharge of bloody mucus from the left nostril, defective smell, difficulty in opening the jaw, and the appearance of a lump behind the jaw on the left side, pointed to a tumour at the base of the skull involving the optic nerve, and at a later stage the tract and third nerve on that side. The man died seven years after he was first seen by Mr. Nettleship, and a large tumour was found, apparently growing from the body of the sphenoid, and compressing, but not infiltrating, the parts mentioned. as well as the crus and pons.

Homonymous Hemianopia.—Dr. SHARKEY read the notes of a case which was under his care at St. Thomas's Hospital. For two years, the patient, a woman, had suffered from epileptiform fits, preceded by a visual aura occurring in the right half of the field of vision, and followed by blindness of the same area; she also experienced paresis of the right arm, and pain in the head; these three last symptoms became constant. There was no optic neuritis, but there was right lateral homonymous hemianopia, of such a kind that there remained a considerable area of normal central vision on all sides of the fixation-spot. Dr. Sharkey discussed the symptoms, and came to the conclusion that they were due to a lesion of the centre for the arm, and of some part of the angular gyrus and occipital lobe. After a detailed statement of the views of various pathologists, Dr. Sharkey observed that the present state of knowledge pointed to the following conclusions: 1. A lesion of the optic tract would produce homonymous hemianopia, the line of division passing vertically through the fixation-point; 2. A lesion of the centre for the peripheral fibres of the retinæ would produce homonymous hemianopia, with retention of central vision, if the area of cortex in connection with the latter be intact.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 3RD, 1883.

H. GERVIS, M.D., President, in the Chair.

Hypertrophy of Mammæ.—Dr. J. A. MANSELL MOULLIN showed a patient, aged 18, unmarried, the subject of hypertrophy of both mammæ. The patient's health was otherwise good. The nipples were small, the areolæ large.—Dr. CHAMPNEYS had seen a case in Professor Billroth's clinic, treated by rest in bed, the breasts being suspended from above.

Tumour of Clitoris.—Dr. W. A. DUNCAN showed a large fibro-cellular tumour, involving the clitoris and both nymphæ, which he had removed.

Ruptured Ovarian Cyst.—Dr. W. A. DUNCAN also showed a multilocular ovarian tumour, one of the cysts of which had ruptured during an ordinary examination, leading to fatal peritonitis. A committee was appointed to examine and report upon the specimen.

Arrested Development of one Fœtus of Twins.—Dr. EDIS exhibited a specimen of this kind. One fœtus was born alive in the 7th month of pregnancy; the other, expelled seven hours before it, was shrivelled and its placenta atrophied, apparently having died *in utero* about two months previously. Dr. Edis also showed twin fœtuses at about the fifth month of development.—Dr. MALINS had seen a case in which one fœtus had been born living at the eighth month, the growth of the other, expelled at the same time, having been arrested at the fourth month. Cruvelhier had illustrated the same condition. Such cases showed the power of toleration possessed by the uterus, and were also interesting in their medico-legal aspect.

Placenta Succenturiata.—Dr. CHAMPNEYS showed a placenta succenturiata. It was impossible, from an examination of the afterbirth, to diagnose the retention *in utero* of such a body.—Dr. DALY said these cases were of medico-legal interest. He had been called to a case in which a woman died from hæmorrhage, caused by a piece of placenta left *in utero*. An unqualified practitioner had attended the case, and at the coroner's inquest pleaded that the retained piece was a supernumerary placenta; a view which was accepted by the jury.

Gangrene during Pregnancy.—Dr. SWAYNE related a case of gangrene during the seventh month of pregnancy. The disease came on after a long journey, and attacked the integuments and muscles over a space the size of a man's fist on the upper and inner third of the right thigh. The symptoms had existed about four days before the occurrence of premature labour, but were not very severe until after delivery, when they became much intensified, and proved fatal early on the third day. There was no injury, wound, or erysipelatous inflammation to account for the occurrence.—Dr. BURCHELL said that, although the case was not clear, he could not help believing it to have been one of strangulated femoral hernia.—Dr. HERMAN asked if the case were not one of gangrenous carbuncular inflammation.—Dr. SWAYNE thought the most probable explanation was, that the gangrene was due to undue pressure on the iliac vessels, possibly from tight lacing, to which the patient was accustomed. The situation of the tumour precluded the idea of strangulated hernia; the vesication and absence of any head, that of malignant carbuncle; and the absence of diffused redness at the onset, that of erysipelas.

On the Anatomy, Physiology, and Pathology of the Os Uteri Internum.—This paper, by Dr. HENRY BENNET, was read. The author had in 1849 drawn attention to the existence of a muscular sphincter at the os uteri internum; and this, like all sphincters, was closed when at rest. This fact was accepted by many at the time, but now seemed to have passed out of mind. It had a most important bearing on uterine therapeutics. The ordinary physiological closed state of this sphincter offered resistance to the passage of the metallic sound; but a small wax bougie could be passed through it. By the use of such bougies, he had, in 1846, discovered that the cavity of the uterus was not straight, but had an anterior concavity. This sphincter was, no doubt, greatly developed by pregnancy. It opened slightly before, during, and after menstruation, and probably during sexual congress. It was relaxed by disease, such as fibroids, chronic uterine inflammation, endometritis. The easy passage of the sound was, therefore, an indication of a morbid rather than of a healthy condition of the uterus. This fact had an important bearing on the theory and treatment of sterility. If a closed os uteri were presumed to be a morbid condition, then nearly all healthy young women who were examined would be erroneously considered to require surgical treatment.—Dr. GALABIN had no doubt of the existence of a sphincter at the os internum. This was shown by the constriction often seen at this point in a laminaria tent, and by the rapid contraction of the os after dilatation. But he could not agree with Dr. Bennet that it was normally completely closed. Where the passage of the ordinary sound was resisted, a smaller one, without a bulbous end, would often pass, if the direction of the canal were hit upon, although a hitch was sometimes caused by flexion of the canal. He thought further evidence was much to be desired as to the cure of sterility by incision or dilatation of the cervix. His impression was that he had seen a larger proportion of pregnancies follow dilatation by bougies than incision. He thought it would be of great value if some of those who performed the operation would give the number of pregnancies following in a complete series of consecutive cases. The only such series he remembered did not show a greater number than might

be accounted for by coincidence.—The PRESIDENT remarked on the interest and value of Dr. Bennet's paper. In former years he (the President) had rarely incised the os internum. But lately, where there was evident constriction (a fact of which he had no doubt), he had done so, and his results had been distinctly better. Where the os internum was fairly patulous, and the constriction affected the os externum alone, he was satisfied with its division.—Dr. HEYWOOD SMITH protested against the use of scissors to divide the os externum, for too extensive an incision was thus made, and the power of imbibition possessed by the external os destroyed. The most scientific method of doing the operation was with Sims's narrow-bladed knife.—Dr. PLAYFAIR believed very little in stenosis of the os internum, and not at all in its incision for the cure of sterility. Incision of the os externum, in well selected cases, was occasionally followed by pregnancy; but he believed it was done far too often, and too indiscriminately. He believed it acted, not only by enlarging the os, but by remedying the conical condition of the cervix, which was, more often than stenosis, the cause of sterility.—Dr. CHAMPNEYS pointed out that difficulty in the passage of the sound was not proof of stenosis of the os internum. Difficulty might arise, even when the canal was larger than usual, from the instrument being passed in the wrong axis, or from its point catching in a fold of mucous membrane. It was only when the bulb of the sound was gripped, during withdrawal, that stenosis could be inferred.—Dr. AVELING was sure that contraction of the os internum was a cause of dysmenorrhœa and sterility, and believed that incision gave more permanent relief than dilatation. After incision he did not use a stem-pessary, but passed the sound daily for a week, and then less often, till healing had taken place.—Dr. EDIS thought there were instances in which division of the internal as well as the external os was needed. Each case must be treated on its own merits, it being impossible to lay down any general rule. After incision, he used a stem-pessary, the patient being carefully watched.—Dr. MURRAY thought division of the os uteri for sterility alone of doubtful utility. He had seen many cases in which it had been done without good results. It was not free from risk to life, and ought not to be done simply at the request of the patient.—Dr. HENRY BENNET gathered that his views were generally accepted, although some might not go as far as he did. Deep division of the cervix had been formerly, and he believed was still, too frequently performed by some practitioners. The abuse of surgical treatment might be on the wane in England, but certainly was not elsewhere. It was therefore desirable to establish the anatomy, physiology, and pathology of the os internum on a sound basis. Other waves of opinion were setting in, equally exaggerated in their character; as for instance, in America, the unjustifiable sewing up of the lacerated cervix uteri for insignificant lesions easily cured by the simplest local treatment, and, with us, the abuse of pessaries.

ALDERSHOT MILITARY MEDICAL SOCIETY.

MONDAY, OCTOBER 1ST, 1883.

Brigade-Surgeon CARTER, A.M.D., in the chair.

THE opening meeting of this Society for the session 1883-84 was held in the Medical Officers' Library, Cambridge Hospital, at 5 P.M. on Monday, October 1st; Brigade-Surgeon CARTER, A.M.D., in the chair. Twenty-two members of the Society were present.

The HONORARY SECRETARY (Surgeon M. R. RYAN, M.D.) read a brief account of the formation of the Society, which was started last spring, with the sanction and approval of the Director-General Army Medical Department, in order to afford an opportunity to the medical officers quartered in the command of meeting periodically for the discussion of professional subjects and questions of interest in connection with military medical duties. The Society was opened on April 2nd, with an inaugural address by Inspector-General Lawson, A.M.D. (retired). Two monthly meetings were subsequently held before the conclusion of the session, at which several interesting cases and discussions were introduced, including the following: 1. Is it desirable to withhold the spirit-ration from troops on active service? (discussion opened by the Secretary). 2. Case of Sacro-iliac Disease in a Young Soldier, with morbid specimen (Surgeon-Major Diven). 3. Case of Operation for Strangulated Hernia, with special reference to a Dry Method of Antiseptic Dressing (Surgeon F. J. Hunt). 4. The Mechanism of Displacement of Interarticular Fibro-Cartilage of Knee-Joint, with illustrative cases (Surgeon Stevenson). 5. Case of Malignant Disease of the Lungs in a Young Soldier, with microscopic sections (Surgeon James).

Surgeon-General Gilborne, Principal Medical Officer at Aldershot, had accepted the position of President of the Society.

On the motion of Surgeon-Major GILLESPIE, seconded by Surgeon CROSS, Brigade-Surgeons Thompson, Carter, and Muschamp were elected Vice-Presidents of the Society. Brigade-Surgeon Warren and Surgeon-Major Cuffe, C.B., were appointed members of the committee, in room of Surgeons-Major Scott, C.M.G., and W. H. McNamara, ordered on foreign service.

The Treatment of Secondary Syphilis.—Surgeon STEVENSON, A.M.D., in a paper on this subject, detailed the results of different methods of treatment (including the hypodermic injection of albuminate of mercury) in seventy-eight cases of the disease, incidentally referring to some points connected with the pathology and diagnosis of secondary syphilitic affections.—Surgeons-Major Gillespie and Cuffe, and Surgeons Ryan, Bourke, Hunt, and Conolly, took part in the subsequent discussion.

Hydatids.—Surgeon STEVENSON also exhibited the liver of a patient who had died suddenly of hæmorrhage from the lungs, the result of the giving-way of an arterial twig in the walls of a large pulmonary cavity, which had been unsuspected, the patient (a young soldier) having remained at duty, apparently in good health, up to the day of his death. The liver contained hydatid cysts, the formation and pathology of which were briefly explained, and illustrated by microscopic specimens.—After some remarks on the case by Surgeon-Major GILLESPIE, a vote of thanks to Surgeon Stevenson for his paper, etc., brought the proceedings to a close.

REVIEWS AND NOTICES.

FISH AS FOOD. By Sir HENRY THOMPSON. Pp. 32. London: William Clowes and Son.

THIS little pamphlet embodies a discourse which was delivered by its distinguished author at one of the conferences held in connection with the great International Fisheries Exhibition, together with some discussion that ensued thereon. We cannot say, however, that this latter feature of the pamphlet adds anything of importance to its value, for the speakers were few, and they appear, with one exception, to have had nothing whatever to offer in the way of information on the very interesting and extensive subject with which the lecturer dealt. The exception to which we refer is to be found in some remarks by Dr. Cobbold, who was able to add, to the commendations of fish as an article of diet by the author of the paper, the comforting assurance that the alarm which had been excited in the minds of some people as to the fear of trichinosis being communicable through fish was quite groundless, and that, though it was theoretically possible to swallow parasites when eating some of the salmonidæ in an uncooked state, the practical risk of so doing was very slight, as these disagreeable intruders were effectually destroyed by a temperature of 120° Fahr., a heat to which it is needless to say that all fish that is likely to find its way on any ordinary table is sure to be exposed.

Of the paper itself, we can speak in the highest praise; not only because it exhibits the clearness of handling and the fulness of knowledge which Sir HENRY THOMPSON bestows on everything that he gives to the public, but on the ground of its great practical value as a concise and very readable protest on the part of an acknowledged high authority against the mischievous excess of animal food which obtains in the dietary of a large number of Englishmen, and an indication of the direction in which a remedy for this evil is to be sought. "There is no doubt," the lecturer remarks, that the obvious and admitted value of a highly nitrogenised food, of which meat is a concentrated form, to the labouring man, has occasioned the almost universal belief that such meat, of which let beef and mutton be the type, is the most desirable food-staple for all. 'If you wish to be strong, eat plenty of meat;' 'If you are feeling weak, eat more meat at every meal;' such are the well-known articles of a creed which is deeply graven in the popular mind. Nevertheless, few statements relating to diet can be more misleading, and few are, in my opinion, productive of more evil to the community." These are words which should be written in letters of gold on the walls of the consulting-room of every medical practitioner; and we venture to think that, if they were, and if those for whose benefit they were intended would take heed to them, they would obtain a better equivalent in most cases for the fee which they leave behind them than they often carry away. Taking Englishmen as a whole, they may be divided in regard to this matter into three classes: those who cannot obtain enough meat to enable them to discharge

properly the work they have daily to perform in order to gain a livelihood, and who are, consequently, in a state of chronic starvation; those whose "intake," to use Sir H. Thompson's own expression, is sufficient to just balance their requirements; and those who load themselves with more than they require, and who are the subjects of a continuous but variable plethora of waste products arising from the incapacity of their system to assimilate or to comfortably excrete them by the usual channels through which such products are eliminated. The former of these classes is probably the smallest of the three, seeing how small a quantity of meat is absolutely required to support a healthy man in a fairly active condition. The latter is, without doubt, much larger than is generally suspected; and it is, as Sir Henry Thompson forcibly points out, a steadily increasing one, since it includes all those who work rather with their heads than with their hands, a form of labour which becomes more and more in demand as civilisation advances. Now this is the class of workers which, together with a very respectably large supplement from the opposite camp of idlers, who must be ranged with it, though for a different reason, requires but a very moderate amount of animal food, but which, as a matter of fact, indulges in it to a far larger extent than do the other two classes. It is this class which, in towns at any rate, creates the chief demand for butchers' meat, for which the choicest joints are purveyed, and the devices of ingenuity ransacked to keep pace with their requirements. Here is the problem: to make those who are in a position to indulge in a highly azotised and nutritious diet, to do so with the least possible damage to their constitution from accumulation of surplus tissue-stuff, and at the same time to set free, for the benefit of their needier brethren, a portion of that diet of which they stand urgently in want, but which, with a tantalus-like exclusiveness, is becoming increasingly more difficult for them to obtain. The key to this problem is to be found in the popularisation of fish as an article of diet. Its practically inexhaustible abundance; the facility with which it can be cooked; its easy digestibility, and the dilution of a fair amount of nutritive property by sufficient of the element of bulk to satisfy the craving of the stomach for a meal which is substantial in quantity as well as in quality, all indicate that fish has far higher claims to a leading place in our national dietary than has been hitherto assigned to it. If evidence were needed of the fact that such a dietary is consistent with a high degree both of bodily and mental vigour, it may be found in the characteristics of the Jewish race, whose ritual requirements have compelled them to be, both in this and other countries, large consumers of fish.

But, whilst fish has very strong claims to larger consideration than has hitherto been given to it as an element in the diet of all, it is, as Sir Henry Thompson points out, for the sedentary and for those who are beginning to descend the vale of years that it has pre-eminent recommendations. Here, too, our author does equally good service to the cause of sound health, in insisting on the fallacy of a common belief, which assumes that the failing powers of age demand increased support from a highly nitrogenous form of food. So far from this being the case, the reverse is the fact; and it is to such a food as this that the man upon whom years are beginning to tell will look for the nutriment which he requires to maintain in efficient equilibrium his failing powers.

It is rather singular that a food which has such numerous advantages as fish has, and which can be obtained in such abundance at the smallest possible cost, should be so costly as to make it rather an article of luxury for the great bulk of our population, except, perhaps, during a very limited portion of the year. Considering the demand which exists for an abundant fish-supply, it is astonishing that the ingenuity and enterprise which have already done so much to cheapen our meat-resources, have done so little to make the teeming myriads of the finny race available for the maintenance of the millions of human beings who are daily in search of a cheap and nutritious meal. We believe that this lack of due relationship is largely attributable to the want which has hitherto existed in London itself of efficient market-accommodation for the speedy distribution of an article which is of so perishable a nature that as little delay as possible must be interposed between its capture and its preparation for table. This want of market-accommodation in London has reacted upon the country at large, for the metropolitan trade in matters of this kind largely controls that of the rest of England. Fortunately, this want is now being rectified, and with the improvement in this respect is coming an improvement in the appliances for carrying fish by rail, which has been much needed in order to facilitate its transmission for long distances, and especially to bring within reach of the consumers of the great city the enormous wealth of fish to be found in the northern seas. The fish-van is now becoming a feature of most of the quick trains; and, as time passes, and the railway-companies realise that carrying fish pays as well as carrying milk does, we shall find that the traffic in this commodity will extend in all directions.

But we are wandering somewhat from the strict letter of our subject. From the advantages of fish as a general article of diet, Sir H. Thompson proceeds to discuss the special merits of individual varieties of fish. And here we meet with another of the singular incongruities which distinguish the fish portion of our national diet, that, although the varieties of fish are almost as numerous as the flowers of the field, we limit our demand to a few well-known kinds. This, as Sir Henry points out, is largely due to a want of confidence on the part of the public in fish-dishes which travel beyond the charmed circle of the few with which they are familiar, "fried sole" being considered as safe, not to say as expedient, a resource to the hungry traveller at a hotel as trumps are to the perplexed at whist. We do not know of anything which is more calculated to disperse the ignorance which exists among the public generally on this point, than the institution of fish-restaurants, such as those which are beginning to make their appearance in the City, by which the attention of the public will be drawn to the varied resources which a fish *menu* offers, and by which they will be familiarised with the culinary properties of fishes, of many of which they have never before heard, or on which they have been in the habit of looking only with repugnance. How many, for instance, of the ordinary consumers of turtle-soup are aware that this much-prized delicacy is largely derived from the flesh of the conger-eel? And who amongst the crowd of average housekeepers would have the courage to invest in the wolf-fish, the gurnard, the thornback, and other unattractive-looking samples of the finny race, or would know how to dress them effectively if they did buy them?

For brief but valuable hints on these and other allied matters, including especially advice as to the best way of cooking fish in general, we must refer our readers to Sir Henry Thompson's excellent little pamphlet, which will have amply justified its publication if it serve to compel attention to a branch of the dietetic art which has hitherto been too much neglected.

NOTES ON BOOKS.

Our Domestic Poisons. By HENRY CARR, M.I.C.E.—This is the third edition of a little book written with the laudable intention of drawing attention to the necessity of prohibiting the use of certain poisonous dyes (especially those containing arsenic) in domestic fabrics. Mr. Carr adduces striking evidence of the injurious effects of arsenical pigments, and quotes a large number of eminent authorities in favour of his views. The present edition of his work gives a full account of the action of the Medical Society of London on arsenical poisoning, reports of which have already appeared in the BRITISH MEDICAL JOURNAL; and the recent report of the Committee of the National Health Society on Arsenic in Domestic Fabrics is printed in full as an appendix. Mr. Carr writes temperately and well on his favourite topic; and we commend his pamphlet to our readers for their perusal and consideration.

A MOIETY of the balance of the Indian Medical Service Defence Fund, now no longer required, as proceedings of the Committee have ceased, amounting to £29 15s. 3d., has been presented as a donation to the British Medical Benevolent Fund, by the subscribers, through Surgeon-General R. Cockburn, treasurer of the fund.

SERIOUS OUTBREAK OF TYPHOID FEVER.—At the meeting of the Chertsey Rural Sanitary Authority on Tuesday, October 9th, Mr. Jacob reported a most serious outbreak of typhoid fever in the village of Bagshot, no less than ten cases having occurred in seven houses. The doctor considered the matter such an important one that he immediately visited the parish, and read a lengthy report as to the result of his investigations. The report of the surveyor, made as long ago as the 7th of May last, was also produced and read. This document showed the village, in a sanitary point of view, to be most unsatisfactory, and, as Mr. Yool expressed it, "showed such a state of things as ought not to exist in their sanitary district." Notice was given that, at the next meeting of the committee, the reports of the medical officer and surveyor be considered. The attention of our local Branch might with advantage be directed to this matter.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 20th, 1883.

THE SPECIFIC ORGANISM OF CHOLERA.

THE announcement that the investigations conducted by Dr. Koch and his assistants, in Egypt, on behalf of the German Government, have resulted in the identification of the microbe as a specific cholera-organism will have been read with the greatest interest by medical men, and have naturally excited high expectations in the public mind. It is not the first time that this announcement has been made on high scientific authority. Researches having this object in view have for a long time been carried on at various intervals of time, under the auspices of the British Government, by eminent physicians and microscopists, among whom will especially be remembered Professor Timothy Lewis, and Dr. Douglas Cunningham. Their researches related not only to the organisms discoverable in the tissues and fluids of cholera-patients, but also to the investigation of air-borne bodies, and examination of the soil and water. These researches were embodied in a special report by Lewis and Cunningham, which appeared in the reports of the Sanitary Commission of the Government of India, and the latest contribution will be found in the last report, which contains a valuable account by Dr. Douglas Cunningham of his examination of the air in its relation to cholera-germs. Up to the present time, however, search for an organism which could be identified as stable, specific, and bearing such undoubted relationship to Asiatic cholera, and to that form of disease alone, as could justify the declaration that it was a specific germ, has been fruitless. The announcement that Dr. Koch has been more successful is the more important, and has, *a priori*, a claim to provisional acceptance, because that able and eminent investigator has greatly perfected the means of investigation hitherto at our command, and has shown himself peculiarly skilful in the methods of cultivation by which such specific organisms can be separated, reared, and specifically identified. We are all, therefore, peculiarly interested in the information which Dr. Koch may be able to derive from his investigations *in loco*, and prepared to look for with hope, and to accept with readiness, the conclusions at which he may be able to arrive. It must not, however, be forgotten that it is the fact that everything has for several years pointed to the existence of such specific contagium in the bacilliform organism, and that only this is necessary to give the shape of a practical demonstration to an hypothesis which lies at the bottom of all our preventive treatment of cholera, and which accords thoroughly with the accepted English opinions, both on the subject of the nature of cholera as a zymotic disease, and the means of arresting its progress. All this makes us so ready and anxious to accept such a demonstration that we are on that account especially bound to scrutinise with the most jealous care the facts on which the alleged demonstration is based, and to receive the news which comes to us from Germany with as much reserve as the circumstances will permit.

It is difficult, if not impossible, to foresee the result of any new and well-affirmed scientific discovery of the kind, and it is not for us to attempt to define the limits of the value of such a discovery, or in any way to limit the possibilities which may arise out of it. It is, however, useful to remember that, should Dr. Koch's conclusions in identifying this specific organism of cholera be confirmed in every respect by his own further research, and by the continued experiments of other independent observers, such a discovery will only confirm the view which had been acted upon *ex hypothesi* by British sanitarians and Indian medical officers for many years, and that this practical result will not either revolutionise, so far as can at present be seen, the treatment of cholera, nor do more than confirm the high importance, indeed, the primary necessity, of the preventive sanitary method in vogue in India, and adopted on the recommendation of British and Indian medical officers in Egypt by the British Government. From the moment that the great and memorable work of Dr. Snow, in connection with the Broad Street pump, proved that Asiatic cholera spread in this country chiefly by the diffusion and possible multiplication in water of cholera-germs, from the moment that the investigations of John Simon and others in this country confirmed these results, in all subsequent cholera-epidemics it became evident that we must at least assume a zymotic germ as the immediate cause of cholera-disease, and the path was marked out for the preventive treatment of cholera-epidemics, and for the laws by which endemic cholera should be dealt with. The facts that have been noted in India, while they have given a large amount of confirmation to the water cholera-theory, have also shown that it alone is quite insufficient to account for the diffusion of such epidemics in tropical climates where the air and the soil are alike exposed to extensive contamination, and where the dried and air-borne particles of cholera are diffused far and wide, and where the air itself, under whatever conditions, has been recognised as an unquestionable agent in the conveyance and diffusion of cholera-epidemics.

The investigation of the conditions under which air, soil, and water become receptive of the cholera-germ, and under which cholera-outbreaks occur without evidence of recent importation, is one of the most difficult problems with which our Indian sanitarians have had to contend, and which they have done much to solve—at least, in the practical sense. The relationship of true Asiatic cholera to kindred diseases, ranging from typhoid to cholerine, cholera nostras, and cholereform disease, is a problem on which Dr. Koch's researches may throw much scientific light. It still remains to be ascertained how far cholera, cholerine, and cholereform disease are distinct, and what are their points of contact, and where, if anywhere, they merge into one another. At any rate, the history of the recent epidemic in Egypt gives much reason to believe that the assumption which many physicians here and in Egypt are ready to make as to the absolute clinical distinctions to be drawn between Asiatic cholera and some of the so-called allied forms is one which requires revision. It has been in many tropical climates, and apparently in Egypt, too much the case, that when physicians have met with cases presenting all the clinical and physical characters of cholera, and, in fact, undistinguishable from cholera clinically, they have nevertheless preferred to describe them as choleroid, or as cholera nostras, simply because there was no evidence of recent importation. From the accumulated mass of evidence which has resulted from the recent investigations set on foot by the British Government through Surgeon-General Hunter, it is apparent that cases, clinically identical with those which constituted the bulk of cases treated during the recent epidemic of Asiatic cholera, had occurred sporadically throughout the delta of Egypt for several years prior to the recent epidemic outburst. These cases had become much more numerous during the few months which preceded the recognised outburst of cholera. So much, indeed, was this the case, that in more than one town and village where cases of distinctly marked and fatal Asiatic cholera were imported from the re-

cognised epidemic centres, the population and the local men were disposed to treat them with indifference, recognising in them symptoms of a disease which had been not unfrequent for some months.

The theory of immediate importation of the first cholera into Damietta from India in connection with the stoker of the *Timor* has been thoroughly exploded. The evidence that numerous cases of Asiatic cholera had occurred in Damietta and its vicinity before that individual reached Damietta is irresistible, even had not the particular circumstances of his case, as has been explained in documents already published, satisfactorily proved that he had nothing whatever to do with the matter, he, it is shown by subsequent investigation, having been actually confined in prison at Port Said at the time the endemic outbreak at Damietta declared itself. The hopes, then, which we may entertain that Dr. Koch's results will be verified are unmixed either with any great anticipation of early or striking therapeutic result, or with any anticipation that they can modify the rules of prevention and the bases of hygienic regulation by which we must expect to combat the advent and to lessen the ravages of cholera. Granted not only that the cholera-germ is specific, as it has been for many years agreed by British and Indian physicians and sanitarians, but granted also that Dr. Koch has discovered and identified the particular cholera-organism which all previous investigators, of whatever country, had failed to identify, it will be a triumph for the German party, as against the assistants of M. Pasteur, that the one has succeeded where the other has failed. The search for the bacillus has been prolonged, efficient, and able. The new methods of investigation perfected by Pasteur, Cunningham, Lewis, and, more recently, by Koch, have armed us with new methods of investigation; and, if this last triumph has been achieved, it will add a new laurel to the scientific crown of German science. But we must not expect too much from it in that practical sense in which Englishmen are at once accustomed to regard any new discovery in its relation to medical science. It will confirm our opinions and it will strengthen our hands in demanding thorough hygienic reformation of the soil, of the air, of the water, and of the habitations, in countries threatened by cholera.

It is perhaps characteristic of the special genius of Continental nations that while the first impulse of France and Germany was to send their most eminent *savants*, armed with the most recent instruments of modern research, to investigate the identity of choleraic organisms, the course adopted by the British Government was to send out a staff of sanitarians, who, acting upon the basis of already acquired knowledge, and guided by the light of a vast experience, were set to work to remove the conditions under which the germ is known to become prolific, and to clear away the existing sources of epidemic diffusion of cholera. The result has been to disclose a state of filth and hygienic neglect throughout the towns and villages of Egypt which might have been suspected, but could not have been creditably asserted, except upon the incontrovertible evidence which Surgeon-General Hunter has produced in his reports. On the one hand, then, we shall look with interest to the further reports of Dr. Koch, and of the assistants of M. Pasteur; on the other hand we must insist that meantime there should be no delay, no feebleness of purpose, no inefficiency of effort in carrying out the complete hygienic reorganisation in Egypt, and the thorough methods of improved sanitation which the British Commission has reported as immediately necessary throughout the length and breadth of the country. The first steps should be to set in good and healthy order the great towns of Egypt. The reported condition of Alexandria, not to speak of Damietta, Burha, Samanoud, Mansourah Kebir, Tantah, and Assiab, are such as to call for immediate vigorous and practical action. The theory of personal contagion has no more place in Oriental than in European experiences of cholera. Cholera, we know, spreads through infection of air, soil, and water, and by the filthy personal habits and imperfect public sanitation which supplies such filth with its most frequently chosen avenues of attack.

While, then, we cannot but regret that the identification of the cholera-microbe should have fallen into other hands, we may feel some satisfaction that the discovery will put a crown upon the great work of prevention of cholera, which it is for us to undertake, and as to which British experience at home and in India has furnished guiding principles on which all future action must be conducted.

HEALTH-MATTERS AT LIVERPOOL.

EVENTS of a very significant character, as affecting the health-future of Liverpool, are occurring week by week; and it seems desirable to collect and summarise the reports of these while they are yet recent, and when no doubt can possibly be raised concerning their substantial accuracy. They afford a somewhat striking commentary on sanitary action in that city, our recent report and criticism of which, founded on published and apparently authoritative documents, some of them of long standing, was criticised by Dr. Taylor, the Medical Officer of Health.

Towards the conclusion of that article, it was intimated that a resolution had been proposed to the Health Committee, to the effect that a report should be presented to them by the Medical Officer of Health and City Engineer, setting forth the causes of fever in certain streets. The exact terms of the resolution were as follows, viz.: "That in view of the prevalence of fever in certain streets in the city where it existed in 1865, and the urgent necessity for taking steps to effectually eradicate such disease, and it being necessary and advisable for this Council to know what are the exact causes of the continuation of fever in certain streets and districts of this city, a return be furnished by the Medical Officer of Health and City Engineer, showing in detail the causes of fever and other zymotic diseases, except measles, in all streets and the houses in such streets where cases of such disease have occurred during the past three years, whether such diseases arise from faulty or unhealthy dwellings, defective drainage, dirt, overcrowding, or other causes, and showing the steps which have been taken by the Council in the matter; and that the reports upon the respective streets be submitted separately."

This resolution, which led many to hope that Liverpool meant at last to probe her unhealthy spots to the bottom, as the first step towards a practical and radical treatment, was passed at one meeting of the Health Committee, and rescinded at the next, its seconder on the first occasion voting and speaking against it on the second. What had happened in the interval to lead to so extraordinary a change, may be inferred from the course of the discussion, and excites almost a feeling of despair as to any really effectual measures being taken to root out fever from Liverpool. The chairman is reported to have said that "the resolution required a report that certain buildings were unhealthy. Under the Sanitary Amendment Act of 1864, if the medical officer found any dwelling which was unfit for human habitation, or in a condition injurious to health, he should report the same. A presentment would have to be made, and the owners of the property would then demand their own price. The medical officer could, therefore, under such an arrangement, put the town to the expense of hundreds of thousands of pounds." But is any such result necessary? It may be certainly stated that it is not. The medical officer has two, if not three, distinct courses open to him under the circumstances. He may make the presentment as indicated under the Act of 1864; or report under the Improvement Act of 1882, an Act which was specially obtained because the working of the older one was found to be tedious and expensive; or it is not easy to see why, in many of the cases at least, he may not proceed under Section 97 of the Public Health Act, 1875, and have the houses closed as unfit for human habitation until satisfactory alterations had been made by their owners.

The vice-chairman of the committee is reported to have said that they (the Health Committee) had "practically asked the medical officer of health to stay his hands until the amended Act could be got." And as this statement was made in explanation of any apparent want of diligence on the part of that gentleman in making presentments as to unsanitary property, the inevitable inference is that he did "stay his hands." The extraordinary matter is that, notwithstanding that the Act of 1882 was obtained in order to save the tedium and expense of that of 1864, and that the medical officer seems to have delayed presentments in order that the expense might be avoided; he should yet, on this resolution being proposed and carried, apparently see no alternative but that of presenting a large number of houses, and putting the city to the expense of, perhaps, £200,000.

It is obvious that any inquiry whatever can be stayed if it is open to the officer who is required to make it to choose, out of three possible alternatives that might follow from his making it, one, and the only one, of the three which will involve such serious monetary consequences. Surely it must be allowed that the health committee of a town, as the responsible authority, have a right to know, and indeed are morally bound to know, the causes which seriously affect its health, and it cannot be imagined for a moment that the Liverpool Act of 1864 was designed to put into the hands of any man or any body of men, the means of checking an inquiry by enabling him or them to say, "If this inquiry is made, it will entail an enormous expenditure, and it had therefore better not be made." If any such result can follow from that Act, those towns may esteem themselves happy which have only the Public Heath Act of 1875 to depend upon.

What makes the present condition of affairs very difficult to understand is that, in his report for the year 1882, Dr. Taylor remarked that: "In view of the action to be taken under these new provisions"—*i.e.*, the Act of 1882—"and to assist the Corporation in carrying out the Act, the medical officer has made an inspection of the whole of the unsanitary districts of the city, and prepared a list of the premises that should be dealt with. These will come before the Health Committee for consideration, and form part of their important duties for the next year"—*i.e.*, for 1883. It must be admitted, then, that some at least of the property which formed the object of the resolution was already on a list with a view to its being reported in the less tedious and expensive manner provided by the Act of 1882; but so soon as that resolution, which required a searching investigation into the causes of the continued presence of fever in the property, was passed, it was stated—we had almost said "threatened" at the Health Committee—that, if it were not rescinded, the houses and streets should be presented under the Act of 1864, and the city put to enormous expense; and thereupon it was rescinded.

Another matter of great importance for the future of Liverpool is the character of its "made" land. Complaints have been loud, long, and explicit, as to the dangerous character of this land, out of which the foundations of houses will be, and are being, dug. One writer indicates the exact locality, and that a rapidly growing one, where he watched "six corporation carts in full swing, emptying loads of ashpit and other refuse, twelve women industriously picking 'tit-bits'"—which he explained to be merely bits of wood, coal, and rags—"therefrom as the loads were 'kecked.' A closer inspection showed it to be an embankment of filth, cabbage-leaves, straw, offal, old rags, etc., mixed with ashes in apparently about equal proportions—one cart appeared to be filled with manure pure and simple. I found, on their being 'kecked,' that only the upper half of the load was manure and straw, the under half the ashpit-compos." In alluding to this statement at the next meeting of the Health Committee, the chairman remarked, with reference to another district concerning which complaints had been made, and which he had personally visited, that "there was some vegetable matter, but that was picked out by boys, and afterwards carted away." It is not surprising that, in the leading columns of a Liverpool daily paper, we read, in reference to this matter, that "one cannot learn, without an unpleasant sensation, that the final judgment as to the composition of made land is left to their," *i.e.*, the boys', "unaided discretion;" or that the writer of the original letter of complaint should say, 'It is depressing to think that such views prevail at the Health Committee, because, while this is the case, the prospect of amendment seems very remote.'"

As was stated in a previous article, a suggestion was thrown out by one member of the Council that hulks might be utilised for the treatment of infectious cases. In pursuance of a resolution, "That the Medical Officer of Health be directed to report on the expediency of having a floating hospital as an adjunct to the proposed hospital on land for infectious cases," Dr. Stopford Taylor has presented a report, which, after enumerating various difficulties that, in his judgment, would militate against any such scheme, concludes by stating that, "apart from all financial considerations," he "is of opinion that, should an epidemic become so prevalent as to demand more accommodation than could be provided by the proposed hospital on land, some temporary huts or tents could be erected to meet all requirements." It is rather singular that one at least of Dr. Taylor's objections seems to many most competent authorities to afford the strongest reason for the plan which he discards. He says: "Only one form of disease could be treated on board, and separate wards would have to be provided for the sexes and convalescents." It is, however, just for one disease, viz., small-pox, which of all others is so difficult to treat in hospitals on shore without danger to the community in which the hospitals are situated, and so difficult to treat in hospitals which receive, also, patients suffering from other infectious diseases without danger to those patients, that a hulk moored at a convenient distance from the shore would, perhaps, prove advantageous. No one who reads the evidence given before the Royal Commission on small-pox and fever-hospitals will doubt the former of these two dangers; while it is not necessary to go outside the experience of Liverpool itself for proof of the latter. During the small-pox epidemic of 1875-77, not a few instances occurred of patients having been sent, when suffering from scarlet fever, into a hospital which received, also, others who were affected with small-pox, as was thought with due precautions for their complete isolation, and of having acquired the latter disease while residing in the hospital. Neither lay nor medical opinion could, therefore, sanction the erection of a large composite hospital in the more inhabited parts of the city, nor the treatment of small-pox patients within it wherever it should be situated. The necessity of distance from centres of population, and of a separate establishment, attach, therefore, to whatever hospitals are provided, and seem to meet another of Dr. Taylor's objections, though one not very clearly or intelligibly expressed. "The ship would have to be moored," says the report, "in some part of the river where she would not interfere with the ordinary traffic. The quarantine-ground above New Ferry would be the only likely site. To keep up constant communication, and to remove patients, a steam-launch would be required. Patients would have to be removed from their homes in an ambulance to a slip (the Toxteth slip, being nearest to the vessel, would be desirable), and put on board the launch, which would then steam to the hospital, where the patients would have again to be removed before they could be placed in bed. This supposes the weather to be favourable, and the patients in a condition to bear removal, which few could do without sustaining injury." It is important to observe that the opinions expressed by Dr. Taylor are totally opposed to those of the most experienced witnesses who were examined before the Royal Commission. Dr. Taylor would have a shore-hospital for 150 cases of small-pox, to which he would have the patients transferred from all parts of the city, on the ground that removal by boat to a floating hospital would be injurious. Sir William Jenner, on the

other hand, maintains that 150 are "very much too many" for aggregation in a single hospital (qu. 5348); and he and Sir E. Currie, and Dr. Gayton, agree in the safety and advantage of sending all but the very worst cases, even long distances (if necessary), by water. The belief of the last-named gentleman as to the superiority of the results of treatment on the floating, as compared with the shore, hospital, should also be allowed much weight considering his large experience at Homerton and on board the *Atlas* respectively. Dr. Taylor further states that "the expenses to be incurred, apart from those of the doctor, nurses, and all the requirements of the hospital management, would be considerable." The Royal Commission report: "Floating hospitals, on the other hand, have the advantage of comparative cheapness."

In view of the large amount of testimony in favour of floating hospitals, notwithstanding some drawbacks, it is to be hoped that the Liverpool sanitary authority will not lightly abandon the idea of employing hulks for the reception of small-pox cases.

THE PUBLIC AND LIFE-ASSURANCE.

THE national importance of life-assurance in its bearing upon the causes incidental to pauperism, cannot well be overrated, more especially if we bear in mind the intimate relations between pauperism and public health. There can be no question about the healthy effect upon life-assurance in England of the Act of 1870, which enacted that all life-assurance companies should render official annual reports to the Board of Trade. It now alone remains for the public to utilise the valuable information afforded by these official reports as a guide to the selection of a sound office in which the expenses of management are satisfactorily low. We have seen several attempts to render the information contained in these reports readily available for the public, and one of the most successful of those attempts is that compiled and published by Mr. William Bourne of Liverpool, an associate of the Institute of Actuaries; it is entitled "The Handy Assurance Guide." This guide gives, in a condensed and convenient form, the following important particulars relating to ninety-seven assurance offices. It gives the total amount of the life-fund, details of the last [year's new business, the life premium-income, the expenses of management, and the percentage of the expenses to the premium-income. Excluding the Equitable (United States), the New York, and the Prudential, which is mainly an industrial office, the premium-income of the various companies ranged downwards from £682,351 in the Scottish Widows' Fund Office. As a guide to the selection of an office holding out the prospect of the best return for the premium paid, the percentage of expenses of management (including commission) to premium-income should not be lost sight of, and is infinitely more important to the insuring public than the rate of premium charged.

So long as but a small proportion of the premium is swallowed up in expenses of management, the rate of premium is comparatively unimportant. The percentage of expenses of management, even if industrial offices and new offices be included, shows a remarkably wide range. In the London Life Association, the percentage of expenses does not exceed 4.1, and the next lowest percentages are 5.6 in the Metropolitan, and 5.8 both in the Metropolitan and the Clergy Mutual. It is somewhat surprising to find that the percentage rises to 12.0 in the Mutual, and 14.1 in the Provident Clerks; in strictly mutual offices, we should, at any rate, expect to find a low percentage of expenses. These percentages are, however, low compared with the following: Reliance, 20.4; London and Lancashire, 22.5; British Equitable, 24.8; Whittington, 28.8; and Gresham, 29.0. The insuring public would do well fully to consider the true import of these valuable figures. There is one other fact in connection with assurance-offices which has an important bearing upon the returns that may be expected for life-premiums. This is the mean rate of interest realised from the life-funds. In English offices, this may be taken to vary little from £4 per cent. In American and colonial offices, however, a much higher rate of interest is obtained; and, in the case of the two large American offices included in Mr. Bourne's list, although the proportion of expenses in each case exceeds twenty per cent., the effect of such a deduction is greatly, if not entirely, counteracted, as regards the return to the insured, by the high rate of interest earned by the invested life-fund.

DR. ACLAND, Regius Professor of Medicine in the University of Oxford, has been made a Companion of the Order of the Bath.

A VERDICT of wilful murder has been returned against Dr. Ford, at Ashton-under-Lyne, for causing the death of a servant-girl by an illegal operation.

MR. JAMES CANTLIE will deliver a lecture on Cholera before the Medical Society on Friday evening, the 26th instant, in the Board-room of Charing Cross Hospital, at eight o'clock. Visitors are invited to be present.

THE third annual dinner of the pupils of the Hygienic Laboratory attached to University College took place on Thursday, at the Grosvenor Gallery. Professor Corfield presided, and there was a large attendance of past and present pupils.

AT the Westminster Hospital Medical School, the Entrance Scholarship, of the value of £80, has been awarded to Mr. C. J. Lownds, and that of the value of £40 to Mr. F. R. P. Taylor and Mr. C. S. Vines, equal.

MR. E. PEARSE BURD, formerly District Auditor for North Lancashire, has been appointed Inspector of the Local Acts and Loans, an office rendered vacant by the appointment of Mr. Alfred D. Adrian to a post in the secretarial department of the Local Government Board.

WE publish this week a short notice of the first meeting of the Military Medical Society, which has been formed at Aldershot. We hope that other large stations may be induced to follow this excellent example. The utility of such societies among army medical men is apparent. The large amount of experience relative to the diseases incidental to the medical service is lost for want of some such association. The meetings of the present Society will be held monthly.

AT the South London District Branch meeting, which will be held on Wednesday evening next, in the Governors' Court Room, St. Thomas's Hospital, at half-past 8, Dr. Savage will read a paper on "The Gouldstone Murder, in its relation to the Plea of Insanity in Criminal Cases;" and Dr. Bristowe a paper on "Masked Cerebral Tuberculosis." The attendance of members of the Association is invited.

WE are requested to state that the Rev. Canon Barry, principal of King's College, London, will present a testimonial, which consists of an illuminated album containing an address and list of subscribers, together with a purse, to Professor Bentley, on the occasion of his retiring from the post of dean of the medical faculty. The presentation will take place on Wednesday afternoon, October 24th, at 4.30, in the large theatre of King's College.

DEATH FROM HYDROPHOBIA.

AN inquest was held this week on a little boy, two and a half years of age, who was bitten on the wrist by a strange dog, which ran in at the open house-door. The wound was cauterised, and the child

appeared to be doing well until last Wednesday week, when he became restless, refused to take food, and finally died in great pain on Saturday last. The jury returned a verdict of death from hydrophobia, in accordance with the medical evidence.

WAR AND SANITATION.

M. BECHAMP, when recently enunciating his doctrine concerning micrococci and their evolution, terminated his discourse by saying that if the thousandth part of the sum expended for warlike purposes were devoted to rendering towns and cities healthy, legions of lives would be saved, and riches and strength thus multiplied beyond calculation.

THE HOSPITAL FOR WOMEN, SOHO SQUARE.

A COURSE of clinical lectures and instruction on gynæcology was commenced on the 11th instant, in the theatre of the hospital, by an inaugural address by Dr. Protheroe Smith, the senior physician. He announced that, in addition to the lectures by members of the staff, clinical assistants and clerks will be appointed, under certain regulations, to both in- and out-patients, and that, to two of the best of these students would be awarded annually a gold and a silver medal. The first lecture, "on Cervicitis," was subsequently delivered by Dr. Heywood Smith. The next lecture, free to all medical practitioners and students, will take place on Thursday the 25th instant, at 3.30 P.M.

DISEASE ON THE TAPIS.

A CORRESPONDENT of the *Standard* very judiciously points out that the present eccentric fashion of furnishing drawing-rooms with old Oriental rugs is both offensive and hazardous. These rugs, when they are what they are represented to be, have been used as "passage-rugs" for long periods, sometimes reaching up even to a hundred years; and must, in many instances, have been knelt on by persons affected by leprosy and other loathsome diseases. Now, the odour of sanctity is not a good disinfectant; and the danger is, that these faded and frowsy floor-coverings may import amongst us some very unpleasant maladies. Old Persian rugs should either be banished from English homes, or should be baked, before being introduced into them, to a degree that will add the charm of singe to that of tinge.

THE CHILDREN'S HOUR.

THE Christ Church Demonstration Society, consisting of the Foresters, the Sons of the Phœnix, the Good Templars, and other kindred societies, recently conceived the notion of helping the new Paddington Green Children's Hospital by a very sensible "demonstration." In furtherance of this view, all these societies assembled at Paddington Green, with bands and banners, and marched through some of the principal thoroughfares in the Paddington district to Christ Church, Mornington Road, where a sermon was preached, and a collection followed. Collections had been previously made on the route of the procession by means of boxes and tables, and £51 was obtained in pence and halfpence. The whole sum obtained was £70 10s., which was handed to the authorities of the hospital last week by a deputation of working-men members of the societies. Such a contribution in aid of the funds of a children's hospital is equally graceful and sensible, as coming from the class whose little ones will chiefly be benefited by its operation.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

THE usual quarterly court of the above Society was held at the rooms of the Royal Medical Chirurgical Society on Wednesday, October 10th, at 5 P.M. The President, Sir George Burrows, Bart., was in the chair. The attendance of directors was unusually large. One new member was elected. Applications for grants were considered from fifty-seven widows, five orphans, and three recipients of relief from the Copeland Fund; and it was resolved to recommend that a sum of £1,217 should be distributed among them in January next. There were no fresh applications for relief. The Christmas present, which has now been given for many years, was again voted, the funds admitting the same sums as last year to be granted to the widows and orphans now in receipt of grants—viz., £5 to each widow, £2 to each orphan, and £4 to the three orphans on the Copeland Fund—in all, a sum of £307.

SCIENCE A PEACE-MAKER.

IT is pleasant, in these times of political squabbling and dishonourable jealousies, to see science step in and disperse national animosities as effectually as it removes vulgar errors and diffuses world-wide truths. On the sad occasion of the death of M. Thuillier, Herr Koch, Director of the German Cholera Commission, and all his colleagues, promptly expressed regret and sympathy, and also their desire to be useful. On his coffin, they nailed laurel-wreaths. On the day of the funeral, M. Koch officiated as a pall-bearer. This graceful act of humanity was feelingly appreciated by the members of the Pasteur Commission, who described it as "un hommage précieux et touchant." It will also command the sympathy of all votaries and lovers of science, who, perhaps, are the only men who measure rightly its moral power.

MEDICAL MISSIONS.

THE Guild of St. Luke have undertaken to send out a missionary to Central Africa to carry on the medical work of the Central African Mission, and Dr. Petrie has been selected as the first missionary for the purpose. The Guild have guaranteed £200 a year for three years, and they appeal to the medical profession and the public generally to provide the remainder, amounting to about £30 a year, which they suggest shall be given in annual subscriptions for at least three years. Funds are also asked for by the Guild to enable them to send other medical missionaries to heathen countries. Subscriptions and donations will be gladly received by George Cowell, F.R.C.S., Provost, 19, George Street, Hanover Square, W.; Alfred Meadows, M.D., Vice-Provost, 27, George Street, Hanover Square, W.; Rev. George Greenwood, Warden, 10, Langham Street, W.; William Holman, M.B., Treasurer, 68, Adelaide Road, N.W.; A. K. Willis, Secretary, Gascony House, West End Lane, N.W. The 19th anniversary festival took place on Thursday last in St. Paul's Cathedral, when the sermon was preached by the Rt. Rev. the Bishop of Bedford.

USE OF THE RECTAL LEVER.

ON October 9th, 1883, Mr. Cowell amputated through the left hip-joint of a man, in the Westminster Hospital, for old-standing disease of that articulation. Mr. Richard Davy controlled the common iliac artery with his lever; four ounces of blood were lost. The man is progressing favourably. On October 10th, 1883, Mr. Turner tied the right gluteal artery at the Seamen's Hospital, Greenwich. Mr. W. Johnson Smith has communicated the following note on the case: "Mr. Turner's patient was the subject of a very extensive traumatic aneurysm of the gluteal artery, which vessel it was thought necessary to expose by dissection so as to tie it above and below the opening. As the patient was old, and had been much weakened by hæmorrhage, it was very necessary to do all this without causing much further loss of blood; and as the abdominal compressor is an uncertain instrument, and likely, by itself, to cause shock, the operation on this patient would have been difficult, if not impossible, without the use of Davy's lever. This was applied, by the house-surgeon, with thorough success. We saw the opening in the artery, and the double ligature was applied in an almost bloodless wound, and, beyond the blood already extravasated into the sac of the aneurysm, there was not a further loss than of, at the most, half an ounce."

MR. JONATHAN HUTCHINSON ON COLLECTIVE INVESTIGATION.

AT Owens College, Manchester, on Thursday next, October 25th, at 4.15 P.M., Mr. Hutchinson will deliver an address at the request of the Collective Investigation Committee of the Manchester District. Dr. William Roberts, F.R.S., will preside over the meeting, to which the Manchester Committee invite the attendance of all members of the profession, whether members of the Association or not, and they most earnestly request the attendance of all those in or near their district. Mr. Hutchinson has shown in his recent address to the Ophthalmological Society, on taking the chair as its President, that he fully appreciates the value of collectivism for the advance of medicine, both as a means of instruction and a method of inquiry. We anticipate with much interest a most suggestive and instructive address, for which we may safely trust "Manchester men" to provide Mr. Hutchinson with a not unworthy audience. The address will be followed by a discussion on the aims and methods of collective investigation.

TEA-DRINKING.

THE Dean of Bangor has lately called public attention to the manifold evils which he conceives are being wrought amongst us by the prevalence of tea-drinking. His gloomy forebodings predict little less than our general physical and moral decadence as a people and nation if we persevere in our addiction to the pleasures of the tea-pot. While it is true that tea, like every other beverage, is liable to abuse, and that its abuse is likely to produce certain well-defined bodily derangements which long have been recognised by our profession, the maladies which are fairly traceable to the drinking of tea are relatively so trivial, that the melancholy views of the worthy dean will not find support either in general popular observation, or in medical experience. If tea be pure, and free from poisonous "facings," the daily drinking of an infusion of it, in anything like moderate quantity, is free from all risk, either immediate or remote. It is well known to medical practitioners that there is a common form of dyspepsia, which is especially prevalent amongst the poor, which is mainly due to the excessive consumption of tea. The subjects of this disorder are commonly found to have been trying to "live" chiefly on tea, which has been supplemented only by small supplies of the coarsest solid food. Such poor persons drink tea with every meal, and between their meals, from an infusion which "stands" continuously, and which is consequently largely charged with the astringent matters which tea-leaves freely yield on prolonged maceration. Under these circumstances, the excessive drinking of tea produces a variety of chronic gastric catarrh. In persons predisposed to the disorder, the consumption of strong tea will also undoubtedly produce and keep up palpitation of the heart. This possible and removable cause of cardiac derangement should always be sought in the treatment of cardiac neuroses. These are the chief and the utmost human ills from which tea-drinking is fairly responsible. On the other hand, infusion of tea is a harmless restorative and stimulant, which has taken a high and lasting place amongst human comforts. Properly used, it refreshes after fatigue, enlivens the dull, and cheers the depressed, while it aids digestion, promotes the removal of effete material, and has some protective virtue against the extremes of heat and cold. No secondary depression follows these good effects. As an article of diet for soldiers on active service, especially in hot climates, the value of tea has been often proved, and is attested by the highest authorities.

SICKNESS ON THE TRAINING-SHIP "CORNWALL."

THE training-ship *Cornwall*, which is moored in the Thames off Purfleet, has more than once been the seat of puzzling outbreaks of disease. In 1877 an inquiry was conducted by Mr. Netten Radcliffe, late assistant medical officer to the Local Government Board, into the prevalence of enteric fever on board, which, it was supposed, had been brought about by the outflows of metropolitan sewage; but, from various reasons, the investigation was never completed. In 1880 the ship was inspected by Mr. Power, with the view of discovering the cause of another outbreak of fever that was supposed by him to have been trichinosis, but which was shown by Dr. Charlton Bastian to have been more properly describable as pelioderiasis. The vessel has again been the *locale* of an outbreak of disease, which has, so far, baffled all efforts to trace its origin. As many as fifty-four of the boys have been lately attacked with curiously vague and indefinite symptoms. Two cases were diagnosed as enteric fever, and seven as scarlatina, few of which, however, had any eruption. All the remaining cases, though they could scarcely be classed as any definite disease, presented well-marked and similar symptoms. There was generally a distinct rise of temperature for a few days only, followed frequently by a temperature much below normal, and almost invariably accompanied by diarrhœa. Many of those attacked complained of abdominal pains and tenderness on pressure; sore throat again was a marked feature. Dr. Collingridge, who refers to the subject in a recent report, remarks that, although many of the boys were really ill, still it was not possible to give their disease a name. Each case was transferred to shore, and treated at the hospital at Wennington; none terminated fatally. A thorough examination and investigation of the ship was made, but Dr. Collingridge was reluctantly compelled to come to the conclusion that the cause of the outbreak was not to be discovered. Bearing in mind the unfortunate history of previous outbreaks, and the great interest attaching to them, all the facts were brought under the notice of the Local Government Board. The Board has not, however, so far as we can learn, taken any action whatever in the matter.

THE BOWMAN LECTURE.

AT its entry on this, its fourth year, the Ophthalmological Society of the United Kingdom may be said to have taken a new departure. By the discerning munificence of the retiring President, it is put into possession of means for the establishment of a library and museum. The thousand pounds which Mr. Bowman devotes to this purpose will, when distributed, according to his intention, over a period of twenty years, amply suffice for the purchase of current literature, and for the increased rent required by the extensive outlay and improvements carried out by the Medical Society on their rooms in Chandos Street. The fostering care of Mr. Bowman had been in the mind of members ever since he took office at the Society's establishment. For many months, it had been the wish of the Council to give it practical acknowledgment by the establishment of an annual address, to be called the "Bowman Lecture," which will be delivered every year; and upon the lecturer will devolve the duty of summarising the additions made to the resources of ophthalmic science during the previous twelve months. This is to be the usual programme, but, whenever opportunity offers, the lecture may contain an account of original investigations. The simultaneous maturation of this scheme by the Council, and of that for an endowment by Mr. Bowman, is significant, and is the more gratifying that the wishes and intentions of each side remained perfectly unknown to the other. With better accommodation, more frequent opportunities of meeting, and a large and rapidly increasing body of members, the Society bids fair to continue the work it has begun so well. Of Mr. Bowman's position in English science there is no need to speak; he has become a specialist, but he was a surgeon before he was a specialist, and a pathologist before he was a surgeon; it is on his contributions to general pathology that his reputation has its firmest foundation. "The work," says Dr. Burdon Sanderson, in his Lumleian Lectures on Inflammation, "that Mr. Bowman did about inflammation was, like all the other work he did in those early and fruitful years, complete." For many years, he has occupied a foremost position in ophthalmology, and it is most

right that the Society founded for the study of that science should seek to commemorate his connection with it by founding an annual lectureship in his honour.

AID TO THE SICK AND WOUNDED IN WAR.

THE National Society for Aid to the Sick and Wounded in War has voted a sum of £350 to provide the medical students of Charing Cross Hospital, who are undergoing training in ambulance-service and surgery under the auspices of the Volunteer Medical Organisation, with a supply of ambulance-material to enable them to complete and perfect their drill during the present winter session. Our contemporary, the *Globe*, remarks that this donation calls attention to what seems a practical issue in the great question of volunteer medical aid in war, and suggests that the two societies concerned should forthwith amalgamate their forces, as one is so well able to furnish funds, and the other to supply and train recruits. The National Aid Society, we are informed, is well established, with abundant funds, but, so to say, without any organisation, and thus dependent on rapidly collected men and material to carry out its objects when war actually breaks out. On the other hand, we see this vigorous stripling, the Volunteer Medical Organisation, professing its ability to train and supply any number of efficient men, and showing undoubted evidence of its ability to fulfil these professions, if only it can find the means; for this work cannot be carried out without funds, the material necessary for the training of its volunteers being costly. At present, there seems little chance of Government aid to the movement. Why, then, should not the two societies combine for their one common purpose? If the junior society could only see its way to become a branch of the senior, we should find the whole plan for providing volunteer aid in war complete; and not only complete, but its efficiency enormously increased, for the funds of the National Aid Society, instead of lying idle as they now are, would be useful in supplying the ambulance-material for the bearer-companies which the new organisation seems able to enlist. The training of these companies could thus, by practical work, instead of by theory and lecture, be carried to a standard of thorough efficiency; and, in the event of war breaking out, the National Aid Society would be able to provide, at a few days' notice, field-hospitals and bearer-companies, not only complete in waggons, tents, and appliances, but fully served by competent and well-trained men.

FEVER AND ABORTION.

A CASE lately described before the Paris Academy of Medicine, in which diphtheria was complicated by abortion, has given rise to some discussion. One or two similar cases are on record. The question arises: Does diphtheria act as a stimulant of uterine action, or are we to regard the miscarriage which now and then accompanies it as a mere result of fortuitous circumstances? The accidental theory is one which cannot be altogether negatived, so many slight mischances may precipitate parturition. On the other hand, one or two examples do not suffice to found a doctrine of the abortifacient action of diphtheria. Nevertheless, a good deal of indirect evidence gathered from the behaviour of other infectious diseases seems to imply that the latter view may occasionally hold good. Thus, if typhoid or typhus fever come on during pregnancy, labour is not unfrequently premature. It is much more commonly so in small-pox, while in relapsing fever, premature birth is the rule. What is there in these diseases which requires that, while often insufficient to destroy the mother, they should take fatal effect upon the fœtus, and while permitting the regular though impaired action of other organs, should totally arrest the existing function of the uterus? The question is a difficult one to answer perfectly but it will help us to do so if we consider the double state here present. A normal condition, which necessitates localised over-nutrition, is encroached upon by one of disease implying more or less inflammatory action with fever, and associated with the presence at some point, or even throughout the body, of the elements of contagion. This being so, it is not remarkable that while all parts of the body more or less feel the effect of the stimulated circulation, that part chiefly does so at which there already exists a physiological hyperæmia. The selective property of congestion is well seen in the phenomena of congenital syphilis, which, particularly in infancy, affects in a marked degree the seats of active growth, as joints, and the cranial centres of ossification. Alcoholism shows a similar tendency, and is especially in point. The frequency and the regularity with which indulgence in drink is followed by abortion is such as to strongly suggest a direct relationship of cause and effect. Uterine complications in fever may, therefore, be explained on the hypothesis of local inflammation. General congestion acquires a greater local intensity on the principle of simple addition. On the other hand, the germ-element cannot be excluded. With our present knowledge, it is only reasonable to admit that circulating disease-germs can become arrested and develop in the over-nourished decidua, and so constitute a source of uterine irritation. In this connection, we remark that in small-pox and relapsing fever—diseases in which the blood is impregnated with organisms from an early period—abortion, as said, is much more common than in typhoid fever, where the specific contagium remains for long confined to the alimentary tract. A third suggestion, applicable to the case of diphtheria, is that the excess of carbonic acid in the blood in that disease, the result of difficult respiration, leads to convulsive expulsion of the uterine contents. No doubt, excess of carbonic acid will induce convulsion, and the latter perhaps abortion; but the frequency with which women in fever miscarry when blood-aëration is not materially interfered with, the uncertainty as to what really is the etiology of convulsion, and the comparative rarity of abortion in diphtheria itself, lead us to doubt whether asphyxia furnishes the true explanation. The evidence we have adduced rather goes to support a theory of direct uterine irritation, arising in some cases out of simple inflammation; in others out of inflammation due to local concentration of infective germs. In any case the subject touches one of wider than uterine significance, and will reward careful investigation.

THE WORKING OF THE ADULTERATION ACTS.

THE annual report of the Local Government Board is at best a curious mosaic of information, and it is rendered still more remarkable when the style in which it is couched is so very diversified as that of the twelfth report, which has been issued this week. Amid an arid desert of dry facts and statistics is a vivid oasis of information concerning the working of the Sale of Food and Drugs Acts. The writer of this part of the report thinks it fine to say that there still exist many districts "where the dairyman may safely water his milk, and the grocer add chicory to his coffee." He is sceptical as to the returns received from certain "favoured localities, the tradesmen of which must," he thinks, "have attained to a height of honesty which is uncommon elsewhere." He talks of the "numerous analyses of admittedly unsophisticated samples of milk from healthy cows," and of certain milk which "was of moderately good quality, so far as its component parts went (!), but was reported as coloured with turmeric." He alludes to some "rather singular metamorphoses" of jam, to "the old practice of adorning sweetmeats with poisonous pigments," to "the difference between a genuine and adulterated medicine being a matter of life and death for the patient," to butter being "induced to absorb an exceptionally large quantity of water," which, as he sagely observes, "cannot, perhaps, be stigmatised as actual fraud, though coming perilously near it," with much more of the same kind, which might perhaps be tolerated in the leading article of a daily paper, but is decidedly out of place in an official publication. Stripping the report of this flowery language, it may be stated generally that the proportion of so-called

"adulterated" articles was 15 per cent. in 1882, as against 14.7 in 1881. Though this proportion shows a fractional excess over that for the previous year, it compares favourably with the average percentage in the five years 1877-81. In the metropolis, adulteration appears to be somewhat on the increase. The percentage of adulterated samples in the London returns for 1881 was 12.4; in those for 1882 it was 14.6. Milk was, as usual, the chief subject for analysis. Out of 19,439 samples examined, 7,341 were of milk, and not far short of one-fifth were condemned. Water continues to be almost the only adulterant used, but in Liverpool starch or flour paste was found in one sample of milk, and in one of cream. The punishments inflicted on milk adulterators are often trivial and inadequate; and it might be worth while to try some more drastic measures with these gentry. Of bread and flour, 1,727 samples were examined, of which 80, or less than 5 per cent., were reported against alum being as usual the chief adulterant. The sale of butterine in place of butter, sometimes with notification to the purchasers, but often without, continues to be pretty general. Of wine, very few samples were examined, and only one was found adulterated. About 5 per cent. of the 470 samples of beer analysed were condemned, mainly on account of excess of salt. The spirits examined were hardly ever found adulterated with anything but water; and generally it would appear that though there is still much venial tampering with articles of food and drink, the dangerous and poisonous admixtures to which Dr. Hassall originally drew attention are now practically things of the past.

HEREDITY AND DISEASE.

On Wednesday evening last Dr. Henry Maudsley gave an address before the Medical Society of University College, on Heredity and Disease; and the large audience which had assembled were not disappointed in the expectation that they would listen to an address at once learned and witty. Dr. Maudsley was ever wont to delight with those "flashes of merriment" that set his audience "on a roar," and never fails also to supply matter for serious thought. On the present occasion he dwelt especially on the complexity of the results of the working of the law of heredity in the human race, and on the comparative simplicity of its results in the animals which had been made the subject of experiment by breeders of the varieties of domestic animals. The union of two human beings might hold their peculiarities in check, so that they did not appear in the next generation, the one peculiarity neutralising the other for that generation, to be liberated again in some later generation. What was true of peculiarities of a physiological kind, was not less true of morbid peculiarities. This subject, the production of a disease tendency, or a disease immunity, by the combination of parental tendencies, was a subject urgently needing medical inquiry. A solution of the questions involved in this inquiry would be a great achievement for sanitary science. Mr. Francis Galton was making a bold and laborious attack on this difficult subject, and had invited the co-operation of the medical profession, but how far the profession would feel called upon to respond to the rather onerous conditions was doubtful. Dr. Maudsley was inclined to place more trust in the action of the Collective Investigation Committee of the British Medical Association. The committee intended to take up the subject of heredity, and was, he understood, about to issue a circular and forms, with regard to family histories, to a large number of men engaged in the practice of medicine throughout the country. Dr. Maudsley expressed his earnest hope that, in this action, the Committee would receive the assistance and support which the magnitude and importance of the question deserved. Dr. Maudsley combated the views expressed by Sir James Paget in his Bradshaw lecture, on the ground that the evidence was not sufficient to establish a proposition which was, he believed, opposed to the wider general law of heredity, that morbid peculiarities, being disadvantageous, tended towards extinction of the breed which presented the peculiarity; and, in a paradoxical peroration, while calling on his hearers to join in the great work of perfecting of the human race, expressed his own agreement with the dictum of the melancholy preacher, "There is no new thing under the sun."

CLINICAL SOCIETY OF LONDON.

This Society commenced its sittings for the present session on Friday, the 12th instant; the President, Sir Andrew Clark, occupying the chair. The proceedings began with a short address from the President, in the course of which he asked the surgical members of the Society for information upon a set of cases, of one of which he gave an outline-description. The case in question was that of a gentleman who, in 1870, consulted the President for incontinence of urine, being otherwise in all respects in good health. The patient being sent to a surgeon, was advised to establish catheterism, his trouble being pronounced to be due to an enlarged prostate. In a few days, feverish symptoms began; and, increasing daily in severity, the patient died in about nine days. After death, the bladder was found to be inflamed, but the kidneys were reported to be healthy. Sir Andrew Clark stated that since that date he had seen several other such cases, which were almost uniformly fatal. In answer to a query, he stated also that the fatal result had occurred both when the catheter was left in and constantly worn after being first passed, as well as in other cases in which the instrument was removed upon the emptying of the bladder, and re-introduced each time when required for the same purpose. The President had been able to find no allusion to this important affection in surgical works, English or foreign; and he consequently asked information upon the point from his surgical *confrères* of the Clinical Society. The plain story, therefore, is that men entering upon the "catheter-life" are subject to a pyrexial malady, which proves fatal in nine or ten days, or thereabouts. The subject seemed to come suddenly upon the Society, and no one rose to discuss the question, which was possibly somewhat informally introduced; but a paper on the President's cases would form a very interesting matter for discussion, and give rise to an animated debate. It should, however, describe with full detail the leading symptoms during life, and also the condition of the viscera found after death. The course of events alluded to by Sir Andrew Clark is not, perhaps, quite unknown to surgeons generally; but it is, at any rate, so rarely recognised as to render his statement almost a revelation. His noted reputation for accuracy renders it most desirable on all hands that he should return to the subject at the earliest possible opportunity; for, if this untoward result should be discovered to await the subjects of constant catheterism, in even a small percentage of cases, practitioners will evince much greater misgivings than they now experience when advising patients to submit to such treatment. Dr. Goodhart's paper on peritoneal abscess in children led to an animated discussion on the causes and treatment of the affection, of which a full description will be found in our report of the meeting. This was followed by a paper by Dr. Bastian on an anomalous case of cerebro-spinal sclerosis; in which the long train of symptoms was admirably described. Thus the Clinical Society has begun, and seems likely to continue during the present session, the useful and practical work which has distinguished it in the past.

SCOTLAND.

We understand that a special meeting of the Faculty of Physicians and Surgeons of Glasgow recently took place to consider the advisability of establishing an examination for the fellowship of the corporation.

BEQUEST TO STIRLING ROYAL INFIRMARY.

ONE hundred pounds has been left to the Stirling Royal Infirmary by Mr. J. W. Horn of Sydney, lately residing near Edinburgh.

LONGMORE HOSPITAL FOR INCURABLES, EDINBURGH.

THE Committee of Management of the Longmore Hospital for Incurables have appointed Dr. Francis Troup, to be assistant medical officer of the above institution.

HOSPITAL LEGACY, ABERDEEN.

DR. FRANCIS EDMOND, of Kingswells, Aberdeen, has given feuduties of the annual value of £50, representing a money value of £1,200 to the Hospital for Incurable Diseases, Aberdeen. A new institution is being erected at Morningfield, and the sum presented to the hospital trustees is intended to cover the ground-rent of the hospital lands.

THE GLASGOW MEDICAL SOCIETIES.

AT a meeting of the Glasgow Medico-Chirurgical Society, held on the 11th instant, the following gentlemen were appointed office-bearers for the session 1883-84. *President:* Dr. W. T. Gairdner; *Vice-Presidents:* Dr. Alex. Robertson, and Dr. Hugh Thomson; *Council:* Drs. R. Forrest, Lapraik, D. Maclean, J. C. Woodburn, W. Whitelaw, W. A. Wilson, R. Cowan, and J. A. Lothian; *Secretaries:* Dr. W. L. Reid, and Dr. J. W. Anderson; *Treasurer:* Dr. Hugh Thomson. On the same evening, at a meeting of the Glasgow Southern Medical Society, Dr. Robert Park was elected president; Dr. Alex. Napier, vice-president; Dr. Edward McMillan, treasurer; and Dr. Tindal, secretary.

CHOLERA-SHIP AT DUNDEE.

CONSIDERABLE alarm was experienced, not only in Dundee, but throughout Scotland, by the intelligence that there had arrived and been admitted into port at Dundee, a ship whose crew had suffered from cholera on the voyage from Calcutta, and of whom some had died. The authorities lost no time in ordering the vessel into quarantine, and instituting further inquiries. Dr. Littlejohn was sent from Edinburgh to conduct the investigation; and it is satisfactory to know that, in his opinion, the crew did not suffer from cholera; but he very justly blames the remissness of the Board of Trade officials who permitted the ship to enter a crowded harbour under such suspicious circumstances.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General, for the week ending October 6th, show that the death-rate in the eight principal towns was 17.0 per thousand of estimated population. This rate is 5.3 below that for the corresponding week of last year, and 3.6 below that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 8.5 per thousand; and the highest in Paisley—viz., 19.9 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 2.7 per thousand, or 1.3 below the rate for the previous week. Diarrhœa was the most fatal miasmatic disease. From acute diseases of the chest there were 59 deaths, or 16 less than the number registered during the previous week. The mean temperature was 46.9°, being 6.6° below that of the week immediately preceding, and 6.7 below that of the corresponding week of last year.

NEW FEVER-HOSPITAL FOR GOVAN.

ON the 11th instant there was formally opened an important addition to the hospital accommodation of Glasgow and its neighbourhood, in the form of the new Combination Fever Hospital for the burghs of Govan and Kinning Park. The buildings cover a considerable area of ground, and consist of five separate blocks, comprising a large central administrative department, with accommodation for the medical officer, matron, and nurses, with the necessary adjuncts of kitchen and reception-room for visitors. There are, in addition, three large separate pavilions of one storey each, with ample cubic space for fifty fever or small-pox patients. All the latest sanitary appliances have been introduced in reference to the ventilation and drainage of the hospital, and special steps have been taken for the disinfection of the sewage before it leaves the building, and subsequently it undergoes further filtration, so that it passes away perfectly pure. The cost of the construction has amounted to about £12,000.

IRELAND.

CASE OF POISONING BY LAUDANUM.

AT the Wexford Petty Sessions, last week, a grocer's assistant was prosecuted for having unlawfully administered a quantity of laudanum to a man named Kennedy, so as to cause his death. It appears that the deceased was drinking in a shop, when the assistant, about 9 A.M., gave him some laudanum—the exact quantity was not ascertained—to make him sleep. The poison some time afterwards showed its effects, and he was removed from the shop and left lying in an adjacent yard. About 3 o'clock the assistant tried to waken him, but failed, and although medical men were sent for, he was dead before they arrived. The prisoner has been sent for trial, bail being accepted; but a more stupid act of gross carelessness has hardly ever been recorded.

QUEEN'S COLLEGE, CORK.

THE total number of students on the books of this college for the session, 1882-3, was 348, of whom 325 were matriculated, and 23 non-matriculated. In the previous session the number of first year's students was abnormally raised by the entrance of a considerable number of young men who had proposed to become students of the Queen's University at a later period if it had continued to exist, and who were accordingly following the course of study laid down for entrance in that university. In order to secure the right to which they were justly entitled of continuing their studies in the Royal University, according to the curriculum of the Queen's University, they were compelled to enter one of the Queen's Colleges before the dissolution of the Queen's University took place. In this way the total number of first year's students in the college last year was greater than during the past session. On the other hand, the number of students of the second, third, and fourth years was greater this session than in any previous year, and the total number was greater than in the session of 1880-81, so that the steady growth which began in 1877-78 has continued, even under the unfavourable conditions of the last two or three years. The President concludes his report by stating that now that much has been done to enlarge and re-arrange the Natural History, Materia Medica, and Anatomical and Pathological Museums, to furnish the physical cabinet with instruments, both for demonstration and research, and to provide biological and physiological laboratories, etc., it appears to him time to begin the work of establishing a well-organised and arranged technical museum and collection of educational models. Such a museum would be a real boon to the South of Ireland, and would be a necessary complement to the means which the college now possesses for teaching physical science. Before anything can be done, however, in this direction, the new library and new laboratory must be built, so as to enable the present laboratory and library to be used for the proposed Technical Department. On this ground, as well as for other reasons, he again urges the necessity of making immediate provision for the erection of a new library and of a new chemical laboratory.

REMOVAL OF THE REMAINS OF WILLIAM HARVEY, M.D.

THE desire which has at times animated many Fellows of the College of Physicians and others to remove the remains of Harvey from the position in which for some 226 years they had lain in the vault at Hempstead, Essex, to a more honoured position, has at length been realised. On Thursday afternoon, the 18th instant, St. Luke's Day, the transference took place, with appropriate and reverential ceremony. It may be recollected that Harvey's death occurred when he was in his eightieth year, on June 3rd, 1657, and that the funeral took place on June 26th, when the body was attended far beyond the walls of the city of London by a long train of his friends of the College of Physicians, and the remains were finally deposited in a vault at Hempstead, some fifty miles from London, which his brother Eliab had built. He was lapt in lead, and on his breast, in great letters, was his name, "Dr. William Harvey." Where thus placed the coffin has since remained, together with the leaden shells which contain the remains of several other members of the Harvey family. The vault, some five and twenty years ago, was in a very neglected condition, and the leaden case containing Harvey's remains was suffering from its exposure to the elements, and possibly the inroads of the village boys. In 1859, Drs. Quain and A. P. Stewart visited the remains at the request of the College of Physicians, and found the leaden case full of dirty water, which had penetrated through a crack in the metal. The vault was afterwards made clean, and the open window securely barred, but the leaden case was not repaired.

Hempstead is a small village situate about seven miles from Saffron Walden. The church was probably built in the reign of Henry the Seventh. To the left of the altar, as one faces it, is the Harvey Chapel, built by Harvey's brother Eliab, consisting of the vault below and the chapel proper above. The latter contains many monuments of the Harvey family, and communicates with the chancel by an opening of the size of the whole side-wall of the chapel. Close to the chapel, but actually in the wall of the aisle, is a marble monument, containing a bust of Harvey, with a long Latin inscription traced below it. Dr. B. W. Richardson, who has always exhibited great interest in all that pertains to the last resting-place of Harvey, came to the conclusion that this bust had been copied from a cast of the face of Harvey taken after his death; and in this opinion he is corroborated by Mr. Woolner, R.A., who visited the church in 1878.

The writer of these lines examined the vault in 1874, and found that entrance thereto was obtained down a flight of steps which led from the churchyard. The vault itself had a brick floor and flat ceiling, and was lighted by a small window. It contained about twenty leaden coffins similar to that holding Harvey's remains; this latter lay on the floor, with its feet towards the little eastern window. The leaden case was roughly shaped in the form of a body, having a head, neck, and shoulders, from which it gradually tapered towards the feet, where it was turned up as if to receive the feet at a right angle to the body. At the centre of the body, the upper surface of the lead had collapsed, so that on the inner side the upper and lower layers of lead almost touched. The extreme length of the case from head to heel was six feet three inches, which must have been longer than was actually necessary, as Harvey is always described as having been of small stature. On the breastplate of the leaden case was the following inscription:

DOCTOR
WILLIAM . HARVEY .
DECEASED THE 3
OF JUNE . 1657
AGED . 79 . YEARS.

The condition of the coffin did not allow one to suppose that more than the skeleton remained in the case, and possibly even all that was not now preserved. In regard to the other leaden cases in the vault, one need not here dilate; except to say that most of them were in a better state of preservation than was that of the doctor; and that the two cases which lay immediately next to the doctor's coffin had been completely flattened, by visitors to the tomb standing upon them when stooping down to read the above inscription on the breast of Harvey's case.

Some years since, Dr. Richardson called upon Dean Stanley, and it was contemplated to remove Harvey's coffin, and place it and its contents in Westminster Abbey; but the Dean's failing health and death put a stop to this suggestion, which never, in fact, we believe, went so far as to come officially before the notice of the College of Physicians. The Dean was anxious to place the body by the side of Hunter or Livingstone. It was suggested to let down the body, in its present state, some two feet deep into the floor of the Abbey, and place above it a layer of thick glass (about two inches thick), so that the leaden case might be seen through it.

On January 28th, 1882, the whole tower of Hempstead Church fell towards the south-west into the church-yard, fortunately without inflicting bodily injury on any person. The curate of the church (Mr. Estcreet), and the care-taker (Mrs. Ford), had been up in the tower, whilst the latter was winding the clock, not an hour before the fall occurred. Dr. Richardson again went down and examined the remains of Harvey. He found the chapel had not been touched by the fall of the tower, but that the lead of Harvey's shell was going fast, and that there was water in the shell. This he reported to the Royal College of Physicians in February 1882, showing them drawings and illustrations of the whole thing, and adding the suggestion that the remains should be raised to the Harvey Chapel above the vault, or brought to Westminster Abbey. A committee was formed at once to report upon the whole subject, and advise thereon; and it consisted of Sir William Jenner, Sir Risdon Bennett, Sir H. Pitman, and Drs. Sieveking, Richardson, Frederick Farre, Quain, and the late A. P. Stewart. It was decided to keep the remains at Hempstead, and remove them to the chapel above the vault. The necessary consent to this procedure was given by the Vicar of Hempstead, the Rev. Mr. Eustace, by the representatives of the Harvey family, Colonel Lloyd, and Mr. R. Lloyd, of Rolls Court, Essex, and finally by the Bishop of St. Albans, from whom a faculty was obtained. A marble sarcophagus for the reception of the leaden case was decided upon, and an architect was sent down to examine the state of the floor and vault, in order that the floor of the chapel might be sustained if necessary, in order to bear the weight of the sarcophagus and the leaden shell and its contents. Under his direction, pillars were built in the vault to strengthen the floor, and a plain sarcophagus, cut out of pure white Carrara marble by Maile and Son, of Euston Road, was constructed.

The following inscription was placed at the head of the sarcophagus:

WILLIAM HARVEY
BORN 1578
DIED 1657

The following was engraved on one side:

The remains of William Harvey
Discoverer of the Circulation of the Blood
were reverentially placed in this Sarcophagus by
the Royal College of Physicians of London
in the year 1883.

A leaden case was also prepared, in which might be placed the edition of the works of Harvey published in Latin by the Royal College of Physicians of London in 1766, and edited by Drs. Akenside and Lawrence. On one side of this was engraved:

GULIELMI HARVEII
OPERA OMNIA
EDITA
MDCCLXVI

On the other side was inscribed:

The complete works of William Harvey,
deposited October 18th, 1883.

A memorial bottle, hermetically closed, was also prepared for the occasion by Messrs. Powell of Whitefriars, and wrapped in lead. In the bottle was placed a memorial, engrossed on vellum by Messrs. Harrison of St. Martin's Lane. The leaden case enclosing the bottle had inscribed upon it—

SCROLL.
Deposited October 18th, 1883.

The following is a copy of the memorial itself:

"The body of William Harvey lapt in lead simply soldered was laid without shell or enclosure of any kind in the Harvey Vault of this Church of Hempstead Essex, in June 1657.

"In the course of time the lead enclosing the remains was from exposure and natural decay so seriously damaged as to endanger its preservation rendering some repair of it the duty of those interested in the memory of the illustrious discoverer of the circulation of the Blood.

"The Royal College of Physicians of which corporate body Harvey was a munificent Benefactor and which by his favour is the possessor in perpetuity of his patrimonial Estate at Burmarsh, Kent, did in the years 1882-83 by permission of the Representatives of the Harvey family undertake that duty.

"In accordance with this determination the leaden mortuary chest containing the remains of Harvey was repaired and as far as possible restored to its original state and on this 18th day of October 1883 in the presence of four Representatives of the Harvey family and of the President all the office-bearers and many other Fellows of the College of Physicians (whose names are hereunto appended) was reverently translated from the Harvey Vault to this Sarcophagus raised by the College for its reception and preservation."

Colonel Lloyd — Captain Lloyd, Grenadier Guards
Rossendale Lloyd — Colonel Harvey Bramston

Sir William Jenner, Bart., K.C.B., M.D., President
George T. Fincham, M.D., Censor
Sir Andrew Clark, Bart., M.D., Censor
Frederick W. Pavy, M.D., Censor
Wilson Fox, M.D., Censor
Frederic J. Farre, M.D., Treasurer
Sir Henry A. Pitman, M.D., Registrar
William Munk, M.D., Harveian Librarian
William H. Allchin, M.B., Assistant-Registrar
George E. Paget, M.D.
George O. Rees, M.D.
Sir James Risdon Bennett, M.D.
Henry Monro, M.D.
Henry Wentworth Acland, M.D.
Richard Quain, M.D.
Edward H. Sieveking, M.D.
Charles B. Radcliffe, M.D.
William Wood, M.D.
Benjamin W. Richardson, M.D.
William M. Graily Hewitt, M.D.
Dyce Duckworth, M.D.
Alfred Meadows, M.D.
Richard D. Powell, M.D.
William G. Hunter, M.D.
Augustus B. Shepherd, M.D.
Norman Moore, M.D.

In order to accommodate the above-named Fellows of the College of Physicians and the representatives of the Harvey family travelling down from London, a special train was provided, which left St. Pancras Station at 1.35, and arrived at Saffron Walden at a quarter to 3. Here carriages were in attendance, and the party were at once conveyed to Hempstead Church. The local arrangements were, at the request of the authorities of the College of Physicians, placed under the charge of Mr. Stear, surgeon, of Saffron Walden, well known to most of the medical visitors to Harvey's tomb. The weather was bright and crisp, and the journey to Hempstead occupied an hour. Dr. Allchin, the Assistant Registrar of the College, had gone before to Hempstead, to make the final arrangements for the carrying out of the programme of the day. Upon arrival at Hempstead, where a large number of persons were assembled, the President and the officials of the College immediately assumed their robes of office, and a visit was made to the vault to view the chamber and Harvey's shell with the other coffins lying there. Harvey's leaden coffin was then raised to the churchyard up an inclined plane made by placing boards over the flight of steps. The eight Fellows of the College who acted as bearers, Sir Risdon Bennett, Drs. Owen Rees, Quain, Sieveking, Richardson, Shepherd, Duckworth, and Moore, then ranged themselves on either side of the coffin, and carried it through the churchyard, and up the nave and aisle, into the Harvey Chapel. Preceding the remains of Harvey were the officiating clergymen, Mr. Eustace, vicar of Hempstead, and Mr. Escreet, the curate. Following the remains was a procession which included the four representatives of the Harvey family above-named, the President of the College, carrying the silver emblem of his office; the College officers in their gowns; and the Fellows of the College mentioned above, conspicuous amongst whom were Drs. Acland and Paget, the Regius Professors of Medicine, in their scarlet robes; besides these gentlemen were Dr. Broadbent, Dr. Hubert Airy, Mr. George Eastes, and Mr. Stear. The Suffragan Bishop of Colchester was to have officiated at the service, but, at the last moment, was unfortunately prevented from being present. Whilst the procession was passing up the church, the Dead March in *Saul* was played. The curate commenced the service with the reading of the Lord's Prayer; the 105th Psalm was read; and then the vicar read the lesson for St. Luke's Day (the thirty-eighth chapter of *Ecclesiastes*) ("Honour a physician"). The Canticle ("Lord, now lettest") was sung by the village choir, and the Creed was recited; the three Collects for the day were given; and the hymn "Far from these narrow scenes of night" was sung. The remains of Harvey were then lowered into the sarcophagus, and Sir William Jenner placed the metal case containing the scroll sealed in a glass bottle, and the metal box containing the copy of Harvey's works in a bottle, beside the leaden coffin in the interior of the sarcophagus. The vicar read the collect from the burial service ("O merciful God"), and concluded the service with the Benediction. The cover of the sarcophagus was placed in position after some little delay. The company then returned to Saffron Walden; and, after partaking of refreshments there, they were conveyed back to London by special train. Thus within the last few years full honour has been done by Englishmen to the memory of Harvey. A noble statue, subscribed for by all classes of people, has been erected in his birth-place, Folkestone, Kent, and now the Fellows of his own loved College of Physicians have with their own hands, placed his remains in a tomb which will for centuries demonstrate to the world the admiration which, in 1883, they entertained for the signal services rendered to mankind by Harvey.

THE ENTRIES AT THE MEDICAL SCHOOLS.

By the courtesy of the deans, wardens, and secretaries of the various medical schools, we are enabled to publish the subjoined list of students who have entered at the beginning of the present winter session. In the case of some schools, Column B in this table probably includes students who have entered for preliminary courses in science only; but, wherever it has been possible, we have placed the number of students of this class in a separate column (D).

Schools	A.	B.	C.	D.	Total.
St. Bartholomew's Hospital	120	20	0	40	180
Charing Cross Hospital	32	6	7	—	45
Guy's Hospital	74	8	—	12	94
King's College	51	21	—	—	72
London Hospital	65	49	—	—	114
Middlesex Hospital	35	10	9	—	54
St. George's Hospital	36	4	—	—	40
St. Mary's Hospital	28	7	—	—	35
St. Thomas's Hospital	64	25	—	3	92
University College	86	—	—	58	144
Westminster Hospital	14	5	0	—	19
London School of Medicine for Women	7	6	—	—	13
Bristol Medical School	25	2	—	—	27
Owens College, Manchester	60	—	—	18	78
The Dental Hospital of London	—	—	17	—	17
The National Dental Hospital	—	—	10	—	10

A. Students who have entered for the full curriculum. B. Students who have entered for special courses. C. Dental students. D. Students who have joined classes for preliminary scientific instruction.

We believe this table represents accurately the number of students who have entered up to October 17th; but it is possible that a few more entries may be made before the end of this month. It will be seen that, up to the present time, 605 students have entered for the full curriculum in the London schools; this number is 17 below the number last year. St. Bartholomew's Hospital has again a much larger entry than any other school; University College stands second with 86 full entries; and Guy's Hospital third with 74. The London Hospital and St. Thomas's have almost the same number of full entries; and we are glad to notice that the entry at King's College has not been unfavourably affected by recent nursing difficulties.

DONATIONS AND BEQUESTS.—"T." has given £200 to the new building fund of the South Devon and East Cornwall Hospital.—The Northampton General Infirmary has received £180 under the will of Mr. Joseph Barnes, of Badby.—University College Hospital has received one hundred guineas from the People's Contribution Fund.—Mr. Henry A. Brassey, M.P., has given £100 to the Dental Hospital of London.—Miss Roche, of Rathmines Road, has given £100 to Mercer's Hospital, Dublin.—Mr. James Pilgrim has given £100 towards the sea-side branch of the Metropolitan Convalescent Institution.—The Halifax Infirmary has received £56, the proceeds of a demonstration of trades and friendly societies.—"A. A.," a very old friend, has given £50 to the British Home for Incurables.—Dr. Edmund, of Kingswells, has given feu-duties of the value of £50 *per annum* to the Hospital for Incurables, Aberdeen, so that it may, for all time, be relieved of feu-duty in respect of the site of the new building now in course of erection.—Mr. G. Ashley Dodd has presented fifty brace of partridges to the Middlesex Hospital, for the patients.

THE SWINEY PRIZE.—The Council of the Society of Arts give notice that the next award of the Swiney Prize will be in January next. Dr. Swiney died in 1844; and in his will he left the sum of £5,000 Consols to the Society of Arts, for the purpose of presenting a prize, every fifth anniversary of the testator's death, to the author of the best published work on Jurisprudence. The prize is a goblet value £100, and money to the same amount. The award is made jointly by the Society of Arts and the Royal College of Physicians London.

SOCIAL SCIENCE CONGRESS.

Address on Health.

The Address on Health was delivered by Mr. T. Pridgin Teale, M.A., F.R.C.S., President of the Section. The following extracts include the greater and most important part of the address.

"No one can have read extensively the recent correspondence and articles in the press, without seeing that very serious complaints are being made of what is called 'over-pressure in education' in elementary schools. The outcry comes from many quarters of the country and from different classes of persons; from parents who know or believe that their children are suffering in health; from teachers, whose health is tried, and whose life is made a burden by the pressure put upon them to produce tangible and measurable and paying results of their teaching; from school managers; from members of school-boards; from moralists and patriots, anxious about the future; and, last of all, but not least significantly, from members of the medical profession.

"Primary education, as at present conducted, is pressing injuriously, and with a constantly increasing force, upon the health and nervous system of children, and still more seriously upon the health and nervous system of teachers and pupil-teachers in primary schools, spending thereby most wastefully much of the teaching power in the country.

"On the other hand, we are told by persons in authority that such breakdowns of health occur but seldom, or that they occur only in underfed children, or in children already of feeble constitution, on the verge of illness; and that such disasters to individuals are no more than must be expected in the severe battle of life. We are told by those who have access to scientific analysis of statistics that the death-rate of children of school age is diminishing and not increasing, as would be the case were the outcry against 'over-pressure in education' founded on fact. They point to the fact—a most valuable one for the nation—that many children taken from squalid, ill-regulated, ill-ventilated homes, where they formerly wasted an undisciplined, untaught childhood, spend, with advantage to their bodily, mental, and moral vigour, many hours of each day in wholesome discipline and training in a carefully constructed school-room. As evidence of this, Sir Lyon Playfair quotes, in a speech in the House of Commons (July 26th), the tables published by the Statistical Society. Two periods are compared together—1838 to 1854, and 1876 to 1880. In the latter period, among children from five to ten years of age, there had been a diminution of mortality of nearly 35 per cent., of which but 6 per cent could be accounted for as the effect of hygiene. And what diseases had come down? All but one. In the ten years before the Education Act, brain-disease killed one in 2,000; in the ten years after, it killed one in 2,000. 'There was undoubtedly a large increase in the number of suicides, showing that there was something wrong in our social system, that the struggle for life and the keenness of competition were too severe. It was to be observed also, that educated people committed more suicides than uneducated; and therefore, to that extent, education had something to do with it.'

"In answer to Lord Stanley of Alderley, who, in the House of Lords (July 16th), raised the question of overwork in elementary schools, the Lord President of Council states: 'The result of inquiries made (of the inspectors) showed that, while there were here and there cases of overwork on the part of children and pupil-teachers who were anxious to distinguish themselves, upon the whole there was very little ground for the wide and highly-coloured statements which had appeared in some of the newspapers.'

"Mr. Leighton, in the House of Commons (August 9th), inquired whether the attention of the Vice-President of the Council had been called to the increased proportion of pauper lunatic children, and asked whether he would cause special inquiry to be made by Her Majesty's inspectors, during the ensuing year, on the subject of over-pressure in the elementary schools of the country. Mr. Mundella, in his reply, showed that such increase of pauper juvenile lunatics can be well explained by the increase of population, and by other facts bearing upon an increased recognition by the State of its duty towards lunatic children, the greater proportion of whom were idiots or imbeciles from birth.

"I have here endeavoured to state fairly the case for the defence of the present state of primary education with respect to over-pressure, and of the denial of its existence. This defence depends mainly upon statistics, which show, first of all, that there is no increase in the proportion of lunacy in children of school-age—certainly none that can be traced to undue educational pressure; and, in the second place, that there is no increased mortality, measurable by statistics, which can be laid to the charge of education. Nay, more, much of the reduction of mortality during childhood is claimed, and probably with truth, as a result of the Education Acts.

"But, are these questions which can be solved by statistics of death-rate or actual lunacy? How many of the older ones amongst us can remember one instance of a death during school-age or school-life which could be clearly laid to the charge of over-study? I cannot remember one of my contemporaries. Yet there must be few who have not known of cases of mental and physical breakdown. Were such fatal disasters occurring in numbers to be detected in statistics, what a mighty collapse would be implied of the many who break down and do not die from the immediate effects of study! Yet there is one point, even in these statistics, which is ominous. Whilst the death-rate between the ages of five years and twenty has diminished 30 per cent., the death-rate from brain-disease at those ages has been stationary. Nay, more, Dr. Crichton Browne, quoted by Lord Stanley of Alderley, says: 'It is a curious fact that, since the recent spread of education, the increase of deaths from hydrocephalus has not been among infants, but among children over five years of age.' And what shall we say of those who are carried off by consumption and other wasting diseases, in which over-work has been a leading factor in the failure of health?

"Moreover, there is another point which must not be overlooked. The statistics quoted by Sir Lyon Playfair end with 1880. What will be the tale of 1881, 1882, 1883, the years in which it is said that the educational pressure has been increasing under recent changes in the code, and during which, more especially, the outcry throughout the country has taken shape and made itself heard? Statistics, in truth, hardly touch as yet the fringe of the question, and at the best give the verdict 'not proven.'

"Facts are being collected—one-sided facts, perhaps—by persons not themselves engaged in tuition, and are being published in pamphlets which reflect a widespread feeling of unrest: notably, I may mention the pamphlet by the Rev. R. A. Armstrong, of Nottingham, on *Overpressure in Education;* and a second, by Lieutenant-Colonel J. A. Digby, of Dorchester, on *Hothouse Education.* The first of these gives a vivid picture, supported by numerous statements, of the strain that is put upon elementary teachers, and forcibly shows how the *primum movens* of the whole educational system is a refined mechanical distribution of the Government grant. 'Payment by results, or, in the 'paraphrase' of its first great advocate, 'once place a man's ear within the ring of pounds, shillings, and pence, and his conduct can be counted upon with the greatest nicety.'

"I rarely take up a journal, medical or otherwise, without finding some contribution to this discussion. In the correspondence, a letter now and then in defence of the system appears; but the bulk of the evidence, much of it from experienced and competent persons, is condemnatory of 'results.' Of the articles written in the journals, it is rare, indeed, to find a sentence in palliation of the present system.

"Let me also speak of a stream of thought which cannot easily be measured, as it does not often present itself through the press—I mean the conviction, in the minds of members of the medical profession, a consensus of skilled opinion, that the educational machinery of the country is at present moving on wrong lines, on lines tending, not unfrequently, towards injury of health. There has been no polling of medical opinion on this point; but there has been plain speaking by members of my profession, whose opinion on such matters must carry weight. For my own part, for some time past, long before I was aware that I might be called upon to give this address, I had been observing, collecting opinions and observations of others, and, whenever an opportunity presented itself, had been conversing, with members of the medical profession on the bearing of education upon health. As a result of this, I may declare the almost unanimous opinion of all those with whom I have conversed to be, that education—so called or miscalled—at the present day, from the highest to the lowest, is doing injury to the health and nervous system of very many of the rising generation.

"As to elementary education, my own observations have chiefly been made upon pupil-teachers, who, from failure of health, strength, or eyesight, have sought my advice, and on inquiring into the work they have to do, and the series of examinations they have to pass, I was simply horrified at the refinement of human slavery and torture that had been invented and was being carried out in this civilised country.

"The nation can hardly realise what is the life of these pupil-teachers. Apprenticed to their calling at the age of thirteen or fourteen, they spend five hours and a half a day in the fatiguing work of drilling little children in their lessons, and in trying to maintain their attention. They then have to spend the rest of a

day, commencing at 8 o'clock in the morning, until 8, 9, 10, and, before examinations, even 11 o'clock at night, 'ay, and even 12, many a one,' as said a schoolmaster, with scanty time for meals, and almost none for recreation, grinding away at their miserable treadmill, in order, not to improve their minds, not to develop their faculties, but to meet the demands of an inexorable examination. This, bad in the case of boys, is more acutely wrong in the case of girls, coinciding with that critical period of their physical development which intervenes between girlhood and womanhood, when the *physique* is most sensitive to conditions affecting health and growth, and when the foundation of a healthy or a weakly womanhood is laid. Verily, the present scheme for female pupil-teachers must have been invented by men, not by women, and certainly without the sanction of the medical profession. I am aware that the enormous and sudden demands resulting from the rapid extension of primary education have rendered the 'pupil-teacher' a necessity; that the evils of the system are now being recognised; and that Mr. Mundella, in his speech on the Education estimates, rejoiced in the rapid diminution of the numbers of pupil-teachers. Yet this is but an extreme instance of what, in its degree, is going on as to overwork of teachers and overpressure of the children in many elementary schools. A system which can formulate and tolerate the one is hardly likely to lend a sympathetic ear to the complaints of overwork by the others.

"Enough has been advanced, surely, to convince a reasonable mind that the time has arrived when the nation should review its position in reference to primary education in order to retain and increase, if possible, the mighty advantages it has secured through the Education Act, and to eliminate what has become or tends to become injurious, and to weaken the educational progress of the country.

"It is clear that the working of the Education Acts, in relation to their effect on the nervous system of children and the younger teachers, has to be inquired into; and it appears to me that some such questions as the following should be widely put by judicious and unprejudiced persons in such manner as to obtain fair and fearless information.

"Have not our educational schemes been planned too much on the assumption that whatever the intellect can be driven to do, it can accomplish with impunity; and that it is a work of supererogation to inquire how much intellectual food can be digested and appropriated, forgetting that a growing brain and developing frame have to be reckoned with, and will resent attempts to hurry nature's processes?

"Are we not ignoring the trite old maxim, *Mens sana in corpore sano;* forgetting that unless the *corpus, i.e.*, the brain-structure itself, be sound, well-grown, and well-thriven, it is hopeless to look for the *mens sana*, the vigorous, capable, effective intellect, however loaded with information?

"Can the nation deem it a matter of slight moment, as a thing unavoidable in a scheme of national education, an 'inseparable accident,' that a few children—and the authorities admit some instances—should suffer in their brains from overpressure, seeing that their parents have no choice but to send them to school, and often to a particular school, under pain of penalties?

"Do we not, by compelling 'each particular' child to earn its grant, 'place,' in the words of a schoolmaster, 'the children's health in direct competition with the schoolmaster's living?'

"Do we or do we not for the same reason induce schoolmasters to press a weakly or sickly child to remain at school in order not to lose the grant?

"Do we or do we not induce school managers, in the face of the advice of a medical man, nay, even of a health officer, to refuse to close a school just before an examination when contagious disease has declared itself? and, in one instance I know of, to cause a wide spreading of an epidemic of diphtheria?

"Do we not compel teachers, pupil-teachers, and pupils to work with perpetual tension and perpetual worry, and so destroy all happiness and brightness in school life? 'Worry,' says a recent writer in a medical journal, 'is fatal to good work; and to worry the growing brain of a child with work, is to maim and cripple its organisation, doing irreparable, because structural mischief, the effects of which must be lifelong.'

"Let us now turn our thoughts to the higher education of the country. Some thirty-five years ago higher education in England meant a classical and mathematical training brought to the highest perfection, and having its most complete representation in the Universities of Oxford and Cambridge. That education, the result of the wisdom and experience of many generations of the ablest and most cultivated men in the kingdom, had a clear object in view, and as a rule succeeded in attaining that object, which was so to train the intellectual faculties as to prepare men for entering upon their professional studies, whether in divinity, law, medicine, or statesmanship, with sharpened wit, a cultivated power of mental concentration, undiminished freshness of mind, and undamaged physique; a preparation and nursing up for the work of life. In those days examinations were few, 'cramming' and 'coaching' were little heard of, breakdown of health and nervous system was exceptional.

"The element of competition, at first apparently a wholesome factor and a useful spur, became shortly a plague spot, which has grown and spread and infected the whole system of higher education in the country.

"Education, in its truest, widest, most scientific sense, should aim at the development of the 'whole nature,' the intellectual, the physical, the moral, and the spiritual; and should take cognisance of and be guided by all the various factors in this complicated problem. Can anyone maintain that she takes cognisance of the physical side? Is she not bound hand and foot to the thraldom of competition from childhood to manhood? Does she not say to a child in the nursery, you must begin your grammar and your Latin, or you will not be ready at eleven years of age to try for a scholarship which shall be your passport to a public school education?—often in the case of children of the less wealthy clergy and professional men the only chance of obtaining such a privilege. Being open to all, the candidates are many, the prizes are few, the competition is severe, and the poor little brain is driven to work more fitted for boys two or three years older, to do it under the pressure of competitive strain, and with its future success in life apparently depending upon the result. And this may happen at eleven years of age, and even earlier—witness an advertisement from one of our public schools: 'Twelve scholarships, varying in value from £80 to £15 a year, will be competed for—age of candidates from eleven to sixteen;' and a second advertisement from a preparatory school: 'Three entrance scholarships of £30 will be competed for. Boys to be under eleven years of age.'

"If successful, the boy takes a high place in the school, two or three years in advance of the average boys, and continues to rise—unless, indeed, Nature resenting the strain reasserts her authority, and the boy becomes for a time dull and idle, to the disappointment of his teachers, the discredit of himself, and the salvation of his brain. Successful, he rises in the school and wins a scholarship at the university. Here again competition dogs his footsteps. He must read for honours and must win honours, or his scholarship, perhaps the only means of completing his university education, may be forfeited.

"His university career ended, he then may have to begin the work of life an exhausted man, to study the cram, it may be, for a competitive examination for a public appointment, or to sit down and reckon with the work of preparing for the profession by which he has to gain a living.

"Surely this is unscientific education, imposing burthens upon young growing brains without taking thought how much the nervous system ought to bear, pushing them, urging them, tempting them on by prizes and honours, reckless of the result to vigour or intellect. Can all this go on with impunity? Are the disasters attributed to competitive pressure in education imaginary? Certainly not. I am constantly hearing, often from parents and relatives, of most painful collapse of health and vigour at the end of a scholastic career of early promise and brilliant success.

"Have we not heard a note of warning from India, that the intense competition for its Civil Service appointments, the parent and model of modern competition, is telling its tale and bearing its natural fruit in premature failure of health, exhausted faculties, and shattered nervous system?

"Sir Andrew Clark, in his presidential address to the Clinical Society of London (January 1883), passed a severe medical condemnation on this particular competition. He says: 'Of the young men who win appointments in the Indian Civil Service competition, I have ascertained that more than a tenth become albuminuric.' In other words, some of the great organs of the body become diseased; temporarily perhaps, yet in not a few instances they have received such a shock, that the impress of the damage remains ready to reappear when the wear and tear of life has fully set in, and tries the metal of every organ of the body.

"And have we not had warnings from men eminent in psychological medicine—from Dr. Tuke, Dr. Langdon Down, Dr. Crichton Browne?

"Again, in Germany, Dr. Treichler has called the attention of

physicians to the great increase of habitual headaches amongst boys and girls, which he attributes to the exhaustive effort of excessive and ill-directed brain-work in schools.

"In America, the late Dr. Edward H. Clarke 'collected a large amount of testimony bearing on the effects on health of the higher education of women in America, where it is often pushed with a remorseless eagerness as yet but little known in this country. And all the testimony collected by Dr. Clarke is in favour of one conclusion: that severe brain-work for girls, kept up continuously, is most injurious to health, and that its disastrous consequences are most frequently and ostensibly exhibited in the nervous system.' Professor Loomis, of Yale College, looking at the increasing physical deterioration of American girls, says: 'The cry to our older colleges and time-honoured universities is: Open your doors, that the fairer part of creation may enter and join in the mental toil and tournament. God save our American people from such a misfortune.' Have we not here warnings worth the attention of our high schools, our colleges for women in the universities, and our private schools for girls, where the ardour for passing examinations compels the pupils to work in play-hours, on half-holidays, and even deprives them of their one day of rest?

"Are we not committing a grievous and pernicious physiological mistake in inducing young boys to enter upon severe competitive examinations, tempting them by scholarships and money-prizes to work beyond their strength, and forgetting that 'All that glitters is not gold?'

"Are we not forgetting that, while precocity often proves to be but weakness, backwardness often turns out to be strength—a nervous system prudently, though unconsciously, keeping in the background until the physical power through which it must work has become developed and matured?

"Do we remember that, in the great battle of life of the future, the universal and increasing competition into which our rising generation will have to be launched, there will be greater need than ever for trained, but not narrowed and exhausted, intellect, for cultivated senses and a vigorous frame, whether they remain to fight their way in their native country, or venture forth to seek their fortune in a distant land?

"May we not find a possible solution of the difficulty of final selection amongst competent candidates, fair to all and damaging to none, in drawing of lots? Have we not in drawing of lots also a means of distributing entrance scholarships in public schools which will not violate the laws of physiology, nor impose upon young children and young developing boys the fatal temptation to overwork?

"Were I not convinced of the existence of educational dangers to health, I should not have selected such a subject for the present address. It is my belief that hard work and long hours of work do not of themselves constitute over-pressure in education or overwork in life. It is the work which is done under perpetual worry and anxiety, and under compulsion of want of time, that tries the health of young and old. Work, even hard work, which is done with pleasure and buoyancy, with wisdom and unselfishness, under a strong sense of duty, with a consciousness that its effect will be abiding, surely is not the work that injures health or exhausts the brain. But it is because we are importing into modern education, hurry, worry, and anxiety, selfishness, competition, and feverish desire for success, prize-winning, place-winning, and mark-winning, all tending year by year to grow in intensity and to become more powerful agents, that I see and foresee injury to health, degradation of intellect, and a departure from a true ideal of education. Surely it has become the duty, and will become the function of the medical profession, to raise its voice and make itself heard on the sanitary aspect of education, as it has made its influence tell in other departments of sanitary science."

The Law Regulating the Sale of Poisons.

Professor C. Meymott Tidy, M.B., contributed an interesting paper on the special question, "Can the law regulating the sale of poisons be amended, so as more effectually to prevent their employment for criminal purposes?" The writer of the paper pointed out that it was to be noted that by Section —— of the 1868 Act it was required that the legal practitioner should place on the bottle his name and address, and also enter the prescription, with the person to whom such medicine was sold or delivered, in a book kept for the purpose. The word poison was not to be found in either of the Acts relating to the adulteration of food of 1875 or of 1879. What is poison? The law nowhere defines it. It was curious to see how the terms were intermixed and repeated in the different Acts of Parliament. To add to the difficulties, it was common to find in indictments the phrase "deadly poison," as though the word poison was not sufficiently expressive or explicit. The popular definition of poison was "a drug that kills rapidly when administered in small quantity;" but then many poisons would not kill in small quantity, nor rapidly. He would define a poison as "anything which, otherwise than by the agency of heat or electricity, is capable of destroying life either by chemical action on the tissues of the living body, or by physiological action from absorption into the living system. To be a poison or a noxious thing, the administration of which constitutes a felony, must the substance be noxious in itself, or noxious only when administered in excess? It was certain that there was no well-defined boundary-line separating poisons from drugs and medicines. A poison in the hands of a poisoner should be regarded in the same light as a revolver in the hands of a burglar; and poisoning should be deemed a form of violent death, different only in form from strangulation and the like. They could only do their best to throw the greatest difficulties in the way of their obtaining them, and to impose such conditions that, in the event of their criminal employment, we have, at any rate, some chance of discovering the criminal. Although the word "poison" was not defined, the various bodies designated as poisons within the meaning of the Act are scheduled. He objected *in toto* to this scheduling. The exact meaning of the word "preparation" was nowhere defined. Anything might be said to be a preparation of a substance. It was remarkable that the two poisons which, in his experience, had been used more frequently suicidally and homicidally than any others, and two poisons, moreover, of the most deadly nature, were not included in the schedule at all. He referred to carbolic acid and phosphorus. He might almost say that it was impossible to carry out the Act in its entirety. Simplify, he said, the whole thing. Define a poison, and then omit all schedules of names. Enough records must be kept to throw difficulties in the way of persons procuring poisons for improper purposes. With the present race of pharmacists, some little judgment would be used in the sale of poisonous preparations, for which judgment no Act of Parliament can provide. Any legislation was sure to fail unless they credited the pharmacist with a certain amount of common sense in his commercial proceedings. Having suggested where he would have the word "poison" used in the Act of Parliament, Dr. Tidy regretted that the Pharmaceutical Society had taken no steps to fulfil the duty imposed upon them by the first section of the 1868 Act, which referred to regulations as to the dispensing of poisons. Medical men or veterinary surgeons ought to be subjected to the same rules that regulate pharmacists. It would be absolutely necessary for some register to be kept of the wholesale druggists, drysalters, etc., entitled to sell poisons under the restrictions he had named. It was most undesirable that herbalists should be allowed to scatter broadcast their poisonous and noxious preparations of cayenne and lobelia. If such medicines were required, let their sale be by authorised and registered agents only, and under conditions regulating the sale of poisons. The Adulteration Acts failed to go far enough in cases where the addition of a poisonous body to any article of food could be proved. What regulations had the Pharmaceutical Society made to regulate "the keeping of poisons?" None at all. Some legislation was absolutely called for in the matter of storage of poisons. He could recount more than one case where, owing to poisonous drugs and ordinary medicines being kept on the same shelf, fatal cases of poisoning had occurred, which might have been prevented. He suggested that boxes, bottles, etc., used to contain poisons should be kept in a separate apartment, or drawers specially reserved for poisons; or in bottles or vessels distinguishable to the touch; or otherwise that such bottles and vessels should be tied over or capped in a manner distinguishable from the way in which others were secured, and which were not poisonous. The time had come when national dislike to legislation in the matter of storage should be smothered. The legislation of 1868 provided for that being done which had not been done.

Dr. Bendelack Hewetson (London) said that some restriction should be placed upon the sale of quack medicines, many of which contained deleterious drugs, and also upon the wholesale sale of poisons for manufacturing purposes, for if the lives of workmen engaged in such manufactures was not absolutely threatened, great injury was often done to their general health.

Mr. Richard Smith (Lynn), referring to Dr. Tidy's proposal to abolish the schedule of poisons, and substitute for it a definition, said the question of internal or external use would have to be considered; for instance, all anilines would be essentially poisons if

taken internally. If the schedule were done away with, and each chemist left to form his own judgment as to what was, or was not, a poison, the latter would be under a constant temptation to please his customers by making as few inquiries as possible. What was a poison on one side of the street might not, perhaps, be a poison on the other, and trade would naturally flow to that chemist who made least difficulty about supplying his customers with what they wanted. He agreed that general practitioners and veterinary surgeons should be made to submit to some kind of restriction; and he would even go further than Dr. Tidy had suggested in cases where a prescription contained a deadly poison. He would make it compulsory upon the general practitioner to have it dispensed by a certified pharmacist.

Dr. MICHAEL CARTEIGHE, President of the Pharmaceutical Society, said that Dr. Tidy looked at the question more from the point of view of the Public Prosecutor and analytical chemist, than from that of practical every-day life. In a country in which poisons were used to such an enormous extent for manufacturing purposes, it was practically impossible to achieve perfect safety with the sale of them. Dr. Tidy had lost sight of the lines upon which legislation had hitherto been conducted with reference to this subject. It had been laid down as a principle, not only by the advice of the Pharmaceutical Society, but also by the medical advisers of the Government, that it was impossible to prevent criminal poisoning, any more than one man could be prevented from shooting another. The aim of legislation had not been to prevent criminal poisoning, but to provide every facility for bringing the offender to justice. The chief security against the sale of poisons for criminal purposes lay in the intelligence of the seller. In France, the law with regard to the sale of poisonous drugs was very much what Dr. Tidy would make it; but from his (the speaker's) inquiries among French *pharmaciens* he found, as he expected, that it was practically evaded, with the tacit consent of both buyer and seller.

Dr. TIDY, in reply, admitted the force of the objection raised by Mr. Smith to the abolition of the schedule, but said that the question resolved itself into a balance of difficulties. If the sale of poisons was taken out of the hands of herbalists, quack doctors, grocers, and oilmen, and limited to qualified pharmacists, he thought that the latter might be entrusted with as much freedom in the use of their individual judgment as was consistent with their improved education as a body.

OVER-PRESSURE IN EDUCATION.

Mr. T. P. TEALE, President of the Health Department, referring to the controversy about over-pressure in education, said help could be given, and was due, from parents. While medical men were urging that weakly and ailing children should not be driven to school, parents must not, on the mere plea of illness, keep their children at home. As ill-fed children were unfitted to bear the pressure put upon them, parents must take care they did not give their children food that was not nourishing when they could give them better food. They must see to the healthiness of their own houses, and ascertain whether evils existed there which they could detect and have altered. In thousands of houses, there were sanitary defects which could be easily found and remedied. In cottages, there was one weak point, the kitchen-sink. It might be untrapped, and this could easily be proved. It might run into an unjointed drain under the floor. Why could not working-men make little sanitary societies among themselves for discussing and remedying such simple faults? Half-a-dozen bricklayers, half-a-dozen stonemasons, and two or three plumbers banded together, might do immense good to themselves and their neighbours, and be a great help to the sanitary health of the town. They were wasting about one-fourth of their coal, burning it wastefully, sending too much heat up the chimney, and throwing away into the ashpit an abundance of black cinders. This could be avoided by a simple contrivance, unfettered by any patent. Ashes ought to be red or white; black cinders were waste. The remedy was to convert the space under the fire-grate into a closed chamber, by a movable shield resting on the hearth, and rising to the nearest bar. It could be made for a shilling or two. He exhibited the ash from a grate in his own house furnished with this arrangement, which was illustrated by diagrams placed on the platform. It would save coal, make less smoke, and reduce the refuse of the ashpit. Its adoption was, therefore, a matter of personal and public benefit.

HABITUAL DRUNKARDS.

After papers by Dr. Norman Kerr, Messrs. Knaggs and Little,

Dr. F. R. LEES argued that habitual drunkards ought to be taken care of as insane people are.

Dr. C. DRYSDALE moved: "That the Council be recommended to impress upon the Legislature the importance of removing the present hindrance to the voluntary admission of dipsomaniacs into retreats, and also of conferring on magistrates, in certain well-marked cases, the power to commit such persons to such retreats."

The resolution was supported by Miss BEWICK and others, and was carried by about 20 to 5.

SOCIAL SCIENCE AND THE WORKING CLASSES.

At a public meeting, held in the Town Hall, Huddersfield, Sir R. TEMPLE said that a remarkable feature of the present day was the collection of people into towns. Already, there were upwards of two-thirds of the population of the English people living in the towns and, before the close of the 19th century, that proportion would be increased to three-fourths. Life in towns was attended with great dangers, as was proved by the fact that the death-rate of the towns was so much greater than in the country. The first necessity for the working men living in towns was improved dwelling-houses, in which there should be separate rooms for the different members of the family. These dwelling-houses should be situated some distance from the centre of the town, and have attached to them a plot of land for gardening purposes. They also required public parks and gardens for the recreation of themselves and their families. The food-supply of our towns was a matter of great anxiety. Although the Adulteration Acts had done much good, the best way to prevent the adulteration of food was the establishment of sound co-operative stores. A supply of pure milk, and the diffusion of a knowledge of cookery among the women of England, were important factors in the health of the population. It was also the duty of social scientists to bring under the notice of working men the fact that their children were being made short-sighted and deformed, because school-rooms were ill-lighted, and stools and desks badly constructed. Self-supporting infirmaries, public libraries, and attention to the sacred cause of temperance, were matters of the greatest importance. Our national drink-bill amounted to upwards of £140,000,000 a-year. Surely part of this might be saved, and applied to the improvement of the social condition of the working classes.

BATHS AND WASH-HOUSES.

The relation of baths and wash-houses to the social well-being of the lower orders in cities and towns was the subject of a paper by Mr. NORMAN PORRITT, Fothergillian Gold Medallist, Medical Society of London.

"If facilities were given to the masses to wash and be clean, they would," said Mr. Porritt, "in time prefer a better and cleaner mode of existence. Children are fond of bathing, and at some board-schools arrangements are made for regular visits to the baths. At Leeds and Bradford, boys use the Corporation baths at a reduced charge; in all the new schools of Liverpool, plunge-baths are provided; while at Birmingham, last year, 31,202 bath-tickets were issued to board-school children at a charge of one halfpenny each, a prize being given to all who learnt to swim one length of the bath in a season, and a special prize and a challenge shield were offered for competition between the schools. Many inspectors of schools heartily approve the practice; while the head-master of the principal board-school of Huddersfield, which adjoins the Corporation baths, insists upon the necessity for bathing in clean water. The prejudice and lethargy of adults foil the efforts of lovers of cleanliness; but, on the other hand, children readily go to the baths, and, through them, it may be possible to influence the parents. All elementary schools must be included in our scheme. Clean clothing is not less important than a healthy skin; and, by establishing wash-houses, facilities will be afforded to those who are now but imperfectly able to secure this."

THE POSITION OF MEDICAL MEN.

The position and influence of medical men in society was the subject of a paper by Dr. EDWARD T. TIBBITS, Physician to the Bradford Infirmary, and to the Bradford Fever Hospital.

"One of the great aims of social science," Dr. Tibbits observed, "was to arrange the elements of society in such a manner that beneficial tendencies might be increased, and injurious ones diminished, in the greatest possible number of individuals. The health of the masses should be one of the first considerations of the State. With this in view, the elevation of medical men in the social scale would have a tendency to increase the importance of sanitary science, and thus in many ways improve the public health; and, further, this

would be best secured by the appointment of a Minister of Health, and the occasional creation of medical peers."

In the course of the discussion that followed, Sir Spencer Wells, Sir James Paget, and Sir Thomas Watson were named as eminent medical men to whom peerages might have been offered.

In reply, Dr. TIBBITS said he based the claim he advanced solely on the ground of public health and advantage to the State.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

A MEETING of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia at the end of the year. Cases are therefore urgently needed during the next two months.*

Applications should be addressed to
The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

EAST ANGLIAN BRANCH.—The autumn meeting of the East Anglian Branch will be held at the King's Head Hotel, Bungay, on Thursday, October 25th, at 1 P.M. There will be a *dejeuner* at 4.30, after the meeting. It is requested that notices of papers or communications be sent at once to either of the Honorary Secretaries, W. A. Elliston, M.D., Ipswich; M. Beverley, M.D., Norwich.

STAFFORDSHIRE BRANCH.—The tenth annual general meeting of this Branch will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, October 25th, at 4 P.M. An address will be delivered by the President-elect, Dr. C. Orton, Newcastle-under-Lyme.—VINCENT JACKSON, Honorary Secretary, Wolverhampton, October 1st, 1883.

NORTH OF IRELAND BRANCH.—A general meeting of this Branch will be held at the Belfast Royal Hospital on Thursday, October 25th, at 12 o'clock. Gentlemen intending to read papers, to exhibit specimens or patients, are requested to communicate, at their earliest convenience, with Dr. DEMPSEY, Honorary Secretary, Clifton Street, Belfast.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will take place at Gravesend, on Tuesday, November 13th. Gentlemen desirous of reading papers or exhibiting specimens, are requested to communicate as early as possible with the Honorary Secretary of the district, A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham.—October 5th, 1883.

SOUTHERN BRANCH.—ISLE OF WIGHT DISTRICT.—Ordinary meeting, Sandown Hotel, Thursday, October 25th, 1883, at 4 P.M., James Neal, Esq., M.D., President, in the chair. Proposed new member: John Winthrop Woodruffe, Esq., L.R.C.P., M.R.C.S., West Cowes. Agenda: 1. The Work of the Collective Investigation Committee. 2. J. Groves, Esq., M.B.: Remarks on Tabes Dorsalis. 3. T. A. Buck, Esq., M.B.: A Case of Complete Placenta Prævia, with Remarks. 4. W. E. Green, Esq.: Unusual Symptoms following Local Application of Ung. Hyd. Ammon. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary. Dinner at 6 P.M.; charge, 6s, exclusive of wine. Trains leave Sandown for Ryde at 8.7 P.M. and 8.51 P.M., for Ventnor 8.7, and Newport 8.10 P.M. By-law: When a member cannot attend whose paper is upon the agenda, it should be sent before the meeting to the secretary for the purpose of being read and discussed.—W. E. GREEN, Honorary Secretary.

BATH AND BRISTOL BRANCH.—The first ordinary meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday evening, October 25th, at 7.30; Edward Crossman, Esq., President. The following communications are expected. 1. A Case of Rupture of the Fallopian Tube, by R. S. Fowler, Esq. 2. Recurrent Fibromata of the Neck; their relation to the Branchial Arches, by H. W. Freeman, Esq. 3. The Use of Ergot in some of the Simpler Cases of Eye-Disease, by Louis J. King, Esq. 4. A Case of Death after Bone-Setting, by A. W. Pritchard, Esq.—RICHARD J. H. SCOTT, E. MARKHAM SKERRITT, Honorary Secretaries.—Bath, October 1883.

YORKSHIRE BRANCH.—The autumn meeting will be held at Scarborough on Wednesday, October 31st. Gentlemen intending to communicate papers are requested to signify their intention to ARTHUR JACKSON, Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Newport, on Thursday, November 15th. Members wishing to read papers, etc., should send titles to either of the undersigned by the end of this month at the latest.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.—October 10th, 1883.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Wednesday, November 28th. Dr. Ellis, of Eastbourne, will preside. Gentlemen desirous of contributing papers should at once communicate with the Honorary Secretary, T. JENNER VERRALL, 95, Western Road, Brighton.—October 16th, 1883.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The autumn meeting of the above district will be held at Worthing on Thursday, November 22nd, Dr. Kelly in the chair. Gentlemen intending to read papers are requested to communicate with the Honorary Secretary, G. B. COLLET, 5, Steyne, Worthing.—October 15th, 1883.

DORSET AND WEST HANTS BRANCH.—The next meeting will he held at Wareham, on Wednesday, October 24th, 1883. The business meeting will be held at the Town Hall, at 1.30 P.M. Agenda: Election of officers for 1884. Election of new members. The following gentlemen to be proposed: Samuel Montgomery, Kinson; William Henry Williams, jun., Sherborne. Place of the May meeting. Proposition by Mr. Parkinson: "That the Council of the Branch be a Committee to hear and decide all cases of dispute between members, and report any cases to the Branch meeting if they consider it necessary. Communications: Mr. Husband: A Singular Case of Dislocation of the Shoulder. Dr. Griffin: Account of the Epidemic of Cholera at Southampton in 1866. Dr. Bacot: 1. Injury to the Bladder. 2. Three Cases of Vaccination. Discussion: Is Typhoid Fever always due to Previous Typhoid? Dinner at the Red Lion Hotel, at 4.30 P.M. Charge, 6s. each, without wine. Members intending to be present are requested to notify the same to Dr. Lush, on or before Monday, October 22nd.—W. VAWDREY LUSH, M.D., Weymouth, C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH: MANCHESTER DISTRICT.—Collective Investigation Committee. At the last meeting of the Manchester Committee, it was decided to hold a meeting for the purpose of promoting the work of this Committee. It was thought desirable that full explanations should be given of the nature of the undertaking. For this purpose, the Committee have invited Mr. Jonathan Hutchinson, F.R.S., and Dr. Mahomed, to meet the profession of this District. It has been arranged that the meeting should take place at the Owens College, on Thursday, the 25th instant, at 4.15 P.M. Dr. William Roberts, F.R.S., will take the chair, and open the proceedings with a short address.—JUDSON S. BURY, Honorary Secretary.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting was held, in the Royal Hotel, West Hartlepool, on Friday, September 28th, 1883, at 4 o'clock; the President, Dr. W. H. DIXON, in the chair. About fifteen members were present. The minutes of the spring meeting were read and signed.

The following papers were read:

Dr. Philipson: On Stomachic Vertigo. Drs. Gibson and Dixon made some remarks upon the paper.

Dr. Murphy: Treatment of Puerperal Eclampsia by Pilocarpine. An animated discussion followed, in which Drs. Dixon, Gibson, Morison, Munro, and Drummond took part; Dr. Murphy replied.

Dr. Drummond: On the Value of the Hypodermic Needle in the Diagnosis of Obscure Affections.

The following specimens were shown:

Dr. Morison: Several Vesical Calculi, upon which Dr. Morison made some interesting and important remarks.

Dr. Murphy: Section of a Pelvis showing Imperforate Rectum after Operation.

After the meeting, the members and their friends dined together at the Royal Hotel; Dr. Dixon occupied the chair, and Dr. Drummond the vice-chair.

SOUTH MIDLAND BRANCH.

THE annual meeting of the above branch was held at Wellingborough on Thursday, October 4th, at 2.30 P.M. The president, R. M. RENSEY, Esq., in the chair. The following gentlemen were present:—Dr. Buszard, Dr. Bryan, Dr. Bower Bedford, Mr. W. H. Walker, Bugbrook; Mr. F. Wyatt, Thurnam; Mr. W. G. Nash; Dr. A. H. Jones; Mr. W. H. Masters; Mr. R. W. Watkins; Mr. Henry

Terry, Northampton; Mr. G. H. Percival; Dr. Clark, Wellingborough; Mr. H. B. Spurgin, Northampton; Mr. C. J. Evans, Northampton; Mr. W. A. Thomson, Ampthill; Mr. W. Kennedy, Northampton; Mr. G. F. Kirby Smith (hon. sec.).

The minutes of the last meeting were read and confirmed. Dr. Bryan then suggested that all members having votes for the Royal Benevolent College should support the case of Mr. Knolt, of Blisworth. This was confirmed by Mr. Terry and Mr. Watkins.

Mr. Henry Terry made some remarks with reference to the Benevolent Association.

Dr. Bryan read a most interesting paper on "Dyspepsia and its Treatment."

Dr. Buszard raised a discussion as regards the mixture of food at meals, etc.

Dr. Bryan suitably replied.

Dr. A. H. Jones brought forward a singular case of "Poisoning by Arsenical Fabrics." A few remarks having been made upon the case by Mr. Watkins and Dr. Bryan, Dr. Buszard dealt with a case of Hydrophobia, upon which observations were made by Dr. Jones and Dr. Thurnam, Dr. Buszard and Mr. Watkins replied.

Mr. Kirby Smith brought before the notice of the meeting "Two Cases of Colotomy."

Mr. G. H. Percival read a paper on an interesting case of "Rectotomy, Followed at a later date by Colotomy."

Dr. Thurnham exhibited a specimen of a "Perforating Ulcer of the Anterior Surface of the Lesser Curvature of the Stomach," in a child aged 13.

Mr. Spurgin produced a preparation showing a "Perforation of the Duodenum from Ulceration."

At the conclusion of the meeting tea and coffee were served, and the members separated after a most instructive and agreeable meeting.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: SESSION 1883-84.

THE first meeting of the session was held on October 11th; the President, Dr. BALTHAZAR FOSTER, in the chair. Forty-four members were present.

Patients, specimens, and instruments were shown by Dr. Windle, Dr. Savage, Mr. Lawson Tait, Mr. Priestley Smith, and Mr. Jordan Lloyd.

A resolution was passed requesting the Council of the Branch to take into consideration the existing laws of the Branch, with the view of bringing them into harmony with those of the laws of the Association recently revised.

The President expressed a hope that each member of the Branch would help in the collective investigation movement; he thought the number of cards filled up and returned to the local committee was not as large as the committee were justified in expecting.

Dr. Sanger read a paper on Some Points in the Treatment of the Severer Forms of Constipation and Intestinal Obstruction; and Mr. Bartleet read a paper on the Operative Treatment of Intestinal Obstruction. The discussion of the two papers, in which Mr. Lawson Tait, Mr. Furneaux Jordan, Dr. Hickinbotham, Mr. B. May, Dr. Saundby, Dr. Rickards, and Dr. Foster took part, occupied the remainder of the time allotted to the meeting.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Clinical Hospital for Women and Children.—Manchester and Salford Sanitary Association.—Medico-Ethical Association.

THE first of a series of lectures to nurses and others in connection with the Clinical Hospital for Women and Children, was delivered by the honorary physician, Dr. Maccall, on Thursday, October 11th, "On the Nursing of Sick Children." The remainder of the lectures will be delivered weekly by members of the medical staff.

The syllabus of lectures under the auspices of the Manchester and Salford Sanitary Association has been already issued. All the subjects are chosen to illustrate the physiology of hygiene, and include, among others: breathing, working, thinking, eye and vision, ear and hearing, etc; and among the lecturers we notice the names of Professor Dreschfeld, Drs. Ransome, Simpson, Brooke, Emrys-Jones, and Pierce. A subcommittee has been appointed to devise, start, and work a plan of collective investigation in Manchester and neighbourhood, in aid of Dr. Ballard's inquiry concerning diarrhœa.

At the last meeting of the Medico-Ethical Association, Mr. Walmsley introduced, for discussion, the question of the advisability of admission of medical women to membership. There was no formal proposition put to the meeting, but the majority of the speakers were in favour of this extension. Before any decisive steps will be taken, however, the Committee will, doubtless, appeal to the whole body of members.

CORRESPONDENCE.

DR. ROGERS AND THE WESTMINSTER GUARDIANS.

SIR,—Having received and considered many communications from poor-law medical officers considering this a fitting opportunity of raising a testimonial to Dr. Joseph Rogers, for his long continuous services in connection with poor-law medical reform, I beg to select one from Dr. Whitwell; and, should his suggestions take a tangible form, I feel sure it would be more in accordance with the feelings of Dr. Rogers if the subscriptions were small in amount, but emanating from the great body of poor-law medical officers chiefly. I would also suggest that you would kindly receive subscriptions in conjunction with our treasurer, C. Frost, Esq., 47, Ladbroke Square, Notting Hill, and myself.—I am, sir, yours truly,

J. WICKHAM BARNES.

3, Bolt Court, Fleet Street, London, October 15th, 1883.

SIR,—It has been extremely gratifying to me to note in the BRITISH MEDICAL JOURNAL the reprint of and the comment on the article from the *Standard* relative to the injustice done to Dr. Rogers by the Westminster Board of Guardians; and it is an additional pleasure to read Dr. Strange's proposition, in the JOURNAL of the 13th instant, that the feeling of the Association on the subject should be brought before the president of the Local Government Board. At the same time, I am convinced that the poor-law medical officers at least, if not the members of the Association generally, should at once make such a presentation to Dr. Rogers as would efficiently express their sympathy with him under present circumstances, and acknowledge his persistent and powerful advocacy of their cause. Such a combined expression of feeling would probably be the best political representation of the medical profession that could be brought before the public at the present time.

Therefore, as a poor-law medical officer of forty years' standing, I beg to suggest that a fund (donations to which might, perhaps with advantage, be limited to a guinea) be at once raised for that purpose. I have communicated with our secretary, J. Wickham Barnes, Esq., 3, Bolt Court, Fleet Street, London, who approves of the idea, and will be happy to receive any sums forwarded to him. Believing that many will gladly respond to this call upon them,—I am, sir, your faithfully,

FRANCIS WHITWELL.

Shrewsbury, October 15th, 1883.

*** We are glad to see this spontaneous movement in support of a poor-law medical officer who has, by his unwearied exertions through a long career, done more than any one to give life and force to the efforts of poor-law medical officers to raise their own position, and who has contributed, to an extent which is, perhaps, insufficiently known and appreciated, to the amelioration of the condition of the sick poor in infirmaries. As the unwearied advocate of the independence and responsibility of poor-law medical officers in charge of their sick, and as the fearless friend of the sick inmates of workhouse infirmaries, Dr. Joseph Rogers has incurred much hostility from officials, and has made great sacrifices.

We shall have great pleasure in according to the request of Dr. Wickham Barnes that subscriptions should be received at this office, as well as by the treasurer of the Poor-law Medical Officers' Association.

HOSPITAL ACCOMMODATION FOR INFECTIOUS DISEASES IN LIVERPOOL.

SIR,—I hope you will permit me to correct one or two errors into which your writer on the above subject has fallen, though I am sorry to disturb his confidence "in published official and other documents." The writer states: "That the common practice in Liverpool, whenever the medical officer of health judges that there is not proper lodging and accommodation, but where removal to hospital is, notwithstanding, resisted, is to obtain a justices' order to make that removal compulsory; and that no such order was obtained in the case of Wainwright's children must be taken as satisfactory evidence that, in the end, the space was considered sufficient." If

your correspondent will refer to the Public Health Act, 1875, he will find that before a magistrate grants an order for the compulsory removal of a patient to hospital, he must be satisfied that the superintending body of the institution is willing to receive him. The guardians, through their relieving officer, would not receive the children, and, as a consequence, no justices' order could be obtained. So much for the "satisfactory evidence that the space was sufficient." Again, he says "it is to be presumed that the following facts are indisputable, viz., that the Toxteth Board of Guardians refused to allow their officer to pauperise non-pauper residents by removing them to the workhouse hospital, on the mere certificate, or by the direction of the medical officer of health; that they illustrated the justice of their refusal by a number of cases which had been brought under their notice, of which Wainwright's case was one." On referring to my report in reply to the statement of the Toxteth Guardians (a copy of which is enclosed) you will find that the change as to the admission of patients into their hospital took place on September 29th, 1882, and as Wainwright's children were not ill until May 1883, it is quite clear "that the indisputable fact" that Wainwright's case influenced the Toxteth Guardians in deciding not to admit non-pauper residents cannot be correct.

So much has been said and written about the number of persons I have pauperised by removing them to the Toxteth Workhouse Hospital when suffering from infectious disease, it is perhaps incumbent on me to state that out of a population of 110,234, I removed during the whole year (1882) seventeen persons, while in the Parish of Liverpool I removed 620, and in West Derby 43 patients, without a single complaint being made.—I remain, your obedient servant,

J. STOPFORD TAYLOR, M.D.,
Medical Officer of Health.

Dale Street, Liverpool, October 8th, 1883.

MEDICAL PROVIDENT ASSOCIATION.

SIR,—I should like to point out that the rates of premium given by your correspondent are higher than they need be. In the first place, I do not think that the Foresters' figures are the most suitable for basing our calculations upon—not nearly so much so as those given by the Hearts of Oak. Secondly, I presume your correspondent has simply taken column iii, table ii, of the Foresters' table of premiums, and doubled the amount (in this way, the figures agree very closely); if so, he has omitted to deduct the premium for funeral allowance. The premium should be as follows:

		s.	d.
For full pay six months, then half pay. Age 20. Contributions, per month, 1s. 4½d. = *per annum* ...		16	6
Less: Member's funeral contribution, per £,	s. d.		
3½d., for £10	2 11		
Wife's death, at 3d., for £5	1 3		
		4	2
Sick-premium would then be		12	4

If we double this amount to make the sick-pay £1, we have £1 4s. 8d. *per annum*, instead of £1 12s. 0d., as given by your correspondent.

I have here given the figures used by the Foresters. I hope, at another time, to show that they are higher than need be.—Yours faithfully,

J. BAIN SINCOCK.

Bridgwater, October 9th, 1883.

*** We have communicated this letter to the author of the letter in question, who writes as follows:

"SIR,—The letter, which I return herewith enclosed, raises two points; and perhaps it will be well to deal with them separately. Whether the Hearts of Oak is more likely to present an experience resembling that of the proposed society is, as I have already pointed out, a matter for debate and opinion, and one on which there is really no definite or trustworthy evidence. This society pays 18s. for the first six months, 9s. for the second six months, and a reduced permanent pay in proportion to membership, the recipient of the latter being allowed to earn a small weekly wage, not exceeding 12s. Of course, the latter proviso is quite inapplicable to a society of professional gentlemen. In addition, the Hearts of Oak Society charges an uniform contribution, and does not admit any person over thirty years of age—a course and a limitation you would hardly adopt. Again, the funeral or assurance claims are met by periodical levies, and no reserve is created—another feature you cannot imitate without defying the whole thoughtful and expert opinion on the matter. One other consideration: the Hearts of Oak assume they will always earn 4 per cent. on reserves, and that the fines will always pay the whole cost of management—assumptions you could scarcely be safe in making without experience. There is one other difficulty. There are no public experience-tables for this society; and, therefore, if you take it for a model, you would be bound to adopt all its restrictions and assumptions, and would only be able to vary contributions and benefits exactly on their lines, by multiplication or division.

"With reference to the table, your correspondent has fallen into several errors. To begin with, he is entirely in error in assuming that the rates are taken from the old tables he quotes. He will see by reference that these tables were adopted in 1863, while mine are based on the experience of 1871-5 (as stated), and can, therefore, not be judged by the standard he sets up; nor were they arrived at by the rather clumsy method he suggests. By the way, he makes a curious error in stating the tables he quotes. He states the contribution given at 1s. 4½d. per month, which is correct. Multiplying this by 12, he gives the annual rate at 16s. 6d. And yet the table itself expressly states the months are lunar ones, and in the next column gives the quarterly rate at 4s. 5½d. Surely, he should have seen the necessity of multiplying this by 4 for the annual rate, which is thus 17s. 10d. instead of 16s. 6d. Further, the tables quoted are now obsolete; as, by a vote of the last High Court meeting, they are superseded by others founded on a later and fuller experience. Of course, the matter is one of simply abstract interest to me; but I venture to hope the error, too often repented by friendly societies, of over-sanguine and popularly low rates, will not be fallen into by a society which will not feel any hardship in paying fair rates."

MILITARY AND NAVAL MEDICAL SERVICES.

THE NAVAL MEDICAL SERVICE.

SIR,—Having carefully compared the order in council No. 54, N., dated April 1st, 1881, on the "Promotion and Retirement of Medical Officers" with the Admiralty Fleet Circular, No. 76, N., dated May 24th, 1881, I have found the following clause added to the latter not found in the former.

Paragraph 13 in the Order in Council runs thus: "An officer retired with twenty years' service on account of disability contracted in and attributable to the service, to receive the half-pay of his rank, or, with our consent, a gratuity on the scales given in paragraphs 12 and 14 (*b*)," to which is added in the Fleet Circular, "but such officer will not be entitled to receive any special compensation for disability in addition to the gratuity as above."

This simply means that if a medical officer gets a leg shot off in action, or carried away (as in a well-known case) by the flying out of a capstan-bar, he will receive no pension for the injury, although all officers are entitled to pensions for wounds, as stated in Paragraph 1962 of the Queen's Regulations and Admiralty Instructions.—I am, sir, yours truly,

DETECTOR.

VOLUNTEER SURGEONS.

SIR,—In answer to "J.'s" inquiries as to a commission as a volunteer surgeon, his application must be sent through the officer commanding the battalion in which he seeks his commission; but I would advise him previously to have a personal interview with the senior medical officer of the battalion. The number of company surgeons transferred to the staff, when administrative battalions become consolidated, accounts for the vacancies not being filled up until, by retirement, such staff contains less than the allotted number of medical officers.

For further information I would refer your correspondent to Paragraphs 315 to 322 Volunteer Regulations.—I am, sir, yours faithfully,

EDWARD L. FREER, Acting-Surgeon 1st Volunteer Battalion Royal Warwickshire Regiment.

Portsea House, Lozells, Birmingham, October 2nd, 1883.

SIR,—Your correspondent "J." will find all information as to the appointment of volunteer surgeons in "Volunteer Regulations, 1881," page 52, paragraphs 315, 317, 318, 319, 321. The commanding officer of a regiment is the first person to apply to, who will submit the name of the candidate to the Secretary of State. In the old days of individual companies, each company might have its honorary assistant-surgeon; and now, if the commanding officer says it is requisite to insure attendance at ball-practice, an additional acting-surgeon may be appointed for every troop, battery, or company. On the establishment of every volunteer corps of six, eight, or twelve companies, there is one surgeon; it is usual to have one or two acting-surgeons in addition. In 1877, the rank of assistant-surgeon and honorary assistant-surgeon was done away with, and all were made surgeons; as these die or resign, their places can only be filled according to present regulations; and as long as one full surgeon remains in a regiment, only acting-surgeons are appointed in

addition, who, when a vacancy above them occurs, will become full surgeons.—I am, sir, yours truly,

FRANCIS JAMES BAILEY,
Surgeon-Major (Honorary), 19th L.R.V.

51, Grove Street, Liverpool, E., September 29th, 1883.

MEDICAL SCHOOL AMBULANCE COMPANIES.—A grant of £350 has been made by the National Aid Society for the Relief of the Wounded in War to Mr. Cantlie of Charing Cross Hospital, for the equipment of an ambulance company formed of the students of the Charing Cross Medical School. The sum is to be expended on the provision of the necessary ambulance material; and the committee, in making the grant, pronounce this training of medical students in field-hospital work, as a pastime, to be of the greatest importance in its bearings on the regular and volunteer services. It is thought that, if they enter the army, the familiarity which they may acquire with the military system will enable them with ease to grasp their future work; and that, if they join the Volunteer Service, they will be to that body an element of usefulness much needed. Hopes are entertained that the National Aid Society will be prepared to make similar grants to St. Bartholomew's Hospital and to the London Hospital, where classes of a similar character to that at Charing Cross are in course of formation; and it is proposed to ask the official support of the Secretary of State for War to the movement.

THE following surgeons have been ordered to Ireland on the breaking up of the course of instruction in Army Hospital Corps drill at Aldershot: Surgeons Peel, Nelis, Gallwey, Lendrum, Moore, Wyatt, and O'Shaughnessy. The following have been ordered to the South-Eastern District. Surgeons Robertson, Tate, and De Lom; and the following to the Northern District: Surgeons Firth and Riordan.

WE are glad to learn that Professor Aitken has so far recovered from his long and serious illness as to be able to resume his duties at the Army Medical School, Netley.

DEPUTY Surgeon-General W. S. Murray, M.B., principal medical officer at Bangalore, obtains promotion to surgeon-general by the retirement of Dr. Franklyn.

DEPUTY Surgeon-General B. Simpson, M.D., deputy surgeon-general, Central Provinces, and officiating surgeon-general, Bengal, has been appointed to officiate as surgeon-general, Punjaub, during the absence on furlough on medical certificate of Deputy Surgeon-General S. C. Townsend, C.B.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE IRISH POOR-LAW MEDICAL SERVICE.

SIR,—I have read with deep appreciation the recent clear and able letter of your correspondent, an "Irish Dispensary Doctor," on the grievances of Irish Poor-law medical officers. It is a fair and just *exposé* of the condition of matters over here; and I trust some effort will be at once made to bring under the notice of Parliament the dishonesty of the system in its workings.

In my experience, the relief-tickets are issued at random to all comers, rich and poor, and in many cases are signed and left till called for, the issuer not knowing, and not caring, who the recipient may be. The class of gentry known in this part of the country as "frieze-coated guardians"—(and who, since the recent agitation, overcrowd most public assemblies)—are by far the most unscrupulous in this class of malpractice; they issue tickets to their relations and connections, their supporters in political matters, their brothers, nay, even—and this I can substantiate—they appear themselves at dispensary with tickets written and signed by themselves. The gentlemanly portion of the guardians and committees act with tolerable moderation and discrimination, I must say, as far as my experience goes.

Outsiders—and even those not outside the profession, but not dispensary doctors—say, "Why not get the ticket cancelled?" Why, that is the worst part of it all; and it is astonishing that the Local Government Board continues so long to shut its eyes to what ought to them be a patent fact. Get the ticket cancelled! and by whom, pray? By the man that issued it? This it must be, for in every case, or nearly every case, it is left to him (who, presumably knows most about the party acting on the authority of his own signature) to decide the question when the committee-meeting is held. The committee-men are too courteous of their fellow member, and too careful as to personal contingencies in the near future, to give the doctor any legal claim against one of themselves.

Why do not the authorities give the medical officer some idea of what a proper person for "medical relief" may be, and not leave it to ignorant, sometimes vindictive, and too often interested countrymen to determine. If you remonstrate and say, "Surely a farmer, with half-a-dozen cows, thirty or forty acres of land, and who rides to your door on a fine horse of his own, surely he is not a pauper" (which is an incident in my own practice not a month old), the answer is that "probably he is not so well off as he is thought to be," or "the price of stock has fallen," etc.

In most districts the regular Govermental stipend could not, by any possibility, maintain the doctor and family (horses, servants, house-rent, etc.) in the merest decency, and it is only to the private practice that he can look for augmentation sufficient to enable him to exist as a gentleman. It is to the Association we must look for help, and the co-operation of our fellow members. I echo your correspondent's words, "the sooner we take action the better." But how?—I am, etc.,

ANOTHER DISPENSARY DOCTOR.

SUBSTITUTES AT DISPENSARIES.

SIR,—As you express such surprise at Dr. Ahern's experience, I beg to cap his story with my own. On the 21st instant my Dispensary Committee gave me a month's leave of absence on account of my health, appointed a substitute, and sent a minute of the same to the Board of Guardians that the remuneration of the substitute might be fixed. The board unanimously decided that I must pay my substitute myself, although last year they paid the substitutes of two medical officers who went away for pleasure. As I happen to know the dispensary regulations, I have written to the board that they must pay my substitute, as I am not responsible, and await the appeal to the Local Government Board, which, in similar cases, has always been in favour of the medical officer. But the question arises—why is not Dr. Ahern a member of the Irish Medical Association? If he had been, the honorary secretary would have supplied him with full directions what to do in his difficulty, and the Association would pay any law expenses incurred in support of his rights. Again, it seems very strange that "An Irish Dispensary Doctor" does not know that the Irish Medical Association is doing the very work Dr. Evatt urges to be done. He reminds me very much of another correspondent, whose letter piteously bewailed the want of co-operation among medical men. Well, I found that the same gentleman scarcely knew the difference between the Medical Amendment Bill in charge of Mr. Mundella, and the Union Officers Superannuation Bill in charge of Mr. H. Gladstone; also he is not a member of the Irish Medical Association. Yet, to my certain knowledge, every dispensary medical officer has been again and again urged to join the Irish Medical Association. One would think that even common gratitude, which is the lively sense of favours to be received, might induce them to join. But when the work is done, they will say, "Did we not shout well."—Yours, etc.,

A. W. WALLACE, M.D.

Parsonstown, October 29th, 1883.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 6th inst., that the death-rate was recently equal to 34.6 in the three principal Indian cities; it was 20.7 in Calcutta, 34.8 in Bombay, and 45.9 in Madras. In Bombay, 64 deaths were referred to cholera, and 29 to small-pox in Madras, while "fever" fatality showed a marked excess in both these cities. According to the most recent weekly returns, the average annual death-rate in twenty-four large European cities was equal to 23.0 per 1,000 of their aggregate population; this rate exceeded by 4.5 the mean rate last week in twenty-eight of the largest English towns. In St. Petersburg, the rate was equal to 22.9; the 408 deaths included 88 from diarrhœal diseases. In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate was only 14.7, the highest rate being 17.5 in Christiania; 4 deaths were referred to whooping-cough in Copenhagen. In Paris, the death-rate was 19.4, and the deaths included 36 from typhoid fever, and 26 from diphtheria and croup. The 151 deaths in Brussels were equal to a rate of 19.1, and included 4 from small-pox. In Geneva, 24 deaths were returned, equal to a rate of 17.8. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 25.2, the highest rate being 26.4 in Amsterdam, where no fewer than 29 deaths were referred to diphtheria and croup, and 7 to measles. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 24.2; it ranged from 18.5 and 21.3 in Vienna and Hamburg, to 26.3 in Prague and 26.9 in Munich. Diphtheria caused 42 deaths in Berlin and 12 in Dresden; 14 deaths were referred to small-pox in Prague, and 6 to typhoid fever in Breslau. In the four principal Italian cities, the rate averaged 28.6, and ranged from 20.2 in Turin to 35.6 in Naples; measles caused 40 and typhoid fever 15 deaths in Naples, and 5 deaths were referred to diphtheria in Turin. The 121 deaths in Lisbon included 3 fatal cases of small-pox, and 4 of typhoid fever. The death-rate in four of the principal American cities averaged 23.2; it was 20.4 in Baltimore, 20.9 in Philadelphia, 23.8 in Brooklyn, and 24.3 in New York. Diarrhœal diseases were fatally prevalent in the two last-mentioned towns, and scarlet fever caused 10 deaths in Philadelphia and 12 in Baltimore.—The return for the week ending the 13th instant shows that the average death-rate in the three principal Indian cities was recently equal to 33.4. The rate was 21.9 in Calcutta, 28.5 in Bombay, and as much as 52.5 in Madras; 46 deaths from cholera were reported in Bombay and 7 in Calcutta, while small-pox caused 49 deaths in Madras. According to the most recent weekly returns, the average annual death-rate in twenty-three large European cities was equal to 24.0 per 1000 of their estimated population; this rate was 3.8 above the mean rate last week in twenty-eight of the largest English towns. In St. Petersburg, the rate was equal to 22.5, and the 401 deaths included 20 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate averaged 18.4, the highest rate being 20.9 in Stockholm, where 4 fatal cases of scarlet fever were

returned. In Paris the death-rate was 21.7, and the 937 deaths registered during the week included 30 from typhoid fever, and 24 from diphtheria and croup. The rate of mortality in Brussels was equal to 21.3, and 3 fatal cases of small-pox were recorded. In Geneva, the 27 deaths returned in the week were equal to a rate of 20.1. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 26.1, being 22.0 in the Hague, 22.7 in Rotterdam, and 27.9 in Amsterdam; in the last-named city 4 fatal cases of scarlet fever, and no less than 31 of diphtheria and croup, were registered during the week. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.5; it ranged from 22.3 in Vienna and 22.5 both in Prague and Buda-Pesth, to 27.2 in Berlin and 31.2 in Breslau. In Berlin, no less than 74 of the 630 deaths were referred to diphtheria; small-pox caused 13 deaths in Prague, and whooping-cough 16 deaths in Hamburg. In the four principal Italian cities, the mean death-rate was 27.0, and ranged from 15.2 in Venice to 34.3 in Naples; 21 deaths were referred to measles in Naples, and 4 to typhoid fever in Rome. The 96 deaths registered in Lisbon included 2 fatal cases of typhoid fever, and were equal to a rate of 24.6. In four of the principal American cities, the rate of mortality averaged 22.3; the rate was equal to 20.1 in Philadelphia, 20.2 in Brooklyn, 21.1 in Baltimore, and 24.7 in New York. Typhoid fever caused 19 deaths in Philadelphia, and diphtheria was somewhat prevalent in each of these American cities.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE FULHAM HOSPITAL.

THE Report of the Medical Superintendent to the Committee of Management of the Fulham Hospital for the year 1882 states that, although practically closed by the injunction which limited its use to the reception of cases occurring within the "one-mile radius," the hospital was not finally closed as a small-pox hospital till February 21st. During the period from January 1st to that date, only two cases had been admitted, neither of them being small-pox. The hospital remained closed till October 6th, when it was opened for the reception of scarlet fever cases occurring in the unions and parishes of Kensington, Fulham, Chelsea, and Wandsworth and Clapham. On November 25th, cases of enteric fever from these districts were also ordered to be received. Up to the end of the year, 165 cases were admitted: 149 of scarlet fever (139 acute cases and 10 convalescents), 13 of enteric fever, and 3 of "other diseases."

No deaths occurred among the enteric fever cases (none of which, however, were benefited by the end of the year). Among the scarlet fever cases, twelve deaths occurred, giving a mortality of rather over 10 per cent. Mr. Sweeting reports an unusual amount of sickness among the staff, no fewer than eleven having contracted scarlet fever, viz., five nurses, five ward-servants, and one porter. All, fortunately, recovered. "These figures," he points out, "afford a striking contrast to what is observed in the behaviour of small-pox toward a revaccinated staff. Thus, whereas last year I reported that sixty-nine fresh members of the staff had been engaged in 1881, not one of whom took small-pox, in the four months of 1882, during which a freshly engaged staff of seventy-five was exposed to scarlet fever, eleven (or a percentage of 14.6) of them took the disease." We may add that, to perceive the full significance of the contrast, it is necessary to recollect, further, that the majority of scarlet fever nurses are usually protected by having had the disease in childhood, while a very small proportion of small-pox nurses are so protected.

THE BRITISH HOME FOR INCURABLES.

UNDER the title of "Helpless," an account has recently been published of the origin and progress of the British Home for Incurables on Clapham Rise. The arts of poetry and of etching have been enlisted in the service; and the result is a very pretty little pamphlet, which can hardly fail to call attention to this valuable charity. And, indeed, it is a charity which deserves more support than it has recently obtained. Like many other institutions of a kindred kind, it is sadly crippled for want of funds. The committee have had to close one wing of the building, to abstain from filling up vacancies, and have even been obliged to sell out stock in order to enable them to keep up the pensions. The writer says that "the Board of Management are almost at their wit's end to know how to raise the funds to carry on the work of the house, even with its present reduced proportions." "There has been an impression abroad that, by receiving paying patients, the home was partially self-supporting; but the truth is, that the idea of receiving paying patients has long ago been discarded, for the simple reason that it did not answer.....The Board nevertheless recognises that the reception of patients who can afford to pay something towards their own support is a distinct and important branch of beneficence; and, when resources permit, they will probably again offer the privileges of the establishment to incurables who are not entirely dependent on charity."

One inmate has reached the age of eighty-two years, and another has resided in the home nineteen years—facts which prove that incurable disease, which may render self-support impossible, is by no means incompatible with longevity. This of itself shows the need for homes for incurables. The home on Clapham Rise, though containing every necessary invalid comfort, is very plainly furnished; but the aim of the managers is to make it home-like, and as far as possible to gratify the tastes of each individual patient. Those who have visited the institution testify to the success of their endeavours and the happiness of the inmates.

HEREFORD GENERAL INFIRMARY.

FROM the annual report, it appears that 528 in-patients were admitted during the year 1882; of these, 488 were discharged, leaving at the end of the year 40 under treatment. The number of out-patients was 2,982, and there were 255 remaining under treatment at the close of December. The average cost per in-patient was £4 5s. 4½d., and that of each out-patient 7s. 9½d. The receipts from all sources were £5,790 0s. 6d. After meeting all expenses, there was a balance in the hands of the treasurer of £495 4s. 2d. at the end of the year.

OBITUARY.

FRANK THEED TWINING, M.A., M.B. (Cantab.).

DR. TWINING died of phthisis, at the Homerton Fever Hospital, on the 14th instant. He was born at Parbold Hall, near Wigan, on August 24th, 1848. He received from Samuel Whitbread, Esq., M.P., a presentation to Christ's Hospital, where he distinguished himself in mathematics, chemistry, and French, became a Grecian, and subsequently went to Downing College, Cambridge. On leaving Cambridge, he held hospital appointments at St. Thomas's and Victoria Park Hospitals, etc., after which he spent six months at Vienna. In 1876 he was appointed Assistant Medical Officer to the Homerton Fever Hospital, an appointment which he held up to the time of his death, which, although sudden, had been long foreseen by his intimate friends. He had been from his infancy more or less subject to deafness, a condition which induced him to lead a retired life. He took a keen interest, however, in politics, in which he was a staunch Tory; and he was, until his illness unfitted him for work, an enthusiastic student of medicine, in which he had an accurate knowledge derived not only from books, but from actual contact with cases. There were few medical subjects upon which he was questioned in which he did not show by his answers that he had actually studied things, and not merely descriptions of things. In his treatment, he was singularly judicious; and he had little faith in drugs, which he used to characterise as "that filth." Indeed, in medicine, saving and excepting small-pox, he was singularly free of the eccentricities which characterised him in other directions. He was honest to the point of rudeness, especially in characterising the various sanitary "fads" which are now and then aired at associations and societies. But he had much kindness of heart, notwithstanding his odd ways. He gave nearly all his money away to people he called his "Scaramouches." They consisted of "old blues," poor "clerks," *et hoc genus omne;* in short, anybody in want. If charity covers a multitude of sins, there will be few of Dr. Twining's to cover.

THE Sidmouth Local Board and Urban Sanitary Authority recently proposed to reduce the salary of £35 *per annum* hitherto paid to the medical officer of health; but the Local Government Board wrote stating that they would not sanction or contribute towards it. The letter was taken into consideration at the last meeting of the Board, and a resolution passed that a reply should be sent stating that the duties were very light, and the salary excessive, compared with other districts of similar area and population.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed the Examination in the Science and Practice of Medicine, and received his certificate to practise, on Thursday, October 11th, 1883.

Bryceson, Ebenezer, Shooter's Hill, Kent.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum. Applications to the Chairman of the Weekly Board by October 22nd.

BIRMINGHAM AND MIDLAND EYE AND THROAT INFIRMARY.—Assistant-Surgeon. Applications, addressed to the Medical Committee, by October 26th.

BOROUGH ASYLUM, Birmingham.—Clinical Assistant. Applications to the Superintendent.

BOROUGH OF BIRMINGHAM HOSPITAL FOR INFECTIOUS DISEASES.—Medical Superintendent. Salary, £150 per annum. Applications to the Chairman of the Health Committee, Council House, Birmingham, by November 3rd.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon. Salary, £140 per annum. Applications by November 5th.

BRISTOL ROYAL INFIRMARY. — Assistant Resident Medical Officer and Pathologist. Salary, £80 per annum. Applications by October 23rd.

CHICHESTER INFIRMARY.—House-Surgeon and Secretary. Salary, £100 per annum. Applications by October 22nd.

CHICHESTER INFIRMARY.— Assistant House-Surgeon. Salary, £20 per annum. Applications by October 22nd.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant for a period of six months. A gratuity of £20 is usually awarded at the close of the term of office. Applications to 24, Finsbury Circus by November 5th.

DENTAL HOSPITAL OF LONDON (London School of Dental Surgery), Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by November 12th.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications to J. G. Marshall, Esq., M.B., House-Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Registrar and Chloroformist. Salary, £30 per annum. Applications by October 27th.

FARRINGDON DISPENSARY AND LYING-IN CHARITY.—Honorary Physician. Applications to 17, Bartlett's Buildings, Holborn Circus, E.C., by November 6th.

FEVER HOSPITAL, Monsall, Manchester.—Assistant Medical Officer. Salary, 50 guineas per annum. Applications to Dr. H. Tomkins.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistants. Applications by October 20th.

LARNE UNION.—Medical Officer for the Dispensary District. Salary, £100 per annum, and £10 as Medical Officer of Health. Applications by October 24th.

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch.—Resident Medical Assistant for the Male Department. Applications by November 5th.

NORTH RIDING INFIRMARY, Middlesbrough-on-Tees. House-Surgeon. Salary, £100 per annum. Applications to Angus Macpherson by October 31st.

PORTLAND TOWN DISPENSARY, St. John's Wood, N.W.—Resident Medical Officer. Apply by letter, enclosing testimonials, to the Treasurer, at the Dispensary, Henry Street, before October 25th.

QUEEN'S COLLEGE, Belfast.—Professor of Anatomy and Physiology. Candidates to forward testimonials to the Under-Secretary, Dublin Castle, not later than the 20th October.

ROYAL BERKS HOSPITAL, Reading.—Assistant House-Surgeon. No Salary. Applications by November 6th.

RURAL SANITARY DISTRICTS OF KENDAL, EAST WARD, AND WEST WARD UNIONS, and the URBAN SANITARY DISTRICTS OF KENDAL, BOWNESS, WINDERMERE, AND GRASMERE, all in the County of Westmoreland; and the RURAL SANITARY DISTRICT OF SEDBERGH, in the West Riding of the County of York.—Medical Officer of Health for the above Sanitary Districts for three years from September 29th last. Salary, £400 per annum. Applications by October 25th.

SHEFFIELD UNION.—Resident Assistant Medical Officer for the Workhouse at Fir Vale, Pitsmoor. Salary, £100 per annum. Applications by October 24th.

SMEDLEY'S HYDROPATHIC ESTABLISHMENT, Matlock Bridge, Derbyshire. Assistant-Physician. Salary, first year, £100; for the second, £200. Applications by October 31st.

STAMFORD HILL, STOKE NEWINGTON, ETC., DISPENSARY.—Honorary Surgeon. Applications by October 27th.

WREXHAM INFIRMARY AND DISPENSARY. — House-Surgeon. Salary, £100 per annum. Applications by November 9th.

MEDICAL APPOINTMENTS.

ATKIN, Charles, L.R.C.P., appointed House-Surgeon to the Sheffield General Infirmary, *vice* W. S. Porter, M.D., resigned.

BUSH, J. D., F.R.C.S., appointed Clinical Assistant to the Birmingham Borough Asylum.

CHALMERS, George, M.B., C.M., appointed Assistant Aural Surgeon to the Newcastle-on-Tyne Dispensary.

DALTON, Norman, M.B., appointed Pathological Registrar to the King's College Hospital, *vice* A. B. Barrow, M.B., resigned.

DUDFIELD, T. O., M.D., appointed District Medical Officer of St. Mary Abbotts, Kensington, *vice* A. Godrich, L.R.C.P., resigned.

DYSON, T. E., M.B., appointed House-Surgeon to the Kent County Ophthalmic Hospital, *vice* W. H. Lougheed, M.B., resigned.

EDWARDS, A. R., M.R.C.S., appointed Resident Medical Officer to the St. Pancras and Northern Dispensary, *vice* A. D. Willocks, M.R.C.S., resigned.

ETCHIS, W. R., M.R.C.S., appointed House-Surgeon to the Wallasey Dispensary.

GLENDINNING, I., M.D., appointed Medical Superintendent to the Joint Counties Asylum, Abergavenny, *vice* D. M. McCullogh, M.D., resigned.

GORDON, R., M.B., appointed House-Surgeon to the Weston-Super-Mare Hospital and Dispensary.

GREAVES, T., M.R.C.S., appointed Assistant House-Surgeon to the Sheffield Public Hospital and Dispensary.

HELM, R. D., M.B., appointed Assistant-Surgeon to the Leith Hospital.

JOHNSTONE, A., M.B., appointed Assistant Medical Officer to the Kidderminster Friendly Societies' Medical Association, *vice* T. B. Shaw, L.R.C.P., resigned.

LAWFORD, I. B., M.R.C.S., appointed House-Surgeon to the Royal London Ophthalmic Hospital, *vice* W. O. Maher, M.D., resigned.

LOCKWOOD, H., L.S.A., appointed Junior Assistant House-Surgeon to the Sheffield Public Hospital and Dispensary, *vice* T. Greaves, M.R.C.S., resigned.

MACKENZIE, G. Hunter, M.D., appointed Surgeon to the Eye, Ear,and Throat Hospital, Cambridge Street, Edinburgh.

MACNAUGHTON, D., L.F.P.S.G., appointed Medical Officer to the Parochial Board of Killean and Kilchenzie, *vice* W. Gibson, M.D., resigned.

MALCOLM, John D., M.B.Ed., M.R.C.S.Eng., appointed Assistant Medical Officer to the North-Western District (Hampstead Fever) Hospital, Haverstock Hill, N.W.

MOORE, G., M.D., appointed Superintendent Medical Officer to the Jersey Public Lunatic Asylum.

MURRAY, C. S., L.R.C.S.E., appointed Resident House-Surgeon to the Western General Dispensary. Marylebone Road.

NEALE, A. J., M.B., appointed Honorary Surgeon to the Hulme Dispensary, Manchester.

NELIS, W. F., L.R.C.P., appointed Senior Assistant Medical Officer to the Joint Counties Asylum, Abergavenny, *vice* J. Glendinning, M.D., resigned.

ROSS, J. Maxwell, M.B., appointed Surgeon to the Eye, Ear, and Throat Hospital, Cambridge Street, Edinburgh.

STOKES, A. S., M.R.C.S.E., appointed Medical Officer to the Oundle Union.

STONHAM, T. G., M.D., appointed House-Surgeon to the Bolton Infirmary and Dispensary, *vice* C. Glasier, M.D., resigned.

THURSTON, E., L.R.C.P., appointed Curator of Anatomical Museum, King's College, *vice* Heneage Gibbes, M.D., resigned.

VINRACE, F., M.D., appointed House-Physician to the Hospital for Women, Soho Square, *vice* J. Oliver, M.B., resigned.

WALDY, J., M.R.C.S., appointed Junior House-Surgeon to the Newcastle-on-Tyne Infirmary, *vice* E. Hudson, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

GAMGEE.—On September 29th, at Oaklands, Bowdon, Cheshire, the wife of Arthur Gamgee, M.D., F.R.S., of a daughter.

DEATH.

ADAM.—At Ardentigh, Port Bannatyne, Bute, on the 28th ult., aged 31 years, John Mitchell Adam, M.B., C.M., fifth son of the late James Adam, Fruit Merchant, Glasgow.

REMOVAL OF FOREIGN BODIES FROM THE STOMACH.—To the case of the *homme à la fourchette* and the extraction of a spoon from the stomach of another patient, described in the *Semaine Médicale*, October 5th, 1882, Dr. Hagens, of Dantzic, adds a third, recently described by him in several German medical journals. The operation, however, is not recent, for this third case was performed by Daniel Schwaben, "lithotomist and surgeon," at Dantzic, in the early part of the seventeenth century. A countryman, in endeavouring to produce vomiting for the relief of colic, was tickling his palate with a penknife, when he suddenly let go of the handle of that instrument, which was accidentally swallowed forthwith. Six weeks later, Schwaben made a very free incision through the abdominal walls and the anterior part of the stomach, and extracted the knife. The patient recovered, and was able, for several years afterwards, to work hard in the fields, never suffering from any local symptoms. The original manuscript description of this remarkable case is in the hands of Dr. Hagens. The surgeons of Dantzic and Königsberg appear to be the most dauntless pioneers of the desperate departments of operative surgery; last December we had occasion to refer to an unsuccessful case of excision of a phthisical lung by a surgeon practising in the former city.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S, 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Ballot for election of Secretary. Dr. Ferrier will read a communication on the Progress of Knowledge in the Physiology and Pathology of the Nervous System.

WEDNESDAY.—Hunterian Society, 8 P.M. Mr. Poland: Specimens. Mr. McCarthy: 1. Case of Aneurysm of the Sciatic Artery: 2. Cases of Imperforate Anus. Mr. Charters J. Symonds: The Reliable Signs of Fracture of the Neck of the Femur.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Bastian: 1. On a Case of Rupture of a Large Aneurysm in the Left Corpus Striatum, with Intraventricular Hæmorrhage, and Extreme Lowering of Rectal Temperature; 2. On a Case of Apoplexy in a Boy aged 15, with Intraventricular Hæmorrhage, Convulsions, and Death in Four Hours. Dr. Althaus: On a Case of Syphilitic Tumours of the Cerebral Membranes. Mr. Golding-Bird: On a Case of Dislocation of the Jaw, reduced after Eighteen Weeks. Mr. G. R. Turner: On a Case of Wound of the Plantar Arch; Secondary Hæmorrhage on the Thirteenth and Sixteenth Days following the Injury. *Living Specimens* (at 8 P.M.)—Mr. G. R. Turner: A Case of Aphemia following a Head-Injury.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annua and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

STEWART OF CANISBAY FUND.

SIR,—I beg to acknowledge, with many thanks to the subscribers, the receipt of the following subscriptions to the above fund.

This appeal has been made to the members of the medical profession and others on behalf of the widow and family of the late Dr. Stewart of Canisbay, Caithness. Dr. Stewart practised in an extensive but very poor parish in the north of Scotland, where, saddled as he was with a large family, he could scarcely in comfort eke out an existence. Seized with double pneumonia, he, after a few days' illness, died, leaving a wife and six young children almost destitute.

Further subscriptions will be received by the Rev. James McPherson, the Manse, Canisbay, Caithness, and by the editor of the BRITISH MEDICAL JOURNAL.

	£	s.	d.
Subscriptions already acknowledged	87	8	0
Since then received by the Rev. James McPherson—			
Morrant Baker, Esq.	2	2	0
C. B.	3	3	0
G.	1	0	0
B. C.	0	10	0
Total	94	3	0

—Yours faithfully, ALEXANDER MITCHELL, M.D.

Burton House, Great Yarmouth, October 13th, 1883.

A. B. T.—1. Holmes's, Bryant's, or Erichsen's Text-Books of Surgery; Bellamy's *Surgical Anatomy*, Green's *Pathology*. For particulars concerning editions, we refer our correspondent to our advertisement columns, September 8th, 1883. 2. Any of the well-known surgical instrument makers in London can supply the apparatus in question.

THE POLITICAL POWERLESSNESS OF THE MEDICAL PROFESSION.

SIR,—The letter of "Whig Doctor" in the JOURNAL of September 29th, has raised a point which must be uppermost in the minds of all members of the profession who think of the questions of the day. Does the Association or profession think that a constituency will have anybody thrust upon them, without well knowing what the views of the candidate are? What line of policy does the profession intend to follow, or is the proposed member or members to represent a section of, instead of the whole body of medical men? Is it not well known that many medical men love to be hangers on of the rich and great, and are their mere tools, rejoicing in being the "family doctor," like their family grocer and butcher, and thought not much more of by many of those whom certain of the profession would worship. I have known of the doctor being contracted for by the year by titled people. Are those, then, the men we should look to, who, by keeping down others, seek to elevate themselves, and keep alive the fast dying Tory mummy. The question is, what line of policy will the profession as a whole pursue to make itself heard. We are always grumbling, yet doing nothing for our advancement. I would suggest that the political feeling of the members of the Association be ascertained by card or otherwise, the details of which I would leave to those anxious for parliamentary medical representation, before we are asked to subscribe to the benefit of the candidate or candidates who are to represent us in the country's Senate House.—Yours truly,

ANOTHER WHIG DOCTOR.

A MEMBER.—No doubt the preparation may prove of benefit in certain appropriate cases, but there is always a great objection to the administration of remedies the precise composition of which has not been made known.

PAYMENT OF FEES.

SIR,—I should feel obliged if you or any of your correspondents would advise me how to act under the following circumstances. I practise in a large country town, and am a private practitioner; I do not supply medicine, but only prescribe and attend patients. Among these, I have some, moving in the highest and most respectable society, but who unfortunately forget or neglect to give the well-earned honorarium; and this omission goes on occasionally for months, or it may be for five or six years. It is most disagreeable to ask a fee or to send in a bill like a tradesman. If you do the former, the future attendance might be lost, and in every way it would be unpleasant. If you would kindly suggest what would be the prudent course to take, it would confer on me a favour.—Your obedient servant,

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

*** As a general rule, a memorandum of the fees should be sent in every half-year, or at least each Christmas.

THE LATE MR. BOAST, OF WYMONDHAM.

SIR,—Will you kindly allow me to acknowledge the following list of names that have generously responded to the appeal in behalf of Mrs. Boast and her children. I hope that Dr. Jackson's letter, which appeared in your issue of the 13th instant, may be the means of striking a chord of sympathy in the hearts of many hundreds of the profession, as the appeal we are making is for a noble and deserving cause. It is not a testimonial for the living, but to try and raise a fund to aid the widow and children of a hard-working and badly-paid deceased member of a noble profession.

Subscribers.	£	s.	d.
C. J. Hewlett and Son, Wholesale Druggists, Charlotte Street, Great Eastern Street, E.C.	2	2	0
Harry Rodwell, Esq., M.R.C.S., Loddon	0	10	6
E. M. Rodwell, Esq., M.R.C.S., Loddon	0	10	6
Mr. Ellis (chemist), Loddon	0	5	0
J. D. Overed, Esq., M.R.C.V.S., Blofield	0	10	6
C. W. Buck, Esq., M.R.C.S., Settle	0	10	6
Dr. Bateman, Norwich (per Mr. Burtin, F.R.C.S)... ...	3	3	0

Any other names will be gratefully acknowledged through the JOURNAL.—I am, yours, etc.,

J. D. ALLMAN.

40, 41, and 42, Charlotte Street, Great Eastern Street, E.C.

SIR,—Kindly mention in your next issue that I have received the following additional subscriptions.

	£	s.	d.
Mr. T. S. Lack	10	0	0
Mr. R. Heald	2	0	0
Mr. James Taylor	2	2	0
Mr. Henry Stear	2	2	0

—I remain, yours sincerely,

G. JACKSON.

18, George's Terrace, Plymouth, October 18th, 1883.

*** In Mr. G. Jackson's letter on this subject, published last week, for "Warwick" read "Norwich."

MEDICAL ETIQUETTE.

SIR,—I should be glad if you would inform me through your JOURNAL what course to pursue in cases such as the following, which often occur.

1. A practitioner in the town brings a case to see me at my house. Some year or so later, the patient comes to consult me, quite unknown to the practitioner who brought him to me, and under whose care he has not been for several weeks. Should I refuse to see him, except in consultation with the practitioner; or am I at liberty to write him a prescription, and let him come to see me from time to time? In the latter case, ought I to communicate with the practitioner, stating what I have done?

2. I am asked to go several miles into the country to see a case in consultation with the ordinary attendant. About ten or twelve months later, the patient comes to my house to consult me, not being then under the care of his ordinary attendant, whom he has not seen for two or three months. Should I write to the ordinary attendant, stating my views and suggestions for treatment, and refuse to give the patient a prescription; or should I prescribe for him, and let him come to see me from time to time, without in any way communicating with the practitioner?

3. I see a case, at the patient's house, in consultation with the ordinary attendant. Two or three months later, I am asked to visit, alone, another member of the family who has been ill only a few days, and is not under the care of anyone. Ought I to refuse to go, and refer them to the ordinary attendant? And secondly, after an interval of two or three years, I am asked to see alone, at the patient's house, the case which I had seen in consultation with the ordinary attendant; the illness being a fresh one, and no doctor being then in attendance. Ought I to refuse to see the case except in consultation with the practitioner who usually attends the family?—I enclose my card, and remain, yours faithfully,

PROVINCIAL PHYSICIAN.

*** A volume might easily be written on the questions contained in your letter. We cannot enter into them in detail. Suffice it to say that, in all such difficulties, the following points should be borne in mind.

1. That the patient is a free agent, and must be allowed liberty in the choice of his medical advisers.

2. That a consultant should be careful to act only as a consultant, at least during the continuance of the illness about which he was originally consulted.

3. That, when any difficulty arises between the consultant and the regular attendant, a prompt and frank explanation is the best means of maintaining a friendly feeling.

WICKER COFFINS.

DR. JOHNSTON MACFIE asks for information as to the use of wickerwork coffins, and where they may be procured. While as at present cremation cannot be generally accomplished, it seems to him that the use of wicker coffins, or those of an equally perishable material, would be advantageous.

ABSCESS IN PERINÆO.

SIR,—Will any of your numerous readers kindly render me their valuable assistance in the following case? A patient of mine, aged about 52, suffers, I think, from perinæal fistula. Five years ago, an abscess formed in the perinæum without any apparent cause, which pointed on the right side of the median raphé, and about one inch or so from the scrotum. It was opened, I am told, after a deal of suffering, and after a time closed. Two years or so after the first attack, another abscess formed in the same place, which I at once opened. There was a free discharge of a very offensive muco-purulent matter. The suffering was relieved, and the opening soon closed. Twelve months ago, an abscess pointed in the old place, and another on the right side of the scrotum in front of the testicle. These were both laid open, and discharged the same kind of matter; the openings again soon closed; but now lately an abscess formed in the scrotum only, at the original place. When this abscess was laid open, it was found to contain clots of blood, with the same offensive matter as on previous occasions; there is a communication between the two points. The family history is good. There is no history of stricture or external violence; no catheter passed; urine healthy; patient is rather stout.

What course should I advise him to pursue, or what prophylactic treatment would avail against the frequent formation of these abscesses without surgical interference? I shall feel grateful for any suggestions. I enclose my card.—I am, etc.,

M.B., M.A.

MR. G. W. HIND, F.R.C.S.

SIR,—May I be allowed, as others have done, to ask for the sympathy and the assistance of our medical brethren on behalf of Mr. George Hind, so well known to great numbers of the profession as a most successful private teacher of anatomy and surgery, but who is now compelled, by the pressure of age and distressing bodily illness, to abandon the calling to which he had devoted very many years of his long and laborious life. It is painful to add that Mr. Hind is also suffering from pecuniary want, his income, which was never great, having of late years been insufficient to meet his very moderate expenditure. I was never a pupil of his, but my friendship with him has been of long standing, my acquaintance having commenced when he was the Curator of the museum of University College (then the University of London), and I a pupil at that institution. Since that time, I have been on intimate terms with him, especially of late years, and have never ceased to admire his great accomplishments as an anatomist and an artist, and his high character as a warm friend and an honourable and accomplished gentleman. I mention these personal facts only because his modesty has always prevented him from doing justice to himself, and in order to explain the grounds on which, in common with many of his friends and former pupils, I strongly urge his claims upon the benevolence of the profession. A committee has been formed for the purpose of organising a fund for his relief, the chairman being Dr. B. W. Richardson; and the urgency of the case must surely require only to be known in order to call forth a ready response from his former numerous pupils, who are scattered all over the kingdom, and indeed all over the world; and those who were not his pupils may well be moved to sympathy for one of the best Anatomical teachers of his day, reduced by no fault of his own to sorrow, sickness, and need.—I remain, sir, yours,

R. H. SEMPLE, M.D., F.R.C.P.L.

8, Torrington Square, October 8th, 1883.

SIR,—Can any reader of the JOURNAL inform me of the best way of administering ether hypodermically; the dose, and the combination which is least irritant to the skin?—I am, etc.,

INQUIRER.

THE PROPOSED MEDICAL PROVIDENT SOCIETY.

MR. W. B. WALL (Pembroke) has forwarded 10s. 6d. towards the Preliminary Expenses Fund.

CRAMP.

SIR,—In reply to "Enquirens" as to the best remedy for cramp, the simplest and the most efficacious that I know of is a band of cork. It is easily made by cutting a small new wine-cork into thin slices, which must be sewn close together upon ribbon or tape an inch wide. It can be tied round any part affected, and worn during the night.—I am, etc.,

M.R.C.S.ENG.

INTEMPERANCE AND CHOLERA.

SIR,—In the very suggestive paper of Dr. Norman Kerr, I see no reference to the paper read by Dr. Robert Martin of Manchester before the members of the British Medical Association in 1871, wherein the evils resulting from a free use of intoxicants were forcibly brought forward. A reference to Section 918:3 of the *Medical Digest* shows that the influence intemperance has upon cholera has not been passed over by previous observers.—Obediently yours,

RICHARD NEALE, M.D.Lond.

60, Boundary Road, South Hampstead, N.W., October 9th, 1883.

UNQUALIFIED ASSISTANTS.

SIR,—I shall be glad if you will insert these few remarks in your JOURNAL. They are in reference to "L.R.C.P.Ed.'s" letter which appeared in your issue of September 22nd.

"L.R.C.P.Ed." seems quite delighted with himself that he lighted on the correct diagnosis in those two cases, viz., cancer uteri and variola, which had previously been attended by an unqualified man. Further, he seems to think it would be quite impossible for a qualified man to make such a mistake; but I will give two cases showing that such things do happen.

The first was the case of a man suffering from hydrocele. This patient consulted a medical man, with an extensive practice in one of our large towns, who, after examining him, declared he was ruptured, and ordered him to procure a truss. The patient was not satisfied with this decision, and called in another medical man, who, when he saw what the patient was suffering from, tapped the scrotum. Of course, the swelling disappeared, much to the joy of the patient.

In the other case, a child, aged 2 years, swallowed a piece of earthenware. The father at once ran for two doctors. One arrived, examined the child, and declared the obstruction to be lodged in the windpipe. The other doctor followed, bringing his probang. This one came to the conclusion that it was in the gullet, and I suppose such was the case, as, with the probang, he pushed the foreign body into the stomach. Both of these "doctors" were qualified. Again, speaking for the majority of us, I think I may safely say we are not accustomed to act the part of either doctor or errand-boy at a moment's notice, nor are we expected to do any sweeping (not even the chimneys). Whenever I have applied for a situation, I have always shunned any vacancies connected with open surgeries; and I do not think I am any exception to the rule. But of course there are some who will accept these appointments, and I think we may compare them to some of the qualified, who, we are informed, have large gilt letters stuck up outside their surgeries, informing the public that they give medicine and advice for sixpence, and visits one shilling.

In conclusion, I will add that we, as a rule, are prevented from finishing our hospital-career as soon as we should like, through our funds not being sufficient for the necessary expenses, and so have to accept posts as unqualified assistants until we see our way clear for qualifying.—I am, sir, yours truly,

AN UNQUALIFIED ASSISTANT.

SIR,—Lately I have been on the look-out for an assistant, and have replied to the advertisements of many aspirants in your paper; but, to my disgust, from some of them I never receive any kind of acknowledgment, and have been kept many days in suspense. The chief attribute of a gentleman ought to be courtesy, and of a medical assistant good business capacity. He ought immediately to answer a letter, if only by a postcard, accepting or declining further negociation. I have been perfectly astounded at the ignorance displayed by young medical aspirants on this head—so different to men in commercial pursuits. Much is said about preliminary education; a little in the above line would be an acquisition to many medical assistants. For the benefit of those interested, you will oblige by giving this insertion in your next issue.—Yours faithfully,

M.D.

TYPHOID ORGANISMS AND MILK.

SIR,—I was recently told that, during a severe attack of typhoid fever in a farm-house, about twenty-five years ago, the butter that was made at that farm-house during that time all turned bad. My informant blamed the maker as incompetent, but it has occurred to me that, if the typhoid organisms live in the milk, they, like other organisms which effect more palpable changes, must also, by living in it, alter the character of some of the constituents of the milk.—I am, etc.,

D. Rhys JONES.

London, October 9th, 1883.

ENQUIRER.—1. B., having been called in as a consultant, should act only in that capacity, and should be careful not to take the general management of the case out of A.'s hands. 2. Certainly a medical man should not call upon new residents merely to make himself known and obtain patients. In this matter, he should follow the rules which prevail among the other gentry of the town.

THE RELATION OF COPPER-WORKS AND CHOLERA.

SIR,—In many periodicals, both lay and medical, there is much being written at the present time regarding the copper-cure for cholera.

I would suggest that the widely divergent views as to its value by the one class of writers and its absurdity by the other, may be reconciled if we accept the truth of Mr. Tusoris's assertion, that sulphur-fires will banish cholera from any districts where it is raging. As around copper-workers there is always a large evolution of sulphurous fumes, it is to these gases that the immunity is due, and not to the metal itself, or to the use of any of its salts.

At Section 922 of the *Medical Digest*, much that has been written upon the use of sulphur and sulphuric acid, and upon the value of being near copper-works may be readily consulted.—Yours obediently,

October 6th, 1883. RICHARD NEALE, M.D.Lond.

CLUB-SURGEONS.

SIR,—I want you to kindly give me your advice and opinion on the following, in the BRITISH MEDICAL JOURNAL. I am surgeon to a small branch of the Foresters (bringing in about £18 *per annum*), having held it three years. I attended one of the members, at the commencement of last December, with bronchitis, not seriously ill. He came to the surgery once, was seen once (about seven miles off) about four miles over club radius. He had about three bottles of medicine, and three certificates, and then I heard no more of him until yesterday evening, when he himself walked in, demanding his doctor's bill (£1 12s.). His doctor holding no recognised qualification (but American), I, of course, refused, and told him that I should have everything properly sifted. For my own part I consider that he was not in any way neglected; of course, he has a contrary opinion. Had I better wait the course of events? The man said that the matter had been discussed at the last meeting, and that the treasurer and secretary said he could demand payment.

Am I compelled to attend club members over the stated distance; and, if I do so, and they take it into their heads to get dissatisfied, am I liable to have to pay their doctors' bills? I will admit that, a few days after I had seen him, I was asked to see him, but sent medicine instead, knowing that there was not anything very serious the matter. The members were also unanimous that it should be five miles radius, instead of three.—I am, sir, yours truly,

F. H. T.

COMMUNICABILITY OF PHTHISIS.

SIR,—I have lately come across two cases of the possible infection of phthisis, which, perhaps, you may think fit to report.

1. A medical man, of known phthisical taint and family history, married a perfectly healthy girl, with good family history. Eighteen months after marriage the wife developed symptoms of phthisis, from which she has subsequently died.

2. R. P., aged 27, has lately been under my care with what I diagnosed as tubercular infiltration of the right apex. There was no history of consumption in any of his near relatives. A few days ago his father called on me, saying he was very anxious about his son, and that he attributed his illness to his sleeping, about a year ago, for a period of eight months in the same room with a young man who died from advanced phthisis. I may say that the father did not know the cause of the young man's death. I have also under my care a third case, in which the wife has recently died of phthisis, and the husband (though of healthy family), a sail-maker by trade, is troubled with a chronic cough, but as yet the physical signs are not sufficiently pronounced to warrant me in saying there is tubercular disease.—I remain, yours truly,

JAS. HUDSON.

Collingwood Street, Nelson.

CONSULTANTS AND GENERAL PRACTITIONERS.

SIR,—From the letters I see in the medical papers, I fear there is a growing tendency to restore the old aristocracy in the profession of "consultants" and "general practitioners." When the general practitioner was the mere apothecary, this distinction could not well be avoided; but, as now nearly all medical practitioners are duly qualified physicians, I do not see how this distinction can longer be maintained, unless it be by degrading one class of physicians below their legal and proper level. Efforts, I regret to find, are constantly being made to do this, especially with reference to the licentiate of a College of Physicians. This is strongly shown by those who wish to limit the title of physician to university graduates, to refuse the title of Dr. (the title by which a physician is commonly known) to the L.R.C.P., whilst freely according it to the M.B., whose only claim can rest on the same ground—that of being a physician. This marked unfairness and discourtesy naturally excites the indignation of the L.R.C.P., who feels himself at least equal to the M.B., and that he has the same claim to the prefix Doctor.

In future, let our consultants be not a distinct class, founded on the assumption of superior qualifications, but really men of worth, who have risen from the general body of practitioners to eminence in some special department in medicine or surgery.

For more than forty years, I have advocated one portal and one faculty, one rank and one class of medical titles (we have now two classes—the university and the collegiate, including twelve distinct qualifications), and should be greatly disappointed were these principles not recognised in any future Medical Bill. One portal, however, I think will not be sufficient to constitute one faculty, if, after entering this one gate, some go in at the grand entrance of the mansion, whilst the great bulk of the profession go round to the back door.—I am, sir, yours truly,

JAMES GEORGE PARSONS, M.D., F.R.C.S.

Crofton House, Stokes Croft Road, Bristol, October 15th, 1883.

DR. G. H. FITZGERALD.—We know of no special work on the subject, but useful information will be found in most of the books on materia medica and therapeutics—Ringer, Bartholow, or Wood, for instance.

COMMUNICATIONS, LETTERS, etc., have been received from:

Dr. Fairlie Clarke, Southborough; Mr. G. P. Field, London; Dr. G. Hunter Mackenzie, Edinburgh; Mr. F. K. Willis, London; Mr. R. E. Carrington, South London District, Metropolitan Counties Branch; Dr. Macnanghton Jones, London; Mr. Jacob, Bagshot: Mr. G. D. Allman, Rhyl; Mr. J. Herbert Stowers. London; Mr. N. J. Bacot, Blandford; Mr. G. Jackson, Plymouth; Dr. Sierra, London; The Honorary Secretaries of the Dorset and West Hants Branch; Dr. H. Warren, Boston; The Secretary of the Manchester and Salford Sanitary Association; Dr. Guiseppe Bangalupo, Sestri Levante, Italy; Mr. Edgar Thurston, London; Dr. Mackie, Alexandria; Member; Dr. Sawyer, Birmingham; Mr. Le T. Williams, Abergele; Mr. N. Harrison Cripps, London; Mr. T. M. Stone, Wimbledon: Dr. Poulain, London; Dr. J. D. Malcolm, London; Dr. T. Stevenson, London; Dr. A. Henry, Newport-Pagnel; Mr. E. A. Dingley, London; Dr. Tindal, Glasgow Southern Medical Society; Dr. R. Harvey, Calcutta; Dr. Joseph Rogers, London; Mr. Eyre M. Shaw, London; Dr. A. Dempsey, Belfast; Mr. J. Harrington Douty, Salisbury; Mr. Arthur Pearce, Kingsbridge; Mr. T. Tinley, Whitby; Mr. J. C. Stowell, Donegal; Mr. C. H. Phillips, Hanley; Mr. J. Lardner Green, Salisbury; Medicus; Mr. Eastes, London; Mr. R. Williams, Liverpool; Dr. Imlach, Liverpool; Mr. R. Bryden, Uffculme, Devonshire; Mr. Alfred Craske, North-West London Hospital; Dr. E. B. Truman, Nottingham; Dr. J. Spottiswoode Cameron, Huddersfield; Mr. Blackett, London; Dr. John Curnow, King's College; Mr. Jenner Verrall, Brighton; Mr. George Rendle, London; Mr. T. Oswell Bury, Wrexham; Our Glasgow Correspondent; Messrs. Merryweather and Sons, London; Ledger, Smith and Co., London; Dr. W. A. Brailey, London; Mr. Macleod, Ramsbotham; Mr. Harold Hendley, London; Dr. Arthur Mechan, Glasgow; Dr. Mahomed, London; Mr. J. W. Anderson, Ulverston; Dr. Rutherford, Edinburgh; Mr. E. Denston, London; Mr. Tor Griffith, Norwich; Mr. J. Aspinall Hunt, Derby; Mr. T. R. Lewis, Southampton; Dr. A. Mitchell, Great Yarmouth; Dr. Ewing Whittle, Liverpool; Dr. L. W. Marshall, Nottingham; Dr. M. R. Ryan, Aldershot; Mr. J. Ricketts, St. Helen's: Dr. J. G. Parsons, Bristol; Dr. Glascott, Manchester; Professor Arthur Gamgee, Manchester; Dr. Thomas Partridge, Stroud; Dr. T. Eyton Jones, Wrexham; Mr. John Bray, St. Leonard's-on-Sea; Dr. Phillips, Reading; Mr. J. A. E. Stuart, Dewsbury; Mr. G. B. Collet, Worthing; Mr. Stokes, Dublin; Mr. Cantlie, London; Dr. Bedford Fenwick, London; Dr. Heneage Gibbes, London; Mr. B. G. Morison, London; Professor Buchanan, Glasgow; Dr. Noel Paton, Edinburgh; Mr. John Martin, Alcester; Mr. Wheelhouse, Leeds; Dr. Cedric Hurford, London; Mr. G. Jackson, Plymouth; Dr. Ireland, Prestonpans; Dr. A. B. Tuxford, Boston; Mr. C. E. Greenwood, Blackheath; Mr. R. J. Bryden, Gravesend; Dr. Cassells, Glasgow; Dr. Rodet, Paris; Dr. Chapman, London; Dr. G. H. Hume, Newcastle-on-Tyne; Mr. W. A. Harrison, Pontefract; Sir J. E. Eardley Wilmot, London; Dr. Tomkins, Manchester; Dr. Clifford Allbutt, Leeds; Mr. W. W. Wainwright, Wickham, Fareham; Mr. H. Stear, Saffron Walden; Dr. Cooper Stawell, Laghey, Donegal; Dr. Thompson, Londonderry; Mr. C. A. Barrett, Wallingford; Dr. W. Arthur, Brighton; Mr. W. Watson Cheyne, London; Dr. G. B. Partridge, Anerley; Mr. W. Roger Williams, London; Mr. W. Johnson Smith, London; Dr. Lord, London; Mr. F. Davies Pryer, Truro; Mr. R. J. Bryden, Gravesend; Mr. G. Mellin, London; Messrs. Barnett and Foster, London; Mr. J. H. Hodge, Cheetham, Manchester; Mr. C. J. Radley, London; Dr. Eames, Cork; Mr. B. H. A. Hunter, Battersea; The Secretary of the Smoke Abatement Institute: Mr. Arthur S. Lowry, London; Mr. W. Jenkings, London; Mr. Robert J. W. Oswald, London; Dr. Fancourt Barnes, London; Mr. C. J. Symonds, London; Mr. Ernest Blacker, Midsomer Norton; Dr. D. Archibald, London: Dr. Crichton Browne, London; Dr. Theodore Cash, London, etc.

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AN ADDRESS

ON THE

PROGRESS OF KNOWLEDGE IN THE PHYSIOLOGY AND PATHOLOGY OF THE NERVOUS SYSTEM.

Delivered at the First Meeting of the Session of the Royal Medical and Chirurgical Society.

By DAVID FERRIER, M.D., F.R.C.P., F.R.S.,
Professor of Forensic Medicine in King's College, and Physician to King's College Hospital.

MR. PRESIDENT AND FELLOWS OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY,—I have, in the first place, to express to you my very grateful appreciation of the great honour you have done me in awarding me the Marshall Hall Prize this year, and in the further high privilege you have accorded me in asking me to address you on this occasion. To be the recipient of a prize associated with the name of Marshall Hall, and for work done in that department of medical science which he himself so adorned and enriched, is a distinction of which I am indeed proud. I know no name in the ranks of scientific medical inquiry, in this or any other country, which stands higher than that of Marshall Hall, and no work which has done more to advance physiology and pathology of the nervous system, and not this only, but medicine and surgery in general, than his investigations into the nature and conditions of reflex action. This he was undoubtedly the first to formulate and expound, and clear from the vagueness and confusion which prevailed before him. The importance of his researches can scarcely be overestimated. If it were possible to eliminate from modern medicine all that relates to reflex action, its bearings and applications, we should practically derationalise the better half of pathology and therapeutics. Few scientific inquirers have been more keen to perceive the practical bearing of their own researches than Marshall Hall himself; and most of the principles that guide us in the recognition and treatment of diseases and symptoms dependent on reflex irritation were first clearly laid down by him. Not long prior to the time when Marshall Hall was pursuing his investigations on the spinal cord and medulla oblongata, Flourens was engaged on his ever memorable researches on the physiology of the cerebral hemispheres; and Flourens, also, to whom he dedicated several of his memoirs, was almost the first to perceive and recognise the value of the work done by Marshall Hall, which many of his own countrymen endeavoured vainly to detract from and depreciate. If, at the distance of fifty odd years, we compare the relative stability of the work done by these great men, that of Marshall Hall on the spinal cord, and that of Flourens on the cerebral hemispheres, we find that the doctrines enunciated by Marshall Hall, modified, perhaps, as to detail, and further extended by the numerous researches of recent years, are in all essential points those which still prevail, and show no signs of failing; while those of Flourens, which have also exercised an enormous influence on clinical medicine and pathology—what shall we say of them? In the brief sketch which I purpose giving you on the present position and probable future of this question, I fear that, however much we may try to avoid it, I shall appear more in the character of an advocate, than of an impartial judge. But I am fully conscious that I am before a highly critical audience, who will not allow any bias of mine to warp their own just judgment.

The views of Flourens are familiar to you all. They seem to the scientific world at once in accordance with the facts and experiments on animals, at least of the lower orders, and in harmony with the prevalent metaphysical conception as to the unity and the indivisibility of mind. Like the mind itself, said Flourens, the organ of the mind is also one and indivisible, there being no differentiation of function, but each and every part possessed of the potentialities and capability of exercising every function pertaining to the whole. These doctrines speedily met with general acceptance among physiologists, but there were a few keen clinical observers—De Boyer, Andral, and others—who saw in the phenomena of cerebral disease facts which appeared wholly inexplicable, except on the hypothesis of a differentiation of function, such for instance as the occurrence of limited paralyses in connection with limited lesions. But unable, on the other hand, to account for the facts of experiment on animals on the principle of localisation, which the clinical data seemed to demand, they wisely suspended their judgment, neither denying the facts of experiment, nor doubting their clinical observations, believing that the apparent discrepancies between human pathology and experimental physiology would one day be cleared up and dispelled. This was eminently the attitude of my distinguished predecessor in the honourable position I now hold. Dr. Hughlings Jackson, neither contesting nor trammelled by the doctrines of the school of physiology, saw, in the occurrence of a limited unilateral muscular spasm, in connection with certain cortical lesions, phenomena which, to him, signified irritation or discharge of grey matter directly related to muscular movement; and with a keen prophetical insight, which far outran the slow march of verified fact, he evolved many brilliant and fruitful conceptions, as the anatomical substrata of the organ of the mind. There were, however, many other clinical facts, particularly those relating to the loss of speech in connection with lesions of the left hemisphere, which formed the subject of much lively debate and discussion twenty years ago, which remain equally obscure and mysterious, whether on the hypothesis of localisation or the reverse. It is not going too far to affirm that, up to the time when the researches of Fritsch and Hitzig inaugurated a new era in cerebral physiology, general doubt and confusion prevailed. It would even now be premature to claim that all this has been dispelled; but we may truly say that the questions in dispute have assumed a definite and manageable shape, and that every day the dark atmosphere is being cleared. I will not weary you with the keen controversies which arose as the true significance and interpretation of the results which followed application of electrical irritation to different regions of the cerebral hemispheres. On these, as well as on the consequences of destructive lesions of the cortex, the most divergent views continued to be entertained and expressed. The fundamental question of localisation or no localisation was brought to a crisis at the meeting of the International Congress here in 1881. You are all aware, many of you doubtless heard and saw, that Professor Goltz, the chief of the few remaining champions of the Flourensian system, brought with him from Strasburg a dog in which he had long previously, at intervals, destroyed a large extent of the cortex of both hemispheres, and which he exhibited before the physiological world as a practical refutation of the theory of cerebral localisation. He enunciated the following thesis (I translate literally). "1. The cerebral cortex is the seat of the higher intellectual functions; the removal of large portions of both hemispheres degrades the intelligence. 2. It is impossible, by any localised cerebral lesion, to cause paralysis of any muscle; the animal operated on retains volitional control over all its muscles. 3. It is also impossible, by any localised certical lesion, to cause permanent loss of any sense. The animal retains all its sensory faculties. After removal, however, of large portions of the cortex, defective perception is caused. 4. Animals in which the parietal regions have been destroyed are permanently awkward in their movements, and defective as regards tactile sensibility. Animals in which the occipital lobes have been destroyed are, as a rule, more demented than those in which only the parietal regions have been destroyed.' (*International Medical Congress Report.*) He pointed to his dog as an illustration of the truth of these propositions: awkward in all its movements, especially those of the hind legs, but paralysed as to none; defective in all its faculties of sense and sensory perception, but neither blind nor deaf, nor otherwise totally deficient. Some exceptions were taken by Professor Yeo and others as to the exact accuracy of Professor Goltz's description of the extent to which the motor and sensory faculties were impaired; but I pass over these as not essential to the matter in hand. When the brain of the dog was examined by a committee appointed by the Section, it was found that the lesions, though extensive in both hemispheres, were less than Professor Goltz had imagined, and did not implicate the whole either of the so-called motor region or of the region of special sense as defined by his opponents. Over against Professor Goltz's dog were set two monkeys, in one of which the greater portion of the region called motor had been destroyed many months previously in the left hemisphere. The animal had remained hemiplegic on the right side from the date of the operation, and at the date of the exhibition presented the typical features of hemiplegia, with late rigidity, as exhibited in man. The hemiplegia was seen and admitted by all, and the permanency of the result was sufficiently plain to all conversant with the incurable nature of hemiplegia with late rigidity in human patients. It was afterwards proved by

the committee of investigation, that the lesion in this case affected only the cortical matter and subjacent medullary fibres in the region where it was said to be; and the fact of descending degeneration of the pyramidal tracts of the right side of the spinal cord was also established at a later date. With the exception of the motor paralysis of the right side, the animal was in all other respects perfectly well, full of intelligence, acute in its sensory faculties and powers of perception. The other animal, in which the superior temporo-sphenoidal convolutions had some time previously been destroyed on both sides, presented a marked contrast to the first. There was no question as to this animal's motor powers; it bounded about and climbed hand over hand with the greatest agility and vivacity. Nor was there any question as to its sensory faculties, except one, namely, hearing; and in that respect it was admitted to be totally deficient; for it was remarked by one present that it was the only animal in the room that was not startled by the explosion which I made. In this condition of total deafness, with retention of all its other faculties, both sensory and motor, it had been since the operation, and continued so till its death, a long period subsequently. The brain of this animal was exhibited at a meeting of the Physiological Society, and will be described in another place. Suffice it to say that the lesions were confined to the cortical and subjacent medullary fibres in the regions I have indicated. It is at once obvious that the second and third of the propositions enunciated by Professor Goltz (and it was admitted by himself) are demonstrably erroneous as applied to monkeys, and that, in their case, the localisation of function was incontestably proved.

To some, however, it appeared as though these demonstrations, instead of definitely settling the question of cerebral localisation, had made confusion worse confounded: a word or two, therefore, on the lessons taught on this occasion, and on the conclusions to which they logically lead. Localisation of function being admittedly established in the case of one vertebrate animal, then, given facts and experiments on another animal of the same type seemingly at variance with this law, there is no alternative between either denying the universality of the law, or holding that the facts, though seemingly at variance, are, in reality, in perfect harmony with it. I cannot think it possible that, in the present state of biological science, any one will be found to maintain that animals constructed on the same anatomical type can differ so fundamentally in their physiological constitution as would be implied in the first alternative. We must assume, therefore, that the whole question turns on how, on the principle of localisation, we are to account for such striking differences as are observable between the effects of destruction of the cerebral hemispheres in the different orders of animals. It would be difficult, on a cursory examination, to say whether a frog or a pigeon had had its cerebral hemispheres removed or not, if they each maintained their normal attitude: the one will hop, and the other walk or fly, and otherwise respond to the sensory stimuli, in a manner little, if at all, different from the normal. The universal powerlessness, however, of even dogs — and much more so of the higher vertebrates — after a similar operation, will be very apparent. This fact, admitted by all, clearly demonstrates the existence of great differences in degree among the different orders of animals in respect to the part which the cerebral hemispheres play in the ordinary modes of activity and response to the various forms of external stimulation. If it is difficult with some animals to estimate the results of the removal of the whole of the cerebral hemispheres, how much more must it necessarily be to determine the effect of removing only a portion. Neglect of the most obvious lessons of comparative physiology has been the cause of much useless barren controversy; facts being urged in opposition to other facts, between which no antagonism really exists. If to these considerations, founded on comparative physiology, we add that, unless the whole of a given cortical centre be destroyed, the function remaining may suffice for the continuation, in some degree at least, of the function allotted to it, we may arrive at a completely satisfactory explanation of the conduct of Professor Goltz's dog in thorough harmony with the fundamental principles of cerebral localisation.

I have purposely excluded the elements of clinical medicine in reference to this quest, for the exact solution of problems in physiology by fortuitous experiment on disease in man is always difficult, and nowhere more so than in the domain of cerebral function. The phenomena of cerebral disease are so complex, the factors so indeterminate, that they seldom admit of exact analysis or computation; but, though all these clinical observations may be unable to carry rigid conclusions as to cause and effect, all physiological generalisations otherwise founded must square with the facts of clinical observation before they can be admitted as integral parts of the institutes of medicine; and on many points, particularly when subjectivity is concerned, the observations on man constitute the only reliable means of interpretation of vital manifestation. Apart from some differences on matters of detail, which do not affect the main principle, localisation of cerebral function is accepted by every recent writer on cerebral disease as the only possible explanation of the phenomena. Mere numbers in authority, however, will not stand for evidence. and I do not quote them as such; but, as it would be impossible for me to set forth the evidence here, I can only refer inquirers to what I have elsewhere written on the subject, and to the facts contained in the more recent publications of Charcot and Pitres, De Boyer, Grasset, Nothnagel, Exner, Ross, and others, as well as to the cases, such as those recently recorded by Dr. Sharpey, which are constantly appearing in every medical journal.

Assuming, therefore, that the principle of cerebral localisation has become established in physiology and clinical medicine, the ground is cleared for the consideration of further questions of great scientific and practical importance, on which opinion is not unanimous, and on which, therefore, further research is desirable. The first is, is the localisation of centres a matter of indifference or accident; or is it dependent on structural peculiarities and actions, which render each centre as distinct from others, as, for instance, one limb from another, or the organs of vision from the organs of hearing? Or, to put it in the form of a simile, is the brain-crust divided into fields, each of which, though yielding some kind of produce, usually may, if need be, yield any other? Or is it divided into fields which yield only one kind of produce, and can yield no other? Or, according to still a third supposition, is it divided into fields each of which yields most of one kind of produce, but more or less of every sort? Each of these suppositions has its advocates and defenders. If the localisation be merely accidental or indifferent, perhaps the function of a part lost may be taken on by some other of those remaining; if it be structural, this would be as impossible as that the organ of hearing should perform the functions of the organ of vision; or that the nervous apparatus which moves the leg should also move the tongue, or act as the centre of taste. The question is one which ought to admit of definitive settlement, by properly directed research. The indifferent theory has been adopted by many under the name of "functional compensation," as affording the most satisfactory explanation of the apparent recovery, after destruction of the cortical centres, of motion in certain of the lower animals. If it should appear, however, that in monkeys and still higher animals it is possible, by total extirpation of a given centre, to cause complete and permanent annihilation of a given faculty of sense or motion, all others remaining intact, it is obvious that the hypothesis of functional compensation is uncalled for. Those who consider this established, explain the apparent recovery in the lower animals on the principles already laid down respecting the differences in degree in which the motor faculties and powers of response to the sensory stimuli are affected by destruction of the cerebral hemispheres in different orders of animals. The so-called "functional compensation" of the hemispheres is, in reality, no compensation at all, but only a manifestation of the activity of the lower centres. In addition to the facts of experimental physiology demonstrating the possibility of entirely and permanently annihilating given functions or faculty, others are adduced in favour of a rigid structural localisation. Though the grey matter of the cortex appears similar throughout, and composed of elements common to every region more or less, yet recent histological researches, particularly those of Bevan Lewis, have succeeded in determining the existence of numerous peculiarities in structural arrangement and collocation in different regions of the cerebral cortex. The significance of these structural peculiarities is by no means apparent; but that that they exist should have a meaning which may one day become clear, there is no room to doubt. Perhaps a more intelligible signification than these histological inquiries lies in the facts now indubitably established both by physiological experiment and by human pathology, that when certain regions of the cortex, namely, those termed motor, are destroyed, and no other secondary degeneration ensues in the pyramidal tracts, down the whole length of the spinal cord, the inference drawn from these data is that, just as the motor nerves are connected with the anterior horns of the spinal cord, so the pyramidal tracts of the spinal cord are connected with certain regions of the cortex cerebri, showing therefore a fundamental difference as regards anatomical connection between one region of the cortex and another. It is argued, also, that if the pyramidal tracts had other connections, destruction of other regions than the motor

would induce secondary degeneration also, which is not the case, and that those connections, if they exist, should prevent the atrophy and degeneration which otherwise occur on destruction of the true motor area. As regards the region related to the organs of sense, it is stated as an established fact that the destruction of a certain cortical region on both sides causes complete and permanent loss of vision, followed in due course by atrophy of the optic discs. This is relied on as proving that this region is anatomically the cerebral expansion of the optic tracts, and that the complete abolition of vision and subsequent atrophy of the optic nerve show that this region is above the centre of vision, and that if the optic nerve have connection with any other region or regions, these are unable to form the substrata of the visual sense, or prevent the wasting of the optic nerve. No similar observations have as yet been made on the atrophic relation, if any, between particular cortical areas and other organs of special sense; some cases have, however, been published in favour of the occurrence of atrophy in certain cortical regions as the result of long-standing deprivation or congenital absence of some limb or organ of sense. Many of these, however, have an extremely slender foundation, and much is required, in the way of future research, before conclusions can be safely founded on them; but if succeeding research should establish such facts, free from doubt and uncertainty, and if all the statements should be substantiated in reference to the permanency of the effect of cortical lesions and the consecutive degeneration of certain tracts and organs, the question of indifferent or rigid structural localisation will have been definitely settled.

After the fundamental principle of localisation itself, whoever, all the other points involved in it, whatever may be their scientific interest, sink in importance, as regards practical ends, in comparison with those relating to the exact delimitation of the respective cortical centres. Here we meet with a considerable diversity of opinion among those who have experimentally and clinically investigated the subject. This has been made use of by some, very illogically, as an argument against localisation altogether. It might be alleged, with as much reason, that any difference of opinion among the Fellows of this Society on questions brought before them, are a sign of instability on the part of the Society itself. I should require a treatise rather than the limits of a brief sketch to place before you the various facts and arguments on each head, and I should have to import many things of my own as yet unpublished, for which this is neither the time nor the place. I content myself, therefore, with merely indicating points on which there is more or less harmony, or the reverse. The convolutions bounding the fissure of Rolando are, without exception, regarded as having a special relation to the motor powers. Whether motor disorders are invariably caused by lesions in this region, is a point of capital importance. If clinical research should establish the existence of an unexceptionable case of total destruction of this so-called motor region without motor paralysis, such a case will do more towards demolishing the whole theory of the existence of motor centres in the human brain than any hundreds and thousands of cases adduced in support of it. But, naturally, considering the harmony which otherwise exists between the positive clinical instances and the established data of experimental physiology, we have a right to demand something more than mere vague assertion or crude investigation before a negative instance can be admitted as proved. None such has as yet been put on record; all the doubtful cases, extremely few in number, bear only on the precise limits of the respective centres, and not on the general question of the existence or not of a special motor area. The centres of hearing have been shown before the physiological world to be in the superior temporo-sphenoidal convolution; and numerous clinical observations have been put on record favouring the existence of a causal relationship between the lesions of this region in the left hemisphere and the occurrence of the defect termed word-deafness—a defect in the representative functions of the auditory centre. Nothing, however, comparable to the absolute deafness, presentative as well as representative, seen in the monkey from bilateral destruction of this region, has as yet been observed in man.

The centres of vision are still the subject of some differences of opinion; but these differences have reference not so much to the general position as to the exact delimitation of the anterior boundary, and to the relations of each centre to the central and peripheral portions of the retina respectively. Clinical observations are being published in considerable numbers demonstrating the occurrence of isolated affection of vision in connection with cortical and subcortical lesions in the occipito-angular regions, and the differences between the published views on the relation of the centres of the organs of vision are in process of being settled.

The centres of smell and taste are less definitely determined, owing to the difficulties of experimentation; but the greatest differences of all obtain in reference to the localisation of the centres of common and muscular sensibility. A considerable number of physiologists place them in the so-called motor region, while I have all along held, and hold, both on experimental and clinical grounds, that the centres of common, including muscular, sensibility, are anatomically entirely distinct from those of motion, and situated in the subcortical region. It is of the utmost importance that this question should be settled, for it involves vital issues in the region of diagnosis and differentiation of cortical from other cerebral lesions. In this respect, clinical observation, careful and accurate work, has a transcendent value, and there is every reason to believe that this, in combination with a more precise experimental method, will at no distant date succeed in solving outstanding difficulties, securing a general harmony of opinion, and placing cerebral localisation and the regional diagnosis of cerebral disease on a firm and unassailable foundation. In no department of medical science is more activity being manifested, and there is no field more inviting, or more likely to repay cultivation. The following words of Marshall Hall are perhaps more pertinent now than they were in his own time: "In every point of view there is much to be done. Every encouragement should be given to the diligent, devoted investigator; every obstacle, every kind of injustice, every source of disgust and indignation ought, for the sake of science and for the honour of our institutions, to be removed. The physician who devotes himself to investigation makes a thousand sacrifices; his faith requires cheering, and should not, need not, be unjustly obstructed or beset with thorns. Though the value of scientific investigation is by no means to be measured by its practical utility, yet the value of a scientific fact or principle is enhanced in the eyes of all mankind if it be useful as well as true." Tested by the standard of practical utility, what, it is asked, has cerebral localisation done, or is it likely to do towards a more successful treatment of cerebral disease than we can yet boast of? Up to the present, I think that, with a few though insignificant exceptions, the benefits of the scientific doctrine of cerebral localisation have been absorbed, like so much latent heat, by medical science itself, as distinct from medical or surgical practice. It has been as a lamp to lighten the path of the clinicist through a darkness almost chaotic; it has sharpened clinical vision, so that now many things are clearly seen which were formerly supposed not to exist; it has given a decision to clinical and pathological descriptions which will be searched for in vain in the older records; it has cleared our conception as to the significance of numerous symptoms, and rationalised many purely empirical generalisations, and is every day bringing us nearer that which Virchow has termed the goal of modern medicine, namely, localisation of disease. But when this has been reached as regards cerebral disease, when we are able to determine the nature and position of the *materies morbi*, is it likely that we shall stop here? This would be very improbable, even though we should as yet have none or only the most vague notions in what direction practice may be influenced. But there are already signs that we are within measurable distance of the successful treatment by surgery of some of the most distressing and otherwise hopeless forms of intracranial disease, which will vie with the achievements of abdominal surgery.

It is natural that physicians should hesitate to advise surgical operations on the brain, and that surgeons should stay their hands until the principles and diagnosis of regional disease had been established with as near an approach to certainty as is possible where all is hidden from the eye and hand. But, granting this, is there any reason why a surgeon should shrink from opening the cranial cavity, who fearlessly exposes abdominal viscera? The peritoneum was, until a recent date, held sacred and inviolable. The dura mater and the brain are much in the same position now. But, after what I have seen of the unfailing safety, the freedom from all untoward results as regards health and life, with which the most formidable and repeated operations can be performed on the brain and its covering, under stringent antiseptic precautions, and these on animals of the most delicate, almost human organisation, I cannot but believe that similar results are capable of being achieved on man himself.

Apart from secondary inflammation and its consequences, which can be absolutely prevented, there is no risk to life from even extensive destruction of the cerebral hemispheres. It is true that, in attempts to remove tumours, or locally treat other forms of

disease, we may injure or destroy healthy portions of the brain-tissue. But what will follow? Not necessarily mental disorder or appreciable mental defect.

With the exception of certain functions arrogated by the left hemisphere, we have, for mental purposes, practically two brains; and diseases are not always on the left side. The records of our daily experience of disease and injury of the brain show that considerable portions of the brain-substance may be destroyed without great danger to mental stability. But paralysis may ensue, more or less extensive, or defects in special sense, according to the position and amount of lesion. Such risk undoubtedly exists, as well as others incident to the operation itself, as to all surgical operations. But the choice is not between this and any other mode of treatment, but between running these risks and certain death; and I have no doubt that there are many who, if they had the choice, would rather go through, if not enjoy, life, halt or hemiopic, than perish miserably after years, it may be, of incessant suffering. "Ne sutor ultra crepidam," I think I hear some one say. I applaud the sentiment; but as in this matter I have had the experience of the surgeon, as well as the physiologist and the physician, I have thought that I might venture on these suggestions without appearing to go very far beyond my last.

OLEATE OF QUINIA.—Dr. Squibb, in his *Ephemeris*, considers that oleate of quinia, although it has not attracted general attention, is probably one of the most important of the oleates. From the larger quantity of quinia needed in medicine, this oleate is made as strong as possible. While a normal oleate of this alkaloid would by calculation contain about 53 per cent. of the alkaloid, it has been found impracticable to dissolve that quantity in the acid. In a series of experiments made some years ago, when this oleate was introduced, it was concluded that 25 per cent. was the best proportion. But as the quinia of the market holds some hygrometric moisture, it is better to take 26 grains of the alkaloid and 74 grains of oleic acid as the formula. The alkaloid is simply rubbed to powder, and added to the acid in a bottle. Like the other alkaloids, this dissolves so readily that, being in much larger proportion, it is liable to clog together and be slow in dissolving. But this clogging together is easily broken up by means of a glass rod, or the solution may be effected in a capsule, and the clogging be prevented by a pestle. In this way it is easily made in a few minutes. A fluid ounce of this oleate weighs about 410 grains, and, therefore, contains about 102 grains of quinia, which is equivalent to about 140 grains of the ordinary sulphate of quinia; therefore, a fluid drachm contains the equivalent of about 17 grains of the sulphate, and a minim is equivalent to a little more than a quarter of a grain. An hypodermic injection of a fluid drachm will, therefore, carry the equivalent of 17 to 18 grains of sulphate of quinia. It happens, perhaps, oftener with the administration of quinia than most other medicines, that the physician wants to save the stomach; and many conditions need quinia when the stomach will not accept it, or will not utilise it if given by the mouth. These circumstances have long indicated the hypodermic use of quinia, but up to this time no solution has been proposed that is well adapted to hypodermic use, first, because of the large dose required, and again, because of sparing solubility of available quinia salts. Hence this oleate has been sometimes used hypodermically, but with what success is unknown to the writer. The epidermic use, however, is of late not uncommon, and, since it was first proposed, occasional trustworthy testimony from private sources has led the writer to consider it an important adjunct to the more common methods of using quinia. The quantity of oleate needed here is considerable, often amounting to one or two fluid drachms. Hence it should always be applied under oiled silk or gutta-percha tissue. When put directly on the skin, a minim will require about four square inches of surface or it will run, and a fluid drachm would require about two square feet of surface, an area hardly accessible under ordinary circumstances. But two pieces of very thin fine old muslin or linen, six by nine inches, will easily hold half a fluid drachm each, and may be applied to the inside of the thighs, covered by oiled silk. This leaves the abdomen available for another similar application if desirable, and the oleate can be renewed on these places as rapidly as it is absorbed. Another good way of applying it, especially in walking cases, to get a moderate continuous effect, is to anoint the spinal tract for an inch or more on each side of the spinous processes, morning and evening, with a half fluid drachm, and cover it with a strip of oiled silk under the clothing. The writer has heard of several instances in which a ringing in the ears was speedily produced by such applications of the oleate.

INTRODUCTORY LECTURE
ON THE PROVINCE OF ANATOMY.

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THIRTY years ago it would have been unnecessary, even for a new professor in a new place, to commence his lecture on anatomy by defining, in a somewhat apologetic strain, the position, in the medical curriculum, of the science which it is his province to teach. No one then questioned that upon a carefully taught anatomy as a foundation all sound medical teaching should be based.

Within the last few years, many changes have taken place; the range of medical study has widened, new subjects have been imported, and new branches of older subjects have largely developed; while the student is expected to master this increased curriculum in the same period as that which was formerly thought necessary for a much more limited course.

The consequences of these changes are obvious. Many of the new subjects, from their very novelty, from the attractiveness of their method, the skill of their teachers, as well as their intrinsic importance, now claim a large share of the student's attention; and to provide the time necessary for their study, there is a growing tendency to curtail that spent in the pursuit of other subjects, each teacher setting forth his own science as that of primary importance.

In this conflict of opinion, the relative positions of the sciences fundamental to the medical course is liable to be misunderstood; the older and less attractive falling into a position inferior to that which they really deserve, while at the same time the diversity of the student's occupation tends to encourage superficiality rather than thorough knowledge, so that the man who passes through the extended course in the prescribed time can rarely do more than absorb a smattering of each science.

The real solution of this difficulty, and that to which experience is fast bringing us, is the lengthening of the curriculum, so that in the additional year the balance of subjects of study can be more carefully adjusted with a due regard to their relative importance.

But we have not met together here and now to legislate as to the future arrangements of medical study, but to consider what position anatomy should occupy in your own system of studies, and how much of your time and attention you ought to give to it.

By your presence here, I assume that most of you intend to devote your lives to the study and practice of medicine or surgery. A few of you may be pursuing the subject for its own sake; some, I hope, with the prospect of being the scientific teachers of the future; but, judging from the history of Cambridge graduates in the past, I conclude that, even in this most favoured of schools, most of you wish for a kind of knowledge which you can turn to practical account; useful not merely for the intermediate ordeal of your examination, but also for your after-life of practice. If this be so, it is surely of foremost importance that you should have as perfect a knowledge as possible of the human body in health, and it is this knowledge which constitutes anatomy.

I wish you to bear in mind that anatomy is an exceedingly wide subject, one which requires to be viewed in two aspects, as an art and as a science. The art of the anatomist deals with the examination of the structure of the human body, not only of its coarser larger arrangements, recognisable by the naked eye, and separable by the knife and forceps, but also of the finer building up of the textures, the minute organisation revealed by the microscope, seen in sections, developed by reagents—in short, with the unfolding of the physical characters and relations of the component parts of the human body, including all that we now call histology, which is but one small subdivision of anatomy.

But the science of anatomy is much wider than the art. Every tissue and every organ in the body has had a history, which it is the business of the anatomist to search out and record. At some period in the life of the individual, it has begun to be, and, through many vicissitudes of time and circumstance, has attained to its adult condition. This branch of our science we call embryology; but it is simply the historical side of anatomy, essential to and inseparable from the rest of the science, to which we shall have frequent occa-

sion to refer, and without which we cannot understand the structure of the full-grown body.

But our observations on these changes in the course of growth lead us to believe that structural development has not occurred fortuitously, but proceeds along definite lines; and also that, for each change in condition, there are inducing causes, which are often discoverable by careful study. It is the business of the anatomist to seek to formulate these laws of organisation, and thereby to raise his department from a state of mere empiricism to the position of a true science. The empirical anatomist finds in the body a tangled maze of muscles, nerves, and vessels, which his art enables him to unravel, but does not help him to understand. It is for the scientific anatomist to seek for an order in the confusion, an efficient causation underlying every structural differentiation, and a clue through the maze, not only to lead him to thread his way through it, but also to help him to understand why the maze is there at all, and how it has come to be. This department of anatomy, which is known as morphology, is the portion of our science of the greatest interest to the student of biology, and to it much of our attention will be directed in the course of our systematic anatomical studies.

These several departments of anatomy are so mutually interdependent, that no boundary can be drawn isolating any of them; and no course of anatomical teaching is complete which does not comprehend not only descriptive anatomy in its narrow dissecting-room sense, but also histology, embryology, and morphology. And if, for convenience of teaching, it becomes desirable to lend a portion of the practical study of certain branches to other cognate sciences, it is not to be understood that thereby I yield one jot of the claim of anatomy to include them, but simply that, in a great school, it is needful that the amount of work should be properly proportioned among its several professors. Human anatomy is thus in itself a widely extended science, and stands in close relations to neighbouring and allied sciences. Man is an animal, and his anatomy should be regarded as a natural history monograph. He is built on the same principles as his neighbours, and in most respects he is the best primary type for us to study for the purposes of comparative anatomy. As no one type, however, suits for the demonstration of all morphological laws, and as many of the principles of animal organisation can be better understood and illustrated by the study of simpler forms, we require, therefore, to make frequent calls upon other animals to explain obscure points in human anatomy, and thus human anatomy is brought into close relations with comparative anatomy. Man is truly a microcosm, in a sense not dreamed of by Paracelsus and those philosophers who have followed him in the use of the term. In man's embryological history we read, epitomised, several chapters in the book of nature. Beginning life as a protozoon in the egg, he passes, as development proceeds, into the condition of a simple metazoon, a diblastula, and thence becoming triploblastic, we have metameric subdivision taking place, introducing a successional symmetry, and also the formation and subsequent supplanting of the notochord; and thus we learn from this one life-history alone the progression of the phenomena of life, from the state of a simple cell to that of the highest organism in the world.

On the one side, thus, we see that human anatomy is but a branch of general morphology; on the other side, we cannot study form and structure without reference to purpose and function. The human body is a bundle of specialised parts, each plainly set apart for certain work; and we should be blind if we did not, in examining these parts, keep in mind their uses and modes of working. This is the special domain of physiology; and while in such an immense group of sciences it is necessary that, for the convenience of teaching, the two should be separated, and taught in separate ways and by distinct teachers, yet it is obvious that the boundary-line between the two is hard to be drawn, as the points of overlap are many; and it is equally manifest that the knowledge of structure must precede the understanding of function.

Another important scientific relation of human anatomy is to the science of anthropology. The different races of mankind present to us a special case of a species being modified by the influence of physical and psychical factors; and the study of the effects of these environments on the organisation of man is one of the most interesting branches of anatomy. We shall have occasional opportunities of referring to parts of this most important subject in the course of our systematic studies; but I hope also to take an early opportunity of expounding to any of you who may be specially interested in it the anatomical basis of anthropology more systematically and in greater detail.

It has been occasionally said that it is a waste of the student's time to spend much of it in the study of practical human anatomy, as much of the knowledge gained by the slow and laborious process of dissection speedily passes out of recollection. The same is equally true of all the fundamental sciences, and equally erroneous as a reason against their study. That it is equally true of chemistry, physiology, and physics, as of anatomy, is the experience of all. What proportion of the most brilliant of scientific students, after ten years of medical practice, could give the formulæ and history of the formation of indican and its allies; could describe the distinctive characters of Bunsen's, Regnault's, and Mayer's calorimeters; or could recount the phenomena produced by the influence of electricity on muscle, under different conditions, and describe the various apparatuses used in the demonstrations thereof? Yet who dare say that this failure of the memory is a reason why these sciences should not be fully taught and fully learned? These are the ladders whereby the student climbs into the vantage-ground whence he can survey human life and human disease; and when the mind has once travelled in a certain track, it is easy to revive the impressions received by the way, and the forgotten anatomy is far easier recalled than it was at first acquired. There is not a single fact in human anatomy the knowledge of which may not prove of practical importance to you in your after-life; and you will never regret, in future years, the time spent in dissecting-room work.

The study of structure is a necessary prelude to the understanding of function; and, so far, anatomy is the handmaiden of physiology; but we shall discover, as we proceed, that this is but one aspect, and that structure is worthy of attention for its own sake. Abernethy once said in his lectures that anatomy without physiology was like an old maid without a dowry. But, if this be true, physiology without anatomy is the dower of an unwilling bride who avails herself to the full of the Married Woman's Property Act. The two sciences are collateral and inseparable, and one has no right to dominate the other, or to say to it, "I have no need of thee," but they are so connected that there can properly be neither schism nor rivalry between them; and for your purposes as students of medicine, an extensive knowledge of both is necessary.

That this is so, it requires but little reflection to comprehend. To use a comparison trite though apposite, it is just as necessary for you to know the anatomy and physiology of man, to help you to repair a damaged human body, as it is for a watchmaker to know the mechanism of a watch before he can repair one. How little could you trust a valuable instrument for mending to a mechanic who, though he could discourse learnedly upon epicyclic, hypocyclic, or involute teeth, or the differing qualities of the sounds of internal and external contact of the escapement-teeth, had yet only a hazy and uncertain idea of the arrangement of the component wheels and pinions of which the watch is made up. So, likewise, the physician who can recite the formulæ for the bile-pigments while uncertain as to the course of the vena portæ, or he who can speak of the cardiograph while ignorant of the true levels of the openings of the heart-chambers, would be as unlikely to prove a satisfactory practitioner as one whose knowledge is of the reverse kind.

For purposes of surgery, you must study descriptive anatomy with particular care, for your knowledge is nothing if not accurate. It is useless to know the names, relations, and branches of the femoral artery, if your knowledge of the position of the vessel be vague and indeterminate. In order that knowledge may be useful, it must be graphic—such a knowledge that, with little mental effort, you can picture before your mind's eye the parts and their arrangements as you have dissected them out for yourselves, or have seen them demonstrated by others. Any form of knowledge short of this mental photography is of little use in surgery; and to help you in the formation and recollection of such pictures, it is of the utmost importance that you should try to realise the exact place of every part in your own body. You are examining, let us suppose, the heart. You see its place in the opened thorax; endeavour to realise exactly the site and level of each cavity and opening; try to picture mentally the situations and planes of the valves of your own hearts; and, having done this, you have provided yourselves with a permanent note-book, an unfailing remembrancer, immeasurably superior to the waistcoat-pocket cram-books of the period. An eminent surgeon, Murray, describing the operation of ligature of the abdominal aorta, speaks of dissecting off the aortic plexus of nerves from the vessel "with my mind at my finger-tips." This is the character of the knowledge you require for surgery, and this is the standard at which you should aim.

But it is not only to the surgeon that a minute knowledge of anatomy is of importance; the physician needs an acquaintance no

less close and accurate, for there is scarcely a nerve-twig in the body which may not be concerned in the production of symptoms connected with, often characteristic of, diseased conditions in remote organs. Your knowledge of the anatomy of the spinal cord helps you to localise lesions therein; and your acquaintance with nervous anatomy aids you in unravelling the mysteries of referred sensations. By knowing the vascular anatomy, you can understand, and so palliate, the distal consequences of valvular disease of the heart. In short, without a knowledge of normal healthy anatomy, how can you recognise the abnormal or diseased? Without anatomy, which is the foundation and antecedent of all pathology, you will be mere empirics; like Job's friends, "physicians of contemptible trifles."

Having thus seen that the study of anatomy is of vital importance to the physician and surgeon, I desire now to speak of anatomical study in another light, as a mental discipline. The method of research pursued by the physician or surgeon in the diagnosis of disease closely resembles that whereby a naturalist studies an unknown species. The process of search for distinctive characters is the same, and success in both cases depends on the culture of the powers of observation, as well as on the judicious reasoning upon the phenomena observed. In these respects, the study of anatomy is a splendid introductory gymnasium; here you can find out facts for yourselves, you can verify every single statement, you learn to take nothing for granted, nothing on mere authority. At the outset of the student's course, it is of unspeakable value that he should begin with such a subject, in which he is brought face to face with tangible objective realities, easily grasped, easily understood. Hence the wisdom of making all students begin their course with practical anatomy; as in its pursuit, perhaps more than in any other part of the course, the faculty of observation is specially trained; besides, the exercise of the memory on things which can be seen and felt strengthens it; and, even though some of the knowledge thus acquired be transitory, yet as a drilling it is of the utmost value; indeed, I believe that a course of osteology is the most sound commencement of study in theory, as it is the most useful in practice.

This educational importance of anatomy is enhanced by the fact that while, on account of the existence of a small range of individual variation in structure, there is sufficient of novelty in the student's work to increase his interest and arouse his attention, yet the main tracks are beaten, and he has reliable light and guiding all the way, and is not in danger of being prematurely lured astray to follow the chimera of original research. Nothing is more hazardous for the junior student than to be misled into undertaking so-called original investigations before a proper foundation of knowledge is laid. It is for another, and much later period of the student's course, to embark in the search for the unknown; when he has, by a proper training in the known, acquired experience and modesty sufficient to enable both the science and himself to profit by his labours. I would warn you, at the outset of your study, of the mistake often made by students of confounding names and things. Anatomy being descriptive, is necessarily encumbered with a copious and peculiar vocabulary; over 8,000 parts of the human body have had special names affixed to them, and some groan under the burden of many synonyms. All these you might know, and yet know nothing of anatomy. Learn to understand the parts themselves; the names are of use in enabling us to refer to the realities, and are otherwise useless.

Here your professor can help you by showing you the best methods of learning and the relative importance of the several parts, thus aiding you in acquiring the knowledge necessary, with the best economy of time and labour.

An accusation has been made against anatomy, that it is a stationary science, that nothing now remains to be made out in it. Even if this were true, there would be none the less reason for your learning it, for its obvious practical applications; but it is eminently untrue. Anatomy is progressive, even human anatomy. Compare the modern handbooks of Henle, Krause, and Gegenbaur, with those of the equally great men of the preceding age, Sömmerring, Weber, and Meckel; and you will see that the former have gained on the latter as much as, or even more than, the earlier authors had advanced beyond their predecessors, such as Fabricius, Morgagni, or Winslow. Even yet there are immense gaps in our knowledge of human anatomy, where still the unknown exceeds the known; thus the whole subject of anatomical statistics is at present in a most unsatisfactory condition; and, as Professor Wenzel Gruber has shown in a recent paper, the attempts to cook statistics from data which are not always comparable, only end in making confusion worse confounded. This is eminently a place wherein a new departure is required; and I have been long of opinion that this is a sphere for the co-operation of anatomists somewhat on the plan of the collective investigation of disease, so happily initiated by Professor Humphry. Then, again, we know next to nothing of the embryogeny of individual muscles; even the history of the ossification of many of the bones is as yet imperfect, as is that of the genesis of many ligaments. We know little accurately of the relative calibres of the vessels, the disposition of their valves, of the mutual relations and exact disposition of the component parts of the abdominal sympathetic. As a matter of fact, to take only one more instance, there is not a single English manual of anatomy which gives correctly the exact origins of the muscles of the forearm. In short, there is scarcely a department of anatomy which does not present to us problems as yet unsolved. Even within the last three years, we have seen a hot controversy as to the exact position of the stomach; and it is not more than ten years since, for the first time, a correct account was given of the attachments of that surgically important structure, the fascia lata of the thigh; and even in that account there are important lacunæ. And if, from the region of descriptive anatomy, we travel into that of morphology, we are at once surrounded with obscure problems—the diverse innervations of the orbital muscles, the reason for the cervical origin of the nerve to the diaphragm, and for the recurrence of the inferior laryngeal nerve, the history of the formation and causation of the great omentum, and hundreds of similar mysteries, hitherto only partially solved or still inscrutable.

With such ample scope for research before those of you who wish to devote yourselves to scientific work, there is every incentive to effort; and it should be your endeavour to master the known before venturing on the unknown, and whether you intend ultimately to pursue the path of investigation or that of practice, your preparatory course and methods are the same; there is, in your work as students, no dichotomy. I emphasise this because, in a recently published address, my friend, Professor Gairdner of Glasgow, has quoted a statement of some person in reference to the Cambridge school which would seem to imply the contrary, as if there was really any distinction between the kind of knowledge of the fundamental sciences required in the training of the practitioner and of the scientific student. True, there is an old-fashioned so-called anatomy and physiology, replete with crudities, which may yet linger in out of the way corners of medical schools, very inconsistent with a scientific morphology and physiology, equally unfit for the requirements of the modern practitioner; but I unhesitatingly deny that any branch, either of anatomy or of physiology, can be too scientific for the needs of the medical student, or that the purely scientific aspects of these sciences are necessarily divorced from their practical bearing.

A second reproach has been cast upon anatomy—that it is only a knowledge of averages. There is certainly a range of variability among human structures, and the ordinary student is only expected to learn the commonest condition of things; but far too much has been made of this as an *opprobrium anatomicum*, for there is, in every organ and system, a certain definite, easily recognised normal state, about which it is the student's business to learn, the departures from which are exceptional, often important, always along definite lines, and always pregnant with morphological lessons. Thus while, in the larger treatises, about forty-two varieties of the aortic arch and its primary branches are described, yet there is only one easily recognised condition which is typical, all the others being rare, and, when they occur, due to the persistence of conditions which are usually embryonic and transitory; so that, knowing the embryogeny of the aorta and its branches, we can at once understand every condition with which we meet. Thus the commonest of all irregularities is that in which the right subclavian is the left-most branch of the arch, and passes behind the trachea and œsophagus, a state apparently far from the normal, yet easily enough understood when we remember the double origin of the aortic arch; for while, in the normal state, the portion of the right arch below the origin of the right subclavian is the part which obliterates and vanishes, in this variety that part persists, from the root of the right subclavian, and the portion between the right carotid and right subclavian disappears.

These deviations are thus significant finger-posts, and their careful study will well repay the anatomist, as those parts which are most variable are always those whose history has been the most complex; and we no longer label aberrant monsters, as Ruysch did of old, as forms like unto cacodæmons, but we endeavour to trace the stages whereby they have deviated from the normal.

Descriptive anatomy in many respects resembles geography, and

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TO ILLUSTRATE THE PAPER BY MR. LENNOX BROWNE ON PHOTOGRAPHY OF THE LARYNX AND SOFT PALATE.

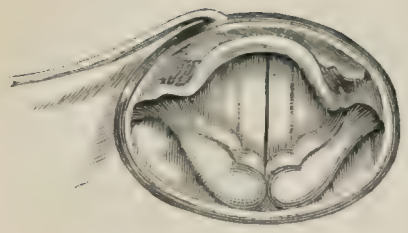


Fig. 2.—Copied from original Photograph of the Larynx singing in Upper Chest or "Upper Thick" register.



Fig. 1.—Original and untouched Photograph of the Larynx singing falsetto.



Fig. 3.—Facsimile copy of Czermak's lithographic illustration, Taf. II., fig. 6. "Der Kehlkopf-spiegel," Leipzig, 1863.

PHOTOGRAPHY OF THE LARYNX.

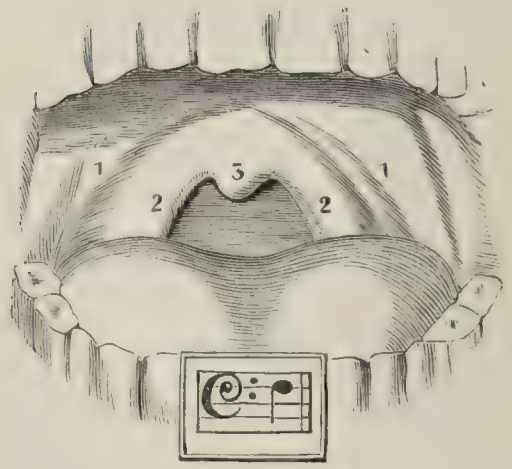


Fig. 4.

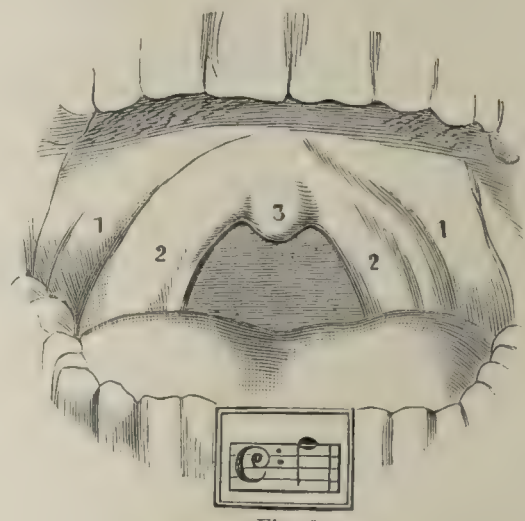


Fig. 5.

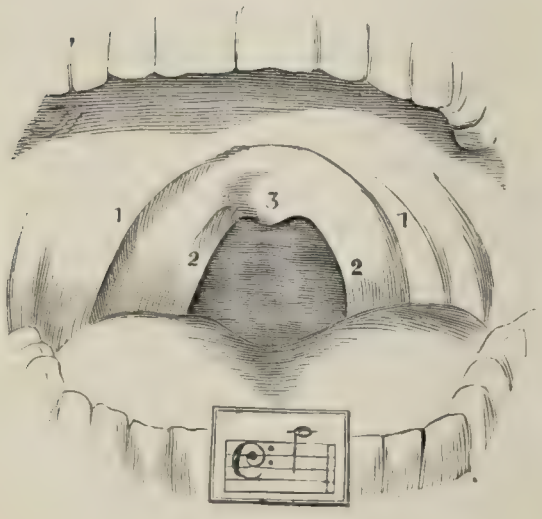


Fig. 6.

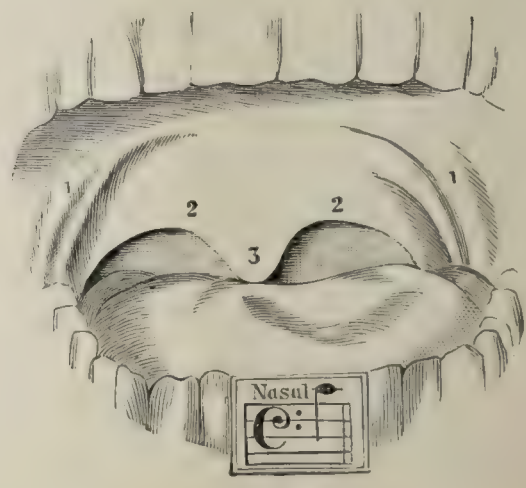


Fig. 7.

Facsimile Engravings from Photographs of Soft Palate in production of various Musical Tones. Drawn by Lennox Browne.

1, 1, Anterior pillars of Fauces; 2, 2, Posterior pillars; 3, Uvula.

the degree of minuteness required depends on the purposes for which we learn it. A broad accurate knowledge of its leading features is essential as a branch of general education; but, just as the engineer or geologist requires a knowledge, as much as possible, of the territory within which he operates, so the morphologist or the practitioner requires an equally thorough knowledge of the parts with which he is concerned, for structures apparently insignificant may really be of great importance. The bands of fibrous tissue described by Cooper, Hey, and Colles, seem in normal anatomy small and obscure, yet the proper understanding of the pathology of hernia, and the proper operating for it, depend on acquaintance with these. Similarly, it may seem of trifling moment to delay to notice that little crescentic fold of pericardium, not more than one-sixth of a square inch in surface, which lies to the left of the top of the left auricle; yet a historical study shows that this minute fold is the degenerated remains of the sheath of the left superior vena cava; and thus the insignificant trifles of descriptive anatomy become frequently the beacons of morphology.

On this account, the amount of minuteness and detail in our descriptions depends on the requirements of the student, and the problems to be solved thereby. We trace with painful minuteness the fibres of the spinal cord, while we give but scanty attention to the equally complex fibres of the ilio-costalis muscle; hence also, as new problems present themselves for solution in surgery, pathology, and physiology, new calls are made on the anatomist, and new details require to be added to his treatises. For example, it is not long since a very few sentences in our anatomical text-books sufficed for the description of the brain-convolutions; and the growth of this section in the successive editions of any of our standard manuals, such as Gray, Ellis, or Quain, shows the progressing stages of the requirements of a more detailed knowledge, whereby a new chapter has been added to our descriptive anatomy.

Here, again, your professor can help you by giving, in advance of the text-books, the information needed to help in solving these problems.

We offer you two methods of anatomical instruction: that of the dissecting-room, and that of the lecture-room. In the first, you are to learn the art of the anatomist; in the second, I shall endeavour to teach the science of anatomy. In the former, you learn to cultivate your powers of observation and manipulative skill; in the latter, your memory is to be impressed and your judgment educated. In both, I shall do what I can to help you in prosecuting your studies.

We commence this day the study of the oldest of the sciences; for the first book ever written was on the anatomy of man, and the first author on Anatomy was a King; but though several thousand years have well-nigh passed since this archaic manual was composed, yet I shall be grievously disappointed if you do not find, in the course of your study, that there is still, in this oldest of subjects, a freshness and an interest wherein it is not one whit behind its newest competitor.

THE CONTAGIOUS DISEASES ACTS.—A largely attended conference of delegates of the Anti-Contagious Diseases Acts Abolition Associations was held yesterday at Birmingham, under the presidency of Professor James Stuart. Mr. Stansfeld, M.P., was present, and took part in the proceedings. The principal resolution passed called on repeal organisations by public meetings, memorials, petitions, and all other legitimate means, to assist Mr. Stansfeld and his colleagues in securing that full legislative effect should be given, at the earliest possible opportunity, to the resolution of the 20th of April last, by a measure which, while totally repealing the Contagious Diseases Acts, 1866 and 1869, should not in any way enact anything directly or indirectly authorising or permitting the compulsory examination condemned by that resolution. A form of petition to the Government was adopted, of similar effect.

THE MANAGEMENT OF HOSPITALS.—The vice-presidents of the Hospital Saturday Fund have issued a letter in which they state that the majority of the hospitals and dispensaries benefiting by the fund have expressed their willingness to concur in a scheme by which one life-governor may be appointed to any hospital receiving not less than £50, or to a dispensary receiving not less than £25. They point out that there are collectors of the fund in 3,000 workshops in London, representing an aggregate of 250,000 men, and that working men, such as have formed and managed friendly societies and other successful industrial associations, ought not to be excluded from representation upon institutions designed for the benefit of the sick poor.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON PHOTOGRAPHY OF THE LARYNX AND SOFT PALATE.

Read in the Section of Anatomy and Physiology.

BY LENNOX BROWNE, F.R.C.S.Edin.,

Senior Surgeon to the Central London Throat and Ear Hospital; Surgeon and Aural Surgeon to the Royal Society of Musicians.

I SHALL have the pleasure of bringing before you this morning some photographs of the larynx and of the soft palate in the act of singing. It will be as well first to glance at the section of the head by Luschka, which I am now throwing upon the screen,[1] so that we may refresh our memory as to the exact position of the various parts to be dealt with in my paper. Having briefly done this, you will see at once how enormous are the difficulties of photographing an object so hidden from view as the larynx, which is, moreover, continually moving in one way or another. As a natural consequence, although many attempts have been made to photograph the larynx, the results hitherto obtained, as you shall judge for yourselves, are not very satisfactory, and certainly do not teach much. So far as I know, of the many men who are said to have tried the experiment, only two have published any results: these are Professor Czermak of Pesth, and Dr. French of Brooklyn. Dr. Stein of Frankfort-on-the-Main, it is true, gives, in his well-known work on *Light*, a detailed description of the process which he adopted in photographing the larynx; but, as he has not published any pictures in his profusely illustrated work, I suppose we are justified in assuming that he obtained none, or at least none to his satisfaction.

The photographs of both Czermak and French having been thrown on the screen, you will see that both leave very much to be desired. In the first, the only parts which are at all plain are the epiglottis, the vocal ligaments, and the pocket-ligaments. These two pairs of ligaments are, indeed, as compared with other lines, so remarkably sharp and clear, that one cannot doubt that the pencil of the *retoucheur* has been actively at work; and the more so, since, as you will presently see, these are just the parts most difficult to define in photography. The result, however, is, in any case, considering that the picture was taken at least twenty-five years ago, very remarkable. The photograph of Dr. French of Brooklyn, published by him in the *Archives of Laryngology*, in June of last year, is certainly not more satisfactory than that of Czermak; but I understand, and am glad to record, that Dr. French has been more successful in later attempts. He has also, I believe, succeeded in photographing the posterior nares—an achievement to priority in which he is justly entitled. And now to our own photographs: they were taken to illustrate a book entitled *Voice, Song, and Speech*, which I have just finished in MS., together with my friend, Mr. Behnke, a lecturer on vocal physiology and teacher of voice-production in London. Mr. Behnke told me that, twelve years ago, he obtained a photograph of the laryngeal image with no better illumination than that of the lime-light, and without the immense advantage of the gelatine plates of the present day. He was, therefore, sanguine of success, and we set to work accordingly. Mr. Bolas, the editor of the *Photographic News*, kindly gave us the benefit of his advice, and introduced us to three gentlemen, whose names it is impossible not here to mention, because, without their generous help and their inexhaustible resources, we could never have overcome the difficulties which continued to present themselves; and we desire here publicly to acknowledge our deepest obligation to them all. Mr. H. T. Wood, the accomplished Secretary of the Society of Arts, placed at our disposal the laboratory of the Society, combining a photographic studio with dynamo-electric machinery, and personally assisted us

[1] In the demonstrations at Liverpool, all illustrations were shown by means of a dissolving magic lantern, with oxyhydrogen illumination, and Mr. Emil Behnke sang the various notes indicated in the photographs, each time they were exhibited.

in many ways. Mr. James Cadett, an inventor and amateur photographer of the highest scientific attainments, devoted many days of his valuable time to our experiments; and he designed the very ingenious apparatus with which we eventually succeeded.

Time will not admit of my giving a detailed account of our experiments. Suffice it to say that we first used two large round flasks, filled with a solution of alum to absorb the heat, and then employed them as condensers for two powerful electric lights, kindly lent and put up for us by Sir William Siemens. This method of direct illumination we had to abandon as clumsy and unmanageable; and we then used an apparatus of Mr. Cadett's construction, consisting of, first, a Siemens' electric light, of about 10,000 candle-power; secondly, a water chamber-lens, through which a current of water was constantly flowing, so as to absorb as much as possible of the heat-rays; thirdly, a condenser consisting of two plano-convex lenses; and, fourthly, a mirror, with a plane surface, to reflect the light. This apparatus underwent many slight modifications and alterations, as the result of our joint experience and suggestions, on the many and various occasions of our meeting; but the foregoing is a sufficiently complete account of our means of illumination.

I now throw a photograph on the screen, showing the process by which it was obtained. Mr. Behnke has, in his right hand, the laryngeal mirror; he sees himself in a small looking-glass attached to the shutter of the camera, so that the image should be in an exact line with the sensitive plate. This arrangement, so apparently obvious and trivial, alone constitutes a most important improvement in the method hitherto employed by other operators. The operator, having focussed this view, jointly agreed by us to be a good one, the sitter is seen to have just given the signal by dropping the upraised index-finger of his left hand for the shutter to be raised. The exposure was about a quarter of a second, and the photograph now before you is the result.[2] The transparency is made from the original negative, and is absolutely untouched. You notice some spots on the teeth and on the back of the throat caused by moisture; not even these have been interfered with. The two very bright marks on the spectacles are caused by the reflection of the light upon the edges of the very dark goggles which Mr. Behnke, and, indeed, others of us also, had to wear to protect the eyes from the glare of the powerful illumination. This photograph effectually disposes of the oft-repeated objection that observations with the laryngoscope are, so far as voice-production is concerned, valueless, because it is necessary, in order to obtain a view, to pull out the tongue, and to hold it fast with a cloth, thereby distorting the laryngeal images. Mr. Behnke has that control over his tongue which every singer should have; it lies perfectly flat in his mouth, and the marvellously perfect laryngeal image is that of an absolutely undistorted larynx. I may say that, as one small result of this experience, I have since been in the habit of always endeavouring to obtain a view of the larynx, without holding the tongue, before I submit my patient to that disagreeable process; and I have been somewhat surprised to find in how large a proportion of cases a successful examination is so obtained. I have also found that traction on the tongue may materially affect the laryngeal picture. We shall see this same image again much magnified, and I reserve till then the further observations that I have to make upon it.

The next four images are not quite untouched, because the glare of illumination in photography with the electric light somewhat interferes with clear definition between the vocal ligaments and the pocket-ligaments. The fact that the photograph is the picture of a reflection in a glass mirror, also accounts, to some extent, for this defect. I am responsible for all these touchings, which were confined to simply tinting the pocket-ligaments, which I did from nature, Mr. Behnke singing the same tones he sang when the photographs were taken. You will presently have an opportunity of inspecting Mr. Behnke's larynx, and you may then judge for yourselves whether this delineation has been correctly made. I do not think, looking at the untouched photographs, that you will accuse us, to any great extent, of supplementary work. The surface of this photograph, a copy of which will be given when these remarks are published in the JOURNAL, Fig. 1 in this paper, is absolutely untouched. Fig. 2 shows the upper chest, or upper thick register. The note sung was C on the first ledger-line, above the bass clef, which Mr. Behnke now repeats. You see plainly the epiglottis or lid, the pocket-ligaments or ventricular bands, the vocal ligaments, the hyoid fossæ, with even the prominence of the hyoid bone, the cartilages of Santorini and of Wrisberg; and, further, the bases or inferior borders of the arytenoids. It would surely be impossible to desire or expect a more complete laryngeal photograph than this now before you.

Now we come to a rather curious point, namely, the difference between the appearance of the arytenoid cartilages as here seen, and that of the images which we are accustomed to see in books. I throw on the screen (Fig. 3) an image published many years ago by Czermak, and which has probably been copied more frequently than any other. It is certainly the one which first inspired my own observations, and has influenced my eye in the many hundreds—I may say thousands—of laryngeal pictures I have attempted to delineate. Look at the arytenoid cartilages here, and now look at them again in the photographs (Figs. 1 and 2), when you will clearly perceive a great difference. The apparently double outlines in the photographs for a long while greatly perplexed us, and we did not know what to make of them. We first hit upon the idea that they were due to double reflexion in the laryngeal mirror, one on the surface and the other on the silvered back; and, to overcome this difficulty, we had mirrors silvered on the surface; indeed, several of these pictures are taken with such a mirror. The result was the same as before, and we now tried to account for it by a shifting of the laryngeal mirror, or as the result of the strong vibrations into which the parts were thrown; though in either case, if this had been so, the epiglottis, the vocal cords themselves, and other parts, ought also to have been doubled. In fact, we tried in every conceivable way to account for what we considered a blemish; and it was only after much needless trouble and great waste of time that the thought struck me to compare the photograph with Mr. Behnke's own larynx, as seen in the ordinary way with the laryngoscope, and I then discovered that the photograph (as we might have guessed at once) was right and the conventional image wrong; because, when the larynx is, as in most cases, looked into from in front, there must be double outlines, due to the perspective view of the interior surfaces of the arytenoid cartilages. The extent of this portion which will be visible will depend largely on the view obtained. If we see the whole under-surface of the epiglottis, that is, of the anterior wall of the funnel or tunnel of the larynx, we shall obviously expect to see less of the posterior, and *vice versâ*. In these photographs, you will observe that the cushion of the epiglottis and the anterior insertion of the vocal ligaments is not seen. Hence we get a full view in perspective of the posterior wall of the larynx. The whole experience is but one more proof, so constantly occurring in our professional work, of the way we allow our judgment to be warped and our vision distorted by things, however false, to which we may happen to be accustomed, or which we have accepted on the fiat of another, until at last we positively refuse to believe in truth itself when it is accidentally revealed to us. In the photograph now on the screen, No. 1, which is an enlargement of the first laryngeal image you saw, a great alteration is noticeable in the rima glottidis, which is very large. The tone produced with this mechanism is poor and vapoury, and accompanied by a great waste of air. It is essentially a false production of tone; hence the name "falsetto," which is very appropriate. The tone sung was the E on the second ledger-line above the bass clef, which Mr. Behnke is now repeating. This mechanism must not be mistaken for that of the upper thin register, generally called the mixed voice, which term, however, in point of fact, does not denote exactly the same thing. To give, in the time at my command, anything like an explanation of these matters, is manifestly impossible, but I wish to call attention to two points of difference between these registers, which are capable of being easily verified. In falsetto, the rima glottidis is open; in the "lower thin," it is closed. In falsetto, the soft palate is relaxed; in the "lower thin," it is contracted in a very high degree. While in falsetto, therefore, all parts are loose and lax, in the "lower thin," on the contrary, everything is tense and contracted. In falsetto, the larynx stands, moreover, very high, so that it combines all the most favourable conditions for affording a good view of the interior. This is obviously the reason why the larynx is more easily photographed in this register than in any other. The question may be asked, why we do not also show a photograph of the "lower thin?" and the answer is that, with the light thrown into the larynx from above, there is nothing but an apparent absence of vibration to distinguish it from the upper thick. The real difference is made manifest by illuminating the larynx with a powerful light through the throat, as was done by Czermak, and by then looking at the vocal ligaments in the usual way from above. To photograph the vocal ligaments under the conditions of light indicated is, of course, impossible; but it would be seen that the vocal ligaments are, in the "thin,"

[2] This photograph, which cannot be here reproduced, will be published as frontispiece of the work alluded to; but an enlargement of that portion, showing the laryngeal image, constitutes the picture given with this paper.

quite transparent, while, in the "thick" register, they are very opaque. The vocal ligaments are, therefore, clearly much less bulky in the "thin" register than in the "thick," a difference brought about probably by a contraction of the vertical bundles of the thyro-arytenoideus externus. It will be observed how perfectly appropriate and scientifically exact are the terms "thick," "thin," and "small" registers, and how much more they convey than the more common ones, "chest," "falsetto," and "head." It may interest you to know that they originated with the late Mr. John Curwen, the founder of the tonic sol-fa system.

It must be borne in mind that, while we are duly grateful for the success so far obtained, we yet look upon our past labours merely as a beginning, and we hope, at some future occasion, to be able to show the larynx under circumstances which, with the means hitherto at our disposal, it was impossible to demonstrate. We trust also to obtain some images of the female larynx, and to prove thereby, what we boldly assert, that the female vocal organ is not simply a reproduction on a smaller scale of that of the male, but that it has special arrangements and capabilities for production of certain tones, which, except in boyhood, are not often found in the male sex. We are now having a special apparatus made according to a design by Mr. Cadett, in which advantage is taken of the experience gained in our former experiments; and we hope that, with sunlight reflected by a heliostat, and with specially prepared extra quick plates, there will be nothing seen in the larynx, however passingly, that cannot also be photographed at the same time.

I now show an enlargement of our first laryngeal image, which is, as I have said before, absolutely untouched. The only thing unsatisfactory, and to some extent even misleading, is the want of contrast between the white vocal ligaments and the pink pocket-ligaments, as illustrated by the electric light, a drawback to which allusion has already been made, and which may possibly be, to some extent, overcome by the proposed future use of sunlight. From the two comparatively speaking narrow white strips which appear in this photograph, it might be imagined that the pocket-ligaments are less widely separated than is actually the case, so that the vocal ligaments are but very narrow fibrous strips. In order to show how that matter really stands, I exhibit the same image again, but this time coloured by myself from nature, without, however, altering any outlines; and it will be seen hereafter, by Mr. Behnke's demonstration, that this is the most exact picture of his larynx which it is possible to conceive. As another illustration, and by way of appendix to our remarks on conventional laryngeal pictures, you will observe that there is no strong line of shadow or dark ellipse, as usually depicted to define the entrance to the pocket or ventricle of Morgagni. This is the last of our laryngeal images.

I pass on to bring under your notice a series of photographs, showing the different positions assumed by the soft palate in the production of tones differing in pitch or quality. It has long been felt by a few that the soft palate, by its continual variations, exercises great influence upon the tone, and I have myself insisted on this point very strongly in my short *Medical Hints on the Singing Voice*, published in 1876, but the matter has never received the attention it deserves. Mr. Behnke has been first among the teachers to demonstrate, at least in his published writings, that the soft palate may be educated by simple gymnastics, thereby making it tense, and enabling it to retract to a remarkable degree, facilitating the production of high tones, and increasing the resonance of the voice. The influence of the soft palate upon the pitch of the voice is probably due to the action of the palato-pharyngei muscles, which pass from the soft palate down to the upper horns of the thyroid cartilage; so that the raising and tightening of the soft palate, in conjunction with the muscles just named, has the effect of approximating the upper horns of the thyroid, thereby narrowing the tube above the vocal ligaments, and assisting in the formation of high tones.

The influence of the soft palate upon the quality of the voice is easily demonstrated, and depends entirely upon its degree of closure with the back of the pharynx, and the greater or smaller amount of nasal resonance consequent thereupon.

The picture upon the screen (No. 4) shows the soft palate in singing the F as indicated below, and now uttered by Mr. Behnke; 1 shows the anterior, and 2 the posterior pillars of the fauces; 3 is the uvula—be careful to notice the shape of the arch 2 3 2. The next photograph (No. 5) shows the soft palate in singing the A, which Mr. Behnke will again give us. Notice how much higher the arch is than in the preceding picture. Here (No. 6) Mr. Behnke sings the C marked in the scale, and the arch is higher and narrower still than before, while the uvula has contracted so much as to have almost completely disappeared. Observe that, with the soft palate thus raised and contracted, the tone sung is pure and resonant.

Now look at the next photograph (No. 7), which presents a totally different picture, although the tone sung is exactly the same in pitch as the preceding one. The arch 2 3 2 has completely collapsed, and the uvula is long and pendant. The tone produced with the soft palate in this position has a strong nasal quality, and is greatly wanting in resonance, as you all hear now that Mr. Behnke is singing it. The operator will throw the last two pictures a few times upon the screen alternately while my coadjutor sings. By this joint process, pictorial and vocal, you will have most strikingly demonstrated the powerful influence of the soft palate upon the voice. The result should effectually silence objections to snipping the uvula in cases where great relaxation has produced actual paresis of the palatal muscles; and the same remark would apply to removal of enlarged tonsils. Happily, Mr. Behnke's throat is so well constituted that we cannot demonstrate this last statement practically by his example, for his tonsils are as they should be, practically not objective. I may say that the last photograph seems greatly to stagger some of my friends, and they are evidently inclined to doubt whether it is quite genuine. I therefore wish to state most emphatically that in these soft palate photographs, we have only painted out a few spots caused by moisture, which gave the pictures in one or two instances an appearance rather pathological than physiological, but we have not altered any outlines whatever. I now throw a photograph on the screen, a transparency of the absolutely untouched original from which the preceding one has been enlarged; and I think you will agree with me that it completely proves my assertion.

I prefer to allow these photographs that I have had the honour of showing you speak for themselves; and I do not propose to trespass on your patience by any protracted or exaggerated statements as to their value. The interest and the importance of the subject and of our results are both sufficiently obvious. This one lesson, however, I wish most strongly to enforce—that these photographs of the larynx, although exceptionally successful on account of exceptional conditions necessary to success, do not illustrate exceptional appearances, but represent the glottic chink and the position of the vocal ligaments as they must always exist in production of the respectively produced vocal tones, and that, whatever process of teaching or production be employed, the act, so far as the larynx is concerned, is purely automatic. The faults in singing are mainly two: 1. singing with an insufficient amount of air or with imperfect control over the respiration; 2. an undue extension—generally upwards—of the registers. This is frequent in baritones who wish to be tenors. It is very common in some orators, especially clergymen. The result is congestion, not only of the vocal ligaments, but especially also of the pharynx, in which, as the result of forcing, the condition known as granular pharyngitis with varicose veins—a disease very analogous to that of rectal hæmorrhoids—is observed. Now, although the larynx should always be examined by means of the laryngoscope in all cases of vocal trouble, it is astonishing how seldom there is actual disease calling for direct local treatment. Where such exists, the prognosis must always be grave. As a corollary to this statement—of the accuracy of which daily experience assures me—a permanent cure, or indeed any effectual relief, can only be brought about by hygienic and elocutionary instruction on scientific and physiological principles, as a supplement to all therapeutic treatment. During the past three years, I have been much more successful than formerly in all such cases, because I have insisted on the absolute necessity of a course under my friend Mr. Behnke after the diseased condition was relieved; and I desire here to testify my gratitude to him for the greatly increased power to help speech-sufferers that I have enjoyed since I have been able to avail myself of his collaboration. I look forward hopefully to a not far distant time, when instruction and examination in the physiology of voice-production will be a necessary preliminary to ordination, and to all professional appointments calling for exercise of the singing and speaking voice.

I do not anticipate that photography of the larynx can be extended beyond the boundary of physiology. To expect photographs from life of pathological conditions is plainly unreasonable, since those we have seen could only have been obtained by elaborate and costly machinery, and, above all, from a subject possessed of unusual, indeed, in my experience, of unequalled knowledge of what was our goal, and of skill and endurance necessary for its attainment. That Mr. Behnke possesses the first of these qualities, you must accept on my assurance. You will immediately have, by his good nature,

ample opportunities of testing the others; and I am sure you will join with me in thanking him most cordially for having travelled from London expressly to assist at these demonstrations. Without him I could not have shown you the pictures at all, and without his presence here the exhibition would have been robbed of the completeness it has been our joint ambition and pleasure to obtain.

[The members present had then an opportunity of seeing Mr. Behnke's larynx in the laryngeal mirror, which, illuminated by lime-light, he himself held in his throat, at the same time singing various tones. All were thus enabled to confirm very fully the accuracy of the photographs exhibited.]

ON THE INDICATIONS FOR, AND THERAPEUTIC VALUE OF, MYRINGODECTOMY.

Read in the Section of Otology.

BY LITTON FORBES, L.R.C.P.,
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ARTIFICIAL perforation of the membrana tympani is by no means a new operation, though it is only of recent years that it has come somewhat prominently into notice. It was suggested, theoretically at least, more than two hundred years ago by Valsalva, whose experiences, however, were limited to animals. In England, Cheselden, a bold and original surgeon, and the inventor of iridectomy, was anxious to perform it on the person of a criminal, but was restrained, as is said, by popular clamour. But, in the year 1800, Sir Astley Cooper revived Cheselden's idea, and performed the operation with such satisfactory results that it at once became fashionable. At this period, the war between France and England was being actively carried on, and it was no easy matter for French surgeons to obtain access to English journals. Nevertheless, Fabre d'Ollivet, an irregular practitioner in Paris, heard of the new operation. He appropriated the credit of it to himself, and performed it a great number of times, with, it is said, remarkable results. Indeed, in the first half of this century, the operation would seem to have been much more popular in France than in England. Richerand was accustomed to perforate the tympanum by means of a pointed stick of nitrate of silver, and obtained results to the value of which Menière bore witness twenty years later. Itard performed the operation many times, but could record only one undoubted success. More recently, in this country, myringodectomy has been practised by Liston, and by Sir Wm. Wilde, who was the first to recommend it in the treatment of tinnitus. Toynbee counselled the removal of a flap of membrana tympani in cases of thickening and obliteration of the Eustachian tube. In Germany, Von Tröltsch, and more recently Schwartze, in his excellent monogram, have advocated myringodectomy in order to give exit to purulent collections in the tympanum. Later still, Weber of Berlin and Grüber of Vienna have obtained good results from the much more delicate and difficult operation of section of the tensor tympani, as first suggested by Hyrtl in 1847.

The indications generally accepted for the operation of myringodectomy are: 1. a collection of fluid, purulent or otherwise, in the tympanic cavity, whether the symptoms be acute or not; 2. obliteration of the Eustachian tube; 3. sclerosis of the middle ear, with thickening, dryness, and rigidity; 4. adhesions of the membrana tympani to neighbouring parts; 5. tinnitus dependent on abnormal tension of the tensor tympani and ossicles.

As regards the first of these conditions—that is, the presence of purulent matter in the middle ear—little doubt can be entertained as to the propriety of the operation. There is a general consensus of opinion among all specialists, that the sooner such collections in the tympanum can be evacuated the better. As Von Tröltsch well remarks, there is no cavity in the body of the same size which is surrounded by such important structures. Thus its inferior wall is in more or less close relationship with the jugular vein, and the pneumogastric, glosso-pharyngeal, hypoglossal, and spinal accessory nerves. Its superior wall, which is often imperfect (Hyrtl, *Comptes Rendus de Vienne*, 1850), is covered by the meninges; while its internal wall, formed in part by the vestibule and the cochlea, lies in dangerous proximity to the facial nerve and the internal carotid. Its posterior extremity abuts on the mastoid cells. The mere consideration of these commonplaces of anatomy will be sufficient to demonstrate the necessity of giving early issue to purulent matter within the middle ear. In this way only can the spread of inflammation to neighbouring parts be checked with any certainty. Neglect of this practical point has, without doubt, often resulted fatally, especially in the case of young children. There is reason, indeed, to suppose that deaths from this cause in very early life are far more common than is generally supposed. Philipeaux has collected nine cases in which a fatal termination occurred, without perforation of the membrana tympani having taken place. Indeed, as the results of necropsies are collated with reference to this point, it will probably be shown that a large number of cerebral cases, especially in children, have had their origin in acute inflammation of the middle ear. Such cases go far to negative the theory of Kramer, that spontaneous perforation always takes place in suppurative inflammation of the middle ear.

The efforts of Von Tröltsch and Schwartz have called the attention of specialists to the necessity of early myringodectomy in such cases, as affording a safe and certain means of combating acute and dangerous inflammation. The operation then becomes an eminently conservative one. Not only does it check inflammation, but, what is equally important, materially lessens the chances of gangrene of the membrane, with loss of substance and permanent perforation.

I am inclined to think that the operation should be performed in all cases in which pain, in spite of antiphlogistic measures, is rapidly becoming worse, and this whether the inflammatory process be limited to the meatus or affect the tympanum. The diagnosis between the two conditions is not always easy, nor, indeed, at the moment when a case is first seen, are they always distinct. If a patient, however, be seen sufficiently early, it will often be noticed that, where the inflammation has commenced externally to the membrana tympani, its cutaneous layer has been the first to become involved. The whole membrane subsequently becomes thickened, its surface uneven, and covered with flecks of pus or epithelium, which rapidly obscure its physiological details. This is the period in which free scarification of the membrane up to its periphery, or free incision, when the hyperæmia is associated with much pain, will give great relief. When the inflammatory process commences internally, the membrane is first attacked in its mucous layer. The long process of the malleus, instead of quickly becoming obscured, retains for a considerable time its distinct outline. The tympanic membrane, especially its posterior half, becomes bulged forwards by the fluid behind it. At this stage, insufflation of air by any of the ordinary methods will at once reveal the presence of fluid in the tympanum.

In some cases, I have noticed that, even after the spontaneous perforation of the drum-membrane, pain and inflammation did not subside as quickly as might have been expected. In such cases, I have, on more than one occasion, freely divided what was left of the membrane, with the result of almost immediately relieving all pain and irritation.

In chronic muco-purulent collections in the middle ear, the indications for artificial perforation are not so precise or so generally accepted. The cases published by Schwartze, and some which have occurred in my own practice, have, however, convinced me that not seldom the operation may be beneficial, and will probably never do any harm. The presence of mucus in undue quantity in the middle ear is generally indicated by a thickened condition of the membrane at its periphery, with thinning and distension in other portions. The size of the protuberant portion varies according as the air-pressure within the tympanum rises or falls. In some cases, however, the fluid enclosed within the tympanum does not produce any marked protuberance of the membrane. It betrays its existence by a greyish tint, with reflected light, or by the presence of a dark line, which moves in unison with the movements of the head.

Artificial perforation of the drum-membrane is not, I think, indicated in sanguineous effusions into the middle ear, following rupture of a large vessel, for such lesions are almost necessarily fatal. There are, however, as is well known, other causes which may produce sanguineous effusions. Stenon and Morgagni, and, in more recent times, Littré, Cooper, and Philipeaux, have published interesting cases illustrative of this condition. In such cases, Von Tröltsch doubts the efficacy of myringodectomy, dreading, on the one hand, decomposition of the blood-clot under the influence of the atmospheric air, and, on the other, the lighting up of acute otitis. It may, however, be replied, that, in such cases, the extravasated blood will of itself give rise to inflammation and suppuration; and secondly, that the clot, if not completely absorbed, may clog the movements of the ossicles, and so interfere seriously with the transmission of sonorous waves to the internal ear. Moreover, an artificial opening would allow any fluid injected into the tympanum with a view of

cleansing it, to drain away through the external meatus. Sanguineous effusions generally take place as a sequence to falls or blows on the head during paroxysms of coughing, and in the course of severe maladies, such as typhus fever, small-pox, and measles. The objective symptoms of such an accident are deafness, more or less complete and sudden; convexity of the drum-membrane, which appears also unduly red wherever it comes into contact with the effused fluid. This red reflex might possibly lead to the supposition of acute inflammation of the middle ear, were it not that other diagnostic points are absent. In slight cases, the fluid may be seen to change its level with the movements of the patient's head. Auscultation is not accompanied by the characteristic note of fluid-effusion. When coagulation has taken place, the red reflex disappears, and the membrana tympani assumes a brownish hue. Adherences may also possibly have formed with neighbouring parts; in which case, auscultation will produce only a rough harsh sound. In closure of the Eustachian tube, Astley Cooper, Himly, Itard, and others have advocated myringodectomy. The diagnosis of this condition has, of course, been much facilitated since they wrote, by the discovery of Politzer's method of insufflation, and by the rhinoscope, which latter enables us to see the pharyngeal extremity of the tube. In many such cases, the choice may lie between forcible catheterisation and myringodectomy; when the latter procedure should, I think, always be tried first. It is a less difficult and dangerous operation, and will often relieve the distressing tinnitus which accompanies this condition of the parts.

But the most interesting and therapeutically important application of myringodectomy is in the treatment of certain forms of chronic catarrh. This affection has hitherto been a sort of opprobrium to aural surgery. Subtle in its onset, and slow and invidious in its development, it too often defies every remedy. It consists of a group of symptoms well known to aurists, a group which it will be convenient to speak of under the generic term sclerosis. There may or may not be thickening of the membrane lining the middle ear, nor is retraction of the tensor tympani tendon universally found. In this affection, as the rigidity of the parts involved increases, the power of accommodation becomes impaired, until finally complete deafness supervenes. Tinnitus is a symptom which nearly always accompanies sclerosis. The noises in the head are sometimes described as "hissing" and sometimes as "throbbing" sounds, the "throbs" being isochronous with the cardiac systole. The morbid changes do not at first appear to cause much loss of hearing, but later on the deafness, which is due probably to ankylosis of the stapes with the fenestra ovalis, makes itself painfully felt.

It has been proposed to perforate the membrane in the above class of cases, in order to permit the sonorous waves to impinge more directly on the fenestra. Where the morbid process has not spread to the articulation and the fenestra, the operation immediately improves audition. I have performed it in several such cases, occasionally with permanent, but more frequently with only transient benefit. The tinnitus has, as a rule, been almost immediately relieved. In some cases, however, patients have complained of an increase of deafness. Sclerosis may be associated with retraction of the tensor tympani. As the result of prolonged obstruction in the Eustachian tube, or of changes in the mucous membrane of the middle ear, the membrana tympani becomes highly concave. The tendon of the tensor tympani consequently grows lax. Atmospheric pressure, by destroying the elastic tension of the drum-head, neutralises the antagonistic action of the muscle. This latter, therefore, contracts on itself, and if the obstruction be of long standing, the shortening becomes permanent. Mere inspection will serve to show some of the results of this pathological condition. The membrane is concave, and more or less rigid when tested by the pneumatic speculum. But behind these manifest changes there lie others more deeply placed. The chain of ossicles has become denser, and now exerts an abnormal pressure through the stapes on the endolymph and perilymph. The function of audition is thereby seriously compromised, and a change of symptoms set up similar to those included under the name of Menière's disease. Moreover, the congestion of the internal ear thus induced may eventuate in paresis of the auditory nerve from pressure. It is important, practically, to differentiate this pathological condition from nervous deafness, properly so called. With a view of removing the tinnitus and deafness due to this pressure, Frank and Weber have divided the tensor tympani, and Grüber has performed myringodectomy. The latter operation is the more simple of the two, and may, therefore, be tried first. To obtain a satisfactory result, the incision should be made to include all the affected portions of the membrane. A cicatricial tissue (analogous, perhaps, to De Wecker's "filtration tissue" in sclerotomy) may thus be formed, which will render the membrane more mobile, and lessen tension in the chain of ossicles.

In cases of adhesion of the membrana tympani, Grüber has suggested myringodectomy as a means of destroying synechiæ between the membrane and neighbouring parts. It is difficult, in the present state of aural surgery, to lay down precise indications for such an operation, and I myself have never yet had occasion to perform it. Toynbee obtained satisfactory results in two cases, and Miot of Paris gives two cases of his own in which amelioration followed division. He has since further practised this procedure, which he considers, though not wholly useless, at least somewhat uncertain in its results.

The first to suggest artificial perforation of the membrana tympani as a cure for tinnitus was Sir William Wilde of Dublin. It was suggested to him by observation of the well known fact that, in chronic perforation, tinnitus is rarely present. The operation has often been tried as a means of treatment in obstinate cases, and has often given good results. I have performed it many times in obstinate cases, and even where the results have not been successful, the operation itself has given rise to no bad symptoms. The failure may have been due to inexact appreciation of the conditions demanding its performance. Tinnitus may be merely a common symptom in a large number of distinct affections. Thus, it may occur as a symptom of morbid changes in process in the cerebrum or spinal cord; of anæmia; of the action of certain drugs, as quinine; of sympathetic action due to irritation of the fifth pair; of compression of the endolymph; of uterine disturbance, etc. That peculiar form of tinnitus which is capable of amelioration by perforation, depends, probably, on pathological changes having their seat in the middle ear. They may be enumerated as (1) an abnormal state of the meatus or tympanum; (2) an accumulation of matters, solid or liquid, in the tympanum; (3) abnormal tension of the membrana tympani; which, in turn, may be due to retraction of the tensor tympani, obliteration of the Eustachian tube, or anchylosis of the ossicles.

Operative Procedures.—Various methods of performing myringodectomy have been practised since Sir Astley Cooper first recommended simple puncture. Itard, Menière, and Bonnafont have advocated caustics, Deleau and Fabrizzi punching out a piece of membrane; while Toynbee, Tröltsch, and most modern writers recommend incision. They have performed this, however, in a variety of ways. Toynbee used to dissect out a portion of membrane; Tröltsch, Schwartze, and Grüber advocate multiple incisions; Weber and Frank divide the reflected tendon; while Wreden advocates section of the handle of the malleus. In my own practice, I have found as good results from simple incision of the membrane as from any of the above more difficult and, I venture to think, more risky methods. I am accustomed to divide the membrane in its whole diameter with a curved knife. This operation is a very simple one, and seems to me to fulfil all indications, with a minimum of pain or danger, while its therapeutic effects are quite as satisfactory as those given by any of the other methods. Of these, perhaps the most ambitious is that of Wreden, who, at the Medical Congress of Paris in 1867, proposed to resect a portion of the handle of the malleus, in order to maintain the perforation open. The operation may be performed with a bistoury or an instrument *ad hoc*. A good light is required, and the incision should run parallel with the anterior and posterior margins of the process, commencing at its upper third, and terminating a little below its inferior extremity. If, as is sometimes the case, the hæmorrhage is at all free, an injection of tepid water, or a plug of cotton, after removal of the clots, may be used. When a good view has thus been obtained of the incisions, the cutting-forceps is grasped in the right hand and introduced into the meatus, so as to place the handle of the malleus between the blades, and pressure applied. In executing this manœuvre, care must be taken to maintain the instrument firmly in position, so as not to permit the blades to slip on the bone, or convey a shock to the chain of ossicles.

This operation is a difficult one to perform, and should be done only under anæsthetics. During the act of section, the inner wall of the tympanum may be injured, the long process of the stapes luxated, the chain of ossicles disjointed, or other formidable accidents happen.

The method by incision or myringodectomy proper can be employed in all cases in which caustics or other methods are available, and should be preferred to them, as being simpler, as causing less pain or inflammatory reaction, as being equally efficacious, and more quickly and easily executed. Thus, in cases where the

membrane is very red, bulges towards the meatus, and where the skin covering the osseous portion is also involved, it will be advisable to have recourse to incisions. These scarifications may be repeated daily. If, in spite of this treatment, the pain continue, there need be no hesitation in incising the membrana tympani through its whole thickness, and in a length of three or four millimètres, in order to avoid partial gangrene. In cases where the membrane, thickened by a previous inflammatory process, does not present any convexity, the lower and most readily accessible portions ought to be incised, so as to facilitate the escape of fluid.

As to the accidents and sequelæ of myringodectomy, a few words may be said. The operation has unjustly been accused of causing acute otitis and even death. But, if such ever actually did occur, there must have been something defective either in the method of procedure adopted or in the state of health of the patient. In the vast majority of cases, myringodectomy is a perfectly safe and harmless operation. As to the amount of pain attending its performance, this depends largely on the method followed. It is much more acute if punching or caustic be used. In acute inflammation, the incision is almost painless, and is always, in my experience, followed by immediate relief. In chronic inflammation associated with collections of muco-pus, the pain is mild; but it is generally somewhat severe in cases of sanguineous effusion or closure of the Eustachian tube. Syncope may occur with nervous subjects. Hæmorrhage is, as a rule, insignificant; what little there is gives considerable relief where hyperæmia of the membrane and meatus is present.

After the operation, the patient may complain of certain other symptoms, such as burning, smarting, and even acute pain deeply seated in the ear at the moment in which insufflated air escapes through the perforation. In other cases, the patient has a feeling as if the ears were stopped, an uncomfortable degree of heat in the meatus, and abnormal resonance for his own voice. One patient complained of increased deafness, lasting two days after the operation; while another considered that the operation had aggravated the tinnitus for which it had been suggested as a remedy.

Undoubtedly, the weak point in the operation of myringodectomy is the great difficulty of maintaining the perforation open after it has been made. In some cases, indeed—such, for instance, as liquid collections in the middle ear, adherences of the membrana tympani, and retraction of the tensor tympani—there is no necessity for maintaining the opening after the immediate result for which the operation was performed has been obtained. In many instances, however—such, for example, as in closure of the Eustachian tube, and in sclerosis without thickening of the membrane—audition is improved only while the opening is permanent. To keep it so has hitherto been a great and, indeed, insuperable difficulty. Various plans have been suggested, some of conspicuous ingenuity; but they all alike fail when tried by the touchstone of practice. Thus it has been suggested to hinder cicatrisation, (1) by placing a membranous cord or a pledget of cotton between the lips of the incision; (2) by dilating the opening with bougies; (3) by maintaining in the opening an islet of India-rubber (Politzer), or of metal (Miot), or a metallic cannula (Bonnafont). In choosing a dilating material, it is, of course, necessary to bear in mind the subsequent enlargement which it may undergo, otherwise over-dilatation, with intense pain, and otitis more or less severe, will result.

The continuous contact of foreign bodies, of whatever nature, possesses the inconvenience of causing acute inflammation of the mucous membrane of the tympanum, and long-continued suppuration. As the tympanum is often forced backwards by the foreign substances, adherences may form between this membrane and the tympanic walls, which, while not hindering the cicatrisation, render immovable the corresponding portion of the membrane. Moreover, during the whole time during which the apparatus remains in place, neuralgic pains, often intolerable, are liable to supervene.

Miot states that recently he has sometimes succeeded in maintaining the perforation open by making an incision perpendicular to the radiating fibres in the most distended portion of the membrane, those, for example, which correspond to the luminous triangle, four to five millimètres in length. To compass this result, the lips of the incision should not bleed, a fact which would seem to indicate atrophy of the mucous membrane in such cases. He has also succeeded in keeping a perforation open a considerable time by introducing at intervals pledgets of cotton, soaked in a solution of acetate of lead. Hitherto, however, it has been found impossible to keep a foreign body in position so as to maintain the opening, a fact which must be allowed to lessen very materially the therapeutic value of artificial perforation in a large class of cases.

The results of some years of special practice have induced me to arrive at the following conclusions as to the indications, method of performing, and therapeutic value of the operation of myringodectomy.

It is indicated in all cases of fluid collections, whether of a purulent or muco-purulent character, within the tympanic cavity; in thickening and abnormal tension of the membrana tympani, and in retraction of the tensor tympani muscle. It is useful, also, as a temporary expedient in certain cases of closure of the Eustachian tube, and in many forms of tinnitus.

The simplest and best method of performing the operation is by incision with a curved bladed knife, fitted into a proper handle. The incision may be a bold one, involving the whole diameter of the membrane. Puncture is rarely sufficient. The incision will, in spite of every effort, heal up, but may be repeated at intervals, as required.

The operation, if performed with ordinary care, is probably perfectly free from danger. The occasional good results which it gives justify its performance in all of the cases above-mentioned.

FURTHER OBSERVATIONS ON CERTAIN CEREBRO-NERVOUS DISORDERS PECULIAR TO WOMEN.

Read in the Section of Obstetric Medicine.

BY THOMAS MORE MADDEN, M.D., F.R.C.S.E.,

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AN increasing tendency to serious and mental disorders, especially amongst women, has become manifest within the past few years. Thus, during the comparatively short period covered by the annual reports of the Commissioners in Lunacy, the number of the insane has more than doubled, having increased from one in eight hundred, to two in three hundred and fifty, of the entire population of Great Britain. Moreover, whereas formerly lunacy was most prevalent amongst men, now, on the contrary, there are more insane women than men in this country. A similar observation may also be made with regard to the great increase of nervous diseases generally, and of hysteria in particular, which are, as I believe, similarly etiologically connected with certain utero-ovarian disorders which have recently come into much prominence.

Whether my views be correct or not, this subject itself is unquestionably one of great practical importance, and is still very unduly neglected by the majority of alienists as well as by most gynæcologists. Hence, having formerly brought some aspects of the inquiry before the Irish Academy of Medicine, I desire now to submit a few observations, mainly the result of recent clinical experience, on the relation between certain utero-ovarian disorders, and other morbid conditions peculiar to women, and the most frequent types of cerebro-nervous disease, as exemplified by the protean forms of hysteria, and the various degrees of mental derangement connected with pregnancy, parturition, and lactation.

The predominant influence of the reproductive system is manifest in women in every vital action, from the approach of puberty until the menstrual period is passed. Throughout this long period of existence, at every catamenial epoch there may, almost invariably, be observed as coincident occurrence of constitutional and nervous disturbance. When menstruation has become fairly established, and is normal in every respect, then this disturbance may be so slight in degree as to escape attention. But the earlier catamenial epochs, and every subsequent deviation from healthy menstruation, as well as the climacteric period of life, are, as a rule, accompanied by some manifestation of hysteria.

The influence of other disordered conditions of the utero-ovarian system are as marked, in the same way, as that of functional menstrual derangement. Thus, in the hospital to which I am attached, I have found that thirty per cent. of all the patients treated in the gynæcological department (amounting, in the five years ending on the 1st of July last, to 2,445) presented symptoms of nervous disorder, varying from the most trivial hysterical complaints to the gravest forms of cerebro-nervous disease, and traceable to reflex irritation of utero-ovarian origin.

The functional connection between the cerebro-nervous and reproductive systems is apparent in nearly all chronic uterine and ovarian complaints. In chronic endometritis and cervicitis, for instance, the general constitution sympathises with the local disease

The patient loses flesh, suffers from cardialgia, dyspepsia, palpitations, and intense headache, becomes cachectic-looking, despondent, anxious, excitable or irritable to the verge of insanity. In other words, as the uterine disease progresses, its local evidences often become obscured by its constitutional and nervous consequences. Foremost amongst these is hysteria in every variety, from the ordinary hysterical paroxysm, which is too generally wrongly looked on as of no pathological importance, to the gravest forms of cerebro-nervous disorder, namely, epilepsy and insanity, which may result from neglect of the warnings thus furnished.

I shall now, therefore, briefly refer to some of the most important mental disorders and nervous affections which are etiologically connected with uterine and ovarian diseases, or functional derangements, by reflex irritation acting on the cerebro-spinal nerve-centres throughout, which spread to ramifications of the sympathetic and vaso-motor systems.

1. *Mental Disorders Peculiar to Women.*—I have already pointed out that the rapid increase of lunacy in these countries is a circumstance of the gravest social as well as medical interest, and one which concerns none more particularly than those who are the usual medical advisers of women in all their special ailments.

On referrring to the reports of the Lunacy Commissioners for the last year, we find that there are 85,167 registered lunatics in Great Britain. Of these, no fewer than 46,566 are females; whilst, in the Irish private lunatic asylums, the greater prevalence of insanity in women is still more evident, there being 385 female lunatics, and only 236 males.

Amongst the causes of this increase of female insanity in late years, must be reckoned, not only the prevalence of uterine or ovarian disorder already referred to, but also other causes, from which, until recently, women were comparatively exempt. Nowadays, women are not only liable to those special causes of nervous disorder which arise from utero-ovarian irritation, but, moreover, in too many cases, they now voluntarily expose themselves to all the accidental causes of insanity, to which men alone were formerly subject. This is one result of that hopeless contest in which they are engaged, who seek to unsex themselves by assuming all those masculine privileges and modes of life, that may be too dearly purchased at the expense of the increased tendency to cerebro-nervous disorder, by which, in such cases, outraged nature avenges her violated laws.

Insanity, from the development of hysteria, and similarly associated with disease or functional derangements of the female reproductive organisation, is of unquestionable frequency. Moreover, those forms of insanity which thus originate from reflex utero-ovarian irritation, are generally misunderstood or neglected by alienists. The mental derangements referred to as associated with peri-uterine disorders, are usually characterised by exaggerated nervous susceptibility, intense egoism, manifest in the concentration of the patient's whole attention on the symptoms of her own complaint, fancied or real, extreme excitability of mind, and irritability of temper; together with, in most instances, a complete perversion of the moral faculties, which, most generally, as in cases of so-called moral insanity, or *folie raisonnante*, are, in the first instance, more apparently affected than the intellectual powers. But, at the same time, in such cases, some disturbance of the intellectual powers, however obscure or concealed it may be, is always associated with the perversion of the moral faculties; and as hysterical insanity progresses, the often long-concealed illusions of the patient become developed into actual and obvious delusions.

2. *Mental Disorders connected with Catamenial Derangements.*—The etiological connection between catamenial derangements, and especially suppression of the menses, and mental disturbance, has long been recognised. Amenorrhœal insanity was described as far back as the time of Pinel, who relates, amongst others, the case of a girl who, from before the age of puberty, was in a state of dementia, which continued for some years, during which she never menstruated. One day, however, she suddenly ran to her mother, exclaiming "I am well." The catamenia had just flowed, and her reason was immediately restored.

Mental disorders in women are not only thus frequently associated with menstrual irregularities, but are also as frequently connected with reflex irritation from utero-ovarian disease, and still more obviously occur in connexion with puerperal septicæmia, directly affecting the vascular condition and functional action of the brain.

Before alluding to the latter form of cerebral disturbance, as met with in obstetric practice, however, I shall briefly refer to mental derangement as seen in connexion with gynæcological causes; and shall here cite a case which seems to illustrate the possibility, in some instances, of gynæcologists curing insanity.

An unmarried lady, about 46 years of age, who was then a patient in a lunatic asylum, was placed under my care some years ago under the following circumstances. Having been always previously of a peculiarly nervous temperament, her excitability of mind and irritability of temper became, as life advanced, more and more pronounced, and ultimately was accompanied with delusions, religious despondency, and suicidal tendencies. Her friends were then advised to place her under restraint, and did so, with the expectation that a removal from all external sources of mental irritation, and the care she would enjoy in one of the best managed of our private asylums, would ensure her recovery. At the end of two years, however, her mental condition was no better than when she entered the asylum, and her physical health was much worse. It was then suggested by one of her family that, as she had formerly been under treatment for some uterine disease, a gynæcologist should again see her. On examination, I found considerable tumefaction and evident tenderness above the left ovary. The labia were enormously hypertrophied; the vagina was intensely congested, and bathed in an offensive leucorrhœal discharge. The uterine cavity was normal in size, the cervix elongated and cartilaginous, and the os surrounded with a ring of deep erosion. The patient was emaciated and cachectic-looking; her breath was fœtid, tongue coated, and pulse quick and weak. Under these circumstances, the necessity for gynæcological care appeared obvious; but, as my opinion on this point was not in accordance with that of the visiting physician of the asylum, a further consultation was proposed. My lamented friend and former teacher, the late Dr. M'Clintock now saw her with me, and, as he fully endorsed my view of the case, she was removed from the asylum. After some months, the uterine and ovarian irritation yielded to treatment. At the same time, the mental and nervous disturbance gradually subsided, and the patient was enabled to resume her former place in society.

Such a case as that now described is by no means singular in its causes and symptoms. Unfortunately, however, it is most exceptional in its treatment and result. The general non-recognition of utero-ovarian disorders amongst the insane in lunatic asylums is easily understood. Most alienists pay little, if any, attention to the study of gynæcology. Moreover, there is commonly amongst those suffering from mental disease a peculiar insensibility to physical suffering, or analgesia, apparently caused by impaired nutrition of the nervous centres, and diminished vital action of the nerves of sensation; and, therefore, the usual evidences of disease do not disclose themselves in their ordinary course. Under such circumstances, no complaint of uterine disorders being made by the patient, their diseases may unsuspectedly run their course.

Taking into consideration, therefore, first, the general prevalence of utero-ovarian disorders; secondly, the vast number of women now confined in the public and private lunatic asylums of the United Kingdom; thirdly, the common non-susceptibility of the insane to the ordinary symptoms of their intercurrent diseases; and, lastly, the fact that alienists generally pay little, if any, attention to gynæcology, I venture to repeat that, amongst the sixty thousand women who are now secluded in our lunatic asylums, there are many who are unnecessarily, and hence improperly, so restrained, inasmuch as they are merely suffering from reflex cerebro-nervous irritation arising from neglected uterine or ovarian disorders; and that a certain proportion of such patients might be restored to the *mens sana in corpore sano*, by the recognition and appropriate treatment of this physical disease.

For many obvious reasons it would be most undesirable and injurious that, especially in insane patients, any uterine treatment or examination should ever be resorted to without absolute and well proven necessity. The managers and medical superintendents of lunatic asylums, however well qualified in all other respects for the responsible offices, are certainly, as a general rule, by no means competent to pronounce any opinion concerning the necessity for uterine treatment, or as to the mode by which this should be carried out. Hence it seems to me very essential that, in any future legislation on the subject of insanity, there should be some provision made for rendering special and independent gynæcological advice available to every female patient under restraint in any lunatic asylum, whether public or private.

3. *Mental and Nervous Disorders of Pregnancy and the Puerperal State.*—In obstetric practice, we meet with many striking illustrations of the influence of uterine causes on the mental and nervous functions. During pregnancy, there is a general tendency to nervous and cerebral functional disturbances; and to this may be as-

cribed those otherwise unaccountable alterations in tastes and dispositions, that irritable condition of mind and temper, those unreasonable likings and aversions, irritable longings and foolish fancies, which in some women invariably accompany pregnancy. Familiar instances of sympathetic or reflex nervo-mental disorder arising from pelvic irritation will at once occur to every obstetrician. Of this nature, for instance, is that transient delirium commonly observed at the termination of the second stage of labour, during the exit of the fœtal head. The peri-uterine origin of certain forms of mental disorder is strikingly evinced in puerperal mania or insanity consequent on parturition. This is usually preceded by the premature expulsion or diminution of the lochia, which become fœtid as well as scanty. Hence the associated mental disturbance resembles those forms of delirium that occur in the course of the many other diseases in which toxæmia or blood-poisoning, whether from arrested secretion or from auto-infection, results in functional cerebral disorder. It must be admitted, however, that all depressing mental influences had also a great share in the causation of puerperal mania. Thus, of 1334 cases of puerperal mania collected from various authorities, in 883 the patients were unmarried. Of the cases under my own observation, 12 out of 20 patients were unmarried. With regard to the prognosis in such cases, that it may be observed that the statistics already referred to show out of every 1,000 cases of puerperal mania, in 668 instances the patient recovered within six months of the attack. The majority of cases terminate in recovery, the next most frequent result is death, and the next common result is confirmed insanity.

4. *Hysterical Pseudocyesis.*—In connection with the cerebro-nervous disorders of pregnancy, we may briefly allude to that curious mental condition in which the sterile patient either fancies herself to be pregnant or feigns to be so. This condition is one of which I have met with many instances, some of which may be found in a paper of mine on pseudocyesis, in the fourth volume of the *Dublin Obstetrical Transactions.* Spurious pregnancy is invariably associated with functional derangements of the utero-ovarian system, and usually occurs about the time of the final cessation of menstruation or climacteric period; although, however, more than once I have been consulted in cases of spurious pregnancy occurring in women under twenty years of age, in many instances, I have found the symptoms of hysterical pseudocyesis hardly distinguishable from those of true pregnancy. Thus we often meet with cases of complete amenorrhœa, followed by morning sickness, turgescence of the breasts, enlargement of the abdomen, etc., in middle-aged hysterical women who desire to be thought pregnant. Sterile women under such circumstances not uncommonly become hysterically insane on this subject, and take extraordinary, and often exceptional, pains to persuade those about them as well as themselves that they are "as women wish to be who love their lords," when only suffering from the symptoms of the change of life, dyspepsia, dropsy, or mere obesity.

5. *Epilepsy and Hystero-Epilepsy.*—For our present purpose these may be here considered together, as every variety of epileptiform disease in women is most frequent in those of a hysterical temperament, and is generally found associated with amenorrhœa or some other disorder of the sexual system. Moreover, so similar are the two forms of epileptiform convulsions named in the symptoms, that they can only be distinguished by Charcot's temperature-test. My experience of hystero-epilepsy differs from that of Dr. Graily Hewitt as to the importance of uterine displacements in such cases, as, in seventeen instances of the kind under my own observation, in only four cases was any deviation from the normal position of the uterus noted. As a rule, all epileptiform diseases in women are preceded by hysterical hyperæsthesia, and in some instances by actual delusions. These symptoms become still more marked after the seizure, especially at the time when consciousness begins to return immediately after the paroxysm. We may then frequently observe that the patient slowly and gradually recalls to mind what happened immediately before or during the paroxysm. Occasionally there is then a curious interblending of the patient's real and fancied symptoms, in which the phenomena of the pre-epileptic aura may come into startling prominence, and be insisted on as of actual occurrence. In this way the condition referred to may, as in a recent *cause célèbre*, become of curious medico-legal interest.

6. *Hysterical Trance.*—Diminished nervous functional activity is a very striking, although a less frequent, secondary or reflex consequence of uterine disorders, than the conditions just referred to. The most remarkable instance of this kind is that known as hysterical trance or lethargy, in which the ordinary phenomena of life are temporarily more or less completely suspended. "One of the most curious forms of hysteria," says Dr. Elliotson, "is long continued insensibility in what is called a trance. Sometimes there is insensibility for a few days, and sometimes for many weeks." In the *Proceedings of the Dublin Medical Society*, those interested in this subject may find in a paper of mine well-authenticated cases in which patients in a state of hysterical trance, or cataphora, so profound as to counterfeit death, have been actually consigned to the tomb, or were only rescued from it by some happy accident. I have myself met with several instances of hysterical lethargy. In one of these, the patient remained in a condition hardly distinguishable from death for nine days; in another the trance lasted for one hundred and forty hours. In both cases there was accompanying menstrual disorder, and both patients ultimately recovered.

7. *Hysterical Paralysis* is another form of reflex functional nervous lesion, which in some instances is traceable to utero-ovarian causes. In such cases, we occasionally find every degree of loss of voluntary power, from the most trivial local weakness to complete paraplegia. I recently published a case of this kind, in which a young lady, aged 19, was bed-ridden for upwards of two years from apparent paraplegia. Every treatment proved useless, although she was tortured with every expedient that the industry of the numerous physicians that were consulted could suggest. At the end of the period, however, she menstruated for the first time, and thenceforth recovered rapidly and completely.

8. *New Physical Causes of Cerebro-Nervous Diseases of Women.*—There are some other causes of the prevailing tendency to cerebro-nervous disorders observable in women, which, though moral rather than physical in their nature, cannot be wholly ignored, considering the subject of this paper. These causes having, however, been elsewhere more fully discussed, I need here merely recapitulate some of the most important of them. First, there is the premature or undue stimulation or abuse of the sexual functions. This I shall not now dwell on, but its importance is unquestionable. Secondly, amongst the moral predisposing causes of the conditions of mind and body comprehended in the term hysteria, must be included, on the one hand, the misdirected tendencies of female education, in those cases in which it is sought to force women's intellect into channels and pursuits which nature has obviously intended for the opposite sex. On the other hand, the neglect of suitable moral, mental, and physical training during youth, or of any occupation in more mature life, too general even in the better classes, and amongst even those who pass as fairly educated women, must be estimated as potential factors in the etiology of the special cerebro-nervous disorders of females. Thirdly, some reference is necessary in this connection to that increasing prevalence of alcoholism in all classes of modern society, and amongst women as well as men, some of the consequences of which are too often brought before us in some of the diseases now under consideration. Moreover, to the utero-ovarian disorders which have been alluded to as connected with these nervous and mental complaints may, in some instances, be also ascribed a primary place in the causation of intemperance in women. I have repeatedly traced the craving for alcohol in confirmed inebriates to their first painful menstrual period, when stimulants are too often pressed by foolish counsellors on, perhaps, reluctant lips. The pain of dysmenorrhœa once thus relieved, at the next epoch the patient naturally, and no longer unwillingly, seeks similar solace. And thus, this "unkind nepenthe" is gradually employed in increasing doses; until, at last, the victim of dysmenorrhœal alcoholism often unconsciously becomes an habitual, and, too frequently perhaps, an incurable drunkard.

On some future occasion, I trust to be permitted an opportunity of supplementing this paper by some observations on the treatment of the morbid conditions of mind and nervous complaints peculiar to the female sex, this topic being one to which the length of the present communication now prevents my making any allusion. My chief object has been to recall attention to those still generally misinterpreted cerebro-nervous affections, which are in any way connected with diseases peculiar to women. And, if the views now enunciated be confirmed and acted on by other practitioners, I venture to believe that treatment of the complaints now discussed will thereby be materially simplified and improved.

Dr. EDIS (London) said that Dr. More Madden had stated sufficient to prove that the influence of uterine disorders in the production of nervous diseases was well marked. Dr. Edis could confirm this from his own individual experience. Many years since, when resident medical superintendent of a very large private lunatic asylum, his attention had been specially called to these cases; and since then, in private practice, he had had frequent opportunities of

verifying the importance of recognising the interdependence of these two conditions.

Dr. FANCOURT BARNES (London) said every gynæcologist must be familiar with the conditions described by Dr. More Madden. Several American physicians had recently been investigating the relation of uterine disease to neurotic affections, especially in asylums; their researches coincided with those of Dr. Madden. The subject was receiving growing attention. Dr. Barnes had seen two patients, one of whom had been in a lunatic asylum, completely recover on being treated for flexions by Hodge's pessaries.

Dr. W. R. ROGERS (London) thought he would not allow Dr. Madden's paper to pass without giving him his thanks for so strongly directing attention to the special causes of insanity. Dr. Rogers thought that special uterine displacements had often their effect in aiding the production of these disorders, as he had in some cases known; and he had seen the best effects produced, by the special treatment of the uterus andovaries, in the cure of the brain-disease itself.

Dr. MORE MADDEN was much obliged to the Section for the kind attention given to his paper, and to the speakers who, from their own clinical experience, had so fully confirmed his views. He had not intended to underestimate the possible importance of uterine displacements in the causation, in some instances, of reflex nervous disturbance. This question had received much consideration in America, where, by the labours of Dr. H. Storer of Boston, Dr. Emmet of New York, and other American gynæcologists, much light had been thrown of late years on the connection between uterine and nervous disorders. In conclusion, Dr. More Madden trusted that, before long, the subject would also obtain as much attention from the profession in this country as its importance merited.

CASE OF PARACENTESIS OF THE PERICARDIUM: REMOVAL OF THIRTY-TWO OUNCES OF FLUID.

Read before the Canada Medical Association.

BY J. W. MACDONALD, M.D., L.R.C.S.E.,

Medical Officer to the Steel Company of Canada, Londonderry, Nova Scotia.

I WAS first called to see the patient, a married woman, aged 30, on the evening of June 10th, 1883. She stated that, three weeks previously, she had been seized with severe pains in the joints, attended with high fever. A day or two afterwards, she complained of pain and violent beating at the heart.

Condition on June10th. She was unable to lie down with comfort; the face was pale, anxious, and slightly œdematous; the breathing was short and panting; the heart's action tumultuous, and its movements could be perceived through her clothing. On examination of the chest, a dull area was found over the prædordial region, extending from the right edge of the sternum towards the left for about eight inches, and from the seventh intercostal space to the level of the upper margin of the second rib. A loud and distinct to-and-fro murmur at the apex, and a harsh systolic murmur at the base, were the sounds heard on auscultation. The lower lobe of the left lung, posteriorly, was very dull on percussion, and conducted the heart-sounds, so that the murmurs could be very distinctly heard in this situation. Over this area, there was also puerile respiration and increased vocal resonance. A narrow strip, giving normal sounds on percussion, extended down the side from the axilla, and divided the dull areas in the front and back of the left chest. The pulse was small, irregular, and 120 per minute. She was troubled with diarrhœa.

Blisters, iodine, and diuretics were employed, and for a few days the fluid diminished; but the symptoms became aggravated, and the dyspnœa and agony about the heart became unbearable. To use the patient's own words, she felt "as if the heart was going to burst." She could get no rest except when propped upright, and she frequently fainted. The diarrhœa continued, and, in the hope that it might promote absorption of the effusion, I made no attempt to check it.

June 18th. I resolved to operate, and was assisted by Dr. Sutherland. To decide upon a suitable situation for the opening was a great difficulty. The point generally adopted, and first recommended by Dieulafoy—viz., in the fifth intercostal space, and one inch to the left of the sternum—was in this case unsuitable; for in that situation the heart-impulse could be most strongly felt. No part appeared more prominent than another; and the difficulty was further increased from the fact that the patient was nursing her child, and the breasts were consequently large. A point, one inch below the nipple, and close to the lower margin of dulness, was at length fixed upon: first, because no heart-impulse could be felt there; and, secondly, because it was at the most dependent part of the pericardial cavity. The patient was placed in a semi-recumbent position; chloroform was very cautiously given; and the mamma was held up out of the way. I then made a preliminary incision through the skin, and dissected down carefully between the ribs. No impulse being felt by the finger in the wound, I pushed a moderate-sized aspirating-needle through the remaining tissues; and, feeling that I had entered the cavity, withdrew the stilette. A few drops of greenish-looking fluid escaped; but it appeared impossible to get it to run freely, even after applying the aspirator. Just as I was preparing to enlarge the opening, for the purpose of introducing a tube, the fluid began to run freely; and, on the patient drawing a full breath, it escaped in little jets. After persevering for some time, the cavity was emptied; the dull area over the heart was reduced to its normal size; and the patient, though extremely weak and inclined to faint, was very greatly relieved. The fluid withdrawn measured thirty-two ounces; was of a greenish colour, resembling bile; and tended to coagulate on cooling. Shortly after the operation, she could lie down with comfort on either side, and draw a deep breath without inconvenience. The pulse fell to 100, and became more firm and regular.

June 19th. She had had a comfortable night, and felt very much better. The dulness over the lower lobe of the left lung had become less, and the respiratory murmur was returning to its natural character.

June 25th. Diarrhœa, which had for some time been a prominent symptom, had stopped. The area of heart-dulness was evidently increasing, and with it the other symptoms, which indicated are-accumulation of the fluid. Iodine was applied over the prædordia, and a pill containing one-sixth of a grain of elaterium given at night.

June 27th. The elaterium produced copious watery discharges, which were followed by a marked diminution of the area of dulness, and a great improvement in the breathing.

June 30th. Her condition had so much improved as to permit her going to her home in St. John. Up to the present time (August 30th), she has continued to improve. She can walk more than half-a-mile without inconvenience, and has gained strength. Dr. Bayard, of St. John, who kindly examined her a few days ago, states that the fluid has not returned, but the endocardial murmur is still to be heard.

OBSTETRIC MEMORANDA.

CASE OF PLACENTA PRÆVIA.

THE following notes of a case of placenta prævia may be of interest, it being one of those rare instances of labour where the uterus contracts rapidly and strongly, expelling both the placenta and the child's head together.

The patient was thirty years of age, rather short, lightly built, healthy-looking, and dark-complexioned. She had never suffered from any serious illness. She was the mother of three children, and there had been no unusual difficulty in her previous confinements.

In the ninth month of her fourth pregnancy, she was rather suddenly seized with a smart attack of uterine hæmorrhage, followed by slight pains. She at once sent for me, but, as I lived several miles from her residence, two hours elapsed before my arrival. During this time, there had been a considerable amount of hæmorrhage, but gradually decreasing; and the pains had considerably increased, both in force and frequency.

On making a vaginal examination, I found the os dilated to the size of a florin, and quite soft and dilatable. Passing the finger through the cervix, I could distinctly feel the soft spongy mass of the placenta, and, by the bimanual method, was enabled to make out the presentation, which was left occipito-anterior. I then separated, as far as possible, the placenta from the uterine walls, and, as the os was soft and dilatable, determined to turn, and terminate the labour as speedily as possible. Version, however, was quite unnecessary, as the uterus now began to contract most vigorously, and, the os dilating rapidly, the head descended and acted as a plug, thus preventing further hæmorrhage. So rapidly, indeed, did the os dilate, and so strong became the uterine contractions, that, even had version been performed, or the forceps applied, the labour could not have terminated more quickly than it did. The head, in its rapid descent, pushed part of the placenta before it

—the presenting part all the time being covered by a portion of the placenta; and, after expulsion of the head, with a portion of placenta over it, the remains of the latter were found around the child's neck. The placenta was literally torn up. There was scarcely any hæmorrhage after the birth of the child, the uterus having contracted firmly immediately it was emptied. The child—a very fine one—was unfortunately dead. The patient made a very good and speedy recovery.

ARTHUR FFLINTOFF MICKLE, M.B., Kirklington, Yorkshire.

A CASE OF PROLONGED MENSTRUATION.

THE following case, illustrating an example of prolongation of the menstrual function, has lately come under my notice. The subject is now fifty-eight years old, and has been married thirty-seven years; no family; one miscarriage, shortly after marriage. The "courses" only stopped finally about a year ago. Menstruation was established between fourteen and fifteen years of age, and continued, with regular intervals and the usual amount of discharge, until she was fifty-three years old, when she suffered from an attack of rheumatic fever. After recovering from that illness, she had many further "periods," but with rather longer intervals. These continued until she attained fifty-seven, when they ceased.

The menstrual function usually begins to show some irregularity from forty to forty-five years, the intervals becoming longer, and the discharge altering, and soon ceasing. In this case, the periods were always of the same character, even after the attack of fever; and, had it not been for that illness, they would, in all probability, have continued still longer. She always suffered from dysmenorrhœa, and early in life suffered from ulceration of the cervix. Such cases are not very common; and I thought this one might be of sufficient interest to report.

ROBERT J. W. OSWALD, M.R.C.S.Eng., L.R.C.P. and S.Ed.

TOXICOLOGICAL MEMORANDA.

CASE OF CHLORAL POISONING.

A GENTLEMAN, twenty-six years of age, was suffering extreme pain from syphilitic rupia, for which I prescribed the following mixture, in order to relieve his sufferings and to induce sleep.

℞ Hyd. chloral. ℥vj; pot. bromid. ℥iv; aq. aurantii ad ℥iv. ℥ij to be taken at bedtime.

The patient wilfully swallowed the whole contents, except one ounce. The draught must have been taken about midnight, and the patient was not seen till next morning at eight o'clock, when his mother saw him, and she, thinking he was sleeping naturally, did not disturb him. He was again seen at ten o'clock, when an effort was made to awaken him, which, however, was unsuccessful. I was then sent for; and, on my arrival, at half-past twelve, I found him lying flat on his back, his eyes and mouth wide open, and the conjunctivæ injected. There was congestion of the capillary system generally, heavy breathing, complete muscular relaxation, and reflex action abolished. The pulse was slow and full, the temperature 102°. He was with some difficulty aroused, but, by continuous efforts, was kept awake, and so far roused as to be persuaded to swallow some strong black coffee. By applications both vocal and physical, he was at length awakened to a sense of his position, but, on withdrawing the stimuli, he relapsed into a drowsy condition. Strychnine was then administered, and instructions given to keep him awake. In three hours' time, he was completely conscious, and felt quite well, except for a feeling of great lassitude. The strychnine was repeated, and, during the afternoon, he was quite ready and able for dinner. His temperature fell two degrees, and his pulse regained its natural strength and volume. His return of consciousness, he himself states, was just subsequent to his having the coffee, and his prior loss of consciousness began immediately after he had swallowed the chloral. To my positive knowledge, no narcotic had been taken for at least six months previous to this occurrence; but at that time he could take four grains of solid opium. Chloral he has had on two occasions in sixty-grain doses. He never had taken bromide of potassium before. On this occasion, he swallowed 270 grains of chloral, or nearly five drachms, combined with three drachms of bromide of potash. Such is the history of the case: its full value is lost, of course, owing to the length of time elapsing between the taking of the poison and the notifying of the symptoms. Ten hours had elapsed before my seeing him; but I think, had he been allowed to continue his slumbers undisturbed, the result would have been the same—very complete recovery. The poisonous effects must have been much more decided during the hours immediately succeeding his taking the draught.

Dr. Levinstein reports a case where the dose taken was six drachms, and recovery ensued; but in his case twenty-four hours elapsed before consciousness was restored, and that only after continuous treatment from the first hour of the poison being taken.

ARTHUR MECHAN, Glasgow.

A FATAL CASE OF POISONING BY CHLORIDE OF ZINC AND HYDROCHLORIC ACID.

J. L., aged 62, a night-watchman, having been for a long time in a state of great despondency, through want of employment and his sufferings from chronic bronchitis, took about two ounces of soldering fluid. This composition is made by dissolving pieces of zinc in an excess of commercial hydrochloric acid. The poison was taken about 10.30 P.M., and immediately afterwards his wife found him lying on the floor and groaning. He complained of severe pain in the region of the stomach, with great dryness of the mouth and fauces. His wife gave him an emetic of salt and water, but without effect, and sent for me. I found him almost collapsed, with great difficulty of breathing, feeble, quick, and intermitting pulse, and cold skin, and covered with perspiration. The tongue and mouth were dry and shrivelled. The intellect was quite clear. The patient was very much purged, the motions being fluid and of a brownish colour. He complained of great pain in the throat and stomach; the lips were covered with froth. Milk, chalk and water, and oil, and, towards the end, brandy, were administered freely. The breathing became more and more difficult. He wanted to pass urine, but could not; a catheter was therefore passed, and about an ounce of clear urine drawn off. The stools were very frequent, and the pain increased. He died about four hours and a half after taking the corrosive fluid, and was quite sensible to the last.

The necropsy was made forty-eight hours after death. The *tongue* was white and shrunken. The mucous membrane of the *mouth* was white and charred. The *œsophagus* was extremely contracted, the lining membrane being white and silky in appearance, and easily detached. The *stomach* was contracted and rugose, the mucous membrane being of an ashy-grey colour, with black patches. Though the mucous membrane was in several parts destroyed, there was no perforation. The stomach contained about a pint of dirty-looking fluid, in which was found free hydrochloric acid and chloride of zinc, but no blood. The whole of the intestinal tract was hard and contracted. The mucous membrane was thickened, and of a grey colour; the duodenum and upper part of the jejunum being especially affected by the poison. The *lungs* displayed the characteristic appearances of chronic bronchitis, and in several places were adherent to the chest-walls. The *liver* presented the typical appearance seen in all cases in which people have, like my patient, been excessive drinkers. The other organs were fairly healthy.

W. H. CROSSE, Manchester Road, Cubitt Town, E.

THE CONTAGIOUS DISEASES ACT.—The Kent county magistrates, at a meeting at Maidstone yesterday, authorized the chairman (Sir John Farnaby Lennard) and the Clerk of the Peace to collect certain information with a view to memorializing Parliament in favour of the continuance in operation of the Contagious Diseases Act. The matter arose out of a letter from the Sheerness Guardians, asking that the county police should undertake the duties of the Metropolitan Police under these Acts, that the county should provide the necessary medical assistance, and that the Government should be asked to lend its hospitals for the purpose. Sir John Farnaby Lennard said dreadful evils had sprung up in consequence of the suspension of operations under the Act in naval and military centres, and it seemed to him a terrible thing that the rising generation should be contaminated in consequence of what appeared to him to be a "fad" of a certain number of people who ought to know better. The Clerk of the Peace announced that the following districts in Kent came under the Act:—Canterbury, Chatham, Dover, Gravesend, Maidstone, Sheerness, Shorncliffe and Woolwich.

VACCINATION.—Dr. Dring, public vaccinator of the third district of the Faversham Union has received a grant of £13 15s. for efficient vaccination. This is the third consecutive time the grant has been awarded him.

THE salary of Mr. Joseph Dixon, medical officer to the Hove police, has been increased from £20 to £30 *per annum*.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

KING'S COLLEGE HOSPITAL.

TUMOUR OF MEDULLA OBLONGATA: REMARKS.

(Under the care of Dr. GEORGE JOHNSON and Dr. FERRIER.)

[For the following notes we are indebted to Mr. ST. CLAIR THOMSON, House-Physician.]

MARY S., aged 52, was admitted on January 29th, 1883, suffering from difficulty of speech and paralysis. Three months previously her speech began gradually to become thick, she saw double, and had numbness and loss of power on the left side of the body. For five weeks she had been unable to stand.

She was a thin, pale, but fairly healthy-looking woman. There was no headache or tenderness of the skull. There was slight blankness of the right side of the face, and the tongue was protruded to the right. There was visible ptosis of the right upper eyelid, with convergent strabismus of the right eye from paralysis of the right external rectus; there was also paralysis of the left internal rectus, though less marked. She had homonymous diplopia, the images being side by side. The pupils were equal, and contracted both to light and to accommodation. A watch was heard one inch and a half from the right, and eight inches from the left ear, and the tuning-fork was heard best on the left side.

The voice was somewhat nasal in tone, the speech thick and indistinct. There was no dribbling of saliva, but the mouth and fauces were full of thick mucus, causing frequent coughing and hawking. Some drooping of the right arch of the palate and considerable dysphagia were present. The right arm and leg were normal as regards sensation and motion. The grasp of the left hand was feeble. Voluntary movements were present in the left leg, but were very feeble; there was no apparent wasting. Sensation in the left arm and leg was much impaired, but on being obtained, was referred correctly and without delay. The patellar reflex was equal and normal on both sides; the plantar reflex was normal on the right but absent on the left. The heart and lung-sounds were normal, and the urine was normal. The symptoms noted subsequently were increasing dysphagia and rapid shallow respiration without dyspnœa. More complete notes could not be taken, as she was only under observation for twenty-four hours, when she died from asthenia.

Post Mortem Examination.—On removing the brain, the right side of the medulla oblongata was seen to be considerably enlarged (about twice the size of the other), and, on separating the cerebellum, the right side of the floor of the fourth ventricle was found to be correspondingly enlarged, the median furrow being pushed over to the left side. The growth extended from the striæ acousticæ to the calamus scriptorius, and the anterior pyramids and olivary body seemed chiefly implicated. The course of the eighth nerve could be distinctly traced, but its superficial origin was involved in the growth. The nerves at the base appeared normal. On transverse section of the medulla, a reddish-brown tumour of soft consistence, and dotted with punctiform extravasations, came into view on the right side; it was circumscribed to the region of the pyramids, and appeared to be a glioma. A series of transverse sections showed it to extend as high as the junction of the pons and medulla; below, no sign of it was observed a quarter-of-an-inch below the calamus scriptorius. The rest of the brain appeared normal.

Microscopical Report.—This tumour was a spindle-celled sarcoma. It was invading the medulla from the right side. The membranes were not adherent. It commenced at the lower part of the olivary and restiform bodies, and, at a short distance above the lower end of the olivary body, the medulla was much increased in size on the right side. The increased growth was most marked in the posterior portion of this side, while the anterior fissure was pushed over to the left. On making sections further up, it was found that the right side was much hypertrophied up to nearly the middle of the pons Varolii, although the actual new growth did not extend so far. No spindle-cells could be found beyond the lower part of the pons, but there was a great deal of hypertrophied tissue in a necrotic state, in some places quite broken down, and, as shown in the microscopical sections, patches had lost their vitality and would not stain. The upper part of the pons and the spinal cord appeared to be quite normal.

REMARKS BY DR. FERRIER.—It is always difficult, in a case of glioma, to determine the actual amount of destruction of the nerve-cells and tracts in the region actually invaded, or the extent of functional interference with structures not actually implicated. The symptoms in this case, however, agree well with those which anatomical and physiological research would lead us to expect. The region invaded includes the sensory and motor tracts of the left side. Hence the degree of motor and sensory impairment of the left limbs. Within the diseased area are also the nuclei of many of the cranial nerves, viz., the hypoglossal, glosso-pharyngeal, accessorio-vagus, seventh (both portio dura and portio mollis), the sixth, and partially the fifth. Corresponding with this, we have the deviation of the tongue to the right side from paresis of the right hypoglossal, and the thickness in speech. The dysphagia and the disturbances of respiration would be accounted for by implication of the conjoint nuclei of the eighth cranial nerve. The deafness on the right side, and the partial paralysis of the right side of the face, would be explained by the affection of the nuclei of the auditory and facial nerves.

A point of special interest is the association of paralysis of the right external rectus with that of the left internal rectus. We have no grounds for supposing that the tumour, either directly or indirectly, implicated the much higher lying nucleus of the left third nerve; and, therefore, the case lends considerable support to the views of Duval and Laborde, that the left internal rectus is directly innervated from the nucleus of the right abducens, and *vice versâ*. From their researches, it would appear that the abducens nucleus sends fibres upwards in the posterior longitudinal bundles, which pass directly into the third nerve of the opposite side. Thus the conjoint action of the one external rectus with the internal rectus of the opposite eye, is shown to have an anatomical as well as a functional basis.

What the cause of the ptosis of the right eye may have been does not seem so clear; unless we suppose that the right third nerve was also directly weakened, for which there does not seem real ground. We might be justified in concluding that there is also some associated action of the levator palpebræ with the external rectus through the same nucleus.

VICTORIA HOSPITAL FOR CHILDREN.

TUMOUR OF LEFT SIDE OF PONS VAROLII, WITH HYPERPYREXIA.

(Under the care of Dr. RIDGE JONES.)

[From notes by HUGH SMITH, F.R.C.S., Registrar.]

HENRY A., aged 3 years, was admitted on May 10th, 1883. It was stated that his father was asthmatical and delicate, but that his mother, and her six other children were well. Two children had died: one of spinal disease and wasting. The mother had had two miscarriages. Two years before admission, the patient had measles; and since that time his head had been growing large. He had had fits of screaming at night, putting his hands to his head. About a year before admission, a squint was noticed, and it had continued ever since; he had been wasting for about the same period. During five months—*i.e.*, from May till September 1882—fits occurred as above described, but ceased until seven weeks before admission, when the mother noticed loss of power and contraction of the right arm, and that at the same time the head was turned almost constantly to the right side; there was also palsy of the left side of the face, with impaired vocalisation.

When admitted, he was a well-nourished child, but his head was considerably larger than normal in proportion to the size of his body; the anterior fontanelle was one inch in the long diameter. There was internal strabismus, but the pupils were equal and dilated; there was some conjunctivitis of the left eye. There was paralysis of the muscles of the left side of the face, and slight rigidity and tonic spasm of the right arm and leg. During the first night in hospital, the child lay wide awake, turned over and over in bed, and was restless and irritable. He had an imbecile expression, and a harsh croaking cry. Sibili and rhonchi were heard over the right side of the chest behind. There was no apparent enlargement of the abdominal organs. The urine could not be saved for examination. The fæces and urine were passed involuntarily; this was abnormal in a child of its age. Optic neuritis was present. A sleeping-draught containing chloral and bromide of potassium was ordered to be given at night if necessary.

May 15th.—There was a superficial irregularly shaped ulcer of the

inferior external part of the left cornea, occupying about one-tenth of its whole area. The conjunctivæ were much congested, and there was some extravasation of blood at the upper part of the globe, together with ciliary congestion. Both pupils were fully dilated. Solution of atropine was directed to be applied to the eye, and a mixture containing one grain of iodide, and three of bromide, of potassium, was ordered three times a day.

May 22nd.—The ulcer of the cornea was no better. The temperature was 100.8° Fahr.

May 23rd.—At 4 P.M., the child was sick after a dose of oil; he appeared to gasp for breath, and was noticed to be drowsy. The conjunctival reflex was deficient. The temperature was 103° Fahr. At 9 P.M., the temperature was 105° Fahr. There was no pneumonia; he was dull and heavy. At midnight, the temperature was 106.6° Fahr. in the axilla, and 107° Fahr. in the rectum. The child was insensible; and there was no conjunctival reflex. The right eye was bright, while the left was dull; the eyelid was widely open; conjunctiva dry, and the eyeball sunken and shrivelled; the pupil was dilated from the previous use of atropine. The right pupil was moderately dilated, but did not respond to light. The right leg was extended, and quite stiff, and the right arm and fingers were also stiff and extended, and could not be bent. There was no apparent sensibility on this side. In the left leg, power appeared normal; but at intervals there were partial tonic spasms. There was no clonus at the ankle, and no patella-reflex. Sensibility was diminished. If touched or covered with clothes, the thigh was at once flexed, and the leg again extended. The left arm lay passive, but flaccid. If the child were placed on his back, he sluggishly turned over on to the left side, with a marked tendency to arching of the back. He had not passed urine; the mouth was open, and there was some difficulty in swallowing, fluid remaining in the mouth for a short interval. The lips did not close on the spoon. The left arm was used to remove the spoon. The tongue was slightly protruded, and both it and the mouth markedly drawn to the left side. Respiration was sighing, but not at all abdominal; the chest expanded moderately, and equally on both sides. The pulse was very quick, but good. Cold sponging reduced the temperature to 106° Fahr.

May 24th.—The right arm and leg were slightly rigid, but were moved voluntarily. The child lay on his back in a semicomatose condition. He had passed urine freely during the night, but the bowels were confined. One grain of calomel was given. The temperature had fallen to 103.8° Fahr. No fresh symptom had arisen. Ice-bags were ordered to the head, and cold sponging every two hours. 4 P.M. The temperature was 108°; the skin was dry, and burning hot. The urine could not be saved.

May 25th.—At midnight marked twitching of the mouth was noticed, and the fingers of the right hand were firmly clenched; the left fingers also were flexed; respiration was laboured. At 2 A.M., the face was blanched; respiration was calm; the child could not swallow, and died at 8.30 A.M.

Temperature.

May 23rd,	10 A.M.	...	100.8	May 24th,	1 P.M.	...	107.0
	2 P.M.	...	102.4		2 „	...	107.0
	6 „	...	103.6		3 „	...	107.4
	10 „	...	105.2		4 „	...	108.0
	11 „	...	106.6		5 „	...	106.2
	Midnight	...	107.0		6 „	...	105.0
May 24th,	1 A.M.	...	106.6		7 „	...	105.0
	2 „	...	105.8		8 „	...	104.0
	3 „	...	103.8		9 „	...	104.2
	4 „	...	103.8		10 „	...	105.4
	5 „	...	104.6		11 „	...	107.0
	6 „	...	105.0		Midnight	...	107.0
	7 „	...	105.8	May 25th,	2 A.M.	...	105.4
	8 „	...	104.8		4 „	...	106.4
	9 „	...	104.8		6 „	...	106.6
	10 „	...	105.0		8 „	...	106.8
	11 „	...	105.4				
	Noon	...	106.4				

The necropsy was made twenty-four hours after death. The body was that of a well-nourished child. Rigor mortis was strongly marked. The examination of the head showed that the dura mater was adherent at the vertex; there were opaque patches on the coats of the veins of the pia mater, especially at the vertex. The veins were congested. At the base of the brain there were two small excavations on the cranial surface of each crus cerebri, about a quarter of an inch in diameter. The pons Varolii was not symmetrical, the left side being more prominent and wider than the right. On section, a yellowish circumscribed mass, surrounded by a dark grey irregularly circular margin, was seen; the yellowish-coloured material was of the consistence of a ripe peach, and juice could be scraped from it. The tumour pressed upwards the floor of the fourth ventricle. The lateral ventricles appeared to be filled with a pale clear serous fluid. The heart was firmly contracted, and almost empty. The lungs were normal; the liver was mottled in places with a yellowish green colour; the kidneys were pale, and the spleen firm. The bladder contained turbid urine, which did not respond to the test for sugar, but contained some albumen, probably from the blood, accidentally mixed with it.

Microscopic Examination of Tumour. — Dr. Heneage Gibbes, having prepared and examined the new growth occupying the left half of the pons Varolii, was of opinion that it was composed of tubercle; several giant-cells were visible in the sections made, and at points caseation of the mass had occurred.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 23RD, 1883.

JOHN MARSHALL, F.R.S., President, in the Chair.

THE PRESIDENT, in opening the proceedings, referred very briefly to some of the events in the medical world since the last meeting, and expressed his pleasure in being able to point to one very important fact, namely, the announcement of the detection of a special organism, by Dr. Koch, as associated with epidemic cholera. He hoped that it might be possible for them to receive some communication from Dr. Koch himself on the point. At any rate it was a matter of congratulation and a sign of progress. That the discovery had not fallen to the lot of our Sanitary Commission in Egypt was no proof that they had not done their work well; indeed that, he thought, had been amply proved. He need hardly remind the members that to Dr. Ferrier had been adjudged the Marshall Hall Prize for the very important advances he had made in the knowledge of the brain and nervous system. They had now the very pleasant prospect of listening to Dr. Ferrier's account of the recent progress in nervous science.

Progress of Knowledge in the Physiology and Pathology of the Nervous System. By DAVID FERRIER, F.R.S. This paper is published at page 805.

The PRESIDENT said that the members must all highly appreciate the address they had heard. If there were one point more conspicuous than another, it was the great power of lucid explanation, in terms so carefully chosen, in language so happily employed, as to enable all to feel familiar with a subject intricate in its nature. The importance of the subject-matter was obvious, and presented itself to many points of view. Speaking for himself, as a surgeon, he admitted his special interest in the prospects Dr. Ferrier held out in that direction. —Dr. HUGHLINGS JACKSON said he had listened with the greatest interest to what Dr. Ferrier had read; that he deeply felt its value, and had been much struck with the lucidity of its expression. Dr. Ferrier had very kindly referred to him, his predecessor in the office he held that evening, and had used language of very generous praise. It was true that he thought, and for nineteen years had always thought, that the cerebral hemispheres represented movements; but he must point out that his results were trifling compared with those of Dr. Ferrier; they were guesses by the side of proofs. He thought that there were certainly cortical centres of movement, and he also went further, in believing that all parts of the brain represented impressions or movements, or probably both. Dr. Ferrier's work had not been purely theoretical; he had done much in that part of physiology which corresponds to psychology; but it had also been conspicuously practical, and such as would help a man at the bedside. There were, indeed, a few points on which he ventured to differ from Dr. Ferrier, but not such as were fit to bring forward then. He could only say, in conclusion, that if it were legitimate to envy any man he should envy Dr. Ferrier, though, he must be allowed to add, it was with a very affectionate kind of envy.—Dr. ALTHAUS remarked that he certainly had not found any holes to pick, but he had been sorry to miss any reference to Johannes Müller, a name which was interesting historically as of one who had, simultaneously with Dr. Marshall Hall, arrived independently, in 1832 and 1833, at many of the same conclusions on various points, and more especially on the reflex functions of the

spinal cord. As to the result of the duel between Dr. Ferrier and Professor Goltz at the International Congress, he thought there could be no doubt that Dr. Ferrier had had the best of it, and that his demonstration on monkeys was very convincing. At the same time, it must be remembered that several able men in Germany, notably Hitzig and Monk, did not profess to agree with him, though he thought it probable that their results might be reconciled. The surgical outcome of these advances in knowledge, he admitted, seemed hitherto a little less satisfactory than Dr. Ferrier would lead them to expect, but he felt convinced that, on the improvement of diagnosis, practical results would follow. He took especial interest himself in a small matter, namely, the therapeutic results which followed the application of electricity to the outside of the head, guided, to some extent, by the knowledge of the functions of the parts of the brain lying below. It was a treatment requiring patience, and hitherto not widely adopted, but he looked for some beneficial results from it.—Professor SCHÄFER, who was invited by the President to speak, observed that he had been one of the committee which had undertaken to report on the brain of the monkey in which Dr. Ferrier believed himself to have destroyed the motor areas of the cortex. That such was the case he could testify. The whole cortex round the fissure of Rolando was removed for some depth below the surface, and this extended for a certain distance into the frontal and parietal convolutions. In fact, if from a map of the cerebral cortex that part was cut out which Dr. Ferrier alleged to be as motor, and this part laid upon the actual brain, it would be found that its cortex had been entirely destroyed; and, further, that the course of degeneration down the pyramidal tracts was clearly to be traced below the medulla oblongata. To Mr. Langley had fallen the task of investigating the remainder of the brain in Goltz's dog, and his first preliminary account, necessarily rather hurried, was soon to be materially supplemented. The facts on which Goltz laid so much stress were not to be disputed; but the interpretation put upon them by Dr. Ferrier was correct also. Their chief interest lay in the domain of comparative physiology, for they illustrated the different distribution of functions in men and animals.—Dr. SHARKEY, in looking back to the comparatively small experience which he had been able to gain in the last six or seven years, remarked that he had found six cases illustrating the localisation of motor functions in the parts of the cortex where Dr. Ferrier had placed them. In one case, which he had previously brought before the Society, there was complete absence of the angular gyrus on one side, noticed after death. A minute examination showed a corresponding atrophy of the optic tract, thus supporting Dr. Ferrier's localisation of the visual centre in the angular gyrus. Dr. Ferrier had remarked that in cases of hemianopia, which were due to cortical lesions, a defect would be found in the retinal field of vision; and such indeed had been shown by Mr. Nettleship to be the case in a patient under his notice, who had had fits beginning with a play of colours in the right field of vision, had gone on with convulsions of the left arm and left leg, then bit her tongue and became unconscious, and recovered finally with paresis of the right arm.—Dr. MACLAGAN thought it should always be borne in mind that many parts of the brain, especially those most intimately connected with life, were out of the reach of research. On such parts depended the hyperæsthesia of cerebro-spinal fever; the quick shallowing breathing in measles, without pulmonary signs to explain it; and many other minor points. Of the thermal centre he was anxious to hear something more from Dr. Ferrier, for hyperpyrexia was a very fatal accident. The only method of counteracting it was by cold applied to the skin; not simply because cold water lowered the temperature as, of course, it must by conduction, but because the thermal centre could be acted upon from the skin. Pyrexia and its treatment he was anxious to separate entirely from hyperpyrexia.—Dr. FERRIER, in replying, expressed his warm thanks for many compliments paid him, and especially for Dr. Hughlings Jackson's very generous words. To enter completely into all of the points raised during the evening was beyond the limits of his time, and would involve the explanation of much of his work that was at present unpublished, and which he did not think it would be expedient to bring forward at that time. What he had heard from Dr. Sharkey had been very good news to him, for the determination of the visual centre had proved very difficult; and he was glad too to hear Professor Schäfer's decisive report of the complete destruction of the motor area and descending lateral degeneration, though he had been able to assure himself of the latter point independently. As to the thermal centre, about which Dr. Maclagan had inquired, he admitted himself better fitted to listen than to lecture, for the matter was very intricate, and he had not been able to make up his mind upon it.—The PRESIDENT, in a few concluding words, congratulated Dr. Ferrier on his prudent reticence and the careful way in which he had confined himself, as befitted such an address, to the parts of the subject which might fairly be considered already known. With the optimistic view of the future of cerebral surgery, he admitted that he had much sympathy. Poor though the results might be at present, he hoped to see a time when they could successfully reach abscesses or tumours in the brain. They might expect cerebrography, if he might use such a word, to be soon definite, and then surgeons would follow physiology as now they followed anatomy.

HARVEIAN SOCIETY.

THURSDAY, OCTOBER 18TH, 1883.

E. SYMES THOMPSON, M.D., President, in the Chair.

The Causation of Congenital Club-Foot.—Mr. A. QUARRY SILCOCK read a paper on this subject. Having described the varieties of the deformity, and briefly stated the various theories propounded to explain their origin, the author contended that Cruveilhier was right in attributing the malformation to a vicious position of the fœtus *in utero*. In the case described by him in his *Anatomie Pathologique*, the legs of the fœtus, instead of being flexed on the thighs, as usually is the case, remained extended and applied to the anterior aspect of the trunk; whilst the feet, jammed beneath the chin, had become distorted and twisted, the one into the condition of varus, the other into that of valgus. One knee was bowed outwards and backwards; the hands were turned over upon the radial borders of the forearms, having been forcibly compressed between them and the legs. The several parts of the fœtus thus exercised a certain amount of potential pressure upon each other; in other words, the limbs were so placed, that, as they grew, they encountered a definite resistance from other parts of the fœtus against which they were jammed; so the growth of the affected parts was more or less restrained in the direction which it ought to take; and, since development naturally progressed in the lines of least resistance, the normal configuration of those portions of the body compressed was lost; consequently they became deformed, and thrust into unnatural positions. This state of things could not be influenced by the amount of liquor amnii, for, the pressure of the uterine walls being equally distributed, was equally conducted in all directions; hence it must affect all portions of the fœtus alike. In a fœtus with club-hand and partial absence of the radius, it was proved that the radial border of the forearm had been bent over the prominent lower margin of the thorax, so that by reason of the pressure to which the parts had been subjected, the radius had partially failed to develop. It appeared, too, that the degree of distortion and its direction were proportionate to, and dependent upon, the amount of compression brought to bear on the parts affected. The majority of new-born children had a tendency to varus, but when expelled from the uterus, the distorted members tended to develop in the normal direction. Club-hand was less frequently met with than club-foot, on account of the greater mobility of the wrist-joint as compared with the ankle; consequently, in the former, there was less liability to permanent displacement. As to the theory that the deformity was engendered by muscular paralysis, or spasm brought about by some nervous derangement, the only nervous lesions described were partial or complete absence of the brain and spina bifida, and these only in a very small percentage of cases. Dr. de Watteville had kindly tested electrically the muscles of the peroneal district in a case of double congenital varus, and found that their reactions were normal. Eschricht's explanation only applied to cases of varus; but all gradations of the deformity were met with, from the most extreme forms of varus to those of valgus; and varus and valgus were sometimes coincident in the same individual. Moreover, the femora were generally perfectly natural, or even rotated out to some extent. Huetel's theory was disproved by the fact that in the majority of cases there was no obvious deformity of the tarsal bones. It was difficult to reconcile the theory advanced by Cruveilhier with the undoubted fact of heredity; but, inasmuch as the majority of cases were not hereditary, it was fair to regard the few examples to the contrary as coincidences merely; and it was possible that the tendency to a vicious position *in utero* might be transmitted through the fathers. As to the ultimate cause of this position *in utero*, in the remaining and majority of cases, one could only surmise; but it might belong to that class of circumstances usually included under the term "accidental;" so that Hippocrates may indirectly have been in the right when he attributed club-foot to accidents happening to the

mother during pregnancy.—Mr. NOBLE SMITH said the theory of intra-uterine pressure as the cause of congenital talipes was a very enticing one, but he could not accept it without further evidence.—Mr. J. THOMPSON took exception to a statement made by the author that nearly all children had a tendency to varus at birth; he had never observed it.—Mr. R. W. PARKER coincided with the author. Against the nerve-lesion theory, he cited the case of a child with congenital varus who died of tubercular meningitis. He made, in conjunction with Mr. Shattock, a most careful examination of the spinal cord, the spinal nerves, and the muscles presumably affected, and found them perfectly healthy in every respect, both macroscopically and microscopically.—Mr. SILCOCK briefly replied.

Normal Growth-Rate in Infancy and Childhood.—Dr. W. SQUIRE read a paper on this subject. In the care of health, he said, height and weight had always to be considered. In the young, nutrition was arrested when weight was lost, and restored when it was regained. But the mischief done might never be repaired, and in spite of the prejudice against infants being weighed, it was, he thought, a necessity. With them disturbed health was shown by the mere alteration of the normal growth-rate. During the first three months mere gain in weight was not evidence that the child was thriving, unless the gain were in the right ratio. All children in the first few days after birth lost five or six ounces in weight, and regained this in the eighth week, and at the same time grew an inch in height. A pound weight was gained by the end of the first month, and two pounds in the second, then the rate of increased weight was less, but two inches height was added. During early dentition both height and weight increased at a lower ratio. A child should double its birth-weight in the first four or five months, and treble it at a year old. In the first year it should grow three inches in the first three months, two inches in the next three months, and two or three in the last six months. The weights in the diagram for each month of the first year had been verified by numerous observers; the heights were approximations only to the normal growth-rate; they had been traced from some observations of the author, supported by one instance of continuous measurement for the whole year by Dr. Haehner of his own child, published in the *American Journal of Obstetrics* for 1880. Dr. Squire showed another diagram which gave the average height and weight every year up to the age of 12. A child should measure three feet at three years old, four feet at eight years, and five feet at twelve, and should weigh at three years thirty-two pounds, at five years forty pounds, at eight years fifty pounds, and at twelve years seventy-two to eighty pounds. Throughout a child was found to grow by fits and starts, perhaps two inches in one three months, and not an inch in the next half year; rapid growth was an indication for care and rest, and loss of weight was as true a symptom of disease as one obtained by the use of the clinical thermometer. Unless girls showed increased growth-rate at eleven and twelve years, healthy development a year or two later would be hindered, and medical treatment might then come too late.—In the discussion which followed, the President, Mr. R. W. Parker and others took part; after which Dr. Squire replied, and the meeting adjourned.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AUGUST 5TH, 1883.

J. L. W. THUDICHUM, M.D., President, in the Chair.

Presidential Address.—At the opening meeting of the second session of this Society, the President said that the Society had been happy to get for its first President so accomplished a gentleman as Dr. Hart Vinen. To this gentleman, and the interest taken in the Society by its members, its immediate and great success was due. The Society now counted 145 members; and, to judge from the great number of new proposals, it was likely to increase in interest and usefulness. The papers read during the session, and the clinical cases and pathological specimens brought forward, had been instructive and important. The speaker next adverted to the failure of the Medical Bill, and alluded to the proposed new *Pharmacopœia*. Passing over to a consideration of the general position of medical science, he mentioned the efforts, lately renewed, to increase the power of therapeutics. A movement had sprung up in Germany, by which it was intended to discover new remedies to put practical medicine on a level with pathology, which had got in advance of it. This movement operated by an annual congress and a yearly volume of *Transactions*. In all these efforts, there was one factor constantly neglected—viz., the chemical condition of the healthy and sick animal body. There should be laboratories of research established in all large hospitals. In these, the purely chemical diseases, no less than the diseases caused by micro-organisms, should be investigated. The study of the chemistry of these organisms themselves was far advanced in this country, but it had to contend with much misapprehension. Thus, they could read, in many publications, of "sepsin" as a substance coming from putrid animal matter, and being, in fact, the poison of animal sepsis. But the truth was, that this sepsin was a substance which had been on one occasion extracted from putrid yeast, and had not been obtained in two further experiments by the same authors. It was a mere vegetable alkaloid, having no cohesion with any other datum in pathology. The chemical effects of bacteria upon animal matter were powerful and massive, as he had experienced when analysing the results of splenic fever upon an ox, and rearing the bacteria of splenic fever on a large scale for the purpose of analysing the crops. These researches had convinced him, even more than his general knowledge, that the idea, which some combined with the chemistry of micro-organisms, of a special poison to be searched out and counteracted, was at least narrow, if not delusive. Micro-organisms had mechanical and chemical effects; the chemical products need not be potential poisons, and many of them, he knew, were not poisons; but as mere inert matter they might endanger and destroy life, for life was carried on by means of living matter, and not by mere dead crystalloids. Every zymoin was resulting in the degradation of living matter down to the state of crystalloids. Remedies for the great diseases, direct cures, were no doubt sorely wanted; but they could come only out of a complete chemical knowledge of the processes of disease, including the patholyses caused by micro-organisms, and any and all poisons which they might produce; and the micro-organisms themselves would also yield to chemical influence only. He had greeted with joy the rivalry of France and Germany on the cholera-field of Egypt, and regretted that this country also had not entered the lists for the scientific tournament.

On Cholera.—Brigade-Surgeon J. B. SCRIVEN, formerly Civil Surgeon of Lahore, read a paper upon this disease. Previously to 1860, when he lived in Calcutta, he had believed that cholera was not contagious, but his experience in the Punjab had undeceived him. He pointed out the following facts. 1. The evidence in favour of the non-contagious theory was the same now as it had been twenty years ago, and no new evidence had been brought forward at the recent discussion in Amsterdam. 2. On the other hand, evidence of propagation by contagion in the Punjab had been gradually accumulating, in consequence of the increase of cholera since the construction of the railways; and epidemics had been much more frequent since the opening of a continuous line of railway from Calcutta to Delhi; and had arrived at Lahore much earlier in the season since the opening of a railway from Delhi to Lahore. In the two years 1867 and 1879, which were the occasions of the duodecennial gathering of pilgrims at Hurdwar, the disease had travelled exceptionally fast; but as there was almost no railway in 1867, and it was complete in 1879, the journey was expedited by about five days in 1879. 3. The contention of the non-contagionists, that the attendants on cholera-cases are remarkably exempt, was by no means universally true; for instance, of the two regiments that suffered, in 1861, at Meeanmeer, in one, nearly half the European attendants (428 out of 863) were attacked; and in the other, of 203 cases, 137, all Europeans, were amongst hospital-orderlies. The native establishments, on the same occasion, escaped; and the author admitted that Indian native attendants were wonderfully exempt, but this was, no doubt, due to their habit of bathing before eating, which they would consider especially incumbent upon them after handling Europeans. Medical men had a special immunity, because they took proper precautions, yet many of them suffered in India in 1879. 4. The point strongly urged by noncontagionists in support of their own views, viz., the frequently successful result of moving a cholera-stricken regiment "about 100 miles away," in order to take it out of the cholera-area, lost much of its force from the following fact: that, on several occasions, in the case of the native lunatic asylum at Lahore, Mr. Scriven had found removal of only one mile, within the cholera-area, sufficient, if each person were made to bathe, dress in clean clothes, and leave every personal appurtenance behind.

PRESENTATION.—At a special meeting of Court "Unity," 3665, Ancient Order of Foresters, on Thursday, October 12th, 1883, Dr. Colebrooke, its medical officer, was presented with a very handsome silver tea-tray, by the members. It bore the following inscription: "Presented by the members of Court Unity, 3665, A.O.F., to Henry Colebrooke, M.D., for his much valued services to the society for the past 22 years.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, OCTOBER 3RD, 1883.

D. J. LEECH, M.D., President, in the Chair.

Spina Bifida in an Adult.—Mr. WHITEHEAD showed a woman, aged 27, whom he had under observation at the Manchester Royal Infirmary, with an unusually large spina bifida situated in the lumbo-sacral region. The tumour measured twelve inches in the perpendicular axis, and ten inches across. The growth was tense, semi-transparent, and, when examined by the transmitted light of an oxyhydrogen lamp, did not appear to contain either spinal cord or nerves. From a tentative tapping, the fluid contents were ascertained to be free from sugar, to contain $\frac{1}{16}$ albumen, and to be of 1025 specific gravity. The integumentary coverings were so attenuated, that spontaneous, if not accidental, rupture appeared imminent, and the prospect of immediate death in consequence made the consideration of operative interference a question of the gravest character. The thinness of the walls made it improbable that Morton's solution could be injected without risking the two dangers especially emphasised by him as contraindicating its employment—*i.e.*, the subsequent entrance of air, or the escape of cerebro-spinal fluid. A most noteworthy feature of the case was that the tumour had remained about the size of a hen's egg from birth until the patient was married, six years ago, when it immediately commenced to enlarge, and at the same time she began to have severe attacks of headache, attended with most distressing nausea. During these attacks, and also during menstruation, she observed that the tumour always became "flabby." Mr. Whitehead proposed operating on the case, and reporting the result at a future meeting of the Society.

Two Cases of Abscess in Bone.—Mr. JONES showed two specimens of bone-abscess, one in the lower end of the femur, and the other in the shaft of the tibia. The abscess of the femur was in a man thirty-five years of age, admitted into the Manchester Infirmary on July 16th, 1883. In November 1881, the patient noticed a weakness with occasional pain in the left knee. The symptoms, attributed to rheumatism, were relieved by wrapping the joint in flannel. The improvement, however, was only temporary, for the pain returned with renewed severity, and was accompanied by swelling of the thigh and knee. The pain was continuous, but underwent a decided increase in the night. An incision made in the most prominent part of the swelling afforded little or no relief until three days afterwards, when a large quantity of matter escaped. The history suggested a deep-seated affection, commencing, in all probability, in the cancellous interior of the lower part of the femur; and the patient's local and general condition rendered amputation necessary. This was done a little above the centre of the thigh. On making a section of the amputated portion of the femur, a large quantity of very thick fœtid pus escaped. Within the cancellated structure, there existed several cavities containing inspissated pus. The surrounding bone was much thickened and very dense. This, no doubt, was partly due to an attack of inflammation eighteen years previously. The second abscess was situated in the right tibia of a man, aged 27, admitted into the infirmary on November 14th, 1881. For twelve months, the patient had felt occasional severe starting pains in the right tibia. The pains recurred for two or three nights, and then disappeared for weeks. Latterly, they had become much more frequent, and were present both day and night. Soon a swelling appeared in the middle third of the leg, in the situation where the pain had been most severe. Moderate pressure on the swelling produced an excruciating pain. The combination of circumstances led to the diagnosis of an abscess; and, with a view of evacuating its contents and relieving the pain, trepannation of the bone was practised. Before the circle of bone was removed, pus, of apparently healthy character, escaped by the side of the instrument. The exposed cavity was lined by a distinct pyogenic membrane, which was removed. No sequestrum was found, and the circle of bone removed was fully half an inch thick, and composed of dense sclerosed bony tissue. Instant and complete relief followed the escape of the pus. The cavity soon filled with granulations, and the swelling of the neighbouring structures rapidly subsided. Two months after the operation, the patient left the infirmary; a couple of months later he resumed work as a tailor, and one day, in entering a tramcar in motion, he caught his leg (right) against the edge of the footboard. Immediately he was seized with an acute pain in the leg, in the position of the former disease. The limb became enormously swollen, and from a small sinus which had remained on the anterior surface of the tibia, there exuded some sanious purulent fluid. The diffuse inflammation soon terminated in suppuration, which necessitated free incisions. Notwithstanding this, the mischief extended to the lower part of the thigh, and it became necessary to remove the limb in order to preserve the patient's life. Examination of the tibia showed a cavity containing disintegrating granulations and fibroid tissue, and when these were cleared away, a thin bridge of bone at the posterior part alone prevented a complete solution of continuity. Subsequently, this feeble uniting medium gave way, so that it is more than probable a crack existed in it at the time the first examination was made. It ought to be mentioned that the patient had suffered suppurative inflammation with necrosis of the tibia, which was diseased when he was seven years of age. In confirmation of this, several depressed cicatrices were discovered along the course of the bone. Mr. Jones, in commenting on these two cases, referred to the fact that both the bones which were diseased had been the seat of prior pathological changes, and suggested the possibility of inflammation leaving products which might, on slight provocation, become the centres of diseased action.

New Bed for Invalids.—Dr. YEATS showed a model of a new invalid-bed or carriage. The special features of the bed consisted in a movable pad in the mattress, which was lowered and elevated by beveled wheels and screw, and worked by a hand-wheel at the left side of the bed, either by the patient himself or an attendant; and further, there was a bed-pan fitted underneath and close to the mattress, which could be moved forwards immediately under the patient, and also moved backwards again, by means of a rack and pinion, and also worked by a hand-wheel at the right side, either by the patient himself or a nurse. The pan when drawn back, after being used, slid into a box provided with a close-fitting lid lined with India-rubber to prevent any odour. The advantages of the bed were the following, viz: there was no disturbance of the patient in using the bed-pan; the bed-pan could be managed by the patient himself, and it could be used in-doors or out-of-doors without being seen by anyone; and the risk of any offensive odour was almost totally obviated. The bed was manufactured by Mr. William Dickenson, box-manufacturer, Hulme, Manchester.

Purulent Pericarditis.—Dr. HUTTON showed (1) the heart of a boy, 1 year and 10 months old, who died in the children's hospital of purulent pericarditis associated with left empyema of ten months' duration; and (2) the heart of a boy of 10 years, the subject of chronic mediastinitis, adherent pericardium, congestion of liver, ascites, hydrothorax, general dropsy, and œdema of the glottis.

Pericarditis in Children.—Dr. ASHBY read a paper on pericarditis in children, and mentioned two cases in which the pericardium was tapped.

REVIEWS AND NOTICES.

THE EXTRA PHARMACOPŒIA OF UNOFFICINAL DRUGS, AND CHEMICAL AND PHARMACEUTICAL PREPARATIONS. By WILLIAM MARTINDALE, F.C.S., late Teacher of Pharmacy and Demonstrator of Materia Medica at University College. With references to their use abstracted from the medical journals. By W. WYNN WESTCOTT, M.B. London: H. K. Lewis. 1883.

THE object of this work is to describe those drugs and preparations which have come into general use since the publication of the *British Pharmacopœia* sixteen years ago, the selection of material being limited by personal experience. Probably one of the most difficult medicines to dispense satisfactorily is phosphorus, and we naturally turn first to the section devoted to that subject. To obtain its full medicinal action, and to ensure its complete absorption, it should be administered in solution, either in oil or fat. But these solutions, as is well known, are unpleasant to take, and give rise to disagreeable eructations. Moreover, many are unstable, and, on exposure to air, rapidly oxidise, and form compounds which are almost inert. It is a difficult pharmaceutical problem to present it in an active and palatable condition. The French *perles* of phosphorated oil are stable and active, but they are uncertain in their effects, for the dose they contain is usually overstated. Solutions of phosphorus in suet or cacao-butter make good pills if coated with sandarach solution, and not kept too long. When phosphorus has to be combined with other ingredients in a pill, it is desirable to use a concentrated fatty basis. Mr. MARTINDALE suggests the employment of a ten per cent. phosphorated suet, which is made by dissolving ten grains of phosphorus in fifty minims of bisulphide of carbon, and then adding ninety grains of prepared suet. The bisulphide of carbon evaporates, so that a basis is obtained which may be used for the preparation of any of the compound tonic phos-

phorus pills, the formulæ of which are now so frequently advertised.

The general remarks on the preparation of pills are thoroughly practical, and are deserving of consideration both from prescribers and dispensers. The pill-mass must be firm and solid, and yet possess tenacity, or it cannot be worked to advantage. When the pill contains but little fibrous or insoluble matter, it should be made quite hard and rolled out at once, or it will not retain its shape. For vegetable powders, one of the best excipients is glycerine dilute with half its volume of rectified spirit. If used pure the glycerine, being slightly hygroscopic, gives the pills an unsightly moist appearance, but if diluted with spirit the latter quickly evaporates, and leaves them of the proper consistence. It is recommended that all pills should be made as small as possible, for it is found practically that the public much prefer a one-grain pill to a five-grain pill. The coating or varnishing of pills is a matter of considerable importance, but presents little or no difficulty if the author's plan of using sandarach solution be adopted. The pills must be perfectly made, well mixed, and free from powder, as every imperfection will show through the transparent coating. Having placed them in a covered pot, a few drops of a solution of sandarach in absolute alcohol, equal parts, are poured in and diffused equally over the pills by a few circular movements of the pot held in one hand. They are then turned out on to a clean plate and carefully separated. In three or four minutes they are moved, and at the expiration of ten minutes they are again moved and shaken. The process is now complete, and in about twenty minutes they will be quite dry. This mode of coating is one of the best, and can be performed without difficulty on a small scale.

The list of solutions for subcutaneous use is excellent, and will be found practically useful. The method of preparing the "injectio morphiæ acetatis hypodermica" is novel, and is a decided advance on the hypodermic solution advocated in the appendix to the *British Pharmacopœia*. The solution of hydrochlorate of apomorphia is of much value as an emetic, and in cases of poisoning will be found more useful than the stomach-pump.

A description is given of many new, or comparatively new, remedies, such, for example, as gelsemium, homatropine, nitro-glycerine, menthol, thymol, napthol, picrotoxine, agaricine, and others. The references are numerous and accurate, although they are probably the least valuable portion of the work. The book has been carefully written, and reflects credit on its author.

TRANSACTIONS OF THE VACCINATION INQUIRY, Part I. Edited by MONTAGUE D. MAKUNA, M.R.C.S.Eng., etc., late Medical Superintendent Fulham Small-Pox Hospital, etc. Leicester: Printed and published by W. H. Lead. 1883.

WE have received the first number of the *Transactions of the Vaccination Inquiry*, an inquiry set on foot, we believe, by the gentleman who edits the present number. The number contains, among other items, a short sketch of the history of vaccination and the vaccination-laws in England, by Mr. MAKUNA, and short notes on vaccination, for the most part extracts, from the pens of various authors. The greater part of the number is occupied by a detailed table of the answers received from various physicians and others, to whom seven "circular questions" were addressed. These questions were as follows.

"1. What are your views regarding compulsory vaccination in England, Scotland, or Ireland?

"2. What are your views regarding the protection afforded by vaccination against small-pox?

"3. What diseases have you, in your experience, known to be conveyed, or occasioned, or intensified by vaccination?

"4. What opinion do you hold as to the quantity and quality of vaccination, as determined by the cicatrices?

"5. What opinion do you hold as to the relative values of humanised and animal lymph, both as regards efficacy and safety?

"6. What opinion do you hold regarding the relations subsisting between variola and vaccinia and the theory of vaccination?

"7. How far do you consider unsanitary conditions responsible for small-pox epidemics, and how far can small-pox be controlled by improved sanitation?"

In all, 384 replies are given in the first number of the *Transactions*, the vast majority of which are favourable, not only to vaccination, but to compulsory vaccination. Such a collection of opinions is, of course, interesting, but we question whether it is of much scientific value in the determination of the value of vaccination. For this end, not opinions but facts are wanted, and the value of vaccination can be proved (or disproved) by statistics alone. Moreover, as regards Question 6, the point is a delicate one, to be settled by scientific experiment, and no number of opinions will lead us nearer its solution. In a word, while we are willing to credit the committee with the best intentions, we feel compelled to express the opinion that they have, thus far at least, directed their inquiry into a wrong channel.

DESCRIPTIVE CATALOGUE OF THE PATHOLOGICAL MUSEUM OF UNIVERSITY COLLEGE, LIVERPOOL (Royal Infirmary School of Medicine). Liverpool: Printed for the Medical Faculty of the College, 1883.

THE full scope of this work is not adequately expressed by its title; it is, in fact, a great deal more than a catalogue; it is intended to form, to quote the words of the preface written by Dr. Caton, "a short and condensed text-book, describing the various morbid conditions, and referring, by way of practical illustration, to the specimens on the shelves, a brief reference to the history of the cases being often appended." In its general plan, it agrees with the catalogue of the Museum of University College, London, lately reviewed in our columns; but the introductory remarks in each class are, as a rule, somewhat longer in the Liverpool catalogue. The arrangement of the volume presents many points of advantage, and it will, no doubt, be of the highest value to students of the Liverpool School of Medicine; but, on the other hand, the plan adopted entails certain disadvantages, of which the chief seems to be that, in those classes where the specimens are few, the introduction is either very short or entirely absent; for instance, the introduction to the section on Diseases of the Eye contains reference only to tumours, and the subject is dismissed in little more than a page; while, in the section on Nervous Disease, no introduction is provided, on the ground that the specimens are too few. This explanation, however, is not sufficient for the section on the Diseases of the Male Genito-urinary System, which has no introduction, an omission which is the more regrettable as the collection appears to be full and well adapted to illustrate the subject. These omissions, however, will, no doubt, be filled up in future editions, and the work will then be a complete system of pathology so far as it can be learnt in a museum. Several of the introductions strike us as very admirable. Mr. Rushton Parker's chapter on Tumours is as original and suggestive as those who know the writings of this able surgeon can have anticipated; but it is too short, and would gain in clearness by expansion, and would, perhaps, be more useful to the ordinary student if it were made a little more dogmatic; to the student, however, who is ambitious to know his subject, and not merely to pass examinations, it will be a great help, and a source of much mental comfort. The chapter on Abnormalities and Diseases of the Heart, contributed by Dr. Glynn and Mr. Paul, is an excellent summary review of a complicated subject, and as such is to be highly commended. As we have said, the scheme of the work is excellent, and a great deal of the execution is also excellent; the work, however, fails as a whole, owing to the absence of chapters on such important subjects as diseases of the male genito-urinary system, diseases of the nervous system, and, strangest omission of all, fractures.

ABDOMINAL HERNIA. By RUSHTON PARKER, B.S., F.R.C.S., Professor of Surgery in University College, Liverpool. Liverpool: Adam Holden. 1883.

THE author of this small contribution to the extensive literature of abdominal hernia devotes most of his pages to remarks on some of the consequences of this lesion, and on certain principles of its practical treatment. Amongst many points, he discusses fæcal fistula, gangrene of the bowel, reduction *en masse*, and certain notions concerning strangulated omentum which he believes to be fallacious. The views given in this pamphlet are mainly based on the personal observation of a surgeon of much experience, and the work contains many useful suggestions and practical hints. Although its different sections are not neatly arranged, it expresses clearly and fully the views of the author on the subjects with which he deals. It is free from padding, and the few cases it contains are interesting and to the point. Mr. PARKER lays much stress on his view with regard to the treatment of various degrees of functional intestinal obstruction, which may co-exist with, or supervene even after, the reduction of mechanical obstruction. For such functional conditions, none but functional methods, he holds, are of any use. In such cases, he would strictly forbid the administration of almost all nutriment, whether fluid or solid, either by the mouth or the rectum, and would trust entirely to the effective administration of morphia,

and, if necessary, of alcohol, in small quantities. In some remarks on the condition known to surgeons as strangulated omental hernia, Mr. Parker states that this title is a contradiction in terms, and implies a fallacious pathology. Since the omentum is so often tied tightly in operations for hernia without any consequent bad symptoms, the question arises as to how it comes that the comparatively slack condition of a hernial sac can be supposed to do so? Mr. Parker answers this question by the statement that, in cases of so-called strangulated omental hernia, "it is pretty clear that obstruction to intestine may have been brought about by dragging of the omentum, a pull on this membrane being sometimes sufficient to obstruct the colon."

In conclusion, Mr. Parker advocates ligature of the neck of the sac, under antiseptic conditions, as a means of effecting a radical cure of hernia. Several cases are given, in some of which this operation was performed in connection with kelotomy, in others as a simple prophylactic proceeding for the removal of a still reducible rupture and the prevention of probable strangulation.

NOTES ON BOOKS.

The Middlesex Hospital: Reports of the Medical, Surgical, and Pathological Registrars for the year 1880. London. 1883.—The statistical reports of the Middlesex Hospital for the year before last have just been issued; they do not differ in arrangement from those of former years, and maintain the same high standard of excellence. Dr. Brown, the Medical Registrar, supplies a full tabular statement of the course of the disease in forty cases of enteric fever, and a short analysis from which we gather that the treatment of twenty-four cases included the use of the bath, though with very varying frequency; in two cases, no fewer than sixty-four baths were given; while, in others, only one bath was required; the temperature of the water of the baths varied from 60° F. to 75° F., and the duration of immersion from ten to twenty minutes; the administration of the baths was much facilitated by the use of an apparatus (constructed under the supervision of the resident medical officer, Mr. Fardon, at the request of the physicians), by which the patients could be easily and quickly swung in a suspended hammock out of and back to their beds; in this way, upwards of four hundred baths were administered during the year. Only one patient, who had been bathed three times, died. The temperature of the patients when bathed averaged 103.5° F., though the bath was sometimes resorted to when the temperature persisted over 102.5° F. for some time. Dr. Brown considers that the treatment was very effectual "in calming delirium in the most severe cases, and generally in to a great extent aborting the symptoms and obviating many of the sequelæ associated with high and prolonged fever." The table of the cases of diphtheria is also very valuable; from it we learn that in three cases, aged respectively six, nine, and twenty-two years, tracheotomy was performed; the operation was resorted to early in all the cases, and it was in every case both immediately and ultimately successful. In the report of the Surgical Registrar, Dr. Sidney Phillips, is a table of the twenty-four cases of infectious disease which originated in the surgical wards during the year; from it we learn that, of the three cases of pyæmia, recovery ultimately resulted in two; while in five cases of cellulitis two deaths occurred, and in another it became necessary to amputate the leg. The Pathological Report, drawn up by Dr. Kingston Fowler, deals with two hundred and seventeen *post mortem* examinations, and contains much material of great statistical importance; among the deaths from nervous-disease, we notice one from cerebral tumour, where the growth, which was no larger than a pea, was attached to the *velum interpositum*, and was wedged between the optic thalami, and so blocked the *iter a tertio ad quartum ventriculum;* there was much effusion into the cerebral ventricles; the case is noted as an instance of acute hydrocephalus, and as falling within the old definition of "serous apoplexy;" record is also made of a remarkable case where acute yellow atrophy of the liver supervened in the course of locomotor ataxy in a woman, and caused death. We might extend our quotations indefinitely; but enough has been said to show the value and interest of the reports contained in the volume.

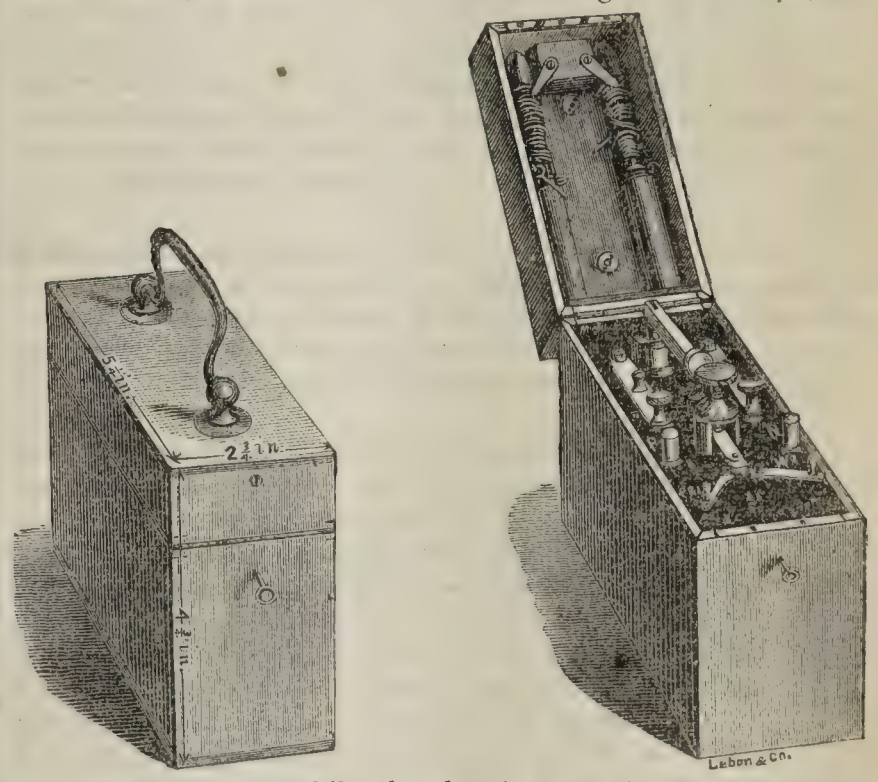
Dictionary of Mineral Waters, Climatic Health-Resorts, and Hydropathic Establishments. By B. BRADSHAW AND CO., Nice. Trübner and Co., London. 1883. Second edition.—The second edition of this excellent little work has been considerably enlarged, and is furnished with a good map, which shows the positions of and best routes to the leading Continental spas. It forms, indeed, a complete epitome of balneology, and gives, in the smallest possible compass, exactly the information which the invalid, as well as the tourist, requires. Its appearance at the present moment is opportune, when so many of our countrymen and women are leaving England in search of sunnier climes. To all such, Bradshaw's *Dictionary* can be recommended as a trustworthy and convenient guide-book.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

IMPROVED PORTABLE GALVANIC BATTERY.
DESIGNED BY MR. A. T. BUTLER-SMYTHE.

THIS galvanic apparatus is more portable than those hitherto in use, and possesses other advantages which will probably make it serviceable in general medical and surgical practice.

The battery is a modification of Grenet's, and, being expressly designed for gynæcological work, has been made to fit in the centre compartments of Barnes's, Greenhalgh's, and Godson's obstetric bags, but it can be carried about in the hand or in any ordinary bag, and, the cell being almost water-tight, no corrosive fluid can be spilt by any movement short of turning the battery upside down. The apparatus measures $5\frac{1}{4}$ inches in length, $2\frac{3}{4}$ in width, and $4\frac{3}{4}$ in height. It possesses most of the essentials of a portable battery, being of small bulk, not liable to get out of order, and



always ready for use; whilst the electric shock is quite as strong as that discharged from a battery double its size. The rheophores are so constructed that either the cylindrical sponge-holders or metallic discs may be employed. These, together with the conducting cords, are packed away in the lid of the battery when not in use.

It will be necessary occasionally to renew the fluid when the power of the battery declines. The solution is prepared as follows. Dissolve $1\frac{3}{4}$ ounces of bichromate of potash in 16 ounces of boiling water, and add, when dissolved, one ounce of strong sulphuric acid,

The batteries have been made by Messrs. S. Maw, Son, and Thompson, Aldersgate Street, E.C.; and Messrs. Arnold and Son, Smithfield Lane, have also fitted them to their registered obstetric bags.

PRESENTATION.—A testimonial, consisting of a handsome watch and a suitable address on parchment, was, on September 17th, presented to Mr. Edwin Charles Smallman, of Hadleigh, assistant to Messrs. Newman and Norman, by Court "Princess Royal," No. 2,948, Foresters, in recognition of his attention to the members of the said court.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 27th, 1883.

DR. KOCH'S NEWLY DESCRIBED CHOLERA-ORGANISM.

IN our last number, attention was drawn to the announcement which had been made of the discovery, by the German Scientific Commission in Egypt, of a peculiar micro-organism in cholera; and we pointed out that, from its very importance, it would be necessary—indeed, that we should be bound—to scrutinise, with the most jealous care, the facts on which the alleged demonstration is based.

The daily papers have likewise evinced a great interest in this subject; and it was only to be expected that, in discussing an abstruse question of this kind, on information based exclusively on telegraphic summaries, somewhat erroneous statements should have been disseminated regarding what had actually been accomplished. German journals containing the text of the report have now arrived, and a very full translation of it has appeared in one at least of our daily contemporaries.

We propose, in the current number, to present our readers with a summary of the facts actually ascertained as a result of direct experiment, keeping these, as far as possible, apart from all points referred to in the document which are mere matters of opinion, and to submit the more important of the statements to careful, but brief, analysis.

The report, dated Alexandria, September 17th, 1883, is written by Dr. Koch. It is addressed to the Home Secretary of the German Government, and, consequently, enters more fully into the surroundings of the investigations, and less minutely into details, than would probably have been the case had it been prepared in the first instance for the deliberations of a scientific society. It is, however, a very clearly written document, and it is easy to collect such of the salient points in it as are of more immediate interest to the profession. The work of the Commission was carried out in the Greek Hospital at Alexandria, and, up to date, opportunities had been afforded of observing twelve cases of cholera, and of making ten *post mortem* examinations. The blood, the vomited matters, and the dejections, were submitted to the most searching microscopic examination; and it was soon ascertained that, whilst the blood was quite free from any organised infectious materials, and the micro-organisms in the vomit were comparatively few, they were, on the other hand, extremely numerous in the dejections. The organs which, in some other diseases, are the sites of micro-parasites—such as the lungs, the spleen, the kidneys, and the liver—were in cholera remarkably free; and of the many diverse organisms found in the contents of the intestinal canal, no marked preponderance of any one kind was observed. With the materials thus obtained, "pure cultivations" were instituted; and mice (fifty of which had been brought by the Commission from Berlin for the purpose), dogs, fowls, and monkeys, were fed with the products of these cultivations, as also with all kinds of choleraic material—"samples of the vomit, of the dejecta, and of the contents of the intestinal canal of corpses; some in the fresh state, others after having been kept for longer or shorter periods at different degrees of temperature, and some in a desiccated condition were resorted to, but on no single occasion were cholera-symptoms induced; the animals, on the contrary, remained perfectly healthy." Inoculation-experiments were equally futile—the only results having been those ordinarily observed in septic poisoning.

About a year ago, Dr. Koch observed bacterial growths in the mucous membrane of four specimens of intestine from cholera-affected Hindoos which he had received direct from India. At the time, however, he attached little or no importance to this, because he considered that all the appearances could be accounted for as a result of *post mortem* changes. But when he came to Egypt, and found that "precisely similar bacterial growths" were present in cases where the necropsy had been conducted even immediately after death, the matter seemed to him to assume a much more important aspect. With one exception—a person who had died from one of the sequelæ of cholera, after having survived the direct attack several weeks—"there was a distinct kind of bacterium in the walls of the intestine. These bacteria are stave-shaped, and, consequently, belong to the bacilli. As to form and size, they are most like the bacilli which have been found in glanders. In those cases in which the intestine showed the slightest macroscopic changes, the bacilli had penetrated into the tubular glands of the mucous membrane, and had then, as was evident from the dilated lumen of the gland, and the accumulation of multinuclear round cells within it, excited considerable irritation. Often the bacilli had made a road behind the epithelium of the gland, and had grown in between the epithelium and the gland-membrane. Besides this, the bacilli had established themselves in considerable numbers on the surface of the villi, and had often penetrated their tissue. In the severe cases, accompanied with hæmorrhagic infiltration of the intestinal mucous membrane, the bacilli were found in great quantity, and they did not confine themselves to invading the tubular glands, but entered the surrounding tissue in the deeper layers of the mucous membrane, and, here and there, even as far as the muscular layer of the gut. In such cases, the villi were plentifully penetrated by bacilli. The principal situation of these changes was the lower part of the small intestine. Were this not detected in perfectly fresh corpses, one would have attached but little or no importance to it, because the influence of putrefaction is sufficient to induce similar bacterial growths in intestinal tissue."

The whole matter consequently resolves itself into the simple question, whether the bacteria found in the Indian and in the Egyptian specimens of intestine are the bacterial forms which ordinarily accompany disintegrative changes of the tissues, or are they not? How far does the evidence supplied in the report itself assist us in forming an opinion on this matter? In the first place, we find that Dr. Koch is perfectly sure of the identity of the micro-organisms in both classes of specimens—"the same bacilli arranged in the same manner [dieselben Bacilli und in derselben Anordnung]"—this identity being, indeed, cited as evidence that the disease, as seen in Egypt, was true Indian cholera. In the second place, it is clear that, as regards physical characters, the microbes are, practically, indistinguishable from what Koch himself recognises, and continued to look upon for a whole year, as the ordinary accompaniments of putrefaction; and, in the third place, the results of the feeding and inoculation experiments on animals failed to differentiate them, either in the crude or in the cultivated condition, from those ordinarily associated with animal tissues in a state of decay.

The only other point which remains to be considered appears to us to be the question whether the condition of the intestinal canal as ordinarily observed in cholera, and especially in such cases as prove fatal, is not such that *post mortem* changes would be expected to make their appearance earlier in it than in most other diseases.

There is no doubt that, occasionally at least, this is very manifestly the case—the vitality of the whole intestinal canal having been reduced to a minimum some hours before the patient has wholly succumbed to the disease; indeed, the functions of the alimentary canal may be suspended, sometimes even for days, before death, as is proved by the fact that liquid food, to a considerable amount and medicines, are found at the necropsy to have been wholly unassimilated; and scalpel-scrapings of the mucous membrane, made immediately after death, reveal all the phenomena ordinarily attendant on changes of a necrotic character. Nor is this to be wondered at when it is considered that the partially devitalised intestine is macerated in an albuminous fluid at a temperature varying from 96° to 105° Fahrenheit. The wonder almost is, that the micro-organisms should not be even more generally recognised than they are under such circumstances, seeing that, virtually, they have all the opportunities favourable to their growth which could be afforded them in a specially devised incubator.

It must be clearly borne in mind that Dr. Koch definitely states that he looks upon the experiments hitherto conducted as being merely of an initiatory character; and expressly states that it is not to be assumed that these micro-organisms are the actual causes of the disease, and suggests that further observation may show that they are mere concomitants. For ourselves, judging from the evidence after a very careful perusal of the text, we are inclined to fall in with the latter view, and even to add that, thus far, sufficient data have not been adduced to warrant our assuming that a specific kind of micro-organism has been discovered in cholera.

Nevertheless, it is of the highest importance that the matter should be cleared up once and for all, and the German Government is doing excellent service in allowing one of its most distinguished germ-experts to visit India with a trained staff for the purpose. Our own Government in that country has already done a great deal in furthering observations of this character, and has a permanent staff of sanitary officers whose sole duty it is to report and investigate outbreaks of disease of whatever kind. We venture to predict that the Commission will receive a cordial welcome and every assistance from these, and from the local authorities of any of the Presidencies which they may visit, as well as from all the medical officers serving in the country. For our own part, we wish Dr. Koch and his assistants *bon voyage*, and every success in their mission. We do, however, hope that, should the results of their inquiries be of a negative character, they will not hesitate to say so definitely, and with no uncertain sound; as it is a hindrance rather than a help to the true progress of medical science that bogey-germs should from time to time be set up, only to be knocked down again, and forgotten.

THE THORNTON HEATH MURDER.

THE echoes of the Gouldstone case have scarcely died away, when the necessity arises for another loud protest against the manner in which trials for murder, in which the defence of insanity is set up, are conducted in this country. As if to show the arrogant disregard of the law for humanity and common sense, another lunatic has been condemned to death, and it is again left to the press and public opinion to rectify a conspicuous flaw in the work of our judicial machinery. Mr. Justice Stephen, in commenting on the relations of insanity to crime, has reprehended with much dignity the use of violent and stinging language in controversies on this subject, and has advocated the adoption of a conciliatory spirit by the representatives of science and jurisprudence alike. There can be no doubt that the rebuke which he administers is well merited, or that the advice which he gives is excellent; but even he himself would perhaps admit that there is some excuse for impatience on the part of medical men when they find that, notwithstanding all the discussions that have taken place, stolid indifference to scientific truth still reigns supreme in courts of law; and that the miserable victims of disease are still sometimes given over to the hangman. In the case of James Cole, who was condemned to death at the Central Criminal Court on the 18th instant, there seems to have been no attempt to disguise the fact that he was a lunatic. Mr. Justice Denman, in whose brain there ought to be some atavistic vestiges of medical habits of thought, derived from his grandfather, who was an eminent physician, in passing sentence on the prisoner, said, "It was established in evidence that you had been labouring under delusions." So it is clear that this man is to be hanged as a recognised lunatic, and on the preposterous supposition that the mad crime which he committed was in no way connected with his delusions, but was the expression of an altogether independent outburst of passion which agitated his mind.

The newspaper-reports of the evidence adduced at the trial of James Cole are very vague and fragmentary, but still they contain enough, even without the admission of the judge that the existence of delusions had been established, to bear in upon any medical mind the conclusion that the man is a dangerous lunatic. Out of work, and in abject poverty, he murdered his child, about three and a half years old, on August 19th last, by lifting it by the legs, and knocking its head upon the wall; and for no better reason, that the prosecution could suggest, than that he was out of temper with his wife. The very ferocity of the act limits the inquiry into its character. A father who makes a bludgeon of his own child, and, plucking it from its cradle, does his best to dash its brains out, must be blind with fury, drunk, or mad. In the case of Cole, the theory of drunkenness may be excluded; for, although given to intemperance, as freely as any impecunious man can be, he had had no drink on the day of the murder, and was sober when arrested immediately afterwards. The question, therefore, is, was he frenzied by passion or maddened by disease?

The circumstances of the crime discountenance the idea that Cole was moved in what he did by an outburst of brutal anger, which he might have suppressed, and was bound to suppress at its beginning, however powerless he might be to arrest its progress when it had gathered its full force. He had been quarrelling with his wife for some hours before he attacked his child, and there was no new provocation, no retort, or gibe, or blow to goad him to fury when he did so, for his wife, with the view apparently of stopping the altercation, had left the house for some time, when he committed the murder. He had, in fact, had time to cool down; and the fact that the atrocity was perpetrated, not at the very acme of frantic feeling, but after a period of subsidence, is against the theory that it was prompted by passion. But much more forcible objections to this theory remain to be urged; for positive evidence is forthcoming that Cole was delirious or insane when he killed his child; and, of course, the existence of either of these conditions would be incompatible with the existence of controllable, if uncontrolled, anger. The prisoner's son testified that, on the night of the murder, he complained that his wife had hidden people under the floor and in the cupboard to try to poison him; and a curious illustration of the active influence of these delusions on his mind came out incidentally, when it was proved that his immediate grievance against his wife was that she had kept him all day without food, while at that moment there was actually food on the table—food, however, which he declined to touch, clearly because of his conviction that it had been tampered with. And such delusions were not merely transient visitants of his mind, for he told Dr. Jackson subsequently that he thought he was being poisoned, and that his wife had set men on him—terrors which haunted him in his dreams as well as in his waking hours, causing him to start up at night, shrieking out that he was being murdered. Dr. Jackson felt certain that he was a dangerous lunatic, who ought not to hav been left at liberty; and few medical men knowing anything of insanity will differ from the conclusion at which he arrived. The case was, in

fact, a typical one of mania, with delusions of persecution originating, in all probability, in alcoholic excesses, operating on a nervous system predisposed to disease, and weakened by starvation. Similar cases are to be found in almost every asylum; and, in speaking of such cases, Dr. Robert Lawson, Deputy Commissioner in Lunacy for Scotland, says they "are the most dangerous of asylum inmates. The patients are sullen and intractable, and given to instantaneous outbursts of violence, of which they offer no explanation, and which assume a homicidal or destructive character. They imagine that they have been forced to sleep in damp beds; that poison has been placed in their food; that electricity has been brought to bear on them; that they have been drugged with morphia, dosed with chloroform, or stifled with sulphurous fumes." Long continued intemperance is in itself sufficient to induce these symptoms, but its power of doing so is anticipated and heightened if imperfect nutrition of the brain and body be associated with it, as it was in the case of Cole, who was very poor, and often in want of food. With reference to this point, Dr. Lawson says, "What are the proverbial effects of hunger regarded as a general condition? Irritability, excitability, a tendency to put the worst interpretation upon men's motives and actions, and a propensity to hallucinations of the special senses. These very symptoms occurring during sound bodily health are evidently due to the state of the brain-centres, as modified by want of food and by reflex excitability. Consequently, it is natural that an exaggeration of this condition should result from such an habitual existence of malnutrition as accompanies the organic changes consequent upon the prolonged abuse of alcoholic stimulants." But, in the case of Cole, there was another element besides partial starvation which tended to precipitate his madness, and that was an inherited instability of the nerve-centres derived from epileptic ancestors. His brother swore that several members of the family had been subject to fits; and there is, therefore, some probability that he shared the epileptic tendency of his kindred, which would make him prone to fall into intemperance, and liable to be prejudicially affected by alcohol in a peculiar degree. "The epileptic alcoholic," says Dr. Magnan, "is one of the most dangerous of patients. He adds to the impulses, sometimes so terrible, to which he is subject from his disease, those which he draws from his intoxication."

The surgeon and chief warder of the Clerkenwell House of Detention were examined for the purpose of showing that the prisoner had displayed no symptoms of insanity, but had conducted himself in accordance with the prison-regulations; but their evidence broke down, for it was elicited from them that on one occasion he had become so violent that he had to be removed to a padded cell—a very unusual occurrence in the case of a prisoner awaiting trial. But, had their testimony remained unshaken, it would still, being purely negative, have had little or no value, unless supplemented by a full and minute account of the nature of the examination carried out, and of the tests used to determine the prisoner's state of mind. Quiet conformity to the prison rules is accepted, in most houses of detention, as conclusive proof of sanity; and an inquiry into cerebral function, when it does take place, is not seldom of the most superficial and perfunctory description. If a man can tell his own name and the day of the week, and put out his tongue to order, he may be pronounced of sound mind, although all the time saturated with madness to the tips of his fingers and the roots of his hair.

In sentencing Cole, the judge referred to the fact that only one witness had been called in support of the view that the prisoner was irresponsible for his actions; but, in connection with that fact, it ought, surely, to have been noted that he is miserably poor. Had he been possessed of ample means, there would have been no lack of medical testimony for the defence; and it is just one of the most damaging criticisms that can be passed on our present method of conducting trials like that of Cole, that it leaves the poor man at a manifest disadvantage. The prosecution was well aware that the defence of insanity was to be raised on the prisoner's behalf in this case, for Mr. Poland alluded to it in his opening statement; but he took no steps to ascertain, through an inquiry by skilled persons, what grounds there were for that defence, but was content, in this most difficult and abstruse question, to trust to the negations of a prison surgeon and warder.

It being admitted that Cole laboured under delusions which were engendered, not by the direct toxic effects of alcohol, actually circulating in the blood, but by disorder of the brain, in the production of which alcohol had, perhaps, played the principal part, the question for the jury really was, whether these delusions dictated the murderous assault on his child, or whether that assault was the result of a paroxysm of temper brought on by extraneous circumstances, and in no way related to the delusive beliefs? Given a man labouring under delusions, and an action so outrageous as that of swinging an unoffending child by the legs, and crashing its head upon the wall and floor, and we should have thought that the conclusion was inevitable that there was a connection between the mad thought and the mad deed. But legal subtlety reasons not as common men do; and so, if the man knew the nature and quality of his act, and knew that he was doing wrong, the lawyers will not allow that his delusions had anything to do with his criminal act. He is a responsible being, and must, therefore, have been swayed by the motives which influence responsible men. His delusions are pushed aside, and regarded as merely natural *curios* which he carried about with him, but which had no more to do with his conduct than the watch in his pocket or the mole on his back. "I cannot entertain a doubt," said Mr. Justice Denman to Cole, "that, on the occasion on which you violently caused the death of your child, you knew you were doing wrong, and knew that you acted contrary to the law of this country, and that you did it under the influence of passion, which had got possession of your mind from want of sufficient control, the result being that the poor child came by a sudden and savage death." Very neat this! and apparently borne out by the evidence, for Cole said to the first man he met when running away, "I have murdered my child," evincing thus a knowledge of the quality and illegality of his act, but very superficial also, when closely scrutinised. Mr. Justice Denman's statement seems to embody the very view which is characterised by Mr. Justice Stephen as "a narrow view of the subject, not supported by the language of the judges." It is founded on the erroneous notion that a man whose mind is possessed by active delusions on subjects of vital importance, is yet capable of trains of rational thought and feeling, in which his delusions have no lot or share, and on a confusion between a formal knowledge of the illegality of an act, and an essential knowledge of its moral character. "Suppose," says Mr. Justice Stephen, with his accustomed perspicacity, "that, by reason of disease of the brain, a man's mind is filled with delusions which, if true, would not justify or excuse his proposed act, but which in themselves are so wild and astonishing as to make it impossible for him to reason about them calmly, or to reason calmly on matters connected with them. Suppose, too, that the succession of insane thoughts of one kind and another is so rapid as to confuse him, and finally, suppose that his will is weakened by his disease, that he is unequal to the effort of calm sustained thought upon any subject, and especially upon subjects connected with his delusion, can he be said to know, or have a capacity of knowing, that the act which he proposes to do is wrong? I should say he could not."

There seems every reason to believe that the mind of Cole, when he killed his child, was, by reason of disease of the brain, filled with delusions, very wild and astonishing, about which he could not reason calmly, and which welled up so rapidly as to bewilder him, while his volition was at the same time so much weakened, that he could not exercise any control over the current of his thoughts; and, according to Mr. Justice Stephen, it would therefore be reasonable

to infer that he did not truly know he was doing wrong when he committed the horrible violence for which he was tried. A strong case is, at any rate, made out for further inquiry, and it is to be anticipated that the Home Secretary will lose no time in empowering competent physicians to examine him, and report on his mental condition.

THE REMAINS OF HARVEY.

THE mortal remains of the father of scientific medicine were, a few days ago, removed to what will probably be their resting place for centuries to come. It was well that the present representatives of his profession should, even though late, accord him a necessary and an only remaining tribute by protecting all of him that is earthly from neglect. It were not too much, had the intelligent sympathy of public opinion awarded national honours of burial to so great a benefactor of his kind. Yet it may be questioned whether, if he were yet among us, he would not anticipate, with full contentment, a last abode in the quiet country church endeared to him by many associations. A lover of nature from his earliest to his latest years, we fancy him, and other great minds whose dealing is directly with the infinite, to have passed, like that other master-spirit of science who departed but a year since, without and beyond much of the pettiness of ambition, and to live in natural and perpetual league, not to be shaken by death, with all that is most simple, essential, and true. It is not, however, by the honour done him, or even by regret for that denied him, that we seek to measure his moral and intellectual grandeur. We carry our memory back to the later years of the sixteenth century, and compare the state of physiology then, its position as a mere initial appendage of anatomy, its guesses utterly in the dark, its helpless, handless want of application, even if it had direction, with the stage it had reached in the seventeenth, or even towards the end of the eighteenth. A great advance is evident, an advance not only in actual knowledge, itself of the highest importance from its relation to the principles of medicine; and not in continuance of, but rather in opposition to the authority of coeval learning, proceeding, too, on totally new methods of experiment till then unused, and yet a solid and real advance, embodying a truth for all time. Almost the whole of this era in science is occupied by the one great discovery of the circulation of the blood; and it may be shortly expressed in one word—Harvey. Until the progress of time ushers in this nineteenth century, pre-eminently the century of inquiry, and brings with it the work of Bell, Bernard, and Reid, and the explanation of that other system of nervous function, we look in vain for any physiological event of nearly equal significance. Even in these facts of later birth, we have not a complete and definite revelation of a natural plan, but rather a light, thrown here and there on certain points of one, inviting us to closer and deeper investigation.

After so many Harveian orations, one need not go over the various steps by which the valvular structure of the veins, and the propulsive action of the heart, even though it drove but "vital spirit," became known, by which discoveries Servetus and Vesalius destroyed the Galenic theory of a porous cardiac septum, and established the doctrine of the pulmonary circulation, to be followed, after well nigh a century, by explanations of a wider range, embracing all that previously was fact, and freeing out of great obscurity, and with great simplicity, the whole distribution and purpose of the blood-vascular system. Without any such detailed exposition it is possible to picture the obstacles which were overcome, and to obtain insight into the principles and plan required for this and, more or less, every other truthful study of nature. The history of these researches, from beginning to end, teaches that on no less certain ground than that of proved accuracy can any statement relating to scientific work, or indeed any statement at all, hold its own with time. The race is not to the swift in illusive argument, nor to those who are strong in the power of reputed authority, but to those who can develop an undeniable germ of verity, were it never so small, that can live and lead to further truth. Ages of speculation had spent their force of reasoning about this secret of the flow of blood, and after all a humble method, by no means elaborate, but the right one, disclosed it in a few years. Harvey has been called the father of experimental physiology, and he was so by means of vivisection. Had he not adopted this method, but adhered to the plan of his predecessors, to draw conclusions as to vital functions from the mere appearance and correlation of dead structures, he might never have seen further than the involved orthodoxy of his day. Some few of the lower animals would have escaped from living pain, some millions more of sick mankind would have died misunderstood as to their diseases, until perhaps after long waiting, some one, led up to the final conception by the suggestions of lesser observations, might have found how the blood did circulate, or, perhaps, he might not. Harvey saw the fault of the old method of research, he saw the errors to which it had given rise in the want of harmony, assumed to exist among the different parts of the circulation; the heart, a muscular organ, allotted no function but to contain a "spirit," and perhaps to pass blood on to the lung by the action of one of its halves, the arteries to contain gas, the veins, blood. He recognised, no doubt, the apparent cruelty of vivisection, but he felt that by acquiescing in ignorance of the very centre of vital action, he inflicted a still graver injury on the human race, and he frankly accepted of the two, the lesser evil.

But it is not only with regard to his method of experiment that he stands alone among his contemporaries. He crossed much of the opinion of his time, theological as well as medical, by invading with experiment and theory that organ which was regarded as the habitation of some mysterious spiritual essence akin to, or identical with, the soul. He risked and incurred a share of obloquy and of professional loss, brought on him by the jealous misrepresentations of medical men apathetic enough to be careless as to his researches, and too self-seeking not to dread the influence which his discovery was likely to bring to him. And who can tell if, here and there, a present gain of material advantage or esteem was not sacrificed by the illustrious student, in order that he should not lose sight of that greater though still visionary good which he first imagined, perhaps, in the theatre of Fabricius?

In estimating the forces at work upon the founder of physiology in his labours, we have not omitted to consider the assistance rendered to him, though only, for the most part, by their writings, by those who cultivated the sister science of anatomy. The stumbling but honest efforts of Vesalius, Cæsalpinus, and others of this company, must have given him clearer understanding than he otherwise would have had of the materials he had to do with, and probably suggested, if even by their failures, the methods necessary for success. They give late confirmation to the utterance of inspired wisdom, that "in all labour there is profit;" and they teach us that in our calling, perhaps, more than any other, growth is by accretion; the apparently trifling observation of to-day often becoming, if a true one, the stepping-stone to greater knowledge.

In reviewing this noble life-work, we cannot but feel that in the medical practice of to-day, taken in its most general sense, and not in Hempstead, are the remains of Harvey.

DR. CRUIKSHANK has been appointed Inspector of the Egyptian prisons.

IT is stated that Dr. Grant, who has been the personal medical adviser of Princess Louise during her sojourn in Canada, will be knighted before the departure of the Princess for England.

THE successful case of paracentesis of the pericardium narrated in our columns this week by Dr. MacDonald, of Londonderry, Nova Scotia, is, we believe, the first recorded in the Dominion of Canada.

SIR CHARLES DILKE has this week inspected the workhouse and infirmary in the Fulham Road belonging to the guardians of the St. George's Union. The infirmary is the largest in London, being erected for the accommodation of eight hundred patients.

WE understand that active steps are being taken to utilise the great resources for medical and scientific education which the West London Hospital possesses, in consequence of its increased size, and its proximity to the national scientific institutions which exist at South Kensington.

THE memorial-stone of a home for incurables, in connection with St. Peter's Home at Kilburn, was laid last week by the Bishop of Winchester at Woking. The site, which covers seven acres of land, has been given by Mrs. Gibbs, and the first wing of the institution is being founded, at a cost of about £12,000, by Mr. Lancaster. The whole structure is estimated to cost over £30,000.

M. JULES FERRY has issued a circular, ordering the revaccination of all scholars in French public schools. This order is explained by the fact that it has been ascertained that, in those schools in which revaccination has been carried out, no case of small-pox has been known to occur for a series of years, the reverse being the case in many schools in which revaccination has not been carried out.

THE list of subscribers to the Hutchinson Testimonial Fund will be closed on Wednesday, October 31st. The presentation dinner will take place at the Holborn Restaurant on Thursday, November 29th, at 7 P.M.; Sir Andrew Clark, Bart., in the chair. A general meeting of the subscribers will be held early in November, to decide the form of the testimonial. Up to the present time, the sum of £363 has been subscribed.

A GRATIFYING recognition of the utility and position of the local Branch organisation of the British Medical Association, is furnished by the recent action of the Government in connection with the foundation of the governing body of the new University College for Wales. The charter, approved by the Educational Department of the Privy Council, provides that the North Wales Branch of the British Medical Association shall elect five out of its members to be governors of the North Wales College.

THAT filth breeds disease is the commonest of sanitary aphorisms, but to move the Town Council of Hanley to put a stop to what is naturally described as the "intolerable nuisance occasioned by the removal of nightsoil and filth from the borough at all times of the day," it apparently needs more than the deliberately expressed opinion of a medical man that, within his own knowledge, at least one death is attributable to the exhalations from one of the dung-carts. Fortunately there are residents in the town who are not content to sit still under this annoyance, and who intend to test the powers of the Public Health Act to give them relief.

THE LIBRARY OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE library of the Royal College of Surgeons of England, containing about 39,000 volumes, is one of great extent and value, and is very largely used. Its "finding" catalogues are extremely good so far as they go, but the want of a complete printed catalogue procurable at a moderate price has long been much felt. Mr. John Marshall, the President, has drawn up a memorandum on the subject of the preparation of a new catalogue, showing that ample materials, carefully prepared, already exist, and that the total cost of producing such a new catalogue would probably not exceed £450. It is now twenty-three years since any similar expenditure has been demanded from the College funds; and the proposal of Mr. Marshall that such a catalogue should be prepared is one which will, it is hoped, find favour with the Council, and the acceptance of which would certainly be highly agreeable to the members of the College at large.

A GOOD USE OF PROFITS.

THE Council of the Association, at its last meeting, voted £600 for the purposes of the Collective Investigation Committee, £300 for the two Research Scholarships, and £50 to Dr. Dawson Williams for an "investigation into the relation between the infective wound-diseases and tuberculosis," completing, with £250 previously granted to other applicants, the total sum of £300, which is annually granted for special researches in aid of medicine and collateral sciences. Thus the Association will, this year, expend £1,200 in aid of medical and scientific investigation. This is a liberal outlay, of which the ultimate value cannot be doubted, and in which the Association may feel a legitimate pride; and, inasmuch as this income is derived from profits obtained by the success of the BRITISH MEDICAL JOURNAL, we may be permitted to feel some satisfaction at a result which amply repays the labour bestowed upon the weekly issues of the JOURNAL.

MEDICAL BARONETS AND KNIGHTS.

A PARLIAMENTARY return issued this week gives the names of the physicians and surgeons who in each year since 1850 have received the honour of baronetcy and knighthood. The number of baronetcies thus conferred is sixteen, and of knighthoods thirty-four, including four gentlemen who have been knighted by the Lord-Lieutenant of Ireland.

THE KHEDIVE AND THE INDIAN MEDICAL OFFICERS IN EGYPT.

WE are informed that His Highness the Khedive has expressed his high sense of the value of the work performed during the cholera-epidemic by the eight representatives of the Indian Medical Service who were sent on special duty to Egypt in connection with the cholera. In an interview of considerable duration, he expressed warmly his thanks to Surgeon Little, of the Indian Medical Service, for the work done during the recent epidemic of cholera, and for the institution of sanitary reforms in the province of Keneh, Upper Egypt.

WHOLESALE POISONING BY MEAT.

OVER one hundred convicts in the Connecticut State Prison, at Wethersfield, were poisoned recently, it is supposed, by eating some corned lamb. All those who ate of the lamb were seized with cramps and vomiting, while none were attacked who had not eaten the meat. The lamb was purchased of a Hartford butcher, and is thought to have been poisoned after leaving his shop. Ptomaïnes were probably the cause of the trouble. An analysis is to be made of both cooked and uncooked samples of the meat.

THE CONTAGIOUSNESS OF CHOLERA.

A SURGEON-MAJOR in the Indian army writes to us, with regard to Dr. Koch's report on cholera, that he is aware of the details of an instance in which a native swallowed for a consideration, on successive days, some of the matter vomited by a patient suffering from well-marked Asiatic cholera, and, subsequently, a quantity of the rice-water stools just discharged by a patient suffering from Asiatic cholera. In neither case were any bad results perceptible. The statement is startling in more than one respect, but our correspondent vouches for the fact, which is well known to other medical officers of the army besides himself.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE first meeting for the session of the Royal Medical and Chirurgical Society was held on October 23rd, and was very largely attended. Dr. George Thin showed an excellent living specimen of the filaria sanguinis hominis, and many specimens were on the table to illustrate Dr. Ferrier's experiments on the brains of animals, many of them casts, some the actual specimens on which his researches had been made. Dr. Ferrier's address is published in full in this number. The meeting was specially convened for the purpose of electing a medical secretary, as Dr. Robert Southey had been obliged to give up that post on accepting the position of Commissioner in Lunacy. After a ballot had been held, it was announced that Dr. R. D. Powell had been unanimously elected.

DEATH OF MR. EDWARD SUTTON.

WE much regret to record the death of Mr. Edward Sutton, who, in a variety of clerical and secretarial capacities, served the Poor-law Board, and afterwards the Local Government Board, for a period of well-nigh half a century. It was not easy, in a position such as Mr. Sutton's, to hold the scales of justice evenly and firmly between all those with whom his official duties brought him into contact. That he should have succeeded in doing so, is an eloquent testimony to his strong sense of duty, and his earnest striving to be absolutely fair and impartial in all his doings. This same conscientiousness of his brought him into occasional collision with a few who resented what they misguidedly regarded as unnecessary interference; but, now that he is gone, there will be none to deny him a tribute of admiration as one who consistently endeavoured to do what he felt to be right and proper, whatever might be the immediate consequences to himself or to others.

A CRUX FOR ANTI-VACCINATORS.

THE account given by Dr. Wright of a recent prevalence of small-pox in the Romford district, strongly emphasises the value of vaccination as a prophylactic of the disease. The person first attacked was a woman, with whom the disease was complicated by an advanced condition of pregnancy. This case was fatal. The husband was revaccinated and escaped, as did also the children, who had been but recently vaccinated. The inmates of nine adjoining cottages were advised to be revaccinated, but declined, and, in consequence, eight persons became affected. Ultimately the remaining inmates consented to the operation, and no further case occurred. The sister of the woman first attacked caught the disease whilst visiting the patient, and was treated at home. Her husband was revaccinated and escaped, but a woman who was in attendance as a nurse, obstinately refused to be protected, and contracted the disease and died.

DEATH FROM CHLOROFORM.

A CORRESPONDENT writes: "I cut from a local paper of some weeks back the following details of a case of chloroform-death, of which I have not noticed the report in any medical paper. This evening, an inquest was held at Whitehaven by Mr. Lumb on the body of Robert Falcon, gentleman, aged 45, belonging to Eskmeals, near Seascale, who died this morning at Mr. Muriel's surgery, whilst about to undergo an operation under the influence of chloroform. The deceased, who was formerly a cotton-broker, went to Mr. Muriel to have a tumour removed from his lip. After learning that Mr. Falcon had previously had chloroform, it was now administered by Mr. Muriel, and immediately afterwards Mr. Falcon became livid. Restoratives were tried, but Mr. Falcon died immediately. The medical men who made a *post mortem* examination stated that death had resulted through chloroform, which had been properly administered, but that it had acted on the nerve-system, causing stoppage of the heart's action. The whole system of the deceased showed him to have been perfectly healthy at the time. The jury returned a verdict that deceased died from sudden cessation of the nerve-influence, or paralysis of the nerves, caused by the administration of chloroform, which had been properly administered. They suggested that, at similar operations, two medical men should always be present."

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

THIS energetic association is doing good service, not only in popularising the truths of sanitary science by abundant lectures and pamphlets, but in the codification by comparison of the mortality-statistics of the places over whose interests it watches. Thus, it points out, in a recent abstract of the figures for the quarter just ended, that the deaths from zymotic diseases were 19.8 per cent. of the total in Manchester, and 24.7 per cent. in Salford. The deaths under five years were 46.6 per cent. of the total in Manchester, and 51.0 per cent. in Salford, including deaths under one year, representing 29.0 and 32.0 per cent. respectively. The death-rate from all causes at Manchester was 23.3, and at Salford, 21.3 per cent. By thus pitting Manchester against Salford, and Salford against Manchester, each of the sister-towns will probably be spurred to renewed and sustained efforts for the sanitary improvement of its inhabitants.

THE PRIMATE.

FOR some weeks past the Archbishop of Canterbury has been suffering from the effects of an abscess, which had its seat in the loose tissues around the rectum. About a month ago it discharged a quantity of pus, leaving a sinus, which gave rise to much uneasiness, and at times to some suffering. When the abscess was developing, the Archbishop consulted Dr. Arthur Bristowe Carpenter, of Croydon, as to his general health. Finding that the malady would probably degenerate into a fistula, that gentleman obtained the assistance of his father, Dr. Alfred Carpenter, who advised that the sphincter should be divided, and the sinus incised, without delay. The operation was performed on Saturday last, the august patient being placed under the influence of nitrous oxide gas by Messrs. Rymer and Steele, of Croydon. The anæsthetic agent acted admirably, and was perfectly effectual. The abscess appeared to have had its origin in irritation of the mucous membrane, extending to the loose connective tissue outside the rectum, and probably resulted from inability to take that rest which every man ought now and then to obtain at any cost. We understand that the Archbishop is progressing most satisfactorily to recovery, and that his general health is re-established.

THE EXPENDITURE OF THE ASYLUMS BOARD.

A SPECIAL conference of metropolitan guardians to consider the expenditure of the Metropolitan Asylums District Board was held this week at the City of London Union, Bartholomew Close; Mr. J. E. Sly presiding. Mr. F. W. Crane, the clerk of the board, announced that several letters had been received from boards of guardians and local boards. The unions of Poplar, Hackney, St. Olave's (Southwark), St. Matthew's (Bethnal Green), and St. Mary's (Islington), approved of the object of the conference, namely, to reduce the expenditure of the Metropolitan Asylums Board. The chairman stated that the Asylums Board had intimated their intention of following the lines of the Royal Commissioners' report, and building separate hospitals for forty patients in different districts; and upwards of £150,000, it was estimated, would have to be spent by them. They were building another hospital for fever in the north-eastern district of the metropolis, while for a long time they had not had a sufficient number of patients to half fill their present hospitals. He also stated that the Metropolitan Asylums Board had expended a great deal of money in litigation, and was becoming increasingly burdensome to the rates. A discussion followed, in which the policy of the Board was generally condemned. Mr. Tattersall urged that

an effort should be made to create such a public feeling that would prevent the Act which the Asylums Board had obtained from continuing in force beyond the current year. The conference was adjourned for a month.

THE LONDON WATER-SUPPLY.

WE are glad to observe that some steps are at last to be taken towards securing the abatement of the grave evil which exists at Battersea, through the objectionable proximity of a dust-yard to the filter-beds of the Southwark and Vauxhall Water Company. Since our reference to this subject some weeks' since (see BRITISH MEDICAL JOURNAL, August 25th, 1883, p. 385) the Wandsworth Local Board of Works have been in correspondence with the water company, who seem inclined to deny the seriousness of the evil, and to place undue reliance on the excellent quality of the water supplied by them, as evidenced by the reports of Colonel Bolton. The local authority, however, have failed to appreciate this view, and at their last meeting they resolved to petition the Local Government Board, urging the great desirability of the reservoirs and filter-beds being covered in. It was also resolved to communicate with the occupiers of the dust-depôts, requesting them to remove all refuse which may de deposited on their premises within twenty-four hours after its receipt, and to provide a proper furnace or apparatus for consuming the paper and vegetable refuse by fire; and stating that, in default, proceedings will be taken against them.

QUEEN'S COLLEGE, BIRMINGHAM.

THE annual report of the Council of Queen's College, Birmingham, just published, records the continued and steady progress of that institution. During the past year, there were forty fresh entries in the medical department, while the total number of medical students in attendance upon lectures was 138. The arrangement with the authorities of the new Mason Science College, by which the students of Queen's College receive instruction in that institution in botany, chemistry, and physiology, has been in full operation throughout the year, and has worked well. In the practical classes, the splendid resources of the laboratories of the Mason College have been much appreciated. The staff of Queen's College has been strengthened by the appointment of Mr. T. H. Bartleet and Mr. Bennett May as demonstrators of operative surgery, of Mr. Haslam as assistant medical tutor, and of Dr. Alfred H. Carter as honorary secretary. Considerable structural alterations have been made in the anatomical department of the College; the dissecting-room has been greatly enlarged, and its fittings and arrangements generally improved. A general summary of income and expenditure shows that the institution has secured and maintains a sound and prosperous financial position. The annual dinner of the teachers and past and present students of the College will take place on November 15th, at the Grand Hotel, under the presidency of Dr. Sawyer.

THE CASE OF MAHOMET ISMAEL KHAN.

A SAD report is published of the suicide of an Afghan, a member of the Royal College of Surgeons, and a Licentiate of the Royal College of Physicians, by name Mahomet Ismael Khan, twenty-seven years of age, formerly a student of University College Hospital. This unfortunate man appears to have been of a naturally despondent temperament, and, in a document which he left, he states that he had, on three previous occasions, intended to commit suicide. His story, however, is a sad one. According to this written statement, he spent £1,500 in qualifying himself for practice, and had nothing left. He appears to have been a man of steady habits, but had been unsuccessful in applications for various public employments. Added to this, his nationality and his colour appear to have made it difficult for him to earn a living in this country, where the competition among persons of British birth is already severe. It is unfortunate that he did not return to his own country, where his excellent education and good diplomas would, it may be presumed, have secured for him a position of some eminence. It is a noteworthy incident in this unfortunate man's career, that the only occupation offered him was, according to his own statement, that a dishonourable quack at Middlesbrough engaged him to prescribe for his patients out of six different-coloured bottles, and to sign death-certificates for people whom he had never seen. It is to be feared that the practice to which this honourable Afghan declined to lend himself, is one which is somewhat on the increase; and such honesty as this despairing man displayed, is not invariably to be found among those who were preferred to him by reason of their colour and nationality.

CONTAGIOUS DISEASES AT PLYMOUTH.

THE *Western Daily Mercury* says: We understand that statistics are being prepared for presentation to the Government, showing the disastrous effect which the temporary suspension of the Contagious Diseases Acts has had upon the health of the soldiers and sailors stationed in Plymouth The figures themselves tell a lamentable story. Within five months, the number of men who have been sent into hospital for treatment has more than doubled. The belief entertained by Mr. Stansfeld and his friends, that the unfortunate creatures for whose liberty he pleaded would voluntarily submit themselves for examination, has been shattered by the result. If the Acts had been in force, 250 women would have been detained in the course of the five months that have elapsed since the withdrawal of the safeguards. As a fact, only 70 women have presented themselves for treatment, and it is, therefore, impossible to approximate how many there are who, at present, are prosecuting their career in a more or less distressful condition. There were 600 women, in 1882, who were on the official record; but the authorities are convinced that the total has been enormously increased since the fear of detection has ceased to operate. It is estimated that they more nearly approach the number (1,200) that were periodically examined when the Acts first came into operation. But the statistics do not reveal the worst phases of the mischief that has resulted. The scourge has developed hideous characteristics with which the members of the present medical staff are not familiar, but which are well remembered by their predecessors. So virulent have been its ravages, that the commanders of men-of-war have deemed it expedient to parade their ship's companies, and read them the article which provides severe punishment, after trial by court-martial, for those who do not make the surgeon acquainted with the fact that they have contracted disease.

THE PARKES MUSEUM.

THE winter session of lectures at the Parkes Museum will commence on November 1st, when Mr. Ernest Hart, Chairman of the National Smoke Abatement Institution, will deliver an address on "Progress in Smoke Abatement," at 8 P.M., with practical references and illustrations. On November 15th, Dr. Robert J. Lee will deliver a lecture on "The Disinfection of the Atmosphere," and will give demonstrations of the methods which he recommends. On November 22nd, Mr. George Murray, of the National History Department of the British Museum, will give a practical address on a subject of great importance to the national food-supply, especially of the sister island—that is to say, on "The Potato Disease." Mr. Murray's work on *Fungology* is well known; and, as he will give full microscopical demonstrations, the lecture is certain to be most interesting. On November 29th, Dr. Charles Kelly, Professor of Hygiene in King's College, will lecture on "Diseases caused by Sanitary Defects in Houses;" and on December 6th Dr. G. V. Poore will give a lecture on "Coffee and Tea." After Christmas, the lectures will be resumed, and the first will be delivered on January 17th, by Mr. T. Pridgin Teale of Leeds, on "Economy of Coal in

Private Houses." The chair is taken each Thursday at 8 P.M. To persons who are not members, the ordinary charge (sixpence) for admission to the Museum, during the hours when it is not open free, is made for admission to the lectures.

THE LATE MR. HAFFENDEN.

IT is with deep regret that we record the suicide of Mr. D. A. Haffenden, a rash act committed under the distress of mind arising out of a charge brought against him in a police-court of procuring abortion. As far as the facts in possession go, it appears that the patient and her husband had consulted a practitioner in the absence of Mr. Haffenden, and that subsequently they both requested Mr. Haffenden to make an examination. This Mr. Haffenden did, in the most open manner possible, at the patient's house. The examination made was an ordinary uterine exploration by the sound and speculum. So open was the whole proceeding, that Mr. Haffenden left the instruments used in the patient's house. Mr. Haffenden imagined, as apparently did the patient, that there was some uterine tumour. He wrote several prescriptions containing salines and ammonia, which were of a harmless nature, and possessed no abortifacient properties. His conduct in the matter showed that he had no motive nor any desire to conceal his share in the case. We understand that the medical facts of the case have been submitted to high authority, and that physicians of eminence were prepared to go into court to vindicate Mr. Haffenden's action. As the case is still *sub judice*, it is impossible to say much more. Mr. Haffenden was an old and much respected practitioner in Kensington, and it is, for many reasons, difficult to suspect him of having had any criminal intent. Indeed, the dying declaration he left to his wife and children may fairly be taken as representing an exaggerated sense of honour, which could not bear the blight of suspicion or the dread of the loss of esteem of his professional brethren. Had he been less acutely sensitive, and confronted the charge in a law-court, the medical evidence which would have been given on his behalf would almost certainly have secured an unanimous acquittal from the jury.

BRITISH GUIANA BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE inaugural meeting of the British Guiana Branch of the British Medical Association appears to have been a successful and interesting event. We learn from the report forwarded to us that a large number of the profession attended. Dr. Cameron was elected president for the current year; Dr. Shannon, president-elect; Dr. Wallbridge, treasurer; and Dr. Edmonds, secretary. It was also decided that the Council of the Branch should be composed of the executive officers, together with the resident medical officer of the Colonial Hospital, the surgeon to the police and gaol, and Dr. Brebner; and that the Council should summon meetings of the Branch whenever necessary. In the evening there was a dinner, to which fifty-two persons sat down. Among the guests was the governor, Sir Henry Irving. We are glad to learn that, since Sir Henry Irving has taken office as governor, the friction between the members of the medical profession in British Guiana and the Government, on which we have had on more than one occasion to comment, has been much diminished, and a satisfactory cordial feeling is taking its place. The governor proposed the toast of the evening, "Success to the Branch," and referred to the improving relations of the medical profession with the Government, in terms which were full of promise, and which elicited much cheering. He pointed out also that the particular medical conditions of the colony, afforded room for interesting scientific work, and that the local members of the Association would be able to communicate to the central body, through the JOURNAL, facts connected with diseases such as leprosy, not common in temperate climates, but which afford much opportunity for study in that colony. The first ordinary meeting of the Branch will probably take place on the second Tuesday in November. The Branch already numbers upwards of forty members, and may be said, therefore, to make its start under very favourable circumstances. The *menu* of the dinner, which has been forwarded to us, includes a few items special to the spot, and perhaps the Branch may be able to add to the benefits which it confers on the mother institution by adding something to our list of dietetic resources. We should like to have, perhaps, some practical experience of Querriman, which appears to be a favourite fish of the country, and should not be sorry to make closer acquaintance with crab-backs, which seem to be a speciality in the way of game. What sort of bird is a currie-currie?

DR. FERRIER ON THE FUTURE OF CEREBRAL SURGERY.

AT the conclusion of his introductory address, delivered before the Royal Medical and Chirurgical Society, on Tuesday last, Dr. Ferrier made a most important observation, which cannot fail to prove of interest to all contemporary surgeons. He remarked that physicians would not be justified in advising surgical operations on the brain, and surgeons would refrain from active interference, until the principles and diagnosis of regional disease had been established with as near an approach to certainty as is possible, where all is hidden from the eye and hand. But, he continued, it is doubtful that any reason now remains why a surgeon, who fearlessly exposes the abdominal viscera, should not open the cranial cavity. Dr. Ferrier has seen complete recovery constantly follow some of the most formidable operations that have been performed on the brain and its coverings, in animals of the most delicate and almost human organisation, when stringent antiseptic precautions had been taken. He cannot, therefore, but believe that similar results are capable of being achieved on man himself. Secondary inflammation can be absolutely prevented, and there is no risk to life from even extensive destruction of the cerebral hemispheres. In removing tumours or diseased cerebral tissue, no doubt healthy structures might be injured; but this would not necessarily cause mental disorder. The triumphs of abdominal surgery, due in a great measure to advances in clinical and pathological science, and the correct appreciation of the physiology of abdominal structures and organs, have been followed by a great activity in the department of thoracic surgery. Surgeons now have the high authority of Dr. Ferrier to encourage them in untried efforts for the cure of cerebral disease by operation It may be said that trephining is a very old, and yet still a not very satisfactory practice; but hitherto it has generally been performed for the relief of some result of injury when deeper and more serious damage exists, or for the cure of a local condition implying, of necessity, more or less general disease of the brain. Tapping the pleura and Cæsarean section are also very old operations, practised long before thoracic and abdominal surgery had reached their present extended stage of development. They have been supplemented or superseded by operations performed with more deliberation, and not so often under conditions of emergency. Through the labours of Dr. Ferrier, the future surgeon will probably perform with success operations which will bear the same relation to simple trephining as ovariotomy and Porro's operation bear to repeated tapping of ovarian cysts and Cæsarean section.

ILLNESS OF THE BISHOP OF PETERBOROUGH.

IN the JOURNAL of August 25th, we supplemented, in a short editorial note, the report on the illness of the Bishop of Peterborough which had previously appeared in our columns, and we were able then to express a hope that convalescence had fairly set in, although, as we pointed out in our former report, an element of danger must always remain in the unknown origin of the attack. The date of the note referred to was the forty-first day of the Bishop's illness. For three weeks from that time convalescence was very slow, the temperature rising and falling continually between 98° and 100°, pus appearing

in varying quantities in the stools, but the digestive powers gradually returning, and the pain, sleeplessness, and other distressing symptoms diminishing. On the sixty-first day there was an increase of pain, the temperature running up, and other unfavourable symptoms showing themselves. A copious evacuation, with discharge of pus, was followed by rapid improvement, and from that date until Saturday last convalescence proceeded without interruption. For four weeks the temperature had been normal, the pain and tenderness in the epigastrium had disappeared; the abscess-sac could no longer be felt, even on deep pressure; no trace of pus could be detected in the stools, the digestive and alvine functions were regularly performed, and last week the Bishop had regained sufficient nervous and muscular strength to take his place at table with his family, and to walk in the grounds of the palace at Peterborough, whither he had been removed in the fourteenth week of his illness, and arrangements were being made for his spending the winter months on the south coast. In the early morning of the 20th instant, that being the 108th day of the illness, pain of a violent and paroxysmal character set in in the epigastrium, stretching across to the left hypochondrium; the aching pain and tenderness were constant, and violent paroxysms occurred at intervals of a few hours. In the evening the temperature rose, and there were sickness, restlessness, and general constitutional disturbance. On the following day, these symptoms continued unabated. On the third day, although the pain and sickness had ceased, the temperature continued high, the pulse and respiration rapid, and there was still tenderness on pressure in the epigastrium; the exudation in this region was again perceptible, the abscess being apparently in the situation of the omental sac in front of the head of the pancreas, and behind the colon and omentum. During that and the following day the symptoms remained much the same, but with the addition of slight delirium at night. On the evening of the fifth day (Wednesday), the last to which our report extends, there were indications that the abscess was again discharging, the temperature having fallen to 99.5°, the pulse and respirations being less rapid, and the epigastric tenderness less. This fresh attack has necessarily greatly increased the anxiety of the Bishop's medical attendants. We understand that Sir Andrew Clark has again met Dr. Walker in consultation; and we need scarcely add that every consideration is being given both to the medical and to the surgical bearings of the case. No section of the community will more deeply sympathise with the Bishop and his family, in the disappointment and suffering which this relapse must cause, than will the members of that profession, in the interests of which his lordship has so often exerted his great talents.

HOSPITALS IN NEW ZEALAND.

In November, 1882, Dr. G. W. Grabham was appointed inspector of hospitals for New Zealand; and in June, 1883, he made his first official report, after having travelled 4,158 miles and having personally inspected every hospital in the colony. The number of such institutions is at present thirty-eight. They are distributed somewhat irregularly. In some instances the desire of the townspeople to have a local medical practitioner, partially subsidised by Government, and not the requirements of the poor, has determined the erection of the hospital. With improved means of communication, the inspector suggests that it may be possible to dispense with two or three of these hospitals, and to establish others which are really more needed. The buildings are for the most part made of wood, though in some of the larger towns brick and concrete are also used. In like manner the fittings of some are good and comfortable, while others have a starved and poverty-stricken appearance; the best cared for being those which are most dependent upon local support. The mode of gaining admission to these New Zealand hospitals varies greatly. In some instances a subscription, varying from 10s. to £1 1s. a year, entitles to free admission during that period, without any further payment; in others a weekly payment of from 10s. to £1 10s. is demanded in addition to the subscription; while in a third class it is not necessary to subscribe at all. As regards out-patients, the sum of 2s. 6d. or 5s., paid annually, may entitle to attendance and medicine, for that period, for a man and his family.

"A new comer," says the inspector, "cannot fail to be struck with the presence of many patients, who, if in England, would be treated at home by their private medical attendant.....I have heard of a tradesman, in a large way of business, availing himself of an annual subscription of 2s. 6d. to secure advice and medicine for his family at the public expense. The subscription entitling a patient to admission to a hospital, is sometimes only commenced after the attack of illness has manifested itself. There are, moreover, other abuses prevalent. It is not an unknown thing for drunken or dissolute persons to use the hospitals as convenient recruiting-places in the intervals of their periods of indulgence; but the greatest obstacle to their usefulness is, that they are made the home of aged, infirm and chronic cases, corresponding very closely to the permanent pauper inhabitants of an English union workhouse. Their presence seriously cripples the resources of the hospital, while the conduct and habits of many of them are subversive of discipline and cleanliness."

Hospital-abuse is, therefore, not confined to the old country. It appears to be rampant in New Zealand; and Dr. Grabham may do excellent service to the colony by pointing out the proper office of free-hospitals on the one hand, and pay-hospitals on the other, and by setting forth the best principles upon which these various institutions should be carried on.

THE DALRYMPLE HOME FOR INEBRIATES.

Invitations have been issued to a public opening of this institution on Monday afternoon next. The Home is at Rickmansworth, Herts, about a mile from the railway-station; and special saloon-carriages from Euston are to be placed at the disposal of the invited guests by the president, Lord Shaftesbury, and the committee. Among those who have accepted the invitation are the President of the Royal College of Surgeons, and the President and Ex-president of the Metropolitan Counties Branch of the British Medical Association. The few retreats previously licensed under the Act have been private ventures, but the Dalrymple Home is conducted on the principle that none of the members of the association or of the committee can derive any pecuniary profit from the undertaking. This will, therefore, afford opportunity for a fair, disinterested, and open trial of the Act, which, imperfect and incomplete as it is, cannot be wholly valueless. The committee hope, by the record of the cure of a few typical cases of habitual drunkenness, to present a case sufficiently strong to secure from the Legislature a prolongation of the Act, with the removal of the existing hindrances to voluntary admission to a retreat, and the addition of more stringent and more extended powers of committal and detention. Resolutions approving of such changes in the law have been agreed to at the recent annual meetings of the British Medical Association and the Social Science Congress; and the members of the Association will look with much interest on the hopeful experiment in the Dalrymple Home. There are four and a half acres of charming grounds attached to the house, affording ample scope for the amusements promised of lawn-tennis, quoits, a bowling-alley, etc. There is also a gymnasium; and the committee propose to have workshops if any of the patients indicate a *penchant* for carpentry or other similar occupation. Most of the rooms have a southerly aspect, and there is a very pleasant view from the public rooms, the house standing on a terrace thirty feet above the river Colne. Boating, fishing, and bathing are also to be enjoyed. A spacious dining-hall and kitchen have been added, and the sanitary arrangements have been remodelled under the supervision of the well-known sanitary architect, Mr. H. H. Collins. The billiard-room is a prominent feature in the house, and there is a

capital table by Thurston. This enterprise not only derived its inception from our Association, but is carried on mainly by a few of our members; and we confidently anticipate that their appeal for the £2,500 still needed to complete the purchase of the freehold, and for a generous annual subscription-list, will be liberally responded to. Donations and subscriptions may be forwarded to the Honorary Secretary, Dr. Norman Kerr, 42, Grove Road, Regent's Park, N.W.

HOW TO MAKE SPECIALISM USEFUL.

FROM time to time, but especially at this season of the year, when the introductory addresses afford good opportunities for disquisitions on general subjects, we read or listen to many protests, more or less eloquent, against the growth of specialism; still specialism flourishes, and hardly a decade passes but some new specialty developes. Of all the special departments of medicine, ophthalmology is that one which has best vindicated its right to existence; indeed, no one any longer disputes its position as a department requiring peculiar skill and peculiar training; and among its practitioners have been and are many men whose position in the profession is of the very highest, and men, moreover, who are actively engaged in the work of teaching. In spite of these advantages, there has been a danger that ophthalmic medicine should, by its very advance towards perfection, both as a science and an art, drift away from the ken of those who are not specialists—that is, from the great bulk of the profession. Specialists, even ophthalmologists, sometimes astonish the world by fierce arguments, where it is as perplexing to estimate the importance of the point in dispute as to tell

> "What the difference may be
> 'Twixt tweedle-dum and tweedle-dee."

It is gratifying to find that this danger is fully recognised by the President of the Ophthalmological Society, who is prepared to propose a remedy. His scheme is not wanting in a certain happy audacity; for he proposes that the practitioners of a specialty, acting through a constituted body, such as the Ophthalmological Society, shall from time to time, as they shall themselves arrive at an unanimous opinion on the value of some therapeutic procedure, recommend the same in the most public and official way to the profession at large. Mr. Hutchinson makes no doubt that there are several diseases, important from their frequency, or their severity, upon the diagnosis and treatment of which ophthalmic surgeons are unanimous; and he accordingly proposes that committees should be appointed to draw up *schemata*, specifying the symptoms of the diseases and the approved remedies; that these *schemata* should be discussed, emended, and formally adopted by the Ophthalmological Society, and by it recommended to the profession at large. If such a plan can ever be successful, it ought to succeed in this case; for the diagnosis of diseases of the eye is comparatively easy, if the observer be alive to the concomitant symptoms which sometimes mark the local symptoms. It is very much to be desired that the Ophthalmological Society should make the attempt. No doubt, in process of time, the received opinion among specialists finds its way into the general text-books, and gradually leavens the knowledge of the whole profession; the hope may be entertained that, by some such plan as Mr. Hutchinson proposes, the diffusion of special knowledge may become more rapid, and reach the profession, not indirectly by a process of gradual diffusion through individuals, but directly in the authoritative utterances of collective experience.

EXTIRPATION OF THE CANCEROUS UTERUS.

THE formidable operations for the treatment of uterine fibromata formed the subject of a discussion at the last annual meeting of the Association, and the papers read by Mr. Knowsley Thornton, Professor Schroeder, Dr. Meadows, and Dr. W. Walter, have recently appeared in the JOURNAL. We learn from the Philadelphia *Medical News* that, at the recent meeting of the American Gynæcological Society held in Philadelphia, Dr. A. Reeves Jackson of Chicago read a paper in which he endeavoured to show that complete removal of the cancerous uterus should be discarded from practice, because it is a highly dangerous procedure, and holds forth no reasonable hope for permanent relief. Dr. Emmet, whose personal experience is limited to a single case of abdominal hysterectomy, endorsed the views entertained by Dr. Jackson; as did also Dr. Van de Warker of Syracuse. Dr. Sutton, on the other hand, regarded vaginal hysterectomy as an operation full of promise. Dr. Palmer of Cincinnati had always declined to perform it, while Dr. Baker of Boston would limit total removal to those cases in which the disease begins in the cavity of the organ. The *Medical News* observes that, during the past few months, important contributions to the statistics and details of the operation, from the pens of Sänger of Leipsic, Schatz of Rostock, Demons of Bordeaux, and Schroeder of Berlin, have been made to the *Archiv für Gynækologie*, vol. xxi, 1883, the *Archives Générales de Médecine* for August 1883, and the BRITISH MEDICAL JOURNAL for September 15th, 1883, in which the authors, in common with the majority of German surgeons, regard the procedure as an eminently rational one in an affection so surely fatal when left to itself as carcinoma, claiming for it no more nor less than is to be expected from the extirpation of the tongue, the testis, the rectum, the breast, or the thyroid gland, for cancer. Extirpation of the uterus is dangerous, but the mortality depends upon the manner in which it is done. Abdominal hysterectomy, or Freund's operation, is a very fatal procedure. Of 93 cases collected by Hegar and Kaltenbach, 63, or 67.7 per cent., proved fatal; and the death-rate does not appear to be diminished by increased experience, since of 106 cases, inclusive of those just referred to, of which we have a knowledge, 72, or 68 per cent., died. The primary risks are, therefore, so great that abdominal hysterectomy should be reserved for special cases. Vaginal hysterectomy, on the other hand, yields the most promising results. To the 133 operations, with 38 deaths, collected by Sänger, we have to add 34 additional ones, of which 9 are from the practice of Schatz, 4 from that of Schroeder, 3 from that of Olshausen, 2 each from those of Dudon and Howitz, and 1 each from those of De Vecchi, Novaro, Guarneri, Pawlik, Müller, Demons, Mandrillon, Tauffer, Holmer, Studsgaard, Leisrink, Calderini, Paggi, and Wile. Of the 167, 115 recovered, and 52, or 31.13 per cent., died, which is nearly as good a result as is shown by ovariotomy in the hands of American and European surgeons. Thus, of 5,153 ovariotomies, tabulated by Agnew, 1,502, or 29.13 per cent., perished. Like ovariotomy, vaginal extirpation is progressively improving in its death-rate. Thus, of 52 examples collected by Haidlen in 1881, 19, or 36.6 per cent., died. Of 81 analysed by Czerny in 1882, 26, or 32.1 per cent., were fatal; while, as we have just seen, of 167 collected by us in 1883, 52, or 31.13 per cent., perished. In the hands of surgeons who have had the largest experience, the mortality has been still further reduced. Martin lost 8, or 26.6 per cent., of his 30 cases; Olshausen lost 7, or 28 per cent., out of 25 cases; and Schroeder lost 7, or 30 per cent., of his 23 cases; the 78 operations affording a mortality of 28.2 per cent. From this beginning, vaginal hysterectomy should be persevered in, with the hope that it will ultimately become a far more successful measure than it has proved to be up to the present date. When resorted to for other conditions than carcinoma, the success of the procedure is noteworthy. Thus, of 13 operations for prolapse and benign tumours of the uterus, only 2, or 15.4 per cent., were fatal. Dr. Jackson does not appear to believe that a case of carcinoma was ever permanently relieved by complete hysterectomy, as he says: "It is notorious that, in almost all instances in which surgical operations have been done for the removal of cancers, they have been only of temporary benefit—if beneficial at all." The general surgeon could inform him that 15 per cent. of carcinomata of the tongue, and nearly 11 per cent. of carcinomata of the breast, have been cured; and he should know that one of Freund's patients was free from recurrence

for four years and five months after abdominal hysterectomy. The decision of this important question is not a matter of sentiment; it must rest upon a far larger experience and a more rigid following up of each case. Of the final results of the vaginal operation, the information is meagre. In at least nineteen cases, there was freedom from recurrence for periods varying from three to twenty-four months, two remaining well for three months, two for five months, five for six months, two for eight months, two for nine months, one for fifteen months, two for eighteen months, one for nineteen months, and two for twenty-four months. In at least fifteen instances, there was recurrence in from four weeks to ten months, or in four months on an average; and death ensued, on an average, in fourteen months after the operation, so that life was prolonged even in these fatal cases. Is it true, as Dr. Jackson states, that, "when the diagnosis can be established, there is no reasonable hope for a radical cure?" To this the *Medical News* answers, emphatically, No; and its proof lies in the results of partial operations, which are notoriously far less successful than when the entire organ involved is extirpated. Thus, Pawlik, in the *Wiener Klinik*, vol. xii, 1882, has published the statistics of Professor C. Braun's removal of the vaginal portion of the uterus, for carcinoma, with the galvanic cautery. Of 136 cases, 33 were living free from recurrence for periods varying from one to nineteen years and a half after the operation. Dr. Baker of Boston, also, in the discussion on Dr. Jackson's paper, brought forward some pregnant facts bearing upon this point. By a very ingenious operation, which deserves general adoption, he has removed the entire supravaginal and infravaginal portions of the cervix, as well as from one-third to one-half of the body of the uterus, and subsequently seared the denuded surface with the thermo-cautery, thirty times, and six patients were living entirely free from disease five years subsequently. If such results are attainable from partial operations, what may not naturally be expected from complete extirpation performed through the vagina at an early stage of the disease, when irregular and climacteric hæmorrhage is its first indication? In conclusion, our American contemporary endorses the views of Sänger, who holds that partial operations on the cervix should be reserved for those cases of malignant papilloma in which the growth projects into the vagina; that supravaginal amputation of the body of the organ, after laparotomy, should be limited to those cases in which the diseased organ cannot be removed through the vagina; and that vaginal hysterectomy should be the rule in all other examples of carcinoma.

SCOTLAND.

TYPHUS fever is at present prevalent in the village of Neilston in Renfrewshire, several cases having been removed within the last fortnight to the hospital at Cowglen.

As a consequence of recent disputes between some of the officials, it has been decided by the Board of Supervision to hold an investigation into the general administration at Smithston Poorhouse and Asylum.

EDINBURGH MEDICAL SCHOOL.

The session in the University and extra Mural Medical School commenced on Tuesday. The lectures on Clinical Surgery were opened on Thursday and on Clinical Medicine on Friday. It is impossible yet to estimate the numbers attending the various classes, but there does not appear to be any diminution. In the new medical buildings of the University considerable progress has been made of late, and the lectures on Materia Medica and Pathology will now be delivered there, a great improvement for the students who were previously kept running between the two buildings. The Rectorial contest is being prepared for by all three parties.

UNIVERSITY OF ABERDEEN.

THE medical preliminary examination was held on Monday and Tuesday of this week. There was as large—if not a larger number of candidates—as on any previous occasion; so that, over the year, the new entries will be more than up to the number of any previous year. The progress of this school—deserving as it does the appellation of a "working school," is healthy, steady, and decided.

LOCH KATRINE WATER.

THE monthly report of the quality of Loch Katrine water has been issued by Professor Mills. The results are returned in parts per 100,000: Total solid impurity, 3.000; organic carbon, 0.112; organic nitrogen, 0.011; nitric nitrogen, 0.008; ammonia, 0.000; total combined nitrogen, 0.019; hardness, 0.95; chlorine, 0.69. The water, which was sampled on October 15th, was of a light brown colour, contained a very little suspended matter, and was of a temperature of 51.44° Fahr.

HEALTH OF GLASGOW.

THE report of the medical officer of health for the week ending October 13th shows a marked improvement in the death-rate. There were 392 deaths registered, representing a death-rate of 20 per 1,000 living, or of 19 on the estimate of the population made by the medical officer. No such low death-rate has been recorded since the fortnight ending October 1st, 1881. The mortality from every form of infectious disease was less than in the preceding fortnight. The number of deaths from whooping-cough was the lowest since the autumn of 1881; while that from measles was the lowest since September of last year. The mortality from pulmonary diseases was the lowest recorded this year. It is thus apparent that the whole improvement in the health-returns lies in the lessened death-rate from the zymotic and the pulmonary classes of diseases, the number of deaths from miscellaneous unclassified causes being only 4 less than in the previous fortnight.

THE BEN NEVIS OBSERVATORY.

IN weather the most unfavourable and severe, the formal inauguration of the observatory on the summit of Ben Nevis took place on the 17th instant. About one hundred ladies and gentlemen made the ascent amid the falling snow and thick mist. The ceremony took place in the building, and was of a very brief nature. It consisted merely in the formal opening of the observatory by Mrs. Cameron Campbell, the owner of the Ben, and who generously gave the site for the building. The council of the Meteorological Society and their friends dined together in the evening, when general satisfaction was expressed at the accomplishment of the scheme, by which there has been established, on the highest point in Great Britain, a meteorological station, which, when in full working order, must yield a large amount of scientific knowledge of great benefit to the nation. It is admitted on all sides that, apart from its lofty elevation, no more suitable site for scientific observation could have been chosen. Of the £5,000 required to meet the expenses of founding and keeping up the station, £4,700 has been already subscribed.

UNIVERSITY OF GLASGOW.

THE winter session in the medical faculty of this university opens on October 30th, the introductory lecture being given by Professor Young. Already there are indications of the commencing session, and from the unusually large number of entrants for the preliminary examination in medicine, it is anticipated that there will be no falling off in the number of students. The present year is one that will always be noteworthy in the history of the university,

in that it has seen the completion of the Bute and Randolph halls, the two combined making a range of buildings which, for massiveness and architectural beauty, could not be surpassed. The formal opening of the Bute Hall will depend on the wishes of the noble marquis who has presented it, but the position of matters has been rather complicated by the action of the students, who have taken up a political stand, and nominated the marquis as a Conservative candidate for the Lord Rectorship. This has led to the Liberals bringing forward a candidate in Mr. Fawcett, and the Independents in Mr. Ruskin. Should the Liberals succeed in carrying their candidate, the attendance of Lord Bute to formally open the hall he has so generously presented to the university would be doubtful; and even should he come, his presence would be apt to be associated with feelings which would detract somewhat from the pleasure of being present. It may be mentioned that the total cost of the Bute and Randolph halls will not fall far short of £100,000.

WOODIELEE ASYLUM, LENZIE.

ONE of the most difficult matters for those in charge of our large pauper asylums is to find suitable occupation and exercise for many of the chronic cases under their care, and to do this in a cheap but efficient manner. The work connected with the management and care of a farm has been found to answer admirably for this class of patients, and has also been carried on profitably, so that we find home-farms attached to some of our asylums. We notice that the authorities of the Barony Parochial Board have just made an important addition of this kind to their asylum at Lenzie, by the erection of a handsome farm-steading on the grounds of Woodielee. The new building is in the form of a quadrangle, and in its construction every care has been taken to fit it up with all requisites necessary to the successful carrying on of a dairy-farm. Accommodation is also provided for fifty inmates, twenty-five men and twenty-five women, as well as for a farm-overseer and the necessary number of warders. The cost of the new buildings, with all the necessary furnishings, will amount to about £10,000; but, while this seems a large outlay, we believe that the policy of the authorities is a good one, and that, in thus utilising the large extent of ground which they possess, they are acting in the interests of the patients, who should benefit from the occupation and exercise provided for them. Seeing, too, the large number of inmates that have to be provided for in the asylum, the farm, if properly managed, should financially be a success. We shall hope to hear that this experiment in the treatment of the quieter patients has answered the expectations formed of it.

HOW FEBRILE DISEASES ARE SPREAD.

TWO recent outbreaks of fever in Dundee illustrate anew and very forcibly what a powerful agent is milk as a vehicle for spreading fever. In the Dundee Police Court, on Monday, John Stewart, dairyman, Ancrum Road, Lochee, was charged with using part of a dwelling-house in Ancrum Road as a dairy, while the ventilation, including the air-space, cleansing, drainage, and water-supply, were not such as were necessary for the protection of the milk kept therein against infection or contamination with disease; and while John Stewart, eleven years of age, then residing with accused, and now an inmate of the Royal Infirmary, was suffering from scarlet fever, he allowed his wife and his servant, after they had been recently in contact with the boy, to milk cows and handle vessels, and take part in and assist accused in his trade, by selling milk to several persons, whereby the accused had rendered himself liable to a penalty not exceeding £20. The accused, on being asked to plead, said he was guilty, but it was done in ignorance. When the boy came home from school, he did not suspect that it was fever he had taken, or he would have sent him home to his father's. The prosecutor said it was found out, when the case was inquired into, that the milk was sold in the kitchen, where the boy, accused's grandson, was lying ill of fever. During four days, there were no fewer than seventeen persons stricken with fever in families supplied with milk by the accused; and, out of that number, four died of the disease. Baillie Taylor, in passing sentence, spoke of the serious charge of which the accused had pleaded guilty, and that such practices in the selling of milk must be put a stop to, milk being so very liable to contamination from infectious disease. A fine of £5 was imposed, with the alternative of twenty days in prison. If this be the limit of the punishment allowed by the law, it is time there was some alteration in it, for it is quite inadequate to meet such reckless conduct as was brought to light in this case. In the other instance, a serious outbreak of typhoid fever has taken place in Dundee, and investigation points to the disease having been largely disseminated by the sale of milk from a dairy kept by a man, several members of whose family are at present suffering from the fever. Of the 102 cases of enteric fever which have occurred in Dundee during the last three weeks, no fewer than thirty-six received milk from the dairy in question. The outbreak shows no signs of abating, and steps have been taken, at the instance of the medical officer of health, to stop the sale of the milk, and to examine all dairies and shops where milk is sold; but conduct such as has been made public in these two instances points strongly to the necessity of further legislation of a deterrent and preventive character regulating dairy-farms and milkshops.

IRELAND.

Dr. REDFERN, Professor of Anatomy in Queen's College, Belfast, who recently resigned, has agreed, at the request of the Lord-Lieutenant, to retain the chair for some time longer.

THE mortality from the outbreak of scarlet fever in Londonderry has not been so severe as was reported, the deaths for the past three months amounting only to 35. The epidemic is gradually abating.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the council of the College, held on the 18th instant, the following gentlemen were elected Examiners in Dental Surgery for the ensuing year, viz., Edward A. Stoker, Edward S. O'Grady, Henry Gray Croly, Henry G. Sherlock, J. Daniel Corbett, and Arthur W. M. Baker.

MEATH HOSPITAL.

IT is announced that a dinner for the reunion of old students and officials of the Meath Hospital and County Dublin Infirmary will be held on Monday, November 5th, at the Shelbourne Hotel, at seven o'clock. Sir George Porter, Senior Surgeon to the hospital, will preside.

HEALTH OF CORK.

DURING the four weeks ending the 6th inst., the total number of registered deaths amounted to 127, including 18 in the workhouse, and therefore outside the borough; and the births to 152. The annual death-rate per 1,000 inhabitants during the month, gives a total ratio of mortality of 20.5; but deducting those who died in the workhouse, the urban death-rate will then stand at 17.0; from infectious diseases, 0.3; an infant-mortality of 2.0, and a birth-rate of 24.0. These returns, when compared with those for the corresponding period last year, show that the rate of mortality has been slightly increased, the urban death-rate being then 19.02.

HEALTH OF DUBLIN: QUARTERLY REPORT.

DURING the quarter ended the 29th September, the births registered in the Dublin registration district amounted to 2,371, being equal to an annual ratio of 1 in 36.9, or 27 per 1,000. The deaths came to 1,980, or 22.6 per 1,000; and, omitting the deaths (50) of persons not chargeable to the district, the rate was 22.1. Zymotic diseases caused 293 deaths, being 17 over the number for the preceding quarter, but 104 under the average for the third quarter of the ten years 1873-82. The deaths from these diseases last quarter were equal to an annual rate of 3.4 per 1,000. Of these, diarrhœa and dysentery combined caused 102 deaths, being 35 per cent. of the mortality from this class of diseases; fever, 53 (typhus, 23; enteric, 26; and simple continued fever, 4); and whooping-cough, 51. Scarlet fever caused 33 deaths; erysipelas, 12; measles, 10; and diphtheria, 2. Two hundred and fifty-six deaths took place from diseases of the respiratory organs, which included 142 from bronchitis, and 61 from pneumonia. The deaths of 170 children were ascribed to convulsions. Phthisis was fatal in 269 instances, cancer, 50; apoplexy, 30; and diseases of the circulatory system, in 148. The mean of the mean weekly temperature for the quarter was 55.9, and the rainfall during the thirteen weeks measured 10.0 inches.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

AT the annual stated meeting of the college, held on the 18th instant, St. Luke's Day, the following officers were elected for the ensuing year. *President:* William Moore, M.D. *Vice-President:* Francis Richard Cruise, M.D. *Censors:* F. R. Cruise, M.D.; Fleetwood Churchill; George F. Duffey, M.D.; John M. Purser, M.D. *Additional Examiners:* J. Magee Finny, M.D.; A. V. Macan, M.D.; F. J. B. Quinlan, M.D.; Christopher J. Nixon, M.B.; John M. Purser, M.D.; Walter G. Smith, M.D. *Registrar:* John William Moore, M.D. *Treasurer:* Aquilla Smith, M.D. *Examiners in Midwifery:* John R. Kirkpatrick, M.D.; Stephen M. MacSwiney, M.D. *Professor of Medical Jurisprudence:* Robert Travers, M.D. *Representative on the General Medical Council:* Aquilla Smith, M.D. *Agent to the Trust Estate:* Charles U. Townshend. *Law Agents:* Messrs. Stephen Gordon and Son. The following members were elected to the Fellowship: Michael Joseph Clune, M.D. Brussels; Effingham Carroll MacDowel, M.D. Mr. Thomas H. Innes was elected Librarian, Clerk to the College, and Clerk to the Trust Estate. Dr. Clune, who has been elected to the Fellowship, is a physician of high repute practising in Sydney, New South Wales. Dr. Mac Dowel is surgeon to the Sligo County Infirmary and Gaol, and Visiting-Physician to the Sligo District Lunatic Asylum. He is an ex-senior moderator, exhibitioner, and gold medallist of the University of Dublin, and a Radcliffe medical scholar of Oxford.

THE COOMBE LYING-IN HOSPITAL.

THE board of governors of this hospital recently applied to His Excellency the Lord Lieutenant of Ireland to recommend the issue of a Queen's letter, authorising the reappointment for a limited period of the master of the hospital, Dr. Kidd. By the terms of the hospital charter, the tenure of the office of master is not to exceed seven years; and it is further recited that no person, however deserving, shall be capable of being elected master of the hospital, who has been in office as such for seven years, either successively or at different times, but amounting in the whole to seven years, Dr. Kidd, we believe, completed his seven years' tenure of office in July last. He "refused the request of the board to allow himself to be re-elected; but, on its unanimous and urgent desire, was induced to consent to retain office for a limited period." Of course, if Dr. Kidd had been re-elected in August last, or subsequently, under the terms of the existing charter such an election would have been void. The action of the board of governors, in seeking to have the charter changed so as to enable them to re-elect Dr. Kidd, even for three years, evoked very strong comments in some of our contemporaries, both lay and medical. No one questioned the ability of Dr. Kidd, or his capacity to fill the office; but the extension of his period of holding it would, it was urged, be manifestly unfair, especially to the ex-assistant masters of the hospital, to whom, by the same charter, a preference is to be given in all elections for the mastership. While the subject was under consideration, we refrained from making any allusion to it; we are now, however, enabled to announce that the Lord Lieutenant has declined to recommend the issue of a Queen's letter to permit the re-election of Dr. Kidd.

CHOLERA IN EGYPT.

ALEXANDRIA, October 9th.

[FROM OUR CORRESPONDENT.]

WE had hoped that long ere now the above heading would have been no longer appropriate for a "correspondence" from Egypt; but the disease lingers on in Alexandria, and the two towns Keneh and Esneh, the last to be invaded in Upper Egypt. From these three places hardly a day has yet passed without at least one death being reported; recoveries are not reported, and consequently the precise number of attacks cannot be known, but they are very few. The chief interest and excitement are now centered in the theories of the origin of the epidemic; and as Egypt does not yet boast of a medical periodical, the daily political papers are made use of for some rather lively if not strictly scientific polemics, and for the mixed nature of much of the discussion carried on, the political press, such as it is, answers very well. The publication of Dr. Hunter's preliminary report raised a very hornet's nest; and it was soon seen that he had few followers amongst medical men here in his opinion that the sporadic cases of cholera observed here for many years constitute an endemic cholera in Egypt. Dr. Sierra, in a long and well written letter in the *Egyptian Gazette*, has come forward as the exponent of the opposition, which holds that these cases are altogether of a different nature from epidemic cholera, which must and can originate only by fresh introduction from India. A writer in the *Bosphore Egyptien*, under the *nom de plume* of Docteur X. (presumably Dr. Mahé, the French medical commissioner to Egypt to inquire into the origin of the epidemic), describes how it has been introduced into Egypt from India by way of Damietta. The opinion of this authority, briefly stated, is this: that Egyptian firemen engaged on board outward bound steamers at Port Said, for the run to India and back, are often allowed to disembark in the Canal, even when the vessel is passing through the Canal in quarantine; and that they then make for Damietta. Secondly, that many of the men who work at coaling ships at Port Said carry the coals down into the holds of the vessels—another sort of promiscuousness, or, as it is in the original, "autre genre de promiscuité avec le personnel des navires en transit de quarantaine;" and that there is a constant coming and going of these men to and from Damietta. Without pretending in any way to express an opinion as to whether cholera was or was not introduced into Egypt in this way, I would make a single observation on each of the statements. I have had a large experience of English shipping, and I have never seen the coals for ship's consumption carried directly into the hold of the vessel; they are always shot into the ship's bunkers from the deck, or pitched through a porthole from alongside. I mention this, as the writer attaches importance to the coal-porters carrying the coals down into the hold; "jusque dans la cale des vapeurs." With regard to Egyptian firemen quitting the vessels passing the canal in quarantine a litlle before reaching Port Said (in contravention of quarantine of course) this breach of law and consequent introduction of cholera by this means is ascribed by the writer mentioned entirely to "les Anglais," and this is a chief point seldom missed by any of his countrymen. I have before me a letter from an English agent at Port Said of several English steamship companies in which he says—"I do not believe firemen ever leave ships in the canal and go to Damietta or elsewhere, I have never heard of a case. It is not likely, because the man wants his pay, and captains do not carry money with them, but wait till they get to Port Said, where the agents find the money to pay off men. In time of quarantine the practice is for Egyptian firemen to proceed to England, and be sent back here from thence, as there is no Lazaretto in which they can perform quarantine at Port Said.

The Peninsular and Oriental Company's steamers, I am informed,

seldom if ever engage Egyptian firemen; but other large steamers of other nationalities do engage them in large numbers. This is not mentioned nor alluded to by Dr. X., as it would remove some of the responsibility, if responsibility exists, from "les Anglais." The ordinary British merchant steamers engage them; and upon this I would make an observation. Mons. Fauvel, in his pamphlet "On the Epidemic of Cholera in Egypt, July 23rd, 1883," says: "After (a passage of) fourteen days, without having had a case of cholera on board, there is no longer any risk of introduction of cholera by people" (*par les "personnes"*). There are few British merchant steamers, I should say, if any even, which make the voyage from Bombay to Port Said much under fourteen days, many of them will take longer. Many first-class steamers pass through the canal from India direct to Naples, only a four days' passage from Port Said, and deliver cargo there. If the danger is in the "holds" of the vessels, Naples must have often run considerable risk, but no cholera has broken out there. At Beyrout, while the refugees were fleeing thither from Egypt, several fatal cases of cholera occurred in the Lazeretto and in the town, but it did not spread. Why?

If cholera has been introduced into Egypt from the Suez Canal, it is another proof of how useless quarantine is as a means of checking it. If Egyptian quarantine is a "mere fiction," as Docteur X. says, it is a fortunate thing for "les Anglais" that they have no hand in its administration. The Inspector-General of the Service is a Frenchman of intelligence, in whom his countrymen have confidence; and never was the service supposed to have been better performed.

Another observation of M. Fauvel's calls for a little notice. In the pamphlet to which I have alluded, speaking of the English Government having ordered the disinfection of all "suspected" cargo from Egypt, he says: "The history of cholera in England shows us that whenever that country has been visited by a cholera epidemic, it has been when the disease prevailed on the sea-coasts of the North of Europe that the invasion has taken place. Thus, the fears expressed to-day by England are opposed by experience ('contredites par l'expérience')." The same observation and reasoning may be applied with regard to the present epidemic ln Egypt—that its importation direct from India is opposed to all former experience. Nevertheless, M. Fauvel finishes his pamphlet by declaring that "the epidemic of Asiatic cholera which is prevailing in Egypt was imported from India, that the importation of it was in consequence of the suppression of the preventive measures which protected the country, and that the responsibility falls wholly on the English authorities."

The last point is the strong one, which acts as a safety-valve for M. Fauvel. The style may be unscientific; facts may be ignored or distorted; but the responsibility must be thrown on the English authorities. I concern myself only with the facts. One fact is, that the preventive measure which protected Egypt—viz., quarantine against India—was not removed when cholera broke out. Quarantine, which had existed for some time, was removed against vessels leaving Bombay after July 13th, according to a resolution taken by the International Sanitary, Maritime, and Quarantine Board at Alexandria. Consequently, the first vessel arriving in Egypt in free *pratique* could not have arrived till some time after cholera was officially declared at Damietta. Another fact is, that the English authorities have no responsibility in the matter, more than any other European power. England has a delegate at the Board; so has every other European power. They may vote for or against, as they choose or are instructed. The majority of votes carries the decision. Had the English authorities had the responsibility, perhaps things might long ago have been better; perhaps Egypt might not have had this epidemic. I will not say of M. Fauvel what he said of some of our highest scientific men in India, when M. Guérin stated, at a meeting of the Academy of Medicine on the 31st of July last, that he considered Dr. Cunningham a great epidemiologist. "I mistrust the opinions of Dr. Cunningham," said M. Fauvel; "the doctors in India are the tools of the commercial interests of their country."

Many, if not most, of the medical men who came here during the epidemic with a full belief in the contagiousness of cholera, in the strict sense of the term, that is, propagation by contact or by touching choleraic patients, have now greatly modified or altogether abandoned this belief, and many striking proofs are adduced of the complete immunity of nurses, friends, doctors, ambulance assistants, and members of charitable and relief societies, many of whom passed hours attending to individual patients. Some of these instances I shall give in another letter. Doctor X, in the letter in the *Bosphore Egyptien*, does not give his opinion as to whether the escaped firemen gave the disease at Damietta by contact. The manner of conveying the disease is obscure. That there may have been infractions of quarantine nobody will deny; quarantine always has been, and will be broken until some further light is thrown on the subject by the publication of full reports and the opinions of able and scientific men; there is still wanted "The origin of the Egyptian cholera." I hear a commission of ten medical men, five natives and five Europeans, has been appointed in Cairo to study Dr. Hunter's report.

THE *Times* correspondent telegraphs as follows from Alexandria, on October 22nd.

The Board of Health has published, in the *Egyptian Gazette*, the following extraordinary communication in reference to Surgeon-General Hunter's letter, reproduced from the English newspapers:

"The Board of Health feels compelled energetically to protest against Dr. Hunter's assertions, as tending to mislead public opinion and to encourage the belief that cholera has been endemic in Egypt since 1865. The Board of Health declares, first, that Dr. Hunter has never, during his short stay in some portions of Lower Egypt, been able to make personal observations which would justify his expressing any such opinion, and that it is perfectly certain that the information collected by him during his voyage, has come from persons absolutely ignorant of medicine. Secondly, that Doctors Sonsino, Ambron, and Sierra, according to declarations which they have made to the Board of Health, assert the contrary, and that, according to them, endemic cholera has never existed in Egypt."

The official seal of the Board of Health is attached to this insolent document, and the letter forwarding it is signed by Salem Pasha, who was recently decorated, and who has been the subject of hysterical congratulations on the part of the Minister of the Interior.

That our efforts at sanitary reform should hitherto have proved a fiasco is hardly to be wondered at. Dr. Hunter, having been the first to leave, is the first to be ridiculed openly, and it is difficult to believe that a similar feeling does not exist throughout. I understand that Major Baring is now taking up this question.

RESEARCH SCHOLARSHIPS OF THE BRITISH MEDICAL ASSOCIATION.

THE Scientific Grants Committee of the British Medical Association met on Wednesday week, to consider communications and suggestions which had been received from a large number of the most eminent persons connected with biological and pathological research at the chief centres of medical education in the kingdom, on the subject of the newly constituted research scholarships of the British Medical Association. Thirteen applications were laid before the committee in response to the communications which had been made to the various centres of education, and the advertisements issued; most of these applications including a detailed account of the proposed lines of research, and testimonials as to the fitness of the candidates. Among the applications were many of a highly valuable and important character, and the committee had no small difficulty in balancing the claims of the several candidates, the relative importance of the lines of research on which they proposed to embark, and their proved fitness by previous work of the kind for the proposed scholarships. The committee would have been well pleased had a larger number of scholarships been available, in order that they might have increased the number of selected candidates, for among the applications were many of a very promising kind, relating to proposed work of an extremely interesting and valuable character, and from candidates of high attainments, working in the laboratories of some of the most eminent of British professors. In the end, the committee unanimously decided to recommend to the Council of the Association to appoint to one of the research scholarships Mr. Watson Cheyne, F.R.C.S., of London, whose reputation and work are of a high order, and whose recent researches on the bacillus of tubercle have excited much interest, and have been highly approved for the accuracy, industry, and skill which they display. The subject to which Mr. Watson Cheyne will devote himself is that of the "Relationship of Micro-organisms to Disease." The other scholarship was awarded to Mr. John Priestley of Owens College (formerly Platt physiological scholar), Manchester, whose research on the physiological action of vanadium, published in the *Philosophical Transactions of the Royal Society* for 1875, and whose other researches, published in the *Studies from the Physiological Laboratory*

of Owens College, showed much industry and ability. The work to which Mr. Priestley will devote himself, will be researches on the Physiological Action of some of the most important Drugs, the research to commence with Iodoform.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

A MEETING of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before the meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary*.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia at the end of the year. Cases are therefore urgently needed during the next two months.*

Applications should be addressed to
The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will take place at Gravesend, on Tuesday, November 13th. Gentlemen desirous of reading papers or exhibiting specimens, are requested to communicate as early as possible with the Honorary Secretary of the district, A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham.—October 5th, 1883.

YORKSHIRE BRANCH.—The autumn meeting will be held at Scarborough on Wednesday, October 31st. Gentlemen intending to communicate papers are requested to signify their intention to ARTHUR JACKSON, Secretary.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Newport, on Thursday, November 15th. Members wishing to read papers, etc., should send titles to either of the undersigned by the end of this month at the latest.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.—October 10th, 1883.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Wednesday, November 28th. Dr. Ellis, of Eastbourne, will preside. Gentlemen desirous of contributing papers should at once communicate with the Honorary Secretary, T. JENNER VERRALL, 95, Western Road, Brighton.—October 16th, 1883.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The autumn meeting of the above district will be held at Worthing on Thursday, November 22nd, Dr. Kelly in the chair. Gentlemen intending to read papers are requested to communicate with the Honorary Secretary, G. B. COLLET, 5, Steyne, Worthing.—October 15th, 1883.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.—An ordinary meeting will be held at the Grosvenor Hotel, Queen's Gate, Southsea, on Wednesday, October 31st, 1883. The chair will be taken by the President, Surgeon-Major G. C. Gribbon, M.B., A.M.D., at 4 P.M. Agenda:—1. Living specimens. 2. Pathological Specimens. 3. Microscopic Sections of Fœtal Histology: Dr. G. H. Smith. 4. Pathological Fluids and Sections to illustrate Bright's Disease: Dr. F. J. Driver. 5. Sections of Epithelioma: W. C. Beevor, M.B. 6. Remarks on the recent outbreak of Cholera in Egypt: The President. 7. New Surgical Needle and Thread: Dr. Ward Cousins. 8. Congenital Syphilis of Larynx: Dr. Ward Cousins. Gentlemen who are desirous of introducing patients, exhibiting pathological specimens, or making communications, are requested to signify their intention at once to the honorary secretary. Dinner will be provided at 6.30 P.M.; charge 5s., exclusive of wine, etc.—J. WARD COUSINS, M.D., Honorary Secretary, Southsea, October 24th.

PROCEEDINGS OF THE COUNCIL.

AT a meeting of the Council, held at Exeter Hall, Strand, W.C., on Wednesday, October 17th, 1883; present—Mr. C. G. Wheelhouse, President of the Council, in the chair; Dr. J. Cuming, President-elect; Dr. W. F. Wade, Treasurer; Mr. Alfred Baker; Dr. G. B. Barron; Dr. M. M. De Bartolomé; Dr. T. Bridgwater; Dr. A. Carpenter; Dr. C. Chadwick; Dr. J. Ward Cousins; Dr. G. W. Crowe; Dr. A. Davidson; Mr. J. Dix; Dr. J. L. H. Down; Dr. W. A. Elliston; Dr. Eyton-Jones; Dr. B. Foster; Dr. C. E. Glascott; Dr. W. C. Grigg; Dr. C. Holman; Professor G. M. Humphry; Mr. W. D. Husband; Mr. A. Jackson; Mr. T. V. Jackson; Dr. Evan Jones; Dr. H. T. Lanchester; Dr. W. G. Vawdrey Lush; Mr. C. Macnamara; Dr. D. C. McVail; Dr. F. A. Mahomed; Mr. F. Mason; Dr. W. Moore; Mr. R. H. B. Nicholson; Dr. C. Parsons; Dr. E. Rickards; Mr. R. J. H. Scott; Dr. R. C. Shettle; Mr. S. W. Sibley; Dr. E. M. Skerritt; Dr. A. Strange; Dr. W. Strange; Mr. T. Sympson; Dr. E. Waters;

The President of the Council, after having inquired if any objection had been raised to the minutes as printed and circulated, and finding that there had not been any, signed the minutes as correct.

The President of the Council placed before the Council a correspondence with Mr. Carpenter relative to the direction to retire made to his friend at the general meeting at Exeter Hall, on the 17th August last, together with the solicitor's opinion on the same.

Resolved: That, in the opinion of this Council, the President simply discharged his duty as chairman of the special general meeting, in desiring strangers to withdraw, more especially as this was a statutory meeting under the Companies' Acts 1862 and 1867, any informality in which might have invalidated the proceedings. It further appears that this view was taken by the meeting itself, inasmuch as no motion was made that strangers should be permitted to remain.

Read resolution of adjourned annual meeting, together with letter and statements from Mr. Nelson Hardy, Dr. Edward Waters, and the Editor.

"Resolved: That Mr. Hardy's motion with reference to the constitution of the Journal and Finance Committee be referred to the Council for consideration, together with statement to be supplied by Mr. Hardy."

Resolved: That the Journal Committee is, and should be, a Subcommittee of the Council, which is the representative governing body of the Association, annually elected according to the revised constitution; and that the control of the JOURNAL by a body independent of the Council would lead to a division of authority which would be useless and injurious. That the insertion of all letters sent to the JOURNAL from every member of the Association is obviously impossible; and that a discretion in selecting letters for publication necessarily rests with the Editor, subject to the control of the Journal Committee. That the Solicitor of the Association cannot be called upon to afford gratuitous legal advice to individual members of the Association.

Read resolutions of the adjourned annual meeting, of which the following are copies.

"It was moved that, for the purpose of election of members of Council, each Branch of the Association shall be held to include all the members of the Association residing within the area of the Branch.
"Whereupon it was moved, seconded, and
"Resolved: That the enfranchisement of unattached members be considered by the Council."

Resolved: That, in the opinion of this Council, there is no evidence of any considerable wish on the part of the unattached members to participate in the franchise: those of them who wish to do so should be recommended to join a Branch.

Read resolution of the adjourned annual meeting, held at Exeter Hall, on Friday, the 17th August last.

Resolved: That the question of Branch organisation be referred to the Council.

Resolved: That a subcommittee be appointed to report on the proposed alteration of the by-laws relating to the Branch organisation, viz., Mr. Wheelhouse, Mr. Arthur Jackson, Dr. Parsons, Dr. Grigg, Dr. Langdon Down, Dr. Foster, Mr. Vincent Jackson, Dr. McVail, Dr. Cuming, and Dr. Ward Cousins.

Read resolution of the Council, held at the College, Liverpool, on Wednesday, August 1st, 1883, of which the following is a copy:

"Resolved; That it be recommended to the Committee of Council that an addition of £100 be made to Dr. Henry's salary."

Resolved: That the addition of £100 be made to the salary of Dr. Henry.

Read resolution of Council, of which the following is a copy:

"Resolved: That it be an instruction to the Committee of Council to take steps to ascertain the opinion of the Association with regard to the admission and retention of homœopaths as members of the Association."

Resolved: That the matter be referred to a subcommittee of the President of the Council and Mr. Dix.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be approved, and the recommendations contained therein carried into effect, and that a grant of £600 be made to the Collective Investigation Committee for their expenses for the ensuing twelve months.

The minutes of the Journal and Finance Committee contain particulars of accounts for the quarter, amounting to £3,935 5s., approved by the Committee; the auditors' report for the quarter; and the statement of the cost of the Collective Investigation Record.

Resolved: That Messrs. Price, Waterhouse, and Co. be appointed auditors for the ensuing twelve months.

Resolved: That the minutes of the Trust Funds Subcommittee of to-day's date be approved, and the recommendations carried into effect, and that the chairman be requested to communicate with the executors of the late Dr. Stewart the resolution of the Committee.

The minutes of the Trust Funds Subcommittee contain a recommendation that the amount paid for the Hastings bust be charged to the account, and that the account remain open till balanced by the accumulation of the interest; and report of payment of £200 left by the late Dr. A. P. Stewart in augmentation of the Stewart Fund.

Resolved: That the Collective Investigation Committee be reappointed as follows, viz., Dr. Humphry, Dr. Wade, Mr. Wheelhouse, Dr. Alfred Carpenter, Dr. B. Foster, Mr. Macnamara, and Dr. Mahomed.

Professor Humphry reported that Dr. Mahomed had resigned the office of Secretary to the Committee.

Resolved: That a special vote of thanks be given to Dr. Mahomed for the very valued services he has rendered in furthering the advance of the work involved in the collective investigation of disease, and that his resignation be received with regret.

Resolved: That Dr. Herringham be appointed Secretary to the Collective Investigation Committee.

Resolved: That the annual meeting of the Association be held on the 29th, 30th, and 31st July, and 1st August, 1884.

Resolved: That there be three addresses at the annual meeting of the Association.

Resolved: That the addresses be in Medicine, Obstetric Medicine, and Physiology.

Resolved: That the minutes of the Scientific Grants Committee of the 16th instant be approved and adopted, and the recommendations carried into effect.

The minutes of the Scientific Grants Committee contain the examination into and report upon the qualifications, etc., of the twelve applicants for the Research Scholarships, the recommendation that Mr. Watson Cheyne and Mr. John Priestley be appointed, and that a grant of £50 be made to Dr. Dawson Williams for an investigation into infectious wound-diseases and tuberculosis.

Resolved: That two scholarships of £150 each *per annum* for three years be instituted.

Resolved: That Mr. Watson Cheyne of London, and Mr. John Priestley of Manchester, be appointed to the two Research Scholarships.

Resolved: That the President, the President-elect, the President of the Council, the Treasurer, Dr. Davidson, Dr. B. Foster, Dr. McVail, Sir William Miller, Dr. Macnaughy, Professor Dill, Dr. W. McKeown, Dr. Whitla, Dr. John Moore, Dr. Dempsey, and Dr. Byers, be appointed the Arrangement Committee to make the arrangements for the annual meeting at Belfast.

Resolved: That the President of Council be requested to bring the case of Dr. Joseph Rogers to the notice of the President of the Local Government Board.

SOUTH-EASTERN BRANCH: EAST AND WEST SURREY DISTRICTS: CONJOINT MEETING.

A CONJOINT meeting of the East and West Surrey Districts was held on Thursday, October 11th, at the White Hart Hotel, Reigate, T. F. LLOYD, Esq., of Reigate, in the chair.

Time of Meeting.—Upon the motion of Dr. Coles of Croydon, it was unanimously resolved that the East Surrey District meeting at Croydon shall be held for the future on the second Thursday in May, instead of December.

Collective Investigation Committee.—Dr. J. H. Galton of Anerley was elected honorary secretary of the Collective Investigation Committee, in the place of Dr. Stowers, resigned. Dr. Galton communicated the offer of Captain Francis Galton relative to awards for serial registers and observations upon hereditary influences in disease, etc.

Communications.—The following communications were made.

1. Mr. George Abbott read a paper on Note-taking by Notation, with special reference to Collective Investigation.

2. Mr. Croft demonstrated his method of treating Fractures of the Leg with Plaster-of-Paris Splints.

3. Mr. Watson Cheyne made some observations on Antiseptic Surgery as applied to Country Practice, and explained the best and simplest methods by which it could be carried out.

4. Mr. Reeves read notes of eight cases of Inguinal Colotomy.

Dinner.—Twenty-five members and visitors remained to dinner.

WEST SOMERSET BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, October 18th, at 5 o'clock. Thirteen members were present; J. D. ADAMS, M.D., President, in the chair.

Collective Investigation.—A letter from Dr. Herringham, specially asking for returns on pneumonia, was read. Cards for pneumonia, diphtheria, and gout were distributed.

Family Registers and Life-History Album.—Mr. Galton's letter on the former, with specimen schedule, and the Collective Investigation Committee's specimen of the latter, were laid before the meeting.

Case of Malformation.—Mr. Prideaux (Wellington) exhibited a male infant with a curious congenital malformation, involving the dorsum of the penis and the abdominal wall in the hypogastric region.

Discussion.—The question, as previously settled by the Council, namely, "What is your personal experience as to the etiology of diphtheria?" was put from the chair after dinner, and answered more or less fully by most of the members present; written answers from three absent members were read by the honorary secretary. There was a pretty general concurrence of opinion that the predisposing causes of diphtheria as witnessed in this neighbourhood were—warm wet weather, sewage-gases or emanations of foul air, and damp dwellings; and that the immediate cause was some unknown element, probably of a germ character, capable of conveying the disease from one person to another. Several gentlemen supported the opinion above expressed by reference to cases and facts as witnessed in a large experience during two epidemics, as well as in isolated cases; but the experience of one member (Mr. Morgan, of Langport) was in striking contrast to that of the majority, for, during his practice in South Australia, a very fatal epidemic occurred in a scattered population during the *dry* season, and on a sandy soil, where the unsanitary conditions of sewer gases, etc., could not have existed; the outbreak was confined to a broad valley, and adjoining valleys separated by low ranges of hills were entirely free.

Case of Ruptured Uterus.—Mr. Todd read an account of a midwifery case in which rupture of the uterus occurred.

Microscopic Preparations of Bacilli.—Mr. Prideaux exhibited microscopic preparations of the bacillus tubercle, and of that of the wool-sorter's disease.

BRITISH GUIANA BRANCH: MEETING.

THE meeting of members of the British Medical Association in British Guiana, adjourned from February 13th, 1883, was held on September 11th, 1883, at the Colonial Hospital. Dr. FISHER resumed the chair. Mr. Edmonds, one of the secretaries appointed by the previous meeting, presented the minutes of that meeting, which were taken as read, also letters from members unable to attend, and a letter from the General Secretary of the British Medical Association, stating that the Committee of the Council had recognised the Branch.

Resolutions.—The following resolutions were passed:—

1. Moved by Mr. Edmonds, seconded by Dr. Fisher, that Dr. Cameron be elected president. This was carried, and Dr. Cameron then took the chair.

2. Moved by Mr. Edmonds, that Dr. Grieve be president-elect. Amendment by Dr. Fisher, seconded by Dr. Pearless, that Dr. Shannon be elected president-elect. This amendment was carried.

3 Moved by Dr. Corbould, seconded by Dr. Duncan, that Dr. Wallbridge be treasurer. This was carried.

4. It was agreed that Mr. Edmonds be secretary.

5. It was agreed that the by-laws of the Association be accepted as the by-laws of this Branch.

6. It was agreed that the annual subscription to the Branch and the Association be fixed at 28*s.* *per annum*, payable in advance to the local secretary at the annual meeting of the Branch.

7. It was agreed that the annual meeting be held in November of each year.

8. It was agreed that the officers of the Branch, together with the resident medical officer of the Colonial Hospital, the surgeon to the police and gaol, and Dr. Brebner, do form council of Branch, and that it be left to the council to call meetings of Branch when convenient or necessary, and further that three members of council do form a quorum.

9. It was agreed that Dr. Finlayson be requested to represent this Branch on the committee of council of the parent Association.

The President then, in appropriate terms, returned thanks, and promising to do his best to further the objects of the meeting, adjourned it.

CORRESPONDENCE.

THE ROYAL UNIVERSITY IN IRELAND.

SIR,—The annual meeting of Convocation is to be held on the 30th inst. at the University Buildings, Earlsfort Terrace, Dublin. Allow me, through your columns, to urge on the members of Convocation the extreme desirability of their attending, as matters vitally affecting the interests of the university, and the privileges of Convocation as a representative body, are to be discussed.—Very truly yours, CHARLES FREDERICK KNIGHT, M.D.

THE DEATH-RATE OF ANÆSTHESIA.

SIR,—In the JOURNAL of September 29th is a communication from Mr. Roger Williams, in which he takes exception to some remarks of mine that appeared in an article on the Statistics of Anæsthesia, published July 21st. In this last-named article, I had occasion to criticise a former paper by Mr. Williams on the Death-Rate of Anæsthesia.

Mr. Williams begins by quoting part, and misunderstanding the whole, of one sentence of my article. In full, this sentence is as follows: "I suppose I need not say that, on the subject of anæsthetics, I do not speak as a specialist, but only with the object of making my past experience of some service." By this, I meant to express that I did not speak as a specialist on the subject of anæsthetics. I did not pretend to the full knowledge of the subject that a specialist ought to have. I merely placed on record my experience. Mr. Williams remarks here: "However, he *has* spoken as a specialist; and his experience is entirely special—altogether derived from the Moorfields Eye Hospital, in fact." I am sorry that my words were so liable to be misunderstood by Mr. Williams.

It is generally believed that the profound anæsthesia necessary for operations on the eye is at least as dangerous to life as the anæsthesia required for general surgical operations. Mr. Williams does not share this belief, but thinks that, "in the induction of anæsthesia, such a field," *i.e.*, as Moorfields, "may be expected to furnish the very lowest death-rate possible in any kind of surgical practice; whereas the large general hospitals, whence my experience is derived, may equally be expected to furnish the very highest; and this as well on account of the difference in the health of the patients as in the severity of the operations." In other words, the death-rate during anæsthesia in a large general hospital is large on account of causes other than the induction of anæsthesia. No one can for a moment doubt the truth of this. But Mr. Williams is supposed to be talking of the death-rate of anæsthesia, not of the unavoidably high death-rate in general hospitals due to disease and severe operations. If it be found necessary to give an anæsthetic to a patient who is practically moribund, and if that patient should die during the process, it is manifestly unfair to reckon such a death as due to the anæsthetic. What I wish particularly to emphasise is the fact that the death-rate of anæsthesia should be calculated as far as possible from uncomplicated cases, and always with a due regard to the probability of the patient having died from some other cause than the anæsthetic, when such probability exists. It is for this reason, namely, the uncomplicated nature of the cases, that I consider the experience of an eye-hospital peculiarily valuable; and it was also for this reason that I felt obliged to criticise the cases formerly brought forward by Mr, Williams.

I deny that, under twenty years of age, "the danger is universally admitted to be much less than at any other." But I have stated the ages of my cases, so that the reader may judge for himself.

I did not blame Mr. Williams for having insisted on the danger of administering anæsthetics; on the contrary, I hold that the danger should never be forgotten by the administrator. My words were: "Next to carelessness in administration, nothing is more calculated to increase the death-rate of anæsthesia than widespread *dread* of its danger."

I am next asked for an explanation of the apparent discrepancy between my statistics and those of Dr. Jacob of Leeds. This I readily give.

My statistics refer to cases from the beginning of 1875 (not 1874, a point explained in my correction inserted August 25th), a period of eight years and a half. Dr. Jacob's tables embrace the "eleven years 1870 to 1880," and show a mortality of six as having occurred at Moorfields. One of these happened in 1870; two were from methylene-bichloride, and must, therefore, have taken place previous to 1875, before which date that anæsthetic was entirely discontinued at Moorfields. Of the remaining three, one is the fatal case given by me, and the other two are really one and the same, viz., the second and doubtful case discussed in my paper.—I am, yours truly,

R. MARCUS GUNN.

108, Park Street, Grosvenor Square, W., October 8th, 1883.

THE SPECIFIC ORGANISM OF CHOLERA.

SIR,—With reference to your article on the Specific Organism of Cholera, published in the BRITISH MEDICAL JOURNAL of the 20th instant, it seems to me only right to remind you that, for many years past, not a few officers of the Indian Medical Service have written very much to the same effect that Professor Koch seems to be now doing. If you turn to page 395 of a *Treatise on Asiatic Cholera*, published in 1869, you will find that I remark, concerning a notable outbreak of the disease which came under my observation, "that the circumstance which led me to investigate and detect the cause of the outbreak was, that, soon after the water was drunk (by those affected with the disease), its surface was found covered with large vibriones (vibrio bacillus) and small particles of organic matter. What followed? In less than three days, five of the nineteen men who partook of this water were passing large quantities of organic matter from their intestines, in a similar state of change to that which they had swallowed;" and further, that the action of this organic matter on the epithelial lining of the intestines caused all the symptoms of Asiatic cholera. I have urged these views on the profession for the last fifteen years, but have always held that no specific form of bacillus was to be found in cholera-evacuations. I maintained in 1869, as at present, that the organic infecting matter is something beyond the bacillus. In these circumstances, I wrote to the Secretary of State for India on February 9th of the present year (before anything had been heard of cholera in Egypt) as follows: "I believe cholera to depend upon organic infecting matter; in fact, the disease is communicable through means of a specific poison contained in the fæces passed by patients suffering from cholera. I have lately taken steps to enable me to carry on further investigations into this important subject, having been urged to take this step because Professor Koch has recently demonstrated the specific bacillus of tubercle; and so much has been done within the past five years in this direction, that I think the time has arrived for fresh investigation into the subject." I applied, therefore, for the services of a medical officer of the Indian Medical Service (then in London), Surgeon A. Leahy, to assist me to carry out these investigations. The Earl of Kimberley declined to accede to my request, and doubtless Professor Koch will perform more effectually the work I wished to undertake; but the subject seems one peculiarly within the province of Englishmen, considering their relation to India.

Regarding the outbreak of cholera in Egypt, we must bear in mind that no amount of filth has, in that or in any other country in the world, outside India, culminated in an outbreak of epidemic cholera. Asiatic cholera has never yet visited Egypt unless it have first broken out in Turkey, Arabia, or Europe, whence it could be traced back to India. Last year, for the first time in the history of Egypt, a large body of native troops and camp-followers were brought by steamers and landed in that country from India, and the following year (at its usual season for development), Asiatic cholera appeared among

the Egyptian people. It is worthy of note also, that in consequence of the war, the international sanitary arrangements of Egypt and the Red Sea were suspended during the latter half of 1882. With facts of this kind before me, the question of exactly how or where the cholera of 1883 originated in Egypt is a matter of secondary importance.—I remain, yours, etc., C. MACNAMARA.

13, Grosvenor Street, W.

TESTIMONIAL TO DR. JOSEPH ROGERS.

SIR,—From correspondence received since the publication of my remarks in the JOURNAL in relation to the "Rogers Testimonial," I find that an impression prevails that subscriptions are to be limited to one guinea. This limitation mentioned in Dr. Whitwell's letter, and supported by myself, has reference to Poor-law medical officers only. It is quite open to the profession at large to give what they think proper to one whose long services for the general good entitle him to their respect and consideration.

In conclusion, I beg to thank you for your kind donation of £5 to the fund.—I am, yours truly, J. WICKHAM BARNES.

THE POLITICAL POWERLESSNESS OF THE PROFESSION: A REPLY.

SIR,—It is no small satisfaction to me that the crude proposal which I ventured to make, as a means of rectifying our political powerlessness, has both obtained gratifying support, and elicited valuable criticism. The latter may, I think, be condensed into few words, viz., that, as the profession are not of one mind in politics, they must of necessity acquiesce in their political effacement. Would not the same argument prove that every borough should be disfranchised? Would it be impossible that medical men, while striving in opposition for their country's good, should work in harmony for their profession's benefit? Does not every constituency which returns, like Liverpool and others, two members of opposing views, expect that, while they contend to the death on questions of national statesmanship, they shall unite in their efforts for advancing local interests?

Is it, therefore, extravagant to expect that members of the Association, when joining in a subscription for Parliamentary purposes, would specify to which of the two great parties they belonged—Liberal or Conservative? and that the Committee, when declaring the amount available for the year would apportion the sum to each in the ratio of the total number of contributors? Say that £5,000 is to be divided, and that the proportion of Liberals to Conservatives is as three to two, is not the arithmetic simple, and the amount easily deducible which is to be handed over to the Subcommittee representing each party.

As to constituencies refusing to accept medical members who were identified with the medical profession, do they decline legal members who add to their Parliamentary duties their legal practice, and who make no secret of the fact that the chief value of a seat in the House of Commons is as a stepping-stone to advancement in their special calling?

Is it not a standing evidence of political powerlessness that each Government should have three Attorneys-General and three Solicitors-General to advise them on the technicalities of law, and not one solitary member of the profession responsible for the health of the nation to advise the country's rulers on the questions of scientific sanitation that affect the wellbeing of the whole?—I am, etc.,

NATHANIEL ALCOCK, Surgeon-Major A.M.D.

HEALTH MATTERS IN LIVERPOOL.

SIR,—The writer of the article on the above subject (JOURNAL, October 20th, p. 782) has entirely overlooked the peculiar circumstances that the gentlemen who are so suddenly inspired with a desire for the sanitary well-being of our city, are the accredited leaders of the opposition to "compulsory notification," and are endeavouring, by exaggerated statements, to divert the public attention from the necessity of obtaining powers for the early notification and isolation of persons suffering from infectious disease.

That we have a quantity of insanitary property, and a large Irish population (nearly one-third of the whole), are well-known facts, and the reports of Drs. Duncan, Trench, Buchanan, Parkes, and Sanderson, the Mortality Subcommittee, and numerous more recent ones, show conclusively that, however important a factor in producing disease insanitary dwellings may be, the poverty, improvidence, and filthy habits of the people, have an equal, if not more serious influence, and these two causes act and react one upon each other. It is all very well to talk about fever dens and the sweeping away of insanitary districts, but what is to become of the wretched people when displaced? They would crowd into other neighbourhoods, and perpetuate, if they did not augment, the very evil their removal was intended to remedy.

One might suppose, from the writer's observations, that the corporation was entirely indifferent to the health of the people; but anyone conversant with the facts knows that within the last thirty-five years the whole city has been drained and paved, hundreds of courts abolished, and hundreds more improved under the 1864 Act. Old streets have been widened, and new streets driven through unhealthy districts; and so late as last October I presented to the Health Committee a list of streets and courts, comprising about one thousand houses, to be dealt with under the Sanitary Amendment Act, 1882. Many of the houses have been bought, and are being demolished; while the remainder have been placed in the hands of agents to purchase. The difficulties in dealing with this subject will be apparent when we consider that, in demolishing these one thousand houses, we displace between five and six thousand of the poorest and most helpless class of our population. These proceedings will have to be conducted carefully and cautiously; and all the wild talk about effectually eradicating disease must not hurry us on to act unjustly and harshly to the poor, who urgently require the civilising influences of education and example.

To effectually eradicate infectious disease, we must, in the language of Mrs. Glass, first catch the hare, then we shall be able to control it.

The remarks about a floating hospital are scarcely pertinent to the question, for the Mersey is not like the Thames, a river, but an estuary, and the conditions are altogether so different, that what is applicable to the Thames will not apply to the Mersey. Further, we have had the sad experience of a floating cholera-hospital in 1866, when both doctors and nurses struck, refusing to continue on board; and we were obliged to make provision for the patients on shore. Trusting you will insert this letter in your next issue,—I remain, your obedient servant,

J. STOPFORD TAYLOR, Medical Officer of Health.

Municipal Offices, Dale Street, Liverpool.

Medical Officer of Health's Department, October 22nd, 1882.

HOSPITAL ACCOMMODATION IN LIVERPOOL.

SIR,—That Dr. J. Stopford Taylor has succeeded in fully accomplishing the object which he professed regret at having to undertake, viz.: that of disturbing the confidence of the writer of the article on "Hospital Accommodation in Liverpool" (JOURNAL, September 22nd, p. 585) in published official reports, will seem very natural when it is known that the chief authority for the inference to which he takes exception, was the published report of an explicit declaration made by himself at a meeting of the Liverpool Health Committee. As in his letter of October 8th, he implies, even if he does not directly aver, the exact opposite of that statement, it will be obvious that some disturbance in the confidence hitherto reposed in official declarations is inevitable.

The two objections which Dr. Taylor raises are, firstly, to the inference that the air-space in the case of Wainwright's children must have been considered sufficient, or an order for compulsory removal would have been procured; and secondly, to the statement that the Toxteth Guardians "illustrated the justice of their refusal," to allow him to pauperise new paupers by sending them to the workhouse hospital, "by a number of cases which had been brought under their notice, of which Wainwright's case was one."

He endeavours to dispose of the inference by stating "that before the magistrate grants an order for the compulsory removal of a patient to hospital, he must be satisfied that the superintending body of the institution is willing to receive him," and then goes on to say that "the guardians, through their relieving officer would not receive the children, and, as a consequence, no justices' order could be obtained."

To see how far this is a direct representation of the attitude of the guardians and a correct mode of stating the case, we must go back to the meeting of the Liverpool Health Committee, referred to above. At that meeting, of which the time and day—the afternoon of May 31st—are important, the charges by the guardians, and counter charges by Dr. Taylor, were considered; the gravamen of the latter gentleman's complaint being, that the guardians did not afford him facilities for the removal of patients to the workhouse hospital. Dr. Commins, M.P., a member of the Health Committee, asked the question: "Is there a case where they refused to admit

patients removed by magistrates' order?" To this Dr. Taylor replied: "No; I do not know that they ever did." It must be remembered that the illness of Wainwright's children occurred in May. Obviously the best proof that the magistrate could have that the guardians would be willing to receive patients on their order, would be the fact that they had never in a single instance refused to do so; and there can be no doubt whatever that these particular patients would have been at once admitted, as all others had been, if Dr. Taylor had been able to make out such a case before the magistrates as to warrant them in granting the order. The correct manner of stating the relative action of the two parties is therefore not as Dr. Taylor puts it. "The guardians would not receive the children; and, as a consequence, no justices' order could be obtained;" but, rather, "no justices' order was obtained; and, as a consequence, the guardians could not receive the children."

As to Dr. Taylor's second objection, that the case of the Wainwrights could not have "influenced the Toxteth Guardians in deciding not to admit non-pauper cases," as it did not occur till May, 1883, whereas "the change," on their part, "as to the admission of patients into their hospital, took place on September 29th, 1882," it is sufficient to say, first, that although the change commenced in September, 1882, it did not terminate then, but has been continued ever since; and secondly, that, as a matter of fact, the case of the Wainwrights was mentioned by Dr. T. Fox Morrish, a medical officer of the guardians, in the pamphlet previously quoted, as one of those which illustrated the justice of their refusal to allow admissions on the mere certificate of the medical officer of health. To illustrate the wisdom of a decision come to in September, 1882, by reference to a case which occurred eight months later, is altogether a different process from making that case the original ground of the decision, which nobody is so foolish as to suppose that the guardians had prophetic spirit enough to enable them to do.

Dr. Taylor feels it "incumbent" on himself, in view of what has been said about his pauperisation of people by removing them to the Toxteth Workhouse Hospital, to state that he only removed seventeen during the whole of 1882. That his achievements were so modest must, however, be placed to the credit of the guardians rather than to his own.—I am, sir, your obedient servant,

THE WRITER OF THE ARTICLE.

ON REMOVAL OF ONE LATERAL HALF OF THE TONGUE.

SIR,—I have read with interest Mr. Morrant Baker's paper on this subject, and congratulate him on his success. But I think, as a matter of courtesy, he might have referred to the introduction of the principle of the operation, viz., cleavage of the tongue and removal of the lateral half—as a substitute for removal of the whole tongue, as formerly practised. He properly says: "The one important matter in all cases is that there shall be a large margin of healthy tissue removed with the cancer." Prior to 1865, when the cancer invaded the tongue far back, the only plan proposed was the removal of the whole thickness of the organ, either by knife or *écraseur* or thermocautery, behind the disease. Mr. Syme divided the lower jaw at the symphysis, so as to get at the floor of the mouth, separated the attachments, and then with one sweep of the knife removed the tongue.

Mr. Baker says: "In 1880, I drew attention to an operation for removal of the tongue.....Two threads are passed through the tongue an inch behind the tip and on each side of the middle line." The tongue is then cleft in the centre from the tip to the base. It is then separated from the floor of the mouth, and removed with the *écraseur*, which is applied well behind the disease. Anyone who reads Mr. Baker's paper must be under the impression that he believes he is introducing something new in principle.

In my introductory address in Clinical Surgery, published in 1874, are the following passages: "On reflecting on the nature of the disease, it occurred to me that a much less severe mutilation might serve the purpose. Cancer of the tongue most frequently begins at the side; its progress is to creep backwards, but it rarely crosses to the other side till it has invaded almost the whole of that in which it began. I consider that the plan of removing the lateral affected half, instead of the whole organ, which I have now frequently performed, is not only free from danger, but promises most satisfactory results."

The operation which I introduced in 1865 is thus described in the *Edinburgh Medical Journal* for November of that year. The disease, in my first operation, was so extensive that I had to divide the jaw to get complete access to the back of the tongue; but the principle which I sought to establish, namely, removal of the lateral half by cleavage, is precisely that indicated in Mr. Baker's paper of 1880. "The patient was put deeply under the influence of chloroform, and her tongue was secured by two cords passed one through each side of the tip."....."The sublingual gland and mucous membrane, as well as the attachments of the tongue, were now carefully raised from the floor of the mouth, and separated from the hyoid bone. I now pulled out the tongue by the two cords, and made a vertical section of it from the tip to the epiglottis.....A single stroke of the knife divided its attachment to the epiglottis and the anterior palatine arch. The lingual artery at once appeared in the bottom of the wound, and was secured and ligatured without difficulty."..... "The incision in the lip and chin was brought together with silver sutures, and a piece of drainage-tube was made to pass through the mouth and out at the lower end of the incision below the chin. This I consider a very essential precaution, to carry off the pus and saliva during the granulation of the wound in the mouth." (See Erichsen's *Surgery*, fifth edition, p. 364.) The patient made a good recovery, and is alive and well at the present day (1883), in Lochranza, in Arran.

Professor Lister, who was, in 1865, my surgical colleague in the Glasgow Royal Infirmary, was present, and assisted me at the operation, and was as much interested in the new proceeding as I was. The last time I visited King's College Hospital, four years ago, he showed me a case in which he had operated by the method I have described; and he recalled to my mind my description of the state of the tongue after cure, viz., small, and like the tongue of a bird.—Yours, etc.,

G. BUCHANAN.

Glasgow, October 20th, 1883.

A "POPULAR LECTURE" AT THE ANNUAL MEETINGS OF THE BRITISH MEDICAL ASSOCIATION.

SIR,—I think we might take a lesson from the meetings of the Social Science and British Associations, and every year, when the British Medical Association meets in the various towns, nominate some representative man of the Association to give a popular address to the people of the town or city whose hospitality the Association enjoys.

It seems to me there is distinct room for such an address to the whole population, without distinction of class, wherever the British Medical Association meets. Let us look back to the very successful Liverpool meeting, and ask ourselves what did the average householder or the average working-man benefit by the visit of the Association? If he did not belong to a certain social class he did not get invited to the *soirées*, and the various addresses given were to us as a special class. I would suggest that, without in any way interfering with the annual routine of the meetings, it should be possible to detail some good representative man to give a simple popular lecture on some medical or sanitary subject, and there are very many such subjects, to the people at large of the town. I must be very much astray if such a lecture would not be the best memory of our meetings, as far, at least, as the great body of the townspeople was concerned.

It seems to me that we have a distinct gospel to preach to the people. We have gradually to educate a people, ignorant, in the mass, of life and health questions, into the ideas we entertain on these subjects. We seem to-day to be working from the outside to influence the nation, while we neglect, in a great measure, to educate the public to our views of life and its value. I can imagine such a lecturer as I propose speaking *urbi et orbi*, and letting the people know what our objects were.

The savage ignorance of so-called educated men and women on all questions of health and disease is well known to all who inquire into the subject; yet what agency is at work to enlighten the people? No professional agency that I am aware of. We have still lingering in our midst the remains of the mystery inherited from the ecclesiasticism and the ignorance of the middle ages. We keep the people still in the dark on questions of the most vital importance to themselves personally, and yet we expect a hopelessly ignorant people to push us into prominence, and to give us seats in the Legislature. The thing is not possible. When we have taught the people our aims, they too will be as eager as we are to remedy the ills which we recognise, and they will utilise us as the best tools to accomplish their wishes. I would, if I had the power, copy the system of the Roman Church in her day of power, and institute a preaching order who would go to the people and teach them the gospel of health as we believe it. The people are waiting to be taught, but where are the teachers? While we inveigh against quacks, bone-setters, patent medicines, and all those things, which simply show how highly the

people value health, we neglect to educate the people, and thus kill out the chances of such follies spreading through the world.

In all our movements for social reform, for sanitation, or for public health, it is not our better hearts or kinder feelings which urge us on. We belong to a nation full of generous impulses, but which is simply ignorant of the right path. What urges us forward is our special knowledge of the causes of disease. To us they are apparent, but the world cannot see them until educated to our standard, or near it.

If you ask me at present what element is at work in the country, creating most regard for the medical profession, and drawing the sympathies of the world to it, I would say it is neither colleges nor universities. It is the ambulance movement which is showing to the outer world how their bodies are built up, and how injuries result. This movement, which is quite in its infancy, is creating a wide sympathy for us everywhere. Its teaching of aid to the injured is merely a small part of its work, for the world is not always breaking its bones. But every day men and women are dying of equally preventable causes, of which they are ignorant. When a man or a woman has advanced as far as the ambulance class has taught him or her, the probability is that it is merely the first step to a study of life-conditions and sanitary needs.

We need every day to become more teachers than we are; the logical function of the sanitarian is to teach each man to guard his own health, and until that teaching is given, progress cannot come to its full extent.

I beg to suggest that without in any way interfering with the existing routines of the annual meetings, that a popular lecture addressed to all classes be part of the annual programme, and that the Council of the Association nominate the lecturer.—Yours,

G. J. H. EVATT, M.D., Surgeon-Major A.M.D.

Woolwich, October, 1883.

SPECIAL CORRESPONDENCE.

PARIS.

A LETTER to M. Pasteur from M. Roux, one of his pupils, describes the rapid illness and death of M. Thuiller. It appears that on Wednesday, the 14th, he went to Santah to witness the *post mortem* examination of an ox that had died of cattle-plague; he returned to Alexandria the following Saturday, and on Monday, the 17th, went to the lazaretto of the slaughter-house to collect some bullock's blood. During the morning he passed a motion which was not quite healthy, but throughout the day was in his usual good spirits, bathed in the sea, and ate his dinner with an excellent appetite. At ten o'clock he went to bed, and fell asleep immediately. At three o'clock in the morning he woke up, again had a motion, went to M. Roux's room, cried out "I am very ill," and fell on the floor. He was carried back to bed looking very pale; his face was covered with perspiration, and his hands were cold; he recovered from this state very quickly, took a small dose of an opiate and went off to sleep again. At five o'clock he passed another loose motion and vomited his dinner, which was thoroughly undigested. Afterwards he felt greatly relieved, took another opiate and slept. At seven o'clock he grew worse and complained of feeling cold; he had another motion; syncope was imminent, and he was obliged to be supported; from this time he grew rapidly worse, notwithstanding the prompt and energetic treatment administered. At eight o'clock he was past recovery, and suffering from severe cramp in the muscles of the legs, thighs, and diaphragm. The motions were passed involuntarily, the facies was considerably changed; in fact, all the symptoms of the most terrible form of cholera were present. Breathing became difficult, but owing to unceasing friction the temperature was not lowered.

Towards twelve o'clock there was a slight amelioration, and the pulsations of the radial artery could be detected. At two, breathing became more laboured, the motions were involuntary, there was also an absence of pulse. Breathing and circulation were kept up by champagne and ether injections.

The actual moment of death was warded off by careful and energetic treatment until seven o'clock on Wednesday morning the 19th. Partial asphyxia lasted for twenty-four hours, and resisted all treatment. The French colony at Alexandria intend to erect a monument to the memory of M. Thuiller. His death was an unexpected misfortune, inasmuch as there had been no cases of cholera during the last fifteen days, and the members of the Pasteur Commission were investigating the cattle plague.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE REPORT OF THE LOCAL GOVERNMENT BOARD.

THE just published report of the Local Government Board contains the usual assortment of miscellaneous information on a number of matters affecting poor-law and sanitary medical practice. There is no one point that comes out into prominent relief, and it must suffice therefore to glean from the report such facts as appear to be of medical interest. Subscriptions to the amount of about £800 per annum are now paid by Metropolitan Boards of Guardians to various public hospitals and other institutions, and in some unions the guardians have found it advisable to enter into arrangements with nursing institutions to supply, from time to time, the requisite staff of nurses for the infirmary. At the close of the year 1882 there were in the metropolis 154 District Medical Officers, whose total salaries amounted to £17,568, and who secured fees amounting to £1,759. The total number of orders for medical relief was 113,354, and the average number of orders per medical officer was 736. The absence of uniformity as to the period for which medical orders are available renders it difficult to form a comparison between the different metropolitan unions in respect of the work of the District Medical Officers. The Board think it would be an advantage if all orders for medical relief were granted by the guardians for a uniform period of one month, which is the period at present adopted for this purpose in many unions. There are now 1102 authorities who obtain repayment out of the parliamentary grant of half the salaries of their medical officers of health. The Board report with satisfaction a further reduction in the number of cases in which district medical officers are employed as medical officers of health—a combination of offices which the Board, contrary to their early practice, now steadily discourage. They are coming round somewhat to a sense of the absurdity of appointing and reappointing officers every year or two; and they announce, though it must be confessed that the phraseology is ambiguous enough, that "in those cases in which sanitary authorities have had some experience of the officer, and the arrangements have, in our opinion, proved in all respects satisfactory, we shall be prepared to reappoint the officer for a longer term, provided he be not a Poor-law medical officer." Of the 881,652 children whose births were returned by the vaccination officers of England and Wales as having been registered in 1880, rather more than 85 per cent, are recorded as having been successfully vaccinated, nearly 10 per cent. as having died unvaccinated, and a minute fraction (.005 per cent.) as remaining unvaccinated on account of their having had small-pox. Something under 1 per cent. were certified as "insusceptible of vaccination," and about 0.7 per cent. were postponed by medical certificate on account of the health of the children. Thus of the entire number of children born, rather less than 5 per cent., remain unaccounted for as regards vaccination. This is a fractional improvement on the proportion in the previous year. The returns of the metropolis for 1880, though less unsatisfactory than those for 1879, still compare unfavourably with the returns for the rest of the country. The Medical Inspectors of the Board inspected public vaccination in 1,350 districts; and to the public vaccinators of 751 of these districts, awards were granted for excellence of work. The total sum awarded in this manner was £14,265, ranging from eleven shillings at Keighley, to £336 at St. Saviour's (Surrey).

The number of applications for vaccine lymph received and dealt with during the year was 10,331. The supplies of animal lymph issued were 2,872 ivory points, and 270 capillary tubes. A total of 419 persons were vaccinated at the Lamb's Conduit Street calf-vaccination establishment during the year. Excluding a number of administrative inquiries into hospitals and the like, the medical staff made 36 inquiries into the local incidence of disease concerning more or less the districts of 62 sanitary authorities. To such of these inquiries as were of general interest we have already drawn attention, and there is no need therefore to detail their objects or results.

DR. JOSEPH ROGERS.

AT a meeting of the Dorset and West Hants Branch of the British Medical Association, held at Wareham, Dorset, on Wednesday, October 24th, 1883, Dr. Williams, of Sherborne, Dorset, in the chair, the following resolution was, on the proposition of Mr. Husband, submitted to the meeting, and adopted. It was also suggested that a

copy should be forwarded to the editors of all the medical journals, for publication, and to the President of the Local Government Board. "That this Branch, having read in the public journals that Dr. Joseph Rogers has been suspended from his office as medical officer to the Westminster Workhouse, ostensibly on frivolous and vexatious charges, but really for giving honest evidence in an official inquiry into the conduct of the master, and his resignation demanded, whilst the master, against whom most serious charges have been established, has been continued in office, desires to enter a strong protest against the manner in which Dr. Rogers has been treated, and which materially affects the position of every Poor-law medical officer; this Branch trusts that the action of the Committee of Council and of this Branch will be supported, not only by every Branch of the Association, but also by the medical profession throughout the United Kingdom."

IRISH POOR-LAW MEDICAL SERVICE.

SIR,—In your last issue, a correspondent "Another Dispensary Doctor," asks how we should go about having our grievances remedied. I would suggest that, as a beginning, he should become a member—if he is not one already—of the Irish Medical Association, and that all dispensary doctors, and all the medical men in Ireland, should do likewise. I would further suggest that a branch of this (Irish Medical) Association be established in every county, that two or three members be appointed by each branch as representatives to attend general meetings, to be held in Dublin, say once a quarter, or as necessity required. This, I believe, would, by bringing medical men more frequently together, have the effect of gradually dispelling the apathy which at present exists; and, if it should succeed, would enable us to bring very considerable influence to bear upon county M.P.'s.—Yours, etc.,

Donegal, October 22nd, 1883. H. T. A. WARNOCK.

THE DUTIES OF A MEDICAL OFFICER OF HEALTH.

SIR,—Will you kindly define the precise duties of a medical officer of health? I ask the question with a view to know if he has a right to examine another's patient, without communicating with him. And is a surgeon obliged to give information to the inspector when he is attending a case of infectious disease?—Yours truly,

AN OLD ASSOCIATE.

*** This is a question of medical ethics, the answer to which must be largely affected by particular circumstances. See our answer to a similar inquiry on page 97 of the present volume.

1. The medical officer of health would be acting extremely injudiciously and, we may add, unprofessionally, in examining the patient of a medical man without communicating with the latter.

2. It is not obligatory to give information to the inspector; but the further spread of disease may be often prevented if such information be given.

JUSTICE TO A POOR-LAW MEDICAL OFFICER.

IN contrast to many instances of acts of injustice perpetrated by boards of guardians towards their medical officers, it is with pleasure that we notice an act of justice, promptly and gracefully conferred by the Chelsea Board upon one of their officers. Nine months since, Dr. Carr H. Roberts was appointed medical officer for the outlying district of Kensal Town, and six months afterwards he, finding that the salary, £50 per annum, was totally inadequate to the duties and expenses of the office, including the supplying all the medicines, requested the board to take the case into consideration. This they promptly did, and unanimously recommended to the Local Government Board that the salary should be advanced to £120 per annum. Although the Local Government Board could not at present sanction so large an increase, they agreed that the salary should be raised to £90, and that the guardians should supply the more expensive medicines. Considering that the district has an area of 3,223 acres, and contains nearly 16,000 inhabitants, we cannot think that even now the medical officer is adequately remunerated; but if all boards of guardians were actuated by the same spirit of appreciation of the services of their officers as the Chelsea Board have invariably shown, we should hear comparatively little of disputes between boards of guardians and their officers.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

CHESTER-LE-STREET RURAL DISTRICT.—Mr. Jackson's report on the Harraton division of this union is brief, but to the point. He first refers to the chief characteristics of the year, as reflected by the mortality-statistics, and then gives a separate account of each parish forming the district. The obituary of 1882 was not so satisfactory as that for the previous year, a noticeable feature being the increase in the fatality from diseases of the respiratory organs. This, so far as the last quarter of the year was concerned, seems to have been brought about by the rapidly shifting temperature which marked the last few weeks of that period. Diarrhœa heads the death-roll from zymotic causes with nineteen deaths, scarlet fever following with seven. This last disorder was generally prevalent throughout the district, and most of the cases which terminated fatally were due to pneumonia and dropsy, a common occurrence through careless nursing. Measles assumed epidemic proportions at some places, but only one death was registered from this cause. Mr. Jackson complains, and with good reason, of the reluctance of many of the inhabitants to give information of the existence of infectious disease. The reason for such reticence on the part of the public apparently is, that they do not wish to be under any restraint, either by the health-officer or the sanitary inspector. In fact, many persons look upon the enforcement of isolation, disinfection, and free ventilation, and the prohibition of free intercourse with friends and neighbours, as a violation of the liberty of the subject, and official persecution. Such a state of things Mr. Jackson rightly describes as sad and disheartening. The death-rate from all causes represented 21.02 per 1,000.

COVENTRY URBAN DISTRICT.—In common with many health-officers, Dr. Fenton has experienced immense difficulty in persuading parents that measles is not a trifling disease, and that it is not one necessarily incidental to childhood. During the autumn months of 1882, an unusually extensive epidemic of measles occurred; but the disease, fortunately, was of a mild type, and the number of deaths was small in proportion to the amount of disease. The outbreak commenced in July, and spread with extraordinary rapidity, reaching its climax in September, when as many as 682 cases were reported, out of a total of 1,285. Dr. Fenton observes that the remarkable manner in which the epidemic developed itself cannot be a matter of surprise, since many parents, so far from endeavouring to prevent their children from coming in contact with the infection, rather courted the disease. Children were constantly being sent to school and other public places while in the infectious stage, and healthy children were often sent purposely to catch it. These extensive delinquencies on the part of the parents, though looked upon lightly by them, are really very reprehensible, for measles frequently produces a large mortality amongst the sufferers. Even in the present mild epidemic, seventeen lives were sacrificed; and many children were, at the date of the report, still suffering from deafness and other ailments resulting from the disease. The epidemic of scarlet fever, which prevailed so extensively during 1881, did not cease until April 1882, when seventeen deaths were registered from it. The fatality from typhoid was rather above the average, but no localised outbreak occurred. Many cases were imported into the district, and a few arose from local sanitary defects. The fever hospital, as usual, did much good work; but the structure seems of a temporary nature only, and the circumstances of the town now certainly call for improved accommodation. Information of cases of infectious disease was obtained in 383 instances from medical men, in 679 from school-teachers, and in 413 from other sources. The general death-rate (18.3 per 1,000) was, with one exception, the lowest ever experienced in the district, the decrease being especially noticeable in the mortality from zymotic disease. An unsatisfactory feature, however, was the large fatality amongst infants, 135 out of every 1,000 born dying during their first year. Dr. Fenton devotes special attention to this "massacre of the innocents," which he holds to be due chiefly to improper feeding and unnecessary exposure during wet and cold weather.

GATESHEAD.—Small-pox and typhus were extremely rife at Gateshead during 1882, and caused together no fewer than 83 deaths out of a total of 283 referred to the principal zymotic disorders. Small-pox, which was generally prevalent throughout the year, was imported into the district in January, and cases continued to crop up here and there until August, when a sudden and severe outbreak occurred which spread to almost every part of the borough. Altogether 275 cases were reported during the year, and of these 34 terminated fatally. The extensive and fatal prevalence of typhus occasioned much anxiety to Mr. Green, who gives a succinct account of the commencement and progress of the outbreak. The disease did not assume serious proportions until March, when it suddenly appeared in the east district amongst persons of all ages. During the last quarter there was a sharp outbreak of the disease in the west district, which was stamped out before the end of the year by compulsory removal of all the cases. Speaking of the sanitary condition of the dwellings, Mr. Green observes that they were of the best type for fostering the poison of typhus. Although starvation was not present, there prevailed a state of things akin to semi-starvation, brought about by the expenditure of wages in alcoholic stimulants. Special preventive measures were adopted, the removal of the sufferers to hospital being energetically carried out, frequently with the assistance of a justices' order. The fever-hospital, which admitted no fewer than 343 patients, proved of striking value. Of 165 cases of typhus treated, 28 terminated fatally, and among this number was an official connected with the institution, who unfortunately contracted the disease. Of the 168 persons who were admitted suffering from small-pox, 148 recovered. The large amount of additional labour involved by these epidemics satisfactorily explains the incomplete account which the report contains of the general sanitary work, but special attention is to be

directed to this subject during the present year. The increase in the death-rate, which in 1882 was as high as 23.03 per 1,000, was chiefly caused by the fatal prevalence of zymotic diseases, although the mortality from general causes was also slightly in excess.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 20th inst., that the death-rate in the three principal Indian cities recently averaged 32.9; it was equal to 23.2 in Calcutta, 26.2 in Bombay, and as much as 53.8 in Madras. Cholera caused 23 deaths in Bombay, and small-pox 23 in Madras, while "fever" fatality was excessive in each of these Indian cities. According to the most recent weekly returns, the average annual death-rate in twenty-one large European cities was equal to 24.3 of their aggregate population; this rate was 4.7 above the mean rate last week in twenty-eight of the largest English towns. In St. Petersburg, the rate was equal to 27.3; the 486 deaths included 10 from diphtheria and 101 from diarrhœal diseases. In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate was 17.8, the highest rate being 20.5 in Copenhagen, where 2 fatal cases of scarlet fever were reported; typhoid fever caused 2 deaths in Christiania. In Paris, the death-rate was 22.4, and the 967 deaths included 43 from typhoid fever, and 28 from diphtheria and croup. The 169 deaths in Brussels were equal to a rate of 21.4, and included as many as 12 fatal cases of small-pox. In Geneva only 15 deaths were registered, and the rate did not exceed 11.2 per 1,000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 24.3, the highest rate being 27.8 in Amsterdam, where no less than 33 deaths from diphtheria and croup were recorded; 2 deaths were referred to typhoid fever in Rotterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.7; it ranged from 22.2 and 22.7 in Dresden and Vienna to 28.2 in Munich, and 31.4 in Prague. Scarlet fever caused 33 deaths in Berlin and 10 in Hamburg; diphtheria was fatally prevalent in Dresden and Breslau; and no less than 23 deaths were referred to small-pox in Prague. Among the principal Italian cities, the death-rate was equal to 19.6 in Venice and 29.7 in Rome; in the last named city 6 deaths resulted from malarial fever. The 104 deaths in Lisbon included 4 fatal cases of typhoid fever, and were equal to a rate of 26.0 per 1,000. The death-rate in four of the principal American cities averaged 21.8; it was equal to 18.8 in Philadelphia, 19.2 in Baltimore, 20.0 in Brooklyn, and 25.0 in New York. Diarrhœal diseases continued fatally prevalent in New York and Brooklyn; typhoid fever caused 14 deaths in Philadelphia, and diphtheria 15 in Baltimore.

REDUCTION OF THE SALARY OF A MEDICAL OFFICER OF HEALTH.—The Amersham Rural Sanitary Authority, to which we recently referred, are not singular in underrating the services of their medical officer; Congleton, a borough of 11,000 inhabitants, formerly paid their medical officer of health £40 a year. An economical fit has seized the majority of the corporation, and the first victim of retrenchment is the medical officer, whose salary is reduced to £20 a year. Before confirming the appointment, the Local Government Board asked the reason for diminishing the salary one-half. The reply of the corporation was, "there was only one applicant for the office." Two medical men are members of the Congleton Corporation; one of them supported the reduction; the other objected to it.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ROXBURGH, BERWICK, AND SELKIRK ASYLUM.

THE reports of lunatic asylums are not, as a rule, pleasant reading. They are necessarily loaded with uninteresting statistics and dry details, and are couched in language of the most formal description; but there is one such report that we invariably open with some curiosity, and skim with more than usual deliberation, and even with an occasional dive, to the very bottom of a paragraph, and that is the report of the Roxburgh, Berwick, and Selkirk District Asylum. Here we have a report breathing genius, enthusiasm, and practical philanthropy, and rising far above the common level of dreary routine and personal conceit. Here we have a style racy of a man with a head and a heart of his own, and not the slipshod mannerism of the official puppet. It may be allowed that Dr. Grierson's sentences are sometimes involved, and that the influence of Carlyle is visible in his habits of thought and expression; but, it must be added, that he is not a mere servile imitator, but, through all his hero-worship, retains his independence of soul, and that even when he is obscure, he is quaint and interesting. Listen to his rejoicings over the covering-in of a tank.

"The formation of the new reservoir, and the perspective power of keeping it full for nine months in the year, enable us to regard the future with feelings of ease, which at no previous period since the opening of the asylum were or would have warranted. The roofing also carries with it a feeling of gratification, in that it will not only remove a very constant risk to those of the inmates whose one object, which is ever present in one or more of a population like ours, is to end an existence which, cheerless here, has but intensified cheerlessness in its outlook. It will render consolidation of the water by the severity of the frost which occasionally visits our valley a matter of less probability. Another evil of some magnitude will also be avoided here through, namely, the accumulation in the water of vegetable matter in the form of decaying spines and leaves, necessarily dropping from the drift-carrying winds, as these pass over the closely adjacent woods."

The irreverent may laugh at all this, but the discerning will perceive in it, and in the whole tone of the report, a calm, graceful nature overflowing with sympathy for suffering, and with faithfulness in work. We have no doubt that Dr. Grierson is an eminently successful asylum physician, and that he is beloved by his patients, and works as much benefit by the kind words and deeds which he dispenses, as by the drugs which he prescribes, which, however, he by no means contemns.

HOSPITAL FOR EPILEPSY AND PARALYSIS, REGENT'S PARK.—With reference to this hospital, a notice of which appeared in our issue of September 29th, the secretary informs us that the report appeared some time before the Conference on Hospital Management (to which the committee sent delegates) was announced. The writer of the report (by whom, as it happens, the map of Metropolitan Medical Relief, which appeared in this JOURNAL on July 6th, 1878, was prepared) derived his views on the abuse of hospitals from the investigation and discussion of this question which appeared in our columns and elsewhere about that time.

MILITARY AND NAVAL MEDICAL SERVICES.

PERIODS OF HOME AND FOREIGN SERVICE.

SIR,—The average time on home service for surgeons-major now is two years, and as the tour of foreign service is five years, it follows that these unfortunate men will serve ten years abroad for two, or at most two-and-a-half, years at home.

I feel sure that it only requires this to be brought, with your powerful advocacy, prominently before the Director-General of the Army Medical Department, in order to have it remedied, and that the equalisation of the periods for home and foreign service—promised as one of the benefits of the "unification"—may be established by reducing the period of compulsory foreign service to three years. This would not cost the Government an additional penny, as it would balance much loss from sick leave, etc.—I am, sir, yours, etc.,

AN EXILE.

THE ARMY MEDICAL DEPARTMENT.—The report of the Army Medical Department for the year 1881 has just been published. It appears from the report that the average annual strength of the troops serving at home and abroad in 1881, as computed from the returns received by the Army Medical Department, was 173,331 non-commissioned officers and men (exclusive of the Royal Malta Fencible Artillery, the 1st and 2nd West India Regiments, and the Gun Lascars at Ceylon, and at Hongkong, corps which are not recruited at home); the admissions into hospital in this force were 193,274 and the deaths 2,269. The rates represented by these numbers are for admissions into hospital 1,115.0, and for deaths 12.85 per 1,000 of the average annual strength, the latter being calculated on a strength of 176,581, which includes detached men. The ratio per 1,000 of the strength admitted during the year into hospital for diseases dealt with under the Contagious Diseases Act in the stations under the Act was 171, while in fourteen chief stations not under the Act it was 303. For the four years (1860-63) preceding that in which the first Contagious Diseases Act was passed, the average rate of prevalence of disease in the stations afterwards placed under the Act was 265 per 1,000, the ratio in the fourteen chief stations not under the Act being then 245 per 1,000. In the next period (1864-69) the ratio in the protected stations fell to 207 per 1,000, it being 227 at the unprotected stations, while in the third period (1870-1881) it fell to 131 in the protected stations, and was 215 in the unprotected stations.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations at meetings of the Board on the 22nd, 23rd, and 24th instant, were admitted Licentiates in Dental Surgery. viz.:

Messrs. H. S. Burton, Wellington, Somerset, R. St. J. Dorey, Brighton, E. Latchmore, Tunbridge Wells, J. McStay, Kings Street, Belfast, J. Petherbridge, Buckfastleigh, Devon, H. L. Pillin, Conduit Street, W., and G. Thomson, Melbourne, Australia, students of the Middlesex Hospital; A. King, Burton Terrace, York, student of Charing Cross Hospital; and A. E. C. Woodhouse, M.R.C.S., Hanover Square, of Guy's Hospital.

Three candidates were referred.

ROYAL UNIVERSITY OF IRELAND.—The Examiners in the Faculty of Medicine have recommended that the following candidates shall be adjudged to have passed the examinations for the undermentioned degrees and diplomas respectively:

Doctor of Medicine.—W. Atterbury, R. A. Barber, Queen's College, Belfast; R. Barry, Queen's College, Cork; W. Barter, Queen's College, Cork; E. C. Bigger, Queen's College, Belfast; H. C. Brannigan, Queen's College, Belfast, and Edinburgh School of Medicine; J. J. Brownlee. Queen's College, Belfast; J. W. Bullen, Queen's College, Cork; J. Cagney, Queen's College, Cork; W. Calwell, Belfast, Queen's College, Belfast; J. Carroll, Queen's College, Galway, and Catholic University; A. A. G. Dickey, Queen's College, Belfast; P. J. Doyle, Queen's College, Galway, and Catholic University School; J. Elliton, Queen's College, Belfast; D. P. Gaussen, Queen's College, Belfast; R. H. Hall, Queen's College, Cork; R. W. Henderson, Queen's College, Galway; J. B. Jackson, Queen's College, Galway, and Ledwich School of Medicine; G. J. W. Johnston, Queen's College, Cork; R. E. Kelly, Queen's College, Cork; T. D. Kirk; J. Lennox, Queen's College, Belfast; A. Lindsay, Queen's College, Belfast; J. A. Lynch, Queen's College, Belfast; W. R. A. M'Alister, Queen's College, Belfast; M. M'Auley, Queen's College, Belfast; J. M'Caw, Queen's College, Belfast; R. M'Elwaine, Queen's College, Galway; J. Glynn, Queen's Colleges, Galway and Belfast; J. M'Ninch, Queen's College, Belfast; J. A. M. Macaulay, Queen's College, Belfast; J. MacMahon, Queen's College, Cork; H. Massey, Queen's College, Belfast; J. Meek, Queen's College, Belfast; J. Mitchell, Queen's College, Belfast; A. P. B. Moore, Queen's College, Belfast; S. J. Moore; A. E. Morris, Queen's College, Galway; W. J. Moynahan, Queen's College, Cork; J. O'Connell, Queen's College, Cork; C. O'Donel; D. O'Mahony, Queen's College, Cork; P. Quinlivan, Queen's College, Cork; R. Sayers, Queen's College, Belfast; J. M. Sheedy, Queen's College, Cork; J. H. Swanton, Queen's College, Cork; H. J. Taylor, Queen's College, Belfast; J. Taylor, Queen's College, Belfast; W. H. Thompson, Queen's College, Galway; S. Wallace, Queen's College, Belfast: E. C. Ward, Queen's College, Cork; W. Watters, Queen's Colleges, Galway and Belfast; P. B. White, Queen's College, Galway; B. Wilson, Queen's College, Belfast, and University of Edinburgh; C. G. Woods, Queen's College, Cork.

Bachelor of Medicine.—D. Lee, Queen's College, Cork; J. F. O'Caroll, Catholic University School of Medicine

Master of Surgery.—R. A. Barber, Queen's College, Belfast; W. Barter, Queen's College, Cork; E. C. Bigger, Queen's College, Belfast; H. C. Brannigan, Queen's College, Belfast, and Edinburgh School of Medicine; H. E. Brown, Queen's College, Cork; J. W. Bullen, Queen's College, Cork; J. Cagney, Queen's College, Cork; W. Calwell, Queen's College, Belfast; J. Carroll, Queen's College, Galway, and Catholic University; W. Graham (Manchester), Queen's College, Belfast; R. H. Hall, Queen's College, Cork; R. W. Henderson, Queen's College, Galway; J. B. Jackson, Queen's College, Galway, and Ledwich School of Medicine; A. M. Johnson, Queen's Colleges, Belfast and Galway, and Ledwich School of Medicine; R. E. Kelly, Queen's College, Cork; T. D. Kirk, J. Lennox, Queen's College, Belfast; J. A. Lynch, Queen's College, Belfast: W. R. A. M'Alister, Queen's College, Belfast; J. M'Mahon, Queen's College, Cork; J. Meek, Queen's College, Belfast; C. M. Mitchell, Queen's College, Galway; S. J. Moore, A. E. Morris, Queen's College, Galway; W. J. Moynahan, Queen's College, Cork; J. A. Nealon, Queen's College, Cork, and Carmichael School of Medicine; J. F. O'Carroll, Catholic University School of Medicine; D. O'Mahony, Queen's College, Cork; J. M. Orr, Queen's College, Belfast; P. Quinlivan, Queen's College, Cork; T. Pritchard, R. Sayers, Queen's College, Belfast; J. M. Sheedy, Queen's College, Cork; J. H. Swanton, Queen's College, Cork; R. G. Thompson, W. H. Thompson, Queen's College, Galway; F. G. Tooker, E. C. Ward, Queen's College, Cork, W. Watter, Queen's Colleges, Galway and Belfast; G. W. Weir, Royal College of Surgeons; P. B. White, Queen's College, Galway; B. Wilson, Queen's College, Belfast, and University of Edinburgh; C. G. Woods; Queen's College, Cork.

Diploma in Obstetrics.—W. Barter, Queen's College, Cork; J. J. Brownlee, Queen's College, Belfast; J. Cagney, Queen's College, Cork; R. H. Hall, Queen's College, Cork; W. G. Hanna, Queen's College, Belfast; G. J. W. Johnston, Queen's College, Cork; R. E. Kelly, Queen's College, Cork; W. R. A. M'Alister, Queen's College, Belfast; W. J. Moynahan, Queen's College, Cork; J. O'Connell, Queen's College, Cork; D. O'Mahony, Queen's College, Cork; P. Quinlivan, Queen's College, Cork; M. J. Sexton, Queen's College, Cork; J. M. Sheedy, Queen's College, Cork; J. H. Swanton, Queen's College, Cork; F. G. Tooker, B. Wilson, Queen's College, Belfast, and University of Edinburgh; C. G. Woods, Queen's College, Cork.

The public meeting of the University for the conferring of degrees will be held in the University Buildings, Earlsfort Terrace, Dublin, on Thursday, the 25th instant.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, October 8th, 9th, 10th, and 11th, 1883, the following candidates were successful:

For the Licence to practise Medicine and Midwifery.—J. St. L. Clarke, Dublin; C. V. F. Hitchcock, London; F. O. Hodson, Bishop Hatford, Herts; A. W. Moloney, Dublin; T. J. O'Donnell, Consett, co. Durham.

For the Licence to practise Medicine only.—W. G. Butler, Bushy Island, Limerick; J. T. Martin, Clogheen, co. Tipperary; W. L. Symes, Dublin.

For the Licence to practise Midwifery only.—T. Farrelly, M.D.R.U.I., Ballyborough, co. Cavan; W. G. Hanna, M.D.Q.U.I., Magherafelt, co. Londonderry; J. M. Lawrie, M.B.Glasg., Glasgow; W. M. McWilliam, M.D.Q.U.I., Banbridge; J. W. Taylor, M.D.R.U.I., Belfast.

At the quarterly First or Previous Professional Examination, held on Monday, October 8th, and following days, the undermentioned candidates were successful:

C. Boddy, London; C. J. Urquhart, London.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, have, under the provisions of the Supplemental Charter of December 12th, 1878, been duly enrolled Members of the College:

A. R. Cowell, 1864, Rathmines; G. H. Ormsby, 1869, High Barnet; E. C. R. Ward, 1870, Surgeon, A.M.D.; W. Crozier, 1877, Dublin; E. Bennett, 1878, Sandymount; J. D. O'Connell, 1877, Dublin.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the October sittings of the Examiners:

R. B. Morley, Leeds; J. G. G. Corkhill, Liverpool; W. K. Clayton, Leeds; A. A. Dighton, Gloucester; A. McKerlie, Glasgow; P. H. S. Mellish, Sandgate; M. H. Taylor, Dublin; T. C. Avetoom, Calcutta; W. Haines, co. Cork; C. W. Reilly, Nenagh; W. H. Roberts, Dublin; T. Weir, Lanarkshire; H. P. Garvey, co. Mayo; J. K. Coutts, London; W. J. Van der Vyver, South Africa; P. W. Young, co. Cork.

The following gentlemen passed their final examination, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh:

J. Williams, Anglesea; A. Mitra, Calcutta; T. E. Franklin, Carlow; R. M. Fleming, Suffolk; G. J. W. Garnham, Derbyshire; J. C. Harris, Plymouth; A. Bourne, co. Durham; B. Marshall, co. Tyrone; E. Walsh, Castleterry; J. F. Ryan, co. Galway; E. Jones, Cardiganshire; G. Brown, co. Tipperary; J. A. Maddox, Madras; R. B. Morley, Leeds; J. H. Cropper, Lancashire; E. K. Bourne, Lichfield; R. Ambrose, Newcastle West; W. F. Miller, Sydney, N.S.W.; T. J. P. Hartigan, Aldershot; J. Mullin, Clarinbridge; R. B. Sidebottom, Mottram; E. W. Haydon, Dorsetshire; J. E. Sinclair, Edinburgh; J. M. McKee, India; A. J. Clayton, Leeds; J. Hogg, Lanarkshire: M. Eleyatamby, Ceylon; J. W. Pedroza, Madras.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 18th, 1883.

Benson, Christopher Richmond, Granville Square, W.C.
Blacker, Arthur Barry, St. George's Road, S.W.
Clarke, James McFarlane, Palace Square, Manchester.
Koettlitz, Maurice, Folkestone Road, Dover.
Simmons, Edward Walpole, Wallington, Surrey,

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH ASYLUM, Birmingham.—Clinical Assistant. Applications to the Superintendent.

BOROUGH OF BIRMINGHAM HOSPITAL FOR INFECTIOUS DISEASES.—Medical Superintendent. Salary, £150 per annum. Applications to the Chairman of the Health Committee, Council House, Birmingham, by November 3rd.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon. Salary, £140 per annum. Applications by November 5th.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant for a period of six months. A gratuity of £20 is usually awarded at the close of the term of office. Applications to 24, Finsbury Circus by November 5th.

DENTAL HOSPITAL OF LONDON (London School of Dental Surgery), Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by November 12th.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications to J. G. Marshall, Esq., M.B., House-Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Registrar and Chloroformist. Salary, £30 per annum. Applications by October 27th.

FARRINGDON DISPENSARY AND LYING-IN CHARITY.—Honorary Physician. Applications to 17, Bartlett's Buildings, Holborn Circus, E.C., by November 6th.

FEVER HOSPITAL, Monsall, Manchester.—Assistant Medical Officer. Salary, 50 guineas per annum. Applications to Dr. H. Tomkins.

GLASGOW MATERNITY HOSPITAL.—Outdoor Accoucheur. Applications by November 1st.

GREAT YARMOUTH HOSPITAL.—Resident House-Surgeon and Dispenser, Salary, £90 per annum. Applications to be sent forthwith.

LONDON LOCK HOSPITAL AND ASYLUM, Female Department, Westbourne Green, Harrow Road.—House-Surgeon. Salory, £100 per annum. Applications by November 24th.

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch.—Resident Medical Assistant for the Male Department. Applications by November 5th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury.—Medical Officer and Registrar. Salary, £100 per annum. Applications by November 7th.

NORTH RIDING INFIRMARY, Middlesbrough-on-Tees.—House-Surgeon. Salary £100 per annum. Applications to Angus Macpherson by October 31st.

NORTH-WEST LONDON HOSPITAL, Kentish Town Road, N.W.—Surgeon to the Out-Patient Department. Applications by October 30th.

OUGHTERARD UNION.—Medical Officer, Lettermore Dispensary. Salary, £122 per annum and fees. Applications, up to October 30th, to P. McDonough, Esq., Lettermore.

ROYAL BERKS HOSPITAL, Reading.—Assistant House-Surgeon. No Salary. Applications by November 6th.

SMEDLEY'S HYDROPATHIC ESTABLISHMENT, Matlock Bridge, Derbyshire.—Assistant-Physician. Salary, first year, £100; for the second, £200. Applications by October 31st.

STAMFORD HILL, STOKE NEWINGTON, ETC., DISPENSARY.—Honorary Surgeon. Applications by October 27th.

ST. ASAPH UNION.—Medical Officer. Salary, £83 per annum. Applications by November 14th.

ST. GEORGE-IN-THE-EAST PARISH.—Infirmary Medical Officer. Salary, £300 per annum. Applications by November 2nd.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Registrar and Pathologist. Salary, £25 per annum. Applications by November 8th.

WREXHAM INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £100 per annum. Applications by November 9th.

MEDICAL APPOINTMENTS.

CUFFE, A. G., M.D., appointed Resident Medical Officer to the Grantham Friendly and Trade Societies' Medical Institute, *vice* J. C. Dall, L.R.C.S., resigned.

DILLON, J. J., M.D., appointed Medical Officer to the Listowel Union Workhouse, *vice* U. Fitzmaurice, L.K.Q.C.P.I., resigned.

HARRIS, A. G. R., L.R.C.P., appointed Medical Officer and Public Vaccinator to the Pembroke Union.

JACOB, E. L., M.R.C.S., appointed Medical Officer to the Local Board for the District of Carshalton.

MORTIMER, J. D. E., M.R.C.S., appointed Resident Medical Officer to the St. George's, Hanover Square, Provident Dispensary, *vice* J. J. Pratt, M.R.C.S., resigned.

NEALE, A. J. Dermott, M.B. and C.M., appointed Honorary Surgeon to the Hulme Dispensary, Manchester, *vice* D. Watson, resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

PICKERING—WALL.—October 17th, at Westbury-on-Trym, near Bristol, Charles F. Pickering, F.R.C.S.Eng., Berkeley Square, Bristol, to Kate, second daughter of J. C. Wall, Esq., Redland Lodge, Bristol.

TRAIL—BEDDIE.—At Banks, Strichen, on the 17th instant, by the Rev. Professor Trail, D.D., LL.D., etc., Dr. G. S. Trail, Strichen, to Nellie, second daughter of Alexander Beddie, Banks, Strichen.

SCHOLARSHIPS AND EXHIBITIONS.

KING'S COLLEGE, LONDON.—The Entrance Scholarships and Exhibitions have been awarded as follows: Warneford Scholarships. J. Penny; H. C. Addison and W. B. Osburn, equal. Sambrooke Exhibitions: T. H. Ward, J. Penny. Science Exhibitions (Clothworkers): R. B. Anderson, C. H. Wordingham; E. W. Davies and E. Ridewood, equal, *prox. acc.*

THE LONDON HOSPITAL MEDICAL COLLEGE.—The Buxton Scholarship of the value of £30 has been awarded to Mr. H. E. Fernandez, and that of the value of £20 to Mr. A. Fagan.

UNIVERSITY COLLEGE, LONDON.—The Entrance Exhibitions, value £80 each, have been awarded to Mr. E. B. Hastings and Mr. E. F. Rennie; and that of the value of £40 to Mr. C. H. Fernan.

WESTMINSTER HOSPITAL.—The Houldsworth Entrance Scholarship, value £40 a year, tenable for two years, has been awarded to Mr. C. J. Lownds. For the Second Scholarship, of the value of £20, tenable for two years, Messrs. F. R. P. Taylor and C. Vines were bracketed equal.

OWENS COLLEGE, MANCHESTER (Medical Department.—The Dauntesy Medical Scholarship, value £100, tenable for one year, has been divided between Mr. Percy Ashworth and Mr. John Gardiner; and the Robert Platt Physiological Scholarship, value £50, tenable for two years, has been awarded to Mr. Brian Melland, B.Sc.

UNIVERSITY COLLEGE, LIVERPOOL (ROYAL INFIRMARY SCHOOL OF MEDICINE).—The Roger Lyon Jones Scholarships, of £21, for two years, have been awarded to Mr. B. Sumner and Mr. A. J. Burrows. The Derby Exhibition has been awarded to Mr. H. A. Bredin.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Professor Lister: On the Treatment of Fractures of the Patella.

THURSDAY.—Harveian Society, 8.30 P.M. Dr. Sidney Phillips will read a case of Diabetes Insipidus. Dr. Stephen Mackenzie: On Anæmia.

FRIDAY.—West London Medico-Chirurgical Society. General meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annua and other Reports, favour us with *Duplicate Copies.*

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

The Relation of Drugs to Medicine.

Sir,—While duly appreciating the kindliness of your notice of an article of mine in a leader in the Journal of September 29th, "On the Relation of Drugs to Medicine," will you allow me to say a few words on two points in which you observe a certain confusion of ideas? There can be no doubt that, from the point of view taken, the criticism of the statements impugned is perfectly just, and the question is one of meaning, or perhaps bearing, rather than of expression. But I understand that the sentences as they stand find almost literal support in current works on pathology; and I am referred to Dr. Green's *Introduction to Pathology* as a favourite and trusted handbook in the medical schools.

He defines disease, in the introductory chapter, as "some deviation from the state of health; a deviation consisting, for the most part, in an alteration in the functions, properties, or structure, etc." Again, in the chapter on the New Formations, he states, apparently as a general law, "every pathological growth has its physiological prototype." The varieties of cancer, he says, "all consist of cells of an epithelial type;" and, "cells precisely similar to these are met with in other morbid growths, and also in the normal tissues." Of the multi-nucleated cells which he describes as characteristic of tuberculosis, he says, "they appear to be simply the results of chronic inflammatory processes." And, farther on, "although these large cells are most frequently met with in tuberculous lesions, they are not especially characteristic of any one particular kind of morbid change. They have been found as the result of inflammatory processes in various organs and tissues."

As for the exception which is taken to the statement that the scientific progress of medicine has quite discredited the search for "specifics," may I observe that the term was used in its common therapeutic sense. The advance of scientific medicine has undoubtedly elucidated the special action of almost every drug, and in this way has often given to them a physiologically specific action. But is it not true that there are no other specifics than quinine in malaria, and mercury for syphilis, in the sense in which they are specifics; and that the very determination of the physiologically specific action of drugs has discredited the search for the therapeutic "specifics" of former days, as unworthy, or at least beside the aims, of scientific medicine? —I am, sir, your obedient servant, H. Baptist Crofts.

Radford Road, Nottingham, October 1883.

*** We have much pleasure in publishing Mr. Crofts' courteous letter. We were not unaware of the sources from which he drew his inspiration on the subject of the opinions he expresses in his able article, and again in hi letter. Of the two matters he now deals with, we will first refer to the views he expresses regarding the identity in structure subsisting between cells natural or physiological and cells unhealthy or pathological. On this point, we think we fairly qualified our view in the article of September 29th. What we wished to show was, that structures may be built up of similarly-constituted materials, and follow similar laws of development and growth, and yet may, for all practical purposes, be so widely different as to demand entirely opposite modes of treatment. In the case of healthy tissues, our aim should be to foster and encourage; in the case of unhealthy, to bring again to the normal, if this be possible; but, if not possible, then we must remove or destroy them. To take the case of tubercular ulceration of glands, say under the angle of the jaw. Of what practical importance is it to inquire in what respects the broken-down cells contained in them resemble healthy cells? The time has even passed for considering the stages of chronic inflammatory alteration, by which the cells departed from the healthy state. The only practically important question left is how are we to get rid of these dead suppurating cells with the least amount of puckering of skin, and the least deformity. To reiterate that the unhealthy tissue is built up of healthy cells which have gradually departed from the normal, is very interesting from a physiological standpoint, and may have even practical therapeutic interest in an earlier stage, as, for example, when we remove a carious tooth, in order to prevent subsequent disintegration; but, by the time disintegration has set in, there is only one course to be taken. This question may be put in a very practical form. And we would ask: Supposing two surgeons are called upon to treat tubercular ulceration of the cervical glands, or cancerous ulceration of the mammary gland, and supposing one of them holds the pathological views referred to by Mr. Crofts, and the other the views defended in our leader—in what respects would their modes of treatment differ? Every practical man knows that both of them would offer the same advice to the patient. It was in order to enforce the view that too much emphasis may be laid on the interesting developmental and evolutional aspects of this question that we expressed ourselves as we did, and we still think our remarks were just.

The case of parasitic diseases is still stronger, for it is entirely an abstract question that a parasitic spore is just like many other spores, or that the bacillus of anthrax is like many other known botanic forms. The essence of the parasitic disease, for medical purposes, centres in the best way of destroying it, without destroying or damaging the patient; while the mode of doing this in the case of the blood-diseases remains still to be discovered. But no medical man thinks of fostering the growth of the parasitic germ, because it behaves exactly like other germs, his chief aim being to destroy it as speedily and safely as possible.

Second, as to the action of drugs; Mr. Crofts points out that the question of the specific action of drugs is, to a large extent, one of meaning or bearing; and to explain the apparent discrepancy between the view advanced in our article that medical men aim at specific action more than they used to do, while Mr. Crofts says the progress of medicine has discarded the use of specifics, we would refer to some of the senses in which the word *specific* may be used. We may exclude the sense in which the term is used when we speak of a *specific disease*, meaning a disease of its own species, or *sui generis*, as foreign to the present question. *Specific* may also be used (*a*) of an inexplicable or unexplained action; or (*b*) *specific* sometimes is used of an infallible or certain action. For instance, sulphur was formerly said to exert on itch a specific action in both of those meanings; that is, it was believed to cure it in an unknown and even unknowable manner, and it was further believed that it never failed. Now, an inexplicable action to-day may become quite explicable to-morrow; and, since the cause of scabies has been discovered there is nothing inexplicable in the knowledge of the way in which sulphur kills the acarus. The infallibility of the cure is just where it was. We readily grant that, in a blind search after remedies which can cure this or that disease in a certain and an unknown manner, modern medicine has shown no signs of indulging; nor do we believe she ever will or can. But there is another sense in which the term *specific* may be used, viz., that of *positive* or *definite*, and it was in this sense we used it when we spoke of the modern action of drugs (and we were following Mr. Crofts in his discussion of the reasons for modern small doses) as being specific. When we have made up our minds, in a given condition, what are the parts affected, and how they are affected, we next naturally proceed to inquire whether any and what drugs act on those parts, and then we proceed to administer them in doses calculated to overcome the abnormal states which we find to be present in the disease. This is the action which we referred to as *specific;* and our remarks will have been useful in proportion as they have helped to clear the minds of our readers of fallacies lurking under the use of terms in different significations.

Medical Etiquette.

Sir,—Will you favour me with your opinion of the following occurrence? The wife of our village policeman called on me, and implored my immediate attendance on her child. She informed me that, a month previously, the child had been knocked down by a passing vehicle, and that Mr. W., a neighbouring practitioner, being called in, he diagnosed fracture of the small bone of the leg, and applied a splint and bandage. The child being restless during the night, kicked the splint, etc., completely off the leg. The mother then reapplied the splint herself as well as she was able; and from that time until she called on me (a month), the entire treatment of the case had been left to her, although she made frequent appeals for the attendance of the surgeon in charge, who (she positively assured me), notwithstanding the fact that he lived within 100 yards of her house, had not visited the child since the day of the accident. I told her I could only consent to visit the child after Mr. W. had been given up in a proper manner. She left, but returned and told me that the splint and bandage had been sent to Mr. W., with a request that he would not call again. I then visited the little patient, and, having just completed my examination, was about to apply a bandage—which the mother was rolling—when, to my astonishment, Mr. W. entered, and, accosting me in the rudest manner, almost shouted "What, you here!" took the bandage from the mother, and commenced applying it. I thereupon requested the mother to say whether or not she still wished Mr. W. to attend, after what had taken place. She seemed confused, and commenced stammering out something about Mr. W. having been first called in. I, of course, immediately withdrew. Subsequently, she called upon me, and apologised for the treatment I had received, expressing regret that she had not sufficient presence of mind at the time to insist upon Mr. W. relinquishing all charge of the case.

As the affair has since been referred to in a "side-blow sort of way," I thought it best to ask your opinion as to the etiquette of the foregoing proceeding, being anxious, as a young practitioner, to act at all times in accordance with the rules of professional courtesy. I may here say that Mr. W. (who continued in charge) has held the position of president of a large and important Branch of the British Medical Association, embracing two cities in the west of England.—Yours truly, M.R.C.S.

*** Assuming that it was duly intimated to Mr. W. that his attendance was no longer desired, he ought not to have forced himself on the patient. The line of action adopted by "M.R.C.S." seems to have been in harmony with the rules of medical etiquette.

Sir,—"A" is engaged to attend a lady in her confinement, he having been her medical attendant for upwards of ten years. Unfortunately, when his services were required, a case of metria, on which he is in close attendance, prevents him from fulfilling his engagement. The case admitting of no delay, "B," the nearest practitioner, is called in instead of "A's" *locum tenens*, who lives farther away. "B" continues to attend the lady, as it is not possible, under the circumstances, for "A" to do so. At or about the fortnight end "B" leaves town, and, three weeks having elapsed, "A" is again sent for to attend one of the children, and subsequently one of the servants. "B" returning home, calls on the patient without being sent for, well knowing that "A" is the regular medical attendant. From first to last "B" ignores "A," and neither writes to nor calls upon him. Do these omissions and his call, subsequent to his attendance, constitute a breach of medical etiquette?—Yours very truly, M.R.C.S.,Eng.

*** "B" should have explained the circumstances of his attendance to "A" with as little delay as possible, and should have offered to hand over the after-treatment of the case. When "B" returned to town, he should not have called upon the patient without the consent of "A."

H. C. M.—Mr. H. K. Lewis, 136, Gower Street, has, we believe, a medical circulating library.

Advertisement.

The following letter appeared as an advertisement in the *Merthyr Express* of the 6th instant.

"[Advt.] Remarkable cure of paralytic stroke by Dr. Fitzhenry, King Street, Brynmawr. My daughter Clara, aged 7 years, was suddenly seized with a paralytic stroke, and on the point of death, when the professional services of the above-named gentleman was called in; and I am happy to say, under his clever and skilful treatment, my daughter has regained her former health and strength. I therefore think it my duty, on the part of Dr. Fitzhenry, to make this clever cure known to the public.—Alfred Whitcombe."

Fees.

Sir,—The question of fees to a medical man is one of great importance. It is very easy to say that a fee is an "honorarium" or reward, and in no way represents the true value of the services rendered. This is all very well from the medical point of view, but what do the public understand by a fee? They look for something done in return; and among a large number of the working-classes an idea prevails that, if a doctor does them no good, they are not called on to pay him; as, for instance, in cases where a man is superseded by another practitioner, and the first attendant is dismissed, it is exceedingly difficult to get your bill paid, in fact, often impossible; and very often the second attendant, by some lucky chance, brings the case to a favourable termination, and is paid almost as soon as the attendance ceases.

"Midlands," writing in the Journal of October 13th, suggests a scale of fees for general use. Well, the lawyers have one; why should not the doctors? Well, I resided for a time in a town where the practitioners were all friendly, and used a scale of fees for themselves; and it was very useful where patients questioned the amounts. There is no reason why the Branches of the British Medical Association should not organise a scale for their own districts, for one scale would never do for the whole country. Things have got into such confusion in this way, that no two districts are altogether alike. For instance, for attendance on confinements £1 1s. is charged in many districts. In some places, half a fee extra is charged for the use of forceps, *i.e.*, £1 11s. 6d. In other places, the common fee for confinements is 15s., and this includes forceps if necessary. Where I am now settled, this latter custom prevails, but I have always stuck out against it by charging £1 1s. for forceps cases. The latter charge (15s. fee) is payable within a month, and, if not so paid, the fee is £1 1s.

Then, in regard to charges for attendance and medicine, I have found some men charge for their lowest fee to the working-classes 2s. 6d. a visit, while others have supplied both a visit and medicine for that figure. Well, look at it from a common sense point of view. Half-a-crown is certainly not a large sum for one to receive who has scientifically examined and prescribed for a case; but suppose the patient to be earning, when in work, £1 5s. a week, a good average wage. Well, he is ill, say with typhoid fever, and the fever runs its usual course of twenty-one days. During that time, his attendant, I consider, if doing his duty, should see his patient every day. Well, the man "throws on" his club, which gives him 10s. a week. He will, we will say, require one visit a day, and he will at least get two mixtures a week; so that if he gets seven visits and two mixtures, at 2s. 6d. each, his weekly doctor's bill will amount to £1 2s. 6d.; and all this time he is requiring good food and nursing in addition, and his weekly income is 10s. The illness goes on for three weeks, the doctor's bill rising to £3 7s. 6d., which, with an occasional after-visit and medicine, will bring his bill up to about £4. Well, how is he going to pay this? He does not get to work till, perhaps, another three weeks at the very least; his income still only being 10s. He commences work, and his bill soon arrives. He either pays it off at once with his past saving, or he gets it reduced by weekly payments from his wages, and this bill keeps him poor for a year or so. This is the result in the honest working man's case. In the dissipated or unthrifty, it is different; he gets his bills, but the next time he meets with his medical man he looks to the other side of the street; and when he next takes ill, he sends for another doctor, probably some newly-started young fellow, who is fast filling his books with such like, and imagining that he is doing a rattling practice.

The other system, where more modest fees are charged, such as 2s. 6d. a visit and mixture, comes, at the same rate, charging 1s. 6d. a visit in the typical case of typhoid, to 12s. 6d. for the week's attendance and medicine. For the three weeks and following, this will amount to, perhaps, £1 15s., which is a sum that is much more easily paid than £4, and, if paid at once, will benefit a beginner in practice more than to wait for the larger sum some months, or even longer. Besides, if a moderate rate is charged, patients will call in a medical man much sooner than if they have a heavy bill in prospect. The question of operations performed at home on working men, or members of their families, is always a bugbear to medical men. However, in many districts where hospitals are not convenient, these surgical cases have to be undertaken at home, and they rarely pay the attendant well, even although every penny of his money is paid to him. I have known, within the last year, two practitioners whom I have called in to perform the operation for strangulated inguinal hernia (in two cases which I had), charge so dissimilarly as almost to provoke a smile. The first sent in a bill for £5 5s. some months after, and has not now got one penny paid him; the other charged £1 1s., and got it. The first did not understand the people, and the second did; that was the difference.

These previous remarks of mine show what dissimilarity of charges exist even in the same district, and also show that the time has fully arrived when something must be done to put things on a proper footing. My remarks have been entirely confined to working-class practice, but the same differences in different men's charges would be found among the attendants of "The Upper Ten," if inquiry were made. My system for the working-classes (and I mean by this persons who are earning from £1 to £2 per week) is to charge at the rate of 2s. 6d. a visit and mixture; and to put on the bill that, if it is paid within a month from the date of the bill, it will be reduced to 2s. a visit and medicine. This system, I believe, will work well, and patients will stick to one who treats them decently. Of course, this system has its disadvantage in this way, that one does not feel to have time to go very deeply into the case; still, by making a thorough investigation on the first visit, and making your others shorter, the real nature of the case would be explored. I am convinced that a moderate fee to be paid at once, or within a month, or a little extra will be charged, will be found to be the best corrective to clubs, co-operative store aids, provident dispensaries, and the like.

The following is the sample bill. "October 15th, 1883. T. Blank, to Dr. W. In August 1883. To medical attendance and medicine, 10s. If paid by the 15th November, 1883, it will be charged 9s." That is allowing ten per cent., or what a collector will charge; or, on the other hand, if I charge 2s. 6d. a visit and mixture, and the reduced charge at 2s. a visit and mixture, my bill will be as follows: "For five visits and five mixtures, 12s. 6d. If this is paid in a month, it will be 10s." Thus I have a rate of charge for ready-money payments, and others where credit is taken.

This system may be thought by some to be very *infra dig.*, and savour of trade; but we, as a profession, have lost our way in not being more business-like in our dealings, in charging at random, and being more inclined to prove ourselves clever fellows than to make money. But if we do not introduce a good system of fair charges for working people, clubs, provident dispensaries, and other institutions of that nature, will put the respectable, thrifty, working-man in the hands of a few practitioners who will be paid a salary for their attendance, and the ordinary practitioner will be left with the rich and the lowest of the poor, two classes from neither of which can anyone build up an altogether satisfactory practice.

If you will kindly admit this to your columns, I hope it may be the means of rousing a discussion on these topics, which are of intense interest to, and affect the well-being of, every general practitioner in the kingdom.—I am, yours, Practitioner.

Unqualified Assistants.

Sir,—I should like to forward a few words in favour of the "at present" much abused and so-called unqualified assistants. Our profession, numbering over 20,000 members in this country, if canvassed, would show that a very large percentage of these gentlemen had been, at some period of their medical career, in the above position, and a small minority only would be able to show they had been privileged to enter the ranks without soiling their hands as unqualified men. Now I cannot think the former class are so utterly selfish as to wish to debar other young men from following the steps in which they trod, by endeavouring to keep themselves during the career of their medical training, and thus lessen the expenses incurred in qualifying. At any rate, if they (the former class) have become selfish in this respect, it does not speak well for the liberality or freedom of opinion so much boasted of by the medical profession.

Referring to the second class, or favoured few whose friends have been liberal, and able to keep them without work during their period of qualifying, it is only natural that they should look upon all unqualified men as taking the bread out of their mouths. Now to this latter class, may I be allowed to make this suggestion: our litte island is quite large enough, and the population vast enough, for all who are able and willing to work, both qualified and unqualified; and the more willing the newly-qualified man is to undertake the routine of medical practice as an assistant, the less he has to fear from the unqualified. I do not mean to say, as your correspondent in the British Medical Journal of the 22nd suggests, that he should be able to sweep or dust the various counters, neither would I suggest that he be asked to wash bottles. I would in every respect treat a qualified assistant as a gentleman, but, at the same time, I should expect him to work, and not be filled with the foolish idea that, because qualified, everyone must bow down to their superior qualities. Patients fail to see these, and hence often there is unpleasantness between patient and assistant. I would have them learn to be willing, punctual at duties, attentive to those with whom they have to deal, and obliging in the interests of their principal, and willing to accept advice from those with whom they are serving. Then, when these lessons are learned by our newly-qualified men, we shall hear fewer complaints about the unqualified taking the bread out of their mouths.

I would add a last item, for which I have had cause to regret the incapacity of some whom I have employed. Let them learn to dispense well, and know the doses of drugs thoroughly, and not do as a doubly-qualified man in my service did, that is, give liq. ferri perchlor. fort. in one-drachm doses, to the detriment of the patient.

It appears to me a selfish policy to urge upon the profession at large to do away with the aid of the unqualified student. I quite agree with your various writers, that no unqualified person should be placed in any position of responsibility; surely so long as druggists, medical botanists, herbalists, quacks, charlatans, etc., are all allowed unlimited licence to drug and physic the people at will, without any qualified men to back them up, it appears like a sarcasm upon the profession to say no medical man may employ an unqualified, or rather I should say partially qualified, person. I am not meaning those who have not entered upon a medical career, for those I ignore, but those who are really medical students—those from whom the future ranks of the profession will be recruited.

This unqualified aid, under supervision, must benefit the student and future practitioner, and may relieve the busy medical man of the more menial duties of dispensing, and in some cases midwifery.

Your correspondent of the 22nd suggests that it is a case of cheapness to employ the unqualified. In this he is mistaken; the low salaries of assistants are to a great extent due to the glut in the market of qualified men, who are eager to work at any price, or even without salary; but a good man values his services highly; and I have had an M.D. offer to come for half the salary I am now paying my medical student; but the former could not dispense, and the latter possesses a dispenser's certificate from the Apothecaries' Society. This again brings me to my former statement. Let more attention be given to the necessaries of a medical practitioner's life by those whose sole preparation for it consists in their lectures and hospital practice, or, when they enter into practice, either as assistants or for themselves, they will find that they have mistaken their vocation, or else that they have all to learn afresh.—I am, yours faithfully, H. A. Phillips, M.R.C.S., L.S.A.

Hebra.—The fee chargeable on subpœna would be two to three guineas a day inclusive of all except travelling expenses; but, if our correspondent is appearing as an expert, he had better make his own arrangements previously with the solicitor, and charge according to his own valuation for his time. He can only be subpœned to give evidence as to fact; he is not bound to give opinion as an expert except voluntarily, and then on his own terms.

Treatment of Diabetes Mellitus.

Sir,—I should like to ask the profession, through the Journal, if anything practical has come from the late debate on diabetes at the Pathological Society. My patient has been in Australia for the last twenty-eight years, till last April. Three years ago he became aware of his malady, and has been under treatment since. The loss of weight has been continuous since, except on the homeward voyage, when he gained about eight pounds. The usual remedies—opium, codeia, creasote, and phosphorus, mineral waters, etc., have been tried without any benefit.—Yours truly, M.B.

Veterinary Surgery.

Sir,—Would you or any member, through the Journal, recommend some manual of veterinary medicine? My horses are often ailing, and the local "vets." are very unsatisfactory—more anxious to run up a bill than willing or able to explain the nature of the ailments. Had I some handbook for reference, dealing with the symptoms of equine complaints, I think, with the aid of Messrs. Richardson's Formulæ of Horse-Balls, I might be my own vet.—I am, etc., A Country Practitioner.

The Boast Fund.

SIR,—I shall feel obliged by your inserting the following additional contributions to the above fund.

	£	s.	d.
Amount already acknowledged	37	9	6
Mrs. E. P. Clarke, Wymondham	5	0	0
Dr. Eade, Norwich	5	0	0
Dr. Gairdner, Glasgow (per Mr. Cadge)	5	0	0
Charles Williams, Esq., Norwich	3	3	0
H. Robinson, Esq., Norwich	2	2	0
Dr. Burnley, Norwich	2	2	0
Dr. Lomb, Torquay	2	2	0
Mrs. Tallint, Hingham	2	0	0
Francis Clowes, Esq., Stulham	1	1	0
Dr. Rudge, Fakenham	1	1	0
Dr. Alexander, Wotton	1	1	0
Dr. Lowe, Wymondham	1	1	0
Dr. Spowart, Norwich	1	1	0
J. Candler, Esq., Harleston	1	1	0
Dr. Ellis, Attleborough	1	1	0
Dr. Lowe, Lynn	1	0	0
J. Bromfield, Esq., Norwich	1	0	0
E. Soffe, Esq., E. Harling	0	10	6
Hugh Taylor, Esq., Cotteshall	0	10	6
Dr. Dale, Lynn	0	10	0
Dr. Cufaude, Acle	0	10	0
Bis dat qui cito dat	0	2	6
A. B. Z.	0	10	6
— Appleford, Esq., Finsbury Circus	2	2	0
Dr. W. Balding, St. Albans	1	1	0
T. M.	0	10	0
Dr. R. H. Clay, Plymouth	1	1	0
E. Jackson, Esq., Jesmond, Newcastle-on-Tyne... ...	0	10	0
K.	1	1	0
F. Clarke, Esq., Southborough	1	1	0

—I remain, yours sincerely,

G. JACKSON.

18, George's Terrace, Plymouth, October 24th, 1883.

Crime and Insanity.

SIR,—In considering the criminal responsibility of the insane, I think the fact is lost sight of that punishment is administered not so much to influence the guilty person, as to prevent others doing wrong. The insane, who are capable of distinguishing wright from wrong, have, as much as the sane, if not more than they, the need of this wholesome fear of punishment. A lunatic will frequently reason thus: "I can kill you, and shall not get punished; but if you hurt me, you will get severely punished." The insane have more or less, as well as the sane, the power in themselves to repress violent impulses. No asylum could be kept in proper order but for this fact.

It is a question whether an insane man does not deserve hanging more than a sane one. In order to repress homicidal acts, a severe penalty must be attached to them, so that others who are insane, or are bordering on insanity, may have a wholesome fear of the consequences. We kill a man who is not insane for an act of impulsive homicide. This man might repent, and become an useful member of society. We pardon a person of unsound mind, who kills another in the same way, knowing what he is about all the time, and who does it probably to gain notoriety. We make him happy and comfortable in a luxurious asylum, at great expense to the country, where he is perfectly useless, and where he probably will have several chances of murdering others before he dies.

But if the mental condition of men who are likely to do murderous acts were studied more—and there are few who will not show more or less some peculiarities of manner or mind—and if they were placed under restraint *before* they did wrong, we should probably have a far better state of society. At present, as our law-reports repeatedly show, if a man who is insane commits some trifling offence, he is punished severely; if he does something terrible, he is let off altogether.—I am, sir, your obedient servant,

September 30th, 1883. A. H. NEWTH, M.D.

On Spectacle-Prescribing.

SIR,—Is the selection of spectacles a thing falling legitimately within the sphere of medical practice? I imagine that no one at all conversant with the subject will fail to answer in the affirmative. Indeed, I go so far as to say that the prescribing of glasses is one of the most powerful remedial means at the command of the surgeon, and even of the physician, in their treatment of certain conditions, and that it demands not only a large experience, but a knowledge of the various morbid conditions of the eye and of the body generally. From the numerous examples of this, we may simply point out that failing accommodation is one of the best marked symptoms of sympathetic irritation, and that the same condition furnishes an early and valuable indication of the most insidious and destructive form of glaucoma.

It therefore appears, to say the least, a doubtful policy on the part of some of our contemporaries to issue weekly the advertisements of non-professional spectacle-prescribers, especially under so sensational headings as "Spectacles *versus* Blindness," etc.

That one sort of lens at a higher price is superior to others is a profitable idea largely insisted upon by charlatans, and the sooner the general public are made aware that all the lenses used in this country, if only they are of suitable focal length, are alike, and that the sole advantage of one over the other lies in the skill of the prescriber, the better for the profession and for the public generally.

We look for a time not far distant when the correction of, at all events, the commoner errors of refraction shall be included in the regular work of the general practitioner.—I am, etc., W. A. BRAILEY.

Port Royal.

WE have to acknowledge the receipt of a pamphlet containing "Correspondence relating to the Sanitary State of the Town of Port Royal," in which the commissioner of health disposes of the complaints of the naval authorities on the station in respect of the sanitary condition of the port as follows: "But, whilst it cannot be denied that the appearance of the town is not prepossessing, there can be no doubt that these complaints have been the result of misapprehension and misconception of facts, and insufficient study of the true causes that have led to disease amongst the sailors and troops. I have more than once refuted these errors, and I cannot on this occasion do so more effectually than by pointing to the history of the cases of yellow fever which have occurred, and to the death-rate of the town, which would compare favourably with that of any seaport-town in England, or with any in the West Indies."

The Hind Fund.

THE following additional subscriptions have been received:

Sir James Paget, Bart.	£5	5	0	Dr. C. J. B. Williams ...	£2	2	0
J. E. Erichsen, Esq. ...	5	5	0	Hunter Barron, Esq. ...	1	1	0
William Adams, Esq. ...	2	2	0	Dr. A. de Noé Walker...	1	1	0
Dr. J. T. Powell... ...	2	2	0	H. G. S.	1	1	0

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester Square; John Tweedy, Esq., F.R.C.S., 24, Harley Street (treasurer); A. J. Pepper, Esq., F.R.C.S., 122, Gower Street; and T. Wakley, Esq., L.R.C.P., 96, Redcliffe Gardens, Secretaries; or to Messrs. Coutts and Co., Strand.

[The name given in our issue of the 13th instant as F. Magnuss, Esq., should have been P. Mageniss, Esq.]

SIR,—The feeble response of his old pupils to your appeal on behalf of Mr. George Hind must make him exclaim, with Shakespeare:

"Blow, blow, thou winter winds;
Thou art not so unkind
As man's ingratitude."

Surely, when one considers how many men at the present time owe their position mainly to Mr. Hind, and how more than probable it is that, had it not been for this discoverer of all but a royal road to learning, they would have been debarred entering the profession, it is to be hoped that the appeal for funds will yet meet with a generous and wide response.

Let it not be said by Mr. Hind that "those you make friends, and give your hearts to, when they once perceive the least rent in your fortunes, fall away."

I expect my professional brethren, therefore, to "withhold not good from him to whom it is due, when it is in the power of thine hand to do it."—Your obedient servant, W. DOMETT STONE.

ERRATA.—P. 804, column 1, line 21, *for* "Tusoris's," *read* "Tuson's." Line 22, *for* "copper-workers," *read* "copper-works." Line 26, *for* "sulphuric acid," *read* "sulphurous acid."

MEMBER BRITISH MEDICAL ASSOCIATION.—The name of Mr. Teale's book is *Economy of Coal in House Fires*, published by J. and A. Churchill, New Burlington Street.

COMMUNICATIONS, LETTERS, etc., have been received from:

Mr. J. R. Lynch, London; Mr. G. R. Jesse, Hanbury, near Macclesfield; Dr. Norman Kerr, London; Dr. C. E. Glascott, Manchester; Dr. J. M. Fothergill, London; Professor Tauffer, Buda Pesth; The Editor of the *Jewish World*; Mr. H. Hindley, London; Mr. A. May, Exeter; Dr. Myers, London; Mr. O. G. Bradshaw, Netley; Dr. A. Wahltuch, Manchester; Dr. D. Nicolson, Cromthorne; Mr. O. Browne, London; Dr. Crichton Browne, London; Dr. D'Arcy Adams, London; Dr. C. A. McMunn, Wolverhampton; Mr. H. D. King, Linton, Cambridge; Dr. Murrell, London; The Secretary of the Royal Meteorological Society; Mr. Malcolm Guthrie, Liverpool; The Honorary Secretaries of the "Hind" Fund; The Clerk of the Alcester Union Rural Sanitary Authority; Mr. F. B. Jessett, London; Mr. Arthur Jackson, Wolverhampton; Mr. J. Prankerd, Langport; Dr. Kelly, Taunton; Dr. W. M. Campbell, Liverpool; Mr. Harrison, Torquay; Dr. S. W. Smith, Pershore; The Honorary Secretaries of the Harveian Society; Mr. Stanmore Bishop, Manchester; Mr. C. Macnamara, London; Dr. Robert Lee, London; The Secretary of the College of Surgeons, Edinburgh; Dr. Carter, Liverpool; Mr. H. C. Burdett, London; Mr. Arthur H. Willis, London; Dr. J. W. Moon, Dublin; Professor Buchanan, Glasgow; Mr G. Fraser Henry, Bury St. Edmunds; Dr. J. Meredith, Wallington; Dr. Percy Boulton, London; Dr. Sawyer, Birmingham; Mr. Brackenthwaite, Liverpool; Dr. Dreschfeld, Manchester; Mr. S. Plowman, London; Dr. C. E. Shelly, Hertford; Dr. J. Stopford Taylor, Liverpool; Mr. H. E. Spencer, York; Mr. W. Boyd Mushet, Cheshire; Mr. W. Domett Stone, London; Mr. J. Garner, Birmingham; Dr. Stephen Little, Cairo; Dr. W. H. Tayler, Anerley; Dr. Moorhead, Weymouth; Dr. Neale, London; Mr. J. H. Williams, Bootle; Dr. H. Fisher, London; Mr. J. Vesey Fitzgerald; Dr. Meeres, Plymouth; Dr. May Moreton, London; Dr. R. Barnes, London; Messrs. Somervell Brothers, Netherfield, Kendal; Mr. Thomas J. Denton, Oxford; Dr. W. Dale, Lynn; Mr. H. T. A. Warnock, Donegal; Our Dublin Correspondent; Our Glasgow Correspondent, etc.

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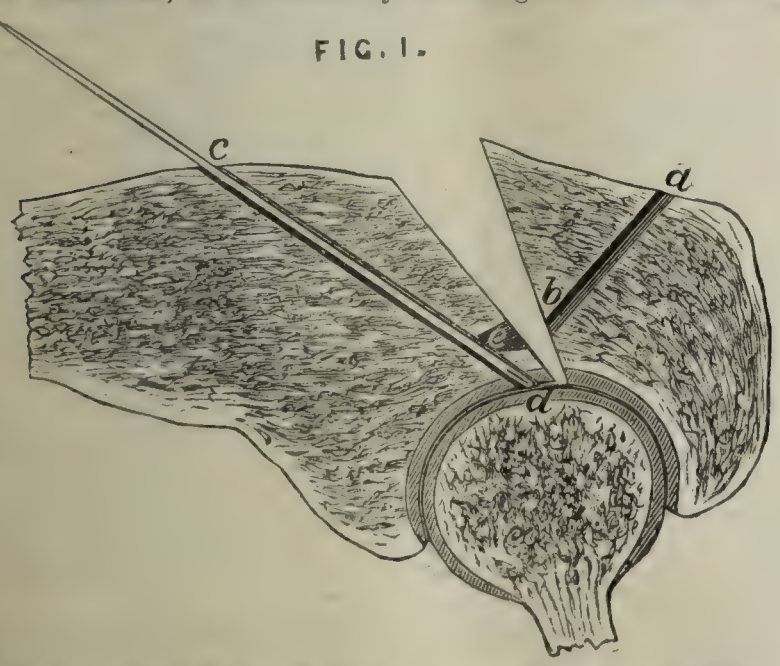
AN ADDRESS
ON THE
TREATMENT OF FRACTURE OF THE PATELLA.

Delivered at the First Meeting of the Session of the Medical Society of London.

BY JOSEPH LISTER, F.R.S.,
Professor of Clinical Surgery in King's College.

SIR JOSEPH FAYRER, and gentlemen,—Some time ago, Mr. Holmes remarked to me that it would be well for me to place before the profession statistics of the operations which I had performed for racture of the patella. And when you, sir, did me the honour to request that I should open this session of the Medical Society with a paper, it occurred to me that I could hardly do better than act on Mr. Holmes's suggestion. But, before entering on the strict subject of the communication which I have the honour to bring before you, it will be advisable to make some prefatory remarks regarding the circumstances that led me to it. In March 1873, my friend, Dr. Hector Cameron of Glasgow, recommended to my care, n the Edinburgh Infirmary, a case of ununited fracture of the olecranon. Dr. Cameron had formerly been my house-surgeon in he Glasgow Royal Infirmary, and I had afterwards for several years the great advantage of his assistance in private practice; and he reminds me that I had often expressed to him the pinion that the use of a metallic suture, antiseptically applied, which we had employed in ununited fracture of the shafts of the long bones, ought, in suitable cases, to be extended to the olecranon and patella. The patient to whom I refer presented himself to Dr. Cameron in the out-patient department of the Infirmary; and, as he had not at that time beds in the institution, and therefore could not operate himself, he sent him to me. He was a man, thirty-four years of age, who, five months previously, had received a blow from a policeman's *baton* on the left elbow. This occasioned great swelling, which seems to have concealed the true nature of the case from the medical man whom he first consulted. On admission, there was a considerable interval between the olecranon and the shaft of the bone; and, although the limb was muscular, it was comparatively helpless, as he could not extend the forearm at all without the aid of the other hand. On the 28th of the month, I made a longitudinal incision, exposing the site of the fracture, and, at the same time, bringing into view the articular surface of the humerus; and, having pared away the fibrous material from the fractured surfaces, I proceeded to drill the fragments, with a view to the application of the suture. The fracture was oblique from before backwards, as indicated by this diagram. I found no difficulty, with the proximal fragment, in making the drill appear upon the fractured surface at a little distance from the cartilage, (see *b*, Fig. 1), but with the other fragment the obliquity of the position in which the drill had to be placed was so great that, instead of the end of the drill emerging at the fractured surface, as I had intended, I found it had entered into the substance of the humerus (*d*, Fig. 1). I therefore withdrew the drill, and substituted for it a needle (*c d*), passing the eyed end in first. Then, with a gouge, I excavated an opening (*e*) upon the fractured surface, opposite to the drill-hole (*b*) on the other surface, until the needle was exposed. Withdrawing the needle, I introduced a silver wire in its place, and I had no difficulty, by means of forceps passed into the excavation made by the gouge, in drawing out the wire. I was then able to pass it on through the other drilled opening, and thus the two fragments were brought into apposition. The ends of the wire were twisted together and left projecting at the wound. Healing took place without suppuration or fever, and the wire, was removed on May 19th, seven weeks after the operation. The wound made for its extraction soon healed, and the patient returned to Glasgow; and I afterwards had the satisfaction of learning that he was wielding the hammer in an iron shipbuilding yard with his former energy.

FIG. 1.



I have had two other cases of ununited fracture of the olecranon; and, as these are closely allied to the subject of my paper, I may refer briefly to them. One was a man forty-five years of age, incapacitated for his occupation as a plasterer by inability to extend the right elbow completely. The ununited fracture of nine weeks' standing was oblique laterally. It was treated as in the last case; the operation presenting no difficulty. It was performed on March 20th, 1878. The wound healed without suppuration, but the wire was not completely removed; for, the loop having broken near the twist, the twisted part was alone taken away, and the loop left behind. It never caused any inconvenience, and he afterwards wrote to us from his home at Bristol that he was able to follow his old employment.

The third case was that of a gentleman, 33 years old, who had consulted no fewer than eighteen surgeons on account of the weakness of his left arm, caused by ununited fracture of the olecranon. I operated on July 28th, 1881, paring the broken surfaces as in the other cases, using a chisel and hammer for the purpose; and, having drilled the fragments with a common bradawl, I brought them together with moderately stout silver wire In this case, however, I did not leave the ends of the wire projecting from the wound; but, having given them one complete twist (or two half twists) cut the ends off short, and hammered the twisted part down flat upon the bone with this small hammer.

The advantage of this practice was strikingly exemplified by the difference in the course of this case from its predecessors. Instead of keeping him under treatment for several weeks until the wire could be removed, I was enabled to allow him to return. fifteen days after the operation, to his home in Wales, with a sound cicatrix; and, trusting to the connecting loop of wire, permitted him to use the elbow freely. I afterwards learned that he was able to drive a four-in-hand as well as ever.

The practice of cutting the ends of the wire short, and hammering down the twist upon the bone, is one to which I shall have to refer again in connection with my later cases of fracture of the patella. It is in every respect an advantage. The hammering down of the twist renders it more secure than if it is left projecting, to be moved by every shifting of the dressing, and perhaps broken, as in the second of the cases just referred to. We also get rid of a source of disturbance, and sometimes of considerable uneasiness, in the wound. The time of healing is greatly shortened, and the knowledge that the loop of wire securely holds the fragments in position allows the use of the joint to be commenced much earlier than when we have only the organic bond of union to trust to. The practice is also of the highest value in ununited fracture of the shafts of the long bones. The thickness of the wire must be proportioned to the force to which it is to be subjected. For the olecranon, that which I have here is amply sufficient, only about one twenty-fifth of an inch in diameter. For the shaft of a femur of an adult male, a piece like this, about one tenth of an inch in thickness, which I have had specially prepared with a view to a case of ununited fracture of the femur which we expect to operate upon in the hospital this week, is requisite, in order to resist with certainty the enormous force of the great muscles of the thigh. The pieces of bone which I hold in my hand were removed, in August 1881, from a case of badly united fracture of the femur. The patient was a gentleman from Rio de Janeiro. The fracture had occurred about the junction between the middle and upper thirds of the bone; and it had been so badly united, that the fragments overlapped very much, and also were

at a considerable angle with each other, so that the limb was extremely distorted, as well as much shortened. Bloodlessness of the operation having been provided for by elevation of the limb and the application of an elastic tourniquet, I cut down from the outer aspect of the thigh upon the seat of fracture. Then, with a periosteum-detacher, I separated the soft parts from the place of junction of the fragments; and, in the next place, I went through the extremely laborious process of cutting through the osseous union (which was of almost ivory hardness) parallel to the axes of the two overlapping fragments. This having been at length accomplished, and the soft parts still further detached, I found that I was able not only to get the limb into a straight position, but also, by very moderate extension, so to reduce the riding of the fragments that, by sawing off comparatively small portions, I was able to bring their extremities into apposition and apply my suture. This was done with wire of about this same thickness. The limb was put up at first with a long splint. I need not enter into details regarding the after-treatment; but I may say this, that he was a weakly man, and it was some months before absolutely firm union was obtained. It would have been extremely embarrassing to have had the ends of the wire sticking out from the wound all that time. On the contrary, it was a very great comfort to have no occasion to think about the wire; and ultimately he left for South America, with a perfectly straight limb, almost of the same length as the other, and, at the same time, with thoroughly firm union.

But to return to the immediate subject of my communication. Ever after my first case of ununited fracture of the olecranon, I was on the look out for a fracture of the patella to treat on the same principle. Dr. Cameron, however, anticipated me. In October 1876, being now full surgeon in the Glasgow Infirmary, he admitted a man with transverse fracture of the patella. He treated him, in the first instance, in the ordinary way, and dismissed him at the end of eight weeks with a pretty short and strong ligamentous union. Eleven days later, however, he reappeared, having ruptured the fibrous band by a violent movement during a state of intoxication. The fragments were then found widely separated. Dr. Cameron again treated him on ordinary principles for eight weeks, at the end of which time the fragments were still so widely apart, and the limb so feeble, that Dr. Cameron determined to cut down and apply the wire suture antiseptically. This he did on March 5th, 1877. On making a longitudinal incision, he exposed a condition of the parts, of which, through his kindness, I am able to show you a sketch, viz., a ligamentous union one inch in length, connecting pretty equal-sized fragments, with nipple-like projections extending from their attenuated margins much thinned by absorption. He cut away the fibrous material, and, having pared the edges of the fragments, and drilled them in two situations with a bradawl, he connected them with two sutures of stout silver wire (as shown here in another drawing), the ends of the wires being left projecting at the wound. At the same time, he introduced an independent drain into the joint. The wound healed without suppuration or fever; and, though osseous union was not obtained—which, as Dr. Cameron remarks in his report of the case, was not to be wondered at, considering the thinned state of the surfaces—yet he had the satisfaction of discharging the patient with close approximation of the fragments, and a thoroughly useful limb.

In October of the same year, 1877, a patient with transverse fracture of the patella was admitted under my care in King's College Hospital. He was a man forty years of age, who, while riding on horseback, had his horse stumble and fall. He was thrown over the horse's head, falling on the right knee. He could not rise, and was brought to the hospital. In the first instance, I attempted with this patient to bring the upper fragment down, so that it should be in contact with the lower. For this purpose I applied an apparatus, into the details of which I need not enter further than to say that it was so arranged, that the upper fragment, by means of weights and pulleys, was drawn down. Four days later, however, I found that there was still a quarter of an inch interval between the fragments, and I suggested to the patient the operation of cutting down and applying the wire suture. This, however, he would not then consent to, and preferred returning home to be under the care of his ordinary medical attendant. Eight days later, or fourteen days after the accident, he was readmitted, expressing a wish to be operated upon. On October 26th, I accordingly proceeded to operate, making a vertical incision, about two inches in length over the patella, exposing the fragments, which were then one inch apart. My inability to bring down the upper fragment into contact with the lower became explained when the parts were exposed; for there were found between the fragments extremely firm coagula, with fibrous tissue, fascial and periosteal, mingled with them, constituting so firm a mass as to make it quite impossible for the two fragments to be brought into contact. The clots having been completely cleared away from between the fragments and from the interior of the joint, I applied a common bradawl in the middle line of the patella, drilling each fragment obliquely so as to bring out the drill upon the broken surface a little distance from the cartilage. Pretty stout silver wire was then passed through the drilled openings, and the fragments thus strung upon it were pushed firmly home, and so brought accurately into apposition. Before they were brought together, however, an arrangement was made for the drainage of the joint. This was done on the same principle in all the cases that I have to record, and I may therefore describe the matter once for all. A pair of dressing forceps, with the blades closed, were introduced from the wound made into the anterior part of the joint to the most dependent part of the outer aspect of the articulation. The instrument was then forcibly thrust through the synovial membrane, the fibrous capsule, and the fascia, until the point of the forceps was felt under the skin. An incision was then made with a knife through the skin upon the end of the dressing forceps, so as to allow it to protrude. The blades of the forceps were then expanded so as to enlarge the opening which they had made in the deeper structures without risk of causing hæmorrhage. The drain was then seized in the forceps that protruded through the wound, and drawn into the joint. The ends of the wire were now twisted together, and the twisted ends brought out at the wound, which was closed with sutures and a small drain inserted. I need hardly say that in this case, as in Dr. Cameron's, antiseptic treatment was employed throughout. It is unnecessary for me to enter into details as to the progress of this case. We have here the temperature-chart for as long as it was thought worth while to have it recorded, and you will see that it indicates, after a little temporary disturbance immediately after the operation, an entirely afebrile condition. The wounds healed without any suppuration. At the end of eight weeks, the wire was removed by an incision through the cicatrix. Eight days later, the wound made for the removal of the wire had healed. At the end of ten weeks from the operation, the patient was allowed to get up, and, though no passive motion had been employed, he could move the limb freely through an angle of about thirty degrees. Two days later, he was discharged, and, unfortunately, nothing has been heard of him since. I saw him once in a cart a few days after he was dismissed, but I have not been able to learn any further tidings of him. This, I believe, is the first instance of a recent case of fracture of the patella being treated by wire-suture antiseptically applied.

My next case occurred two years later. William T., a coal-porter, thirty-seven years of age, was admitted December 13th, 1879. He was a muscular man. The patient slipped on December 9th, while carrying a sack of coals, and felt something gave way in one knee. On endeavouring to rise, he found himself unable to do so. On admission into the hospital, the right patella was found fractured transversely, the interval between the fragments being about an inch. There was a considerable amount of effusion into the joint. On December 15th, that is to say, six days after the accident, I proceeded to operate, making a longitudinal incision, as in the last case, about two inches long, over the patella. The lips of the wound being held apart with blunt hooks, a hole was drilled in each fragment in the median line. Stout silver wire was passed, and secured by four half-turns. A drainage-tube was introduced, as in the last case. And here, again, there is no need for my entering in detail into the reports. We have before us the temperature-chart. For the first fortnight after the operation, there was what we may call an absolutely afebrile state. During the rest of the time of his residence in the hospital, there were two accidental elevations to 100.5°, but nothing to indicate anything serious. The wound healed, as in the last case, without any suppuration. Six weeks after the operation, he was allowed to get up. Eight weeks after the operation, an incision was made through the cicatrix for the removal of the wire, the loop of which was cut, and the wire withdrawn. On February 23rd, that is, a fortnight later, the bandages which had been previously applied to the leg were removed, and it was found that he could bend the limb to a right angle; he could walk well, and was able to kick. On February 22nd, 1883, this patient showed himself. We then took the following notes.

"The patella seems perfectly natural, except a trifling irregularity of outline on one side. It is evidently osseously united. The movements of the joint are perfect, from complete flexion to extension. He can kick vigorously. He says the joint is just as trustworthy as ever.

He frequently carries a weight of 220 lbs. for upwards of 100 yards, and he walks without the slightest limp."

[The patient was now introduced and exhibited to the Society. He said his limb was as good as ever, and that it never failed him.]

I have not seen the man since the time I have referred to. Except for the linear cicatrix, no one would be able to tell that this patient had had anything wrong with his knee at all.

The next case was one of ununited fracture. The patient, Joseph R., aged 22, was admitted into the hospital on September 27th, 1880. He is a soldier, and stated that, on June 3rd of that year, while running across a green, he slipped upon a piece of turf, and, in trying to recover his balance, he snapped his knee-pan and fell. He was taken to a Military Hospital; and the limb was put in splints, which were kept on for seven weeks, a starched bandage being applied after their removal. On admission, the fragments were found separated by an interval of three-quarters of an inch. There was a firm fibrous band of union between them. The knee, however, was quite stiff in consequence, apparently, of the rigidity of the extremely atrophied quadriceps extensor. He was quite unable to walk. If he attempted to do so, he held the leg in his hand. He complained of frequent uneasy sensations in the knee. On the 22nd of October, I cut down over the patella, as in the former case, making an incision about two inches in length. Having cut away the fibrous tissue between the fragments, I refreshed the osseous surfaces, and then, having provided for drainage as before, drilled the fragments, and drew them together with stout silver wire. Nothing occurred worthy of notice until four weeks after the operation, when I proceeded to attempt passive motion. Without chloroform, this proved impossible; but, under chloroform, I used considerable force, when, the rigid quadriceps extensor refusing to yield, the twist of the wire gave way; the cicatrix, which had quite healed except where the wire projected, opened; and there was heard a sound of air being sucked into the joint, the fragments becoming, at the same time, widely separated. I injected the joint with an antiseptic solution, a procedure which I candidly confess I should now regard as probably superfluous. However, such was done; and, six days later, when all disturbance caused by this second injury and the irritation of the antiseptic injection had passed off, I proceeded to operate upon him a second time. Chloroform was again administered, and an incision similar to the former one was made, the cicatrix being laid open. I then found that the ends of the wire were lying in place, ready to be twisted together. I found, at the same time, a considerable mass of coagula present. These I cleared away from between the fragments and from the joint, twisted the wire again, and thus we had a second operation in one patient. The after-progress was as in the other cases. Here, we have a doubly long temperature-chart, because we have two cases in one, so to speak; but it will be seen that there was no deviation whatever from the normal state; neither as the result of one operation nor the other has any febrile condition as regards temperature been produced. In due time the wire was removed, and the wound made through the cicatrix having healed, he was discharged eight weeks after the second operation. He was then able to walk, but with a stiff knee, with scarcely any mobility. I did not attempt any more passive motion after previous experience, and while I was well pleased to see that he could walk with a stiff knee, whereas he could not walk at all on admission, I hardly ventured to hope for anything better. However, on February 22nd, 1883, he presented himself, when the following report was made. "The patella is perfectly natural, except a little irregularity of the two borders opposite the seat of the fracture. The surface is quite smooth. There is no interval between the fragments. There is evident osseous union. The degree of flexion is increasing. He can bend to an angle of 60°, and extend again completely, He laid aside his stick last summer, and returned to his work as a gardener seven months ago. He can do anything except kneel. In getting over a paling, he has to throw the leg over in a partially extended position. He walks with a barely perceptible limp." We may now say that he walks with no limp at all.

[The patient was introduced and exhibited. He could now bend his knee nearly to a right angle, and said that he was on his legs all day, and was quite equal to his work as a gardener.] The great interest in this case seems to me to lie in the improvement that has occurred without any passive motion on the part of the surgeon, and as a mere result of the natural actions of the limb; from such a very rigid state of things as there was when he left the hospital to the condition of mobility which we now witness.

The next case was also one of ununited fracture. The patient, Martha F., aged 43, was admitted November 5th, 1880, on account of an accident which had happened eight weeks before, when she felt something snap in her knee, while trying to save herself from falling. She was unable to walk or move the joint, which quickly swelled up to a large size. No splints had been used, and no treatment of any kind employed. On admission, there was fulness over the knee, and a transverse fracture of the patella to be discovered in the middle of the bone. The fragments were separated one inch. There was fluid in the joint, as indicated by fluctuation. On November 12th, I operated as in the last case, paring away the fibrous material between the fragments, and refreshing the osseous surfaces with cutting pliers. The fragments were then drilled obliquely in the middle line, and brought into apposition by means of a suture of stout silver wire. This, however, could only be done when the limb was raised high into the air so as to relax the quadriceps, she being a stout woman, with powerful muscles. Of course, antiseptic dressing was employed; and, as was done in all these cases, the limb was placed in a trough of Gooch's splint, with the upper end oblique, corresponding to the line from the tuberosity of the ischium to the great trochanter, and the lower end excavated in the form of a horseshoe, while the horns of the horseshoe were well padded, to support the sides of the foot. With regard to this patient, again, I have to show a temperature-chart free from any febrile indication. In eight weeks after the operation, the patient was allowed to get up, and she walked about on crutches. She was discharged three weeks later, able to bend the knee slightly, lowering and raising the foot three or four inches.

On February 14th, the patient was readmitted, to have the wire extracted; and, five days later, she was finally discharged. It will be remembered that this was a case of ununited fracture; and that, when the patient left the hospital, she could only move the foot through a distance of about four inches. On February 22nd of this year, we had an opportunity of seeing her, and then the following note was taken. "There is perfect union of the fragments. She can walk from Drury Lane to Billingsgate and back, and walks without a limp. She can bend the knee to a right angle, and says the mobility increases every day. From the position at a right angle, she can raise the leg in a perfectly natural manner to the extended position. She is a stout heavy woman. She cannot kneel."

[The patient was now introduced and exhibited. There seems to be a perfect patella; there is nothing abnormal to be felt about it. She says she can do everything except kneeling.]

The next case was one of recent fracture. William G., 62 years of age, admitted June 21st, 1881, a healthy man, but a pretty hard drinker. On the morning of his admission he slipped, put out his right leg to save himself, fell, and could not rise. His leg doubled under him. On admission the patella was found fractured transversely, with one inch of interval between the fragments, which could be brought together with difficulty. The knee was considerably swollen. On the 24th, that is three days after the accident, I operated upon him. The operation was conducted precisely as in the cases that have been before described, except that, unlike the two last, there was no necessity for refreshing the fragments. It was merely necessary to take away the clots of blood and any effused fluid from the interior of the joint. A few hours after the operation this patient became delirious, and we were apprehensive of delirium tremens. However, he was quieted with a dose of opium, and gave no further trouble. The temperature-chart here, as in the last case, exhibits entire absence of febrile indication. In this patient, for the first time, the ends of the wire were cut short, and the twist hammered down. The wounds healed without suppuration. Exactly six weeks after the operation he was allowed to get up, and I had the satisfaction of exhibiting him before some of the members of the International Medical Congress, and showed them that he could raise his limb, from a position of flexion almost at a right angle, to the completely extended posture. I have not seen him from that time until to-day. Having learned that he was employed in a Birmingham establishment, I wrote to my friend Mr. Chavasse of that city, who replied as follows. "I saw G. this morning, and have made arrangements for him to leave by the 2 o'clock train, to-morrow afternoon. He will be at your house just before 8 o'clock. In case he should not keep his appointment, there is a faint linear cicatrix present over the joint. The knee can be flexed as well as the other. There is bony union of the patella, a faint ridge being felt on the point of union. No suture is to be detected by the touch. At his work, as a stamper, all day long, he works a pulley with the affected limb, which raises a weight of 60 lbs. In damp weather he feels very slight inconvenience in the site of the

old fracture." Happily our patient has kept his appointment, so that we are able to see him to-day.

[The patient was introduced and shown. He said he could do anything with the limb the same as with the other. He worked a stamp-hammer, and he could work that hammer, weighing one hundredweight, all day long. There was no difference whatever between the movements of the two knees.]

There is a barely perceptible cicatrix, and he has a perfect patella.

My sixth patient was a woman, Elizabeth C., fifty-seven years of age. She also was a recent case, admitted on October 21st, 1881. Going downstairs, she fell with her left leg bent under her, striking the knee against the ground. She was brought at once to the hospital. The left knee was very much swollen from effusion, hot, and tender; the fragments of the patella were felt, separated from each other about one inch. I believe it is generally wise to let any distinct inflammatory appearances that exist, as the immediate result of the accident, pass off before the operation. In the former case, there were no such, or scarcely any, therefore we operated three days after the accident. In this case, they were manifest, and we allowed a week to pass. The operation was performed just as in the last case. The ends of the wire were twisted with two half-turns, that is to say, one complete turn. The ends were cut short, and then, with the small hammer, the twist was hammered flat down upon the patella.

Here we have the temperature-chart. As we very commonly find, in cases antiseptically operated upon, the first effect of the operation is a depression of temperature. On the evening of the first day, there was a depression; on the following day, a little rise, but that rise only reached 101°; after that, there was nothing to indicate anything febrile. Two weeks after the operation, passive motion was commenced. The wounds were then so very nearly healed, that the milder antiseptic boracic lint was used for the superficial sore which remained. Three weeks after the operation, the limb was bent to a right angle; it was painful to her, but caused no disturbance of the fragments. Four weeks after operation, passive motion was again employed; the wounds were completely healed. Six weeks after the operation, the patient was allowed to get up, and could already walk fairly. Three days later, she was discharged; she could then walk very well. On the 23rd of February of this year, we took this note regarding her. "The patella appears perfectly natural, with the exception that the wire is felt, causing the slightest projection under the skin, which, however, moves freely over it. The movements of the joint are perfect: from complete flexion at a very acute angle to perfect extension. She kneels as she used to do, and only occasionally the wire comes into contact with anything, and then she feels the skin over it tender. She can walk any distance, as before the accident, and does so without a limp." [The patient was now introduced to the Society, and confirmed in every respect the previous report.]

My last case is a man, sixty-seven years of age, John P., admitted into King's College Hospital, on January 6th of the present year. He had fallen from an omnibus on the previous day, striking his knee upon the ground. There was transverse fracture of the patella, and great swelling of the joint. Six days after the accident, I proceeded to operate. On making a vertical incision and exposing the seat of fracture, I found a condition of things which, possibly, had I known it, might have induced me to abstain from operating. I found that the lower fragment was very small, and was comminuted. There was one entirely loose piece, as big as a filbert, and another about half that size, which, of course, had to be extracted. Such a condition, taken in connection with the advanced age of the patient, did not promise well for satisfactory union. Having sponged the clots out from between the fragments and from the joint, and established a drain, I drilled; but as the lower fragment was so exceedingly small, I was obliged to drill, not through it, but through the ligamentum patellæ; and, by this means, I was able to bring the large upper fragment into contact with the raw surface below. Now, however, I do not regret having operated upon this poor man. You will see that his temperature-chart is free from any febrile indication; and the wounds healed without any suppuration. Here, as in the last two cases, the ends of the wire were cut short, and the twist hammered down upon the patella. Three weeks and four days after the operation, the wound was nearly healed. The knee was bent through an angle of thirty degrees, and from that position the patient could himself raise it to complete extension; a thing which, without the wire, and without our feeling that the wire was in a very secure form, we should not have thought of permitting. Four weeks after the operation, the wound was healed. The knee was then bent to an angle of forty degrees. Eight weeks after the operation, the patient was discharged, having been for a considerable time before (I have not got it exactly recorded when) allowed to walk about the ward, and walking well. You will observe, gentlemen, that this is my most recent case. He has not had the same time for improvement that the others have had.

[The patient was now introduced, walking up the room without the slightest limp. He said he was getting on "first-rate." He found the leg continue to get stronger, and he was able to move it better. He noticed that it was getting stronger every week; he might say every day.]

I confess I am surprised to see how complete a patella this man has, considering how extremely small the lower fragment was. There must have been considerable new osseous formation from the periosteum, because here we feel the central part of the wire, and yet between that and the lower border there is what appears to be a substantial lower fragment connected with the upper one by osseous union. Now we may say he has a perfect patella.

These, gentlemen, are all the cases of fracture of the patella on which I have operated, and I consider it fortunate that I am able to bring before you six out of the seven.

I should like now to say a few words as to the method of operating. The wire employed should be, as I have said, pretty stout, about one-sixteenth of an inch in diameter. I have not found it needful to use more than a single suture of such wire. It is applied in the vertical plane, in the course of the longitudinal incision over the middle of the bone; and in recent cases no dissection of the soft parts from the patella is necessary. It seems important that the cartilaginous surface of the bone should be left quite smooth, or, in other words, that the fragments should be exactly at the same level at their lower part. We cannot be perfectly sure, when we drill, that the bradawl will come out exactly at a corresponding point on the two surfaces. Supposing that on one side the instrument should have come out too far down, it may be into the cartilage (as at *d*, Fig. 2) instead of a little above it. We do not regard that at first, but pass the wire through each drill-hole the moment the drill is withdrawn, and then on that side on which the hole has come too far down, by means of the bradawl, we simply chip away a little of the material that is above the wire until the wire comes to be in a position exactly opposite to the hole on the other side, leaving a gap below, as indicated by the dark shade at *d*. This is a perfectly simple matter; at the same time, it might possibly not occur to anyone during the operation. Here (Fig. 3) we have the wire represented twisted, and the twist hammered down. The twist always goes to one side, and, being on the other side in this instance, is not shown in the section represented by the diagram.

FIG. 2.

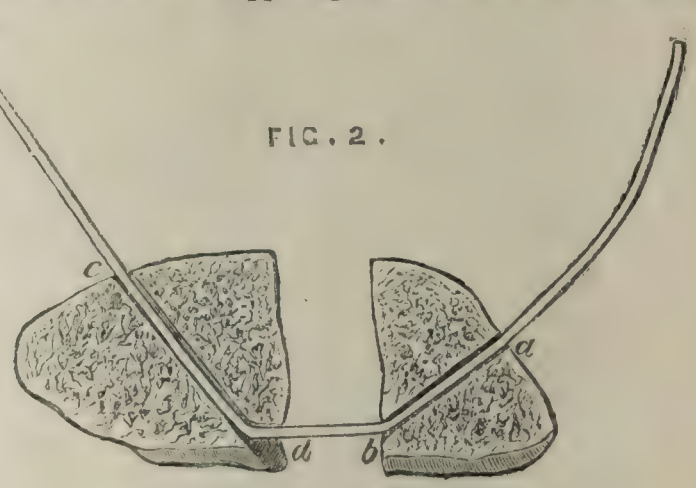
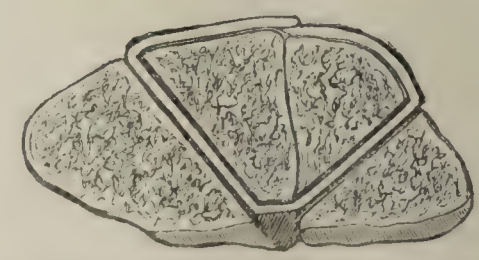


FIG. 3.



I should like, gentlemen, with your permission, to make some few general remarks. I think it must be admitted that these cases show that the mode of treatment which I have recommended, when

applied to recent transverse fractures of the patella, affords a means of restoring the joint to, practically, a perfectly natural condition, provided only that no disaster occurs. That, however, is a tremendous proviso, and no one is more conscious of it than myself. Before I made the incision in the first case that I have recorded to-night, I remarked to those who were assembled in the theatre that I considered no man justified in performing such an operation, unless he could say, with a clear conscience, that he considered himself morally certain of avoiding the entrance of any septic mischief into the wound. Supposing, on the other hand, that a man can say that with a good conscience, then I conceive that he is not only justified, but bound to give his patient the advantages that we see are to be derived from this method of procedure. We know, of course, very well that, by ordinary means of treatment, patients often recover with exceedingly useful limbs. Every now and then, osseous union is obtained; it is a thing which I used to pride myself formerly on striving to get, and I have got such a thing, but it was rather rare, and it was obtained by a very tedious process; and, if ligamentous union occurred, we never had any security that what was a very short ligamentous union when the patient was discharged, might not be a long ligamentous union at a later period. A gentleman consulted me with transverse fracture of the patella a couple of years ago. He happened to come to me just as I was about to start for my autumn holiday. I did not care to operate upon him, and throw the responsibility of the after-treatment upon another, and it happened that the case seemed especially favourably circumstanced for osseous union. There was nothing between the fragments; the two could be brought into apposition with the utmost facility. I applied an apparatus which appeared to have the effect of maintaining perfect immobility of the fragments; and, when I came back from my holiday, I found them as I had left them, with no interval between them, and I hoped there might be osseous union. Eight weeks after the accident, the patient was allowed to get up and walk, and I was told that he was walking exceedingly well. Six weeks after this, I asked him to come and report himself, and I was sorry to find that there was already half an inch of separation of the fragments. He was then about to start for India. What the separation may be now, I do not know. It is true, that there may be a very useful knee-joint, with a very considerable length of fibrous union. Still, when there is a great length of fibrous union, the knee is not equal to the original.

Some of our experience with these cases, where we had the opportunity of inspecting the actual state of things, will serve to explain the uncertainty of the results of ordinary treatment. We have found, for instance, such dense masses of clot so mixed with fibrous tissue as to make it quite impossible that the fragments should be brought into apposition. I found in one case, also, such a tilting up of one of the fragments that it would have been perfectly impossible to get the osseous surfaces in contact by any other means than direct operative procedure. Considering, therefore, the great inconvenience which results in many cases when the treatment is conducted on ordinary principles, I believe that if we can really say that we are morally certain that we do not subject the patient to risk, we are in duty bound to give him the benefit of this method. It has been said that it is not justifiable in recent cases, though it is justifiable in ununited cases where there is an useless limb. I must confess that if I believed I was subjecting a patient to serious risk to life, I should not feel justified in operating on the ununited case, and the ununited case is in every respect worse as a subject of operation than the recent. The ununited case has the fragments probably dwindled by absorption, and these fragments, already dwindled, have to be pared. There is a separation, it may be a very considerable separation, and this has to be overcome, it may be by dividing the quadriceps extensor, an operation of difficulty; and in proportion to the length and difficulty of the operation is the chance that the surgeon may forget some point of importance with regard to the antiseptic element. Then, again, when you come to divide the quadriceps extensor, you divide a very vascular structure, and you may have hæmorrhage; and, further, when the fragments are brought into apposition they very likely are at considerable tension, and the tension may be apt to cause, through the nervous system, an inflammatory disturbance, and this tends to weaken the parts, and to diminish the power of resistance by which the natural tissues are able to combat the entrance of septic agencies, even though they be in contact with the part. With the recent case, on the other hand, everything is favourable. We have a wound involving no bleeding; and there is no need to pare the fragments. All you have to do is to sponge away the clots, and the surfaces are ready for coaptation. The drilling is a matter of the utmost simplicity. It is an operation of no difficulty, it does not take long; it does not cause anxiety to the surgeon; there is no shock to the system, and no tension. In every respect, the circumstances are favourable as regards the operative procedure. And then, when we come to consider the chances of successful antiseptic management, if there is in the whole body a situation which is well adapted for antiseptic treatment it is this; for of all the conditions requisite according to our present methods of procedure, that which is most important is that the skin on all sides round about the wound should be able to be amply overlapped by the antiseptic dressings. Here we have the wound in the middle of a long limb; from the groin to the foot we may have our antiseptic envelope. Then again we have this envelope surrounded with a secure bandage, and the bandaged dressing encased in a splint, and even if you come to have the patient delirious, as one of my patients was, or supposing a patient to be very curious, as some patients will be, it would puzzle him to get the wound exposed under these circumstances. Now there are wounds so circumstanced that you cannot well guard against this risk. I had a gentleman lately under my care with a psoas abscess; he was very intelligent, and seemed duly impressed with the importance of the antiseptic management; and yet his brother, who was a medical man, coming in one day, saw him drawing the dressing aside, and peeping at the wound. Now a man cannot peep at a wound in connection with a fracture of the patella; it is so circumstanced mechanically that he cannot do it; and I believe that if we use the means that we have now at our disposal, we may say, with a safe conscience, if we use them aright, that we do not subject the patient to risk, not to anything like so great a risk as patients used to be subjected to not many years ago when they had fatty tumours removed in general hospitals in London. We must all of us remember cases in which, after such operations, erysipelas or diffuse suppuration came on, or some other "unhealthy action," which, of course, was nobody's fault, but the patient died.

I have referred to a case of ununited fracture of the olecranon where eighteen surgeons had been previously consulted. I trust no one here will suppose that I mentioned this circumstance for the purpose of glorifying myself. I mentioned it in order to emphasise what I believe to be the truth, that by antiseptic means we can do, and are bound to do, operations of the greatest importance for our patients' advantage, which, without strict antiseptic means, the best surgeon would not be justified in recommending. How wise those eighteen gentlemen were in counselling against operative interference, provided they were not prepared to operate strictly antiseptically, I think we must be all agreed. As regards the operative procedure in that case, it was of the most simple character; any first year's student could have done the operation exactly as well as myself; and, therefore, I trust I shall not be misunderstood by its being supposed that I came here to extol my own skill. That which justified me in operating in that case was simply the knowledge that strict antiseptic treatment would convert serious risk into complete safety.

I should have liked, if time had permitted, to have said a few words as to what seem to be the essential points as regards antiseptic treatment. If I say any words at all now, they will be exceedingly few. I should just like to make this remark, however, that now-a-days antiseptic treatment is not a very complicated business, either in theory or in practice. First, as to theory, we do not require any scientific theory to enable us to believe in antiseptic treatment. You need not believe in the germ-theory at all; if you are not convinced of the truth of the germ-theory of putrefaction and of septic agencies generally, no matter whatsoever with reference to antiseptic practice. All you have to believe is that there are such things as putrefaction and other septic agencies, and that our wounds are liable to these, and that they are very pernicious, and that these things come from without, and that we have the means of preventing them by various chemical agencies. That is all that we require; and I think anybody who knows the present state of surgical practice must admit these to be truisms. It has sometimes been a great grief to me to think that, because gentlemen are not convinced of the truth of the germ-theory out and out, therefore they lay aside antiseptic treatment altogether. And then as to practice; it is not a very difficult thing to wash your hands in a carbolic solution, and have your instruments in this carbolic solution for a quarter of an hour before you operate. It is not a very difficult thing to wrap round the limb a suitable envelope of antiseptic material. What I believe to be one of the most important things of all is, strictly to maintain this rule inviolate, which I insist upon with my dressers, and which I confess I have insisted upon more of

late years than I used, and that is, always when we change a dressing, invariably first to cover the wound with something pure; not to wash the surrounding parts with antiseptic solution, and then, after this has been done, put a dressing on the wound; but before we begin to defile the lotion at all, put on the wound what is pure, and, last thing of all, wash the surrounding parts, which, though they look the same to our eyes, are different *toto cœlo*. The edges of the dressing are septic; the wound, if it is as it ought to be, is aseptic. I have known such a thing, for instance, as for a gentleman, in dressing a stump after amputation of the thigh, to wash the perinæum with a rag dipped in the carbolic lotion one in forty; and then, having so washed the perinæum, immediately to squeeze the rag over the wound. Gentlemen, that makes you laugh; but I assure you these are the kind of things that are constantly going on, and disasters happen in consequence; and gentlemen with whom things go wrong invariably say that with them everything has been perfectly done—a thing which, for my part, I am always loth to say. I am not likely to have many more years of active surgical work; and I have felt that when you, sir, gave me this opportunity, it was my duty to speak what I believe to be the truth; for I feel it to be a grievous thing that patients should be hurried out of their lives or deprived of usefulness of limbs, simply for want of sufficient earnestness with regard to the endeavour to obtain complete exclusion of septic agencies from wounds, according to our present lights and our present knowledge. Gentlemen, I thank you most heartily for your cheers; for there was a time when such remarks might have met with a different reception.

A NEW METHOD OF PERFORMING RESECTION OF THE KNEE-JOINT.

By W. MACFIE CAMPBELL, M.D.,
Surgeon to the Liverpool Northern Hospital.

With regard to Mr. R. Davy's clinical lecture on this subject, in th Journal of October 20th, it seems to me that the claims to priority in special modes of operation are often made without due consideration.

On November 20th, 1882, I excised the knee-joint of a woman, aged 35, for acute ulceration of the cartilages. The femur was sawn obliquely before and behind, removing the cartilage completely, leaving a wedge-shaped extremity. A corresponding form was cut in the head of the tibia to the depth of about an inch. The advantage obtained was complete antero-posterior immobility. She was discharged cured on February 5th, 1883, sixty-seven days after operation.

This case was shown at a spring meeting of the Liverpool Medical Institution, and the method was familiar to the surgeons present, as appeared from the subsequent debate. To whom is due the original idea, I know not; certainly not to myself, as I had read it shortly before the operation, but where I cannot remember, though I think in some American journal.

I may add that this excision is only possible in cartilaginous disease, or in such a case as Mr. Davy has described, as sufficient healthy bone must be obtainable, and I, for one, would object to remove as much of the femur as he figures.

A central site has been purchased in Cambridge by Mr. Reynolds Rowe, upon which he intends to build and endow a large and free open church dedicated to St. John of Jerusalem. The scheme includes an infirmary for the use of members of the University; a training-school and home for nurses ready for engagement in private houses, and an ambulance centre for instruction.

Presentation.—Mr. Edward Walter Witten, M.R.C.S.Eng., upon resigning as Superintendent of the Medical Mission Dispensary, Brighton, has been presented with a gold pencil-case, and a text-book with the names of his co-workers and patients written in, and inscribed, "Presented to Mr. E. W. Witten, as a small token of gratitude and esteem from his co-workers and the people for whom he has laboured. October 18th, 1883."

Donation.—Since the re-opening of Eaton Hall, the Duke of Westminster has charged all visitors 1s. for the privilege of inspecting the house and gardens. His Grace has recently sent the whole of the proceeds from 11,200 visitors, amounting to the handsome sum of £560, as a donation to the funds of the Chester Infirmary.

AN ADDRESS
ON COLLECTIVE INVESTIGATION OF DISEASE.

Delivered at a Meeting of the Lancashire and Cheshire Branch.

By WILLIAM ROBERTS, M.D., F.R.C.P., F.R.S.,
Professor of Clinical Medicine in Owens College, Manchester; Physician to the Manchester Royal Infirmary and Lunatic Hospital.

Gentlemen,—Your presence here in such considerable numbers is a sign of the interest which you take in the movement. It is also a sign, I am bound to say, of admiration for our distinguished visitor, Mr. Jonathan Hutchinson.

We are in some sort under a special obligation in this district to take exceptional interest in this movement, because the initial idea sprang up in our midst. To our friend and neighbour Dr. Arthur Ransome is due the first inception of the plan of collective investigation. In 1864 he read a paper at the Cambridge meeting of the British Medical Association "On the Need of Combined Medical Observation," and he there suggested that the machinery of the Association should be utilised for that purpose. Two years ago, the matter was taken up afresh and independently by Dr. Mahomed. Both gentlemen are to be congratulated on the present flourishing prospects of the movement. It is not necessary for me to go over again the arguments in favour of this mode of investigation—this work has been exhaustively done by Professor Humphry, Sir William Gull, Sir James Paget, and others, whose addresses have been published in the British Medical Journal. Indeed the time is rather gone by for argument; the plan is actually on trial and in operation, and the first fruits are already garnered.

I have before me the first volume of a series of reports intended to be issued by the General Committee, and I may be permitted to compliment the editors, Professor Humphry and Dr. Mahomed, on this new birth of a wholly new kind of medical literature. I can only regret that this little volume is not in the hands of every member of the Association. The object in view is only half accomplished unless these reports as they come out pass into the hands of every member, or at least every contributor, by some automatic process without the trouble of separate ordering and paying. I hope the Committee will be able to see their way to do this. I may say that I was one of those whose confidence in this mode of investigation was not strong, but after a careful examination of the first number of the *Collective Investigation Record* my opinion has been greatly modified. No one can read it attentively without acquiring a feeling almost amounting to a conviction that the movement is one of real importance, and that it will result in a large addition to our knowledge that could not have been got in any other way. I should like to refer for a moment to the admirable report on the communicability of phthisis drawn up by Dr. Burney Yeo. I think no candid person can read this report, and the detailed evidence on which it is based, without coming to this practically important conclusion, that no healthy person should be permitted to occupy the same bed with a sufferer from pulmonary consumption, and that no person with a hereditary predisposition to tuberculous disease should be allowed to have continued and intimate personal contact with a phthisical patient. And I cannot help adding that a grave responsibility would in my opinion be incurred by a medical man knowing this evidence, no matter what his theoretical opinions may be, who would permit such cohabitation and close personal contact.

One of the most promising fields of labour for combined observation is the self-study of disease by medical men. In regard to serious organic fatally tending disorders, this would, indeed, be a task too tragic for contemplation, but in regard to a number of minor ailments this method is admirably adapted. Take, for example, the dyspepsia of healthy persons, or primary dyspepsia. Judging by the number of books written on the subject one would imagine that we knew a great deal about dyspepsia.

I am satisfied that, of exact knowledge, we have very little. The dyspepsia of healthy persons is a very common and peculiarly human disorder; it causes an immense amount of misery, but it kills no one, and the pathologist ignores it. The several types of it have never been scientifically defined, and its case-history remains un-

written. Its signs and symptoms are of a nature to baffle any kind of investigation except self-study. You want to know the precise kinds of dolorous sensations experienced, their exact time-relations to the phases of digestion, the degree of reaction and chemical characteristics of the dejections from the stomach at different periods after the meal, the nature of the gaseous eructations, and the properties of the saliva at various times during the painful gastric struggle. How can you get at all this unless medical dyspeptics set to work on their own cases? If you wish to know what excellent work of this kind may be done by practitioners in the country, I would refer you to a paper on "The Chemistry of Acid Dyspepsia," by Dr. McNaught, of Newchurch, read before the Manchester Medical Society last December, and of which a short abstract is published in the BRITISH MEDICAL JOURNAL for December 30th, 1882. There are, I believe, 10,000 members in the British Medical Association, and I venture to say that at least one in ten is an habitual dyspeptic of one type or another. If 500, or even 100 of these, following the example set by Dr. McNaught, and, emulating his zeal and skill, were to furnish the General Committee with the particulars of their own cases, we should know more about this preventable, and I believe wholly unnecessary, torment in a twelvemonth than can be gathered from all the books. Moreover, it stands to reason that an exact knowledge of dyspepsia as it affects healthy persons is an essential pre-requisite for the successful study of those disorders of digestion which are associated with organic changes.

Another question on which collective investigation may be able to throw a valuable light is the use of alcohol. The medical profession has hitherto reposed, like the rest of the civilised world, in the belief that the moderate use of alcohol was beneficial, or at least harmless. But this opinion is now challenged on what is put forth as scientific grounds. Certain insurance-offices have promulgated statistics which are alleged to show that the value of life is greater among total abstainers than among the temperate users of alcohol. If this be so, it is important that we should have the facts established on unimpeachable evidence. The statistics in question appear to me, however, to be insufficient to warrant this interference. Everyone who has had a large experience in examining applicants for life-insurance knows that, in spite of every care, persons are smuggled in as temperate who are taking dangerous quantities of alcohol. Moreover, considerable numbers of those who are strictly temperate when admitted lapse afterwards, in the course of years, into habits of real, though not perhaps of notorious intemperance. So that the comparison instituted by these statistics is really not between abstainers and temperate drinkers, but between abstainers on the one hand and a mixture of the temperate and intemperate on the other. The question as to the limits up to which alcohol may be beneficially—or at least, safely—used, is, for us in this country, with our tendencies to excess, one of transcendant interest. We are greatly in need of more precise information on it, and I know not how we are to obtain this information except by a system of collective observation. Such information would not only be valuable to us in advising our patients as to the use of alcohol, but would also be most useful to the social reformer and legislator, who look to medical science for light and guidance to direct them as to whether they should devote their attention to projects designed to regulate the use and suppress the abuse of alcohol, or to projects which aim at total prohibition. In an inquiry of this sort, the first step is to establish some standard scale of temperance. The words "temperate" and "moderate" are too vague and elastic to form a basis of scientific comparison; and I should like to suggest to the central Committee that they should undertake for us the construction of such a scale. Total abstinence would, of course, form the zero of the scale. But as total abstainers, at least life-long abstainers, are only a small group, there might be joined with them the habitual abstainers—that is to say, persons who habitually are total abstainers, but who occasionally take small quantities of alcohol. There would, we might rest assured, be no appreciable difference between these two groups in regard to their vital statistics, and together they form a very numerous class of the population. For our first grade or degree of temperance, we might choose a limit indicated by the experiments of Parkes, Anstie, and Count Wollowicz. These observers came to the conclusion that a healthy man might consume from an ounce to an ounce and a half of absolute alcohol daily, without appreciable injury. Suppose we were to fix our first degree of temperance at a limit of one ounce of absolute alcohol daily; our second degree of temperance at a limit of two ounces of alcohol daily; our third degree at four ounces daily, and so forth. I only mention these numbers by way of illustration, and not for ultimate adoption. It would, of course, be necessary to translate these degrees into actual measurements of the beverages in common use. This would be an easy task if we knew the exact alcoholic strength of our spirits, wines, and malt liquors. It is very desirable, for many reasons, to possess this knowledge; and the Excise would render a valuable service to medical men and to the public, and greatly promote the cause of temperance, if they insisted that the alcoholic strength should be plainly indicated on every bottle of spirits and wine, and on every cask and bottle of malt liquor. The requisite information is, I believe, in their hands already, and it would be no great matter to make it public in this useful way. Now suppose we had our standard scale of temperance established, it would then be possible to draw up the medical history of individuals and families, belonging to the several grades on the scale, with some approach to accuracy. I am quite aware that there exists a very considerable range of varying tolerance of alcohol among individuals and families; but there is also a mean or average tolerance, and if the numbers were sufficiently large—say 3,000 or 4,000—we should get at this mean. Again, I am aware that the habit of most people, in regard to alcohol, is too irregular to furnish the materials of reliable statistics; but among the millions of Britain there are scores of thousands whose habits, in regard to alcohol, are of clockwork regularity, and it is among these that the materials must be sought for sound statistical information. Practitioners in the smaller towns and country parts have exceptional facilities for obtaining a trustworthy knowledge of the alcoholic habits of individuals and families; and they could furnish us with a vast mass of invaluable materials for an inquiry of the kind here contemplated. If we possessed statistics of this nature, we should be able to arrive at conclusions of incalculable value. We should know, in the first place, the influence of abstinence and of the usage of varying quantities of alcohol on longevity, both in regard to individuals and their descendants. But longevity is not everything—longevity alone is, indeed, but a poor measure of that which is best in human life. We should like to know what influence, if any, the use of alcohol has on the higher attributes of our nature. It is difficult to believe that the habitual use, even in a most temperate degree, of so subtle and so potent an agent as alcohol, is without influence on the moral and intellectual development of the individual and his descendants, and therefore of the race and nation. Nothing within my experience is more astonishing than the different impressions produced by an examination of the alcohol-question as it regards the individual on the one hand and the race or the nation on the other. Nowhere among civilised communities, I suppose, is there seen so much physical, moral, and intellectual ruin of individuals from alcohol as in this country, and yet the national death-rate is one of the best in the world, and the moral and intellectual vigour of the race is, as we fondly believe, unsurpassed. Again, if we take a wider view, and survey the nations which abstain from the use of alcohol—the vast Mussulman populations and the other millions of Asia—we recognise that they are, upon the whole, far inferior to the alcohol-bred races of the West. The Japanese are, so far as I know, the only Asiatic people who have for centuries consumed alcohol largely; and it is curious to note that they display a mental receptivity and a love of progress which are in marked contrast with the stagnation around them, insomuch that they have been called the Europeans of the East. These strange contrasts—and they might be multiplied—are not, of course, wholly due to alcohol—far from that; but it might be hazardous to conclude that alcohol was not a contributory factor. And it would not be altogether a satisfactory consummation to find, after banishing alcohol from our midst, that the nation had become somewhat poorer in manliness and intellectual worth. In any case, our duty as scientific inquirers is clear and simple; it is, if we can, to find out the truth, and, having found it, to make it known.

I have now great pleasure in calling upon Mr. Jonathan Hutchinson to address you.

CHOLERA IN PRUSSIA.—From an official return lately published, it appears that there have been nine epidemic outbreaks of cholera in the Prussian states. In 1831-32 the number of deaths was 41,738 (3.21 per 1,000 of the population); in 1837, 13,325 (0.96 per 1,000); in 1848-51, 86,498 (5.34 per 1,000); in 1852-54, 51,582 (3.06 per 1,000); in 1855-56, 30,823 (1.80 per 1,000); in 1857-58, 4,080 (0.24 per 1,000); in 1859-60, 2,166 (0.12 per 1,000); in 1866-67, 120,714 (6,21 per 1,000); in 1873, 28,656 (1.14 per 1,000). The total number of deaths has been 379,582. During the same period there were 241,187 deaths from epidemic small-pox.

AN ADDRESS
ON COLLECTIVE INVESTIGATION OF DISEASE.

Delivered at a Meeting of the Lancashire and Cheshire Branch.

By JONATHAN HUTCHINSON, F.R.S., F.R.C.S.,
Professor of Pathology and Surgery to the Royal College of Surgeons.

Mr. President and Gentlemen,—We are met to help on, if we can, a very excellent scheme for the more systematic and general observation of disease and its treatment. We do not, of course, suggest that there is anything novel in the idea of combined effort amongst medical men for this object. All our professional societies exist with this design, and most of them appoint, every now and then, committees with the special intention of collecting information relative to some given topic. Government commissions have not unfrequently collected evidence on a large scale as to such maladies as plague, typhus, syphilis, small-pox, leprosy, and other diseases, which have assumed a national importance. I believe I might say that some idea of a collective scheme of investigation was present to the minds of the founders of our Association. At any rate, in its early days, and whilst still retaining the honourable name of "Provincial," it published some elaborate reports which were the result of combined effort on much the same plan as our own. I well recollect one, thirty or forty years ago, on arsenic, which, I believe, did much to establish the repute which that remedy afterwards obtained in England, to the great advantage of thousands of its population. You have also the pleasure of knowing that Manchester, some years ago, under the initiative of Dr. Ransome, did some very useful work in this manner. I may even claim that, in a small way, I have myself had something to do with collective investigations. For many years I edited, in the *Medical Times and Gazette*, "Reports of Hospital Practice," and "Statistics of Operations," the materials for which were obtained much in the way that we now contemplate. I am free to confess, however, that the collective labour often fell upon myself; and I may thus claim some practical familiarity with the drawbacks as well as the advantages of the scheme which we now propose. Permit me to say then, that I cannot for a moment doubt that our distinguished associate, Professor Humphry, when he persuaded our Association to organise the large scheme which we are here this afternoon to promote, has done that which will prove of great and lasting advantage to medical and surgical science. It is a scheme which deserves from us all the best help that we can give it.

I do not think that it would serve any useful purpose for me to say anything about that which our investigation committees have already done. Most of you have seen the documents which have been issued, and can judge for yourselves. Many of you have already made contributions to the reports. If you have thought with me on the matter, you will have concluded that the preparation of these schedules must have been a most useful task to those who undertook it; that no one could even read them without obtaining valuable instruction; and those who attempt to use them as guides in case-collection, must secure, in so doing, a good knowledge of the most recent facts and opinions as to the several maladies which they concern. Thus, quite apart from their final object, we find much good done. It may be that the final outcome may prove somewhat less than is expected; that, however, is really not of much moment, for collateral objects of scarcely secondary importance will most certainly have been secured. I am glad, however, to learn that thus far our committees have experienced no disappointment, and that the answers received have exceeded in value their utmost expectations.

If I were to criticise at all what has already been done, I should incline to suggest that too much of detail has been, in some cases, attempted. If the collection of facts in this way should prove to some degree impracticable, it will probably either be because many are deterred, by the largeness of the task proposed, from making any attempt to fill up the schedules, or that, when filled up, they may prove unwieldly in the hands of those who undertake the labour of collating them. There existed once in London a Society for the Improvement of Medical Observation, which published a little book entitled *What to Observe at the Bedside*. Both society and book came, I believe, in some measure to grief, by an error in this direction, over-elaboration. When we are told in detail how to observe everything, it but too often ends in our observing next to nothing. In order, however, that I may avoid the ungracious task of criticising our work, and the unnecessary one of praising it, I will, with your permission, devote the rest of my half-hour to some suggestions of my own.

It seems to me very desirable that we should avail ourselves of this organisation in order to obtain large records of rare diseases. The study of what are called rare diseases is by no means a matter of mere curiosity. Apart from the fact that the subject of a rare disease has an equally strong desire to be cured as the sufferer from a common one, we must remember that in rare maladies we often find the most instructive lessons in the laws of pathogenesis. Rare maladies seldom or never really stand alone; they are neighbours or cousins to others, and differ often from them only in being very strongly pronounced. We can often far better study the laws of a whole group from a rare and exaggerated example, than we can from dozens of the more common. Certainly we cannot, either as pathologists or as practical men, afford to leave one single rare malady uninvestigated. The only way to investigate them without danger of error is to collect a large series of each one for contrast and comparison. Now this is often impossible to the individual, but will be well in reach of such an organisation as that now proprosed. Let me give a few examples of the kind of cases which I would propose to collect.

The distinguished President of the Clinical Society, in his opening address a few weeks ago, mentioned that he had frequently encountered a form of illness, usually ending fatally, which he could not find described in books. It consisted in the development of very serious symptoms, pus in the urine being always one of them, in consequence of the first employment of catheters for residual passive retention caused by enlarged prostate. The patient is, to begin with, in good health; there is no complete obstructive retention; the use of the catheter is ordered simply as a precaution; and yet, under these apparently simple conditions, an acute and rapidly fatal illness ensues. Sir Andrew Clark asked the experience of the Clinical Society on the subject, stating that he had seen several fatal cases of this kind every year for some time past. Now, here is an excellent subject for collective investigation. It is definite, and not too large. It is one upon which almost all have facts, and could send them without much trouble. For my own part, I have no doubt that the form of illness described is simply acute cystitis, developed in consequence of the decomposition of the urine in atony of the bladder. I have not myself often seen such end fatally; but, in common with all surgeons, I am quite familiar with them in minor degrees. However long continued the habitual retention of a certain residual quantity of urine, there is, I think, seldom any tendency to decomposition until the catheter is used. As soon as you use a catheter, the patient usually becomes dependent upon it; he often cannot afterwards pass the least quantity. Often the bladder is so weak that you are obliged to promote the flow of urine by gentle pressure, even when the instrument is in. Within a few days of the beginning of catheterism, the urine, which was clear and bright before, begins to be dull and opaque, and to abound in bacteria; and after this it but too often becomes purulent. I have sometimes suspected that the extreme atony permits the introduction of air by the catheter, and thus favours putrefactive changes in the urine. There is no doubt that it makes it almost impossible ever really to empty the viscus. It would be desirable to enlarge Sir Andrew Clark's interrogation, so as to make it include the results of treatment of prostatic retention generally. Precisely the same events often follow the use of catheters for prostatic retention attended by complete stoppage. Although the introduction of instruments may be as easy as possible, and although the softest and least irritating of instruments may be used, with the utmost gentleness, yet the result is decomposition of urine, cystitis, and, but too often, a painful death.

Notwithstanding the improvement of instruments of recent days, the results of the treatment of prostatic retention still remain exceedingly unsatisfactory. It is most desirable that they should be, in the first place, widely investigated and candidly recorded, and, in the next, that we should try whether we cannot, by their aid, construct a better system of treatment. It would take me too far, were I to venture to suggest some possible modifications of our present methods; one hint, however, allow me to give, since it may perhaps serve as a spur to prick the sides of our intent. The victims of prostatic retention are very often taken from the most intelligent part of the medical profession; men who, by judicious care in their

mode of life, contrive to live a little beyond the usual average; just such men as I see before me. It is most desirable that we should improve the treatment of prostatic retention.

I have gladly availed myself of a suggestion by a physician of a surgical subject which needs elucidation. Permit me to return the compliment, and mention a medical one. I do not think that enough is known about catarrhal laryngitis. It appears to me to be a very definite affection, in minor forms tolerably common, but in its severe ones rare. It is, in a certain way, quite distinct from croup, being entirely non-membranous. It seems to me to be more common in adults, or in those past middle life, than in others. There is a tradition that Washington died of it, and I believe that a former colleague of my own, on the staff of your JOURNAL, did so. If Dr. —'s illness were really such, he is the youngest victim to it within my knowledge. Acute œdema of the larynx is scarcely a suitable name for it, since it may be caused by a variety of causes, whereas the malady to which I desire to call attention is always due to exposure to cold, and always obeys the law of true catarrhal affections in passing off completely and rapidly if the patient survive. In almost all the fatal cases which I chance to remember the cold was caught by going to church, and all were in men past middle life. In one, a gentleman of 55, who but one year before had insured his life for a very large sum, being apparently in excellent health, died on a Wednesday, having caught his cold on the previous Sunday evening. In this case the death was in spite of laryngotomy, and it is possible there was pneumonia also. In the last which I have seen, and the one which has made the greatest impression on my mind, the patient, a gentleman of 50 years, attended an evening service in cold wet weather, complained of his throat immediately afterwards, had paroxysms of extreme difficulty of breathing, and died in one of them, within forty hours of his having joined in the duties of the choir. So distinctly paroxysmal had been his dyspnœa, and so complete the remissions, that he died in his clothes, not having gone to bed. This feature of complete temporary relief had led his medical attendant into the mistake of telegraphing for me to do tracheotomy, instead of at once doing it himself. The patient in the end died, before either of us could get there. We were allowed to examine the body within an hour of death, and found the larynx and adjacent parts in a state of extreme congestion, with much œdema, but without a trace of membrane. I by no means insinuate that catarrhal laryngitis has been wholly neglected in systematic works, but I feel sure, from much conversation with those of large experience, that collective investigation would be likely to bring out its features much more definitely, and to add an important chapter to the clinical history of catarrhal ailments in general.

At the first meeting of the present session of the Pathological Society, a week ago, the most interesting communication was one from Mr. Sutton, who, by his zealous work at the Zoological Gardens, has shown that monkeys are very liable to a peculiar form of general softening of the bones, allied to rickets, possibly almost identical with it. This observation is, I believe, almost new, and it is exceedingly important. It was well known before that some of the lower animals did, in early life, under certain conditions of diet, become rickety, though, even on this point, the evidence was scanty, and the results of experiment by no means uniform. In Mr. Sutton's patients, however, the age of the monkeys was not usually known, and none of them were very young. In this respect, and possibly in others, the disease appears to be as much like osteomalacia or mollities ossium as the true rickets of early life. Here, however, the question arises, is osteomalacia, as Trousseau and others have called it, a form of rickets, allied to it naturally; by which term I mean acknowledging, more or less remotely, the same causes? It is so rare a disease in English practice, that there appears little or no hope of giving a satisfactory answer to this question within the present century, unless collective investigation can give us help. I have not myself seen a good typical case of mollities ossium for twenty years. The last with which I was made acquainted was one in which Dr. Ormerod, of Brighton, had preserved the skeleton, and of which he kindly gave me a photograph, together with a detailed history, read, I think, at one of our Association meetings. In this case, all the man's children were rickety in childhood, and there appeared some justification for the name "rickets of the adult."

You will probably remember that Trousseau says that he cured a case of osteomalacia by giving cod-liver oil, just as he would have cured rickets. Now it cannot be doubted that there are at present under the observation of our members, scattered here and there amidst the crowded population of our islands, a few cases of osteomalacia. Let us make it known that we want the records of these, more especially in reference to the family history; and I doubt not that we should, before very long, obtain a respectable series of facts.

About two years ago, I saw, at one time, three examples of a malady which was wholly new to me. I did not at the time know that it had been described, but I learned subsequently that examples of it had been accurately recorded by Hebra under the name of xeroderma. Since then I have seen but one other example of the malady, and to see that I had to go to Paris to the wards of the Hôtel St. Louis. My surgical friends there had seen but one other example; Hebra has recorded but three; you may judge, then, that the xeroderma of Hebra is a rare malady. It belongs, so far as I can appreciate it at present, to the lupus group, but it differs very remarkably from other forms of lupus. In the first place, it begins in early childhood, and is clearly a family disorder, in that sense of the words which implies that it usually affects several out of the same family of brothers and sisters. In the case referred to there were three, two sisters and a brother. It consists chiefly in a diffuse inflammation of the skin of the exposed parts (face and upper extremities), resulting in induration, ulceration, and scars, and very peculiar development of nævoid-like tufts of vessels. It is said to sometimes end in cancer, and histologists have found elements like those of the rodent ulcer form of epithelioma. Such are the features of this most curious malady, and such the facts of its clinical history. It is a well-defined disease; each case is like its brother, and, once recognised, there is no difficulty as to its diagnosis. Probably, of Hebra's xeroderma it is true, as of osteomalacia, that there are somewhere, within cognisance of those who read our JOURNAL, a few other examples. It is most desirable that they should be unearthed, and submitted to the inspection of trained observers, and placed on record in full detail. The malady is clearly a connecting link, and one which possesses most remarkable and instructive affinities.

What I would suggest in reference to collective investigation for such rare maladies as this is, that our committee should prepare concise descriptions of each, just as an entomologist would of a newly observed moth, printing, if needful, its distinguishing features in italics. A little book might be prepared, containing these descriptions printed on one page, and the opposite left blank for notes. Probably, by a little care and thought, a list of a few hundred rarities might be compiled. I mean rarities in such an extent, that it is very desirable every single case should be put on record. Let me mention just a few.

1. Rhinoscleroma, of which as yet no good English case is on record.
2. Hebra's prurigo, a form of prurigo beginning in infancy and lasting, in spite of treatment, through the whole life; of which also, I am glad to say, no English case has yet been recorded.
3. Morphœa.
4. Alibert's keloid, keloid of scars.
5. Addison's disease.
6. Hodgkin's disease.
7. Myxœdema of Gale and Ord.
8. Congenital absence of special bones (such as radius and tibia, with associated portions of carpus or tarsus).
9. Cases of spina bifida, illustrating either results of treatment or survival without it.
10. Cases of sacral tumour.
11. Cases of "the Recurring Iritis in Young Persons."
12. Aneurysms in the orbit.
13. The osteitis deformans of Paget.
14. Disease of joints in ataxy ("Charcot's joint-disease").
15. Non-malignant growths in the tongue.
16. Hemiglossitis.

I mention these simply as examples. Respecting each one, it is clearly to be desired that some explanations should be given as to what is meant by the term used. If this were carefully and concisely done, the recognition of each would not, I think, be difficult, even to the inexperienced.

One good reason for undertaking the collective investigation of rare diseases (or the collection of rare diseases for investigation) is, that it is impossible that it should be done in any other way. I may confess myself no believer in new diseases. What we consider new are simply what have in the past been overlooked. I do not in the least doubt that there have been in the past just as many instances of osteitis deformans, myxœdema, Charcot's joint-disease, etc., as there are now. Nor do I believe much in the restriction of rare diseases to special localities. If Hebra could find, in the practice of the Vienna Hospital, a dozen examples of rhinoscleroma, it

was simply that he knew what he was looking for, and had before him an immense field of observation. If we can reproduce these two conditions, our search will be attended by a like success. It can be done only by collective enquiry. We cannot, in the pursuit of examples of rare morbid phenomena, do as a geologist would who wished to procure a new fossil. Our zeal may be just as great as his, and quite as well justified, but we cannot go from infirmary to hospital, and from dispensary to workhouse, as he would from cliff to cliff, or quarry to quarry, until he finds his treasure. Success to us is possible only by the employment of many searchers well instructed for their work.

Great good would also, I think, result from the collective investigation of the more exceptional forms of idiosyncrasy. There are those who cannot take the smallest dose of iodide of potassium, and others upon whom mercury, quinine, arsenic, etc., exercise effects totally disproportionate to the dose. Better knowledge respecting these personal peculiarities, and in reference to almost all our more powerful drugs, is very much to be desired. How far are such idiosyncrasies hereditary? With what other personal peculiarities are they usually correlated? And what inferences may we make from discovery of any one of them? Such are some of the problems which are of great importance, and which can be solved in no other way than by the collection and sifting of a large amount of evidence. Similar work ought also to be undertaken in reference to idiosyncrasies as to articles of food. Instances of egg-poisoning, tea-poisoning, honey-poisoning, and the like, are, I am sure, much more frequent than are generally supposed. Many examples of liability to disease, otherwise unexplained, would be cleared up by correct knowledge on this head. In some cases, especially in reference to such articles as honey, milk, and fish, it is probable that not only must we examine as to special susceptibility in the individual, but as to unwonted peculiarities in the article itself. Honey, for instance, is not a secretion of the bee, but is collected from various flowers, and varies in its qualities according to the flowers used. Wholesale and fatal poisoning is related to have occurred in the United States from eating honey collected by bees from a species of kalmia. If such severe results may be produced in rare instances, it is but fair to suspect that less urgent ones may not infrequently escape notice. It is the same with milk, which varies with the food of the cow, and to some extent the same remark extends to the flesh of domestic animals and of game.

A brief manual, stating the facts already known in these matters, and inviting new observations, would, I think, be very likely to meet with a fruitful response. I had intended to urge the importance of self-observation in these matters on the part of medical men, but our President has spoken on this subject so much more ably than I could that, will say no more than that I most fully agree in his appreciation of the importance of this kind of work.

The field of therapeutics is of such vast extent, that I hesitate to suggest its general cultivation in connection with our present objects. Who can doubt, however, that, in respect to the action of drugs and methods of cure, we are in great need of better and more definite information? In some directions, there is even some cause for anxiety lest we may be tripped up by eclectics, homœopaths, and other charlatans. For the present, however, should anything be undertaken in this direction, I would earnestly advise to avoid elaboration. It might be very well every now and then to print, under the auspices of a drug-committee, a short synopsis of information respecting the best accredited new remedies, with questions suggesting further inquiries as to their use. I am tempted to say that something of this kind is the more necessary, because it is now about eighteen years since our energetic Medical Council has issued a *Pharmacopœia*, and the profession is left to itself for guidance as to all novelties introduced since then.

I have already alluded to the circumstance that our Association once, long ago, prepared a valuable report on the therapeutic uses of arsenic. The almost unanimous testimony given in it to the general harmlessness of that drug greatly increased its employment. Possibly, a few simple queries, which would take but little time in answering, might produce replies which would do good service to the reputation of other valuable drugs. Respecting mercury, for instance, we might ask such questions as the following. Have you ever known a long course of small doses do any permanent harm to the patient's health? Has it often come under your notice that such courses have cured chronic dyspepsia, removed the liability to habitual constipation and sick-headaches, and left the patient in better health than he ever had before? Have you seen cases in which mercury, rapidly pushed to its full physiological effect, seemed to be beneficial in acute inflammations, such as pleurisy, peritonitis, synovitis, meningitis, or pneumonia? Have you observed any facts in support of the popular prejudice against mercury in scrofulous subjects? I mention these simply by the way of examples. It would, of course, be easy to multiply them in reference to mercury, and to many others of our most important drugs.

If the scheme of collective investigation now before us contain any germ of comparative failure, I will foretell that it lies in the possibility that materials may accumulate beyond the power of any committee to make use of them. We all know how note-books get filled one after the other, and how much easier it is to write out cases than to read and collate them afterwards. What is difficult with our own manuscripts is ten times so with that of others. I foresee that this may lead to dissatisfaction on the part of contributors, who, thinking that their materials have been lost, may refuse to contribute more. To obviate this, I would suggest a plan which I have repeatedly practised myself, and which, when I edited your JOURNAL, I made an abortive attempt to introduce into general use. It is the publication of detailed abstracts, instead of the cases themselves. A well-condensed synopsis is often almost as instructive as the case at full length; it is more easily read, and it may be made to serve as the clue to the detailed notes in manuscript, should any investigator wish to hunt them up, As regards the majority of what we may call rare cases, full abstracts would be amply sufficient for publication. I have a vision of a time when our Association will possess a large museum of manuscript cases—a sort of archives-chamber—well arranged, classified, and labelled. It would, of course, require curators constantly at work to make abstracts and indices, and to secure that those who wished to consult the collection should be enabled to do it with the least possible trouble. I am sure that such a museum is a want. It would be quite as valuable as the bottled fragments of pathological anatomy which we collect so eagerly, but which, in but too many cases, tell us but very little as to the maladies of which they formed a part. The opportunity of contributing to such a collection, and the certainty that his material would not be lost, or would be shelved only in the sense of being properly pigeon-holed, would be a great encouragement to the note-taker. It is, I think, just the thing that our scheme wants to make its life permanent, and its success large and certain.

I hope I have not unduly wandered from the scheme proposed to me by those who did me the honour of inviting me to address you. It seemed to me the best service that I could render the cause they have so zealously taken up, if I could succeed in pointing out directions in which their scheme was likely to be useful. This I have found a very easy task. In conclusion, let me say that I sincerely hope that those who manage our finances will be very liberal as regards expenses of printing, etc. I believe they have been so. It would be false economy indeed to be otherwise, for surely never did our Association engage in a more important work than that which it is now taking up. Year by year we are beginning to perceive more and more to how great an extent the welfare of nations, and the happiness of individuals, is bound up in the word health; and never, I think, since the days of Caxton, was the printing-press better employed than in forwarding the knowledge of the laws of human life, and improving our methods for the prevention and cure of disease.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.—The Senior Scholarship in Science, of the value of £130, tenable for one year, has been awarded to Mr. Major Brown, B.A., of Downing College, Cambridge, and Mr. James George Ernest Colby, B.A., of Wadham College, Oxford—equal; the Junior Scholarship in Science, value £130, tenable for one year, to Mr. Horatio George Adamson and Mr. Frederick Frost Blackman—equal; and the Jeaffreson Exhibition, of the value of £50, to Mr. John Wilkie, B.A., of Trinity College, Cambridge.

MR. JOHN P. HOWARD of Burlington, Vermont, has just given 40,000 dollars to build a new medical department at the University of Vermont. In ten years Mr. Howard has given 400,000 dollars to this institution.

THE Earl of Jersey has been elected President of the Radcliffe Infirmary, Oxford, *vice* the late Duke of Marlborough.

THE GENERAL HOSPITAL, BRISTOL.—The Martyn Memorial Entrance Scholarship of £20 has been awarded to Mr. H. F. Davis.

VACCINATION.—Mr. A. Charlton, of Brabourne, Ashford, has received a grant of £4 16s. from the Local Government Board for successful vaccination in his district of the East Ashford Union.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

NOTE ON THE TREATMENT OF PAINFUL CORNEAL ULCERS BY WARMTH AND ESERINE.

Introduction to a Discussion in the Section of Ophthalmology.

BY CHARLES HIGGENS, F.R.C.S.,
Ophthalmic Surgeon to Guy's Hospital; Lecturer on Ophthalmology in the Medical School.

PAINFUL ulcers of the cornea are of very common occurrence amongst the debilitated and ill-fed people who make up a large proportion of hospital out-patients. Ulcers of the cornea, as is well known, are much more frequently met with among children than in adults; the phlyctenular ulcer being, perhaps, the most common form. It is not to these, however, that I wish to draw attention, but to the very painful serpiginous ulcers, sometimes known as marginal or crescentic, and the sloughing or suppurative ulcers of older persons.

The serpiginous ulcer is generally met with in feeble women rather past the middle of life. It commences as a thin ulcerated band near the margin of the cornea. The ulcer has a steep, cleanly cut, crescentic edge towards the centre of the cornea, and is flattened towards the corneal margin. The crescentic border gradually spreads over the surface of the cornea; but, as it advances, healing takes place behind it. The ulcer is accompanied by marked conjunctival and ciliary injection; and a network of very fine vessels follows it from the circumcorneal zone over the corneal surface. The ulcerated edge is preceded by infiltration and opacity of the cornea. The pain is very severe, and there is much photophobia. The ulceration rarely extends beyond the centre of the cornea, but may commence at more than one spot, and so implicate the greater part of it. It is extremely intractable and rebellious to treatment, but appears more amenable to that recommended in this paper than any other.

Sloughing and suppurative ulceration may arise spontaneously, or may be caused by injury, such as a sharp blow on the cornea from a rebounding twig or thorn, or any small foreign body. The ulcers form on any part of the cornea; we may meet with them as deep sloughy evacuations, or as collections of pus often having more the character of abscesses than ulcers, but which, sooner or later, burst externally or into the anterior chamber, leaving a ragged ulcerated cavity. This form of ulcer is often associated with hypopyon or onyx, and not unfrequently with abscess in the iris.

The treatment by warmth and eserine is very easily carried out. The patient is directed to foment the eye for fifteen or twenty minutes three or four times a day, or oftener. The fomentation should be used as hot as can be borne, and may consist of simple hot water, decoction of poppy-heads, or camomiles. A solution of one or two grains of sulphate of eserine to an ounce of water should be dropped into the eye three or four times a day, after the fomentations have been used. A large pad of cotton-wool, thoroughly warmed before a fire or over a spirit-lamp, should be laid upon the closed eyelids, and secured by a bandage, and replaced by a freshly warmed one as often as may be necessary for the patient's comfort. The patient should be allowed to go about; dark rooms and confinement to the house always make matters worse. He should be well fed; purged, if necessary; and placed on some tonic, none being better than iron in some form or other. Stimulants are rarely needed, and in many cases will do harm.

The treatment by warmth without eserine is most useful in many painful inflammations of the eyes. It was first, I believe, recommended by Mr. Liebreich.

The following cases have been lately under treatment in the hospital.

CASE I.—Amelia A., aged 45, came amongst the out-patients February 27th, 1883. She had "marginal ulcers" in both eyes; the left being the worse. She was ordered the yellow oxide of mercury ointment to be applied to the conjunctiva at bedtime, and to take two ounces of liquor ferri dialysati three times a day. This treatment was continued till March 6th, when she was ordered guttæ esserinæ ter die; to continue the medicine. On March 13th, she was rather worse. The treatment by warmth and eserine was commenced. She was ordered a mercurial purge at night, and senna draught in the morning. On April 3rd, there was much improvement; by April 10th, she was nearly well. She was ordered atropine, as some posterior synechiæ had formed.

CASE II.—Susanna G., aged 18, came to the out-patient department March 9th, 1883. The left eye had been lost some years, from ulceration of the cornea and perforation. In the right, there had been a deep ulcer, leaving opacity, for which iridectomy had been performed. At the time of her visit, there was a deep sloughing ulcer at the seat of the old opacity; there was much pain, and perforation of the cornea appeared imminent. The patient was admitted at once, and placed on the warmth and eserine treatment, and ordered twenty minims of liquor ferri dialysati thrice daily. On March 30th, the ulcer had filled up; there was no pain or intolerance of light. She was made an out-patient; the fomentations and bandaging were discontinued. The eserine and dialysed iron were repeated. On April 10th, a rather large and dense corneal opacity remained. There were no signs of inflammation or ulceration.

CASE III.—Amelia O., aged 29, had been under treatment, off and on, for recurrent ulceration of both corneæ for the last five years. On March 6th, 1883, she again presented herself with ulcers on both corneæ. She was ordered one-fifth of a grain of sulphate of atropia in a drachm of ointment of yellow oxide of mercury; a small portion to be placed inside the lower eyelids at bedtime. She was also ordered fifteen grains of liquor ferri dialysati three times a day. On April 3rd, she was rather worse, and was ordered eserine-drops, hot fomentations, and bandaging with cotton-wool; to continue the dialysed iron. The treatment was continued up till April 17th, when she was much improved.

CASE IV.—Mary A. P., aged 33, came amongst the out-patients April 17th, 1883. The right eye had been inflamed and painful some days; there was a large irregular ulcer near the upper margin of the cornea. She was ordered eserine-drops three times a day, hot fomentations frequently, and to bandage with pad of cotton-wool over eye. On April 24th, the ulcer was nearly healed, and the pain entirely relieved.

CASE V.—Jane W., aged 45, consulted me May 10th, 1883. She had been under treatment by atropine and tonics for three weeks, without benefit. There was a superficial marginal ulcer at the upper and outer border of the left cornea. The eye was very painful. She was ordered hot fomentations, eserine-drops three times a day, a pad of wool, and a bandage, and to take twenty minims of dialysed iron. On May 17th, there was great improvement. By May 20th, the eye had quite recovered.

CASE VI.—Ernest A., aged 14, was first seen March 27th, 1883. He suffered from phlyctenular ulcers of the right cornea. He was treated for three weeks with belladonna-lotion to the eye, and fifteen minims of dialysed iron internally, without benefit. He was then ordered hot fomentations, bandaging with cotton-wool, and eserine-drops; to continue the iron. He rapidly improved, and, at the end of a month, was quite well.

ON THE TREATMENT OF CORNEAL ULCERS.

Introduction to a Discussion in the Section of Ophthalmology.

BY T. PRIDGIN TEALE, M.A., F.R.C.S.,
Surgeon to the General Infirmary, Leeds.

FEW departments of surgery have shown more solid advance of late than that which deals immediately and locally with local disease usually reputed to be constitutional. There are many surgeons now who, in the treatment of suppurating and degenerating lymphatic glands accessible to surgery, would no longer trust to the time-honoured, and often grievously disappointing, cod-liver oil, syrup of iodide of iron, and iodine paint, and such like. Whatever his view of its origin, whether as the outcome of an assumed strumous constitution, or as the sequence of drain-begotten sore-throat, the surgeon would recognise that he had to deal with a local breakdown, itself reacting upon the health of the individual, and producing a general constitutional depravity. He would incise, enucleate, scrape, get rid at once of depraved offending material, and, as a result, the local disease would rapidly heal, and the patient would recover a blooming appearance. For lupus, and so-called lupoid ulceration of the face and neck, he would no longer be content with physic, a mild local application, or even with cautery, but would vigorously scrape off all imperfect tissue, and, perhaps, cure in a few weeks sores that had lasted twice as many years. So

with ulcers of the leg, scraping, scarifying, local compression, come to, the rescue of the out-patient and dispensary-surgeon. Nowhere, perhaps, has this principle, which I may call the "local treatment of constitutional diseases," received more striking illustration than in ophthalmic science. Do we not often cure a syphilitic iritis by atropine alone? Does not a diffuse keratitis which has resisted constitutional remedies at times yield in the end to a seton, a corneal incision, or an iridectomy?

Such principles of treatment are now being put to the test in the management of those cases once the despair of the ophthalmic surgeon—cases of chronic ulcer of the cornea, with its distressing intolerance of light; or of acute suppurating ulcer, with its nights of agony and wakefulness, its hypopyon and eventual leucoma. The aim of the discussion which I have been invited to open to-day is to draw out the opinions of the Section on the relative merits of incision, scraping, cautery, in the treatment of corneal ulcer.

In these introductory remarks, it will be seen that they all embody one radical principle, and it is not unlikely that all have their merits, possibly differing in degree, but all tending to the same end—the annihilation of the damaged tissue.

My own experience is limited to the use of two of these methods: incision and scraping; and the results that have been obtained by them are eminently satisfactory. Other friends will, I hope, be able to give their experience of other methods, more especially of cautery, or to confirm my results from incision.

As an illustration, let me relate a case which, in my absence, was treated by my friend, Mr. R. N. Hartley.

April 22nd. C. F., aged 5, from the north of Yorkshire, had had the right eye amiss eight months, and had been under treatment the whole time. The eye was never seen for five months, on account of severe photophobia. For three weeks pain had been more severe, causing great loss of sleep. The general surface of the cornea was hazy. Under anæsthesia by ether, three or four patches of superficially eroding ulceration were seen. A small ulcer near the centre was commencing to suppurate. An incision was made by Gräfe's knife, just below the centre of the pupil. The eye and conjunctiva were syringed with carbolic acid lotion (1 to 100), and nitrate of silver was applied to the outside of the lid. On April 27th, the father reported: "No loss of sleep since the operation, nor pain. He began to look about him on the third day." When seen on May 14th, he was quite well; no treatment whatever having been used after the child came round from the ether. The cornea was clear; the ulcers almost sound; the mark of the incision was scarcely visible. There was no photophobia; no pain. On July 1st, the father wrote that he was "perfectly well," and could see with the "late afflicted eye" as well as with the other.

The following case is from my private note-book. M. G., aged 18, had corneal ulcer and hypopyon; slept badly; and had had severe pain one week. On September 18th, 1880, an incision of the cornea was made, not through the ulcer, opposite the margin of the pupil. On September 20th, he slept well, and was more free from pain than he had been for a fortnight. On January 28th, 1881, he was quite well. The scar of the incision was a faint line, hardly visible. *Ex uno disce plurima.*

On one occasion only, in an experience of many years, has a disaster followed. Recently, a boy, suffering from extensive ulceration of both corneæ, had great conjunctivitis. Both corneæ were incised; and one eye suppurated, and had to be excised.

No doubt, some such cases can be controlled, and satisfactorily cured, by the use of atropine, opium, and hot applications; and such means imply the power of care and constant attention by friends and surgeon. But one point in the value of incision, as here advocated, is this: that it allows a case, brought to the surgeon from a distance, especially where expense is a serious matter, to be treated at once, without calling for care and attention from the friends, which often is a delusion and a snare.

Mr. SPENCER WATSON (London) said that, in ulcers with hypopyon, Sämisch's operation had been familiar to him for many years. Mr. Teale's method of operating was essentially the same as Sämisch's. Many cases in the early stage did not require any operation. If a case were seen early enough, the disease might be checked by the prescription of an improved diet, and the use of opium. Many cases lately under Mr. Watson's care had been thus successfully treated. He had never treated ulcers of the cornea by scraping, nor did he feel inclined to try it. The serpiginous ulcers described by Mr. Higgens were among the most difficult to treat; and the method of using eserine seemed to promise well, and deserved more extended trial.

Dr. D. LITTLE (Manchester) would refer specially to those cases accompanied by collection of pus and lymph in the anterior chamber. As a large number of these cases were of traumatic origin, he had had considerable experience in dealing with them at the Manchester Eye Hospital, where accidents were of frequent occurrence. The practice he invariably followed was this. If a case of hypopyon keratitis, the anterior chamber being filled with pus to not more than one-fourth, did not yield in one or two days to ordinary treatment, namely, the free use of atropine, hot fomentation, and bandage, he never hesitated to make a large section of the cornea, at its lower part. At one time, he adopted the practice of Sämisch, by carrying the incision through the whole extent of the ulceration, making, if possible, the puncture and counterpuncture in healthy cornea. For the last twelve years, he had modified this incision, and in all cases had made a large section with a Gräfe's knife in the lower part of the cornea, an incision very similar to a small flap, or to a Gräfe's linear incision for extraction of cataract. The section was thus confined to healthy, or rather non-ulcerated, tissue. Pus readily escaped from the anterior chamber; the plug of lymph projected into the wound, but in any case it was easily removed by iris-forceps. The after-treatment consisted simply of a light bandage, cleanliness, and rest to the eye for a few days, and the occasional use of atropine. The section being a large one, no reaccumulation of pus took place, and irritation to the eye, produced by reopening the wound, was avoided. Although the incision was large, he had never any trouble with prolapsus of the iris. This was avoided by making, or rather completing, the section very slowly. He seldom gave chloroform. This operation was followed by immediate relief to all the symptoms, and the eye rapidly recovered. He had adopted this treatment for many years, and did not remember it failing to do good, unless the whole of the cornea, or nearly the whole, were in a state of suppuration previous to the operation. Dr. Griffiths had supplied Dr. Little, from the records of the Manchester Eye Hospital, with notes of twenty-five cases operated upon by him during the last eighteen months. In five of these cases, the cornea sloughed, or became staphylomatous; but in every one of them the whole, or nearly the whole, of the cornea was in a state of suppuration previous to operation. In the remaining twenty-one cases, the result was good, the vision varying from No. 1 Jäger to counting fingers. In some of them, iridectomy had been performed. This method of treatment had been so highly satisfactory, not only in Dr. Little's own hands, but in those of his colleagues, that he strongly recommended its claims.

Mr. VOSE SOLOMON (Birmingham) said that, in traumatic sloughing ulcer, the prognosis was largely dependent upon the age of the patient. If under the middle period, it was favourable. He had found a ciliary incision useful for the evacuation of large collections of pus, and less prone to be followed by loss of corneal tissue, which was apt to follow in cachectic subjects when the incision was made near the margin. The hot water pad he had found highly beneficial; and if he were obliged to rely upon a single remedy in all ulcers of the cornea, he would select it in preference to all other agencies. In all diseases of the eye, attended by loss of sleep or pain, and especially when suppuration threatened or existed, opium proved a very valuable auxiliary. In some cases, bromide of potassium and chloral might be substituted for opium, or combined with it.

Dr. EDWYN ANDREW (Shrewsbury) asked whether, in these ulcers, nature did not point out in severe cases, by perforation of the ulcer, that rest was a very important means for cure; but nature's cure generally meant the disadvantage of prolapse of iris or anterior synechiæ. By incising the margin of the cornea, instead of through the ulcer, the advantage was gained of rest and the best chance of any adhesion of the iris. Eserine, whilst advantageous to healing the ulcer, frequently produced posterior synechia; and when it was used, the pupil should be dilated from time to time by atropine to prevent this adhesion. Constitutional treatment, good sanitary measures, and hot water, would cure the majority of these cases.

Mr. GRANGER (Chester) had for some time treated obstinate ulcers and hypopyon by incision of the cornea. He made a straight incision, out of the line of the pupil, through healthy tissue. If there were prolapse of iris, he used a solution of eserine immediately after the operation.

Dr. GROSSMANN (Liverpool) said that, though he had not had a very large number of corneal ulcers with hypopyon coming under his notice lately, he had a good many of them under his observation abroad. There was one point which none of the former speakers had mentioned; and that was, the probability of hypopyon being the result of an infection of some kind. Almost invariably to a corneal ulcer hypopyon followed in those cases in which there was

a dacrocystitic state. It therefore would be, in the treatment, of the greatest importance to disinfect the contents and secretions of the conjunctival sac, by whatever disinfecting remedy one preferred. The experience which he gained abroad was that, in more than half of the cases which were incised, anterior synechia followed to a very great extent. The cases were operated on by men long in practice, namely, his teachers; and the reproach of operating carelessly or badly did not apply to them. The treatment with hot fomentation, combined with eserine, also gave him the best results. If there were a large clot of purulent deposit in the anterior chamber, he tried to evacuate it by aspirating it with a hypodermic syringe; and in two cases—the last which came to him—he succeeded, though the tough pus did not so readily follow the aspirating traction through the thin needle. The effect of the eserine was, as had been proved by Deutschmann's experiments, a great help for the resorption of the pus in the anterior chamber; and for that reason an iris dilated by atropia was less favourable for resorbing any deposit in the anterior chamber, though the danger of eserine in producing posterior synechiæ could not be denied.

Mr. HARTLEY (Leeds) wished to point out that, while cases of suppurative keratitis with hypopyon might be considered as those typically most suitable for treatment by incision, it was not proposed by Mr. Teale to advocate its routine employment so generally as a previous speaker seemed to think. The value of the incision in chronic cases of corneal ulceration seemed to be in proportion to the amount of pain suffered, the relief to pain being most marked after incision. Where a loop of new vessels was seen leading to the ulcerated patch, it was useful to incise directly across such vessels, the incision often bleeding for some minutes. He had only observed anterior synechia as an after-result in cases where, the corneal tissue being much thinned and almost sloughing, a leakage from the anterior chamber was kept up for some days after the incision was made. He did not think that the after-astigmatism was added to by the incision. There was, of course, often much irregular astigmatism after the healing of the ulceration.

Dr. EMRYS-JONES (Manchester) said that it was his experience, as well as that of his colleagues at the Manchester Eye Hospital, that whenever the hypopyon increased, in spite of application of warmth and atropine, combined with tonics, and especially where the corneal ulceration increased, section should be performed. He had seen many eyes lost through the patients refusing to submit to an operation.

Professor SNELLEN (Utrecht) said that many different ways of treatment which had been recommended and brought forward, might bring, to some, difficulty in deciding what operation to begin with. The answer seemed only to be got from the question, what was intended by the different treatments? They might be reduced to three principles. The first was to diminish tension, to prevent staphylomatous distension of the eye, or prolapse of the iris, synechia anterior, and secondary glaucoma. This indication was fulfilled by using eserine, by providing rest and good sleep for the patients, which narrowed the pupil and diminished tension, and by incision of the ulcer, or of another part of the cornea. The second principle was by antiseptic treatment, to which, in Dr. Snellen's opinion, belonged the scraping of the ulcer, incision, and cauterisation. A new, so to say healthy, normal inflammation might be regarded as an anti-infective action. The third principle was increase of circulation and nourishment of the cornea and connective tissue. This was effected by means of general treatment, exercise and fresh air, bandages, the intermittent application of heat and cold, of light and darkness, of eserine and atropine, all alternately, in order to improve absorption and circulation. The choice of the different treatments had thus to depend on careful examination of the tension, the local state of the process, the extent of the ulceration, and the general condition of the patient.

Dr. C. E. FITZGERALD (Dublin) thought the Section was deeply indebted to Professor Snellen for drawing attention to the action of the various methods advocated. It appeared to him that the members were divided into two camps: 1, those who were in favour of incision; 2, those who were opposed to it. Before Professor Snellen spoke, he had proposed putting the following questions. Does incision do more than relieve tension and evacuate pus? Does eserine do more than relieve tension? He was glad to hear Professor Snellen speak favourably of the alternate use of atropine and eserine, as he (Dr. Fitzgerald) had found great benefit from this method.

Mr. CHARLES HIGGENS, in reply, said that Mr. Spencer Watson had asked if he found eserine irritating. It was so. Some patients appeared extremely intolerant of it, in other cases it irritated after a time; but in such he was inclined to believe that the irritation was due to the solution having become stale. He did not wish to be looked upon as an opponent of incision. He frequently practised it, but found that the majority of cases recovered without it. He had been much struck in the course of the discussion by the difference of experience with regard to the occurrence of anterior synechia, some stating that it rarely happened, others that it was very frequent.

ON METHODS OF OCCLUSION IN ENTERECTOMY,

WITH DESCRIPTION OF A NEW CLAMP FOR THAT PURPOSE.

Read in the Section of Surgery.

BY E. STANMORE BISHOP, M.R.C.S.Eng., L.R.C.P.Ed., Manchester.

IN order the better to explain the reasons for introducing this clamp to your notice, permit me to briefly draw your attention to the methods previously in use for the same purpose.

The clamp is intended to be used in the operation of enterectomy, or the kindred operation of gastro-enterectomy. In both these operations, one problem forces itself at once upon the attention of the surgeon for solution. A tube, muscular, soft, flexible, of varying calibre, containing fluid or semisolid contents, is suspended in a cavity lined by a membrane specially prone to inflammation, to which nothing excites it so readily as contact with those very matters which such a tube carries. How can a portion of this tube be removed without permitting its contents to escape? And, such removal having been effected, how can the divided ends be reunited, and their junction be tested as to its capability of withstanding further extravasation by leakage? Every surgeon who has performed either of these operations has had to face, and practically to answer, this question; and it is instructive to review the different methods by which this has been done. We will, if you please, take them in order of simplicity. First, naturally, comes the method of entrusting the two ends of the intestine to trustworthy assistants. This method is practised by Billroth,[1] Gussenbauer,[2] Madelung,[3] Dieffenbach,[4] and Péan. The next method is that of ligature. Bouilly, in his review published in the *Revue Chirurgicale*, 1880, p. 52, strongly advises this plan; so does Jaffe in his treatise, Volkmann's *Sammlung Klinische Vorträge*, No. 201. Besides these, it is used by Czerny,[5] Schede,[6] Guyon.[7] The materials vary. India-rubber threads, the size of a raven's quill, are used by Czerny; strong silk or catgut by Schede. The threads, of whatever material, are applied two to three centimètres above and below the proposed line of incision, so that four in all are used, and are tied firmly, *serré fortement*[8] (Bouilly); or moderately above, tightly below (Jaffe)[9]. The ends of the ligatures are left long, to be used as slings, by which the bowel may be drawn forward.

The third method is that proposed and executed by Kocher,[10] Kraussold,[11] Bryk, etc., and consists of the use of forceps of various kinds. Thus Kraussold uses a pair of Hegar's forceps, of which the arms are covered by carbolised felt; Thiersch, a pair of polypus-forceps; Kocher, *pinces hémostatiques*; Bryk, *grandes pinces à mors plat*, the arms of which are encased in India-rubber tubes.

Fourth comes the method of Rydygier, described by him in a paper on the Resection of the Pylorus, *Sammlung Klin. Vorträge*, No. 220. This consists in the use of two thin iron rods, thirteen to fifteen centimètres long, three-quarters of a centimètre broad, flat, covered by disinfected India-rubber tubes, one of which is placed behind, the other above or upon the part of the intestine it is wished to compress. These rods are then united by tying with rubber threads at each extremity; and it is claimed for this method, that the pressure is soft and self-regulating; also, that the coats of the intestine are brought together smoothly and exactly, thus facilitating enormously the equal suturing.

Lately, in London, a surgeon devised a clamp which I show today, by which the two extremities of the bowel are firmly held, and can be approximated after resection. It is very neat, and does its work very well; but it has sundry drawbacks, which I will mention

1 See article by Wolfler in Billroth's *Clinical Surgery*, Sydenham Society's Translation.
2 *Arch. für Klin. Chir.*, Band xxvii, Heft 2, p. 277.
3 *Archiv. Gén. de Méd.*, 2e série, tom. xiii, 1837.
4 *Diagnosis et Traitement des Tumeurs de l'Abdomen et du Bassin.* Paris, 1880, pp. 517-524.
5 *Berliner Klin. Woch.*, 1880, p. 355.
6 *Congres des Chirurg. Allem.*, 1879.
7 *Thèse de Peyrot*, p. 184.
8 *Rev. de Chirurg.*, vol. i, p. 52.
9 *Sammlung Klinische Vorträge*, No. 201.
10 *Bulletin de la Soc. Méd. de la Suisse Romande*, 1880.
11 *Sammlung Klinische Vorträge*, No. 191.

later. With it is intended to be used an India-rubber bag, made in shape of a sausage, to which is attached a short rubber tube, through which the bag may be inflated. This is introduced into both ends, and, on inflation, is believed to distend the distal or contracted extremity, so as to equalise the calibre of the two. After suturing, the air is allowed to escape, the bag is withdrawn through the small opening left for it, and the suture completed.

I believe that this will be found to be a pretty faithful account of all the methods at present in use.

Before going further, I would try to formulate what are the essentials of a good method, which shall answer our starting problem.

1. It should easily occlude the lumen of the intestine.

2. Pressure by it should be capable of easy regulation; and it should be easily taken off and reapplied, if necessary.

3. If any form of mechanical apparatus, it should be in one piece, if possible, so that no part of it may be easily lost.

4. Its application should not take up much time, as time is of so much value in an operation of such length.

5. It should be light; should not take up much room; should be capable of easy manipulation.

6. After resection, the divided ends, still held by it, should be easily capable of approximation; and, when so approximated, should be held firmly and steadily, in a straight line, whilst being united.

7. After junction is made, it should be possible to easily test such junction; and, if any joint is found at which leakage occurs, it should be possible quickly to reproduce pressure on the superior end, whilst the requisite additional sutures are introduced.

Now, if the previous methods be tried by this standard, I think it will be easy to show where each fails, and is bound to fail.

Take the first method: the manual compression. The objection to this comes under our sixth requirement. No doubt, Professor Billroth can implicitly trust his assistants; but in England, muscles, especially those of the hand, are liable to cramp; and these operations last from one hour, as in Bardenhauer's[12] case, and this is the only one I can find of so short duration, to five hours, as in Nauenstein's[13] case, and in Weinlechner's case[14]. Moreover, each man has his own amount of muscular sense; and, what appears firm pressure to one, appears very slight to another. The amount of pressure will vary during the time also, pressure becoming weaker and slighter as the operation proceeds, varied by spasmodic contractions as the attention is drawn to the waning force. Will any man promise that his hands will not tremble after holding anything for one hour? And yet it is especially necessary that the hands be steady whilst the stitching, the last part of the work, is being done. Again, Gussenbauer[15] found that, whilst freeing the intestine, preliminary to its being drawn forward, a portion of it was torn by the manipulations, and the contents extravasated into the general cavity of the abdomen. The patient died. Here is a very real danger. Can the bowel be compressed beforehand, so that, if rupture occur, no harm may be done? If this is to be done by the fingers, what a large incision must be made to allow three or four hands *and* the light to enter at once.

Considerations such as these evidently operated with the next series of surgeons, who endeavoured to find some mechanical method by which pressure might be applied, and which might be substituted for the fallible and varying muscular force; and so the second method, that of ligature, was adopted by such men as Bouilly, Jaffe, etc.

There can be no doubt that this method perfectly occludes the intestine, and also gives the surgeon control over the divided ends to some extent. It is easily put into practice, and takes little or no time. But its drawbacks are as evident.

It, too, depends to a great extent upon the muscular sense of the operator. Tying "firmly" means very different things to different men, and a case in point is related by Czerny,[16] April 1880, in which he says, "one of the elastic ligatures had been drawn too tight, so that during the operation the bowel tied became œdematous, and a blue line remained afterwards in the track of the ligature." Jobert also showed, as mentioned by Bouilly,[17] that the action of the ligature upon healthy bowel resembled closely that of a ligature upon an artery—the mucous and muscular coats were torn through, the serous being the last to be injured.[18] Is it advisable to use a method which it is probable will so damage the arterial supply of the end of the gut, that primary union, the essential of success in the after enteroraphy, shall be seriously endangered? But this is not all. The ends confined by these ligatures are thrown into folds; when these are sutured together, is it possible to be accurately certain that each portion of gut on the one side is accurately applied to its corresponding portion of gut on the other? And if it be necessary to loosen the constriction in order to allow the gut to lie flat, what is left to prevent extravasation?

The next step is the use of forceps of various kinds. Artery-forceps, Hegar's forceps, etc., covered by India-rubber or felt.

Two objections may be urged against their use.

1. If these instruments have a hinge, it is impossible that the pressure which they exert shall be equal over the whole diameter of the bowel held. Either, as is most probable, the pressure will be greatest at the point nearest the hinge of the instrument, or, if the points are tied together, as Thiersch recommends with his polypus-forceps, by wire, the pressure may be much greater at this point, and this also depends on the muscular sense of the person tying.

2. Having applied your forceps, there are no means, except the aid of an assistant, by which they can be approximated and kept steadily in position. The latter objection applies also to Rydygier's clamp; but, beside this, the time taken up in applying, the difficulty in altering the amount of compression if required, also tell materially against its use.

In this place, too, it may be as well to point out that any method, such as tying, Rydygier's clamp, and the later London clamp, requires an amount of manipulation of the gut, which cannot fail to have a bad effect upon the ultimate aim and end of the operation, that of securing primary union between the ends of bowel left.

The method shown in this later clamp would appear at first sight nearly all that is required. It forms a perfectly steady frame for stitching; it is light, and produces firm occlusion without any damage to the intestine. But, against it, are the numerous pieces of which it is made, any one of which may be lost, and the instrument rendered useless; the fact that the compression is made from the sides, and therefore there is no certainty that it will be equal; the time taken in applying it—a matter, I repeat, of very great importance; the jerky motion which is produced when the two clamps are moved nearer or farther from each other, especially when wet or sticking with blood, etc.; and, finally, the difficulty when the clamp comes to be turned, as it must be, in order to suture the under surface, of preventing one or other of the connecting rods from wounding the intestine near, or the parietes.

I feel some diffidence in offering any attempt to meet all these objections; and, no doubt, with increased experience, many improvements capable of being made in it will be evident as time goes on; but, so far as it goes, it seems to me to fulfil most of the requirements formulated.

It was designed by a young engineer, Chancellor, and consists of a main screw, right and left, carrying on it two clamps. These clamps are held open by springs, except when in use, when they can be screwed down as far as required in a second. The six main points about it are these.

1. It is in one piece.

2. Compression is made from the centre of the upper blade, thus perfectly equalising it.

3. Its application is made in a few seconds.

4. Its application requires the minimum interference with the gut possible. The mesentery is not interfered with, the sole connection between the two clamps proper lying outside the bowel.

5. Any alteration in pressure required is easily made, without moving the instrument or the bowel.

6. The clamps can be put on before the operation; they do not obstruct the hands of the operator, the connecting-rod lying on a lower level; when on, they perfectly occlude the intestine; after resection, they can easily be approximated; and, when so approximated, they hold the bowel firmly during the suturing. Afterwards, by releasing the upper screw, the contents may be allowed to distend slowly the point of junction, when any weak spot is immediately seen. Screw-pressure is used, because it is the one most easily regulated to any definite amount.

Should it be thought desirable to empty the superior end, as advised by Péan[19] and Kraussold, this can easily be done, and such emptying is entirely under the control of the operator; it can then

[12] *Die Drainirung der Peritonealhöhle*. Stuttgart. *Bei Enke*, 1881, mentioned in Rydygier's list. *Sammlung Klin. Vort.*, No. 220, p. 2008.

[13] *Centralblatt für Chirurgie*, 1882, No. 9.

[14] *Ib.*, 1882, No. 21.

[15] *Berliner Klin. Wochenschrift*, p. 355, No. 24, 1880.

[16] *Ib.*, 1880, p. 683.

[17] *Revue Générale (Revue de Chirurgie)*, 1881, p. 43. (Jobert, 1822).

[18] And that if the serous tunic was inflamed, that also is torn through, and the intestine is divided, however feeble may be the constriction produced.

[19] *Loc. cit.*

be washed out with carbolic lotion, and some of this left behind, in order to produce the desired distension afterwards.

By this means, I hope it will become possible for surgeons to feel no longer the unenviable state of mind described by Kraussold, who declares that he has never returned a sutured bowel into the general cavity without feelings of the liveliest dread, lest some point should be found to have been left unguarded.

I have said nothing as to the kind of sutures required, nor the varied methods of uniting the divided extremities, because, clearly, that does not come within the scope of this paper; but I would point out that any and, as far as I know, all of the various methods are capable of being used with this clamp, and some of them very much more easily than with any of the other plans mentioned.

Should this clamp prove to be, as I hope, of service to surgeons operating in this way, there are certain modifications which should be made for different cases; *e. g.*, in gastro-enterectomy, the right clamp should be longer, and curved, with the concavity towards its fellow. If enterectomy be done for the removal of simple or malignant stricture, its present form will, I think, be found most useful; if for gangrenous hernia or artificial anus, I propose to curve the rod so that the clamps may, when first put on, be more widely separated at their attached extremities than at the distal ones, and, when approximated, gradually become more parallel, so fitting them for application to a loop of which the extremities pass together through a narrow opening. Of course, two screws would be required. This, however, has not been attempted here; the principle only is shown.

I have to thank Messrs. Meyer and Meltzer of London for having most promptly and thoroughly carried out the design, after I had for some time vainly attempted to get it made by one of our local instrument-makers; for the scientific way in which they have pointed out and remedied some defects; and beg to refer all surgeons who may care to use it to them for supply.

ON INHALATION, MORE PARTICULARLY ANTISEPTIC INHALATION, IN DISEASES OF THE LUNGS.

Read in the Section of Medicine.

By ARTHUR HILL HASSALL, M.D.Lond.,

Late Senior Physician to the Royal Free Hospital, and Founder of the Royal National Hospital for Consumption and Diseases of the Chest, on the Separate System.

In the *Lancet* of May 5th, 1883, there appeared a paper by myself entitled "On the Comparative Inutility of Antiseptic Inhalation as at present practised in Phthisis and other Diseases of the Lungs." In the paper itself, I defined more clearly the scope of the inquiry, which was more particularly to test the efficiency or otherwise of antiseptic inhalation in the class of diseases referred to, as carried out by means of the different forms of oral and oro-nasal inhalers.

The substances experimented upon were phenol or carbolic acid, creasote, thymol, and iodine, all frequently employed in inhalation in consequence of their known antiseptic properties. It was shown that, in the case of the three first-named substances, more than four-fifths were still present in the sponge at the end of the inhalation, while it was proved that the iodine, on coming into contact with the mucous membrane of the mouth and cheeks, became rapidly converted into an iodide, in which condition its antiseptic properties were of course greatly impaired, if not destroyed. It was at the same time pointed out that there were several ways in which the unrecovered portions of the substances used were, at all events in part, to be accounted, for without supposing that they were inhaled, as by loss in extraction from the sponge, by loss and condensation of moisture in the inhaler, on the skin of the chin and cheeks, and on the mucous membrane of the mouth and fauces of the person inhaling. It was further remarked that but little evidence has as yet been adduced to prove that any of the substances named above do really make their way into the lungs in any considerable amount, and so reach the seat of the disease.

It was with a view to obtain evidence on this point that my first endeavours were directed. I contrived the following arrangement, in imitation, as near as I was able, of natural respiration. A syringe was prepared, having a cubic capacity of 200 inches, and provided with a hollow piston, having a valve at each end. The lower valve prevented the escape of the air in that direction when the piston was pushed down, while the upper one at the same time of course allowed of its escape upwards. A Woulfe's bottle filled with water, or bulb-tube filled with spirit, as the case might be, was next attached to the syringe; this bottle in its turn was joined on to the termination of the trachea of an unskinned sheep's head and neck. The mouth and nares were covered with a well-fitting papier maché respirator, furnished with the usual cribriform receiver and sponge. The syringe, of course, is intended to take the place of the lungs, and the Woulfe's bottle to intercept any of the substances used which might pass from the respirator down the trachea, with a view to their subsequent determination. The syringe was capable of being worked at the rate of about 250 times per hour.

The first experiment was with half a gramme (equal to a little more than 7½ grains) of carbolic acid. After the rapid action of the syringe for an hour and a half, the water in the Woulfe's bottle was tested by Chandelon's very accurate and delicate process, with the result of finding in it only 0.003 gramme of carbolic acid, that is to say, a mere trace. A second experiment furnished a similar result.

Such being the results of the experiments with carbolic acid, it is not probable that any with creasote and thymol would have been different, having regard to the relative volatility of these substances. Thymol, indeed, at ordinary temperatures, is far less volatile than carbolic acid.

In the next experiments, much more volatile substances were selected, namely, eucalyptol and oil of turpentine, both also possessing strongly penetrating odours. In the case of the eucalyptol, the faintest possible odour only, recognisable with difficulty, was perceptible in the alcohol through which the air was passed. With the turpentine, however, the spirit was found to possess a decided smell of this oil, although it was obvious that the quantity actually present was but very minute. This last experiment is so far satisfactory, since it shows that substances of considerable volatility, such as oil of turpentine, do really make their way into the lungs, although, in the present case, in but very small amount.

Lastly, an experiment was made with iodine; of this, two cubic centimètres of an alcoholic solution were taken, containing 0.06 gramme of iodine (equal to about nine-tenths of a grain), a much larger quantity than that ordinarily employed, in consequence of the irritating nature of the fumes. The alcohol through which the air issuing from the trachea was passed did not become coloured in the slightest degree, nor did it furnish any evidence whatever of the presence of iodine. This experiment was performed a second time with another sheep's head and neck. The saliva of the mouth, and the mucus, were also tested for free iodine; not a trace was present, but, after the addition to the mucus of a little dilute nitric acid, it was freely liberated. This shows that the iodine had really entered the mouth, but had become converted into an iodide; of course, losing in the process the greater part of its antiseptic properties. In this respect, the experiment accorded exactly with what I have elsewhere shown takes place in the living human subject.

Of course, it may be urged in objection, that the results of the experiments just recorded would have been different in the case of the human subject; and this is to some extent possible, although I scarcely think it probable, seeing that the construction of the larynx of the sheep is less complicated than that of the human subject, and that the passage is much more open and free. However this may be, the experiments show that substances of little volatility at ordinary temperatures, such as carbolic acid, creasote, and thymol, make their way into the lungs, when oral or oro-nasal respirators are used, with great difficulty, and in very minute quantities only, while even substances with a considerable volatility, as eucalyptol and oil of turpentine, do not find a ready access.

Another form of inhalation is by the vapour of hot water. This is sometimes used alone, but generally as the agent for the diffusion of the medicinal substances employed. I now propose to examine to what extent this method is effective.

The *British Pharmacopœia* contains five formulæ for the inhalation of medicaments by the aid of the vapour of hot water; two of these are vapor conii and vapor creasoti. Considerable discrimination has been exercised in the choice of these two substances, and in the methods described for their use, seeing that the alkaloid of conium is volatile, as of course is also the creasote to some extent. The *Pharmacopœia* directs that twenty minims of a mixture of one part of an extract of hemlock with one part of a solution of potash and ten parts of water, should be put on the sponge of a suitable apparatus, so that the vapour of hot water passing over it may be inhaled. It will be observed that the twenty minims of the mixture will contain less than two grains of the extract of conium. The quantity of the active principle, coneine, contained in the two grains, is infinitesimal, and may be said to be homœopathic; it may be

taken to be rather over one-tenth of a grain per 100 grains of the extract. Two cubic centimètres of the mixture referred to above, equal to about thirty-one grains, and containing 0.16 gramme of the extract, or rather more than two grains and a half, were placed on a piece of sponge, suspended in the neck of a retort containing 250 cubic centimètres of distilled water. Twenty-five cubic centimètres were distilled over and tested with Mayer's general reagent for alkaloids (potassio-iodide of mercury), but not a trace of coneine could be discovered. After slow evaporation to dryness at a very low temperature, a faint reaction only was obtained with Mayer's reagent. Subsequently, a similar experiment was made with 0.01 gramme of the alkaloid itself, or rather more than one-tenth of a grain; but in this case, the alkaloid was put into the water, and not placed on the sponge, as in the previous experiment. The first twenty-five cubic centimètres distilled over gave a distinct reaction with Mayer's reagent, but the second, only after concentration, almost to dryness. It thus appears that, in Mayer's reagent, we have a most delicate test for coneine; and, that point being determined, an experiment was made with the extract of conium, in the quantity and under the conditions set forth in the *Pharmacopœia*. The result was, that not a trace of the alkaloid was to be detected in the alcohol through which the vapour was passed, even after careful evaporation, almost to dryness.

With respect to the employment of the vapor creasoti, the following instructions are given in the *British Pharmacopœia*. Twelve minims of creasote are directed to be mixed with eight ounces of boiling water, in an apparatus so arranged that air may be made to pass through the solution for inhalation. With a view of testing how far this method of employing the creasote is effective, the two following experiments were made. Half a gramme (equal to 7.7 grains) was added to 300 centimètres of water, and the vapour, mixed with air, was drawn through alcohol for fifteen minutes; this, of course, retained whatever creasote passed over. The alcohol was afterwards found to contain only 0.007 gramme of creasote, or about the $\frac{1}{72}$nd part of the amount originally taken. In the second experiment, the same quantity of creasote was taken, but in a somewhat differently constructed apparatus, with tubes of a greater diameter, so as to allow of a freer passage for the vapour. In this case, 0.026 gramme of the creasote was recovered, equal to about one-nineteenth of the original quantity.

It may be safely affirmed, therefore, that the method of inhaling conium and creasote by the vapour of hot water, as prescribed by the *British Pharmacopœia*, is most ineffective, and almost, if not quite, valueless.

The pharmacopœia of the Hospital for Diseases of the Throat contains a variety of formulæ for medicated inhalation by the vapour of hot water. I will select two of the most important of these, and put them to the test of experiment. One of them is the vapor acidi cabolici. Twenty-one drachms, or 1,260 grains, of the acid are directed to be dissolved in three drachms of water, and of this mixture, a teaspoonful, say equal to a drachm, and containing the very large quantity of fifty-four grains of phenol, is to be put into an eclectic inhaler, containing a pint of water at a temperature of 150° Fahr., and maintained at that temperature by the aid of a spirit-lamp. A quantity of the mixture containing exactly three grammes and a half of carbolic acid, equal to 53.9 grains, was put into the inhaler, the inhalation being continued for the space of twenty minutes; after which, 3.44 grammes of the acid, equal to 53.08 grains, were recovered from the inhaler, the loss thus amounting to 0.06 gramme, equal to only 0.82, or four-fifths of a grain. It must not be supposed, however, that the whole of even this small amount was actually inhaled; part, no doubt, was dissipated in the uninhaled vapour, while of that which really entered the mouth, some was absorbed by the mucous membrane of the mouth and fauces.

The air expelled from the lungs at each expiration was also tested for carbolic acid, the quantity found being excessively minute, namely, 0.0076 gramme, equal to a little over one-tenth of a grain.

The second formula selected from the Throat Hospital pharmacopœia for experiment was that for vapor thymolis, or thymol. The directions in this case are to dissolve twenty grains of thymol by means of three drachms of spirit, and to make up with water to twenty-four drachms, or three ounces; a teaspoonful of the mixture to be added to a pint of water at 150° Fahr. Contrast for a moment the very large quantity of carbolic acid employed in the first inhalation, namely, 54 grains, with the minute amount of the thymol, less than one grain, employed in the second inhalation. Thymol, though little volatile at ordinary temperatures, melts readily in hot water, and then becomes very diffusible. Of course, the greater part of the portion of a grain contained in the 8,750 grains of the pint of water was volatilised in the vapour, but what possible curative effect could be expected to result from so minute a quantity of thymol, even if the whole were really inhaled!

When the substances added to hot water possess a high degree of volatility, and are employed in considerable quantity, and when, at the same time, the temperature of the water is maintained by means of a lamp, vapour-inhalation may be practised in some cases with benefit—at all events, in affections of the throat. In some instances, the warm vapour of the steam itself, unmedicated, proves serviceable, although it is surprising how little water really passes over in most cases, except the inhalation be continued for a long time, and the temperature be maintained by the aid of a lamp. In the two experiments made with the vapor creasoti of the *British Pharmacopœia*, the loss of water amounted to only 10 and 12 cubic centimètres respectively, equal to about $2\frac{1}{2}$ and 3 drachms.

I now pass on to speak of the inhalation by steam. Steam, of course, does not differ essentially from the vapour of hot water, only that the vapour is generated faster, and the temperature is higher. This temperature, however, is rapidly reduced by contact and intermixture with the air with which it becomes diffused; the vapour or steam with equal rapidity becoming condensed and reduced to particles or atoms of sensible dimensions. When the steam is made to issue from small orifices, as in Siegle's and some other steam-inhalers, it is projected, of course, with considerable force, owing to the pressure exerted, and consequent concentration.

Before giving the results of experiments with Siegle's steam-inhaler, it will be well to refer to the fact—which, however, is constantly ignored or forgotten in many prescriptions for inhalation—that no substance is volatilised and passes over in the vapour of steam, which is not itself more or less volatile at the temperature of the water or steam. Substances which are volatile at ordinary temperatures have, of course, their volatility greatly increased at the boiling-point of water. Whatever substances, therefore, which are contained in or are added to water, and are not volatile at 212° Fahr., or 100° C., will not pass over by distillation, but will all be found in the residue of the retort or still. It is thus useless to prescribe for steam-inhalation, as is often done, such remedies as preparations of opium, cannabis Indica, stramonium, hyoscyamus, and many other medicinal substances.

To show the effect of the temperature of boiling water in increasing the volatility of substances which, at ordinary temperatures, are but little volatile, the results of the three following experiments may be given. Carbolic acid or phenol, notwithstanding the strong odour which it emits, is, under ordinary circumstances, but little volatile. Half a gramme of this (equal to rather more than $7\frac{1}{2}$ grains) was placed in a retort, and distilled with 250 cubic centimètres of water; and of this, one-fifth part, or 50 cubic centimètres, was distilled off, 0.12 gramme (= 1.85 grains) being found in the distillate by Chandelon's process. In a similar experiment with creasote, which is more volatile than phenol, 0.17 gramme (= 2.6 grains) passed over; while, lastly, in the case of thymol, which is scarcely at all volatile at ordinary temperatures, no less than 0.267 gramme (= 4.1 grains) was obtained. Had the distillation been carried further, the quantities recovered would have been proportionately increased.

Steam, therefore, especially when given off in a concentrated form, does carry over a very considerable amount of the antiseptic substances above referred to.

In some cases of steam-inhalation, the substances used are added to the water itself prior to its being boiled; in others, as in Siegle's steam-inhaler, the medicament is not put into the receiver itself, but into a separate receiver or bottle. The steam and the liquid come into contact at the points of the capillary glass tubes, where the hot steam produces a vacuum in the ascending tube, which causes the liquid to flow up it. The force of the jet of steam, and the contact of the cold air, condense and atomise the liquid as it flows up the tube, as well as the steam itself. In both cases, whether the substance used is added to the water before boiling or is contained in a separate vessel, the actual result is very similar, although the quantity of liquid used is, of course, greater in those cases in which two receiving-vessels are employed.

I will now proceed to state the results of experiments with Siegle's steam-inhaler.

The vapour of steam, as has been already said, coming into contact with the colder air, very rapidly cools and condenses; so that, if the mouth be applied within a few inches of the apparatus, the temperature becomes bearable, while the condensation is shown by the rapid deposition of moisture in the track of the jet of steam.

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Attentively watching the action of a steam-inhaler, it is seen, first, that much of the steam is deposited on all cool objects in the vicinity of the inhaler; secondly, that a considerable portion of the steam-spray does not enter the mouth at all; thirdly, that of that which enters the mouth, part is returned during the act of expiration: indeed, it has appeared to me that not one-third of the steam generated is actually retained, and most of that which is so, there is good reason to believe, settles upon and is absorbed by the mucous membrane of the mouth, cheeks, and fauces; but another and fourth great cause of waste is, that the steam-spray is always in operation, whereas the act of inspiration, thus artificially carried on, probably does not occupy much more than one-third of the whole time—some ten or fifteen minutes—consumed in inhalation; so that, from this cause alone, it may safely be said that more than one-half of the whole quantity of the medicament employed is lost, and can be of no utility whatever for the purpose in view; lastly, it may be pointed out that, in using steam-inhalers, respiration is carried on almost entirely by the mouth, in place of by the nose, the natural channel.

To show, in a measure, how great the loss is from the causes above adverted to, I will now give the results of experiments with steam-inhalers.

It may be remarked, at the outset, that it is most difficult to determine the actual loss which takes place in using a steam-inhaler, owing to the rapid diffusion of the vapour, and the extreme difficulty of confining and condensing it all. With a view of estimating the loss, an apparatus was constructed, consisting of a large hood, fastened round the neck, and furnished with a long chimney, which was made to pass through a Liebig's condenser, and to terminate in a flask surrounded with ice, the upper part of the chimney also being packed round with ice. It will thus be seen that the surface over which the vapour of the steam-spray was necessarily spread was very large, and the difficulty of recovering the whole of the material taken proportionately great.

Taking 0.750 gramme of carbolic acid (=11.55 grains), there was recovered, as the mean of two experiments, 0.368 gramme (=5.67 grains) of the acid. In an experiment made, using the same quantity of carbolic acid, by allowing the steam-jet simply to expend itself in the hood, without any inhalation, there was recovered 0.470 gramme (= 7.24 grains). This experiment is important; the difference in the amount recovered when the steam-spray was inhaled, and without inhalation, being but 0.102 gramme, or 1½ grain.

There is still another form of inhalation often practised, and that is with the cold spray, the motor power in this case being air. This form of spray was, I believe, originally devised by Sir Andrew Clark. In this case, the liquid is more atomised than in the steam-spray; it condenses still more readily, and the moisture is deposited in a more limited area. This spray may be used either intermittently—that is to say, the jet may be thrown out only during inspiration—or continuously, when, of course, there will be the same loss of material as in the case of the continuous steam-spray. In two experiments with the air-spray, the same quantity of carbolic acid being taken—namely, 0.750 gramme—the mean amount recovered was 0.438 gramme (=6.74 grains); while in an experiment with the hood empty, there was recovered 0.451 gramme (=6.94 grains), being only a very little more than was obtained after inhalation.

With a hood and other apparatus in every way perfect, I entertain no doubt that I could succeed in recovering larger quantities of the carbolic acid used than those obtained in the above experiments with the steam and air-sprays.

That only a very small quantity of such medicinal substances as carbolic acid, thymol, etc., really makes its way into the lungs, when steam-sprays are used, is still further proved by the result of experiments with those sprays and the apparatus referred to in the beginning of this paper, namely, the large syringe, and the head and neck of a freshly-killed sheep. Thus, half a gramme of carbolic acid, dissolved in water, was placed in the bottle of a Siegle's inhaler, and the steam generated in the usual manner; at the end of fifteen minutes, the water in the Woulfe's bottle through which the air was passed was tested, but not a trace of the acid was found to be present.

In two experiments with Dr. Lee's steam-draft inhaler, the results were a little different: in the one case, 0.0045 gramme (= 0.069 grain) being recovered; and, in the other, 0.0055 gramme (= 0.085 grain), or the six and seven-hundredths of a grain—that is to say, little more than traces.

I have now, in the present communication, given the results of experiments on inhalation, especially antiseptic inhalation, as at present ordinarily practised, with the medicated vapour of hot water, and with the medicated steam- and air-sprays.

Except in the case of the more volatile substances, and where the temperature is maintained by the aid of a spirit-lamp, the method of inhalation by the vapour of hot water is, as we have seen, but little effective; the medicaments, even when vaporised in any considerable quantity, are expended rather on the mouth and fauces than upon the lungs themselves, and by far the greater part of the substances used remains, in the majority of cases, in the inhalers themselves.

With steam-sprays, it has also been shown that there is a very large loss of the medicinal substances employed; and further evidence is still required in order to establish the full extent of that loss, but it is certain that a very small portion only of the medicines employed makes its way into the lungs.

A similar remark applies to the cold-air spray, the loss being nearly, but, perhaps, not quite, as great as with the steam-spray. All the sprays, however, possess this advantage, that they are capable of diffusing non-volatile as well as volatile substances, while the cold-air spray has the further advantage over the steam-spray in being applicable in many cases in which the employment of hot steam would be likely to prove injurious.

No doubt, by the employment of sprays, either hot or cold, any quantity of a given substance may be thrown into the mouth, and be applied to the fauces; and, so far, they are effective; but, from the evidence adduced, there is reason to believe that but a very small portion of the substances employed, as the sprays are at present used, really reaches the lungs themselves, or even the larynx and trachea.

The general conclusion, therefore, is that the above-described methods of inhalation are, in the case of diseases of the lungs themselves, but little more effective than I have elsewhere shown the method to be by oral and naso-oral inhalers.

The results recorded in the present communication are, no doubt, disappointing and discouraging for the moment. However, it is very necessary that the facts ascertained should be made known; and I believe that much good will, in the end, ensue from the inquiry, and that, ere long, improved and better means of inhalation will be devised.

It appears that hitherto the wrong method of proceeding has been pursued: a remedy has been applied, without a sufficient examination of the bases on which it rests. The reverse method is the more correct and logical one, and experiment should have preceded the practical application.

I have now to acknowledge the ready and valuable assistance I have received, in carrying out many of the experiments, from Mr. E. G. Clayton, F.C.S.

ON AXIS-TRACTION AND OSCILLATION-MOVEMENT WITH THE OBSTETRIC FORCEPS.

BY ROBERT BARNES, M.D., F.R.C.P.,
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THE interesting paper of Mr. Le Page, and the discussion upon it at the Liverpool meeting, suggest several points which demand further study. Mr. Le Page starts by attributing to me a statement which, if seemingly justified by anything in my *Obstetric Operations*, I should wish to correct. "Dr. Barnes tells us that traction is hardly called for at all; that force is economised by leverage; and that pure traction is impossible." The first of these three propositions is that in which I have been misunderstood. That "traction is hardly called for at all," only applies to a very limited class of cases, in which there is no disproportion. In some cases of this kind, the head being in the pelvis, it is quite possible to bring the head into the world by alternate leverage-action; this I am in the habit of demonstrating on the phantom; and I have designed illustrations to represent it in the *Obstetric Operations*. But this is a very different thing from making leverage a substitute for traction. As a subsidiary force in aid of traction, helping to economise traction-force, it is invaluable. No one who fairly studies the mechanism of labour, and the powers of the forceps, will, I think, throw away this economising force. It is in strict harmony with the forces of natural labour. The progress of the head through the cavity of the pelvis is marked by four movements: 1, progression or onward movement; 2, a screw or rotatory movement; 3, an oscillating movement of the head on its long axis, that is, a swaying from side to side; 4, a flexion-movement, the occiput descending in advance of the sinciput. These movements are executed nearly in combination under the uterine systole and diastole. All concur in advancing the head, and

in adapting it to the part of the pelvis in which it is engaging. Now, these movements give the scientific motives or indications for the mode of using the forceps.

It is needless to say that progression is supplemented or aided by traction; the screw-movement follows upon traction; the oscillation and flexion are supplemented or aided by the oscillation of the forceps. Thus, the four movements combined favour progression and adaptation, with the minimum waste and misdirection of force.

It is necessary to correct a prevalent error as to the mode of oscillating or swaying the forceps. Some men urge the objection, that violence is inflicted upon the mother's soft parts by the forceps taking a fulcrum upon the pelvic walls. Whosoever thinks this is the condition for effective leverage, is quite right in denouncing the practice; but nothing of the kind is necessary. The two blades of the forceps find each its fulcrum at the lock, and on the obstetrist's finger, and the gentlest possible oscillation entirely avoids all dangerous pressure on the soft parts.

In passing, it is desirable to point out the inaccuracy of the term "pendulum-movement" in this connection. The swinging of the pendulum depends upon gravitation, and is automatic; it is not a true representation of the oscillation of the handles of the forceps by virtue of the force applied by the obstetrist.

I do not, in this note, enter more particularly upon the question of axis-traction forceps. That question is really settled by every one who has impartially studied and clinically tested the action of forceps made on Tarnier's principle. The economy of force, and the even distribution of pressure on the soft parts, during extraction, can only be realised by those who have used this admirable instrument. Most of the speakers at this discussion bore testimony to the practical value of my forceps. As an instrument adapted for general use, it appears to have superseded most others. Still it is not an axis-traction forceps; and, in difficult cases of arrest at the brim, it cannot vie with Tarnier's, or A. R. Simpson's modification.

One word more, in deprecation of Mr. Le Page's proposition: "That (by his forceps) flexion, rotation, and extension may be assisted, or altogether effected, by the accoucheur." Now, these movements of the head take place naturally under the law of adaptation of the head to the part of the pelvis it successively enters; if the obstetrist try to produce these movements by the forceps, he can hardly avoid disturbing this natural accommodation. The great virtue of the forceps consists in aiding onward progression in the axis of the pelvis. The other movements of the head may be left to take care of themselves. The slight oscillation-movement attending traction simply aids progression.

MERCURIC CHLORIDE AS A SURGICAL DRESSING.

By WILLIAM ROBERTSON, M.B., C.M.,
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It is not, I believe, too much to assert that no thorough or generally applicable germicide has yet been introduced for the antiseptic treatment of wounds. As soon as a new substitute is proposed for the one preceding it, doubts regarding its efficacy come out almost in the next issue of our medical journals. The majority of those at present in use I have employed with varying, but, as in the practice of other surgeons, with no very special, results in the case of any particular germicide warranting its adoption in preference to others. No doubt, such experience has tended to introduce scepticism regarding the use of antiseptics generally, and has induced many to lay them aside and hold to general principles of cleanliness, rest, improved sanitation, etc., in contradistinction to special antiseptic precautions.

In the following notes, it will be my object to endeavour to point out how mercuric chloride, employed as an antiseptic surgical dressing, in solution, in the treatment of wounds, acted in a few cases that have lately come under my notice.

Having had a case of compound fracture of the arm in a boy, which was, from the profuse discharge and pyrexia, causing me some anxiety, and, failing to achieve any success with carbolic acid used as spray and in dressings, and after a trial also of Condy's fluid and boracic acid, both of which proved little better than carbolic acid, I was agreeably surprised at the manner in which the case altered its features at once after the use of mercuric chloride as a dressing. The following is an account of the case in detail.

John K., aged 14, driver, French Diamond Mining Company, on November 9th, 1882, had the truck on which he was sitting, driving, upset. This rolled over on him, and he sustained the following injuries: compound comminuted fracture of the right humerus; compound fracture of the right ulna, with extensive laceration of the soft parts of the ulnar surface of the forearm. At the time of the occurrence, the absence of bleeding and of want of sensation, the apparent vigour of the boy, and his youth, incited me to try to save the arm. The comminution of the humerus occurred at the upper part of its lower third, the elbow-joint escaping injury. There was a small wound on the inner surface of the arm communicating with this. The forearm was much bruised in its soft parts, and a large wound exposed the ulna for three inches of its extent. An inch of the ulna had to be snipped off, to facilitate apposition of its ends. A quantity of blue ground (diamondiferous soil, which is found peculiarly obnoxious to wounds) had been forced into the crevices of the wounded tissues, and, to a certain extent, aggravated the injury.

From the first, I used carbolic dressings (full Listerian precautions), adjusting the fractured bones and bruised tissues, and supported the whole on a triangular splint. Drainage-tubes were freely used.

The boy went on favourably for a time; but the suppuration that soon ensued, together with the rigors and pyrexia, after three weeks in hospital, presented the case in a most unfavourable light. Several times, the temperature went up to 104° Fahr., and was seldom below 102° Fahr.

The discharge of pus was most profuse, and daily the dressings were found flooded. The granulations became bloated, watery-looking, and hæmorrhagic. The limb was œdematous throughout, and abscesses formed at the seat of fracture of the humerus. The whole smelt badly, and was very painful; in fact, the case began to assume such a grave character, both locally and constitutionally, that I almost regretted not having amputated at first. Quinine in large doses had little effect on the temperature; on the contrary, it seemed to weaken the boy.

About this time (the fourth week of the case) I began to use mercuric chloride, of the strength of one-sixteenth of a grain with eight ounces of water. The first dressing I allowed to remain on for two days, being pleased at the ease the boy was in. The temperature had in the meanwhile fallen, and no discharge was seen outside the dressing. I employed the solution for injecting the sinuses, and applied it to the wounds simply on lint. On removing the first dressing, I was agreeably surprised at the almost total absence of any unpleasant odour, so distinct before. The discharge also had received a most notable check. Inside the guttapercha tissue, there was no pool of pus, as formerly; instead, the pus had just permeated the lint. Profuse discharge from the sinuses had ceased. One abscess-cavity, from being angry, red, and painful, had ceased discharging, and collapsed. The granulations had now put on a healthier appearance; the œdema of the limb was subsiding, and the limb generally less painful.

Another important feature in the case was the almost precipitate fall of temperature. This, after the second dressing, subsided to normal, and did not rise during the remainder of the treatment. So much for the first dressing and its results. I allowed the next application of the lotion of the perchloride on lint, after injecting the sinuses and cleansing the limb, to remain on for three days.

On removing it, I found, as regards the discharge, the same pleasing absence of it as formerly; the granulations had greatly improved, the œdema disappearing, pain much abated, the sinuses discharging only a clear lymphy fluid, no odour, no rise of temperature. The limb felt easy and comfortable.

The boy generally, in the absence of all the previous sources of irritation, which had told severely on his system, began now to improve in health and spirits, to eat and sleep well.

I was led to the use of perchloride of mercury on reading an extract from a paper by Professor Koch, in which the relative value of ordinary disinfectants is described. These experiments refer to pathogenous germs, bacteria, *i.e.*, germs viewed in the light of diseases. In this pursuit, carbolic acid and its various compounds with other bodies, salicylic acid, thymol, sulphurous acid, and chloride of zinc, were found but imperfectly useful, and only after prolonged and tedious applications; more especially, when directed towards the destruction of the resting spores of bacilli, the most indestructible of all forms of animal life. Those resting spores were, however, killed by a solution of the mercuric chloride, of the strength of 1-1000, in ten minutes; and, indeed, simple moistening of the earth containing the spores with the solution was found to be sufficient to arrest their power of development. Disregarding the poisonous qualities of the salt in such a diluted solution, I applied it, in this case, with the object of preventing the development or evolution of

the micro-organisms of putrefaction, with the results above detailed. No symptoms of the absorption of the salt were present at any time during the progress of the case, although carefully looked for. This note is necessarily imperfect and wanting in scientific detail, but the impression the single experiment made on my mind will certainly be lasting, and lead to future trial. It may be remarked that Listerian precautions (the use of the spray and carbolic acid) were but imperfectly carried out; but, against this, it is to be noted that they received as careful application as that of the mercuric chloride, and signally failed in contrast, as, indeed, Professor Koch finds to be the case in comparison with the same salt, employed as a germicide, applied to the destruction of pathogenous bacteriæ. The pus was not, previous to the use of the mercuric salt, examined; but the putrefactive characters of the discharge, and the constitutional symptoms present, were sufficient evidence, I think, to indicate that septic germs were present and at work; while the disappearance of fever, and the altered character of the discharge after the use of the salt, pointed to their destruction and arrest of absorption.

The noteworthy features in the use of this salt as a surgical dressing, if future experience bears out its value, as shown in this case, are these:

1. Its facility of application;
2. Its almost costless nature;
3. Its comparative innocuousness; for we are allowed, according to the results of Koch's experiments, if these be found applicable to germs in wounds as to pathogenous germs, a much further dilution of the salt; although, in this respect, it must be considered that a slight penetration of the salt is beneficial, as it thereby tends to kill the germs that have extended more deeply into the tissues.

Since writing the above, I have had again an opportunity of trying the salt, and with equally satisfactory results.

In one case,[1] a compound fracture of the humerus, scarcely one teaspoonful of pus has been secreted during a course of four weeks' treatment, and the fracture, in its process of repair, has closely resembled what takes place in simple fracture; there has been no odour, no pyrexia. In another instance,[2] a case of excision of hip-joint, in the person of a boy who had suffered from morbus coxæ for four years, previously to excision sinuses existed all round the joint, discharging pus in great quantities, of bad odour. At the resection, extensive disease was found in the femur and acetabulum and removed. Now, after three weeks' treatment, the inflammatory exudation, so extensive in the tissues surrounding the necrosed bone, has very considerably diminished; the daily (twenty-four hours) discharge of pus is reduced to about six drachms, laudable, and free from any odour. The extensive surgical wound has closed so far up, that a drainage-tube cannot be introduced. The temperature is, for the most part, normal, and the hip is free from pain. The boy sleeps remarkably well, and eats with a fair appetite. The old sinuses in this case have practically ceased discharging. The lotion here was applied, as in the other cases, on lint, and any sinuses or crevices were forcibly syringed out with it. This patient had to remain for five hours on the operating-table previously to removal to bed, and had to be freely stimulated and kept warm, showing how far he had been reduced by the long course of the disease; nor does it seem that he will have to go through such a long period of recovery as is usual in such cases, should he go on improving as the last three weeks have shown.

CLINICAL MEMORANDA.

INFANTILE ERYSIPELAS.

On Tuesday, May 2nd. when visiting Mrs. F. during her puerperium, I was asked to look at the child, which, she said, had retched very badly during the night. On my inquiring into the case, she said that it was very much troubled with vomiting, nothing lying upon the stomach, and it was suffering great pain, evinced by the cries it occasionally gave. The child had passed urine, and had a free motion of the bowels, apparently without any pain. The brow showed signs of erysipelas, which was taking a direction downwards towards the right side of the face. I ordered no medicine, and said that all they need do was to apply the best cotton-wool, sprinkled with the finest flour, to the parts affected. I saw the child again. He was looking more easy, and had a better night, but the vomiting still continued, and the erysipelas had spread down the right side of the neck to the forearm. On May 4th there were much the same conditions present, only the erysipelas was beginning to show signs of disappearance. On May 5th the child was looking so well, I considered all further attendance superfluous. On May 13th I was asked to see the child again, as it seemed to be suffering more pain. I found, on examination, that the belly was much swollen, and tympanitic over most parts, but slightly dull in percussion at the flanks, which had the appearance of bulging. The child was suffering great pain, pulled up its legs towards the belly, and cried piteously. The temperature in the rectum was 105° Fahr, and the pulse could scarcely be counted; the tongue was quite dry and leathery. From these signs and symptoms I came to the conclusion that the child was dying, and, therefore, did nothing for it, beyond ordering them to give it a very little brandy occasionally. The child died about four o'clock the next morning. I made a *post mortem* examination the next day, and the following were the appearances. The bowels were very much injected, and slightly matted together. There were ten ounces of serum in the peritoneal cavity, with a few flakes of lymph. I did not examine the other organs, as the parents were much against it.

Remarks.—1. Could this child have been saved by any treatment medicinally, and would the trocar have been of any service in removing the fluid, by this means removing the swelling, and allowing the child to breathe more freely? 2. Is erysipelas infectious? This was fairly shown to be the case in this patient, because a woman whom I attended at the same time as the child, suffering from erysipelas, had visited the child a few days before she took it, and the child was often in the kitchen of the same woman. The case is a very rare one among children so young.

W. A. Macleod, Kilmarnock.

[1] Wm. J., admitted to the Carnarvon Hospital, Kimberley, July 26th, 1883, workman, Rose Innes Diamond Mining Company.

[2] Harry McG., aged 17, admitted to the Carnarvon Hospital, Kimberley, July 25th, 1883.

OBSTETRIC MEMORANDA.

A CASE OF PUERPERAL CONVULSIONS.

E. F., aged 18, single, a robust factory-hand, at work up to the night before August 17th, was in labour at 8 A.M. At 11 A.M. convulsions came on, and medical aid was called in. At 2.30 P.M. I was asked to attend her at once, and found the patient in severe convulsions, recurring every ten minutes. I applied cold to the head and sinapisms to the legs, and at once sent for my assistant to bring the forceps, chloroform, and some chloral mixture. In the meantime I bled her to sixteen ounces. At 3.30 P.M., I delivered her with the forceps of a live child, though with considerable traction, and the placenta quickly followed, but the convulsions continued, though less severely than before she was bled. I gave her some chloral and bromide of potassium with difficulty, and ordered her to take twenty grains of each every two hours, and to have cold water cloths applied to the head. At 8 P.M., I found her unconscious, and still having convulsions. I gave her an injection of chloral and bromide of potassium, thirty grains of each, in an ounce of water, and ordered her to take fifteen grains of each two hours afterwards. At 11 P.M., convulsions recurred at longer intervals. She was ordered to take ten grains each of chloral and bromide of potassium every two hours.

August 18th, 8 A.M., she had had several fits, which were called convulsions. I saw her in one, or should have doubted the evidence. I gave her a good douche of cold water all over her head and face (her hair was not removed). At 4 P.M. the convulsions continued, but were less severe. She was ordered to have twenty grains of bromide of potassium every three hours, and, as the bowels had not been moved, to take ten grains of calomel with sugar.

August 19th, 9 A.M., I found her walking from another room, to which she had escaped when left alone. She had disregarded the calls of nature in a marked manner, and was in need of a thorough cleansing of person, bed, and floor, having had some bilious diarrhœa. I placed her on a chair, but she could not speak. At 4.30 P.M. I found her very clean and comfortable, and self-possessed. Her recovery was steady and rapid.

Remarks.—In this case I think it would have been fatal not to have bled the patient, and although the chloral was very beneficial, especially by injection, it tended to induce hysterical excitement. She was better for the douche and the calomel. Cold water cloths were applied to the head up to 9 A.M. of the 19th, from which time she gradually came to herself, not having had any chloral from 4 P.M. of the 18th.

Chas. O. Rowley, M.R.C.S.Eng., L.S.A., Barnsley.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

BIRMINGHAM WORKHOUSE INFIRMARY.

NINE CASES OF PNEUMONIA OF THE UPPER LOBE.

(Under the care of C. W. SUCKLING, M.D.Lond., Visiting Physician.)

CASE I.—H. R., a man, aged 72, who had suffered from chronic bronchitis and emphysema, caught a chill during the severe weather in March, and was admitted with consolidation of the right upper lobe. He had rusty sputum, and the usual physical signs of pneumonia. The pulse was 130, and irregularly intermittent. The temperature never rose above 100.6° Fahr. Death was brought about by cardiac failure.

The right lung weighed 40 ounces, and was exceedingly tough and granular (from previous chronic bronchitis); the granular appearance was exceedingly well marked from the presence of emphysema. The heart weighed, with clots, 22 ounces; without clots, 16 ounces; the clots were pale and fibrinous; fatty degeneration of the heart was present.

CASE II.—J. R., a female, aged 56, had had chronic bronchitis for years; she attributed her present illness to a bath. When admitted, she had pneumonia of the left apex. The temperature never rose above 100° Fahr. She had rusty expectoration, and became jaundiced. The patient recovered. No crisis occurred, but for some time there were signs of a cavity at the apex, and these were succeeded by considerable retraction of the chest-wall. The breath-sounds became almost normal.

CASE III.—E. W., aged 63, had a rigor four days before admission. On admission, consolidation of the right upper lobe was complete. The pulse was 120, and intermittent; the temperature was 102° Fahr. There was no expectoration. The patient died, and the necropsy showed that the whole of the upper lobe was affected, while the middle lobe was quite free.

CASE IV.—M. N., a man, aged 40, gave a history of many previous attacks of bronchitis. The patient was admitted in a dying condition. At the necropsy, there was well-marked pneumonia of the upper lobe of the left lung, and the lung weighed 42 ounces; the heart's cavities were full of pale clots.

CASE V.—O. D., a man, aged 27, had been a soldier, and had had ague in India. He said that he had had an attack of ague three days before admission. This was probably the rigor of pneumonia. He was suffering on admission from pneumonia of the right upper lobe. The temperature never rose above 102° Fahr. The expectoration was rusty. The patient died, from failure of the heart, five days after his admission; during this period, no change took place in the inflamed lung; in fact, the inflammatory products would not become absorbed. The case was for this reason most striking. The sub-crepitant *râle*, the sign of resolution, never appeared; dulness, bronchophony, and bronchial breathing, persisted to the end. Steam-inhalations, hot poultices, and other measures adopted were of no avail.

CASE VI.—J. D., a man aged 72, had suffered from chronic bronchitis and emphysema for years; he had caught cold a few days before admission, in March 1883. The man did not look very ill; his face was not flushed, and there was no dyspnœa, but his hands trembled. The temperature was 100° Fahr., and the respirations were 28. When admitted, there was some consolidation at the left apex, which, in a day or two, extended over the whole of the left upper lobe. The expectoration was rusty. The man lived a week in the infirmary, and died from heart-failure.

CASE VII.—E. T., a man aged 33, had been a hard drinker. When admitted, there was dulness over the left upper lobe, bronchial breathing, and rusty expectoration. The lower lobe was affected two days after admission. The pulse became dicrotous, and he died from heart-failure a week after admission.

CASE VIII.—L. H., a woman aged 50, when admitted, was in a very feeble tremulous condition. There were sordes on the lips, tongue, and teeth; the right side of the face was flushed, and there was dulness and bronchial breathing at the right apex. The respirations were 40, the pulse 120, and the temperature 102° Fahr.; there was no herpes, and no expectoration. The patient had been in the infirmary before; and, on reference to her old papers, it was found recorded that there was phthisical mischief at the right apex. The condition, however, of the patient left no doubt that there was pneumonia of the right apex supervening on the old mischief. The pulse gradually grew weaker, and she died from heart-failure four days after admission, the whole of the upper lobe being consolidated.

CASE IX.—J. J., aged 24, came in with symptoms of catarrh; his temperature was 99° Fahr.; the breath-sounds were a little harsh all over the chest. Two days after admission, there was a sudden elevation of temperature to 104° Fahr.; and, at the same time, dulness under the right clavicle and fine crepitation were observed. The whole of the upper lobe became consolidated. A crisis occurred on the sixth day after invasion, there being a fall in the temperature of six degrees, with rusty sputum. Complete recovery ensued.

REMARKS BY DR. SUCKLING.—During the first four months of this year (1883), I have had under my care at this infirmary thirty-three cases of pneumonia (lobar). Of these, nine have been of the upper lobe, which is a proportion of nearly one in three. In five cases, the right upper lobe was affected; in four, the left upper lobe. In two cases, a necropsy was made, and the lungs weighed about forty ounces; the exudation in the upper lobe amounting to about twenty ounces. I would call attention to the following facts. In the great majority of the cases, there had been previous lung-mischief, such as chronic bronchitis or emphysema, or some phthisis at the apex; and in such cases pneumonia is very fatal, seven out of eight of my cases dying. The case that recovered completely was that of a young man who had been previously perfectly healthy, and the pneumonia behaved just as pneumonia of the base does. Evidently, then, old people are very liable to pneumonia of the apex, especially when they have previously suffered from bronchitis. Again, in old people, the disease is apt to be latent; without carefnl examination of the chest, it may be overlooked. There is often nothing in their outward appearance to indicate the existence of pneumonia.

The temperature is not very high, rarely over 102° Fahr.; but there is marked tremulousness. In old people, then, with fever and obscure nervous symptoms, such as tremor and slight delirium, it is advisable to examine the lungs carefully.

In all the fatal cases, death occurred from heart-failure. In several cases, I have observed an intermittent pulse towards the end, there being feeble cardiac systoles corresponding to the intermissions. An intermittent pulse, occurring during the attack of pneumonia, would seem to be of bad omen. The treatment in every case was highly stimulant. The great number of cases met with during the month of March were probably to be attributed to the severe weather and north-east winds.

Trousseau says that pneumonia of the upper lobe is not necessarily accompanied by delirium; and it may be noted there was no delirium in any of the cases I have recorded here. He further says that it is not more dangerous nor more tedious than pneumonia at the base (except in tuberculous patients); but this latter statement is not supported by the cases I have met with. Probably, the great fatality (six out of seven) in my cases was due to the age of the patients. Two of them were seventy-two years of age, one was sixty-three, and another fifty-six; only two cases were under thirty years.

Inflammation of the upper lobe, in two of my cases, was followed by inflammation of the lower lobe on the same side; but the two lobes were not affected simultaneously, and I believe that it is very rare for this to occur.

It may be asked: How is it that a pneumonia of the upper lobe undergoes resolution and absorption with much greater difficulty than a pneumonia of the lower lobe? We know that the circulation through the lung is greatly assisted by the alternate expansion and collapse of the alveoli. This alternate expansion and collapse of the air-cells is not so active in the upper lobe as in the lower; the upper ribs being more fixed, and the apex being covered by the almost rigid clavicle, while above the clavicle there is no elastic chest-wall. This observation may explain the fact that absorption does not take place readily in this part of the lung.

ROYAL METEOROLOGICAL SOCIETY.—The Home Secretary has acquainted the Meteorological Society that her Majesty has been graciously pleased to grant it permission to adopt the preface "Royal." The Society accordingly becomes the "Royal Meteorological Society." To all workers in Meteorology, whether Fellows of that Society or not, this public recognition of the importance of the science cannot but be most gratifying.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF SCARLATINAL NEPHRITIS OCCURRING IN THE EIGHTH WEEK OF CONVALESCENCE.

(Under the care of Dr. GEE.)

[Reported by Mr. OSWALD BROWNE.]

W. E. W., aged 7, was admitted with scarlet fever on September 25th, 1882. The rash had appeared on the preceding day. The fever ran a mild course, without complication of any kind. He left the hospital on November 8th, six weeks and two days after admission. His urine had been carefully examined daily during the time; there had never been even a trace of albumen. He went for a short walk (wind S.W.) before entering his home, and from that time until his re-admission, he did not leave the house.

On November 17th, his face was noticed to look puffy; and on November 20th, his urine contained much albumen.

In the meanwhile, on November 13th, a sister sickened, the rash appearing on November 14th; on November 14th, his brother sickened, the rash appearing on November 15th; on November 18th, the only other child, a baby, sickened, the rash appearing on November 19th.

On November 21st, the boy was re-admitted into the hospital. His face was pale and slightly puffy, and there was very slight œdema of the feet and legs. The urine contained blood and granular casts, and albumen one-third. He was ordered milk-diet, with arrowroot, and a drachm of liquor ammoniæ acetatis in water three times a day.

November 24th.—Twenty ounces of urine had been passed in the previous twenty-four hours; the urine contained about one-fifth albumen.

On November 25th, a papular rash, much like measles, slight on the chest but thickly scattered over the face and back, appeared, but there were no catarrhal symptoms, and the temperature was not raised. The urine contained about one-sixth of albumen.

November 26th.—The same papular rash appeared over the face and forehead; it was very well marked on the arms, legs, and feet, but slight on the trunk. There was no catarrh, and the temperature was subnormal.

November 27th.—The rash had almost entirely faded. He was ordered five minims of tincture of acetate of iron.

November 28th.—The urine was of specific gravity 1032, acid, and contained a faint trace of albumen.

On December 4th, there was still a faint trace of albumen; but on December 11th, the urine contained no albumen; and on December 20th, he was discharged.

REMARKS.—The case is worthy of record as illustrating more than one point of interest. First, the very late occurrence, after eight weeks of convalescence, of the signs of nephritis. Then, the association in point of time of an attack of German measles, or, at any rate, of a rash resembling measles, occurring suddenly, without rise of temperature, and unattended by any catarrhal symptoms, lasting but a day or two, and then quickly fading. Lastly, the periods of incubation of the fever in the other members of the family, in the first case, certainly not later than the fifth day.

SUNDERLAND INFIRMARY.

LOOSE CARTILAGES IN KNEE-JOINT.

(Under the care of Mr. MORGAN.)

[Reported by Mr. WHITEHOUSE.]

J. P., aged 56, a miner, was admitted under Mr. Morgan for the removal of loose cartilages in his knee-joint. The patient had noticed a large movable body for some time; but it was only recently he had felt any difficulty or pain from it, and that only occasionally in walking. The knee was a little swollen from chronic synovitis, and a large body could be brought by manipulation to the upper and outer part of the joint. It could not be moved to the inner side of the joint at all. Twelve years since, the patient was much hurt about the legs by a fall of coal, and this knee especially was long in recovering.

On June 6th, Mr. Morgan removed from the joint two loose bodies, through an incision an inch and a half in length, with antiseptic precautions. A good quantity of synovia escaped through the wound. The wound was stitched with carbolised catgut, and the leg put up on a McIntyre's splint.

The patient had no pain until the third day after the operation, when there was a little over the joint, and his temperature rose to 99.6°. An ice-bag over the dressings completely relieved this. On the tenth day from the operation, it was dressed for the first time, and the wound was quite healed. On the twelfth day, he was walking about.

The larger of the bodies removed was an inch and a half in length, an inch and a half in diameter, and three inches and a half in circumference in its largest part. It was white in appearance, and was cartilaginous in structure. The smaller body was about half the former size, and of a different colour. At its margin, it was semitranslucent, and grey in colour; but at its centre it was mulberry-coloured, gradually fading towards its margin. It was hard, and a section under the microscope showed commencing ossification. This latter variety is believed to be rare.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 26TH, 1883.

SIR ANDREW CLARK, Bart., M.D., LL.D., F.R.C.P., President, in the Chair.

Rupture of a large Aneurysm in the Right Corpus Striatum, with Intraventricular Hæmorrhage, and Extreme Lowering of Rectal Temperature.—Dr. CHARLTON BASTIAN read notes of this case. Thomas R., aged 67, a man of intemperate habits, was intoxicated on the night of October 18th, 1881. The following morning he left his house sober at 7 A.M., and one hour afterwards was brought to University College Hospital in an insensible condition. He had been seen to stagger and fall sideways in the street, but did not strike his head in falling. On admission he was profoundly comatose. Breathing was slightly stertorous, slow and regular; pulse 65, soft, irregular, and slow. The head and extremities were cold; the skin pale and clammy. The left eye was completely closed; right eye partially so. The pupils were equal, insensitive, very small. There was slight rigidity of extremities on the right side. The left arm was quite flaccid; and the left leg more so than the right. This was the patient's condition at 10 A.M. After the application of a hot flannel to his cardiac region the pulse improved, becoming 72 and regular, and it did not vary perceptibly till just before the patient's death, five hours after admission, when it again began to fail. At 10.15 the temperature in the rectum was taken, and found to be 94.5°; at 11 A.M. it was 94.5°; at 11.30, 94.4°; at 12, 94.4°; at 12.30, 94.6°; and at 1.15 (just after death), 95.0°. The coldness and pallor of the skin continued throughout. The pupils enlarged slightly one hour after admission (remaining still, however, distinctly smaller than natural), and continued so till death. Stertor increased slightly about forty minutes before death, at 1.10. Some urine drawn off after death was found to contain no albumen. At the necropsy the calvaria was found to be extremely adherent to the dura mater. After efforts to separate them, they were removed together, when some clots and semifluid blood welled up from the base over the frontal lobes. During the removal of the brain itself, also, semifluid blood escaped through small rents in the right temporo-sphenoidal and the right orbital convolutions. After the removal of the brain, a quantity of blood was found covering the anterior and middle fossæ of the skull, and thence extending into the vertebral canal. Over the base of the brain, there was a large effusion of blood beneath the arachnoid, extending from the optic commissure over the pons Varolii, medulla oblongata, and hinder part of the cerebellum. The lateral ventricles were both very greatly distended, and full of blood-clot. When this blood had been removed, the superficial portion of the right corpus striatum was found to be much torn and shreddy. At the bottom of the space thus formed, a large aneurysm was found, about the size and shape of a small chestnut, an inch in diameter. In the thin wall of this aneurysm, a hole, about one line in diameter, was found. The third and fourth ventricles and the passage between them were all distended with blood. The great arteries at the base of the brain were not notably diseased, nor, after careful search by Mr. William Pasteur, were miliary aneurysms found in any part of the brain. The kidneys were slightly granular on the surface; their capsules were thickened, and the cortex was wasted in each, but to a slight extent. Other organs presented no noteworthy changes. Dr. Bastian said he did not know of any recorded case of apoplexy in which the rectal temperature had fallen so low as 94.4°, and in which it remained so near to this point for a period of three hours. In only two of the cases recorded by Bourneville did it ever sink as low as 96° Fahr. (35.4° C.). It rarely, indeed, sank lower than 96.5°. The prognostic value

of such a sign was great, and, therefore, he had been induced to place this case on record. It was, however, an interesting one in other respects. He had also been unable to discover the record of any case in which so large an aneurysm had been found imbedded within the substance of the brain, and formed upon one of its smaller vessels. It was rare even to find one so large situated upon the basilar or middle cerebral artery. Yet this large aneurysm was evidently formed upon one of the small arteries that come off directly from the first part of the middle cerebral, and enter the nucleus lenticularis. The rupture of such an aneurysm so situated led to the extravasation of an extremely large quantity of blood. In this connection, it was remarkable that the pulse and respiration should not have been more disturbed. Probably some distinct increase of the extravasation already existing caused their ultimate sudden failure. The absence of convulsions in this case was worthy of note; and it was also well to bear in mind that, if ventricular hæmorrhage were associated with a basal meningeal extravasation of blood, the pupils would be rather contracted than dilated.

Apoplexy in a Boy aged 15: *Intraventricular Hæmorrhage, Convulsions, and Death in Four Hours.*—Dr. CHARLTON BASTIAN read notes of this case. William N., a healthy-looking boy, aged 15, was admitted into University College Hospital on June 14th, 1883. Three years ago, according to his parents' account, after a "school-treat," he, on the same night, became violently convulsed, and afterwards screamed for two or three hours. The boy was said to have speedily resumed his ordinary healthy condition. Three weeks before his death, he complained of pain in his head, which soon passed off after taking a mild aperient. At 1.30 P.M. on the day of his death, he ate a good dinner, and seemed in perfect health. About 5 P.M., after some slight exertion (he was on horseback at the time), he complained of pain in his head, and almost at once lost consciousness. He then became rigid, blue in the face, and, from the accounts that were given, apparently convulsed. He remained insensible, vomited two or three times, and was brought to the hospital about 7 P.M. There was no history of a blow or fall upon the head. A *bruit* was heard at the apex of the heart, though there was no history of rheumatic or scarlet fever. On admission, the patient was in a condition of stupor, though he put out his tongue and opened his eyes when told to do so in a loud voice. The tongue deviated slightly to the left side. The pupils were equal, of medium size, and sluggish. He moved the right arm and leg, the left scarcely at all. The face was somewhat flushed. Pulse 84, regular. Respirations 18. Temperature in rectum 98.4°. About fifteen minutes after admission, the boy vomited some undigested food. A little later, he became rigid, and the face and extremities on both sides were clonically convulsed for one or two minutes, During the brief remainder of his life (an hour and three-quarters), he continued unconscious, and became convulsed at short intervals. His pupils were now, and remained till the end, small and quite insensible to light. Breathing at this time was irregular and sighing. The pulse at the same time was about 40, very slow, irregular, and intermittent. At first, the convulsions recurred about every five minutes. During these attacks, there was rigidity of both legs and arms, as well as slight opisthotonos. The intervals between the paroxysms gradually diminished from five to two minutes. About fifteen minutes after the injection of a solution containing thirty grains of chloral into the rectum, the convulsive paroxysms diminished, and eventually ceased. The breathing, however, still continued irregular, though the pulse became frequent and regular. Mucous *râles* soon became audible all over the front of the chest; but, up to the few moments immediately preceding his death, the patient's lips were of good colour; his pulse was frequent, 120, but of fair quality. Suddenly he became livid, and large *râles* were audible in the trachea. Death occurred in the course of a few minutes more. The rectal temperature was taken on three occasions. Soon after admission, it was 98.4°; but before death it had risen to 99°. At the necropsy, seventeen hours after death, nothing unnatural was presented by the dura mater or arachnoid, though the convolutions over the vertex were somewhat flattened. A subarachnoid extravasation of blood was found at the base, extending from the optic commissure backwards over and on each side of the pons Varolii and medulla oblongata, and thence upwards over the posterior border of the cerebellum. The upper parts of both cerebral hemispheres presented nothing unnatural, but about one ounce of blood was found in each lateral ventricle. The third and fourth ventricles were also full of blood-clot, and from the latter blood had evidently found its way out so as to produce the basal extravasation above referred to. In the nucleus lenticularis of the right corpus striatum, another quite recent clot (about half an ounce) was found, from which a small laceration of brain-tissue opened a way for blood into the lateral ventricle. The brain-tissue immediately around the clot was broken up and macerated. No other lesions were found. No aneurysms, large or small, were discovered after careful search. The great vessels at the base of the brain were healthy. The heart was of natural size. The free edge of the mitral valve was thickened, opaque, and distinctly nodular. The aortic valves were healthy. Both lungs were large, and semi-solid throughout, the increased consistence being apparently due to extreme congestion and œdema. This condition was most marked in the upper two-thirds of the left lung. The other organs were healthy. Dr. Bastian said that rapidly fatal apoplexy from intraventricular hæmorrhage was very rare in one so young. No distinct exciting cause seems to have existed, nor could any immediately determining cause be discovered. No aneurysm was found; there was no vascular infiltrating new growth, nor was there any appreciable disease of the great vessels at the base of the brain. There was no evidence to show that embolism had occurred as the first event leading on to hæmorrhage. The thickening of the edge of the mitral valve was chronic, and there were no vegetations from which embolic masses could have been derived, as in a case recorded in the *Lancet* of June 16th, 1883, where embolism, an adjacent hæmorrhage, and subsequently fatal intraventricular hæmorrhage, occurred in rapid succession in a girl, also aged 15. It seemed highly probable that, at the time of his admission into the hospital, the patient was suffering from hæmorrhage into the right corpus striatum; that soon after admission (possibly as a consequence of the act of vomiting) a further bleeding began to take place into the ventricles, with ultimate distension of the fourth ventricle and extravasation of blood over the base of the brain. This latter occurrence might have corresponded with the sudden failure of pulse and respiration immediately preceding death. The amount of blood extravasated was here much smaller than in the case of intraventricular hæmorrhage previously detailed. The rate at which the blood was poured out was probably also much slower. Hence in the boy there were more signs of irritation of the ventricles, while those of shock were far less marked. Tonic convulsions were frequent in this case and absent in the former. The rectal temperature in the boy had probably never been reduced to a very low point, seeing that at the expiration of two hours from the onset of the attack it stood at 98·4°. Subsequently, the tendency to lowering of temperature from a continuance of the cerebral hæmorrhage was probably rather more than antagonised by the tendency to elevation of temperature due to the frequently recurring convulsions, seeing that just before death it stood at 99°.

Sir ANDREW CLARK asked whether any structural changes had been detected in the heart or arteries of the patient; and remarked on the discovery, *post mortem*, of granular kidneys, a fact bearing out the application of the observations he had made previously on catheter-fever. It served to show that urine passed from a disorganised kidney, and flooded with uric acid, might still be exalbuminous.—Dr. ANGEL MONEY inquired if any marked degree of cyanosis had been noted in Case I, and stated that Brown-Séquard had shown that certain lesions of the floor of the fourth ventricle were accompanied by reduction of body-heat, a consequence possibly of arrest of tissue-metabolism.—Dr. CHARLEWOOD TURNER considered that paraplegic symptoms would have been exhibited if the aneurysm had been buried in the substance of the corpus striatum, such a condition being likely to result from the apoplexy thus created. It was of the first importance to know what was the state of the vessels. He had examined six cases of cerebral hæmorrhage, in which he found the arterial walls increased by an epithelial thickening; and suggested, as a result of primary bleeding and subsequent coagulation of the exuded blood, that coagulation would ensue, and a sort of cyst would be formed, which, under distension set up by later hæmorrhage, might give way, and so originate the damage attendant on a burst aneurysm in the corpus striatum.—Mr. PASTEUR explained that the thermometer with which the temperatures mentioned in Dr. Bastian's papers had been registered, was a special instrument, previously tested, and used by himself with the utmost care to secure accuracy.—Dr. ALTHAUS had known as low a temperature as 95.5° F. in cases of cerebral hæmorrhage. He regarded it as curious that no *ante mortem* rise had been noted in Dr. Bastian's cases. Low temperatures imported grave conditions.—Dr. GREEN said the second case was one of especial interest, and he would be glad to learn if Dr. Bastian had experience of any other instance of a similar kind, in which no obvious cause could be found to explain the symptoms. Contraction of the pupils commonly followed hæmorrhage at the base of the brain.—The PRESIDENT remarked

that several authorities, Sir James Paget among others, had described microscopic changes of vessels in the young subjects of hæmorrhage.—Dr. BEEVOR asked if the convulsions which were mentioned in the paper took an epileptiform character.—Dr. BASTIAN said that, in the first case, there was no abnormal condition of the heart, and the vessels at the base of the brain and elsewhere presented no marked pathological changes. In reference to the thermometer employed, he believed its accuracy had been verified, but on that point Mr. Pasteur had spoken. The clots found within the cranium were of the ordinary dark colour in the first case. There was no history of previous cerebral symptoms; certainly the man was not previously hemiplegic, and he thought that even an aneurysm of the size found might slowly enlarge within the corpus striatum without giving rise to very definite brain-symptoms. That it was a ventricular aneurysm, he had no doubt, both from his own examination, and because sections of it had been examined microscopically by Mr. Horsley and others. No rise of temperature such as was referred to by Dr. Althaus could, he thought, be expected in this case, seeing that the cerebral bleeding probably continued up to the time of death. In the second case, the kidneys were carefully examined, and were found to be free from disease. Some congestion only existed, which could easily be accounted for by the mode of death. The initial convulsions in this case were probably caused by the mere extravasation into the corpus striatum. Though by no means invariable, it was an occasional consequence of such lesions, especially in young subjects. The subsequent frequently recurring tonic convulsions were, he thought, due to irritation of the lateral ventricles.

Syphilitic Tumours of the Cerebral Membranes.—Dr. ALTHAUS read particulars of this case. The patient was a girl, aged 14, in highly respectable circumstances, without any history of congenital or acquired syphilis. Her illness began with gradual loss of power in the left side of the body, and cessation of the catamenia, and was diagnosed as a form of hysteria, and treated with iron and electricity. The patient, however, gradually grew worse, and eventually sank into a comatose condition. Dr. Althaus only saw her once in consultation, about a week before her death, and then made the diagnosis of tumour of the brain, and advised treatment by perchloride of mercury and iodide of potassium. The principal symptom which led him to reject the idea of hysteria was the exaggeration of tendon-reflexes in the paretic side of the body, which was indicative of structural disease of the nervous centres, while, in hysteria, these reflexes might be normal, increased, or diminished, but were equal in symmetrical parts of the body. In addition to this, there had been headache and vomiting; the paralytic symptoms had come on gradually, and pointed to a lesion in the motor area of the right side of the brain, while a marked degree of hyperæsthesia, which was likewise present in the affected side, rendered it evident that the lesion was of an irritative character, and also affected sensory areas. There had been no convulsive seizures, which were common in some forms of tumour of the brain, but were not a necessary sequel of the disease. There was no choked disc, from which it was concluded that the intracranial space was not materially reduced, and that the tumour was therefore not of a large size. The *post mortem* examination revealed a multitude of small nodular growths of a yellowish-grey colour permeating the pia mater and arachnoid, which latter were opaque, thickened, and adherent to the subjacent cortex. Many of these small tumours were disposed in confluent clusters, forming larger nodulated masses, and they were occasionally traced into the cortex and subjacent medulla. The lumen of the blood-vessels was much reduced by thickening of their inner coat, and accumulation of round cells, occasionally to occlusion; and the blood-vessels of the cortex were unnaturally engorged. Dr. Althaus discussed various points in connection with the pathology of the case, and remarked, amongst others, upon a peculiarly fœtid smell exhaled by the skin of the patient, which was often found in syphilis, and which in doubtful cases might be of diagnostic importance.—Dr. ANGEL MONEY took exception to the view that a choked disc must necessarily accompany tumour in the intracranial nerve-space.—Dr. BASTIAN took up the question of the earliest recorded time in which such well-marked pachymeningitis and formation of tumour could be produced as the result of syphilitic infection. According to his own observations, at least five, and oftener ten, years were necessary to this end; and, if generally supported, this opinion would impugn the theory of syphilis erected by Dr. Althaus. About two weeks since Dr. Ringer had discovered, in the *post mortem* room of University College Hospital, ulcerations exactly resembling those of syphilis in the head of a young girl who was the subject of tuberoular meningitis, and in whose case no suspicion of syphilis existed. Other causes than syphilis might produce the characteristic lesions in question.—Dr. GREEN agreed that it was often difficult to distinguish between syphilitic ulcerations and those caused by tuberculosis.—Dr. GLOVER had lately seen a case of tubercular meningitis in which the temperature never exceeded 100°. He thought it would be very satisfactory if proof of the syphilitic origin of such injuries as had been observed could be adduced, for then good hopes of cure might be entertained. He strongly deprecated the pursuit of inquiries calculated to inflict a moral injury on respectable families.—Mr. BARKER had recently read papers in periodical publications supporting the theory that lesions like those under discussion might be discovered in other diseases besides syphilis.—Mr. PARKER suggested that Dr. Althaus's case might be one of inherited syphilis.—Dr. WILBERFORCE SMITH quoted Mr. Hutchinson's observations in support of the view that the symptoms of congenital syphilis might be late in developing.—The PRESIDENT thought it would be very desirable for Dr. Althaus to state the facts on which his diagnosis of syphilis was based. He himself (the President) did not regard anatomical structure along as affording a sufficient ground on which to express an opinion.—Dr. ALTHAUS explained that his diagnosis was based on *post-mortem* evidence obtained from examination of the brain alone. He was not aware of any other disease in which similar signs were obvious. The subject of his paper had been physically quite well prior to the attack described, and exhibited no cachexia of any kind, nor had primary nor secondary syphilis been developed in her; neither could anything suggestive of congenital syphilis be discovered after careful investigation of the family history. Regarding the time taken for development of specific symptoms, he had seen lesions like those described two years after primary invasion. Respecting the reference made to optic neuritis, he had been misunderstood by Dr. Money. His intention had been only to insist on the greater frequency of this condition attendant on the presence of large tumours.—Sir ANDREW CLARK pointed out that no examination of thoracic or other viscera, save the brain, had been made in this case, whereby the doubts respecting the existence of tuberculosis had not been dissipated.—Dr. ALTHAUS observed that the slowly advancing symptoms of this disease were absent.

Dislocation of Jaw, Reduced after Eighteen Weeks.—Mr. HILTON GOLDING-BIRD gave particulars of the case. The patient, a sailor, aged 22, sustained a double dislocation of the jaw whilst gaping, on May 2nd, 1883. Unable to obtain any relief, he returned to England, the dribbling of the saliva having now ceased, and the jaws being closed to about ¾-inch. On August 31st, the first attempts were made at reduction, under chloroform, by manipulation with the thumbs in the mouth by pressing up the chin forcibly, the wedges being placed between the molars, and by Nélaton's method of pressure directly upon the coronoid processes. The position of the jaw was not improved, but adhesions were broken, and the jaw rendered more movable, though still in the vicious position. A week later (September 2nd), Nélaton's plan was tried again, and, after two attempts, the right side was reduced; the left was now easily replaced, and direct pressure on the chin backwards brought the lower front teeth into their normal position behind the upper. In a few days, the patient was discharged from hospital, well. The author expressed his opinion that, whilst the coronoid processes were in contact with the malar bones, yet the main obstruction to reduction lay in the eminentiæ articulares. He believed the case of eighteen weeks' standing to be, with Pollock's of four months, the longest after injury in which reduction had been quite successful.—Mr. PICK asked if the patient had been seen subsequently to the operation; the dislocation might possibly return. Mr. Pollock treated a similar case some time ago. The patient in this instance was a woman, aged 40; dislocation on both sides existed four months. It was reduced by a tourniquet. No recurrence took place.—Mr. GOLDING-BIRD said he saw his patient fourteen days after operation, and he was then well.

SOUTH-EASTERN BRANCH: CONJOINED MEETING OF EAST AND WEST SURREY DISTRICTS.

THURSDAY, OCTOBER 11TH, 1883.

T. F. LLOYD, Esq., in the Chair.

Note-Taking.—Mr. GEORGE ABBOTT read a communication on note-taking by notation, with special reference to Collective Investigation, pointing out that the work of collective investigation of disease would encourage practitioners to record cases more frequently than hitherto, and, therefore, it was important that the easiest, quickest,

and best method should be known. He advocated Dr. Veale's system of notation (BRITISH MEDICAL JOURNAL, vol. i, 1879, page 381) in preference to Pitman's or any other system of shorthand, in conjunction with a variety of outlines for different classes of disease. The sheet would be of especial value for out-patient letters, and would save both students and registrars an immense amount of time. A form for ophthalmic cases was shown, and specimens with key and explanation were distributed. Mr. Abbott suggested that abbreviations or symbols should be arranged for common diseases, after the manner of the chemical notation, for insertion in the next edition of the College of Physicians' *Nomenclature of Disease*.

Inguinal Colotomy.—Mr. REEVES read notes of eight cases of inguinal colotomy, from hospital practice, and drew attention to the advantages of this proceeding over lumbar colotomy. Seven of these were women, three of them quite young, and they all recovered from the operation and left the hospital much relieved. Only one case was in a male, aged 64, who was operated on at Dorking after consultation with Messrs. Chaldecott. The operation was undertaken as a last resource for obstruction through a large cancerous mass in the rectum, and this proved, as expected, to be the only unsuccessful case in the series. The advantages claimed for the operation were, that it was simpler, that one could be sure of opening the sigmoid flexure, that there was no fear of unintentionally opening the peritoneum, as had occurred to all operators of any large experience, because this membrane was intentionally incised in the operation, and this without the use of antiseptic precautions. The occurrence of prolapse was very much lessened, though there was a tendency for the opening to close, which could, however, be prevented by the use of a suitable plug and the occasional passage of the oiled finger. When undertaken for simple stricture with ulceration, this method had the advantage of permitting medication of the diseased bowel from above the stricture, also the passage of bougies from above, through the obstruction, should this be thought advisable. Mr. Reeves mentioned that he had another case—that of a girl aged 20—now under care, suffering from malignant rectal obstruction; and, as he had seen several others of a similar kind, and as not a few cases of epithelioma and other forms of malignant disease of the vagina, vulva, and uterus, had been admitted into the Hospital for Women under the care of his colleagues during the past few years, he thought it was a pathological fallacy to speak of cancer as necessarily a disease of senility of tissue; and he thought it a mere assumption, destitute of anatomical proof, that when some form of cancer attacked the young, premature senility of tissue was to be concluded. Mr. Reeves also spoke as to the relative frequency of new growths in the large and small intestine, and expressed his conviction that they were not so uncommon in the latter as past statistics suggested. He concluded by saying that inguinal colotomy might be done extraperitoneally by an incision, as for tying the external iliac artery high up, but that the operation would be a long one, and that if the meso-colon were long the gut could not well be reached without injuring it; and stated that, in a case in which it was known that the obstruction was in the large intestine, but in which its exact seat could not be made out, right inguinal colotomy offered this great advantage over right lumbar, that the surgeon could be sure of opening the commencement of the large intestine, viz., the cæcum, and if the disease were found to be in this organ, it might admit of removal.

ST. JOHN'S AMBULANCE ASSOCIATION.—The annual meeting of the Portsmouth centre of the St. John's Ambulance Association has been held, under the presidency of Prince Edward of Saxe-Weimer. Mrs. Juson, the honorary secretary, on behalf of the ladies' class, presented Dr. C. Knott, the medical officer of the Society, with a pair of silver grape-scissors. Prince Edward addressed the meeting, in which he stated that first-aid classes of both men and women had been instructed by Mr. Knott, who had also held an advanced or nursing class for women. Dr. Woods, R.N., had instructed forty-four men of the royal yachts *Victoria*, *Albert*, *and Osborne*. Of these forty presented themselves, and passed. The members attending Dr. Knott's classes had been thirty-one men and eighteen women first-aid, and fifteen women for the nursing class. Of these, a large number presented themselves for examination, and passed. First-aid certificates were presented to the successful candidates. The proceedings terminated with a vote of thanks to His Serene Highness.

THE Bootle-cum-Linacre Town Council have increased the salary of Mr. Robert John Sprakeling, the medical officer of health, from £60 to £80 per annum.

REVIEWS AND NOTICES.

A MANUAL OF PATHOLOGY. By JOSEPH COATS, M.D. London: Longmans, Green, and Co. 1883.

MANY things converge towards a propitious career for a new manual of pathology. English manuals are good, very good, but they are not many. Green's manual is admirable, but deals with general pathology only; Wilks and Moxon's book, dealing *seriatim* with the lesions of the viscera, is so complete and full that, take any viscus we will, and reading through many manuals, we come back and find it all there; and were it not that manuals, like their authors, grow old—as distinct from effete—it may be questioned whether a better than this is likely to be issued for many a long day. But age is, in the present day of movement, one point adverse to a book; and certainly a new book—new, that is to say, in style, in treatment, in illustration—is always sure of success. Dr. COATS' name, at the outset, excites an interest in the contents of his work; he has been for some years before the medical profession as a teacher of pathology; and he has done good work; and, further, his work has always been possessed of vigour and originality which make one wish to see in what way he rises to the sustained and imagination-tiring effort of producing a systematic treatise.

First of all, the illustrations arrest attention. There is a very prevalent habit of saving trouble by borrowing illustrations from other people's books; and so we find the same old faces year after year in new cases and under new names. This must always be the case to some extent. There is no need to have a new figure when an old one cannot be improved upon; but novelty might more often be imparted than it is, and that without any sacrifice. In this volume, we have a bold attempt to tackle this evil. Of three hundred and thirty-nine illustrations, one hundred and eighty-five appear to be from the author's own pen, and many of them are strikingly good. We notice a section of tubercular intestine which seems to be very truthful. Some are original and bold attempts to represent in woodcuts, not altogether unsuccessfully, morbid conditions, such as globular thrombi in the heart, etc. A few, it must be said, are very indifferent; and we will mention a small figure of giant-cell sarcoma which the alienist might claim as coming from the hand of a general paralytic; and one of microscopic structure of glioma of the brain, which would certainly not be recognised as such. Among those illustrations which are borrowed, we notice the names of Klein, Hamilton, Thierfelder, Ziegler, Koch, Grawitz, Kyber, etc.; and these will be sufficient to show that not only has the author taken great pains to illustrate his book from his own materials, but that, also, he has applied to all the most recent authorities in pathology to supply him. Thus we have throughout all the latest fashions, and there is the charm of novelty from the beginning to the end.

When we turn to the text, we find that the work aims at being complete, and therefore devotes itself to general pathology, comprising blood-diseases, inflammation, retrograde metamorphoses, hypertrophy, repair, etc., and to the diseases of special organs and systems. And we must agree with the author when he says that the whole aim of pathological anatomy is to elucidate the actual vital processes of disease, and that the subject gains in interest and intelligibility when the etiology, anatomy, and general pathology, are all taken into account in forming a general conception of each morbid condition. At the same time, one cannot but see, when one takes up books upon pathology, that, while the facts of morbid anatomy are unchangeable, their interpretation or pathology is a matter of opinion, and is often—nay, generally—a reflex of the individuality and originality of the author. Hence, although at first thought we are inclined to agree with Dr. Coats in the wisdom of making his book complete, more mature consideration compels a doubt as to the practicability of the scheme; and a perusal of this volume does but strengthen our doubt. In short, we doubt whether the time is yet ripe for a treatise on pathology—if, indeed, it will ever be; and a manual fulfils all its best purposes if it contain a succinct account of morbid anatomy, with some short summary of the most generally accepted explanation of the facts, or of the author's own view of the matter.

We cannot say that Dr. Coats carries out our ideal. His presentation of the facts to the reader comes cold and bald, and his pathological sketch seems disconnected. Moreover, we cannot but think he is in advance of the day in his readiness to accept—nay, more, to teach—all the latest doctrines. They are very interesting, no doubt, and well worth discussion; but, inasmuch as in most cases they appear to be in opposition to hitherto received notions, and to many

every-day facts, they require to be cautiously introduced and carefully argued. We are more particularly referring to the latest views upon tuberculosis. Ready as we are to admit the interest of Koch's investigations, we cannot admit that the whole pathology of tuberculosis is expressed in the bacillus discovered by him. Nevertheless, with the exception that it is stated in a line and a half that "it is only persons who have natural or acquired weaknesses that become the subjects of local tuberculosis," that is the sum of Dr. Coats' teachings, and in accordance with it we find it stated that the virus is introduced by the air or in the food, lodges in the lungs or intestine, and so gains an entrance. There is no general survey of the disease in all its bearings, nor any sufficient grasp of its outline, such as to constitute its pathology. Lupus, in like manner, is taught to be due to a virus; and the author leads us to think he is in favour of the view that it is of tubercular nature, and leprosy in like manner.

The chapter on tumours is good. All the various forms are described concisely, the illustrations are numerous, and, altogether, a good deal of information is conveyed. In various parts, indeed, there are short paragraphs which contain a great deal of practical information not generally known, and which tell of a wide experience in morbid anatomy. The chapter on parasites, vegetable and animal, is also good.

Thence we pass on to diseases of the circulation, malformation of the heart, hypertrophy, atrophy, muscular degeneration, valvular inflammations. We notice that the author makes no attempt to distinguish between a congenital and an acquired form of mitral disease. He allows it to be supposed—and we think he is right in doing so—that all chronic thickenings of the mitral valve have a tendency to become funnel-shaped. In the interest of the student, this is of considerable advantage. There are many statements of the existence of somewhat finely drawn distinctions in all parts of medical study which the learner, and even those who have had considerable experience, find it difficult to trace to any substantial basis; which, in consequence, they are never able to explain; and which are not only useless by their own want of definition, but also by obscuring, perhaps, some real facts stored in their locality. And, as regards mitral constriction, we have never yet been able to demonstrate what was a funnel-shaped mitral valve due to one cause, as distinct from a non-funnel-shaped constriction due to another.

The nervous system, the pulmonary system, the digestive organs, and genito-urinary, follow in their order, the volume concluding by diseases of the bones and joints, and diseases of the skin.

But we must conclude. As we run through the book, there are points in it which are very good. The student would acquire a considerable amount of information from the profusion of truthful, as well as for the most part novel, illustrations. In a work of this size, there cannot but be a store of information. At the same time, there does seem to be a want of vitality about the text, a struggling under water of a mass of fact, a want of word-painting, which strikes us as disappointing in a teacher of so rare a power as Dr. Coats, and a pathologist of so ripe an experience.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SIR,—I beg to bring before your notice a new form of midwifery-forceps which I have lately had made for me by Messrs. Krohne and Sesemann. As you will observe, the alteration is confined to the lock, which is simply the old one reversed so that the top blade carries that part of it which by the old arrangement is attached to the lower one, and *vice versâ*. My object has been to overcome the difficulty so often experienced in the introduction and locking of the top blade. The upper blade, by this simple change, may always be introduced before the lower, without any necessity for twisting, etc.—I am, sir, yours faithfully,

R. H. A. HUNTER, M.R.C.S., L.R.C.P., L.M.

1, Home Road, Battersea, S.W., October 12th, 1883.

MEDICAL MAGISTRATE.—At the Breconshire Sessions, October 16th, David Thomas, M.D., of Ystalyfera, was sworn in as a Justice of the Peace.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 3rd, 1883.

A VICTORY IN LINCOLN'S-INN FIELDS.

WE have, for many years, used every opportunity, and taken all seasonable occasions, for urging the right of Fellows of the Royal College of Surgeons of England, residing at a distance from the College, to record their votes for the election of councillors without being called upon personally to come up to London for that purpose. It has been obvious, indeed, that the existing system practically left the whole body of provincial Fellows largely at the mercy of the resident metropolitan members of their body, and placed a heavy penalty on the exercise of electoral rights by the provincial Fellows, by the obstacles which it interposed to the exercise of those rights. It is unnecessary at this moment to recapitulate the arguments by which this self-evident proposition were supported, and we do not desire to revive ancient history by relating the long fight which has been made in order to overcome the stolid opposition of vested rights. Privileged classes are always slow to relinquish their cherished monopolies and their special privileges, however acquired.

Originally, the great argument in favour of the monopoly was drawn from the fact that London was for England the great centre of medical education, and the sacred seat of the highest surgical skill, education, and eminence. That plea Time has abolished. The steady and continuous development of decentralisation in science, in literature, and in politics; the rapid growth of great centres of medical and surgical education in the provinces; the uplifting of the level of professional skill and eminence throughout the whole country to an equality with that of the metropolis, and the great part played by provincial Fellows in adding to knowledge, in prosecuting successfully surgical science and practice, and in giving vigour and impetus to the whole social, political, and scientific movement of the profession, have annihilated the grounds of the pre-eminence and the basis of the monopoly which were once tacitly claimed and practically assumed by the London Fellows.

The character, ability, and vigour of the provincial members of the council of the College have done much to strengthen the claim of provincial Fellows generally to an equal voice in the management of the affairs of that important institution; and the judgment shown in the selection of their representatives in urging the claim to enfranchisement has more than amply justified their demand to be allowed to take an equal part in fulfilling the duties and in exercising the powers of collegiate government and administration in its relation to the scientific and educa-

tional progress of the profession. At the last election, when this question was definitely raised anew in a very prominent manner, it was met by an unexpected demonstration of hostility by a minority of the candidates for election into the Council, and it was thought by some that this hostility and the ill-considered declarations, taken in conjunction with the somewhat anomalous result of the voting, indicated that the claims of the provincial Fellows to the right of other than personal voting were unlikely to be satisfied in the near future. Some, indeed, went so far as to say, that to question candidates as to whether they were or were not in favour of this extension of the franchise was an abuse of electoral rights; and there was some wild talking about "brazen images," "electoral puppets," and "delegated machines." All this was the mere froth of electoral excitement, and we ventured at the time to declare a widely different reading of the signs of the time, to anticipate the speedy dissipation of this excited, unreasonable, and vaporous foam, and to intimate the opinion that the end was near at hand, and that that end could only be the granting to the whole body of the Fellows equal electoral rights, powers, and privileges. Such an aim could only be attained by the adoption of some system of voting by papers. The recently formed association of Fellows of the College of Surgeons, which aimed at procuring this as first and chief of its immediate objects, will find with satisfaction that the walls have fallen at the sound of the trumpet. We are able to announce that the Committee appointed by the Council of the College of Surgeons to consider this question have unanimously resolved to recommend to the Council that voting by papers be forthwith instituted, and that application be made to the Government for an amended charter. Some few details remain to be settled as to the precise form in which the voting-papers shall be attested, if any attestation be deemed necessary, and some other matters of detail. But, practically, the decision of the Committee has been taken, and it may be assumed as beyond doubt that the Council will accept the unanimous decision of its Committee, and will act upon its report. Before long, therefore, the breath of popular opinion will blow more freely through the College than hitherto, and the whole body of the Fellows of the College will have the opportunity of taking part by their vote in the electoral acts of the College, and in assisting to mould its policy in accordance with the views and opinions of the whole body, to an extent which has hitherto been impossible.

It is much to the credit of the Council that it has yielded with so good a grace to the evident destiny which awaited it, in common with all great public institutions; and has consented to modify its constitution so as to make it thoroughly representative of its constituents. That it will certainly gain, and will in no way suffer from the change, of which we may now speak as one about to be made at no distant date, is, we believe, beyond doubt. Of the fitness, of the intelligence, and of the public spirit of the enlarged constituency to which appeal will be made, there can be no doubt, nor is there any reason to suggest, that the Fellows at large will be less mindful of the necessity of maintaining the efficiency, the dignity, and the public usefulness of the College, than has the smaller constituency which has heretofore taken the chief part in the work of electing a Council. This is, of course, not the only point in which ultimate reform may be expected; but the very basis of all reform is that the governing body of any great public institution should adequately and easily represent the feelings of the whole constituency. This end was thought by some to be far distant. We ventured, last July, at a moment when many were disappointed, and the opponents of reform were unduly elated, to predict that the end was close at hand, and we are glad to be able to announce that it is now in view.

THE THORNTON HEATH MURDER.

SINCE our former comments on this case, founded on the imperfect newspaper reports of the trial, were written, a letter from Dr. Jackson has appeared in the *Times*, supplying the fullest justification of the conclusions at which we arrived. Dr. Jackson, who was actuated in giving evidence in favour of the wretched man Cole by no hope of fee or reward, but by a sense of humanity and love of truth which do him honour, had been led to the belief that he was of unsound mind, by a careful consideration of those two kinds of facts which form the basis of every lunacy-certificate in this country, namely, "facts observed by myself, and facts communicated by others." He had examined Cole in gaol, and found insane delusions in his mind, and he had collected from many witnesses who had known the prisoner for years a mass of information about him, tending to show that he had long been a dangerous lunatic, and that the responsibility for the death of his child really lay not so much with him, as with those who had neglected to put him in a place of safety, where it would have been impossible for his madness to find such sanguinary expression. It can scarcely be doubted that, had all the evidence which had satisfied Dr. Jackson been laid before the jury, it would have carried conviction to their minds, also, that Cole was an irresponsible lunatic. But, unfortunately, the case for the defence seems to have been submitted to them only in a mutilated shape.

Dr. Jackson was permitted to state his own observations and opinion, but none of the witnesses who could have supported his position, and proved insane conduct on the part of the prisoner long antecedent to the crime for which he was being tried, and his actual recognition as a lunatic in several quasi-legal documents, were called. Dr. Jackson says: "I not only maintain that Cole was and is insane, but that the Crown at the trial had in its possession proofs thereof which would have convinced any English jury, but which were wilfully kept from the jury, so that they were invited to give their verdict without being made acquainted with all the facts which should, in the interests of justice, have been made known."

If Dr. Jackson be not grievously mistaken in this allegation—and it seems to be borne out by his detailed statement of facts, while the studied moderation of his tone forbids the idea that he would wantonly indulge in rash accusations—then a charge of a most grave character is brought against the officials who were engaged in the prosecution in this case. No more damaging imputation can possibly be made against judicial functionaries of any class than the wilful suppression of evidence favourable to a prisoner on trial for his life; and the matter cannot certainly be permitted to rest where it now is. If the officials compromised by Dr. Jackson's revelations do not clear themselves of the gross accusation under which they now lie, the matter ought to be brought before Parliament as soon as possible after its meeting. We all know what would be done to a constable who was shown to have withheld any material fact in a paltry case in a police-court; and it is intolerable that more highly placed officials, concerned in the administration of justice, should be allowed to pursue similar tactics with impunity. Very sharp criticisms have been passed lately on the Public Prosecutor by judges and others; and should it appear that he, or those acting under his authority, have by negligence or connivance permitted a cooked case to be submitted to a jury when a life was at stake, a very sweeping reform will be speedily effected in his department.

Whatever Cole's fate may be, this assertion of Dr. Jackson, that evidence was withheld which might have induced the jury to bring in a verdict in his case different from what they did, cannot remain unanswered.

As we have hinted, the charge brought by Dr. Jackson against the prosecution in Cole's case will probably be brought before the House of Commons should need be; but a more summary inquiry into its justifiableness is essential, for the country will not sanction the execution of any criminal who has been the victim of oppression or incapacity. If it can be established before Sir William Harcourt that evidence of great significance was wilfully withheld from the jury at the trial of this convict, then it is his clear duty to respite him without delay. The law of England cannot afford to take any unfair advantage of even the most abject criminal. Far less can it afford to strain its procedure in order to bring to the gallows a man painfully stricken by disease.

The evidence which Dr. Jackson alleges to have been kept back from the jury at the trial of Cole was certainly, if of the character which he describes, of vital importance. Two workmen were, he says, waiting in the precincts of the court ready to testify that they had known him for years, and had been long convinced of his insanity. And, beside them, was Mr. Duke, Master of the Croydon Workhouse, prepared to swear that Cole was brought there, in 1877, as "a wandering lunatic,' and was entered in the books by Mr. Roper as suffering from "mental disease;" and that, in 1879, he was again admitted to the workhouse under a certificate of Dr. Hardy Smith, to the effect that he was labouring under "alienation of mind," and was again reported by Mr. Roper as "insane." And yet neither Mr. Duke nor either of the workmen was put in the witness-box, although what they could have proved was of the utmost consequence to the defence. The testimony of Mr. Duke would have been of especial value, as it would have shown that three medical men, none of whom were specialists, and each of whom acted independently, had come to the conclusion that he was insane long before the commission of the crime for which he was tried. The prosecution cannot excuse itself by pleading ignorance of the purport of the testimony of these witnesses, as they were subpœnaed by the Crown; and there does, therefore, appear to be some warrant for Dr. Jackson's emphatic impeachment of Mr. Poland, and those who acted with him in this case. "Such suppression" [of evidence], he says, "looks to me like an attempt at judicial murder. The Crown, as representing the people, ought to be anxious, above all things, for justice; and to this end, that the jury should know all the facts, those telling in the prisoner's favour, as well as those adverse to him. And the more incumbent was it on Mr. Poland to furnish this evidence, as he knew that the prisoner had no friends, no money, and no solicitor to gather information for counsel's use. The Crown, for decency's sake, appoints a barrister to defend him. But this is a solemn hypocritical farce if it take not care to supply him with any information likely to crown his efforts with success. It asks, by solemn oath, its witness to speak the truth, the whole truth, etc.; but itself suppresses the most important part of the truth as regards the life at stake. Is this wise or humane, or likely to secure—what ought to be of more value to us all than a personal victory—a righteous verdict?" Vigorous words these, and yet not more vigorous than is necessary, if the facts of the case be as Dr. Jackson represents them.

The respite of Cole may now be demanded on the double ground that he is a lunatic, and that he has not had a fair trial.

As regards his lunacy, there can really be no difference of opinion, nor can the question properly arise in this case whether he came within the most restricted legal definition of insanity with reference to criminal responsibility. No one can maintain that a man who fancies himself beset by enemies on every hand, poisoned, and assailed by violence, and who, when at bay, seizes and kills the first human being that comes to hand, knows right from wrong, or is aware that he is breaking the law and will be punished. There is a law stronger than any legislative enactments, and that is the law of self-preservation. That may be brought into operation by real danger, or by the not less demoralising terrors conjured up by a diseased brain, but wherever it is in the ascendant, fine distinctions of right and wrong and remote penalties are alike forgotten. Extrication is the one thought, violence the one method. Even in supreme fear and excitement the sane man may retain some judgment and self-control; but, under such circumstances, the lunatic whose will is paralysed and judgment impaired, is the very sport of his passions. We read to-day of one lunatic at Clichy who barricaded himself in a room, and stabbed six policemen before he could be secured, and of another who was carried face downwards through a London railway-station, kicking, biting, and screaming, on his way to the asylum at Dartford. Such gratuitous violence is characteristic of the insane mind.

The well-meant letter of Dr. William Wood on the convict Cole, which appeared in the *Times* of the 27th instant, is, we fear, in some degree likely to prejudice his case by resting the claim for his respite on the extreme view as to the irresponsibility of the insane, which it is not necessary to raise in this instance. The contention is, not that Cole was a half-and-half lunatic, but an out-and-out one, who did not know right from wrong, or the nature of his act when he killed his child. But, whatever the effect of Dr. Wood's letter may be, he deserves credit for having courageously spoken his mind, and entered an arena in which mud is pretty freely pelted about. Medical men who think with Dr. Wood should take means to make their views known at the Home Office, as a good deal of united pressure is required to overcome the somewhat stubborn inertia of a public department. In this case, also, the counter pressure of the judge who presided at the trial, and expressed his satisfaction with the verdict, has, not improbably, to be overcome also.

THE DOCTOR'S HOLIDAY.

In the introductory addresses delivered at the opening of the metropolitan and provincial medical schools, several allusions were made to the subject of overwork in the medical profession. No one can deny the truth of Mr. Tweedy's assertion, that working too much is almost as bad as working too little, and perhaps, of the two, more grievous damage is done by excessive labour. Hurry and worry impair the faculties required for diagnosis and for forethought in the treatment of the sick; and Dr. Clifford Allbutt eloquently declaimed against that cultivation of feelings of anxiety for difficult cases, which a false conscientiousness compels many practitioners to consider as one of the first principles of professional morality. When the overworked doctor desires to take a part in the scientific departments of medicine, his mental faculties are hardly in a condition to pursue scientific methods of research, nor even to prepare a paper for a learned society. Under these conditions, such a communication will infallibly show signs of hasty construction, partly due to the author's fear of interruption during its composition, but more readily traceable to that inherent tendency to hurry over matters, which is in the nature of an overwrought intellect. Another effect of overwork is invariable deterioration of a man's social qualities, often indicated by peevishness, absence of mind, and a tendency to avoid society.

Hence overwork keeps many men from being popular, and diminishes the popularity of others. It is on this principle that the weak are often beaten by the strong; the latter, not feeling exhausted after their professional labours, are able to gain a lawful publicity by the display of agreeable, refined, or learned accomplishments. Strength of this kind is not of necessity physical; many weak men know how to husband their forces so as to main-

tain the balance of labour and recreation, and avoid the life of a professional recluse.

So fierce, however, is the struggle for life, that working under high pressure is now the rule in the medical profession, and a periodical vacation has, with many, become a necessity. The time at the disposal of the practitioner is, in all cases, limited; but, when once established as a principle, the annual vacation is a thing to remember and anticipate with pleasure, and a most powerful agent in relieving the monotony of existence; and to an overworked man even the constant variety in clinical work becomes monotonous, since he ceases to take an interest in the subject. Since so many now require a holiday, the finding of a substitute is not so difficult as formerly.

It is significant that those practitioners who are the most overworked are precisely those that take the most exhausting holidays. Exhausted brains are always in a state of excitement, and the excited prefer constant change to protracted rest; and in this matter they clearly do not like what is good for them. A glance at the visitors' book in a crowded Swiss hotel will prove the truth of our statement; for we find in about equal proportion the names of the votaries of the exhausting pleasures of the London season, and the equally familiar signatures of professional men fatigued by their industry. Nothing is more distant from an intelligent definition of "rest" than a hurried tour on the Continent; and nothing more vain than the usual defence of a vacation of this kind, "it is such a thorough change!" No variety in surroundings, refreshing to the mind as it undoubtedly is at any given moment, can make up for the fatigue caused by long night-journeys, over-walking, and superintending one's own interests in questions pertaining to hotel-bills, luggage, and the reaching of a destination in time to catch a train or find a vacant bed in an inn. The practitioner who desires a few weeks of leisure beyond the limits of the United Kingdom should take up his abode, for six days at least, in one of the numerous resorts in the Alps, the Rhineland, or the western coast of Europe, where he can really rest. He must not mind if the first few days appear irksome; that will prove that he is not yet accustomed to the repose which he seeks, and which he will gain by staying where he is, and not by taking a journey of one hundred miles or more to another resort. But when, from experience, the medical tourist finds that he cannot keep quietly at one health-resort in any picturesque part of Europe, he had much better take his next holiday in his own country. Even here he is apt to persevere in his hurriedly erratic tendencies; and only two months since, in the visitors' book of an inn, in a most delightful neighbourhood, with surroundings that could hardly be thoroughly explored within a week, we detected the names of six medical gentlemen, none of whom, with one solitary exception, remained in the place forty-eight hours, although from its very situation it could not be reached or left without a fatiguing journey. It is needless to speak of those who, having the advantage of engaging in field-sports, overexert themselves, or spoil the good-effects of open-air exercise, by indulging in the concomitants of late hours. We know, on the other hand, several instances of doctors who shut themselves up at home, or very near home, for three weeks, and blissfully indulge in the study of literature congenial to their tastes, or in almost absolute rest, once hateful to them, but now, as they know from experience, most grateful, because always beneficial. When others smile, these gentlemen reply: "We know that we know how to take a holiday," and there is much truth in their assertion.

THE Egyptian Star has been conferred on the members of the Native Board of Health.

THE Countess von Bose has bequeathed 700,000 marks (about £35,000) to the University of Marburg, and a like sum to the University of Jena.

IT is stated that cremation has been rendered compulsory in Portugal, and that, in cases where bodies have been interred in compliance with the wishes of the friends of the deceased, disinterment for the purpose of cremation must take place at the end of five days.

THE Hygienic Exhibition in Berlin was closed on October 15th. The number of visitors from the opening of the exhibition on May 10th to its closure was 877,000, and the financial results are stated to have been highly satisfactory.

TYPHOID fever has broken out among the 12th and 13th regiments of Artillery quartered at the fortress of Vincennes. The *reservists* have been obliged to camp out, and it is probable that they will be dispersed before they have served their time.

THE quarterly meeting of the Medico-Psychological Association was held at Bethlem Hospital on Friday, October 26th, when a paper was read by Dr. Mickle on "Rectal Feeding and Medication." At the commencement of the meeting, reference was made to the death of Dr. Boyd at the fire at Southall Park, and a resolution of condolence with his family was unanimously adopted.

HOSPITAL SUNDAY IN BIRMINGHAM.

THE twenty-fifth annual Hospital Sunday collections in the churches and chapels of Birmingham, were made on Sunday last. The whole proceeds of the movement will be given, this year, to the funds of the General Hospital. The returns show that the result of the collection are well up to the average of preceding years, upwards of £4,300 having already been announced. Several returns have yet to be received.

A PUBLIC MONUMENT TO PINEL.

PARIS will shortly possess a monument of the great alienist physician Pinel, the Ministry des Beaux-Arts and the Municipal Council of Paris having responded to a proposal put forward by the Medico-Psychological Society. M. Ludovic Durand is the sculptor of the monument, which represents Pinel standing holding in his hand the chains which he has just struck off from a young girl who crouches at his feet. The monument will shortly be erected in the Place Pinel, a small open space close behind the great Hospital de la Salpêtrière.

PATHOLOGY OF INFANTILE CHOLERA.

AT a recent meeting of the Berlin Medical Society, Dr. Baginsky stated that he had found micrococci in the excreta as well as in the intestinal mucous membrane of children dying from infantile cholera. Peyer's glands were filled with bacilli from organisms, which were frequently found to have migrated into the submucous tissue, while the stools, as well as the lower end of the ileum and the rectum contained zooglœa-masses so closely packed, that Dr. Baginsky had not been able to ascertain the form of the organism comprising them, nor to decide whether they had any pathological importance.

CHOLERA AT ALEXANDRIA.

THE Egyptian Government has decreed that the village of Chatlz, near Alexandria, shall be deserted by its inhabitants as cholera has reappeared among them. They have been removed to Gabbarz, and lodged in untenanted houses. The reappearance of cholera in the environs of Alexandria is attributed to two causes. The inhabitants have persisted in providing themselves with water from a half stagnant canal which had been rendered unhealthy by the rains, and from ceasing to observe the sanitary measures prescribed by the authorities. Twelve deaths from cholera occurred at Alexandria on October 27th.

DEATH OF MR. JAMES SHUTER.

We deeply regret to have to announce the death of Mr. James Shuter, Assistant-Surgeon to St. Bartholomew's Hospital. Mr. Shuter had been suffering, for some time, from sciatica, and, we understand, had taken cold early this week and was seized with symptoms of acute nephritis. On Wednesday evening he administered to himself a subcutaneous injection of morphia, which proved fatal.

PROFESSOR DUBOIS-REYMOND.

The twenty-fifth anniversary of the appointment of the eminent scientific worker, Dr. Emil Dubois-Reymond, to the chair of Physiology in the University of Berlin, has lately been celebrated. On the death of the celebrated Johannes Müller in 1858, the chair of Anatomy and Physiology, which he had long held with distinction, was divided; the anatomical department being assigned to Professor Reichert, then of Breslau, and the physiological to Dr. Dubois-Reymond, who had been an extraordinary professor since 1855. On October 20th, a large number of Dr. Dubois-Reymond's pupils assembled in the Physiological Institute, and presented him with his bust, and a "jubilee volume" (*Jubelband*) of the *Archiv für Anatomie und Physiologie*. The presentation of the bust was made by his oldest assistant, Professor Heidenhain, of Breslau, while the volume of the *Archiv* was presented by Professor Rosenthal, of Erlangen; both of whom made congratulatory speeches. Addresses of congratulation were also delivered by Professors Virchow, Munk, Fritsch, Hirsch, and others; and similar tokens of respect were received from Professor Holmgren of Upsala, Professor Tschirieff of St. Petersburg, and the Faculty of Medicine of the University of Aberdeen. On the following day, a dinner was given in honour of Professor Dubois-Reymond by his colleagues, pupils, and friends.

THE MIDLAND MEDICAL SOCIETY.

The thirty-fifth annual meeting of the Midland Medical Society was held on October 24th, in the Birmingham Medical Institute, under the chairmanship of Dr. Malins, the retiring President. The annual report exhibited the continued scientific and financial prosperity of the Society. The number of members is now three hundred and thirty-seven. During the past session, besides the annual and inaugural meetings, ten ordinary meetings were held, the average attendance at the ordinary meetings being twenty-seven members. The Society has been able, as usual, to give donations to the funds of the Medical Institute and of the local Medical Benevolent Society The inaugural address for the ensuing session will be delivered on Wednesday, November 7th, at the Grand Hotel, by Mr. Jonathan Hutchinson, F.R.S., who has chosen for his subject "Some Defini tions of Disease for Clinical Use." The following gentlemen have been elected officers for the session. *President:* Dr. Fowler Bodington. *Treasurer:* Mr. Harmar. *Secretaries:* Mr. T. F. Chavasse and Dr. Suckling. *New Members of Council:* Mr. Eales, Mr. Ross Jordan, Dr. Simon, Mr. Priestley Smith, Mr. William Thomas, and Dr. Edgar Underhill.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

At the ordinary meeting of the Fellows, October 25th, the minutes of the last meeting were confirmed. The President acquainted the College with the proceedings which took place on the removal of Harvey's remains. Thanks were voted to Mr. Stear, of Saffron Walden, and to Mr. Almack, churchwarden of Hempstead, for the services rendered during the above ceremony. The following were admitted members:—C. M. Chadwick, M.B.; P. M. Chapman, M.D.; M. L. Dutt; W. A. Duncan, M.D.; C. M. Handfield Jones; A. Money, M.D.; T. D. Savill, M.D.; C. W. Suckling, M.D. A report from the committee appointed to frame a scheme for a special examination on the subject of hygiene was received and ordered to be printed. Communications were received from (1) the Royal College of Surgeons, withdrawing from the scheme of 1877; (2) from the delegates to the Intercolonial Congress at Amsterdam; (3) from the Foreign Office, on Liebig's liquid extract.

OVERHEAD WIRES.

A few months ago, we drew attention to a grave public danger, which is daily increasing in London and other busy places, in the telephone and telegraph wires which are being stretched over streets in all directions. The reality of the peril received an unfortunate exemplification last Saturday in London. Some workmen were engaged in removing certain overhead wires, extending across Gresham Street, when one of the wires slipped through the hands of the man who had charge of it before it was properly secured by a guiding rope, and it fell with a crash in that crowded locality. Several gentlemen were struck on the head, and it is stated that "several persons had narrow escapes," owing to the wire having "twisted and turned in serpent-like fashion in the air." An elderly lady was badly cut across the head and face. This accident happened when workmen were changing some telephone wires. It is obvious that, in course of time, the wear and tear of overhead wires will make them likely to fall when they are subjected to unusual strain, as in a violent storm. It has been frequently urged that these wires should be placed under-ground; and some day this precaution against accident will probably be enforced by legislation, when a few more "accidents" have demonstrated over again the danger of the present system.

THE ADULTERATION OF MILK.

From the annual reports for last year of the public analysts appointed by the Local Government Board, under the Acts in force against the adulteration of food, it appears that milk has again been found, as in previous years, to be the article of diet most frequently adulterated. It also appears that the milk-supply of London is, on the whole, less reliable than that of the country generally. The percentage of samples of milk found to be adulterated, as compared with the whole number of samples examined, was 19.6 for England and Wales, but for the metropolis it was as high as 24.5, while in certain districts of London more than half the samples were condemned. This bad pre-eminence was obtained by the City and Bethnal Green, while in Camberwell and St. Pancras more than one-third of the samples tested were found to be sophisticated. Of the largest provincial towns, Birmingham is still, as in former years, the worst in respect to its milk-supply. In most places, water was the adulterant. The experience of many epidemics of zymotics has proved that this is a most dangerous admixture, when the water is impure and contaminated with specific germs. In Liverpool, starch and flour-paste have been detected in milk, and, at Reading, turmeric was used to give a false appearance of richness. Grave complaints are made by many public analysts of the inadequacy of the penalties imposed by magistrates on convicted milk-adulterators, and the analyst for the City of London reports that prosecutions have been abandoned in his district on this account.

FRACTURE OF THE PATELLA.

Mr. Lister's address, delivered on Monday last at the Medical Society, will be found fully reported at page 855 of this number of the Journal. The treatment of the common transverse fracture of the patella has hitherto been far from satisfactory, and whilst a comparatively inexperienced house-surgeon can ensure perfect union in cases of fracture of the long bones, the highest authorities in practical hospital surgery have seldom been able to obtain firm osseous union in cases of broken knee-cap. In his address, Mr. Lister showed how that desirable aim can be brought about by his method, conducted under strict antiseptic precautions. Contrary to previous opinions, he demonstrated that recent cases are the most

favourable for operation, and he assured his audience that the process of drilling the separated fragments of the patella was "a matter of the utmost simplicity." Mr. Lister also dwelt on an improved method of dealing with the wire employed for the purpose of holding the fragments together, and, as might be expected, he insisted on the advantages of the antiseptic system. Before commencing the first operation of his series, Mr. Lister had remarked to the spectators that he considered no man justified in performing such an operation, unless he could say, with a clear conscience, that he considered himself morally certain of not causing the entrance of any septic mischief into the wound. Mr. Lister referred to certain serious oversights in the details of antiseptic dressings, and declared that his system was, for several reasons, peculiarly adapted to operations on the patella. There is no doubt, when we remember how readily the victim of fracture of the patella comprehends the serious nature and consequences of that kind of injury, that Mr. Lister's radical operation for ensuring complete bony union will soon become generally diffused, to the great advantage of humanity, as a large proportion of the patients are robust bread-winners. Still the practical details will require very close study on the part of even the most experienced surgeons, who contemplate their first attempts at the operation. The experienced are ever ready to make light of manual feats which they have thoroughly mastered, but some doubts may yet be expressed whether the beginner will find that drilling the fractured patella is from the first a "matter of the utmost simplicity.'

CHOLERA IN EGYPT.

A LECTURE on cholera in Egypt was delivered on Friday evening, the 20th instant, before the Medical Society of Charing Cross Hospital, by Mr. James Cantlie, Senior Assistant-Surgeon to the hospital, who has lately returned from Egypt, where he had been engaged as one of the special medical mission. Sir Joseph Fayrer occupied the chair, and there were several present who had had large experience of cholera in India. Mr. Cantlie prefaced his remarks by stating that the present epidemic in Egypt was interesting as being the first on record in which cholera had existed in any country independently of the disease existing at the same time as an epidemic in India. The lecturer, in a quaint, amusing, and instructive manner, gave a lucid account of his experiences and impressions. The filthy state of the town in which he was engaged was minutely entered into in all its details. The appearance of a cholera-patient was exactly drawn; and of all the drugs employed in treatment, lead and opium, in decided doses at the outset of the disease, was alone found worthy of being called successful. For the first time has anyone traced the history of the disease in Egypt as following a particular course. Commencing at Damietta, the lecturer pointed out that the towns higher up the Damietta branch of the Nile were attacked in succession; first Shirbeen, then Mansourah, and then Cairo. It there took two courses, one up the Nile, the other up the Rosetta branch. Attacking Kafr-Zayat and then Rosetta, it finally reached Damanhour and Alexandria. The two last towns being on canals derived from the Rosetta branch, and consequently furthest by water from the original seat of the disease, were attacked last. The possibility of the pollution of the river by fish ascending the stream was discussed, and a few remarks afterwards from Mr. A. H. Hooker seemed to give colour and strength to the idea suggested. The absurdity of the quarantine and cordon arrangements was dealt with in a telling manner; and an exact account of the quarantine arrangements at Brindisi, Malta, Suez, etc., was given. Sir Joseph Fayrer afterwards gave, in a clear manner, a summary of his beliefs as to the cause, course, and treatment of cholera. The simile of attempting to keep back a flock of locusts by a five-barred gate, as applied to the prevention of cholera by quarantine and cordons, was a particularly happy one. Dr. Longhurst, from India, Mr. Bloxam, Drs. Watson and Cullimore, and others, gave their experience of previous cholera epidemics at home and abroad. A vote of thanks to the chairman closed the meeting.

THE EXPLOSION ON THE UNDERGROUND RAILWAY.

THE greater number of the persons, about forty in all, injured by the explosion on the Underground Railway on Tuesday evening last, were taken to St. Mary's Hospital, where they were examined as to the nature of their injuries by Dr. Owens, the medical superintendent, and the other members of the resident staff of the hospital. It was found that none of the injuries received were very serious, and that they were all of the nature of wounds of the face and neck, evidently caused by the broken glass. In none of the cases were any wounds found in other situations. It was only necessary to admit four persons as in-patients; of these four, Richard Brown, aged 45, was suffering from a good deal of shock, and had received more severe wounds than any other patient; one cut on the face had laid bare, but had not severed, the facial artery; a small branch of the artery, however, bled very freely, and was secured with some difficulty. Walter Warren, aged 24, a corporal in the Dragoon Guards, when admitted was blanched, and evidently suffering from concussion; he had in addition numerous cuts on the face. We find by inquiry on Thursday that both these cases are going on well, but that Warren is not sufficiently recovered to state whether he received any distinct blow on the head. The two other cases admitted were also suffering from shock in a degree somewhat out of proportion to that which might have been expected after the facial wounds they had received, but both are now progressing favourably towards recovery; in one case, however, that of the lad James Turner, aged 16, there is extreme deafness; and Dr. Owens informs us that fully three-fifths of the total number of passengers who came to the hospital were rendered very deaf by the explosion; three out of the four cases admitted were thus affected. It is not improbable that in these cases the tympanic membrane has been torn by the force of the explosion, but no examination of the ears has yet been made, owing to a desire not to disturb the patients until they had completely recovered from the concussion. The wounds of the face seem to have been in all the cases caused by broken glass; every wound contained a considerable quantity of finely-powdered glass, but no large fragments were found in any case. Considering that the panelling and windows of two carriages were completely wrecked, and that the windows of a third were destroyed, it is a matter for congratulation that the injuries inflicted have not been more severe and extensive.

ANATOMICAL STRUCTURE OR CLINICAL FEATURES.

A CASE related by Dr. Althaus at the last meeting of the Clinical Society, and recorded in our report of the proceedings at page 874, brings into relief the sometimes opposing evidence as to diagnosis obtainable on the one side from anatomical structure, and on the other from clinical history, signs, and symptoms. The case was that of a girl of a family of eleven children, the rest of whom were healthy, who herself had been healthy until she was fourteen years of age, and who was then seized with symptoms of brain-disease, which, in a few months, terminated fatally. After death, there were found to be tumours of the cerebral membranes, which were declared to be of the nature of syphilitic gummata. At any rate, Dr. Althaus had not seen such structural characteristics in any other cases than those of syphilis, and upon this evidence the case was declared to be one of such, which had run a very abnormal course. There was no other sign of that disease except a peculiar odour about the patient, which Dr. Althaus stated that he had observed in other cases of a similar nature. All the other evidence obtainable pointed to its non-syphilitic character. Syphilitic gummata of the brain are a late product of the disease. Dr. Bastian thought they did not occur until five years from the date of the contraction of syphi-

lis, and Dr. Althaus himself had not seen them in less than two years after the primary affection; thus, at the very latest, the disease must have been contracted when the girl was twelve years old. She had had no spot nor scar anywhere; no secondary symptoms, nor skin-eruption; and, until the commencement of her fatal illness, had been quite well. It was remarked that the case might be one of congenital syphilis, the symptoms of which were deferred; but all the other numerous members of her family were quite healthy, including her parents, who had been known to their usual medical attendant for about thirty years, and who had never had any symptom of syphilis during all that time. It was suggested that the case might be one of a tuberculous nature; but the temperature had been normal, the progress of the disease slow and gradual, with no ups and downs, with no headache, and with no convulsions, which are so frequently met with in tuberculosis. It was further suggested that such lesions might be the result of other cachectic conditions than those of syphilis; but, as Dr. Althaus remarked, the patient had no cachexia. It is to be regretted that the evidence as to diagnosis, which might have been forthcoming from an inspection of the thoracic viscera, was not available, as no *post mortem* examination of the thorax was made. Upon the whole, possibly, the nature of the cerebral tumours must for the present remain doubtful; for, as Sir Andrew Clark pointed out, anatomical grounds of distinction are from their nature few, whilst clinical facts are many. At any rate, in this instance, the evidence from anatomical structure alone seems insufficient to overbalance all the other elements of the case; and altogether, as Dr. Bastian remarked, the case would probably have been more interesting if the question of syphilis had been excluded.

THE PARKES MUSEUM.

THE annual general meeting of the Parkes Museum was held on Wednesday, October 31st, at the Museum, 74A, Margaret Street. The chair was taken by Sir Joseph Fayrer, K.C.S.I., one of the vice-presidents. The usual financial statement was read by the secretary, Mr. White Wallis; and in reply to a question from Mr. Judge, Captain Douglas Galton, C.B., Chairman of Council, said that it was not proposed to issue another formal report until after the termination of the financial year, in June, 1884. The report for the year 1882-83 was presented to his H.R.H. the Duke of Albany, the President of the Museum, on the occasion of the opening of the Museum in May last. Mr. George Godwin, F.R.S., and Mr. Charles Parkes, were elected Vice-Presidents, and Mr. W. Lindley and Dr. R. Thorne Thorne were elected, and Professor T. Roger Smith and Mr. Waterhouse, A.R.A., were re-elected, members of Council. Sir Joseph Fayrer, in a brief address, pointed out that the progress of the Museum had been, on the whole, satisfactory, but there was still a considerable need for further pecuniary support. The Museum now possessed 190 members, but required a much larger number to place it in a secure financial position. Over 5,000 people had visited the Museum since it was opened in May; and the course of lectures given in the spring was well attended; and he felt confident that the very interesting lectures already announced for the winter session would continue to attract large audiences. He drew particular attention to a lecture which Mr. Seddon, F.R.I.B.A., had undertaken to deliver on "The Ventilation of Theatres." He thought that the condition of the London theatres showed with sufficient plainness that this subject needed full investigation, and that there was much room for improvement. The Sanitary Institute had, during the previous month, come to occupy offices in the premises of the Parkes Museum: though the two bodies had not amalgamated, yet this change of domicile showed that there was a cordial feeling between them which augured well for their future usefulness. The concentration of the various efforts towards the amelioration of sanitary affairs, so that the different distinct societies and institutes should work harmoniously together, each fulfilling its own part in the great field of labour, was an object to be aimed at, and one which there were many indications would soon be brought about. A vote of thanks, proposed by Captain Galton and seconded by Dr. Poore, to the chairman, for presiding, brought the proceedings to a close.

LORD SALISBURY ON INDUSTRIAL DWELLINGS.

THE current number of the *National Review* contains an article by the Marquis of Salisbury on the subject of labourers' and artisans' dwellings. The writer says the condition of the dwellings of the wage-earning classes has occupied public attention for many years, and many efforts have been made to improve them, but very much still remains to be done, and the question, in some of its sanitary and social aspects, becomes more urgent every day. The grave injury to the health and morality of the people arising from overcrowding is now more generally recognised than ever before. If the question is to be satisfactorily and speedily solved, it must not be allowed to become a subject of party politics. When once it is mixed up with questions which bring powerful sections of the community into conflict, practical remedies will be postponed for a long time. One of the chief difficulties in the question is the economic one. Satisfactory dwellings for artisans and labourers cannot be provided for rentals which are at once fairly remunerative to investors of capital, and well within the general reach of the wage-earning classes. On this point, Lord Salisbury gives some financial details. There is no remedy for this until wages rise to a higher point; for the cost of living is not likely to fall. Diminution of population seems to be a natural remedy for evils arising out of low wages, and this result will occur unless there is a sensible increase in the profit of cultivating land. The housing of the working poor in our large towns, and especially in London, is a very urgent question, and the increase of urban prosperity tends to aggravate rather than to lighten the existing evil. Thousands of families have now only a single room to dwell in, where they sleep and eat, and multiply and die. Parliament should be asked to give what relief it can. There would be no serious conflict on the question whether public money ought to be expended in providing a remedy, if there were any general agreement as to what the remedy should be. There are two chief schools amongst the experts who prescribe for this social malady: those who would seek for more room by greater elevation of buildings, and those who would seek it by going further afield. The plan which has received the most systematic trial is that of seeking more accommodation by a greater elevation of buildings in urban districts; the other proposal is to build improved houses for artisans in country districts near large towns, and to organise a system of cheap trains by which workmen could be brought to their work. In Glasgow and other large provincial towns, where the distances are not relatively great, the removal of workmen's dwellings to the suburbs has answered very well; but in London this experiment, so far as it has gone, has been disappointing. It is not easy for anyone to say in what manner effective help can be rendered to artisans and labourers, in supplying them with suitable dwellings; and the difficulty is greatly aggravated by the absence of information on the subject. It is probable that so formidable a difficulty is not capable of any single solution. There is no heroic plan by which a sound and effective remedy can be at once applied. No such plan has been as yet suggested. In the absence of it, the best thing to be done is to attack the evil on as many sides as possible. Lord Salisbury is opposed to entrusting the expenditure of advances from the public funds to "municipal bodies," because of the customary absence of economy in administration in frequently changing bodies. He recommends that speculative builders in suburban districts should be placed under sanitary supervision as effective as

that which exists in the metropolis, and suggests the establishment, on all the railways having termini in London, of a train-service to the suburbs at suitable hours, with weekly shilling tickets; which would, he points out, withdraw many thousands from London houses, and from the competition by which their rents are raised. The article concludes: "The subject is very complex, and requires the light of fuller information than has yet been collected. Above all, it seems to require an investigation by authority of the real extent and circumstances of the overcrowding that has to be cured. But there are indications enough in the information we already have, that, in one way or another, by public and by private action, a remedy is possible for very much of this misery and degradation, which casts so terrible a shadow over our prosperity."

THE INFLUENCE OF METEOROLOGICAL CONDITIONS ON THE PUBLIC HEALTH.

In his last two reports to the Maidstone sanitary authority, Mr. Adams has devoted special attention to the influence of meteorological conditions on the health of the borough, which, judging from its surroundings, seems peculiarly well situated for observations of this kind. Mr. Adams gives an excellent topographical description of his district, which lies in a hollow girt by hills to the south, the north-east, and the west; and he shows very clearly that two widely different conditions affecting the climate prevail there; the one, by reason of the dampness of the soil, saturating an incumbent atmosphere with stagnant vapours, locked in by natural boundaries, augmented on occasions by miasma from the marshy district to the north, with a slow toiling river depositing its filth, but lending no hand to the purging of the valley; on the other hand, boisterous winds, especially from the south-west, sweeping along the river channel, turning out the old effete atmosphere of the hollow, giving dry wholesome air in its stead, and perhaps accompanied by sudden drenching rains, washing and purifying the surface-soil, swelling the river, and scouring its channel. The year 1881 was an extremely healthy one, the death-rate representing 14.19 per 1,000, which Mr. Adams attributes, in some measure at least, to a great abundance of west and deficiency of north wind, the numerous drenching rains in suitable sequence to the prevailing temperature, the many thunder-storms, and the frequent floods. Opposite conditions to these, however, prevailed during 1882, when the death-rate rose to 17.34 per 1,000, zymotic and respiratory diseases being especially fatal. The former were increasingly prevalent during the last three quarters, chiefly during the fourth; while respiratory disorders were more fatal during the first and fourth quarters, because of the lowness of temperature common to those seasons. A more potent cause than this, however, seems to have been at work during the last three months of the year, when "there came over the town a something which gave an evil tone to disease generally." Sore-throats of a nasty character were widely prevalent, and there was a general complaint of ill-health—a state of things which continued until the end of the year. Mr. Adams is thoroughly convinced that climatic influences had much to do with this unhealthiness, and in support of his view he gives a history of the prevalent meteorological conditions. At the middle of October, there were not only unusually heavy rains, amounting to 5.7, against an average of 2.8 inches, but the wet weather was continuous and soaking, the ground was never dry, and the sun, during the last three months of the year, was almost absent; there was also extreme dampness of atmosphere, so that for many days the air was completely saturated with moisture. An examination of the wind-currents shows that, except for May, during all the first eight months Maidstone was swept by a south-west wind; but during September, October, November, and December, into the present year, there was a continuous deficiency; and as by accumulation the sum of arrears of a south-west wind mounted up, in like manner, *pari passu*, there was a continuous and increasing mounting up of ill-health in the borough. Mr. Adams admits that so far these observations may be of little value; but he is confident that direction of the wind will be proved an important factor in sanitary history.

BUBONIC PLAGUE IN CHINA.

A recent publication of the Chinese Maritime Customs contains a report of much interest from the pen of Mr. J. H. Lowry, on a peculiar and fatal outbreak of disease at Pakhoi in 1882. The disease is locally known as *luen-tzŭ*; and after seeing a number of cases, Mr. Lowry has come to the conclusion that the disease is at least closely allied to bubonic plague. The report opens with a brief historical account of the malady, which seems to have occurred for the first time about fifteen years ago, and has since appeared at certain intervals, the last severe outbreak being in 1877. When observed in 1871-3 by Mr. Rocher, the chief symptoms noted in man were slight fever, rapidly increasing; intense thirst; then dark-red swellings showed themselves in the armpits, groins, or neck; fever continued to increase; the patient became unconscious; the bubo increased till the second day, after which it remained stationary; when of full size, it was about as large as a hen's or goose's egg; then consciousness returned; but still, if the swelling up to this point had been hard and became soft, the fever continuing, the case was considered hopeless. If the tumour opened externally, there was a chance of recovery. A subsequent account, to which Mr. Lowry refers as having been noted by Mr. Baber at West Yunnen, states that the approach of the disease is indicated by the eruption of one or more minute red pustules, generally in the armpits, but occasionally in other glandular regions. The sufferer is soon seized with extreme weakness, followed in a few hours by agonising aches in every part of the body; delirium shortly ensues, and in nine cases out of ten the result is fatal. It often happens that the patient suddenly, to all appearances, recovers, leaves his bed, and affirms that beyond a slight sensation of weakness he feels thoroughly convalescent. This is invariably a fatal sign; in about two hours the aches return, and the sufferer dies. The present outbreak commenced at the end of March 1882, and continued its ravages with lessening severity until the end of June, when it entirely disappeared; while at Lien-chou, a city distant twelve miles, it raged with more or less severity until August. The winter had been a very dry one, with many strong winds from the north. Towards the middle of March, the temperature began to rise, and then, during the first ten days of April, there was rain, and the atmosphere became laden with moisture; from this the temperature gradually rose, and by the end of April a day-temperature of 85°, and a night one of 76° Fahr., was reached. The disease proved to be most fatal and most severe from the middle of April to the middle of May. From his own personal observation, Mr. Lowry estimates the total number of deaths at between 400 and 500, and this amongst a population of 25,000 persons. During the worst weeks of the epidemic, the average deaths were ten a day. At the commencement of the outbreak, the people were almost panic stricken; many quitted their homes and sought refuge in the villages away from the town. The sanitary condition of the place was most deplorable; and Mr. Lowry describes the streets and houses as having been in an abominable state of filth. Not the slightest attempt at cleanliness was tried, animal and vegetable substances lying decomposing on every side, and constantly giving off most noxious gases. In regard to the causation of the disease, Mr. Lowry holds that (*a*) macerating filth must have had much to do with it, and the sanitary condition of the town and houses at the time of the epidemic quite sustains the belief; and (*b*) want of sufficient ventilation, regard being had to the number of beings that are crowded in one house, the evil being aggravated by the practice of carefully shutting up the houses, for fear of thieves, even on the hottest nights. As for the specific cause, Mr. Lowry is not yet prepared to say what the contagium is; but, whatever it be, he is inclined to think that it is one that requires

a certain high temperature to bring it into activity. In the present outbreak, the disease did not manifest itself until the temperature began to rise, continuing its march until there was a higher temperature and rain began to fall. The degree of contagiousness of the disease seemed variable; for in houses which Mr. Lowry visited, it did not appear to attack all the members in the sweeping manner that might have been expected. In this connection, however, it should be noted that many, from fear of contracting the disease, removed, that is, did not sleep in the houses with the sick. Frequently some one had died before the house was visited, and others may have been taken ill after the attendance had ceased. In one case, a boy arrived from a distance, was taken ill, and died in forty-eight hours; no one else had been ill in the houses, and no one contracted the disease afterwards. As regards the incubation-period of the disease, Mr. Lowry believes it to be short, but he has no conclusive proof. He describes the disease as a specific contagious fever of short duration, accompanied by glandular swellings, and very fatal. The symptoms, as observed by Mr. Lowry, are slightly different to the description noted by other observers, although in the main they seem to agree. None of the cases, however, resembled the description given by Mr. Baber, nor does this latter bear much resemblance to what Mr. Rocher observed. The treatment adopted was various, and in many cases there was but little time for anything to act. For the excessive temperature, tepid sponging was ordered, and the utmost efforts were used to impress upon the people the absolute necessity of giving plenty of nourishment, but with very doubtful success, as the system is one quite foreign to Chinese therapeutics. Owing to the strong superstition which the Chinese have regarding their dead, Mr. Lowry was unable to obtain a *post mortem* examination, or even a satisfactory examination of the blood under the microscope.

ANTHRACIC VACCINATION.

PROFESSOR MAGGI is one of a commission consisting of himself, Professors G. Sormani and E. Perroncito, and Dr. Nosotti, appointed to investigate the subject of carbuncular vaccination with the cultivated virus of Pasteur. He communicates their experiments or conclusions to the *Gazz. Med. Ital. Lombarda*, February 10th. The experiments were as follows. On March 26th of last year, twelve heifers were inoculated with Pasteur's first vaccine liquid, this caused in them no fever, or local or general disturbance. On April 13th, they were again inoculated with the first vaccine; in two cases this was followed by slight swelling, which disappeared in two days; the temperature in all the animals remained normal. On April 26th, they were inoculated with the stronger virus (No. 2 Pasteur); this caused high fever in most. On June 17th the experiment of control was begun in eight heifers, six vaccinated and two not. The carbuncular blood of an animal was used, which had been vaccinated with the blood of a rabbit inoculated with virulent virus from the cultivation of bacillus anthracis. With this carbuncular blood, one unvaccinated and three vaccinated heifers were inoculated. With the same blood also, but diluted to a brick-red colour in a solution of sodium chloride (0.75 to 100), three other vaccinated and one unvaccinated heifer were inoculated. After twenty-four to thirty-six hours, the two unvaccinated heifers commenced to be feverish, and marked tumefaction, hot and painful, began at the site of inoculation (the shoulder), and gradually spread to the hoof. In the six vaccinated heifers the temperature remained normal, and there was no swelling. The two unvaccinated heifers recovered after fifteen days. As these experiments might be thought incomplete, a fresh series was undertaken. A calf, a few days old, was vaccinated with the strongest virus of cultivation. After slight fever and local swelling, the calf completely recovered. Then, with fresh strong virus, a rabbit was vaccinated; it died of carbuncle in three days. With its blood, splenic pulp, and the exudation at the site of inoculation, which contained numerous bacilli, a second calf was vaccinated; this calf died in three days from septicæmia. It was then determined to continue the second control-experiment with a sheep instead of a calf. The sheep was inoculated with strong virus; after thirty-six hours, it being moribund, some of its blood was withdrawn with a Pravaz's syringe containing a few drops of a neutral solution of sodium chloride; this blood was injected in four vaccinated heifers, in the two now vaccinated of the first series, and in two fresh heifers. The animals showed the following symptoms: tumefaction in all at the site of inoculation, very slight in the four vaccinated, and in the remaining from those first series of experiments; very marked in the two fresh animals, who had also sharp fever. After nine days, one of these recovered, the other died after twenty-four days' fever, from anæmia and tabes, and not from carbuncular infection. The deductions from these experiments are these. 1. Pasteur's method of carbuncular vaccination is prophylactic of carbuncle in the bovine race. The six vaccinated animals received no harm from repeated injection of carbuncular blood, while the four unvaccinated had high fever and great local swelling. 2. The heifers virgin to carbuncular injection, subjected to inoculation of blood and carbuncular virus, presented febrile reaction, but did not die; the immunity which the two first heifers of control, the malady caused by the injection of carbuncular blood having ceased, acquired in presence of repeated injection in the second experiment, would seem to show that the morbid process was really carbuncular in nature. 3. Vaccination with attenuated lymph (No. 1 Pasteur), although repeated, caused no general or local reaction. This allows us to suppose that its action is so slight as to justify the attempt, already successfully made by Perroncito, to omit the first vaccination, and thus gain valuable time. 4. After using the stronger lymph (No. 2 Pasteur), its action should be verified by observing the temperature for a few days. It is reasonable to suppose that the preventive effect is limited to those animals in which a general reaction is developed. If there be no reaction, therefore, the vaccination must be repeated. 5. Cool weather is best for the vaccination; in the heat of summer, the occurrence of septicæmia is more to be feared. 6. The microscopic examination of the vaccine liquid prior to its use is necessary to prove the absence of bacteria of putrefaction, which, while they might destroy the prophylactic action of the vaccine for carbuncle, if injected, might easily give rise to disastrous consequences.

THE BACILLUS TUBERCULOSIS AS AN ENTOZOON.

THERE is a disease of the lamb, which has, at various times, caused very serious losses to sheep-farmers both in this country and in the colonies. It is due to the presence in the bronchi of numerous individuals of a species of nematode worm, the *Strongylus filaria;* a very closely allied species, the *S. micrurus*, infests the bronchi of the calf. The disease is commonly known as the husk or hoose, and consists essentially in the symptoms set up by the presence of large masses of these worms in the air-passages complicated by bronchitis. The very peculiar habitat of the parasite renders it possible, by means of inhalations, to bring parasiticides into contact with it; this means of arresting the disease has been resorted to both in this country, and, as we learn from a paper read before the Medical Society of Victoria, and published in the *Australian Medical Journal*, in Australia also, in both cases with complete success. It appears from this paper, which was read by Mr. West Ford, that Mr. Knight of Kozonzah, who is a large sheep-owner, and had annually lost large numbers by this "lamb-disease," seriously turned his attention about four years ago to its systematic treatment by antiseptic inhalations. The plan he employs is to drive a hundred or more lambs into an air-tight room into which a constant current of air, previously passed under pressure through carbolic acid, is forced. The strength used is stated to be one in ten, and the lambs are kept in the room for one or two hours at a time; it is said that most of them are thus cured at once. We cannot go with

Mr. Ford in his deduction from the success of this treatment in the parasitic bronchitis of lambs, that a similar treatment of phthisis in man may be expected, with "the greatest confidence," to be "equally successful;" he founds this belief on the assumption that Dr. Koch has demonstrated, "to a certainty, that that fell disease is due to the presence of an entozoon—the bacillus." Koch's researches, however, stop a good deal short of any such demonstration, and to speak of the bacillus tuberculosis as an "entozoon," may be correct, but is yet a little misleading. We know that the bacillus occurs in all or most cases of phthisis, that is to say, in destructive lung-disease of whatever origin; that it is found chiefly in the sputum, and in the walls of cavities, but in very small numbers in the tissues themselves, and that it can only increase and multiply at a temperature of about 100° Fahr., a temperature seldom, if ever, reached in dwelling rooms in temperate climates where phthisis is most prevalent. No doubt it is highly probable that the bacillus does play some *rôle* more or less important in the development of tuberculosis, but beyond this it seems at present impossible to go. It may, by its entrance into, and development in the tissues, be the direct determining cause of the lesions of tuberculosis; on the other hand, it may be concerned only in the final destructive process, assisting by its growth in the disintegration and removal of the diseased tissues. Very much yet remains to be done before the exact importance of this bacillus can be appreciated. Meanwhile, we would ask whether it is advisable to speak of these micro-organisms as entozoa? If so, it will be necessary to make two grand divisions of the entozoa, for mycology is becoming, to an extent entirely unforeseen a few years ago, a complicated and very special subject, in dealing with which an inexperienced person is very likely to fall into grievous error. To compare a nematode worm an inch long with the bacillus tuberculosis, and to assume that what is beneficial to an animal infested with the one, must also cure an individual in whom the other exists, is to make a very large assumption, which may or may not be true in this particular case, but is certainly a bad precedent. Of course we are not arguing against the use of antiseptic inhalations in phthisis; their beneficial action has been long known, and was fully established before Koch's bacillus was ever heard of, and, moreover, may be fully accounted for without calling up this *deus ex machinâ*.

HOSPITAL AMBULANCE SERVICE.

Dr. De Forest Willard of Philadelphia, in a pamphlet advocating the extension of hospital ambulance service for that city, gives an interesting account of the plans of service as they exist in other American cities. It is interesting in itself, and particularly so in connection with the existing but dormant Metropolitan Ambulance Committee, which was appointed at a great public meeting held in London last year, under the presidency of H.R.H. the Duke of Cambridge. Dr. De Forest Willard justly states that

"The New York system may perhaps be taken as the most complete model in the world. It has been in use since 1868, so that it is no longer an experiment; and the results, while not perfect, are most satisfactory. Bellevue Hospital has now eight ambulance-wagons; the New York Hospital, two at each of its buildings; the Roosevelt, two; Presbyterian, St. Vincent's, and others, one each. The wagons are kept ready for instant service, and the attendants are as thoroughly drilled as are our paid firemen. As soon as a man is injured in any portion of the city, word is at once conveyed to the nearest station-house, and in a moment the central office is informed of the necessity for the ambulance of that particular district. The summons speeds over the wire; and, as it reaches the hospital, the alarm is at the same instant given at the stable, at the gate, and in the apartment of the ambulance-surgeon. The trained horse at once seeks his place; a suspended harness drops into position; the animal is secured between the shafts by a few snap-hooks; and, within two minutes from the time that the signal is given, the ambulance, fully equipped with every means for speedy relief, is galloping toward the street indicated by the despatch. A chart, hanging by every instrument in hospital and station-house, affords a key for correctly guiding the ambulance to any region desired. Right of way is accorded after the United States mails and fire-engines, and a few moments find the surgeon caring skilfully for the injured one. The early arrival of professionally trained aid offers infinite advantages to the plan of depending upon the well-meant but injudicious efforts of superficially, and consequently dangerously, educated helpers. In case of fire, or when there is any probability of a large number of wounded, a general call-signal is given, which immediately brings all the ambulances to the spot, to be ready for any emergency. At a recent visit to Roosevelt Hospital, while in the second story of the stable-building, the alarm sounded. The clatter of hoofs was at once heard, and before I had reached the stable-door the horse was already half secured to the wagon. In another moment, they were off; and as they reached the gate, the ambulance-surgeon appeared with satchel in hand, and in the time which I have occupied in its recital the vehicle was speeding on its errand of mercy. The city is so divided into districts that any policeman can at a glance ascertain the hospital to which word should be sent, and thus conflict is avoided. As to the work done, let us look at the results. Last year, the Bellevue Hospital ambulances answered over two hundred calls per month, 2,608 in all; the New York Hospital, at its main building and House of Relief, between nine and ten each day of the year, or more than 3,300 altogether; while the other hospitals assisted large numbers. Who can estimate the saving of life and of strength to these thousands during their ride to homes or hospitals? The Department of Public Charities and Correction, under whose control the service has been developed and perfected by Thomas S. Brennan, is now about to extend its usefulness to Harlem, with its 150,000 population, as an 'efficient ambulance corps and reception hospital at frequent and convenient localities, is believed to be the wisest plan to help best the sick and injured.' The department meets with special manifestations of popular recognition and favour. 'Bellevue requires the constant service of two ambulance-surgeons; they are compelled to be very prompt in their attendance, and to see that everything is kept in readiness for instant action. When patients desire to be taken home, if within the city limits, or to any hospital they may elect, such request must be complied with, if they are physically able to judge of their condition. Ambulance-surgeons will call upon the aid of the police to enforce their right of way, and also claim their assistance in caring for the sick and wounded. When the necessity for attention is urgent, the word 'hurry' is added to the message. Each ambulance keeps to its own district, except when a general fire-call is sounded, in which case all the vehicles respond, and are sometimes started in fifty seconds after the first stroke of the gong. An alarm may be sent over either police or fire department wires. The surgeons render thorough accounts of the accident to the house-surgeons.' Through the courtesy of the mayors and superintendents of police, I am able to give a *résumé* of the service in other cities, as reported in recent letters to me. Washington has not so complete a system, but has two ambulances at police head-quarters, supported by the authorities, ready to answer any calls for relief, either sick or wounded. Cleveland, Ohio, has a private system, if such it may be called, the ambulances being owned by individuals, though working under the direction of the Board of Health, and permitted to carry sick and wounded for hire, the same as cabs, the city paying for the service. They have right of way, the same as fire-engines; and the drivers must be licensed, and give bonds of 1,000 dollars. The plan has only been in effect about a month, and has not been tested. In Brooklyn, the service is under the control of the Department of Health. The vehicles are kept in stables in immediate proximity to three of the largest hospitals, at which hospitals the surgeons reside. The alarm is by telegraph and telephone, and is supported by the city. In Boston, there are three ambulances—one under the direction of the City Hospital, two controlled by the Board of Police Commissioners. The hospital ambulance is stationed at the City Hospital; the others, one at the north end, the other at the south end of the city. These are used only to convey the injured to the hospital, and are accompanied by a surgeon. They carry from five to six hundred per year to the institutions, and monthly reports are rendered to the superintendent. At the Massachusetts General Hospital, an ambulance, with surgeon, will be despatched upon notice from physician, police, or other responsible source. Dr. Beach reports that the plan has worked admirably. In Chicago, a key can be inserted into an alarm-box, without going to the station-house; and, to prevent false alarms, this key cannot be removed except by the ambulance-driver, who, upon arrival, releases it, and returns it to the proper number. The police patrol wagons are largely used for conveyance. Cincinnati

has one ambulance at the hospital. Baltimore is recognising the necessity for such a service, and is taking steps towards its inauguration."

SCOTLAND.

PROFESSOR BELL PETTIGREW, of St. Andrew's University, has been appointed Physician to the new Gibson Hospital at St. Andrew's.

THE staff of the Edinburgh Provident Dispensary has been increased by the addition to it of Dr. Troup and Dr. F. A. Maciver.

THE Glasgow authorities have decided that, next session, they will ask from Parliament the power to admit, on certain terms and conditions, the drainage from outside districts into the public sewer of the city. This seems a wise step, as it is important for the health of the city that the entire suburbs around for a mile or two should be thoroughly well drained.

OUTBREAK OF MEASLES.

MEASLES exist as an epidemic in several parts of Scotland at present. In the Ecclefechan district it has been so prevalent, that the public school has been closed for some time. It is not, however, of a very severe type.

THE FEVER-EPIDEMIC AT DUNDEE.

THE latest reports show that the number of cases is decreasing, and that the measures adopted by the authorities have largely succeeded in checking the epidemic. The facts, however, elicited in the course of investigating the outbreak, clearly point to the necessity for extensive alterations and improvements in several dairies and milk-shops

THE COOMBE LECTURES.

THE Coombe lectures continue to be much appreciated by the inhabitants of the various places which have been privileged to receive them. The first of a series of eight lectures was delivered at Burntisland last week by Dr. Andrew Wilson, on the Relation of Physiology to the Laws of Health. The lectures are to be delivered in the town hall, and the first was largely attended.

THE FERGUSON EYE BEQUEST.

FROM the annual report of this charity, which has just been issued, its benefits seem to have been largely taken advantage of during the past year. The total number of new patients was 3,084, of whom 2,980 were treated at the out-door dispensary, and 106 were admitted to the hospital. Of these, 2,942 were discharged cured, 110 partially cured, and 32 were dismissed as incurable. The financial statement was favourable, there being a balance in hand of £18. Thanks to the hearty co-operation of the trustees of the Greenock Infirmary, the charity is making good progress, and it is satisfactory to find from the report that an examination of the social condition of the patients shows that working-men are those who are largely taking advantage of the institution, and that they are large contributors to its funds.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General, for the week ending October 20th, show that the death-rate in the eight principal towns during the week was 19.4 per thousand of estimated population. This rate is 0.3 below that for the corresponding week of last year, and 1.2 below that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 13.6 per thousand; and the highest in Glasgow—viz., 22.0 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.4 per thousand, being exactly the same as that for the previous week. Acute diseases of the chest caused 85 deaths, or 12 less than the number recorded for the previous week. The mean temperature was 47.1°, being 4.5° below that of the week immediately preceding, and 1.1° below that of the corresponding week of last year.

THE RECENT SANITARY CONGRESS IN GLASGOW.

IT will be remembered that, in connection with the meeting of the Sanitary Institute of Great Britain, recently held in Glasgow, a local committee was formed, and subscriptions were called for to defray the expenses of the Congress. The Committee's report, just issued, shows that, of this guarantee-fund, there remains a balance in hand of £500, which it is proposed to return *pro ratâ* to the subscribers. It is admitted on all sides that the local arrangements for the Congress were of the most satisfactory kind, and the local committee are to be congratulated on their management and this favourable financial report. The returns of the numbers visiting the Sanitary Exhibition established in connection with the Congress show that it was one of the most successful ever held by the Institute, no fewer than 25,000 people having visited it; and it cannot but have contributed materially to the advance of the objects which the Association has at heart.

THE GLASGOW HOME FOR INFIRM CHILDREN.

THE East Park Home for Infirm Children in Glasgow has just completed another year of useful work. During that period, 80 children have received the advantages of the institution, and of these 51 are still inmates. The increased accommodation recently provided has proved of great service in allowing a larger number of children to be admitted to the benefits of the Home. This, in its turn, has led to increased expenditure; and a considerable outlay being also necessary in improving the sanitary condition of the building, as regards its drainage and water-supply, the financial statement shows a deficit of £227. No difficulty should be experienced in clearing off this sum, and in increasing, if necessary, the yearly income of what is one of the most worthy of the many Glasgow charities. By its agency, the infirm children of the poor of the city are removed from small unhealthy dwellings, and placed under careful medical supervision, with good food and air, while, at the same time, their educational and moral training is attended to. During the nine years that it has been in existence, the institution has benefited many children, and done a great amount of good, no less than 140 patients having been sent to their own homes much improved by treatment.

UNIVERSITY OF EDINBURGH.

SEVERAL changes in the staff of assistants to the Professors of Edinburgh University have occurred lately. By the appointment of Dr. Matthew Hay as Professor of Medical Jurisprudence in Aberdeen, a vacancy in Materia Medica occurred, and this has been filled by the appointment of Mr. George Armstrong Atkinson, M.B. and C.M., and Mr. Ralph Stockman, M.B. and C.M. Both of these gentlemen have previously acted as assistants to the Professor of Clinical Medicine in the Infirmary. The assistantship to the Professor of Practice of Physic, vacant by the resignation of Mr. James Ritchie, M.B., F.R.C.S.E., has been filled by the appointment of Mr. Phillips, M.B. and C.M. The tutorship of Clinical Surgery, vacant by the appointment of Mr. Joseph Cotterill, M.B., F.R.C.S.E., to an assistant-surgeonship in the Royal Infirmary, has been filled up by the appointment of Mr. Bennett, M.B. and C.M. The candidature of the various aspirants to the Rectorial chair is being energetically carried on by their respective supporters. At the nomination meeting, a majority of hands declared for Sir Stafford Northcote; a poll was demanded for ex-Professor Blackie and for Mr. Trevelyan, and this will take place in the University on Saturday, November 3rd. The result, it is expected, will be declared before noon on that day.

PRESENTATION TO A GLASGOW AMBULANCE CORPS.

APART from volunteer circles, ambulance work has been making

considerable progress in Glasgow among the civilian element of the population, and one form it has taken has been the formation of an ambulance corps in all works where large bodies of men are employed. On more than one occasion instances have occurred to show the value of possessing a number of men trained to know how to arrest bleeding, and what to do in cases of accident until medical aid is obtained. Very recently a most gratifying recognition of one of these ambulance corps took place, in the shape of a public presentation to the members of the Linthouse ambulance detachment, for the efficient services rendered on the occasion of the *Daphne* disaster, when by the upsetting of that vessel a sudden and large loss of life occurred. Handsome timepieces were given to all the members of the corps; and it is hoped that this public recognition of their services will encourage and help on a movement which is productive of much good, not only to the workmen, but also to their employers, for there is no doubt that immediate attention, of a proper kind, in cases of injury, often saves subsequent illness, and favours recovery.

IRELAND.

SMALL-POX may now be said to have disappeared from Belfast, as for the past few weeks not a single case of the disease has been under treatment in the Belfast Union Hospital.

DR. J. STANNUS HUGHES has resigned the secretaryship of the Council of the Royal College of Surgeons in Ireland.

ROYAL UNIVERSITY OF IRELAND.

DR. REDFERN, professor of anatomy in the Queen's College, Belfast, has been appointed a Medical Fellow in this University, in the subjects of anatomy and physiology.

ELECTION OF MEDICAL OFFICER TO THE LARNE DISPENSARY.

AT the recent election for medical officer for Larne Dispensary, in room of Dr. Kane, deceased, Dr. Wheeler, Assistant-Surgeon to the Royal Hospital, Belfast, and Dr. Killen, Larne, had an equal number of votes, and instructions were given to the clerk to advertise a new election.

JAMES MOORE, M.D., M.R.I.A., OF BELFAST.

THIS gentleman died last Sunday, after a somewhat protracted illness, at his residence, Chichester Street, Belfast, aged 64 years. He was educated at the University of Edinburgh, where he graduated in medicine in 1842, and two years afterwards became a member of the Royal College of Surgeons in England. He had a large and lucrative surgical practice, and at various periods was attached to several institutions, including the Belfast Royal Hospital, Ulster Hospital for Diseases of the Eye, District Lunatic Asylum; and was an ex-president of the Ulster Medical Society. In consequence of his artistic abilities he was selected to illustrate Professor Syme's work on surgery, and he was a constant exhibitor at the Royal Hibernian Academy, being elected an honorary member of that institution.

ROYAL UNIVERSITY OF IRELAND.

THE senate of this university have appointed the following gentlemen to be medical Fellows. In the Department of Anatomy: Christopher J. Nixon, M.B.; Joseph P. Pye, M.D.Mch.; Peter Redfern, M.D. In the Department of Physiology: J. J. Charles, M.D.Mch. Charles Coppinger, F.R.C.S.I. In the Department of Medicine: Benjamin G. M'Dowel, M.D.Mch. In the Department of Surgery: Anthony H. Corley, M.D.Mch., F.R.C.S.I.; P. J. Hayes, F.R.C.S.E. The senate have postponed for the present all action with reference to the vacant Fellowships. The standing committee of the senate for the year 1883-84 has been appointed to consist of the chancellor and vice-chancellor of the university, and the following senators: The Right Hon. John Thomas Ball, LL.D.; the Lord Emly; Sir Robert Kane; the Right Rev. Monsignore Neville, D.D.; Very Rev. James B. Kavanagh, D.D.; Rev. J. L. Porter; W. K. Sullivan, Esq., Ph.D.; T. W. Moffett, Esq., LL.D.; Rev. Robinson Scott, D.D.; Geo. Johnston Allman, Esq., LL.D.; Rev. Wm. Fleming Stevenson, D.D.; John Thomas Banks, Esq., M.D.; Francis R. Cruise, Esq., M.D., and the Rev. Wm. J. Walsh, D.D. The ceremonial of conferring the degrees took place on the 25th ult. in the great hall of the university, with much *éclat*. His Grace the Duke of Abercorn, Chancellor, presided.

THE SANITARY INSTITUTE OF GREAT BRITAIN.

AN invitation to the Sanitary Institute to hold its annual congress next year in Dublin has been accepted. A large number of influential persons, including the Lord Mayor and the Lord Mayor-elect, the President of the King and Queen's College of Physicians, the President of the Royal College of Surgeons, and the presidents or chairmen of the principal public bodies in Dublin, signed the invitation. The College of Physicians has granted the use of its hall for the preliminary meetings in connection with the congress. At a well-attended meeting of the signatories to the invitation, held there on Tuesday last, a spirit was shown which augurs most favourably for the success of the proposed congress. The chair was taken by the Lord Mayor-elect, who said that the Corporation of Dublin, and he personally, desired to do everything possible to promote the object of the congress and make its meeting in Dublin a pleasant and useful one. A large and representative local committee was formed, to take all steps necessary for the reception of the congress; and a fund was opened to defray its expenses. Mr. W. R. Maguire, F.S.A., is acting as honorary secretary to the local committee.

ACADEMY OF MEDICINE IN IRELAND.

THE first annual meeting was held on Friday, the 26th ultimo, at the King and Queen's College of Physicians, Kildare Street, and the following officers were elected for the ensuing year. Medical Section—*President:* The President of the King and Queen's College of Physicians; *Council:* J. M. Finny, Samuel Gordon, T. W. Grimshaw, R. A. Hayes, H. Kennedy, D. W. Moore, C. J. Nixon, G. F. Duffey, W. G. Smith; *Secretary:* A. N. Montgomery. Obstetrical Section—*President:* G. H. Kidd; *Council:* L. Atthill, F. Churchill, G. Johnston, J. R. Kirkpatrick, A. V. Macan, T. More Madden, W. J. Smyly, J. A. Byrne, John Denham; *Secretary:* W. C. Neville. Surgical Section—*President:* The President of the Royal College of Surgeons; *Council:* J. K. Barton, W. Colles, H. G. Croly, P. J Hayes, A. H. Jacob, E. D. Mapother, E. S. O'Grady, W. Thornley Stoker, H. R. Swanzy; *Secretary:* W. Stokes. Pathological Section—*President:* A. H. Corley; *Council:* P. S. Abraham, C. Coppinger, A. W. Foot, J. V. Lentaigne, T. E. Little, J. M. Purser, F. B Quinlan, W. Stoker, J. B. Story; *Secretary:* E. H. Bennett. Dr. Robert McDonnell, F.R.S., was re-elected General Treasurer, and Dr. William Thomson General Secretary. In recognition of the admirable manner in which the latter gentleman performed his laborious duties in assisting in the organisation of the Academy, in conducting its business, and in editing the first volume of its *Transactions*, an honorarium of £100 was voted to him out of the funds of the Academy. The number of Fellows of the Academy is 201; of Members, 21; and of Student Associates, 22. In a pecuniary sense, the Academy closes its first year of existence in a most satisfactory manner. The Treasurer's report shows a balance in bank of £228 19s. 6d., so that, even after the deduction of the well-deserved grant to the General Secretary, the Academy will have over £100 to its credit. The President of the Academy, Dr. Banks, Regius Professor of Physic in the University of Dublin, and Physician to the Queen in Ireland, holds office, in accordance with the rules of the Academy, for three years.

COLLECTIVE INVESTIGATION OF DISEASE.

A LARGE meeting of members of the Lancashire and Cheshire Branch in the Manchester district, and of other practitioners, was held in the Owens College on October 25th; Dr. WILLIAM ROBERTS, F.R.S., presided.

Dr. JUDSON S. BURY, Honorary Secretary to the Manchester Collective Investigation Committee, read the following report.

"At the annual meeting of the members of the Lancashire and Cheshire Branch, held at Chester in June, 1882, a committee was appointed for the purpose of co-operating with the Collective Investigation of Disease Committee of the British Medical Association. It was considered desirable that there should be two divisions of this committee, one in Manchester, the other in Liverpool. The following gentlemen were elected to serve upon the Manchester section of this committee: Dr. William Roberts, Dr. Leech, Dr. Ransome, Dr. Dreschfeld, Dr. Ashby, Dr. Hutton, and Dr. Bury.

"The cards and memoranda on acute pneumonia, chorea, and acute rheumatism issued by the central Committee, were at once distributed, and efforts were made to organise the work of collecting information on these subjects; and, to more thoroughly work the district around Manchester, it was thought desirable to invite gentlemen resident in the outlying towns both to join the local committee and to act as special promoters of the work in their own neighbourhoods. The following gentlemen accepted the invitation, and are now members of the Committee: Dr. Colley March (Rochdale), Dr. McGowan and Dr. Thomson (Oldham), Dr. A. Hamilton (Ashton-under-Lyne), Dr. J. Parks (Bury), Dr. D. J. Mackenzie (Glossop), T. W. H. Garstang, Esq. (Saddleworth), Dr. J. B. Perrin (Leigh). Dr. C. J. Renshaw (Sale), De Vere Hunt, Esq. (Bolton), Dr. T. Starkey Smith (Warrington), Dr. J. A. Harris (Chorley), and C. D. Shepherd, Esq. (Wigan).

"As a result of the first fourteen months' work of this Committee, 111 filled-up cards, and also a valuable report on an outbreak of diphtheria, by Dr. H. S. Renshaw, of Sale, have been forwarded to the central office; and, considering that the movement has scarcely yet taken firm root amongst us, the returns are, I think, fairly satisfactory. And, if we compare the lists published last July in the *Record*, we find that the Lancashire and Cheshire Branch sent 161 cards, a larger number than that of any other Branch, not excepting the Metropolitan, which has a larger number of members; and, of these 161 cards, more than two-thirds were contributed by the Manchester and Bolton districts. There is encouragement, then, at the very outset; and Dr. Ransome, who years ago actually worked at and started collective investigation of disease in this district, must feel gratified that his labours in this direction are bearing fresh fruit.

"It is hoped, however, that far better results than those mentioned may be obtained; and the Manchester Committee thought that it was time that the whole subject should be brought prominently forward and thoroughly explained to the profession; and they are glad to have been able to obtain the presence of Mr. Jonathan Hutchinson and Dr. Mahomed at the present meeting called for this purpose."

Dr. W. Roberts then delivered an address, which is published at page 860.

Mr. Jonathan Hutchinson delivered an address, which is published at page 862.

THE CHAIRMAN:—I have now pleasure in calling upon Dr. Mahomed.

Dr. MAHOMED:—I did not come here this afternoon so much to make an address as to receive suggestions and get criticisms; and I must say that so far I have been very richly rewarded. If I have to say anything now it would be this—that I want to impress upon every person here that this question is an every-day question of practice. Hospital-physicians and hospital-surgeons must do their share, but the greatest share, the bulk of the work, must be done by the practitioner in his every-day practice; and if the practitioners of Great Britain will not help in it, the thing must die. We in hospitals have a very small knowledge of the patients whom we have to treat; and we have a very limited knowledge of their diseases. I do not believe that there is a single disease which comes before the hospital-physician—except perhaps the acute diseases—of which he knows the beginning. He knows the *end* of disease; he sees the patients on their last legs, and he sees them in the *post mortem* room, but he does not see them at the period when he can cure them. As a rule, he can mitigate their sufferings, and that is nearly all he can do. But you have before you the opportunity of observing patients from their birth, recognising their earliest departures from health, and telling them what they may do, and what they must not do. I should like to take this opportunity of calling your attention to a publication which I hope will shortly appear under the auspices of our Collective Investigation Committee. We are going to try to make a new fashion in England. It is, that people should adopt a new system in the way of albums, and record the histories of their own lives; that they should be taught—and you doctors will have to teach them—to watch themselves intelligently. We propose to bring out this little album, and try to get the public to take it up, as I said, to make it a new fashion; that children, from the time of their birth, should be provided with this album. And in this album will be recorded, among other things, their weight from time to time, and their strength as they grow. It will contain tests for their eyesight, for colour-blindness and acuteness of vision, and such-like things. I do not believe that we half appreciate the extreme value of the weighing-machine in medicine. I believe it is about the most useful thing that a medical man can possess. I will go further, and say that the father of every family should have a good weighing-machine in his house. Nothing will so soon tell him when his children are wrong as a fall in their weight or an arrest of their increment of weight. This album will contain, among other things, a chart on which will be drawn a line of average growth and of average weight, compiled by Mr. Charles Roberts for the Committee, from returns received during the last few years. These charts will show the normal curve, and people will be taught to get their children weighed from time to time, so that it may be seen whether they are following the normal curve or falling away from it. Just to show you the way in which this will help us, I would quote the observation made by Dr. Bowditch of Boston, U.S.A., on a child between two and three years old, that was weighed every week. We shall not ask you to recommend people to be weighed as frequently as that, but it gives an idea of its utility. The first great drop in this child's weight went on for some weeks, and nobody knew why its weight was falling. Presently, it was found to have pale motions and enlarged glands in the neck, and then everybody knew that it was becoming what some call strumous. The child was immediately treated with cod-liver oil and mercury, and its weight began to rise from the very first day of this treatment. Now, in that case the weight foretold the disease by weeks, if not months. The child regained its normal weight, and then it fell with extreme rapidity for a fortnight; and it developed the rash of measles. Immediately the rash came out, strangely enough, the weight began to go up. Thus, from a single observation, was obtained a most valuable fact that no one, I think, has observed before. It may not prove to be invariably the case, but here during the incubation of the disease, when there was no fever, there was a greater loss of weight than during the period subsequent to the appearance of the rash. I mention this to show the great importance of weighing children. This life-history album will contain so many points, that I cannot detain you now by dwelling upon them; but I want you, when this album does come out, just to look at it, and obtain copies, and as far as possible recommend your patients to start such a thing, and keep, among other things, a record of their medical life-history, asking their medical men the nature of their disease, of course, as part of his professional duties, for which he would be properly recompensed. We mention that in the album, that they cannot expect us to do it without proper recompense. The medical attendant would be asked to make a note, and say the nature of the ailment, and the physical signs present. Now, if we had such records as that, they would be simply invaluable. I feel very strongly the truth of what Mr. Hutchinson has told you, that one of the greatest errors we have yet made, has been in the elaborateness of some of our cards. In some cases they are not perhaps too elaborate, but the tendency is to pile up the questions, and to get more and more complete accounts of cases. Now, what we really want to do, and shall do in the future, is to put one or two definite questions to men, the drift of which they see, and trust to them to having recognised the disease correctly, and give us answers to those questions. We have rather tried, by putting a lot of questions, to obtain the means by which the Committee could make the diagnosis, and bring out facts of which the observer himself may not have seen the importance. If they be sufficiently good observers to see the importance of the facts, they will observe them; but we cannot get observations which they have made, so to speak, casually without seeing the importance of them. If they be told we want certain things, and they can give us those facts, we shall get them. Among the next things you will

receive will be schedules, making inquiry concerning the fever which follows childbirth. We shall ask you probably to record some short details about your last case of childbirth fever. What we shall do is to issue a few exceedingly simple questions, and I do hope that those questions will meet with a very large response. It will be a somewhat similar style of thing to the inquiry we issued with regard to phthisis; and with regard to that inquiry, I can only say we have had every reason to be most thoroughly satisfied with the results. I believe that inquiry marks a new epoch in dealing with phthisical patients. I fully concur with what Dr. Roberts said — that no one can rightly permit a phthisical patient to sleep with a non-phthisical person. There is one other point on which I should like to give you a few words of encouragement, because it is one commonly mentioned as deterrent. They say, "What is the good of getting these returns? You cannot trust to them when you get them. There are so many men in the profession who do not observe correctly, that the returns would not be trustworthy." It is the very best men who help us; the very worst men do not help us. They are not sufficiently zealous in their scientific work, and they do not care to fill up cards; but the cards we receive are most ably filled up. Those who had to analyse the cards and draw up the reports from them—the sub-committees—started in a very despondent fashion; they thought they would not get very much out of them. Those men have come to me and said that they were astonished to find what valuable and trustworthy materials had been collected in those cards, that it was clearly the work of able men, who had studied their cases and recognised and recorded the points with perfect accuracy. The reporters on pneumonia, for instance, said that they believed that there was not such a mass of information in existence in any other language as had been reported, and it would give rise to the most important monograph on the subject hitherto written, giving accurate facts and statistical details about this disease. Now such a statement as that, coming from such men as Dr. Sturges and Dr. Sidney Coupland, two of the best workers in clinical medicine in London, is exceedingly good testimony as to the value of these returns. I am sure the large attendance at this meeting promises that we shall get very large responses from the Manchester district in the future.

Professor GAMGEE, in moving a vote of thanks to Mr. Jonathan Hutchinson, said: Might I make the remark that the plan which Dr. Mahomed has been recommending to our notice of encouraging patients to have health histories of their children may be rather troublesome to the medical man of the future? I think that the plan (of course I am speaking in a jocular manner) will tend to make people rather too introspective, and that we shall have more *malades imaginaires* in the future than we have at the present time; and we should be cultivating in English patients the unfortunate tendencies which some of us have noticed in Continental patients who have consulted us, and who have been in the habit for a long time of asking their medical men to write after the illness some account of their case. But leaving that very trivial matter, I heartily sympathise in this movement, a movement for which we are ripe, because unquestionably the medical profession of the day is a scientific profession. Many of its members are quite able to take part in such scientific investigations as are being fostered and carried on under the influence of Dr. Mahomed. It is therefore with very great gratification that I address myself to this special task of moving a vote of thanks to Mr. Jonathan Hutchinson, for whom I have felt for a great many years quite a peculiar admiration. It is with some hesitation I say these things before him, but it has always appeared to me that he is one of the English medical men of the century. His exceedingly scientific mind, and above all his devotion to all departments of medicine—the eclecticism of his mind, has always astounded me. He is a man who would be distinguished among the physicians, as he is distinguished among surgeons. I feel, sir, that it has been a great privilege to sit here and to listen to his suggestive remarks, and I am quite certain the practitioners of this district feel that they are under a debt of gratitude to him for coming amongst us. I have the greatest confidence, then, in proposing that a hearty vote of thanks be given to Mr. Jonathan Hutchinson for coming to Manchester and addressing us upon this very interesting and important subject.

Dr. RANSOME: I second Dr. Gamgee's motion; and, in doing this, allow me to say that I think the enterprise of collective investigation of disease has a great future before it. When men of eminence like Professor Humphry, Sir James Paget, Sir William Gull, Dr. Wilks, and, not least, Mr. Jonathan Hutchinson, take an interest in it, we are justified in saying that it will not fail. When these gentlemen take so much trouble to explain the nature of the enterprise, and when they themselves express their thorough belief in the value of the results that may be obtained from it, the least we can do is to see that they are well collected up by the rank and file of an army of observers. I think there can be little doubt they will obtain that in this district. I have had good reason to know the public spirit of the medical men of Manchester. Your Chairman has kindly mentioned my own suggestion; but it is, after all, an exceedingly small matter. The really important thing is, that the suggestion bore fruit, and bore fruit solely through the public spirit of the profession in this district. I have here just one of ten or twelve volumes of statistics collected by medical men in Manchester. I have not the smallest hesitation in saying that they are quite unequalled, and will form, in future, a mine of information on the subject, not only of epidemics, but other diseases; and this was obtained solely by the industry and the public spirit of the medical men of this neighbourhood. They have also carried out the inquiry—which is one of those amongst the agenda of the Collective Investigation Committee—as to the duration of infection. A committee was appointed by the Lancashire and Cheshire Branch on this subject, and a very fair amount of work was done with reference to it; and I therefore feel no doubt that, when this matter is taken up again, the work which was done in this neighbourhood will be found to be of service in the more extended field of inquiry which will be opened out by the Collective Investigation Committee. With regard to the future, also, I think we can have no doubt whatever that numberless subjects will come up in which the collective investigation system will be of very great service. We have already had a number of suggestions, both from our Chairman and from Mr. Jonathan Hutchinson. As one of the Committee in London, I think I may answer for them in saying that these suggestions, coming from such men, will be listened to with extreme sympathy and attention. Of course, we may have our own opinions as to the possibility of carrying out some of them; but, out of the mass of exceedingly valuable suggestions, there will no doubt be found a number that will have to be taken up in the future. I have great pleasure in seconding the resolution.

The CHAIRMAN: I think this vote will meet with the cordial approval of every one in this meeting. I am sure you must have been delighted with what you heard, there being so much in the address that was entirely fresh; and, throughout his life-time, I think Mr. Jonathan Hutchinson has lived in a sort of atmosphere of fresh things; and that is one reason that he has continued to grow all his life-time. He did not become famous suddenly, but he has gradually grown into fame, and he is still growing year by year. We have had to-day just a little specimen of the sort of accretion of interest which seems to be always taking place in his mind, and which he emits for the good of the profession from time to time. I think we can all join in carrying this vote by acclamation.

Mr. JONATHAN HUTCHINSON: I am exceedingly obliged to you, gentlemen, and to Dr. Gamgee and Dr. Ransome, for the very kind manner in which they proposed this vote of thanks; and I am abundantly overpaid for any little trouble I have taken in the preparation of this very fragmentary paper, by the way in which you have been kind enough to receive it. And I must assure you that, with regard to the purpose of our meeting to-night, you are thanking the wrong man. Dr. Mahomed and I have come as a deputation from the London committee in reference to it, but the whole work in connection with the Collective Investigation movement has fallen upon Dr. Mahomed. I have had little or nothing to do with it. I think I did revise the papers of the scheme in one subject, but I am afraid that there ends any help I have really given to it. The preparation of this paper has been a very great pleasure to me, for which I am far more than paid by the way in which you have received it. There is, I think, no greater pleasure to an innately idle man than setting out tasks for other people. If there be any greater pleasure, I think it is watching them do the tasks.

MEDICAL SOCIETY OF CHARING CROSS HOSPITAL.—The next meeting will take place in the Board-Room of the Hospital on Friday evening, November 9th, at 8 o'clock, when Mr. R. Fletcher will read a paper on "Army and Volunteer Medical Organisation." Visitors are invited.

THE announcement of the death of Dr. Robert Hudson, at Newry, Ireland, whither he had gone for further medical treatment, will be read with much regret. In Redruth and its neighbourhood, where Dr. Hudson had successfully practised and acquired a large circle of friends, his early loss will be much felt. Dr. Hudson leaves a widow and six young children.

MEDICAL BULLETINS.

"A VOICE from the Shades," in our columns to-day, utters eloquently some of the opinions which the elder physicians of the last generation might be supposed to entertain of the modern system of medical bulletins. We have nothing but sympathy for the principles enunciated, and nothing but praise for the eloquent if sometimes burning words in which they are stated. Reservation is made for the difference which modern rapidity of communication and the greater publicity and more urgent demands for universal and quick information of all that touches the public life and interest, have introduced into our modern habits of life and thought. All men, but especially all public men, live more than ever before in the blaze of light. The details of the illness of any public man, affecting his public engagements and the interests of others, not to say touching wide sympathies, become from day to day the subject of earnest inquiry, which is not necessarily inquisitive because it is urgent and detailed. A whole nation waits at the door; royal friends demand daily information; institutions waiting for their opening, their foundation, or their crowning stone, demand not only general but precise facts. Reporters knock at the door, wait at the gates, or penetrate into the study. Such demands seem to some inquisitorial or intrusive; they are not so always or necessarily. It is wrong to assume that such details as are given to the public are so published without the knowledge or against the wish of the patients or their friends. They are certainly in the majority of cases published with the full consent, and most frequently by the desire, of the patients. In the last instance, that of the Archbishop of Canterbury, we have reason to know that this was the case, and that there existed valid reason for such publication. It would of course be still more unjust to assume that the medical men concerned in any such cases act without the knowledge of the patient, or otherwise than in accordance with the reasonable wishes of the patient and his relatives. In the enormous majority of cases such statements are drawn up, not by the medical man, but by relatives and friends, who are acting for public reasons. So, as far as we know, no bulletin has ever appeared in these pages which has not been, in the fullest sense, authorised and published to serve an useful public purpose, and no private end. We do not say that the practice has never been abused, or that it is not open to abuse, and a fair subject for discussion; but it is one in which private envy, or personal jealousy, is very likely to lead superficial observers to very erroneous conclusions. Let the College of Physicians, some of whose most distinguished Fellows are much experienced on the subject, consider it, with a view to laying down, if possible, general principles or formulæ which may afford a more precise, and possibly, more uniform rule of practice than now exists. We should welcome such guidance; and so undoubtedly would many physicians and surgeons, whose practice brings them into positions in which they are called upon to decide how, when, and where to furnish such information. The oracle should, if it is to be useful, speak not obscurely, but in plain words.

INTERNATIONAL HEALTH EXHIBITION, 1884.

AT the close of the International Fisheries Exhibition, His Royal Highness the Prince of Wales announced his intention of arranging to hold in the same buildings an International Exhibition of Food, Dress, Habitations, and Educational Appliances. This exhibition will be held on a great scale, and will, it is understood, be organised so as to embrace and bring into prominence illustrations of all that must affect the welfare of the people, not forgetting the poorer classes.

COLLECTIVE INVESTIGATION COMMITTEE.

AT a meeting of the General Collective Investigation Committee, held at 161A, Strand, on October 16th, 1883, at 4 P.M., there were present, Professor Humphry (in the chair), Dr. Atkinson (Kingston-on-Thames), Mr. Butlin, Dr. Carpenter (Croydon), Dr. Cheadle, Dr. Sidney Coupland, Mr. Davies-Colley, Dr. Duckworth, Mr. George Eastes, Mr. Francis Galton, F.R.S., Dr. John Galton (Anerley), Dr. Grigg, Dr. Stephen Mackenzie, Dr. Mahomed, Mr. Malcolm Morris, Dr. Frederick Taylor, Dr. Tyson (Folkestone), Dr. Burney Yeo.

Communications regretting their inability to attend were received from Dr. Wade (Birmingham), Dr. B. Foster (Birmingham), Dr. Bowles (Folkestone), Dr. Bury (Manchester), Dr. Brailey (London), Mr. Herbert Page (London), Dr. Ward Cousins (Southsea), Dr. Jones-Morris (Portmadoc).

Communications were received from Surgeon-Major Maunsell (Salon, Punjab), concerning the formation of a local Collective Investigation Committee in India; the letter was referred to the Journal and Finance Committee, as it involved some questions of finance; also a communication from Surgeon-Major Maunsell concerning the cholera card, and with numerous suggestions, which was referred to the cholera subcommittee; also a communication from Dr. Davies, Chicago, U.S.A., expressing the willingness of the American Collective Investigation Committee to co-operate with the Committee, and asking for copies of the cards issued; also a communication from Professor Ewald, of Berlin, expressing the willingness of the German Collective Investigation Committee to co-operate with this Committee, and their intention to take up, as far as possible, the same subjects of inquiry; also a communication from Mr. Malcolm Morris suggesting purpura as a suitable subject for inquiry by the Committee.

1. The Committee approved the proposal to issue a life-album.
2. It was resolved to adopt the album prepared by the Subcommittee appointed for the purpose, and submitted to the Committee at this meeting, subject to any further revision by the Subcommittee.
3. The Committee authorised the Subcommittee in charge of the album, to make terms with a publisher for its publication, on the distinct understanding that the Association authorise no expenditure in connection therewith.
4. It was also resolved that the publication bear the title, "Life-History Album," and that it be edited by and published under the sanction of the Collective Investigation Committee.
5. That the author's profits, if any, be paid to the Collective Investigation Committee of the British Medical Association, and entered in a separate account, and that the Life-History Subcommittee be a standing subcommittee, to report from time to time on the best method of applying those profits to the furtherance of the objects for which the album has been designed.
6. That the following gentlemen constitute a subcommittee, to take such measures as they may deem necessary to promote the work of collective investigation, and to report the same to the General Committee:—Professor Humphry, Mr. Macnamara, Dr. Carpenter, Dr. Duckworth, Dr. Cheadle, Dr. Sturges, Dr. Burney Yeo, Dr. Mackenzie, Dr. Coupland, Dr. Barlow, Dr. Mahomed. The Subcommittee shall meet monthly, or oftener, at the houses of the members, in succession, at such times as they may arrange. That the member, at whose house the meeting takes place, be the chairman of the evening, and that he be at liberty to invite the attendance of any person who he thinks may give useful information to the Subcommittee.
7. That such a Subcommittee be appointed annually.
8. That the card on enteric fever, prepared by the Metropolitan Counties Branch, be adopted, with such amendment as may be deemed necessary, and that it be referred to the Subcommittee for further consideration.
9. That the consideration of the cholera-card be deferred to a future meeting.
10. That the paroxysmal hæmoglobinuria card and memorandum be referred to Dr. S. Mackenzie and Dr. Saundby for revision, and that, if accepted by the Subcommittee, it be subsequently forwarded for publication in the JOURNAL, and forms obtained on application to the local and general secretaries.
11. That the card on puerperal pyrexia be referred to the Subcommittee.

ANTISEPSIS IN OVARIOTOMY AND BATTEY'S OPERATION.—In an article with the above title, appearing in the *Virginia Medical Monthly* for Augnst 1883, Dr. Battey presents the records of eighteen consecutive cases of ovariotomy and of Battey's operation. They were performed under strict antiseptic precautions, including the spray, and all terminated in recovery. While not believing that the spray or the use of carbolic acid in general is essential to success, the author thinks that weak solutions can do no harm, and that their use may serve to guard the patient against any slight imperfections in the details of cleansing. And he therefore says that he is content to hold them as valuable assistants in abdominal surgery until their utter uselessness has been more conclusively shown. He further says that his experience has been uniform upon one point, namely, that when a patient has been operated upon at her home, and left to the care of her family physician, convalescence has been unduly slow and unsatisfactory.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed.*

Applications should be addressed to

The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will take place at Gravesend, on Tuesday, November 13th. Gentlemen desirous of reading papers or exhibiting specimens, are requested to communicate as early as possible with the Honorary Secretary of the district, A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham.—October 5th, 1883.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Newport, on Thursday, November 15th. Members wishing to read papers, etc., should send titles to either of the undersigned at once.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.—October 10th, 1883.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Wednesday, November 28th. Dr. Ellis, of Eastbourne, will preside. Gentlemen desirous of contributing papers should at once communicate with the Honorary Secretary, T. JENNER VERRALL, 95, Western Road, Brighton.—October 16th, 1883.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The autumn meeting of the above district will be held at Worthing on Thursday, November 22nd, Dr. Kelly in the chair. Gentlemen intending to read papers are requested to communicate with the Honorary Secretary, G. B. COLLET, 5, Steyne, Worthing.—October 15th, 1883.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Station Hotel, Stoke-upon-Trent, on Thursday, November 29th, at 4 P.M.—VINCENT JACKSON, General Secretary, Wolverhampton.—October 30th, 1883.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at the Kent and Canterbury Hospital, on November 15th; Dr. Joyce of Cranbrook in the chair. At 2 P.M., Mr. Wacher will conduct members over the new Union Infirmary. The Collective Investigation Subcommittee will meet at the Hospital at 2.30 P.M. At 3 P.M., the following communications: Dr. Stowers: Infantile Eczema. Dr. Gogarty: Gout in Diagnosis. Dr. Joyce: Whether the recognised Infectious Diseases be ever simulated by Non-infectious Forms; The Communicability of Disease from Animals to Man. The dinner will take place at the Royal Fountain Hotel, at 5 P.M. All extant cards of the Collective Investigation Committee can be obtained by applying to T. WHITEHEAD REID, Honorary Secretary, 34, St. George's Place, Canterbury.—October 31st, 1883.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

The Opening of the Winter Session.—The Medical School.—The Branch.—The Ingleby Lectures.—The Teaching of Anatomy.—The Hospitals.—The Small-pox Epidemic.—The Medical Mission.—The Board of Guardians.

THE winter session has opened with unusually bright prospects for the medical school. The ceremonial part of the opening took place on October 1st, when the inaugural address was delivered by Mr. Bennett May, whose very sensible remarks were drowned by the disorderly tumult which appears to be inseparable from these opening meetings. There is much to be said in favour of the view advocated in a leading article in a contemporary, which urges the importance of making a good deal more of this ceremony, by getting together as many distinguished people as possible, and especially the seniors of the school. The address should be rather a few pungent words from one who has won his laurels and earned the respect of all, than a long and somewhat (to students) tiresome lecture from a junior, who probably looks upon the whole thing as a farce, and is only anxious to get his part of it over.

The opening meeting of the Birmingham and Midland Counties Branch took place on Thursday, October 11th. The President, Dr. Foster, read a few opening remarks, especially directing attention to the work of collective investigation. Dr. Sawyer and Mr. Bartleet read papers on the treatment of intestinal obstruction, and these gave rise to an interesting and animated discussion, in which Mr. Lawson Tait, Mr. Furneaux Jordan, the President, and others took part. Mr. Bartleet took occasion to raise the question as to the advisability of the present routine practice of administering opium, a point upon which there was some difference of opinion, while there was much unanimity expressed as to the danger of delaying too long before operative interference is decided upon. There was a general feeling expressed afterwards that this was one of the best meetings of this Branch in recent times.

The Ingleby lectures were delivered on October 11th and 17th, by Dr. Edward Malins. The lecturer took for his subject Pelvic Hæmatocele. Unfortunately, the first lecture was given at the same time as the Branch meeting, so that the attendance was not so good as could be wished; many who would have been glad to have heard the lecture being unable to attend. These lectures form an important event in the local professional year, and everything should be done by the Council of Queen's College, to make them as popular and as useful as possible. My experience of them, for some years, suggests to me the desirability of two or, three reforms. In the first place, the lecturers should have two years' notice, instead of barely one year; every lecturer should be required to print his lectures; the lecturers should be the best men obtainable, and not necessarily in every case resident in this neighbourhood—as an admixture of men from a distance would tend to keep up the standard.

There is some talk of a very desirable change at Queen's College in the direction of sweeping away the present divided system of teaching anatomy, and vesting the whole in a professor with an assured stipend, who would be required to devote his entire time to his professorial duties. I heartily wish success to this scheme, which, sooner or later, must be carried out. The professors of chemistry and physiology have, within the last few years, shown such a generous disposition to sacrifice their own interests for the obvious advantage of the school, that I am greatly in hope that any vested interests which stand in the way of the proposed reform will not prove insuperable obstacles.

There are a few changes to chronicle in the hospital staff. At the General Hospital, I am glad to say, there is no change. At the Queen's, Mr. Jordan Lloyd has succeeded Mr. West as surgeon, Mr. J. W. Moore having been elected to fill the vacancy as Casualty Surgeon. The vacant physicianship, due to the death of Dr. Hunt, has not yet been filled. At the Children's Hospital, Dr. R. C. R. Jordan will retire at the end of this year, after having served the hospital since its foundation; it will be difficult to find an adequate successor to him. Miss Clark, M.D., has succeeded Miss Barker, M.D., at the Hospital for Women. There is a vacancy for an assistant-surgeon at the Ear and Throat Hospital, for which Dr. C. J. Lewis and Dr. H. T. Bassett are candidates.

The proposed new suburban hospital, to be built by Mr. Jaffray,

has received the promise of another £1000 endowment from the firm of Tangye's, Limited, and a proposal has been made to raise another £1000 amoug the working men of Birmingham.

October 28th was Hospital Sunday, and the collection was for the benefit of the General Hospital. The sum obtained is usually about £5000, but for the three last years it has been a little below that sum. The money obtained from this collection forms an important part of the ordinary income of the General Hospital, and at the present time it is particularly hoped that the collection may be a good one, as owing to recent extensions there is a debt of £2000, which the committee is anxious to clear off.

The small-pox epidemic continues, but is of a very mild type, the total mortality being under 7 per cent. Among the unvaccinated cases, however, the percentage rises to 30, while in the vaccinated it falls to 1.5. Such figures speak for themselves. The epidemic has been almost entirely confined to the poorer parts of the town and the lower class of houses.

I regret to notice the continued ill-health of Dr. Alfred Hill, our very able medical officer of health, to whose unobtrusive but indefatigable care the town owes so much. Dr. Hill has managed to preserve perfect harmony with the entire profession in the town, and finds no difficulty in obtaining its hearty co-operation in sanitary matters. It speaks volumes for Dr. Hill that the profession here voted, by a large majority, in favour of compulsory notification of infectious diseases.

The borough coroner recently made some of his characteristic remarks about the Medical Mission. At the annual meeting, Mr. Crabbe, the medical missionary, explained, at some length, the circumstances which had called forth the coroner's comments. The Mayor, who presided, said his only criticism on Mr. Crabbe's speech was that he spent too much time on the coroner; he should remember that "some men's curses were the best praise that could be enjoyed."

Very distressing doubts have been thrown on the conduct of the parish medical officers with respect to the fees for pauper-lunatics. The Board of Guardians, in my opinion, acted very unfairly in publishing these damaging statements before affording the medical men any opportunity for explanation. Two of these gentlemen have, under high legal advice, appealed to the Local Government Board for a thorough investigation; and it appears to me remarkable that the guardians, instead of acquiescing in such a proper demand, appear to regard it as an act of insubordination. We trust that the result of the public inquiry will dispel the very injurious suspicions that now hang over these gentlemen.

CORRESPONDENCE.

MEDICAL BULLETINS: A VOICE FROM "THE SHADES."

SIR,—For a long time past, I have been meditating upon the propriety of addressing you, in your capacity as Editor of a widely circulated, a well-informed, an influential, and, if I may be pardoned the expression, a generally well-conducted JOURNAL.

Reluctant, however, to obtrude myself and my opinions—opinions which I thought might, perchance, be deemed somewhat "old-fashioned" by the more "advanced" spirits of to-day (it is now, alas! well nigh forty years since the Great Destroyer tore me from my much-loved college), I have hitherto kept silence.

But a paragraph, to which you have given your *imprimatur* in the latest impression of your JOURNAL—a paragraph having reference to the ailments of the Archbishop of Canterbury—taken together with some others more startling upon the same subject, which have lately been made public elsewhere, has finally decided me to write to you.

And here I may say that some of my intimate friends, old friends and former colleagues whilst we were on earth, each and every one of us careful and jealous, we hope, then as now, for the honour of our college and of the profession, these have for long incited me to this decision—Sir George Baker, and Warren, and Latham, and Southey, and our latest arrived brother, Sir Thomas Watson—

"Quis desiderio sit pudor, aut modus,
Tam cari capitis?"

All these whom I have mentioned—aye! and very many more not mentioned—have now for a long time noticed, with regret, the growing frequency with which the names of members of the medical profession are appearing in the newspapers—properly so called—whether these names are cleverly introduced into the body of a pseudomedical paragraph, or whether (somewhat less objectionably perhaps) appended to a so-called "bulletin."

Time was—and that not so very long ago—when "bulletins" were issued only when royal personages were ill; but now, how different! "Nothing but thunder!"

Granted, for a moment, that with your present marvellous system of telegrams and telephones, and hourly posts, and multifarious newspapers, flashing the sympathies from every extremity, and registering them in the great brain of London; granted, I say, that the public of to-day would not be satisfied without some expansion of the custom which obtained in the days to which I have above referred—still—"*est modus in rebus*," and it would be possible, as we think, to gratify the people, and, at the same time, to avoid the appearance even of keeping individual members of the profession *en evidence*.

But the frequency of the "bulletins," and the parade of names, sink into insignificance, as giving ground of offence, when compared with the character and contents of some of the medical and "pseudomedical" paragraphs, which have appeared from time to time during the last two or three years, alike in the medical and in the non-medical journals. The sanctity of the sick room (I am expressing, be it well understood, the deliberate opinions of all whose names have been given above), the sanctity of the sick room, we say, has been violated; the confidences of the patient have been abused, the curtains have been drawn aside, and the sufferer, with all his infirmities, and with all the sometimes painful details of his bed, has been ruthlessly exposed to the public gaze!

So much for our collective opinions. And now it may not perhaps be amiss, if I give you, in more colloquial form, (for I feel how "rusty" has become my English!) a few of the remarks which have fallen at different times from some of my various friends upon the subject of my letter. I have not, it is true, their expressed permission for quoting their ἔπεα πτερόεντα; but I feel right well assured of their forgiveness!

Sir George Baker, who still preserves his old affection for the classics, declares his firm belief that no one of the chief transgressors can ever have read Hippocrates, or he would never have ignored one of the obligations of "The Oath"—to wit—"Whatever, in connexion with my professional practice, or not in connexion with it, I see or hear, in the life of men, which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret."

Warren, as genial as ever, was insisting upon it that some of the recent reports, as given in the *general* papers, must have found their way thither by some inadvertence (even if they were not base "inventions of the enemy"); that "nothing at all similar had ever been perpetrated in his time;" when he was interrupted by Molière (who had come, as he often does, to poke fun at us as of old) with the sly remark, "Oui, cela était autrefois ainsi; mais nous avons changé tout cela, et maintenant nous faisons la médecine d'une méthode toute nouvelle!"

Latham, gentle always by nature, but at times righteously indignant when his ire is roused, hopes that the Sydenham Society, if they again republish his *Lectures on Clinical Medicine*, will at least modify the following passage, which occurs therein: "Yes! their (the medical men of England) character is honourable, and their influence great; and yet they are little conversant with the vulgar means of popular credit."

Lastly, Southey tells me that, meeting his brother lately (the former Laureate), and speaking with him on the matter which engages our attention, Robert quoted to him, as not being altogether inapplicable, the lines which his successor, Tennyson, has put into the mouth of Maud's lover.

"And yonder a fine physician, blabbing
The case of his patient—all for what?
To tickle the maggot born in an empty head,
And wheedle a world that loves him not."

"Liberavi animam meam!"

Yours faithfully, HENRY HALFORD.

SIR,—Several abusive letters from anonymous assassins and dynamite-distributors have recently reached me by post. They are similar in kind to the mass that I have from antivaccinators; and, among other things, accuse me of unprofessional conduct in connection with the illnesses of distinguished personages. A modified attack appeared last Saturday in one of your contemporaries. I have taken the liberty of explaining, in the columns of the *Lancet*, my position regarding the publications referred to; will you allow me to do so in the BRITISH MEDICAL JOURNAL?

During the last illness of Archbishop Tait, an army of reporters appeared at his Grace's residence: it was impossible for me to make secret visits to Addington; and if those visits, together with those of the eminent men who saw the patient with me, were chronicled in the daily journals, they were not published by me, or with my sanction. I plead guilty to having answered the requests of yourself and other medical editors that I should furnish particulars of his Grace's case for the information of your readers; but I beg most emphatically to contradict the statement that any bulletin was ever issued or signed by us. The information furnished to you was copied by the daily journals in some cases without acknowledgment as to its source; but I am in no way responsible for that fact.

The particulars of the nature of Archbishop Benson's illness was published in direct opposition to my advice. Several very important engagements of a public character had to be broken, and public announcements had to be made as to the cause.

It was requisite for special reasons that the cause should not be misunderstood or misrepresented. Those most interested wished that the whole truth should be known, and that there should be no secrecy in the matter.

If I had offered opposition to this course, I should have been misunderstood. The publications were made of necessity, and I am in no way responsible for the publication of my name in connection with the case in the daily journals, and would have much rather that it had been otherwise.—I am, sir, your obedient servant,

5, Grosvenor Street, and Croydon, ALFRED CARPENTER.
November 1st, 1883.

DEATH AFTER CATHETERISATION.

SIR,—I am at a loss to understand how the remarks of the eminent President of the Clinical Society, referred to in the JOURNAL of the 20th ultimo, can be regarded as "almost a revelation," even to the great bulk of the profession. According to Sir Henry Thompson (*Clinical Lectures on Diseases of the Urinary Organs*, sixth edition, page 56), Sir Benjamin Brodie was the first to call attention to the fact that patients with prostatic enlargement might sometimes succumb with symptoms of low or irritative fever a few weeks after beginning the use of the catheter. At page 89 he describes "urethral fever," the product of mechanical interference with the male urethra. Erichsen (*Surgery*, seventh edition, second volume, at pages 746 to 751 and 898) gives quite an exhaustive account of urethral fever, with its occasionally fatal results, with the different modes in which it may cause death; also the periods at which he has seen it occur.

Da Costa, on *Medical Diagnosis*, third edition, page 745, gives rules for the diagnosis of urethral fever from ague. He also distinctly states that it may cause death, on the authority of Roser, quoted in the *Brit. and For. Med. Chirurg. Review* for October 1867.

Holmes, in his smaller work, first edition, page 759, gives some account of it; and elsewhere counsels "no mechanical interference with the urethra where interstitial nephritis, acute, subacute, or chronic is known, or even suspected to exist." I consider we have also as much information regarding the cause of death in such cases as in many others much more common.

Erichsen (page 750) says, when a patient has been said to have died of "urethral fever," either acute interstitial nephritis or pyæmia has been invariably found. It is probable, he says, that the real nature of the affection is, at least in the great majority of cases, a disturbance of the circulation in the kidney, or some interference with its function, due to reflex irritation from the passage of the instrument.

Mr. Marcus Beck states that reflex irritation of the kidney by operative interference is often a cause of interstitial nephritis. (Beck on "Nephritis and Pyelitis," Reynolds's *System of Medicine*, vol. v.)

Malherbe, in his treatise on "Uræmic Fever," as he styles it, supports the renal origin of death from urethral fever. The pyæmic cases result either from the presence of pus in the urine from cystitis, or from the introduction of septic matter into the bladder with the catheter.

Dr. Dickinson states that the absorption of septic matter causes many cases of acute interstitial nephritis (*Med.-Chirurg. Trans.*, vol. lvi), so that septic matter in the bladder can cause death in two ways. But Erichsen (page 898) doubts whether urethral fever occurs unless there have been some lesion, abrasion, or rupture of the mucous membrane of the urethra; he also states that there is no danger except the patient be old, of broken constitution, or the subject of chronic uræmia from kidney-disease, when a fatal result may rapidly ensue. Death may take place by coma (uræmic), exhaustion, or cardiac syncope.—Yours obediently,

JOHN STRAHAN, M.D., M.Ch.

27, Greenmount Road, Belfast, October 23rd, 1883.

*** Most of the quotations to which our correspondent refers describe the oft-times fatal malady that results from catheterisation, and is accompanied by nephritis—the "surgical kidney." These form a set of cases well recognised for years past by surgeons, and to these Sir Andrew Clark was *not* alluding in his remarks at the Clinical Society. In the cases to which he drew attention, the kidneys have been found healthy after death. In fact, the course of the malady in those instances seems rather to point to a septicæmic or pyæmic origin than to one due to the grosser varieties of nephritic mischief; though it is possible that, in certain of the cases, there may have been some renal inadequacy, and that the kidneys, whilst sufficiently active for the fine weather of good health, have not been equal to the stress of extra secretion required of them during a pyrexial storm, and have thus conduced to a fatal issue. But upon this and many other points, we look to future enlightenment from Sir Andrew Clark himself. His pointed allusion to the cases in question cannot meanwhile fail to draw attention to the subject, and will, doubtless, result in a diminution of the dangers of catheterisation from the greater care that will be bestowed upon the cleanly state of the instrument, the hygienic surroundings of the patient, and the proper medical after-treatment of the case.

REMOVAL OF THE TONGUE BY MEDIAN DIVISION.

SIR,—I am very sorry that Dr. Buchanan feels somewhat aggrieved at my not referring to him in the paper which I read at the meeting of the British Medical Association at Liverpool. He will, however, at once acquit me of any intentional want of courtesy when I say that the principle which he claims as that of his own operation—namely (to put it in his own words), "cleavage of the tongue and removal of the lateral half, as a substitute for removal of the whole tongue, as formerly practised"—is exactly that which I am most anxious to *disclaim* as the leading feature of the operation which I have suggested. The only special merit, if there be any, which I would claim for my operation, is in the cleavage of the tongue without previous division of the lower jaw, so that it may be separated easily from its attachments, and thus permit the application of an *écraseur* well beyond the limits of the disease. The "removal of one lateral half of the tongue" is quite a secondary matter, depending merely on the extent of the disease. If Dr. Buchanan will kindly refer to my table of operations, he will find that, of the thirty-five cases, eleven, or nearly one-third, were instances of removal of the *whole tongue*.

Having thus disclaimed priority in the matter of "removal of one lateral half of the tongue," all controversy between Dr. Buchanan and myself is, I presume, at an end; but lest, by any possibility, I should seem to detract from any merit which belongs to another, I shall be very glad if you can find space for an account of Dr. Buchanan's operation and of mine, each of them described in the words of the operator. The record will be useful for reference, and will enable any surgeon who is interested in the subject to judge for himself as to the degree in which the two operations resemble each other, and in what respects they differ.

I quote the following from Dr. Buchanan's reference (*Edinburgh Medical Journal*, November 1865). "The patient was put deeply under the influence of chloroform, and her tongue was secured by two cords passed one through each side of the tip. An incision was now made in the mesial line, through the lower lip, and continued down to the hyoid bone. The jaw was sawn through at the symphysis, and powerfully separated, so as freely to expose the interior of the mouth. I now made an incision in the gum, close to the teeth, and dissected the whole of the soft tissues from the interior of the right half of the lower jaw. In doing so, a branch of the facial artery was wounded, but did not give much trouble. The sublingual gland and mucous membrane, as well as the attachments of the tongue, were now carefully raised from the floor of the mouth, and separated from the hyoid bone. I now pulled out the tongue by the two cords, and made a vertical section of it from the tip to the epiglottis, keeping a little to the left of the middle line. A single stroke of the knife divided its attachment to the epiglottis and anterior palatine arch. The lingual artery at once appeared in the bottom of the wound, and was secured and ligatured without difficulty. No other vessel of importance required ligature, and little blood was lost. Before the incision in the tongue was made, the patient had partially got out of the influence of chloroform; but

this was rather in my favour, as she could assist by swallowing or putting out the blood, as occasion required; and subsequently she told me that, though she could do so, she suffered little pain. The two cut surfaces of the jaw were united by putting a silver wire over two teeth on opposite sides, and twisting the ends; and another was put through a hole bored on each side of the symphysis, so that all motion was prevented. The incision in the lip and chin was brought together with silver sutures, and a piece of drainage-tube made to pass through the mouth and out at the lower part of the incision below the chin."

I quote the following description of my operation from the JOURNAL of October 20th, 1883. It will be observed that I do not refer at all to cases in which it is necessary to divide the lower jaw.

"A gag having been introduced, and any jagged teeth likely to be in the way of the operator having been extracted, two threads are passed through the tongue, about an inch behind the tip and half an inch on each side of the middle line. One of these looped threads is now given to an assistant to hold tightly; and the operator, holding the other, scores the dorsum of the tongue with a blunt pointed scalpel, exactly in the middle line—extending the 'cut' well through the mucous membrane into the surface of the muscular substance, and dividing the tip freely down to and through the middle line of the frænum. The cut may be extended as far back as the operator deems necessary—say, for an inch beyond the level of the posterior edge of the cancer. He then takes both threads, one in each hand, and, using the forefingers much in the same way that he would for tightening a ligature on a deep vessel, he splits the tongue in two halves..... The thread which tethers the diseased half of the tongue is now pulled quite taut, either by the operator or his assistant; while the former, with blunt pointed scissors, snips, as far as he considers necessary, the mucous membrane and muscular fibres which connect the tongue with the anterior part of the lower jaw behind the symphysis, after the manner suggested many years since by Sir James Paget. He then "runs" the scissors along the floor of the mouth, immediately beneath the mucous membrane, keeping close to the ramus of the jaw, until he has cut, if possible, to a point beyond the level of the posterior edge of the cancer. Then with his forefinger and occasional snips with the scissors, he frees the tongue as completely as may be requisite from its attachments in front and at the sides and in the floor of the mouth. The chief point aimed at, of course, at this stage of the operation, is to free the diseased half of the tongue in such a manner that it may be surrounded by the loop of the *écraseur* at some distance behind the disease, and without danger of the cord slipping forward so as to embrace the neighbourhood of the cancer, and much less the cancer itself..... Having now freed the tongue sufficiently, one, and sometimes two, blunt curved needles (of the pattern shown) are now made to perforate it at some distance, an inch, or more if possible, behind the cancerous mass; and the loop of the *écraseur* is now slipped over the diseased half of the tongue, and adjusted behind the needles. With the screwing-up of the *écraseur*, this part of the operation is now completed, with the exception that, very commonly, at least when whipcord is employed, the main vessel and some other tissue, perhaps nerve-fibres, are pulled through the end of the *écraseur* after the softer substance of the tongue has been crushed through. Under these circumstances, a double ligature should be passed with an aneurysm-needle, and the strand of vessels and nerves divided between the two knots, when the *écraseur* will, of course, at once come away, and the main vessels will be left on the face of the stump securely ligatured.

"In the event of both sides of the tongue requiring removal, an *écraseur* should now be slipped over the other half after it has been sufficiently freed from its attachments, and the diseased part guarded by a blunt-pointed needle. This part of the operation, on account of the space gained by the removal of half the organ, can be performed with comparative ease and rapidity."—Yours obediently,

W. MORRANT BAKER.

CONTAGIOUSNESS OF CHOLERA.

SIR,—With reference to the paragraph headed, "The Contagiousness of Cholera," in last week's JOURNAL, the following anecdote may prove interesting to your readers. It was told to me by my great-uncle, the late Dr. Andrew Buchanan, who served as a volunteer-surgeon during the Polish insurrection, and he was an eye-witness of the fact. The Polish troops were attacked with cholera (whether of the Asiatic type I know not); and a Frenchman, who also was serving as a surgeon, deliberately swallowed some of the stools of a patient suffering from cholera, who subsequently died of the disease. The French surgeon then slept for a night in the clothes of the deceased. No bad results of any kind followed.—Yours faithfully,

G. R. TURNER.

49, Green Street, Park Lane, October 27th.

AXIS-TRACTION FORCEPS.

SIR,—In the discussion on Mr. Le Page's paper on axis-traction obstetric forceps, read in the Section of Obstetric Medicine, Dr. Wallace says:—"The late Professor Inglis, of Aberdeen, first devised the treble-curved forceps." I thought I was the inventor of the third curve, an account of which I published on March 4th, 1868. I should be obliged to Dr. Wallace if he would tell me where I can find a prior notice of this curve as devised by Dr. Inglis.—Believe me, faithfully yours,

J. H. AVELING.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE PRESTON BOARD OF GUARDIANS, AND PAYMENT OF A MEDICAL OFFICER'S SUBSTITUTE.

A LENGTHENED discussion took place at the meeting of the Preston Board of Guardians, on the 11th ultimo, respecting the payment of Dr. Cuttage, who, with the sanction of the Board, confirmed by the Local Government Board, had been appointed the substitute for Dr. Ridley, during an absence from duty. It would appear that at a previous meeting, the guardians, although they had sanctioned the appointment, had refused any payment to Dr. Cuttage, stating as their reason, that Dr. Ridley ought to pay himself. The subject now came up again for further consideration, when, on the proposition of Mr. Jacson, it was decided that a cheque for £20 should be drawn, wherewith Dr. Ridley should be enabled to pay for the services of his substitute. This, however, was not adopted without a very lengthened discussion, and some wrangling. It is interesting, as showing that some Boards of Guardians are disposed to pay for the services of a substitute during the temporary absence of their medical officer, and that the central department will sanction such expenditure. We hope, therefore, that under similar emergencies, other Boards will exhibit the like liberality; at any rate, with this precedent, medical officers would act wisely in trying it on.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

KEIGHLEY URBAN DISTRICT.—The last report from the pen of Mr. Roberts is chiefly occupied with an examination of the principal causes of the large infantile death-rate which he has, unfortunately, to record year after year (see BRITISH MEDICAL JOURNAL, vol. i, 1882, p. 482). During 1882, as many as 234 deaths, out of a total of 567, were those of children under five years of age, and this was a lower number than that recorded in any of the five previous years. Both the sanitary authority and their health-officer seem duly impressed with the seriousness of these statistics, and special efforts were made last year towards instructing parents in the management of their children. To this end a pamphlet, entitled *Hints to Mothers How to Keep Their Children Healthy*, was prepared by Mr. Roberts, and circulated throughout the town. The "Hints" are written in simple language, and contain instructions as to the feeding and clothing of children. Beyond an epidemic of scarlet-fever, which was fatal to 27 persons, and the registration of eight deaths from typhoid, a circumstance of which the report takes no cognisance, there was little prevalence of disease calling for notice. The death-rate (21.4 per 1,000) is the lowest ever recorded by Mr. Roberts, and he does not think this rate higher than in other towns similarly situated. The report contains a copy of the precautions issued to householders against lead-poisoning, but as to the sanitary condition of the district, but little is said.

NEW FOREST RURAL DISTRICT.—Little of importance occurred in this district during 1882; and Mr. Jenkins's brief report is chiefly occupied with a review of the mortality-statistics. The death-rate was as low as 14.61 per 1,000; and of the total deaths from all causes (193), as many as 52 were persons aged seventy and upwards. A slight epidemic of measles and a severer one of whooping-cough

occurred, but in each case the disease ran its ordinary course, and nothing of interest is noted concerning the cases.

ST. GERMAN'S RURAL DISTRICT.—The Local Government Board have been busy in this union, and their efforts towards securing one health-officer for the whole area have at last been successful, Mr. Kerswill's appointment being confirmed in March 1882. The summary of the annual report forwarded to us does not show with what results the alteration has been attended; but this may perhaps be looked for in the report for the current year. At Millbrook there was an outbreak of typhoid, which has since been the subject of investigation at the hands of Dr. Ballard of the Local Government Board. Little difficulty was found in tracing the source of the outbreak to contaminated water, and steps were taken to close the polluted well from which the supply was obtained. Torpoint was visited with a sharp epidemic of measles, which caused five deaths; and in other parts of the district zymotic disease appeared. Climatic influences were doubtless in a measure responsible for the high mortality from chest-diseases, notably amongst aged persons; but the report might with advantage have discussed the subject at more length than the few lines devoted to recording the statistics.

NEWTON ABBOT, WOLBOROUGH, AND DAWLISH.—Mr. Leonard Armstrong has shown much originality in his work of health-officer, which he has now resigned; and in a valedictory report he takes occasion to protest against the assumption that every outbreak of diphtheria or fever, the cause of which cannot be easily ascertained, depends on sewer-air or bad water. A dogmatic prejudice of this kind is, he adds, almost as fatal to the progress of sanitary science as the old superstitions about the evil influences of Devonshire pixies. "Further researches into the etiology of fevers are hindered if, by some process of easy observation and loose thinking, every sporadic attack of fever is held to be corroborative of a preconceived theory as to its causation, whether the theory be that of bad water, sewer-gas, or the bad smell of a distant ditch." Zymotic disease did not prevail epidemically in Mr. Armstrong's district at any time during 1882, but sporadic cases of nearly every form appeared at different times, and in different and widely separated localities. Croup, diphtheria, and other serious affections of the throat persistently showed themselves; and Mr. Armstrong devoted some attention to an examination of the circumstances of each case, though his investigations as to the origin of the attacks proved somewhat barren of results. No local conditions were discovered that afforded satisfactory reasons for their development. In most cases, no connection could be traced with any antecedent case of a similar nature; and, indeed, many of them were so far apart as to preclude the supposition that they could in any way be dependent on each other. Referring to this, and to the general prevalence of diphtheria in England, Mr. Armstrong expresses his belief that some occult atmospheric or climatic conditions existed, in the peculiarly gloomy, wet, and drizzling year of 1882, that were favourable to the development of diphtheritic affections. Nothing of interest occurred in the Dawlish urban district, beyond the fact that as many as nine deaths out of a total of twenty-four were recorded from pneumonia and bronchial affections in the first quarter of the year—a mortality which Mr. Armstrong finds it difficult to account for, regard being had to the unusual mildness of the weather during that period.

ORMSKIRK RURAL DISTRICT.—There is little in Mr. Symonds's report on this district calling for comment. The general death-rate was 15.0 per 1,000, and the deaths from zymotic causes were 9 against 13 in 1881, and 32 in the previous year. The health-officer states that he has made periodical inspections of his district, and he gives some details of the removal of nuisances; but it is difficult to gather from the report what improvement has been carried out as a consequence of his representations. In the Burscough division, which is under the direction of Mr. Anderton, there were 27 deaths from all causes. There is a brief account of the prevalence of scarlet fever, and of the measures adopted for its repression. Some minor sanitary improvements were effected during the year, but little of importance is noted. In the other division of the district, Mr. Taylor states that infectious disease was unusually prevalent. The deaths from all causes numbered 74, measles accounting for 9, and scarlatina for 6. The absence of proper isolation accommodation, and the congregation of children at school, seem to have assisted in the spread of the infection, but the report does not contain sufficient information to arrive at any practical conclusions on these points.

RIVER TYNE PORT.—Not a few health-officers of port districts complain, and often with some show of reason, that the paucity of information at their disposal renders the compilation of an annual report a work of some difficulty. They have, moreover, no official instructions setting out the lines upon which their reports should be made. Mr. Armstrong's report on the district of the River Tyne Port Sanitary Authority may well be selected as a model for officers in this predicament. Mr. Armstrong gives account of the cases of infectious disease treated during the year, and of the measures adopted for their treatment, as well as details of the inspection of shipping, of the principal defects noted, and of the improvements effected by his recommendation. During 1882, 10 patients were admitted into the floating hospital, four of whom were suffering from enteric fever, three from small-pox, and the remaining three from various affections. At the time of the report 7 had recovered, 1 had died, and 2 were still under treatment. A vigilant watch was kept on all vessels coming up the Tyne from ports where infectious disease was known to have been lately prevalent—from London, Rouen, and Bilbao, whence small-pox was introduced into the Tyne in 1881, and Fécamp, where it had been prevalent during 1882. No small-pox was, however, imported from any of these places. Special attention was also directed to the arrival of vessels from foreign countries where cholera was known to be prevalent, but happily no cases of this disorder were discovered. No fewer than 6,623 vessels were examined, almost double the number recorded for 1881, and of these 2,830 were found in a good condition, 3,287 were passable, but 506 were in a defective state. Mr. Armstrong notes with satisfaction that, in almost every case the notices for improvement were willingly complied with, and, for the most part, without any hesitation.

SALTLEY URBAN DISTRICT.—Mr. Cresswell regrets to have again to record an enormously high rate of infantile mortality. Of the 101 deaths at all ages, as many as 59 were children under five years, and of these 38 had died before reaching twelve months, representing a rate of 143.9 per 1,000 upon the 264 recorded births. In other words, the infantile death-rate was rather more than nine times as great as the general death-rate. Mr. Cresswell believes that the almost universal ignorance on the part of mothers of the principles which ought to govern the feeding and management of their children is responsible, in a large measure, for this loss of infant life. The health-officer has adopted the practice of explaining these principles to parents so far as possible, and he hopes that other medical men practising in his district will follow in his footsteps. Elsewhere this plan has been adopted with some success, and its extended application at Saltley will probably be attended with good results. During 1882 there were 264 births and 101 deaths registered, equal to rates of 39.69 and 15.18 per 1,000 respectively. Diarrhœa and measles were very prevalent, and ten deaths are referred to these causes. Owing to want of accommodation, the hospital of the Birmingham Town Council was unable to receive any patients from this district, which, at the date of the report, remained unprovided with any means for isolating cases of infectious disease.

STROUD, RURAL AND URBAN.—As in previous reports, Mr. Partridge devotes much attention to an examination of the circumstances attending outbreaks of infectious disease. Measles and scarlet fever were generally prevalent in the rural district; but, beyond commenting on the absence of isolation-accommodation and the necessity for compulsory notification, Mr. Partridge has nothing new to record. Diarrhœa accounted for 15 deaths, 12 occurring in children under five years, a mortality for which improper feeding and clothing seem in a great measure responsible. Calculated on a population of 28,982 persons, the death-rate represented 15.4 per 1,000, being identical with that reported in 1881. As in the rural district, measles and scarlet fever were the most prevalent zymotic diseases in Stroud, where the influence of schools in spreading infection seems to have been considerable. Altogether there were 18 deaths referred to the principal zymotics, equal to a death-rate from these causes of 2.3 per 1,000—slightly higher than the average of the seven preceding years. In examining the returns of uncertified cases, Mr. Partridge discovered a curious illustration of presumption of medical knowledge, and a probable ignorance of disease, one death having been described as due to "rheumatic of heart." In regard to sanitary matters, but little progress has been made, but the inaction of the authorities cannot be due to the want of practical advice at the hands of their health-officer.

SUNDERLAND PORT.—The report which Mr. Harris has prepared on the port of Sunderland during 1882, shows that he has made the most of the materials at his disposal, which, in the case of port-districts, are often of a limited nature. He first refers to the cases of zymotic disease discovered during the year, and then gives an ac-

count of the inspection of vessels. In this last respect, the sanitary condition of the ships visiting the port has undergone a marked change for the better since the constitution of the authority; for while, in 1876, no less than 60 per cent. were in an unsatisfactory condition, in 1882 the proportion had fallen to 19 per cent. Mr. Harris draws special attention to the discomfort and injury to health that occurs in forecastles through the condensation of moisture of the atmosphere on the iron decks; and the suggestions which he makes for improvement are well worthy of the attention of ship-owners and ship-builders.

TODMORDEN URBAN DISTRICT.—Mr. Thorp's report is by no means exhaustive, though it takes into account the principal events of the year. Enteric fever, which caused five deaths in 1882, seems on the increase in the district, which Mr. Thorp attributes to the temporary pollutions of the water-supplies, since outbreaks of the disease always occur after an excessive rainfall, accompanied with and preceded by a high temperature. At the date of the report, a local company had obtained powers for the formation of waterworks, so that improvement may be looked for in the near future. Zymotic diseases accounted for 69 deaths, measles and whooping-cough together being responsible for 46. Mr. Thorp has little of interest to note in connection with this mortality beyond commenting upon the remarkable belief of some parents that children must have these ailments. Both the birth- and death-rates were low, being respectively 27.15 and 18.19 per 1,000. Upon analysis, the mortality-statistics afford little ground for congratulation, for, of the total deaths (437), 175 were children under five years, against 162 in 1881. The increase seems to have been due to the fatal prevalence of measles and whooping-cough.

WELLINGTON (SOMERSETSHIRE) URBAN DISTRICT.—Dr. Meredith gives a careful account of the prevalence of zymotic disease in this town during 1882—in which he comments on its probable origin, dissemination, and the means adopted for its repression. Typhoid and diphtheria occasioned some trouble, and, in almost every case which was investigated, the health-officer discovered unsanitary conditions in or near the houses. As the diphtheria outbreak subsided, mumps became prevalent, and, in some instances, there was reason to believe that intercommunication of children at schools tended to spread it. The ailment was, however, of a mild type, and caused no anxiety; but, at the same time, all children clearly suffering from this disorder were excluded from the schools. Small-pox, measles, typhus, and whooping-cough were not present at any time, and the total deaths properly due to the district represent the low death-rate of 14.0 per 1,000. The report contains ample evidence that the district has been thoroughly inspected and supervised, and Mr. Meredith's advice to his authority is practical and to the point. He descants at some length upon the defective drainage-arrangements of many of the houses in the district, and dwells upon the total inadequacy of the D-traps so commonly met with. The town is about to be provided with a proper supply of water, and the authority appear to have recognised the importance of ventilating their sewers in accordance with Dr. Meredith's advice.

WITHINGTON URBAN DISTRICT.—A special feature of Dr. Railton's interesting and complete report is the account which it contains of a peculiar outbreak of diphtheria. Altogether, twenty cases of the disease came under notice; and, with the exception of the first two and the last two, the other cases appear to have been connected together. They all occurred without break of time, they all took place in one township, and, of the eleven houses in which the sixteen cases occurred, six sent some of their children to a national school. The milk-supply played no part in the outbreak, which, in a great measure, seems to have been due to school-influence. On this point, the report is particularly interesting. The origin of the first case was obscure; and, although all precautions were taken to prevent the spread of the disease, children in the houses at each side were attacked with it. A series of eight cases in five houses appeared to have owed their origin to the fact that some of the children from each house attended the national school. In another batch of four, the first child in each case appeared to have contracted the disease at the school, then to have been allowed to sit downstairs during the day with the rest of the family, with the result of imparting it to a second member. The chief portion of the epidemic—that in which six deaths occurred—took place entirely during the month of July. On the 12th of that month, the school was fumigated, and then closed for the holidays from July 20th to August 14th. The report also contains an analytical account of the prevalence of each zymotic disease, and of the measures adopted for preventing the extension of infection. Altogether, twenty-eight deaths were referred to zymotic causes. The general death-rate, 14.3 per 1,000, was higher than any recorded during the past five years. The sanitary condition of the district continues to improve under Dr. Railton's watchful supervision; and, during 1882, there was a considerable extension of the sewerage. The pollution of the streams is, however, a question which should engage the serious attention of the authority.

WOLSTANTON AND BURSLEM RURAL DISTRICT.—The printed abstract which we have received of Dr. Collenette's report on this district for the past year is obviously incomplete, and it is to be hoped that in future years the authority may see fit to publish the report in a pamphlet form. The deaths from all causes, 622, represented a death-rate of 19.6 per 1,000. During the latter part of the year, small-pox appeared, and, out of fourteen cases, one proved fatal. Energetic measures seem to have been adopted for preventing the spread of the infection, but the absence of any isolation-accommodation seriously hampered the action of the health-officer. The question of its provision, however, seems likely to receive the serious consideration of the authority, who, at the same time, might well take some steps towards draining those portions of their district which are in urgent need of sewerage.

WEST SUSSEX COMBINATION.—Dr. Kelly's last report on this extensive combination of sanitary districts is not less interesting or complete than its predecessors. Special account is taken of the prevalence of zymotic disease; and Dr. Kelly's observations as to its probable causation, are both interesting and to the point. There were 1,323 deaths, from all causes, registered in the combination, and of these 103 were due to zymotic disorders, representing a rate of 1 per 1,000 of population. Diarrhœa and whooping-cough were the most prevalent, but diphtheria was the most fatal, causing 25 deaths; diarrhœa and dysentery coming next with 17, scarlatina with 15, enteric fever with 12, and whooping-cough with 10; small-pox and measles each account for one death. The largest mortality from diphtheria occurred in the East Preston district, where 9 deaths were registered. Here the outbreak commenced with sore throats among the children attending the national school; and the first death was recorded as croup on April 29th. In a few days, another child in the same house died of diphtheria, and six more deaths occurred in the course of the month of May. Nearly all the cases first attacked went to the same school. Most of the houses were in a good sanitary condition, were substantially built, warm and dry. The water-supply was good and abundant, and, in many cases, earth-closets were used. None of the cottages had any drains in direct connection with the house. The milk-supply was not at fault, as the different families were supplied from different sources, and but few of the children had any milk until the disease broke out. The school was closed for some time, cleansed and disinfected, and, by the end of May, the epidemic had ceased. There seems little doubt that the outbreak was due to personal intercourse at school; and in the Midhurst district, where four deaths were registered from the disorder, this also was the chief cause of the extension of the outbreak. Diphtheria appeared at Heyshott in the autumn, and most of the children who were attacked attended the same school; but the first case came from Midhurst, where a girl, aged 13 years, came home early in September to her parents. There were no other cases of diphtheria at Midhurst, but at this time there were many cases of sore-throat at Heyshott, which is about three miles from Midhurst, and upon quite a different formation. Two children died in the first week of October. The school was closed on August 5th for the holidays, and it was reopened on September 12th. It was again closed when the outbreak appeared, and the place was twice disinfected and thoroughly washed and cleansed. A low rate of infantile mortality was registered in the district, the total deaths of infants under one year of age being 239, or 83 per 1,000 births, against a rate of 103, 85, 101, 87, and 102 respectively in the five preceding years. Old age, on the contrary, appears to be a frequent cause of death; for of 7,819 deaths in 1876-81, 2,039 were 70 years of age and upwards; and, at this period of life, all deaths, except perhaps accidents, might properly be put down to old age. In the returns, the cause of death is variously given as paralysis, apoplexy, senile decay, heart disease, bronchitis, etc., according to the most prominent symptom, or to the special organ affected. But, as Dr. Kelly observes, nearly all deaths at this time of life are due to senile changes; in some, one organ may be affected more than another, just as some people become prematurely old. Phthisis caused 117 deaths, and disease of the respiratory organs, 193. The general death-rate throughout the district was 13.9 per 1,000, which is lower than that recorded for any previous year. The births amounted to 2,868, against 2,614 recorded in the previous year, the increase resulting from the accession of West-

bourne to the combination. The sanitary condition of the district continues to improve under Dr. Kelly's able and energetic supervision. The town of Petworth is, after much delay, about to be provided with a proper supply of water; and, at Littlehampton, a supply has been obtained from the chalk hills. In addition to the progress of schemes for drainage at Petworth and Littlehampton, Dr. Kelly reports that, in all parts of the district, there has been a great improvement in the system of excrement disposal. In many schools and workhouses, the earth-system has been adopted with much success.

THE "POLICY" OF THE CITY OF LONDON GUARDIANS.—At the Metropolitan Asylums Board on October 27th, Dr. Fowler, one of the representatives of the City of London Guardians, called attention to the large increase of fever in the eastern parts of the metropolis, and urged that managers should take steps at once to meet even greater demands than they have at present. In taking this action, Dr. Fowler, going distinctly on facts, is opposing what is conceived to be the "policy" proper of the City guardians. It will have been seen that the city guardians have been holding a "conference" to press for a return to the old principle of each parish having the care of its own poor. The reason for this action is obvious—for the workers in the city, sleeping elsewhere, are chargeable to the rates where they sleep, and the city would have no sick poor to keep, and would be relieved from its just contribution to the "common poor fund" of the metropolis established under the Gathorne Hardy Act of 1867. At the late "conference" there were only seven guardians in all present, including the chairman, and all the five from non-city parishes opposed the main proposal of the city guardians.

FEVER IN LONDON.—The increase of fever in the metropolis, as shown by the returns to the Metropolitan Asylums Board on Saturday, is of a serious character. According to a summary of the reports from five asylums in which fever is now being treated in different parts of the metropolis, in the South-Western Asylum, there were on Saturday 122 cases of scarlet fever, 2 of typhus, and 11 of enteric fever, in all 135; in the Eastern Asylum, there were 149 scarlet fever cases and 70 enteric fever cases, in all 219; in the Western Asylum, there were 55 scarlet fever cases, 1 case of typhus, and 3 of enteric fever, in all 59; in the South-Eastern Asylum, there were 79 cases of scarlet fever and 21 of enteric, in all 100; while in the North-Western Asylum there were 49 scarlet fever cases and 34 enteric cases—a grand total of 454 scarlet fever, 3 of typhus, and 140 of enteric fever, together 597 cases of fever, which, but for the operations of the Asylums Board, would be spread in the workhouses and in wretched homes. These numbers show an increase of 48 upon the numbers in asylums a fortnight before.

DR. COLLIE, OF HOMERTON FEVER AND SMALL-POX ASYLUMS.—The Managers of the Asylums Board on Saturday unanimously agreed to ask the Local Government Board to sanction an increase of salary to Dr. Collie, of the Homerton Fever and Small-pox Asylums. The salary of Dr. Collie is at present £400 a year, and the managers propose to increase it to £500. Dr. Collie has done some service, and this is well known, for he took charge of the Hampstead Asylum, as superintendent, as consulting physician, in addition to his own onerous duties at the East end of London; and the proposed increased income is partially in recognition of these services. The vote was accompanied by gratifying acknowledgments of the eminent services to the metropolis rendered by Dr. Collie, made by Sir E. H. Currie, Mr. T. Hodges, and other members of the Board.

THE good people of Rotherhithe do not fear infection from the presence in their midst of fever-dens, and unvaccinated children; but they have a fearful dread of seeing ambulances carrying away, to the hospital ships, the victims of unhealthy dwellings and of criminal neglect. Even the large corporation of the Surrey Commercial Docks Company does not disdain to join the outcry against the Asylums Board obtaining a wharf from whence patients can be taken from fever homes to the hospital ships; and property owners are seeking for "compensation" for the selection of this wharf near their land; yet they make no outcry against the existence of infectious diseases, or against the generation of these scourges.

NOTIFICATION OF DISEASE.—An influentially attended special meeting of the Wigan Medical Society was held on Friday evening, October 26th, 1883, by the kind permission of the mayor, Alderman Park in the committee-room of the borough courts. The president, Mr. Barnish, occupied the chair. The object of the meeting was to consider the "compulsory notification of disease." After a lengthened discussion, it was decided that compulsory notification was open to many objections, and had no advantage over the very general voluntary notification of disease by the medical men of the town.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON. October 25th, 1883.—Admitted Members:

C. M. Chadwick, M.B.Oxon., London Hospital, E.
P. M. Chapman, M.D.Lond., 26, Gordon Square, W.C.
M. L. Dutt, L.M.Bombay, 30, Guilford Street, W.C.
W. A. Duncan, M.D.Brussels, 65, Lambeth Palace Road, S.E.
C. M. H. Jones, L.R.C.P., 24, Montagu Square, W.
A. Money, M.D.Lond., 14, Langham Place, W.
T. D. Savill, M.D.Lond., St. Thomas's Hospital, S.E.
C. W. Suckling, M.D.Lond., Birmingham.

Admitted Licentiates:

L. Backus, M.B.Toronto, 46, Grafton Street, E.
J. Bell, University Hospital, W.C.
A. Bolton, Whitecross, Warrington.
J. I. Boswell, 8, Guildford Place, W.C.
J. C. Bowser, M.D.McGill, 2, Cornwall Road, Stroud Green, N.
J. Cahill, 26, Albert Gate, S.W.
G. Carruthers, M.D.McGill, 2, Cornwall Road, Stroud Green, N.
M. F. Cock, Woodville, South Molton.
J. N. Cook, 19, Arundell Street, W.
J. H. Cox, 51, Doddington Grove, S.E.
J. Dacre, General Infirmary, Leeds.
F. J. Dolsen, M.B.Toronto, 46, Grafton Street, E.
E. A. G. Doyle, Trinidad.
G. F. Edwards, St. James's Green, Thirsk.
W. G. Evans, King's College Hospital, W.C.
J. A. Fraser, 41, Finsbury Square, E.C.
G. Greenwood, 2, Queen Anne's Place, Bush Hill Park, N.
H. J. Harries, 223, Stanhope Street, N.W.
H. W. Hooper, Souldern, Sevenoaks.
E. M. Hoople, M.B.Toronto, 46, Grafton Street, E.
D. B. Irving, White Hill, Lockerbie, Scotland.
R. W. Jalland, Horncastle.
J. E. Jenner, M.B.Toronto, 46, Grafton Street, E.
R. L. Knaggs, 111, Disraeli Road, S.W.
S. C. Lawrence, 116, Bath Row, Birmingham.
C. B. Leaver, 24, Horbury Crescent, W.
J. Mercer, 4, Offley Road, Brixton, S.W.
T. H. Miller, 10, Fentiman Road, S.W.
P. J. Nunnerley, 11, Powis Square, W.
V. L. Oliver, St. George's Hospital, S.W.
F. J. Paley, 25, Granville Square, W.C.
H. B. Robinson, 7, York Crescent, Lower Norwood, S.E.
A. E. Rook, Middlesex Hospital, W.
E. Stewart, 16, Harley Street, W.
F. A. Stokes, 21, Compton Terrace, N.
W. F. Webster, 9, Victoria Villas, Kilburn, N.W.
H. H. Wigg, 18, Albert Street, N.W.
N. T. Wood, 34, Hill Street, S.W.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 25th, 1883.

Draper, James William, Barnsbury Road, N.
Forden, George, The Stafford Infirmary.
Harris, John Henry, Abertillery.
Whish, Martin Samuel, Granby Street, N.W.
Winstanley, Robert Wyndham, Victoria Dock Dispensary.

The following gentlemen also on the same day passed their Primary Professional Examination.

Becher, George John Dashwood, Middlesex Hospital.
Boobbyer, Philip, King's College.

UNIVERSITY OF DURHAM.—At the first examination for degrees in Medicine and Surgery, at the College of Medicine, Newcastle-upon-Tyne, on October 8th, 9th, 10th, 11th, and 12th, the following were the successful candidates:

Second Class Honours.—C. M. Hendricks.
Pass List.—A. R. Aubrey, W. R. Awdrey, F. S. Barber, J. Barker, G. N. Caley, R. Crosby, T. Carr, I. Davis, C. R. Hodges, J. Hindle, H. F. Iliewicz, C. E. Jennings, W. F. Moore, F. J. Malden, A. S. Nance, A. C. A. Packman, J. E. Panton, H. T. Platt, A. W. Rowe, W. J. Ruddock, W. J. Spoor, B. C. Simpson, J. J. W. Stevens, A. Street, J. Straughan, J. Wilding, F. P. Wightwick.

The following satisfied the Examiners in Anatomy, Physiology, and Botany:

J. E. Coad, T. Harling, H. B. W. Plummer.

The following satisfied the Examiners in Anatomy, Physiology and Chemistry:

H. W. Cross.

MEDICAL VACANCIES.

The following vacancies are announced:

BOROUGH ASYLUM, Birmingham.—Clinical Assistant. Applications to the Superintendent.

BOROUGH OF BIRMINGHAM HOSPITAL FOR INFECTIOUS DISEASES.—Medical Superintendent. Salary, £150 per annum. Applications to the Chairman of the Health Committee, Council House, Birmingham, by November 3rd.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon. Salary, £140 per annum. Applications by November 5th.

BRISTOL GENERAL HOSPITAL.—Physician's Assistant. Salary, £50 per annum. Applications by November 10th.

CITY OF DUBLIN HOSPITAL.—Ophthalmic Surgeon. Applications to J. Dallas Pratt, F.R.C.S., Assistant Honorary Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Clinical Assistant for a period of six months. A gratuity of £20 is usually awarded at the close of the term of office. Applications to 24, Finsbury Circus by November 5th.

DARLINGTON HOSPITAL.—Junior House-Surgeon. Salary, £100 per annum (out-door). Applications to C. l'Anson, Esq., Fairfield, Darlington.

DENTAL HOSPITAL OF LONDON (London School of Dental Surgery), Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by November 12th.

DONCASTER GENERAL INFIRMARY AND DISPENSARY.—Assistant House-Surgeon. Applications to J. G. Marshall, Esq., M.B., House-Surgeon.

FARRINGDON DISPENSARY AND LYING-IN CHARITY.—Honorary Physician. Applications to 17, Bartlett's Buildings, Holborn Circus, E.C., by November 6th.

FEVER HOSPITAL, Monsall, Manchester.—Assistant Medical Officer. Salary, 50 guineas per annum. Applications to Dr. H. Tomkins.

GENERAL INFIRMARY, Leeds.—Resident Assistant House-Surgeon. Applications to the House-Surgeon by November 10th.

GESTO HOSPITAL, Edinbane, Skye.—Resident Medical Officer. Salary, £275 per annum. Applications to J. McLennan, Solicitor, Portree, by December 1st.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary, £200 per annum. Applications by November 14th.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square.—Visiting Physician. Applications by November 23rd.

LIVERPOOL NORTHERN HOSPITAL.—House-Surgeon's Assistant. Applications by November 15th.

LONDON LOCK HOSPITAL AND ASYLUM, Female Department, Westbourne Green, Harrow Road.—House-Surgeon. Salary, £100 per annum. Applications by November 24th.

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch.—Resident Medical Assistant for the Male Department. Applications by November 5th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, Queen Square, Bloomsbury.—Medical Officer and Registrar. Salary, £100 per annum. Applications by November 7th.

NOTTINGHAM DISPENSARY.—Three Resident Surgeons. Salaries, £160 and £140 per annum. Applications by November 30th.

QUEEN'S HOSPITAL, Birmingham.—Honorary Physician. Applications by November 26th.

ROYAL BERKS HOSPITAL, Reading.—Assistant House-Surgeon. No Salary. Applications by November 6th.

ROYAL PIMLICO DISPENSARY.—House-Surgeon. Applications to the Dispensary, 104, Buckingham Palace Road, S.W., by November 5th.

SOUTH CHARITABLE INFIRMARY AND COUNTY HOSPITAL, Cork.—House-Surgeon, Apothecary, and Secretary. Salary, £100 per annum. Applications by December 7th.

ST. ASAPH UNION.—Medical Officer. Salary, £83 per annum. Applications by November 14th.

ST. GEORGE-IN-THE-EAST.—Medical Officer of Health. Salary, £150 per annum. Applications by November 8th.

ST. GEORGE-IN-THE-EAST.—Public Analyst. Salary, £100 per annum. Applications by November 8th.

WEST LONDON HOSPITAL, Hammersmith Road, W.—Registrar and Pathologist. Salary, £25 per annum. Applications by November 8th.

WREXHAM INFIRMARY AND DISPENSARY.—House-Surgeon. Salary, £100 per annum. Applications by November 9th.

MEDICAL APPOINTMENTS.

ASHWELL, H. G., L.R.C.P., M.R.C.S., appointed Assistant House-Surgeon to the General Hospital, Nottingham, *vice* H. Handford, M.B., resigned.

CAMPBELL, C. M., M.D., appointed Medical Superintendent to the Perth District Asylum, *vice* Professor W. C. McIntosh, F.R.S., resigned.

COXWELL, C. F., M.B., appointed Assistant-Physician to the Royal Hospital for Diseases of the Chest, City Road, *vice* H. S. Gabbett, M.B., resigned.

CROWTHER, G. D., L.R.C.P., L.S.A., appointed Senior House-Surgeon to the Halifax Infirmary, *vice* John Davy, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

LEIGH.—October 24th, at Glyn Bargood, Treharris, near Pontypridd, the wife of W. Watkin Leigh, M.R.C.S.Eng., of a son.

REDMAYNE.—On St. Simon's and St. Jude's Day, at Ambleside, the wife of Hugh Redmayne, surgeon, of a son.

MARRIAGES.

BLACKER—DEW.—October 31st, at St. George's, Brandon Hill, by the Rev. F. A. Lefroy. M.A., Arthur E. Blacker, L.R.C.P., L.R.C.S., second son of the late G. F. Blacker, M.R.C.S., of Midsomer Norton, to Harriet Sophia Williams Dew, second daughter of Dr. Henry R. Dew, of Berkeley Square, Clifton, Bristol.

NEVILLE—MILLER.—On the 30th October, at St. Mary's, Chorley, by the Rev. J. Hawkesworth, John J. Neville, L.R.C.P. and S.Ed., to Sarah, daughter of the late John Miller, Esq.

DEATH.

SHUTER.—On the 1st inst., James Shuter, M.A., M.B.(Cantab.), F.R.C.S., only son of James L. Shuter, of Lawn House, Tufnell Park Road, Holloway, aged 37.

ROYAL COLLEGE OF SURGEONS.—From the calendar of this institution, which has just been published, it appears that the council has met eleven times. The Court of Examiners has held two meetings for the examination for the fellowship, when 34 candidates underwent the ordeal, of which number 17 passed, and the same number were refused for twelve months; and for the pass-membership, the court had forty-one meetings, and examined 769 candidates with the following result—343 passed, 145 were approved in surgery, but were required to qualify in other subjects; 92 were approved in surgery, and afterwards qualified in other subjects. The following were the rejections: 44 for three months, 224 for six months, 10 for nine months, and 3 for twelve months, making a total of 281 rejected out of 769. The total number of diplomas granted in the collegiate year amounted to 435. The Board of Examiners had two meetings for the primary fellowship examinations, when 122 candidates presented themselves, of which number 68 passed, and 54 were referred for six months. For the primary membership there were forty-five meetings, when 1,119 candidates presented themselves, of which number 795 passed, 289 were referred for three months, and 35 for six months, making a total of 324 rejections out of the 1,119 examined. As to the Board of Examiners in Midwifery, there have not been any appointments made during the last eight years, and the examinations are suspended. The Board of Examiners in Dental Surgery has met three times, and examined 25 candidates; only 2 were rejected. There are now 1,166 Fellows, 593 of whom obtained the distinction by examination, 3 *adendum* being Fellows of the Irish and Scotch Colleges, and 5 were elected as members of twenty years' standing under Section V. of the Charter of 15th Victoria. The members of the College now amount to the large number of 16,258, making, with the Fellows, an army of 17,424. There are 971 Licentiates of Midwifery, and 521 Licentiates in Dental Surgery. On turning to the receipts and expenditure of the College during the collegiate year from July 1882 to July last, it appears that the former amounted to the large sum of £19,374 19s. 2d., derived principally from fees paid by candidates on their several examinations, viz.: £16,249 2s.; rents from the chambers adjoining the College produced £1,524 8s.; dividends on stock are represented by £1,124 5s. 2d.; fees paid by members on their election to the Fellowship, which formerly reached large amounts, was now represented by the insignificant sum of £52 10s.; fees paid on admission to the Council and Court of Examiners are put down at £63; receipts from Trust Funds, £345 17s. 6d. The expenditure during the collegiate year amounted to £19,446 18s. 5d. The chief item under this head is in fees paid to the members of the court, Board of Examiners, and Council, amounting to £7,374 19s. 6d.; salaries and wages to the large staff of officers and servants absorbed £3,849 18s. 5d.; taxes, rates, and diploma stamps, £1,427 16s. 6d.; under other expenses for patients, bandaging, instruments, burial of subjects, refreshments, etc., appears £384 12s. 8d.; stationery, printing, advertisements, postage stamps, £514 11s. 1d.; purchase and binding books for library, £421 1s. 9d. There appears to be a balance at the bankers of £2,087 10s. 4d. The library now contains 39,197 volumes, comprising 15,351 works, and 39,753 tracts, pamphlets, etc. There appears a very respectable list of donors to both library and museum. To students, and perhaps others, the *Calendar* will be found very useful, containing, as it does, copies of the questions submitted at the different examinations. The oldest Fellow appears to be Mr. J. M. Arnott, who was one of the first honorary fellows elected in 1843, having been admitted a member so long ago as April 4th, 1817; he must now be in the eighty-ninth year of his age. This interesting compilation reflects credit on the officials.

DIETETICS FOR THE SICK.—Dr. Charles M. Seltzer, in an article on this subject in the *Boston Medical and Surgical Journal* for October 3rd, says that "beef-tea, made red-hot with red pepper, is the very best treatment for delirium tremens."

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S, 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. General meeting. Professor Lister: Fractures of the Patella; adjourned discussion. Dr. Francis Warner: Postures indicative of the Condition of the Mind.—Odontological Society of Great Britain, 8 P.M. Casual communications by Messsrs. Storer Bennett, S. J. Hutchinson, Henry Sewill. Mr. Henry Power: On the Relation between Diseases of the Eye and Diseases of the Teeth.

TUESDAY.—Pathological Society, 8.30 P.M. Dr. Norman Moore: Multiple Diverticula of Small Intestine. Dr. Hadden: Rupture of Heart. Mr. Parker: Congenital Talipes Equino-varus (two cases). Mr. A. Durham: Osseous Tumour in a Cicatrix. Mr. Roeckel: Sections of Hæmorrhoids. Dr. S. West: Obliteration of One Coronary Artery. Mr. Eve: Pedunculated Adeno-sarcoma of the Skin. Mr. Waren Tay: Living Specimens Ten Years after Removal of nearly the whole of the Lower Jaw for Necrosis. Dr. Carrington: Ulcerative Endocarditis. Mr. Eve: Hydatid Cyst in Muscles of Calf (card). Dr. Lediard: Sarcoma of Lower Jaw of Horse (card). Dr. Burnett: Sacculated Aneurysm of the Aorta (card).

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown. Mr. Lawson Tait: 1. Three Cases of Pyosalpinx; 2. A Case of Acute Gangrene of the Uterus; 3. An Undescribed Disease of the Fallopian Tubes. Dr. E. S. Tait: Observations on Puerperal Temperatures.—Epidemiological Society of London, 8 P.M. The President (Dr. Norman Chevers) will deliver an inaugural address on the subject of Medico-topographical and Health-Histories for Districts and Towns.

THURSDAY.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. A Surgical Discussion on Recent Advances in the Surgery of the Urinary Organs, introduced by Mr. Bowlby.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. G. R. Turner: 1. On a Case of Wound of the Plantar Arch; secondary hæmorrhage on the thirteenth and sixteenth days after the injury; 2. On Cases of Ununited Fracture of the Patella treated by Suture. Dr. Thin: On Cases of Thickened Epidermis treated by Salicylic Plaster. Dr. Dawtrey Drewitt: On a Case of Myxœdema. Living Specimens (8 P.M.).—Dr. J. K. Fowler: Subcutaneous Nodules in an Adult Male.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE HIND FUND.

THE following additional subscriptions have been received, and paid to the account of the "Hind Fund," at Messrs. Coutts' Bank:

	£	s.	d.
F. B. Courtenay, Esq. ...	10	10	0
Dr. H. Buss	5	0	0
T. J. P. (per J. J. Pope, Esq.)	5	0	0
Sir Henry Pitman ...	3	3	0
Thomas Smith, Esq.	3	3	0
Morrant Baker, Esq.	3	3	0
Sir Henry Thompson	2	2	0
Dr. G. V. Poore ...	2	2	0
E. Sandwell, Esq. ...	2	2	0
Henry Stear, Esq. ...	2	2	0
E. H. Beaman, Esq.	2	2	0
C. J. Harris, Esq. ...	2	2	0
C. G.	2	2	0
Professor Ray Lankester ...	2	0	0
Dr. John Williams ...	1	1	0
J. P. Holyoake, Esq.	1	1	0
W. H. Torback, Esq.	1	1	0
R. F. H. King, Esq.	1	1	0
Dr. Curnow	1	1	0
Dr. H. Allen Aldred	1	1	0
Edmund Whitfield, Esq. ...	1	1	0
W. Lee, Esq.	1	1	0
Duncan MacArthur, Esq. ...	1	1	0
Dr. A. G. Cross	1	1	0
H. J. Manning, Esq.	1	1	0
John Bluett, Esq.	1	1	0
Dr. T. H. Moorhead	1	1	0
Dr. Fancourt Barnes	0	10	0
C. C. Balding, Esq.	0	10	0

Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester Square; John Tweedy, Esq., F.R.C.S., 24, Harley Street (honorary treasurer); A. J. Pepper, Esq., F.R.C.S., 122, Gower Street; and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe Gardens (honorary secretaries); or to Messrs. Coutts and Co., Strand.

THE REPRESENTATION OF THE MEDICAL PROFESSION.

SIR,—The importance of medicine and hygiene in relation to the well-being of the State is now sufficiently recognised for the public to expect and demand that their welfare should be properly looked after by the medical profession being adequately represented on the Legislature, and that laws for the promotion and preservation of health should be introduced and watched over by those whose experience by their medical education qualifies them for so doing. If it be necessary for the Law and the Church to be represented in the House of Lords, how much more so for the Medical Profession; for, without proper laws for promoting health and sanitary regulations, the health of the people must be neglected.

Now that a new Medical Bill is likely to be introduced, provision should be made for the proper representation of the medical profession in the House of Lords and Commons. There should be a Lord President of the Council (a medical man), who should be entitled to a seat in the House of Lords; three Vice-Presidents, who should be entitled to seats in the House of Commons, all medical men—one selected by the Government, one by the general body of registered medical practitioners, and one by the Council; in addition, the universities should be represented as at present.

With reference to the educational portion of the Bill, let there be the State examination compulsory, giving a title as Licentiate of Medicine, Surgery, and Midwifery. Men having obtained this, will not pass other examinations except for honours, for these two qualifications would be sufficient—Doctors of Medicine and Doctors of Surgery. Let all the present licensing bodies amalgamate either with the universities for medical degrees, or with the College of Surgeons for surgical degrees, they having a new charter for granting such. Make the fee for either fifty guineas, and let the bodies arrange between themselves for its proportionate distribution; but let the examinations be approved of by the Medical Council.—Your obedient servant,

SUGGESTER.

October 22nd, 1883.

A QUESTION OF AUTHORSHIP.

SIR,—As you were kind enough to give my query in regard to the authorship of the Latin verse, "Te Mater omnis," etc., a place in your columns, would you do me the further favour to state that I have reason to think the lines given form part of an Alcaic ode, composed by Christ. Anstey, Esq., in honour of Jenner, 1805 (*see Gent. Mag.*, 75, p. 38 and p. 326); but, as Anstey's poems are not accessible here, I hope some of your readers will examine them, and verify my conjecture.—Yours respectfully,

JNO. R. QUINAN.

Baltimore, October 3rd, 1883.

The Boast Fund.

SIR,—Will you kindly insert the following list in the next issue of the JOURNAL?—Yours faithfully, S. H. BURTON, Honorary Treasurer to the Fund.
64, St. Giles' Street, Norwich, October 31st, 1883.

	£	s.	d.
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Unqualified Assistants.

SIR,—"Unqualified Assistant," in this week's issue, objects to my remarks on the above subject in your valuable JOURNAL of September 22nd. A careful perusal of my letter would have shown him that the remarks were not intended for the class he represents, but for that class of men, originally chemists' assistants, acting in the capacity of assistants to medical men, and who have never had the slightest instruction at any hospital, or even passed the preliminary examination in Arts.

Again, I take the meaning of the word "assistant" to be one who helps, that is to say, amongst other duties, in the absence of the principal, visits an urgent call occasionally; whereas, in my former letter, I complained of unqualified men daily visiting and taking sole charge of most serious cases, and with an utter disregard to the value of human life; and, with all deference, I humbly submit that to be beyond an unqualified assistant's duties.

I fail to see that I considered a qualified man to be infallible, but the law very properly demands that a man should be registered before he practises, and practising under the shield of his employer's name is alike discreditable to both, and decidedly disastrous in most cases to the patient.—I am, sir, yours obediently, ANOTHER L.R.C.P.ED.

The Morning Bath.

SIR,—Allow me to supplement your able paper on "The Morning Bath" by drawing attention to three points. 1. The skin is greatly benefited by a good lather all over with yellow soap before the bath. 2. A Turkish bath blanket should always be used for drying the body, instead of towels. The operation is performed in half the time, and all chill avoided. 3. Few people who lead sedentary lives can stand the shock of cold water. The results are often nausea and congestion of the liver, and a simple warm or tepid bath is not very invigorating. By far the best way is to put a pailful of water at 115° into a hip-bath, stand in it, lather all over, sluice well with the hot water, and then pour a two-gallon can of quite cold water over the back and front, and rub up briskly with the blanket. The skin reacts instantly, the body glows all over, and nothing gives a better appetite for breakfast. I have taken this bath every morning for the past twenty years, with great benefit.

At Tunbridge Wells Spa, there is a very pleasant morning-bath, called "the cooled down Needle Bath;" the hot water spurts out from holes in a number of circular pipes, in the centre of which the bather stands, and the temperature is gradually lowered till the water is quite cold. At Bex, the hot water is played all over the body from a large hose with very considerable force, the change to cold water being made suddenly. This is called "the Scotch douche," and is the most agreeable and bracing form a bath can possibly take.—Yours faithfully, C. E. GREENWOOD.
Blackheath, October 13th, 1883.

DR. E. B. TRUMAN.—Dr. P. H. Watson's operation for removal of the thyroid body was described in the *Edinburgh Medical Journal* for September 1873.

A Water-closet in a Beer-cellar.

SIR,—I was lately called to see the landlord of a beer-shop in one of the oldest localities in the borough of Chelsea, and was astonished at the extraordinary state of things there disclosed to me. The family of this man consists of himself, his wife, and two children, all suffering from nausea, sickness, and tenderness of the abdomen. The premises consist of a bar and back parlour, from and in which latter room one staircase leads to the rooms above, the other (also opening into the palour) to the cellar below. On descending to examine this part of the premises, I found a low-roofed cellar, not arched, but separated from the bar and parlour above only by the flooring of the former. In this were the beer-barrels, leaden pipes, and the usual necessaries of the trade. But, *mirabile dictu*, let into the wall, in close proximity to the stout and ale, was a foul water-closet, reeking unmistakably of sewer-gas. I was told by the inmates that this was the only convenience (?) of the kind in the house; that there was no back yard, no back door for ventilation; that the closet was right under the parlour, which was their sitting and dining room; and that the place was full of rats. The house is a brewer's house, and the small weekly paying properties adjoining are theirs. The parish-rates are, no doubt, regularly paid by them; but what is the use of sanitary inspection, if such foci of disease are permitted to exist?—Yours truly,
124, Fulham Road, October 16th, 1883. V. POULAIN, M.D., M.R.C.S.

On Piscidia Erythrina.

QUERIST.—This leguminous plant, which is also called Erythrina piscipula, grows in the Antilles, where it is chiefly used for catching fish; the bark is placed in sacks or baskets, and plunged into the water; after some time, the fish become stupified, and are easily caught. Dr. W. Hamilton was the first who, in 1845, tried the effect of the plant on man, and observed its sedative properties. Drs. James Scott and MacGrath, directors of a lunatic asylum, used the drug successfully in cases of nervous excitement. Mr. Landowsky has just published six observations of patients relieved by piscidia of various painful symptoms, and thinks that this drug possesses the qualities, but not the defects, of opium. It is a good narcotic, and does not cause headache or constipation.

The Rogers Testimonial.

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SIR,—Can any of your readers inform me of any institution or home which would receive, and as far as possible educate, a young man who is partially blind and of weak intellect, but very musical? His friends would pay a moderate amount for his keep, etc.—Yours faithfully, M.D.

Coroners Juries.

QUERIST.—By a statute passed in the year 1836, 6 and 7 William IV., c. 89, section 1, "it is lawful for the coroner, at any time before the termination of an inquest, to direct the performance of a *post mortem* examination," and by section 2 the majority of the jury are empowered to require the coroner to direct a *post mortem* if they are not satisfied of the cause of death from the evidence before them. A medical witness is entitled to a fee for attending at an inquest, which fee is to be paid, in the first instance, by the coroner, who afterwards gets it from the county. 7 William IV., and 1 Victoria, c. 68, s. 2—but where the inquest is held "on the body of any person who has died in any public hospital or infirmary, or in any county or other lunatic asylum, or in any public infirmary or other public medical institution," the medical officer whose duty it was to attend the deceased person as a medical officer of such institution is entitled to no fees for attendance as a witness, or for making a *post mortem*—6 and 7 William IV, c. 89, s. 5.

A MEDICAL OFFICER OF HEALTH will feel obliged for information regarding the most suitable work on Quantitative Analysis of Water.

Determination of Sex.

SIR,—In the JOURNAL of the 29th ult., there is an interesting and able letter by Dr. Shelly on the above subject. He states that "the tendency of the ovum is to develop into a male, and that the influence of the sperm-element is to tend to such a modification of the development of the ovum as should result in the production of female offspring. That the older the ovum is at the time of impregnation, the less likely would it be to be dominated by the (sexually) antagonistic influence of the sperm-cell; consequently, the sex of the offspring is determined mainly by the age of the ovum at the date of impregnation. This is borne out by the experience of cattle-breeders, who have found that, with cows and mares covered towards the end of the period of heat, the offspring are generally males, females being produced when impregnation occurs at the beginning of the period. The advice given in a late number of the JOURNAL, with the view to secure the birth of a female child—viz., 'to procure a postmenstrual fertilisation of the ovum'—appears to be reasonable, and consonant with the remarks made above." If the above statements of Dr. Shelly be correct, it should follow that the postmenstrual fertilisation of the ovum should result in a male child, and that a female child would more likely be secured if fertilisation took place at the beginning of the menstrual period. Dr. Shelly's views and the above advice appear to me to be contradictory, and I cannot see how he can reconcile them; and I would be glad if he or some other member would try to do so.—I am, etc.,
A MEMBER.

SIR,—Can a brother practitioner inform me of a home or institution into which I can obtain immediate admission for a patient suffering from tabes dorsalis, by the payment of a small sum, say about £200?—I am, etc.,
MEMBER.

Want of Humanity.

THE *Globe* has the following serious and trenchant criticisms of a recent occurrence.

"It would not be a bad thing if the medical faculty possessed the same power as the legal profession, of preventing peccant brethren from continuing to practise. Although the vast majority of doctors are beyond the reach of censure for the manner in which they discharge their duty to society, there are a few whose conduct is open to censure. Among these, we should be disposed to place the Welsh practitioner who, according to the evidence given in a county court case at Carnarvon, refused to attend a child who had been badly bitten by a large dog. The excuse he assigned for non-compliance was that, if he dressed the wound, he would make himself liable to be called as a witness should the father of the child sue the owner of the dog. The judge closely questioned the witnesses as to whether this inhuman answer was really given, but did not shake their testimony. Moreover, there was the undisputed fact that the doctor had been summoned, but did not attend, nor was it until next day that the child's wounds were medically treated. That they were of a serious nature is shown by the refusal of a chemist, on that ground, to undertake their treatment. Of course, it is a hard thing for struggling medical men to have to dance attendance in county-courts without adequate compensation for their loss of time. That, however, affords no sort of excuse for refusing to prescribe for the sick when called upon to do so, and there are few members of the profession, we are convinced, who would shirk their duty for that reason."

Treatment of Hemiplegia.

SIR,—Will any member kindly inform me how far successful he has found the iodide of ammonium in the treatment of the above disease, and the largest dose that can be given in such cases?—I am, etc., A MEMBER.

G. LEECH.—Good instruction at moderate charges is given in the University of Aberdeen. Our correspondent would do well to consult the Educational Number of the JOURNAL, published on September 8th.

Royal College of Surgeons of England.

THE following were the questions submitted to the candidates for the licence in Dental Surgery, at a meeting of the Board on October 22nd. *Anatomy and Physiology.*—1. Describe the Antrum of Highmore in the human skeleton. Give, also, its arrangement in the living subject. 2. What is the Composition of Saliva? State how the secretions of the several glands differ in composition. *Surgery and Pathology.*—1. Describe the different stages of Bone Caries, and give the treatment. 2. Describe the effects of Mercurial Salivation upon the Mouth-structures, and contrast them with those of Phosphorus. *Dental Anatomy and Physiology.*—1. Describe and compare the Dentitions of (i) Hyæna, (ii) Dog, (iii) Bear. State in general terms the characters which distinguish the dentitions of the Aquatic Carnivora. 2. Give an account of Prognathism. Enumerate the bones chiefly concerned in its production. 3. Describe the process of Absorption of the temporary teeth. What are the conditions which further or retard it? *Dental Surgery and Pathology.*—1. What are the Histological Changes which occur in Inflammation of the Pulp? Describe its various terminations. 2. Under what circumstances should Osteoplastics be employed for fillings in Incisor teeth? What, in general terms, is the chemical composition of these materials? 3. Give the chief forms of Perforate and Cleft Palates. Discuss the relative advantages of operative and mechanical treatment.

A Puzzling Case.

SIR,—In reply to the above, may I suggest that after "A Member" has adopted the plan you suggest of exploring the bladder for stone, and without success, he should try the following prescription, which, under my care, has been most successful in many similar cases of long duration. I would state that it requires steady perseverance, and not hasty decision about its results. If "A Member" finds it as successful as I have, I shall be glad if he will publish his result. The prescription: ℞ Liquoris potassæ ʒiv; tincturæ hyoscy. ʒiv; infusi buchu ʒij; aquam ad ʒviij. Two tablespoonfuls every four hours.—I remain, yours, A MEMBER.

X. Y. Z.—For the Brussels M.D. degree, our correspondent may safely consult any of the ordinary standard text-books on the subjects of examination—viz., Therapeutics, Medicine (including pharmaco-dynamics), Pathology, Surgery, Ophthalmic Surgery, Midwifery, Hygiene, and Medical Jurisprudence.

Foot-and-Mouth Disease.

SIR,—I shall feel obliged if any member can inform me how long after a beast becomes affected with foot-and-mouth disease does the milk continue to be unfit for use; or refer me to some authority on the subject?—Yours truly,
Dobroyd, Todmorden, October 2nd, 1883. CHARLES W. THORP.

COMMUNICATIONS, LETTERS, etc., have been received from:

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BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

REMARKS ON EXCISION OF THE SHOULDER-JOINT.

Read in the Section of Surgery.

BY WILLIAM STOKES, F.R.C.S.I.,
Professor of Surgery in the Royal College of Surgeons, Ireland.

AMONG the operative measures as regards the merits of which surgical opinion is undergoing change, resection of the shoulder must be mentioned. It has recently been stated by a recognised authority, Mr. Holmes, that the results obtained after this operation are "probably inferior, certainly not superior, to those of natural ankylosis," and that, for this latter condition, "no cutting operation is justifiable." This view is one we should be slow to endorse, for now there are few surgeons of operative experience, and who understand the principles that should guide the after-treatment of such cases, who would not be inclined to say that the results obtained after this operation are not only satisfactory, but, in truth, as a rule, and that whether done for injury or disease, in childhood or adult life, are superior to those obtained after most of the other resections of joints. For example, the fact of the patient being an adult need not, as in the majority of other excisions of joints, excepting, perhaps, that of the elbow, deter the operator from entertaining favourable anticipations as to the result. There is, if correctly performed, less shock, difficulty, hæmorrhage, risk of wounding important nerves, and a greater probability of obtaining a freely movable false joint, than after any other similar operation. It is not difficult to understand the disrepute into which the procedure fell, justifying, perhaps, the remark quoted already of Mr. Holmes, when it was performed by such methods as those of Moreau, Manne, Sabatier, Morel, Lisfranc, Nélaton, and others—operations long since consigned to a well-deserved oblivion, and when lengthened fixation of the limb was rigidly enforced after the excision. The remarkable change for the better in the results now obtained is undoubtedly due to the abandonment of flap-methods of operating, to the adoption of the Ollier or Langenbeck-Ollier line of incision, to antisepticism, promoting thereby rapidity of union; and lastly, and perhaps as regards the ultimate result most important of all, to the early commencement of passive movements, exercises of the arm, and shampooing, which so materially aid in preventing the formation of fresh internal adhesions, and promoting restoration of muscular power. If the adoption of judiciously directed gymnastic exercises and shampooing be had recourse to at an early date after the operation, an all-important factor in the after-treatment of such cases, the good results above indicated, and which should be hoped for in all instances, can reasonably be expected, and that not only in early but in adult periods of life.

I can best emphasise these statements by relating—which I shall do with all possible brevity—the principal facts connected with three cases of interest in which resection of the shoulder-joint was indicated.

The first of these cases (from notes taken by Dr. J. F. Knott) was that of James McK., a strongly built man, aged 40, a farmer by occupation, who first came under observation in the Richmond Hospital in June 1879. He stated that, two years previously, he noticed for the first time a little stiffness and pain about the left shoulder-joint. This appeared without any assignable cause, and slowly but steadily increased. On making any sudden movement of the joint, a stinging pain suddenly caught him, which commenced in the vicinity of the acromion process, shot down along the outer side of the arm, and stopped as suddenly as the cessation of the motion which gave rise to it. This stinging pain always travelled along the whole length of the humerus, and invariably stopped short at the elbow. Movements of a rotatory nature were those most surely followed by it, and the combination of muscular actions called into play in—to use his own words—"putting on his coat in the mornin'," was found to act as a special irritant. Still, the pain was not very acute, and did not interfere seriously with his occupation as a labourer on his farm. At the same time, there was some tenderness on deep pressure, and he found he could not lie on that side—the left—without very considerable discomfort being experienced from a dull aching pain in the shoulder-joint and the upper third of the arm. There was no enlargement, nor superficial redness. The appetite continued good, and all the various excretory functions were duly performed. About five weeks before his admission into hospital, he had been exposed to severe cold and wet for a whole day. He was engaged in the formation of a drain in a "stiff gravelly soil;" and, as the nature of his task necessitated his being stripped to his shirt-sleeves, the affected limb was very much exposed to the cold and rain of an exceptionally severe day. The result was that he had a severe shivering fit on that evening after returning to his home; and after a night of disturbed and unrefreshing sleep, he found himself "sick and hot" on the following day.

The ailing shoulder now felt very stiff; and, on examining the part more particularly, he found that it was very much swollen, the tumefaction engaging, also, the upper half of the arm. Still, there was no superficial redness, and there was no acute pain. The original stinging pain was rather diminished than increased. The sensation was one rather of fulness and stiffness. The swelling so formed never disappeared; on the contrary, it increased very slowly indeed, but surely, up to the date of his presenting himself at the Richmond Hospital.

On examination at the time of admission, there was obviously very considerable thickening of the upper half of the shaft of the humerus. The enlargement evidently engaged the head of the bone as well, and a direct result was the interference with the freedom of the movements of the joint, and a grating sensation was conveyed to the hand when the elbow was removed to any considerable distance from the side of the body.

The case was treated mainly by fixation of the limb by means of leather and poroplastic splints and mercury; the latter being administered by means of inunction. After some weeks, a marked improvement was observed, and the patient returned home; but, on February 11th, 1880, he was readmitted into hospital, when I found that two sinuses had formed in the neighbourhood of the shoulder-joint; one on the anterior, and a second on the posterior, aspect of the joint, below the spine of the scapula. To determine more accurately the amount and situation of the disease, I made an exploratory incision, posterior to the joint, over the spine, down to the bone, and along the track of the sinus, but failed to find any denuded bone. On this wound being healed, I then (February 25th) exposed the head of the bone by a long anterior incision (Langenbeck-Ollier), and found the head of the bone partly absorbed, and completely denuded of cartilage. This was then removed by a somewhat oblique incision carried from above downwards and inwards. The appearance of the bone through the line of section was satisfactory. No disease in the glenoid cavity was observable. A conical antiseptic pad being placed in the axilla, a drainage-tube was inserted in the wound, and the usual Listerian antiseptic dressings applied. No splints, or any mechanical appliance other than the antiseptic gauze-bandages, were applied. Primary union took place. The drainage-tube was removed on the third day, and the process of union progressed steadily, without suppuration, but with a certain amount of serous discharge. On March 5th, the wound was closed, and the gymnastic exercises commenced. These consisted in flexion and rotation, circumduction, abduction, and adduction of the arm, combined with daily shampooing of the muscles of the shoulder. On April 24th, he returned home, all the portions of the joint being, to a great extent, restored; and, a year subsequently, I obtained a letter from the medical gentleman, Dr. Faussett, who forwarded the case to me, to the effect that there was excellent restoration of the movements of the arm, and that the patient was able even to use his spade in digging the fields, and other agricultural employments.

The second case is one to which I shall very briefly allude, inasmuch as the particulars of it have been already the subject of discussion at the Surgical Society of Ireland. The patient was a female, aged 24, and a housemaid by occupation. She attributed her ailment in the right shoulder-joint, from which she had been suffering for twelve months, to a fall downstairs. This was followed by pain, swelling, and ultimately by an abscess, which opened into the axilla. The swelling in the joint subsided, but the pain, which was severe, and of a darting, shooting character, continued. The opening of the abscess was followed by a sinus, through which, on probing, denuded bone could be felt. Any attempt to move the arm was attended with the acutest pain, so much so as to make her scream when the arm was stirred. There was considerable atrophy of the muscles of the arm, and the condition of the patient was such as to

completely prevent her following any occupation; and, to her mind, there was no alternative to the removal of the limb but a life of suffering and misery in a workhouse hospital.

The view I took of this case—one which was subsequently verified—was that it was one rather of ulceration of the cartilages than any carious process in the bone, and that the well-marked ankylosis was due mainly to the formation of adventitious fibrous bands which held the bones firmly together.

The operation, like that done in the preceding case, was by a single oblique incision, which commenced midway, and a little above the coracoid and acromion processes, and extended downwards and a little outwards for a distance of four inches and a half. Owing to the great amount of ankylosis, there was much difficulty in protruding the head of the bone through the wound. When it was accomplished, it was found to be completely denuded of cartilage. The healing in this case was somewhat more protracted than in the last case, and, consequently, I was not able to commence passive motion until the early part of January. This was not borne well at first, but she soon became used to it, and in a short time got such power with the arm, that she was enabled to render considerable



assistance to the nurses of the ward in which she was located. Subsequently she became a wardmaid herself, in which capacity she had to scour floors, clean fire-places, make beds, and, in fact, perform all the duties of her former vocation.

A remarkable feature in connection with this case is the short time that elapsed between the period of the operation, and that at which good use of the arm was obtained. Mr. Hodges states "that the average length of time before some use of the arm was commenced, as calculated from thirty-one of the cases in my table, was over four months; and a much longer period than this was required, however, to elapse before the limb could be said to become really serviceable."

The third case was that of a young married woman, aged 26, who was under my care last March. She was suffering from pain, of a dull, aching character, in the right shoulder, which was rigidly ankylosed, and the muscles of which the deltoid especially, were much atrophied. The limb, in consequence of these troubles, was wholly useless to her. She stated that early in 1882 she had a miscarriage, and a few days subsequently got what she termed a "fever," on account of which she entered the Whitworth Hospital, where she remained for some months. While in hospital, she suffered from what was apparently an attack of acute arthritis of the right shoulder. This was followed by abscess-formations in the neighbourhood of the joint, one of which was opened close to the insertion of the deltoid, and the others below the clavicle. On recovery from these troubles, almost complete ankylosis of this shoulder was found to have supervened.

I first endeavoured to break down the adhesions by manipulation, the patient being under ether; but though I did succeed to a certain extent in doing so, the result of the operation was not satisfactory, for it was followed by a great increase of the pain, and without material improvement in the ankylosis. I accordingly excised the shoulder in the same manner as in the preceding cases, and, in the after-treatment, did not deviate from the method adopted in them



The operation was performed on April 26th, and on May 3rd the wound had quite cicatrised. Passive movements, shampooing o the muscles of the shoulder and arm, were then commenced, and carried on daily up to the end of June, at which time the accompanying photographs were taken, which illustrate some of the different positions into which the arm can be placed. I may mention that, since the patient left the hospital, she has been engaged as a laundress.

The method of operating which in all cases I have adopted is a modification of the Ollier-Langenbeck periosteo-capsular method. The incision was in all instances commenced a few lines external to the tip o the coracoid process, and carried downwards and slightly outwards avoiding the cephalic vein, for a distance of about four inches, and little external to the inner border of the deltoid muscle. By this there is avoidance of the posterior circumflex artery and nerve, and there is the minimum amount of interference with the deltoid The functions, therefore, of this muscle are by this procedure better preserved than by any other of the suggested operations; and there great facility attending the division of the capsular muscles of the shoulder, notably the subscapularis.

In reference to the osseous section, the importance of not removing more of the bone than is absolutely necessary should

borne in mind. Mr. Holmes is undoubtedly right in holding that the cause of the usual inability in these cases, after operation, to elevate the arm above a horizontal line, depends more on the absence of a point of support for the humerus than on any loss of muscular power. The chances of getting that power will naturally be increased, the smaller the amount of bone removed. The last case mentioned affords an illustration of the possibility of obtaining the power of elevation of the arm beyond the horizontal line—a rarely obtained result, I admit; but it can only be hoped for in those cases where the disease is of sufficiently small extent not to necessitate the removal of more than a very limited amount of bone.

In connection with preservation of periosteum in this operation, I confess I am disposed to modify very materially the views I at one time held as regards its surgical value in resection of the shoulder and other joints. In the elbow, I have unquestionably seen as good results obtained without periosteal preservation as with it. In the shoulder, I would only be disposed to adopt it in traumatic cases, such as the remarkable one recorded by Sir William Mac Cormac, in which he excised the shoulder and elbow joints on the same side and in the same individual, on account of a severe gunshot injury. In this case, there were three important factors which indicated preservation of the membrane—the youth of the patient, a previously healthy condition of the parts, and, lastly, the fact that a portion of the shaft of the humerus had, owing to extensive comminution, to be removed. In pathological resections, however, such as I have drawn attention to to-day, it is very questionable if a reformation of the portion of bone removed be necessary or desirable; as it sometimes happens—notably in resections of the elbow—that the newly formed bone is irregular in form, and interferes with the motions of the joints.

These somewhat depreciatory remarks in reference to preservation of periosteum in resection of joints do not, of course, apply to resection of bones in their continuity, in which undoubtedly the advantages of the practice are signal and distinct. Another important matter is the advisability or otherwise of using splints in the after-treatment of these cases. In resection of the shoulder, as well as of the elbow, I think them as unnecessary as they are indispensable in the hip and knee. Objections have been urged to their abandonment in the two former procedures, on the ground that, by so doing, the surgical axiom that repose is necessary to repair is violated, and that a "perpetual motion" style of practice is substituted. I am inclined to think, however, that this alleged "perpetual motion"—doubtless a very exaggerated term—instead of being a disadvantage, is a desirable feature in the after-treatment alike of resection of the shoulder and of the elbow-joint; and I am strengthened in so thinking from knowing that the late Professor Syme, a surgeon far in advance of his time, and whose sagacity was only equalled by his foresight, held a decided opinion as to the desirability of not rigidly fixing the limb to splints for any lengthened time after these operations. The "perpetual motion" bogus, therefore, need not be much dreaded; for, if proper antiseptic precautions be adopted, the absence of fixation does not interfere with that rapidity of union which is so important a factor in facilitating the adoption, at an early date after the operation, of those exercises all-important in enabling the patient to get good subsequent movements and use of the limb.

This rapidity of union can undoubtedly be best obtained by a rigid adherence to Listerian antiseptic practice, both during and subsequent to the operation. I can quite endorse M. Ollier's statement, that Lister's method not alone prevents inflammation without arresting the physiological processes of repair, but "accelerates the healing of wounds, in its enabling the surgeon to arrest, after the operation, those changes in muscular and nervous tissue which are the result of prolonged suppuration associated with prolonged immobility of the limb." (*London Medical Record*, April 1881, page 137.)

Lastly, I would mention one or two encouraging statistical facts connected with both traumatic and pathological resections of the shoulder. As regards the former group, we learn, from the researches of Sir William Mac Cormac and Professor Billroth, that the rate of mortality is far smaller proportionately than the so-called conservative treatment, namely, 35 per cent., as compared with 52 per cent. These statistical facts do not, it is true, coincide with what was observed during the American war, when the mortality after excision was 36.6 per cent., against 27.5 per cent. after "expectancy." "If," however, as Dr. Edmund Andrews has observed (*Encyclopædia of Surgery*, Ashhurst, vol. iii, page 728), "we reflect that the cases selected for this plan were the least seriously injured, the apparent statistical advantage is more than accounted for by the mildness of the cases. He would be a rash man who would be so infected with conservatism, as to leave to unaided nature a shoulder-joint filled with bony gravel from the comminution of the humerus."

Another equally important and interesting fact is that, even in the pre-antiseptic period, the statistics of pathological resections of the shoulder, as given by Heyfelder, Hodges, and others, record a mortality of only about 17 per cent. The next statistical record made of such resections, whether performed for traumatic or pathological, suppurative or non-suppurative lesions, will doubtless show a vast diminution in this percentage.

From the foregoing remarks, we may, I think, state the following conclusions.

1. The operation should be performed by the Ollier-Langenbeck method, avoiding, however, in pathological resections periosteo-capsular preservation.
2. The excision of bone should be as limited in amount as is compatible with the removal of disease.
3. Preservation of the periosteum is only indicated in traumatic resections, where there is much involvement of the shaft of the humerus.
4. The use of splints is not indicated in the after-treatment of resection of the shoulder-joint.
5. Rapidity of union is strongly indicated after this operation, and can best be obtained by a rigid adherence to Listerian antiseptic practice.
6. Passive movements, gymnastic exercises, and massage, should be commenced as soon as possible after the operation.
7. The statistics of the operation, whether done for traumatic or pathological, suppurative or non-suppurative lesions, are eminently satisfactory and encouraging.

Mr. COATES (Salisbury) had hoped to hear that Mr. Stokes was prepared to advocate early operation in cases of disease of the shoulder, as he had ably done at Ryde in regard to the knee-joint. His own practice, especially in hip-joint disease, was to excise as soon as it was evident that absorption of the cartilages had taken place. He called attention to the jumpings of the limb, evidenced by outcries at night, when not under extension.

Mr. HENRY MORRIS (London) endorsed Mr. Stokes's arguments in favour of not fixing the limb after excision of the shoulder and elbow; and said that, in addition to not fixing the arm in cases of excision of the shoulder, he also took measures, by means of a large wedge-shaped pad between the side of the shoulder and limb, to keep up abduction of the arm operated upon.

Mr. KEETLEY (London) differed from Mr. Martin Coates in regard to the indications for excision of the hip. So far from ankylosis in bad position, such as might follow non-operative treatment, being worse than the results of excision, it was a fact that, even if this bad position were allowed to occur, osteotomy would easily and safely rectify it; while the ultimate result of excision was that, in nine cases out of ten, the patient was condemned to go about permanently with a crutch. These observations were not meant to condemn early operative treatment of the nature of erosion, drainage, and the injection of iodoform.

RESECTION OF THE ANKLE BY AN ARTIFICIAL POTT'S FRACTURE.

Read in the Section of Surgery.

BY H. C. MARCH, M.D.,
Senior Surgeon to the Infirmary, Rochdale.

IT was the fashion, at one time, to give man very little credit for ingenuity. We were told to copy Nature.

> "Go, from the creatures thy instructions take;
> Learn from the birds what food the thickets yield;
> Learn from the beasts the physic of the field;
> Learn of the little nautilus to sail,
> Spread the thin oar, and catch the driving gale."

Perhaps the only thing to be said in favour of these remarks is that they are poetical; the facts being that the nautilus never comes to the surface, but crawls, head downwards, at the bottom of the sea. But if Nature were once followed too blindly or fancifully, at present, and in some respects, she may be imitated scarcely enough.

In resection of the ankle-joint, as described by Erichsen, portions of the astragalus, even if healthy, have to be removed, and the peroneal tendons are severed. In Hancock's and Barwell's operation, as given by Bryant, the lower end of the fibula is dissected away, and the internal lateral ligament is divided.

A boy aged 8 was admitted into the Rochdale Infirmary in April 1882. He had been under treatment elsewhere for three years, for disease of the left ankle. There were two sinuses; one by the inner malleolus, and the other over the head of the first metatarsal. The joint was greatly thickened; and, by means of the probe, diseased bone was felt in the articular faces of the tibia and the astragalus. The patient was watched and fed up, to cancel, as far as possible, his highly strumous condition, till July 26th, when the following operation was performed, under chloroform, with full antiseptic precautions.

1. A transverse incision was made over the fibula, about an inch and a half above the external malleolus, exposing the bone, beneath which a chain-saw was passed, and the fibula was cut almost through.

2. A long, crescentic, cutaneous incision was made, across the inner aspect of the joint, below the tip of the internal malleolus. The skin-flap was dissected upwards, and, with a Hey's saw, the malleolus was cut through, from without inwards, on a level with the base of the tibia.

3. The foot was then forcibly everted, fracturing the partially divided fibula, and the interior of the joint was fully exposed.

Finally, a quantity of diseased bone was removed from the astragalus and the base of the tibia, the joint well syringed with carbolic lotion, a drainage-tube inserted, the skin drawn together with wire sutures, and the limb placed in a box-splint with antiseptic dressings. The result was entirely satisfactory.

It will be seen that the operation is a copy of nature, an artificial Pott's fracture. The advantages of such an operation are that, while it thoroughly opens the joint, it divides neither tendon nor ligament, injures no artery or nerve, and removes no structures but those that are diseased. It is an operation that presents no difficulty, and the only point needing care is to divide a sufficient length of skin across the hinder, inner, and front part of the ankle. When recovery has taken place, and the malleoli rapidly unite, the joint is as strong and its movements as free as ever.

CASES OF RESECTION OF THE ANKLE-JOINT FOR INJURY AND DISEASE.

Read in the Section of Surgery.

BY THOMAS JONES, F.R.C.S.,
Surgeon to the Manchester Royal Infirmary.

NEARLY a century has elapsed since the elder Moreau first resected the ankle, and yet the operation can scarcely be said to have an established position among surgical procedures. Some surgeons refuse to recognise any conditions that will justify the operation, and have assigned various, and frequently unsatisfactory, reasons for its abandonment; while others, having regard to the length and tediousness of the necessary after-treatment, and to the possibility of a failure occurring, deem it more prudent to advise their patients to sacrifice a limb.

Perhaps the chief cause of the unfavourable reception of the operation has been the attempt to cure, by resection of the ankle, cases in which the disease has extended far into the tarsus. Surely, it is unfair to discard an operation because it fails to accomplish what it was never intended to do. Besides, the experience of many who have adopted the operation, in suitable cases, has falsified the predictions of those who still look upon it with disfavour.

Resection of the ankle may be practised either for disease, or when the joint is the seat of a severe accident—such as compound dislocation, or a compound fracture. Although Hippocrates and Celsus advised and performed resection in proper cases, Hey of Leeds is generally regarded as the originator of resection of the ankle for compound dislocations. But the perusal of his work[1] shows that, on Gooch's authority, he mentions a case[2] of compound dislocation of the ankle, in which Mr. Cooper of Bungay removed a portion of the tibia and fibula. By this means he was able to preserve a limb, and to make it so useful that the patient could walk and work. Mr. Hey further states that, encouraged by Cooper's success, he was induced to follow the same method of treatment, but was disappointed with the result, as his patient walked imperfectly.

A little more than two years ago, I had under my care a case where, in consequence of a fall of a mass of earth in a coal-pit, a man (aged 31) sustained a compound dislocation of the right ankle. The foot was displaced inwards, and, to a certain extent, backwards; and the malleoli penetrated a considerable distance through a lacerated wound on the outer side of the ankle. Mr. Southam removed portions of the malleoli with a saw; and, after the reduction of the deformity, the limb was placed on a back-splint. The operation was conducted antiseptically; but, owing to the wound being contaminated with dirt, and the consequent difficulty of rendering it aseptic, in a few days it became putrid. Irrigation with sanitas was then substituted for the gauze-dressing, and eventually the man made a good recovery. He remained at the Infirmary for three months; and, after his discharge, several small pieces of bone escaped by an opening which formed above the inner ankle. In seven months from the date of the injury, the parts were soundly healed. The condition of the patient at present (July 1883), two and a quarter years after the accident, is in every way satisfactory. Considerable thickening of the lower end of the fibula exists, together with some inversion of the foot. Moderately good motion of the ankle-joint has been regained; and the man daily walks with ease a distance of six miles. The leg is half an inch shorter than the other; nevertheless, it is strong and serves every purpose. (A photograph of the limb was exhibited.)

The results obtained by partial resection in this, as well as in other cases of a similar kind, are sufficiently encouraging to warrant the adoption of this proceeding whenever circumstances will allow. Provided the injury is limited, and the patient not too far advanced in years, there always will be a fair prospect of preserving the limb.

I will now refer to the operation as practised for disease. Before resorting to any operation, it is, of course, presumed that in the ankle, as well as in other joints, careful, prolonged, and patient attempts to cure the disease have been made; and not until the usual means have been exhausted will the question of operation be discussed. Then we have to decide, is the limb to be sacrificed, or shall we endeavour to remove the disease, and so preserve the member?

This seems to be the proper place for a record of the two cases which constitute my experience of the operation.

CASE I.—Charles G., aged 21, always healthy and strong, was admitted into the Manchester Royal Infirmary on September 25th, 1880. About the end of 1878, he sprained his ankle while skating. His foot became stiff, swollen, and slightly painful; but in a few days these symptoms subsided, and he was able to resume work. In the following January, seven weeks after the accident, the ankle again began to swell; there was also a renewal of the pain. He now consulted a medical man, who advised complete rest. He was confined to the house for a month, and then went about with the assistance of crutches. Any attempt to move the foot caused the pain to return with renewed severity, and soon an abscess formed behind the external malleolus. At the time of his admission into the Infirmary, the abscess was unopened; the foot was in a state of extension, and every attempt to move it produced very severe pain. The limb was fixed in a plaster-of-Paris bandage; and, after a stay of two months, the patient returned home. A few weeks later, he was re-admitted. While he had been at home, the abscess had enlarged and burst, leaving a sinus on the outer side of the joint. Another abscess on the inner side, below the malleolus, threatened to open. The swelling was so decidedly limited to the ankle that it was concluded the disease had neither involved the tarsus nor the bones of the leg.

The history of the disease, and its appearance soon after an injury, rendered the prospects of excision very encouraging. The operation was, therefore, resorted to with very fair chances of success. The incisions and the various steps of the operation were those which I shall describe later.

It is unnecessary to prolong the record. It will be sufficient to say that the patient made an excellent recovery, but not before some carious disease in the astragalus had been eradicated.

CASE II.—John B., aged 14, mill-operative, entered the Manchester Infirmary on May 15th, 1882.

Family History.—A sister had an abscess on her back. Some years ago, she injured her elbow; soon afterwards, an abscess formed, which is still discharging. Three other sisters and a brother are in good health. The mother is alive and well. The cause of the father's death is not known.

Previous History.—Ten months ago, a gathering formed over the right ankle. Lotions were applied, and no interruption of the usual occupation became necessary. The temporary improvement which took place soon gave way to a renewal of the symptoms. For a couple of months, there was a considerable amount of pain; but, of

[1] *Practical Observations in Surgery.* By William Hey, F.R.S. 1803. P. 367.
[2] This case is reported in Gooch's *Chirurgical Works.* 1792. Vol. ii, p. 318.

late, very little inconvenience, except the loss of the power of walking, had been experienced. Last December, an abscess opened behind the external malleolus, and had since discharged. There was no suspicion of any injury, the disease having arisen without any appreciable cause.

Condition on Admission.—The right ankle was extended, much swollen, and the skin slightly red. The swelling corresponded with the articulation. Behind the external malleolus, there was a discharging sinus. The boy was of a dark complexion, and his appearance did not suggest an unsound constitution. There was an absence of pain, unless an attempt were made to move the foot. The locality and the contour of the swelling indicated that the disease was confined to the ankle-joint, and that, in all probability, the tarsus was quite free. The appearance of the soft parts, the somewhat suspicious family history, together with the fact that the disease was of a non-traumatic origin, combined to render the prospect of saving the limb by resecting the joint of a doubtful character. However, it was determined to give the patient the benefit of whatever chances there were; and, with this object in view, the ankle was excised on June 9th. The operation was conducted in a manner which will be detailed further on. The joint was in a condition of advanced disease. The cartilages were destroyed by ulceration, and the exposed surfaces of bone were in a carious state. The lower extremities of the tibia and fibula, including the tibio-fibular articulation, were removed with the malleoli, and afterwards as much of the astragalus as was considered to be unsound. My regret is, that the whole of this bone was not taken away at the same time. There was some troublesome oozing after the operation, which rendered it necessary to renew the dressings (antiseptic). The limb was fixed in a special splint—a modification of Esmarch's, for resection of the ankle; but it did not prove a success.

June 16th.—The wounds were looking healthy, and there was not much discharge. The general health was improving, and he had been much better since the operation. Unfortunately, the wounds became putrid. The antiseptic dressings were, therefore, discontinued, and sanitas irrigation substituted. In a couple of days, considerable improvement in the quality of the discharge having been effected, the wounds were dressed with terebene. The principal thing with which we had to contend was the difficulty experienced in fixing the limb. The appearance of a small abscess on the outer surface of the leg prevented the application of the plaster bandage, and we had to apply Cline's splints over the dressings. Healing, however, went on satisfactorily; the quantity of discharge underwent a speedy diminution, and the inner incision began to close.

On July 8th, a fluctuating swelling, of the size of a pigeon's egg, over the right sterno-clavicular articulation, was detected. The patient said that he first noticed it about three weeks previously, but did not direct attention to it. Iodine was applied to the swelling, which was looked upon as a cold abscess.

A fortnight later, chloroform was administered, and the abscess on the outer aspect of the leg, together with a small cavity which threatened to extend along the peronei tendons, were scraped with a Volkmann's spoon. The limb was at the same time fastened to an interrupted splint by a plaster bandage.

August 12th.—The patient was sent to the convalescent hospital at Cheadle. When he returned, the sinuses were discharging, and examination with a probe detected carious bone. An anæsthetic was again administered, the sinuses were enlarged, and the portion of astragalus left behind at the time of the first operation was removed. It was soft, and in a condition of advanced caries. A thorough oakum-drain, as recommended by Sayre, was now introduced. It was renewed daily, and, as the quantity of discharge lessened, its size was gradually diminished. At first the cavity seemed to contract rapidly, and the state of the ankle materially to improve; but, after a certain stage had been reached, things seemed to progress much more slowly. The sinus on the outer side healed, but that on the inner aspect still discharges a small quantity of matter.

These two cases present certain points of contrast which are deserving of notice. In both the disease was limited to the ankle, and so justified the treatment by resection. But in Case I the disease had no doubt been brought about, and directly induced by, an injury, while in Case II traumatism played no part in producing the affection. Again, although Case II did not exhibit any traces of ill-health, yet the formation of cold abscesses tended to show an unsound constitution, with probably a scrofulous taint. The sister's illness would seem to point in the same direction. The convalescence of this patient has been exceedingly tedious, and even now his condition is a source of a good deal of anxiety. It is not improbable that at last the limb will have to be sacrificed. In Case I things have been quite different. The after-treatment has extended over a considerable period, it is granted, but so it will do in all cases of resection of the ankle under whatever circumstances it may be undertaken. Notwithstanding this, the result may be described as very fair. The motion in the false joint is rather too free, and the limb is nearly an inch shorter than the other, still the patient manages, with the aid of a thick-soled boot, to walk without any difficulty.

Of course, it would be manifestly unwise to draw any decided inferences from such a very limited experience. I may say, however, that the observation of these cases has undoubtedly tended to confirm the conclusion arrived at by Holmes and others, "that resection of the ankle is much more likely to succeed in those cases where the disease has a traumatic origin."

There appears to be a singular unanimity in favour of total resection, rather than the mere removal of those parts which are evidently diseased. Partial operation, except in cases of accident, should, therefore, be abandoned. It is still a question whether the whole astragalus should be removed, or whether we should be content with the removal of diseased portions only. I am strongly of opinion that, had I at first disarticulated the astragalus, and removed it at the same time as the lower extremities of the tibia and fibula, I should have very materially shortened the period of convalescence in both of my cases. Our subsequent trouble had its origin in that portion of the bone which had been left. Its loose cancellous tissue readily inflames, and the disease is consequently prolonged for a considerable period. Moreover, it is possible that the neglect of this precaution may result in an extension of the disease to the other tarsal bones, and that, eventually, the loss of the foot becomes imperative.

One objection urged against resection of the ankle may be, with equal propriety, advanced against all resections. It is said that the after-treatment is very protracted, and often extremely tedious. So it is with other excisions; and yet this does not appear to be a sufficiently weighty reason for withholding the benefit of this proceeding in diseases of other joints. This objection, therefore, cannot be seriously entertained; and, even if the operation should fail, we can at last resort to amputation; and it does not appear that the attempt to save the limb by resection in any way diminishes the patient's chances of recovery.

In excising the ankle, some adopt the plan suggested and carried out by the elder Moreau, which consists in making a longitudinal incision, beginning at the inferior and posterior part of the malleolus externus, and prolonging it upwards for three or four inches. Another incision, transverse in direction, extends from the inferior extremity of the former to the edge of the peroneus tertius tendon. A longitudinal incision on the inner side commences at the inferior and posterior part of the malleolus internus, and extends along the inner border of the tibia. Still another incision is carried from the lower extremity of the last, until the tibialis anticus tendon is reached. Next, the fibula is disengaged from tendinous ligaments, and everything by which, at its inferior extremity, it is held in situation. The handle of the scalpel is passed under it, and its division above the ankle accomplished with a chisel. Everything that adheres to the tibia is then separated from it, and the handle of a scalpel is passed between the posterior surface of the bone and the tendinous and other structures in relation with it; a saw is introduced between the soft parts in front and the tibia, and the latter sawn from before backwards. This being done, the foot is turned outwards, and the pieces of bone just cut off detached from the tarsus without difficulty. The astragalus being diseased, the whole upper articulating surface is removed, also the greater part of the body, till sound bone is reached.

The incisions by which I resect the ankle differ slightly from those recommended by Moreau. A curved incision, three to four inches in extent, is made along the posterior border of the external malleolus and the outer border of the foot. From the middle of this, which corresponds with the tip of the external malleolus, another incision is carried forwards as far as the tendon of the peroneus tertius. On the inner aspect of the joint a somewhat shorter, but similarly curved incision, is made along the posterior margin of the internal malleolus and the inner border of the foot. If necessary, from the centre of this an incision extends forwards to the inner edge of the tibialis anticus tendon. The external malleolus is now cleared, and about an inch of it removed. Afterwards, the parts in relation with the internal malleolus are to be carefully detached, and the lower ends of the tibia and fibula are divided with a saw while *in situ*. Lastly, the upper surface of the astragalus is removed, or,

preferably, the whole bone is dislodged. No tendons need be severed, and no vessels of any size have to be secured.

These incisions will undoubtedly answer every purpose. They enable the operator to make a careful examination of the interior of the articulation; are sufficiently extensive to allow the removal of diseased structures without any difficulty; and they offer no obstacles to the subsequent fixation of the limb—a point of very great importance.

It is important to note that some difficulty may attend the drainage of the cavity which is left; it lacks a dependent angle through which the drain-tube might be drawn. In order to obviate the trouble which the retention of secretions would obviously tend to produce, it will be necessary to make a separate opening for drainage, either on the inner or that outer side, and between the malleolus and the tendo Achillis.

In any future resection of the ankle, I intend, if practicable, to fix the limb in an immovable apparatus immediately the operation is completed, and while the patient is still under the influence of the anæsthetic.

A considerable experience in the treatment of compound fractures by plaster-of-Paris bandages has convinced me that the above plan is preferable to the adoption of any splint, however cleverly designed. I had hoped to be able to report favourably of Esmarch's splint, or a modification of it which I had constructed; but all the trials have ended in disappointment. The various splints which have been tried allow too free motion of the foot, and this not only interferes very much with the comfort of the patient, but tends seriously to retard the healing process.

Before bringing these remarks to a close, I wish to express a hope that those who have hitherto regarded resection of the ankle with feelings of antagonism, will be induced to give the operation a trial before condemning it as an improper proceeding.

INCISION IN ARTHRITIS.

Read in the Section of Surgery.

By F. RICHARDSON CROSS, M.B.,
Surgeon to the Royal Infirmary, Bristol.

SCARCELY more than thirty years ago, surgeons seemed absolutely powerless in the treatment of joint-disease. If rest failed to cure the inflammation, and serious symptoms came, from whatever direction, amputation of the limb was their only resource. In acute suppuration, they were afraid to apply ordinary rules of surgery; for the incision, which relieved the patient of immediate danger from tension and inflammatory fever, admitted the dreaded air into the joint, and left him sinking from suppuration and hectic. The chronic cases also gradually passed on to destruction of the joint, with abscess and the formation of sinuses; and the health of the patient became gradually exhausted, unless the diseased joint, with its limb, were removed by amputation.

In 1851, Mr. Gay insisted on the necessity of cutting freely into inflamed joints; in order to allow the pus, with bony and cartilaginous *débris*, to escape; and to relieve the tension in acute cases, where destruction of the joint threatened, but had not yet occurred. He also advocated incision for the relief of pain.

Shortly before the appearance of Mr. Gay's paper, Fergusson had excised the knee-joint; and, though death from septic poisoning occurred on the ninth day, from this time incision and excision more and more replaced amputation in the treatment of arthritis.

Excision was a great advance on amputation. The affected joint was lost entirely; but the patient retained the rest of his limb; the diseased organ only was taken away; but no cure was made. The treatment by incision attempted much more; it aimed at the cure of the joint, not its extirpation.

The pathology of joint-disease had been carefully studied and described by Sir Benjamin Brodie; and an important paper on "White Swelling" was published in 1835 by M. Richet. Synovitic and bone disease were separately described, as well as the usual progress to general joint-disease from either source. Injuries in strumous patients were said frequently to be followed by osteitis, which tended to pass on through hyperæmia to hæmorrhage and abscess, and ultimately to caries and necrosis. The termination of synovitis in rheumatism, by pseudo-membranous formation and adhesion, was contrasted with the tendency in scrofula to the formation of fungous material and abscess. The tendency of bone and synovial disease in syphilis was described; and it was pointed out how, in a white swelling, only part of the joint was mainly affected. Such knowledge was applied by Sédillot of Strasburg, who, in 1860, published some cases where he had saved joints by scooping out the diseased portions instead of resecting the whole.

For about twenty-five years, joint-disease has been met by amputation, excision, incision, and gouging or chemical treatment of the affected parts; but the modes last mentioned have never become very popular. Excision and amputation have been much more frequently adopted than any more conservative operation. Incision was still dreaded, even in acute suppuration, and rarely used for the chronic abscess of white swelling. As in the case of psoas abscess, the admission of air was followed by rapid failure in the health of the patient; and means were rather used to prevent the discharge of the matter, than to induce it.

The risk to the patient from surgical fever was greater after a partial operation, where many of the tissues were lacerated, and where much material, lowered in vitality, if not actually diseased, was left in a cavity imperfectly drained, than after excision, where cleanly cut surfaces were put in good position, and all highly putrescible remnants of the former disease were taken away. Hence excision was more often resorted to than incision and gouging.

Again, excision usually required a longer period for healing than amputation done for the same circumstances, and the risk to the patient was undoubtedly prolonged; and this particularly as regards operations for diseased knee, wrist, and ankle, in which many surgeons, at the present, would recommend amputation rather than any more conservative operation.

While individual surgeons were learning, by experience, some methods of treatment under which the disastrous results of wounds (and especially those of joints) should be diminished, Professor Lister, applying Pasteur's views to the living tissues, has built up his theory of septic fermentation; and, by his system of antiseptic treatment from the moment of the infliction of the wound, has virtually abolished the risks which patients formerly ran from surgical fever after the performance of any operation.

I consider that clinical experience abundantly supports Professor Lister's views; and that we may do any kind of operation upon a joint without considering the risk of surgical blood-poisoning. Under some circumstances, where surgeons formerly did right not to interfere, as in some cases of chronic abscess, we are now wrong in withholding antiseptic operation; and excision of joints is certainly put in a much stronger position as compared with amputation; while the relief of tension by puncture, in acute inflammation of bones or joints, is absolutely demanded.

It is well worth while for a patient to wait some extra time to save a joint; but, in hospital practice, the time for waiting must come to an end, and I fear my statistics tend to show the futility of hoping, after *pronounced disease of the joint* has set in, to get a successful termination short of excision.

In the elbow-joint, any operation short of excision results in ankylosis, for which excision will be eventually required. In this joint, if I find it necessary to operate at all, and the mischief be not distinctly extra-articular, I shall, in future, excise at once.

In the hip and shoulder, amputation is rarely admissible, and excision gives good results. In the hip, probably, my cases show more unfavourably than they should do for waiting or partial operation. I think disease of the astragalus will usually require amputation of the ankle.

For injury, and in healthy subjects, partial operations would, of course, be comparatively favourable. In the knee-joint only, partial operations for disease seem to be followed by a good result.

For the last five years, I have treated my joint-cases requiring an operation by methods short of excision and amputation, and the same practice has been much in vogue among my colleagues; but, in the cases of *thorough disease*, the results have been very disappointing.

In private practice, a diseased joint is early diagnosed, at once rested, and continuously watched, and cure, perhaps with ankylosis, is almost certain.

Poor patients, if sent sufficiently early into hospital, are improved by rest, but are generally discharged before they are well, and return later, with the disease far gone, with abscess or discharging sinuses. These cases almost all require an operation for their relief. I have notes of 117 cases; 60 under my own care, a few early ones cured by rest; and 57 cases of my colleagues; in all which some operation had been done. Half in each set were diseases of the knee-joint.

A bloodless operation under anæsthesia allows thorough exploration of a joint, and the removal of such portions of it as may alone seem implicated in the disease.

It seems specially important not to allow an abscess connected with granulo-fungous disease of a joint to burst through the skin, and thus to become septic, together with the fungous granulation-tissue already tending to suppurate. The aspirator might be used to prevent this; but I prefer to incise any abscess, and fully explore it with the finger, in search for caries, sequestra, or any form of diseased joint.

All the cases in which *no definite arthritis was discovered, though some appeared to be connected with diseased joint*, seem to have been cured by this method of incision; but, where there was *definite joint-disease*—excepting at the knee—no treatment short of excision or amputation seemed of benefit.

All the cases of purulent synovitis fully recovered with antiseptic incision and drainage; among them, one of a knee suppurating in the sixth week of acute pyæmia, and one of purulent arthritis, after scarlet fever, in a knee and both elbows, in one of which epiphyses could be felt loose. Subcutaneous puncture relieved pain, and probably also opened a nidus of inflammation early, and away from the joint.

I now make some comments on cases of individual joints.

Shoulder-joint.—There were four cases, all with granulo-fungous disease and abscess. In three, the main disease lay in the head of the humerus, and the abscess pointed anteriorly. One of these underwent primary excision; the other two required excision after incision and gouging had been tried. The fourth case recovered after incision; the disease was on the posterior edge of the glenoid cavity, and the abscess pointed behind. This joint, however, became ankylosed.

Elbow-joint.—There were sixteen cases of excision. Two were cases of abscess contiguous to, but probably not in, the joint; they recovered completely after incision. In a case of suppuration in a knee and both elbows, one containing loose epiphyses, following scarlet fever in a child two years old, movable joints were left after incision. Eleven cases of granulo-fungous disease were treated by incision, gouging, and scraping of various kinds suitable for each; all resulted in ankylosis. In a case of old fracture of the coronoid process, with dislocation backwards, I dissected out the coronoid process through an incision on the inside of the elbow. There was no distinct ankylosis; but I got no further movement during the operation. Healing followed by first intention. Later, I excised the lower end of the humerus freely, and the olecranon, leaving the radio-ulnar joint, with a good result. It seems best at the elbow-joint, except in cases of uncomplicated suppuration or necrosis, to excise at once.

Wrist.—In the wrist, if rest and extension do not effect a cure, excision or amputation seem demanded. Of six cases, four were amputated after treatment by incision had failed. In two cases, I removed with success the lower end of the radius and ulna for disease in the radius, leaving the carpus, with a good result. Excision of the wrist seems not to be a dangerous operation, and should probably usually be tried before amputation is resorted to.

Tarsus.—Of twelve cases of diseased tarsus, one, affecting the cuboid bone only, improved under gouging. Two cases of abscess, probably intra-articular, at the malleoli, recovered by incision. In nine cases, the astragalus was diseased. Incision cured one where abscess had pointed below the head of the bone. Eight required amputation after partial operations had failed. Six of these showed disease of the ankle proper; two of the posterior astragalo-calcaneal joint.

Some cases of diseased os calcis have done well by scraping out caries or sequestra. But in one, I got no result till the whole bone was excised.

Hip-Joint.—There were twenty-one cases. Four out of fifteen under my own care were cured by rest. Eleven had abscess or sinus; these were incised or scraped. Only two recovered under this plan; and, in these, the abscess was probably extra-articular. Of six that came to operation under my colleagues, one only was apparently improved by boring the head of the femur through the trochanter. Three cases of abscess came to excision. Partial operation did no good in two other cases (one with abscess, one with sinus). These cases seem to show the futility of any operation short of excision for morbus coxæ.

If abscess form, it must not be let open itself, to become septic. If examination with the finger after incision in the abscess-sac demonstrate *distinct disease in the joint*, I should now agree with Mr. Croft to excise at once. If nothing but abscess be detected, the patient will probably recover. If the mischief be only slight, a further limited period of rest should be tried. The comparative results of rest and early excision, as published by the Clinical Society, gave the following figures. Of 260 cases of suppurating hip-joint treated without excision, 33 per cent. died. Of Mr. Croft's cases of excision, 40 per cent. died. Of Sayre's 71 cases of excision, 73 per cent reached a successful termination. If the patient's health be failing, I should hope nothing from partial operation, but should excise at once. Synovial disease gives better prognosis, than where caries of bone exists. Necrosis of the head of the femur requires excision.

Knee.— In diseases of the knee, I prefer only to take the twenty-eight cases of which I have notes under my own care. Here partial operation seems indicated, especially in chronic cases and in adults. Four were cases of *synovitis*, all in adults, and due to injury. One case resisted all kinds of treatment, among them aspiration and elastic bandage, for nearly a year, when the patient completely recovered under the use of a drachm and a half of iodide of potassium daily. I had treated him for syphilis some months before the accident, and smaller doses of iodide of potassium had completely failed. Another got a stiff knee, but was cured by forcible movement. Three cases of *purulent arthritis* recovered, with movable joints, under incision and drainage. Two other cases of *acute suppurative arthritis, complicated with other disease*, did well under incision. A child was suffering from white swelling and psoas abscess. A man had suffered from rheumatics in the knee for three years; suddenly he was unable to stand. Two days afterwards he had much fever, and on the sixth day I opened the joint, which was full of pus. On the inner side, both of the tibia and of the femur, there was a raised cartilaginous ridge. The anterior part of this on the femur was very prominent, and I removed it with a gouge. It proved to be cartilage with a bony centre, and, *broken* off, would have made a loose body nearly as large as a bean. In two months he could walk about, the leg still stiff and painful. There was another interesting case. A young man struck his knee. He had all the symptoms and signs of pus in the knee. The patella was floating. Aspiration emptied a sac of pus on the outside of the joint. Incision and examination with the finger showed one on the inside to be extra-articular; much sympathetic synovitis was present.

The other eighteen cases were of *granulo-fungous disease*. Of two I have no notes as to position. In sixteen the main disease was distinctly localised; one mainly in the synovial membrane above the patella; five in the head of the tibia; five in the joint inside the patella, and between the tibia and femur; three in the inner condyle; and two outside the patella. The case where the disease was mainly in the synovial membrane was fired; a month later he had several small abscesses threatening to burst. I incised and scraped them all with a good result. Three cases were amputated. One was very instructive. A number of sinuses, connected with a knee ankylosed at an angle, when laid open and examined, led nowhere definitely. In sawing the femur, I opened an abscess in the shaft of this bone, and another was found in the head of the tibia. Excision would not have dealt with the upper of these, but, if diagnosed, it might have been trephined. The other two were sent to be amputated, and the patients wished it done. In two cases I did excision for ankylosis in bad position. Twelve knees were incised, some also gouged and drained. One man had disease of five years' standing, and came for excision. I treated an abscess on the inner side of the joint, and cured him of pain and lameness. His knee was already ankylosed. One patient, aged sixteen, had a stiff swollen knee of five months' duration, with pain and tenderness over the patella. Incision and drain into the internal condyle, where there was an abscess, cured him in a month. He had experienced pain on the inner side of the knee for three years. In a young man, I mistook slight chronic white swelling for rheumatic ankylosis, and in bending the knee broke the femur. Five months afterwards he complained of pain on the inner side of the patella deep in the joint. I cut into a small abscess that lay here. Shortly afterwards, by his own wish, I simply cut into the outside of his joint, and rid him of neuralgia, which, I suppose, was due to some small local tension.

I lately showed at the Bath and Bristol Branch a boy with almost perfect movement of the knee, and with no definite anatomical abnormity, from whom, in 1879, I had removed the greater part of the inner condyle, the inner tuberosity, and the inner fibro-cartilage, for strumous disease of this side of his joint.

M. GOSSELIN makes a further communication to the Académie des Sciences on the action of antiseptics on wounds. He believes they intervene to produce coagulation of the blood, and that they reduce the local temperature, always increased where there is inflammation.

PRACTICAL REMARKS RELATIVE TO THE SUBJECT OF STRANGULATED HERNIA.

Read in the Section of Surgery.

BY J. WALTON BROWNE, M.D.,
Surgeon to the Royal Hospital, Belfast.

To gentlemen engaged in surgical practice, cases of strangulated hernia are of frequent occurrence, and occasionally give rise to much trouble and annoyance; hence it is that I thought it would be interesting to the members of the Surgical Section were I to read a few practical remarks relative to the subject of strangulated hernia, based upon my experience of seven years of surgical work; having, in that time, operated upon forty-four cases of strangulated hernia, in hospital and private practice.

I do not for one moment consider I can impart new information regarding the important subject of strangulated hernia; but my experience, although limited, may be of some moment.

My cases included twenty inguinal, twenty femoral, two ventral, and two umbilical herniæ. Upon looking over my notes, I see that twelve cases were almost moribund before being brought under my notice; and no doubt this is a point which all practical men have observed, and have had cause to regret—the late period at which cases are sent into hospital for operation. One of my cases had been strangulated 16 days before admission, one 14 days, and one 12 days. My patients ranged in age from 8½ weeks to 84 years; and I may remark how rare it is to see a case of strangulated hernia amongst infants. My mortality has been 25 per cent. in hospital practice, and 18.3 in private practice.

It may be interesting to know that, from January 1st, 1850, until December 31st, 1882, 163 operations for strangulated hernia were performed at the Belfast Royal Hospital, with 69 deaths; which gives a mortality of a little over 42 per cent.

I seldom use the warm bath now before proceeding to taxis. In very old people, I consider it positively injurious; and certainly it can be of no service in cases of femoral hernia.

In hospital practice I like a full opiate or hypodermic injection of morphia to be given; and have the patient's bladder and rectum emptied. In about an hour, the pelvis being elevated by a pillow placed underneath the buttocks, chloroform is administered, and gentle taxis tried.

In children, in whom I have had three cases, I have tried elevation of the pelvis, by placing the child's limbs over the end of the cot. I once heard a distinguished London surgeon declare that he never found it necessary to operate for strangulated hernia in children; that he was always able to reduce the gut by taxis. My experience does not corroborate his statement. The taxis is not tried when the intestine has been several days strangulated, nor when it has been tried ineffectually by several medical men.

The symptoms being urgent, we proceed to operate. No doubt, the most urgent symptom is vomiting; and, although there may be no sickness so long as the patient remains quiet and keeps the stomach empty, the moment he moves or takes any nourishment the vomiting commences. I would recommend in all cases of hernia, where vomiting is the prominent symptom, that the rectum be thoroughly examined. Not long since, I had a case of strangulated femoral hernia. Upon examination of the rectum, we found a malignant stricture; and the question at once arose, Were the symptoms of strangulation due to the hernia or to the strictured rectum?

In operating, I like a long skin-incision; it gives you plenty of room, and lets you see what you are doing; and all your subsequent incisions should correspond in length to your skin-incision. When the strangulation is of several days' duration, I like to open the sac and see the contents; also when the symptoms of strangulation have been very acute from the first. Although the stricture is frequently external to the sac, yet the neck of the sac itself may form the stricture. Adventitious bands may remain inside; and, as length of time is not an absolute criterion as to the state of the contents of the sac, but rather the tightness with which the bowel has been caught, you cannot tell with certainty when to open the sac and when to leave it unopened. In all cases of femoral hernia, I would be inclined to open the sac, as it is in this form of hernia we frequently meet with omental sacs strangulating the bowel. A short time since, I had a case of femoral hernia. I did not open the sac; the protrusion was returned by taxis. The patient died. At the *post mortem* examination, I found a piece of intestine strangulated by an omental sac.

As regards the diagnosis of the contents of a hernial sac before operation, it is most difficult to decide. I have frequently seen mistakes made; and, in my opinion, it is almost impossible to ascertain the contents of the sac before operating. In the division of the seat of stricture, in all my cases, with the exception of one, I have used the hernia-knife introduced into practice by Dr. Patterson, of the Western Infirmary, Glasgow. In describing his knife, Dr. Patterson says it differs from Sir A. Cooper's simply in the blunt-pointed part of the knife having a quarter turn given to it, so that the flattened point passes more readily under the stricture, while its breadth flattens and pushes the gut aside as the cutting part of the blade follows. I have found Dr. Patterson's knife especially valuable in operating upon cases of femoral hernia. When the stricture is tight, the point of the instrument, being wedge-shaped, is readily introduced under the stricture, doing away with the necessity of using a director.

It has also been found useful in cases of inguinal hernia, when the stricture is deeply seated and a large mass of intestine down; it is in such cases that we fear wounding the gut. Here, by keeping the forefinger at the point of stricture, the intestines are pushed aside, and the knife can be slipped along the palmar surface of the forefinger, with the cutting edge looking directly upwards. I believe there is little risk of wounding the bowel. Contrast the difficulty of cutting a strictured point with Sir A. Cooper's knife, with a large mass of bowel protruding. Unless great care be taken, either in introducing or withdrawing the knife the gut may be injured.

A hernia-knife very similar to Dr. Patterson's was introduced into practice by the late Mr. B. Wills Richardson of Dublin.

In a few of my cases, owing to the large mass of bowel protruded, it was found difficult to reduce it by gentle taxis. I found, by enveloping the bowel in large sponges wrung out of carbolised warm water, that the bowel at once contracted or shrank up, and taxis was rendered easy.

When returning the bowel, it is pleasant to feel it glide away, no force being necessary to push it back. I think it is an injurious practice to push the forefinger into the abdominal cavity after reduction. It is quite sufficient to satisfy yourself that the canal is clear. The amount of serous fluid which escapes from the abdominal cavity after division of the stricture is remarkable. In one of my cases, the flow continued for three days, and over one and a half pints flowed away.

In seventeen of my cases, the sac was closed by catgut sutures, as recommended by Mr. Southam of Manchester. I have much confidence in the plan, as no doubt it diminishes the risks of inflammatory changes proceeding from the superficial structures to the sac. The sac, after reduction of the bowel, has been ligatured at the neck, and cut off in four cases, with good results; and the method so highly spoken of, at our meeting last year, by Mr. Banks of Liverpool, of removal of the sac, and stitching the pillars of the ring, has been used successfully in two cases; and I quite agree with the fourth conclusion arrived at by Mr. Banks in his paper, that "radical cure should form a necessary part of all operations for strangulated hernia."

The dressings after operation consisted of carbolised oil and lint, or carbolic acid and glycerine. Lately, I have used with excellent results boro-glyceride. In sixteen of my cases I used Listerism, and I believe with benefit to my patients. Immediately after the operation, the patient is put upon opium and ice-poultices, or ice-bags are placed over the abdomen.

The opium and ice are continued so long as any tenderness upon pressure or pain in the abdomen is complained of. I have great faith in the application of ice to the abdomen, where symptoms of peritonitis threaten after operations for hernia.

A practical paper, "On the Local Use of Cold in Abdominal Inflammations," by Dr. Eade of Norwich, appeared in the *Lancet*. Dr. Eade considers the *modus operandi* is to abstract heat, to benumb excited sensibility, and to contract the dilated and semi-paralysed vessels; and its especial effects have seemed to be to diminish abdominal distension, to control the volvulous writhings of the bowel, and thereby to relieve both pain and tenderness.

At the end of five days, I like to get the bowels to act, being especially anxious in elderly and fat people; as Mr. Jordan of Birmingham has shown that the cause of death after operations for hernia is frequently due to fatty change, and failure of the muscular wall of the gut. Mr. Jordan shows that, upon *post mortem* examination of some of his fatal cases of hernia, the intestinal wall was singularly and uniformly yellow, and everywhere enormously distended; and the muscular wall, when microscopically examined, was seen to have undergone fatty degeneration.

In some cases, when the patient suffered much from abdominal distension, about the third day, in addition to using turpentine-stupes, I have passed a rectal tube with much benefit. When chloroform has been the anæsthetic used, troublesome symptoms after operation are nausea and vomiting; here, I have always prescribed, with much benefit, a cup of strong tea, a practice advocated by Dr. G. H. B. Macleod of Glasgow.

At the commencement, I told you about twelve cases were almost moribund at the time of operation. You may reasonably ask me, Why operate in such cases, and thus increase your percentage of deaths? My answer is, that I have seen cases over and over again operated upon, which were deemed hopeless; nevertheless, they recovered.

Sir A. Cooper, in his *Surgical Lectures*, states that, if the pulse be so small as to be scarcely perceptible, and the countenance anxious and sunken, no time is to be lost; and, with hiccough superadded, I have seen the operation succeed; and, in the next paragraph, he adds: "Indeed, there is scarcely a period of the symptoms which should forbid the operation."

Sir James Paget, in his *Clinical Lectures*, says: "A patient must not be allowed to die with a strangulated hernia, if by any means the strangulation can be relieved; and you must not be averted from the operation by any consideration of the number of deaths that follow it." And, again, Sir James says: "I have had to operate on patients already dying. I could not refuse to operate, for I could not be certain that it would be useless."

Having the opinions of two such distinguished surgeons to guide us, I think we are justified in operating in all cases of strangulated hernia, no matter how hopeless the case may appear.

After operating for hernia, when symptoms of general peritonitis arise, and the patients go from bad to worse, I think we will soon follow the practice warmly advocated by Dr. Marion Sims and Mr. Lawson Tait, of performing abdominal section, and washing out the cavity of the abdomen, to give the patient a chance. I have had one case of ventral hernia, where the patient died from peritonitis. By opening up the wound, I saw how easy it would have been to wash out the abdominal cavity, and introduce a drainage-tube.

Time does not permit me to detail the histories of any of my cases; but I will just give shortly, in conclusion, an outline of a few instructive cases I have met with, and been called upon to taeat.

1. A strangulated inguinal hernia, in which the symptoms had lasted sixteen days, was diagnosed, before coming under notice, as orchitis.

2. During operation upon a case of strangulated inguinal hernia, the bowel was wounded, and at once sutured. All went well.

3. When returning the gut by taxis, after operation, an assistant abraded the gut of its peritoneum for upwards of two inches. The peritoneum was replaced and sutured, with a good result.

4. An umbilical hernia was diagnosed to be an anthrax, and was treated as such.

5. A case of scrotal hernia which had been strangulated for twelve days, and where the bowel became gangrenous and the scrotum discoloured, was diagnosed to be hæmatocele, and was incised.

6. Of three displaced inguinal herniæ, two were complicated with undescended testes, one was due to an improperly fitting truss.

7. A girl, aged 14, was admitted with a congenital inguinal hernia. The sac contained intestine, omentum, and the left ovary.

I have met with many other interesting cases, but I think these are sufficient.

Mr. JORDAN LLOYD (Birmingham) believed that the high mortality after operations for strangulated hernia was due to the delay attending tentative measures (hot bath, ice-bags, opium, etc.). He had adopted the rule, in every case of strangulated hernia, immediately to give an anæsthetic, and to try moderate taxis, and, failing this, to operate at once. In recent cases, the extraperitoneal operation would be nearly always practicable. In four cases, he had performed an operation for radical cure, by removal of the sac and by suture of the abdominal rings. Three of these cases had made perfect recoveries, and in the fourth, death occurred on the twelfth day from hypostatic pneumonia. In this case, owing to intestinal adhesions, he was forced to split up the inguinal canal and lay open the abdominal cavity beyond for nearly two inches.

Mr. MARTIN COATES (Salisbury) endorsed Mr. Jordan Lloyd's insistence upon the necessity of immediately operating on cases of strangulated hernia, when the taxis under an anæsthetic had not succeeded. He had proposed it in a work on the safe administration of chloroform, in 1858, in almost the exact words used by Mr. Jordan Lloyd, and he now emphatically repeated his opinion.

Mr. MATTHEW HILL (Bootle) related the particulars of a rare case in which the obstruction existed high up in the intestines, masked by an irreducible scrotal hernia with all the symptoms of strangulation. There was a history of three weeks' constipation, and other appearances led to the surmise that the condition was not simply one of strangulated hernia; but, as the gut could not be fully reduced, even under chloroform, the ordinary operation was performed, including opening the sac, but no stricture found in this position. The finger penetrated freely into the cavity of the abdomen. The gut was empty; and the cause of its irreducibility was due to considerable serous effusion in the sac. Abdominal section was afterwards considered, and abandoned, as there was reason to believe that the stricture was about the ileo-cæcal valve. The patient complained of much pain when an interrupted galvanic current passed over the seat of the valve. He was still alive more than a fortnight after the operation. The particular points of interest were: the co-existence of a stricture high up the bowel, complicated, and apparently due to strangulated scrotal hernia; and the value of the galvanic current as a means of aiding diagnosis as to the seat of obstruction.

Mr. DARBY (Bray) never met a case of acute strangulated hernia which did not become gangrenous before a week had elapsed. He had not for many years divided the stricture, in accordance with the principle adopted in cases which he brought before the meeting of the Association at Oxford in 1868.

A PLEA FOR OPERATIVE MEASURES FOR THE RELIEF AND CURE OF HERNIA.

Read in the Section of Surgery.

BY JOSEPH H. WARREN, A.M., M.D.,

Member of the Judicial Council of the American Medical Association; Member of the British Medical Association; Member of the Massachusetts Medical Society; Honorary Member of the Vermont State Medical Society, etc.

THE history of the last decade of medical and surgical art is everywhere pregnant with new ideas. Notable advance has been made in nearly every branch of abdominal surgery; for, although the operations of gastrotomy, gastrostomy, laparotomy, enterotomy, colotomy, nephrotomy, and lithotomy, are not new in surgical annals, yet so much has been lately done to perfect these procedures, that they are now scarcely to be recognised as the same operations that we used to know. I say nothing of lithotrity, because the operation does not involve abdominal section; and yet it comes so nearly within the circle of abdominal surgery, that not to mention it is to neglect that branch of surgery in which we can note the most advance.

None of these operations, however, are for the relief of an affection more distressing or more dangerous than a hernia; and yet the present age has not been active as it ought in devising means for the relief and cure of this complaint. The danger, pain, and mortality from hernia in all ages and sexes, conditions, and walks of life, have far exceeded those from stone in the bladder; and yet mark the difference in the advance of operative procedures! While various operations have been proposed for the relief of hernia, little was accomplished up to Sir Astley Cooper's time that was really tangible and acceptable.

Moreover, as soon as a truss was found that would retain the rupture, it would seem that the profession gave their tacit consent to be directed in their efforts by the instrument-makers. This was practically the condition of affairs, until Mr. John Wood proposed an operation, now honoured by his name, although at first very coldly received by the profession; and it was many years before other surgeons thought it worthy of their imitation, although it had been a very successful procedure in Mr. Wood's hands, as he informed me in 1880. May honour be given to him for his patience and persistency, in waiting and working until the profession would give him hearing and recognition in his operation!

Besides Wood, we might mention the names of Pancoast and Dowell; but their many trials to gain a hearing before the profession were likewise unheeded, and their many successful operations upon hernia have been well nigh forgotten. Agnew, too, after attempting a modification of an old European operation with a complicated instrument, seems to have abandoned hopes of its success; and, unless he be incorrectly reported, he is said to be unable to see any need of any operation so long as a truss can be procured to sustain

the rupture. In the great body of the profession, however, there has been, within the last two or three years, a renewed activity to discover some remedial means which shall succeed in permanently restoring the ruptured parts to their normal condition. At present, too, the prospect of success in this search seems to be more encouraging, more particularly because the profession is losing its distrust in the suggestions that are made, and are more inclined than in former years to give respectful hearing to the claims of new procedures.

Indeed, when we consider the danger there always is that a hernia, once formed, will become strangulated, with possibly fatal results, I feel that we are warranted in assuming considerable risk, if need be, to afford some relief to the sufferer; and I believe, with many others of the profession, that the time is not far distant when it will be considered that one who does not operate in some way for such cases has neglected his bounden duty to his patients, and must be held accountable therefor. "If, as a body of surgeons," said Dr. J. Freeman Bumstead once to me, "we would only stop to consider how we should feel if we were obliged to wear a support or truss all our days, with the constant danger of fatality before us, we would be the very first to cry for some means of operative relief."

In by far the greater majority of cases of hernia, the method of subcutaneous injection affords complete and permanent relief; but, occasionally, we meet with large congenital and irritable herniæ, that can neither be retained by a truss nor completely cured by injections, unless frequently repeated. And yet something must be done for their relief. Feeling, therefore, the responsibility that rests upon the profession, I take this opportunity to suggest a new method of procedure that promises most favourable results. Although somewhat similar to one proposed by Mr. Banks of Liverpool, yet, in some features, it differs materially and essentially from any that I have seen reported.

My method is as follows. An incision is first made much the same as in the operation of kelotomy, except that it is longer. The superficial integuments are now retracted, and the rings exposed to view. The intestines being fully returned within the abdominal cavity, the old protruding sac is excised by the galvano-cautery to a level with the pillars of the ring. The edges of this sac are now seized with serrated forceps in the hands of an assistant, care being taken not to bruise the edges. The operator now, with animal ligatures that have been thoroughly carbolised in oil, draws the two edges of this sac together by a continuous suture, leaving the ligatures long at both ends. The assistant holds the sac by these ligatures, instead of by the forceps, while the surgeon thoroughly freshens the pillars of the rings with the red-hot cautery. The pillars are next brought together, and the sac allowed to lie just beneath but in contact with them.

A needle armed with silver wire is now passed deeply through the columns of the ring, and at the same time through the edges of the sac that are excised. This operation is repeated until sufficient sutures have been put in to draw the pillars well together. These sutures are then tightened either by twisting or by tying. The latter is the method that I prefer, because I can better judge the amount of tension, and am not so likely to produce a strangulation of the tissues. The ends of the carbolised ligatures are now cut off; the silver wire is smoothed down so as not to cause irritation, and the external integuments are stitched together with silver wire or silk. All that is needed to complete the operation is a compress of cotton, treated with either thymol, boracic acid, or carbolic acid; and the application of a common spica bandage.

The distinguishing features of this operation are the excision of the sac by the galvano-cautery, the freshening of the edges of the rings by the same instrument, and the stitching of the sac and pillars of the rings together. By means of this freshening of the rings with the cautery, and the union of the sac to the pillars, an abundant exudation of plastic material is thrown out, and a great increase in the strength and consolidation of the new tissue is produced, so that the results of the operation are rendered very permanent. The following case will illustrate the success attending this method of procedure.

On June 25th, 1883, with the assistance of my son, Dr. C. Everett Warren, and of Dr. Wm. F. Temple, I operated as above described upon Mr. I. W., aged 40, builder, who had been ruptured about one year and a half with an enormous oblique inguinal hernia that distended the scrotum to an immense size. The intestines could not be retained with the largest sized pad on any truss. After cutting down and exposing the rings well, I passed the electrode around the parts at a red heat; and, completely denuding the fascia from the pillars, I then brought the rings together with eight good sized silver sutures, finally closing the rings in a similar manner as Mr. Banks reported last year at the meeting of this Association. The external tissues were replaced, and secured with six carbolised silk sutures. A few strips of adhesive plaster, a compress of absorbent cotton, and a spica bandage, completed the dressing. But little suppuration followed. In the upper portion, however, of the incision, for half an inch or so, it suppurated pretty freely for seven or eight days, and a small drainage-tube was inserted. The parts were entirely healed at the expiration of twelve days, and the hernia is completely controlled and retained within the abdominal cavity. He goes about with the parts supported with a spica bandage and compress. He seems and feels sound, and cured of his distressing affection.

I have made use of this method and used the galvano-cautery in three cases, all giving the most perfect results and satisfaction; and I trust that, upon further trial, this method of operating on old and very large ruptures will prove of real efficiency in curing and relieving many cases of rupture in the future. From my very limited experience, but very satisfactory results, however, with this mode of operating, I am led to highly recommend it to your most favourable consideration in all cases that should receive some operative measure. I would most highly recommend its being adopted in all cases when herniotomy has to be resorted to in case of strangulated hernia.

With the little danger attending, as now understood, in surgical proceedings, and particularly that of abdominal section, are we not warranted in our plea for something more to be done by operative measures for the ruptured? I for one feel anxious that more of the better class of the profession should take hold of this very important branch of neglected surgery, in the past at least; and those engaged in large hospital and private practice, I hope, will turn their vast and best experiences and resources to accomplishing rich results in relieving the ruptured, as they have in perfecting other operations. Should this paper by any means be a stimulant in calling attention to this subject, and arousing greater efforts in behalf of this matter under consideration, I shall feel that I have not made this plea in vain. And may we not see in the text-books on surgery of the near future something more than the same old dull and unimportant recommendations of a truss to retain a rupture that persists in protruding? With this imperfect appliance, in many cases strangulation occurs, and, if this be not relieved in season by taxis or herniotomy, death is the result. These recommendations, and nothing more, have helped to fill out the pages of every work on surgery, with a few commendable exceptions, for a thousand years or more; so that, if we read any of the old well-known authors, we shall get almost all the essentials, at least of a greater portion, of what the most modern authors have to say. We will be surprised how very little has been added by the recent writers on this subject.

It is very strange, indeed, to see how many decry and ridicule anything being done in the way of relieving and curing the ruptured by any operative measure beyond the wearing of a truss; and for this, even not one in ten of the writers or practising medical gentlemen of to-day knows how to fit a truss properly. They are not taught it in any of the hospitals or medical colleges; but, with few exceptions, all refer their patients with rupture to the tender mercies of the tradesman or mechanical instrument-maker. Of this most important duty, should we not, as a profession at large, be ashamed of so glaring a neglect? I have no doubt others besides myself have seen patients, who have been fitted by these men, wearing trusses in a most ridiculous and laughable manner; which trusses were, in reality, a cause of hernial protrusion of greater size than was the rupture in the beginning. I have repeatedly been informed, by many a patient, that the rupture was small at first, but rapidly grew larger after the application of a truss improperly fitted. Would any surgeon think of allowing the same class of men to fit a splint to a broken limb? And yet how much more important is a well-fitting truss to the comfort, safety, and life of our patients with rupture, than the dangers of an imperfect splint for a fracture.

THE inspection of the Tower Hamlets Rifle Brigade Ambulance Company will take place at the head-quarters, 112A, Shaftesbury Street, Hoxton, on Saturday, the 10th instant, at 6 P.M.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.—The total number of new entries for the present session is sixty-eight. Of these twenty-five are full students, and forty-three are partial students, who have entered for the purpose of obtaining the degree of the university.

OPERATIONS FOR THE RADICAL CURE OF HERNIA IN CHILDHOOD.

Read in the Section of Diseases of Children.

By R. N. PUGHE, M.B., B.S.Lond., F.R.C.S.Eng.,
Assistant Surgeon to the Infirmary for Children, Liverpool.

THE object of my short communication is to inquire into the advisability of undertaking operative measures with a view of curing congenital or acquired hernia in childhood, as a purely prophylactic measure, thereby removing the deformity and obviating the dangers to life consequent upon its existence. Judging from the results of cases recently published by Mr. Banks, Mr. Rushton Parker, and others, I take it to be every surgeon's duty, in operating for strangulated hernia, to complete the herniotomy by ligaturing the sac as high up as possible, cutting through it below the ligature, and removing it or not according to circumstances. Strangulated hernia is but rarely met with in infancy; therefore we may look at the question here from a purely prophylactic point of view. In infancy, practically, the only cases of hernia with which we have to deal are the umbilical and inguinal forms. The former is so generally cured in children by well-regulated pressure by means of an air or other suitable pad, that operative treatment is seldom necessary; therefore the following observations may be considered to apply to the latter form alone.

Considering the number of deaths which annually take place from strangulated hernia, if any operation can be practised which can be performed with but slight risk to life, and which will be followed by a complete cure of the deformity, we ought certainly to undertake it as a prophylactic measure. I look upon the operation to be described as, in suitable cases, not only justifiable, but one which it is our imperative duty to perform; for, in these cases, we operate not only with a view of curing a deformity which is unsightly and productive of discomfort to the sufferer, but one which, by becoming strangulated, may at any moment seriously endanger life. Reducible hernia is generally treated by means of a truss, and the application of a well-fitting truss is perfectly effectual as a palliative measure, and, in a very small number of cases, even effects a cure, the irritation of the constant pressure causing the agglutination of the inner surfaces of the sac, and thus preventing the descent of the hernia.

In childhood, especially in infancy, the truss has frequently to be changed, owing to the growth of the child and to the fact that ordinary trusses are frequently spoiled by the child's urine; so that, in the poorer classes especially, either from carelessness or from the inability to meet the expense of providing new trusses, the truss, even when worn, is frequently of no use.

Some cases of hernia are only partially controllable by a truss; and, on the other hand, we meet cases, mostly large congenital herniæ, which cannot be kept up by any form of truss. These are certainly cases which imperatively call for operation. However, I would not limit the operation to this class of cases; for, however well-fitting or effectual a truss may be, strangulation may, and frequently does, take place when the truss, from any cause, is temporarily not worn; or, in spite of it, through sudden great exertion. A hernia is hardly likely to be cured by a truss in a child after he has attained two years; I would therefore consider any hernia of a considerable size in a child over that age as suitable for operation. The precise operation to be undertaken, or the advisability of choosing different operations under different circumstances, is still more or less a moot point. My own feeling is strongly in favour of the operation which consists in cutting down on the neck of the sac, with antiseptic precautions, and tying it as high up as possible at the inner ring.

Operations for the complete cure of hernia may be divided into two classes: (1) the subcutaneous, and (2) the open method.

In the subcutaneous methods the cure, when effected, is produced by one or more of the following processes; 1. Invagination of the sac and all, or most, of its coverings, and the production of sufficient adhesive inflammation to fix them in their new position, and thus forming a plug, and obliterating the canal; 2. Approximation of the structures external to the sac proper, as the pillars of the ring or tendinous parts around the opening; 3. Agglutination of the inner surfaces of the sac by inflammatory action, especially at its upper part.

I briefly mention these operations, which are known by their authors' names. In Wutzer's operation, the plan of treatment consists in introducing a plug of the scrotum into the inguinal canal, and fixing it there by exciting adhesive inflammation in the neck of the sac.

Professor Wood's operation acts partly by invaginating the subcutaneous coverings of the cord, and also by the approximation of the tendinous structures forming the boundaries of the canal by means of a subcutaneous wire suture through a small incision in the skin over the scrotum.

The method of Mr. Spanton of Hanley consists in approximating the sides of the inguinal canal and the walls of the sac by means of a corkscrew-like instrument, which is introduced through a puncture in the skin from above downwards, and thus bringing the parts together, and producing sufficient adhesive inflammation to obliterate the sac. Mr. Spanton has been almost uniformly successful in his cases; and Mr. Banks, in his paper recently published in the BRITISH MEDICAL JOURNAL, strongly recommends Mr. Spanton's as the operation to be performed in childhood. It undoubtedly is by far the most satisfactory and practical of the subcutaneous methods, and, in the hands of its author, has been extremely successful, but I question whether it would be equally so in other hands. Wutzer's operation has fallen into disuse altogether, and is hardly likely to be revived. Professor Wood's operation too frequently fails in its object. All these operations are applicable only to inguinal hernia.

The Open Method.—This consists of the usual operation of herniotomy, with ligature of the sac at the innermost point of the neck—*i. e.*, at the internal ring. An incision is made, beginning a little above the internal ring and in the direction of the hernial protrusion for about three inches. The coverings of the hernia are successively cut through till the sac, which is kept distended by the hernia, is reached. The sac is then separated from the cord, and freed from the surrounding structures as high up as possible. A ligature of stout catgut, treated with chromic acid, is passed round the sac by means of a blunt aneurysm-needle; and, while the sac is well drawn downwards, its contents having been reduced, the ligature is firmly tied once or twice as high up as possible, and cut off short. Though I have not, in most of my cases, cut the sac below the ligature, still I think it advisable to do so, as the occlusion is more likely to be complete, and the part above the ligature slips easily into the iliac fossa. I have never followed Nussbaum's recommendation in removing the whole sac, as, having vital connections with the surrounding parts, it will not slough; and in congenital cases it is so intimately connected with the testicle, that it cannot be removed without excising that organ. It is, however, very important that it should be thoroughly drained; otherwise much swelling, and perhaps suppuration, will take place. I prefer a tube or horsehair-drain, passed into the sac through the upper part of the incision, and through a counter-opening in the lower part of the scrotum behind If the sac be not cut through, it should be opened below the ligature, and drained in the same way. I do not consider it necessary to bring the pillars of the ring together in all cases; I have only done so where the opening was very large and lax, and the pillars of the ring remained widely separated. In other cases, it is unnecessary, except as a matter of precaution; because, as Mr. Rushton Parker remarks in his essay, when the sac is tied—the hernia thus prevented from coming down—the pillars fall together easily, and remain as tightly as could be wished. A strong curved and handled needle, with the eye at the point, and carrying a chromic catgut ligature, is passed through the external pillar of the ring below and behind, and through Gimbernat's ligament and the conjoined tendon. It is then tied firmly, and cut short. Mr. Banks recommends a silver ligature, which is left covered in. Still I think the catgut ligature will answer the purpose equally well. The lips of the wound are lastly brought together by silver sutures. Strict antiseptic precautions are maintained all through, the spray being used during the operation, and gauze dressings afterwards.

As a rule, the cord can easily be separated from the sac; but, in congenital hernia, it sometimes happens that the cord is so intimately connected with the sac, and perhaps runs through the sac, that it must be included in the ligature. In two cases, I was unable to follow the cord up from the testicle. In cases of undescended or imperfectly descended testicle, the cord and hernial sac may be tied together and the testicle removed, as the testicle, being often undeveloped, is hardly worth preserving.

In conclusion, gentlemen, I must say that the evidence seems to me strongly in favour of the open method, which, especially if undertaken with thorough antiseptic precautions, is almost devoid of danger, or even unpleasant symptoms. I believe that the chief cause of failure in the subcutaneous method is that, by these means, we cannot be perfectly certain of obliterating the sac at its very

offset from the main peritoneal cavity. There is no more risk in cutting down upon the sac antiseptically, and tying it at the desired spot, thus with certainty causing obliteration of the sac, and in preventing the hernia from coming down, than there is in attempting to gain the same object by subcutaneous, and therefore more uncertain methods.

The all-important point undoubtedly is, to firmly and securely ligature the sac at the inner ring, *i.e.*, at the part where it becomes continuous with the general cavity of the peritoneum, so as to make the peritoneal surface perfectly level over the internal opening into the canal. The depression over the internal ring is thus obliterated; and, by preventing the hernia from descending into the sac, and dilating the canal after the manner that the bag of membranes acts on the os uteri, the evil is cut off at its very root, as it were; and the tendency towards a re-formation of the hernia is entirely done away with. One great advantage of this operation is, that it is applicable to every form of hernia.

Ligature of the pillars of the ring, I consider to be quite a secondary matter, and only necessary in extreme cases; though perhaps, as a matter of precaution, it might be practised in all cases. The only case on which I have operated, in which relapse has taken place, was a moderately large hernia, in which I did not bring the pillars of the ring together. Perhaps, however, failure was due to the fact that the sac was not tied sufficiently high up. In none of my cases has a truss been used subsequent to the operation.

Most of my cases are of too recent a date to afford evidence of the permanent success of the operation. I show you to-day three or four of my first cases, which were very large herniæ, including the one of relapse. You will also see cases operated upon by Dr. Rawdon in a similar manner.

In my first two cases, I did not open the sac and drain. Considerable swelling occurred, and some suppuration took place, and, though one child was very ill for two days, with symptoms of carbolic poisoning, speedy recovery took place in both. In the second case, relapse occurred three months after the operation. I did not ligature the pillars in this case.

In the third case, the wound healed almost by first intention. There was no constitutional disturbance.

One case I operated on without the spray and gauze-dressings, or other antiseptic measures. The suppuration was so considerable, and the constitutional symptoms so severe, that I would not feel inclined to operate again without antiseptics.

Mr. W. D. SPANTON (Hanley) fully agreed with the views expressed by Mr. Pughe as to the desirability, and, indeed, the necessity, for some operation in children with large uncontrollable herniæ, in many of whom a truss was of no use, and whose lives became a misery to themselves and a nuisance to everyone about them. It was rather a question of individual experience as to which operation should be preferred; but he had found excellent results from his screw-method, which had been employed even in very young children. It produced a smaller cicatrix, and had, he thought, less tendency to cause any subsequent weakening of the abdominal wall than the operation by ligature. But the results in young children were almost invariably good, whichever method was employed, and comparatively free from danger; and some operation ought to be employed in a much larger proportion of cases than at present, so that less might be heard of hernia in adult life. The persistent manner in which metropolitan surgical teachers had opposed all such procedures was much to be deplored, and was hardly just to those surgeons who had obtained results which would compare favourably with many other operations which were commonly practised and commended. Mr. Spanton also referred to three patients who had been exhibited to the members at the meeting, and in whom many who saw them, failed, without a minute examination, to discover any trace of an operation having been done.

Mr. R. W. PARKER (London) thought it was conclusively shown, from a comparison of the numbers of congenital herniæ as seen in newly born children and in adults, that this condition tended to spontaneous cure, or that the wearing of a truss sufficed in many cases for its cure. He did not, therefore, operate, except in cases where the hernial protrusion was very large, or where it could not be controlled by a truss. In cases, however, which could not be controlled, some operation seemed desirable. He had never tried Mr. Spanton's plan; certainly the cases operated on by this method, and which Mr. Spanton had just exhibited, appeared to be completely cured. He had had to ask on which side the operation had been performed, so insignificant was the scar and so complete the absence of any protrusion of the bowel. In his practice at the Children's Hospital, he had adopted a plan similar to the one advocated by Mr. Pughe. He agreed also as to the necessity of completely closing the peritoneal sac at the spot corresponding with the internal ring. If any dimpling or depression were left behind, the gut seemed naturally to impinge upon it, and gradually to force its way down again into the inguinal canal. In all these cases, however, which were said to be cured, time alone could prove or disprove the assertion. He thought that many years would have to elapse; but the principle aimed at and carried out was good; it differed essentially from some of the older methods, because it obliterated an opening rather than plugged it up, as was the case in Wood's operation.

AN ELECTRIC LAMP FOR SURGICAL PURPOSES.

BY E. CRESSWELL BABER, M.B.Lond.,
Surgeon to the Brighton and Sussex Throat and Ear Dispensary.

HAVING had some experience of Trouvé's electric lamp for surgical purposes, I think it may be of interest to readers of the JOURNAL to give some particulars of this method of illumination, especially as regards its advantages, and the expense which it involves. The lamp (the *Photophore Electrique Frontal* of MM. Hélot and Trouvé) is a small incandescent lamp of eight to ten candle-power, enclosed in a metallic cylinder which is closed at one end by a concave glass reflector, and at the other by a bull's eye lens. The distance of the latter from the glass globe can be regulated at will, or it can be entirely removed if necessary. The whole lamp is attached, by means of a ball-and-socket joint, to a curved plate fixed to the observer's forehead by means of a head-band, in the usual way. If desired, the lamp can be made into a standard one by screwing it off the head-band, and attaching it to a rod which fixes into the top of a small leather case into which the whole apparatus packs. The lamp may be obtained of M. Trouvé, 14, Rue Vivienne, Paris, and its price in the case (with a double wire to connect it with the battery) is 50 francs. The lamp is worked by a battery consisting of four to six large cells, containing each one plate of zinc and two of carbon, immersed in a strong solution of sulphuric acid and bichromate of potash. The battery supplied with the lamp costs 100 francs, but I find that one which meets all purposes, although perhaps less elegant in appearance, can be made for £2 10s. The one which I use, and which answers admirably, was made for me in this town. The six cells are arranged in a row, and the plates are suspended by chains to an axle, by the rotation of which they can be raised or lowered, being retained in any position by means of a catch. When not in use, they are, of course, raised quite out of the liquid.

On first using the lamp after the battery has been freshly charged, care must be taken not to immerse the plates too deeply, or the lamp may be damaged. When the necessary depth of immersion has been ascertained, a strap placed round the axle and the rod connecting the elements prevents the plates from sinking any deeper, until it becomes necessary, through weakening of the liquid, to lower the plates still further. According to M. Hélot, the battery lasts without re-charging for eight or ten weeks, if used for several patients daily. I cannot yet express an opinion on this point, having only had mine in action for five weeks. I still find my light as bright as ever, although I have thought it well to immerse the plates more deeply than at first.

The wholesale cost of the liquid required at each filling for a six-celled battery is about 5 shillings; and the total initial cost of the apparatus amounts, as above-mentioned, to less than £5. The case of my battery measures $6\frac{1}{2} \times 31\frac{1}{2} \times 17$ inches, thus taking up very little space in the consulting-room. It has the advantage of giving off no smell; and, being inclosed, merely appears as a stained wooden case of the above size standing on the floor by the side of the patient's chair.

Comparing this light with that of an Argand gas-flame, fitted with a bull's-eye condenser, it appears whiter and more powerful. This lamp gives a splendid light for laryngoscopy and posterior rhinoscopy, also for examination of the anterior nares and of the ear. A great advantage which it possesses over light thrown in by means of a reflector attached to the forehead is, that the beam of light of itself follows each movement of the observer's head. It has the further advantages of being ready for use at a moment's notice at any time and of presenting a very steady even light. Its chief disadvantage I have found to consist in the observer's eye not being exactly in the axis of light, as in the case of the perforated head-mirror. This is only noticeable in examination of the anterior nares and of the ear, but can be, to a great extent, overcome by a little

practice. In fact, I have this evening removed with it, by means of my wire snare, portions of nasal polypus from the middle turbinated bone, with great facility.

This lamp will also doubtless be of use for gynæcological operations or examinations, as well as for operations in other deep-seated parts. A full account of it is given in a short pamphlet by Dr. Paul Hélot, who is joint inventor of the lamp with M. G. Trouvé.

A CASE OF PHTHISIS.

By S. WILSON HOPE, L.R.C.P.Lond., Petworth, Sussex.

The following case seems to me interesting, not only as showing that so common a disease as consumption may not always be readily detected, nor the amount of lung-disease clearly made out, but as pointing to the fact that we have in Koch's tubercle-bacillus an aid of great practical value; and, therefore, perhaps it may be interesting to others.

Three weeks ago, a young man came to me for advice, etc., saying that he had enjoyed good health until about three weeks before he saw me, when, while staying in Scotland with his wife, whom he had recently married, he was attacked with diarrhœa, loss of appetite, shortness of breath, and cough.

On examination, his appearance was good, though somewhat delicate; his family history was good; pulse 68; temperature normal. Vesicular breathing was good at the apices; vocal resonance was not increased. There was some creaking at one apex, and at the angle of the right scapula. He was ordered bismuth, and after a few days hypophosphites; and an opinion was given that the lungs were probably sound, and the smaller air-tubes affected as from a cold. After three weeks of treatment, he was much the same as regards auscultation. He was eating well, and sleeping well; but there was a temperature of 100°, and some loss of weight; we sent him to town for an opinion, and his physician wrote as follows.

"September 20th. My dear sir,—I fear that it threatens to be a bad case. There is a good deal of consolidation in the left lung, and the right is not sound. I should be inclined to believe, from his account, that his drainage is at fault. The best course that he could pursue, were it possible, would be to go to New Zealand, find some situation, and let his young wife follow; but he ought not, and probably cannot, go on an uncertainty. Provided that he stays in England, his house should be made perfect from a sanitary point of view. The hypophosphites and cod-liver oil suggest themselves as the best treatment medicinally.—Believe me, very faithfully, etc."

After this opinion, I carefully went over his chest again; but still failed to discover all this mischief, or, indeed, to satisfy myself that there was any at all to be fearful about. Nevertheless, I urged the New Zealand treatment as the safest to pursue. However, it was decided to take another opinion before finally deciding, and this ran as follows.

"September 22nd, 1883.—I have carefully examined Mr. ——. I fear the case is one of phthisis. There is some slight but decided dulness, with harsh respiration at apex of right lung. His general condition also is unsatisfactory. I do not know what course of treatment you have been pursuing; I would, however, suggest a bismuth and nux vomica mixture, to be taken two or three times a day before meals, and malt-extract with meals; to be followed, when his tongue is more satisfactory, by some Fellowes' hypophosphites and cod-liver oil. I have not discussed the question of going away. My impression is, that he will be better where he is for a time, and then, when his general health is somewhat improved, you might consider the desirability of change of residence, at all events, for the winter.—I am, etc."

This opinion pleased us all; it dried up the tears of my patient's poor young wife, who was nearing her confinement, because New Zealand was not mentioned; and it so far supported me, that no mention was made of the left lung, which our first opinion had pronounced so bad. On the whole, therefore, we decided to make our minds easy, and to give him a month's holiday at the sea-side.

Now, it so happened that I had of late been staining and examining for bacilli all my cases of phthisis; and it seemed worth while to examine this case, in hope of confirming one side or the other; when, to my great surprise, I found as many as a dozen bacilli in a field. At once, I sought my patient's friends, and urged them to get him off to New Zealand as quickly as possible. And so these little red-stained dangerous bodies may aid us when seeking to guide our patients to a haven of safety amid the difficulties of not knowing always just where we are.

SURGICAL MEMORANDA.

EXPLORATORY OPERATION IN FLOATING KIDNEY.

In view of the numerous papers and reports that have appeared in the Journal of late on the above subject, the following case may have some interest.

Mrs. B., aged 42, the mother of several children, came under my care a year ago, suffering from vomiting and cardialgia (heartburn). She had suffered from these symptoms for nine years, but had gradually been becoming worse, until, at the time she consulted me, they were constant. No remedies seemed to give any relief; in fact, they, for the most part, aggravated the symptoms. The following were the notes of the condition at the time when I first saw her The body was fairly nourished; the complexion discoloured, of a brownish-yellow tint in parts (probably had been so all her life). She had a cheerful aspect; was getting thinner, but not perceptibly emaciated. She had pain occasionally in the right side of the abdomen in front, and the base of the chest behind. The thoracic organs were normal; and there were no noteworthy abnormalities of function of any abdominal organ except those connected with the stomach. The urine was normal. These symptoms had always been ascribed to dyspepsia. Medicinal treatment was of little avail. Washing out the stomach aggravated the symptoms.

I detected a tumour in the right lumbar region, deeply seated, with the following characters: smooth surface; even oval outline; size about that of an average potato; not tender, and, when pressed, slipped away from under the fingers. Keeping it under observation for some time, I satisfied myself that it was (1) not perceptibly increasing in size; (2) becoming more movable. It might be (*a*) cancer of the pylorus; (*b*) fibroma of the pylorus; (*c*) independent fibroma growing from the prevertebral ligaments; (*d*) a segregated lobe of the liver; (*e*) fæcal accumulation; or (*f*) floating kidney. Cancer was excluded by long history, and absence or extreme slowness of growth, and absence of rapid emaciation and cachexia. Pyloric stricture from simple fibroma is extremely rare; but this form of disease could not be positively excluded from our consideration. Fæcal collection is only mentioned to be dismissed by the result of treatment and history. As to a lobe of the liver, the hepatic dulness was normal, and the edge of the liver could be made out through the attenuated parietes. Floating kidney it was, then, probably. But why should the symptoms have been exclusively gastric? At any rate, it was clear the tumour was the cause of the symptoms, and we determined on an exploratory operation.

The case was seen by my friend Dr. William Walter of Manchester, and he gave it as his opinion that it was probably the kidney.

With the valuable assistance of Dr. Watson of Cheltenham, and my father, Dr. Anderson of Ulverston, I performed the ventral operation. The tumour proved to be the kidney. There was no meso-nephron; and, although it would slip up a little under pressure, it was not nearly so movable in any other direction as it had seemed. The case progressed very satisfactorily. For a day or so, sickness continued, evidently the effect of the chloroform. The patient was fed for a week entirely by enemata, only a little weak champagne with ice being allowed by mouth. But thereafter food was given, at first fluid, afterwards solid, without any return of the sickness for four weeks. During the last fortnight, the patient vomited once or twice, but then probably from indiscretion in eating; so that the result of the operation was as surprising as successful. The gastric symptoms, the constant vomiting and heartburn, so severe that she could not take any solid and scarcely any fluid food, were gone; and she gained flesh and strength rapidly. She is still well.

This case helps to confirm the remarks of Mr. Clement Lucas in the Journal of September 29th; and, had it been feasible, I would have followed the plan of Dr. Walter (British Medical Journal, September 29th), and extirpated the kidney. If the symptoms return, it is my intention to make the lumbar incision, and fix the capsule to the wall with sutures, as has been recently suggested.

J. W. Anderson, M.A., M.B., C.M.Edin., Barrow-in-Furness.

LACERATION OF THE POPLITEAL ARTERY.

I should be glad to be allowed to make some comments upon the remarkable success following upon Dr. Fenwick's case of ligaturing the axillary artery, and, afterwards, to add a case of a somewhat

like laceration of the popliteal artery. The successful result appears to me to entirely rest upon this fact—one that could not, by any possibility, have been diagnosed prior to the operation: that is, the fact of the laceration being confined to the artery, the veins having escaped all injury, as manifested by the circulation in them being at once restored as soon as the pressure of the broken bone was removed; and, no doubt, the ultimate successful result entirely depended upon this remarkable and unhoped for escape of the veins.

Some years ago, I was called in the evening to a mill-operative, who was, whilst the segment of a large wheel was being hoisted by means of a crane, assisting by steadying the same by a crowbar fixed in a hole in the segment. By some means he was overpowered, and, the segment turning quickly round, he was struck very forcibly by the still projecting crowbar slightly below, behind, and to the outer side of the knee-joint. I saw him about half an hour afterwards. The leg from below the knee was cold, and greatly distended. There was no pulsation of the arteries at the ankle; no external marks of violence; and, as the blood was poured out below the deep fascia, there was no discoloration. The collapse was great, and he had every appearance of soon dying of shock and loss of blood. The pain from the distension of the leg was so acute, that he frequently begged me to make an opening into it. Being in the country, it was about four or five hours before I could obtain the assistance of a medical friend. During this delay, the man considerably rallied, and the pain had become much more endurable. This led us to defer any operative measures until the next day. In the morning, his general condition was still more improved, with no outward marks of gangrene, and it was again decided to wait; but, by evening, discoloration of the toes had set in, and from this time the gangrene gradually extended up the leg to about its middle. As his general condition was fairly good, and I was wishful to give him as much leg as possible, amputation was deferred until the line of the cessation of the gangrene showed itself, when I removed the limb below the knee. He made a good recovery, with a sound and very useful stump.

I attribute his rallying at all to the fact that he had been a mill-operative only a short time, he having previously led a seafaring life; and it was the robustness of constitution acquired during his former occupation that enabled him to survive so grave an injury.

I have no doubt that, in this case, had an attempt been made to tie the popliteal artery, we should have failed, owing to the implication of the veins, and gangrene would as certainly have followed. I think the wisest surgery would have been at once to have amputated at or above the knee.

J. FIELDEN HOWARD, M.R.C.S.Eng., Sandycroft, Shaw.

TOXICOLOGICAL MEMORANDA.

LABURNUM POISONING.

WITH reference to the remarks of Mr. Henry Robinson, of Chesterfield, in the JOURNAL of October 6th, on poisoning by eating the seeds of the laburnum-tree, I forward the following account of some similar cases.

About three weeks ago, I was called to the barracks, late in the evening, to see three children, suffering from symptoms of poisoning. The children were between three and four years of age, and were all attacked by similar symptoms—viz., faintness, sickness of stomach, and a tendency to convulsions. I found them all with dilated pupils, feeble pulses, and very drowsy. All had freely vomited, but none of the contents of the stomach had been kept for inspection. Suspecting they had eaten laburnum-seeds, I made close inquiries; but the mothers, one and all, asserted it was not possible that they could have had access to any poisonous fruit or berries; and it did not certainly seem probable that such articles could be obtained in a barrack-yard. The parents "blamed" some sweets the children had eaten, and I secured some specimens for future examination. The three children were treated exactly in the same way as those mentioned by Mr. Robinson—viz., external stimulants, in the shape of hot baths and mustard plasters; and, internally, brandy and water in small quantities. All three recovered, and by morning were convalescent.

Next day, on searching the children's clothes, several seeds of the laburnum were found; and, on tracing the matter out, it was discovered that some of the older barrack-boys had climbed up on a boundary-wall, and pulled a number of the pods, giving some to the young children, and eating others themselves. The poisonous effect was soon visible on the younger children, but none of the elder suffered, though some of them seem to have eaten a good many seeds. The treatment is obvious: early emesis, followed by stimulants, both external and internal.

J. BUTLER HAMILTON, M.D., Surgeon-Major.
Portobello, Dublin.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LEICESTER INFIRMARY.

CASE OF TRAUMATIC TETANUS LASTING FORTY-FIVE DAYS, ASSOCIATED WITH FACIAL PARALYSIS: RECOVERY.

By C. J. BOND, F.R.C.S.

R. J., aged 23, was run over on June 5th, and a severe scalp-wound was inflicted in the right temporo-parietal region, without any fracture of the skull. The first symptoms of tetanus appeared on the sixteenth day after the injury, the patient complaining of stiffness on the right side of the neck. On the following day, it was noticed that his head was inclined slightly to his right shoulder, and his face rotated to the left side; and that he could only open his mouth about half an inch. On June 23rd, or next day, the abdominal muscles, especially the recti, were also rigid. The wound at the time, and indeed throughout the attack, preserved a healthy granulating appearance. Chloral-hydrate was given, in thirty-grain doses, every three hours, with great relief to the patient, lessening the rigidity and the "starting." On June 25th, the knee-jerk was found to be markedly increased, and ankle-clonus could be easily obtained in both legs. On June 27th, the tonic rigidity continuing, the patient had a slight opisthotonic spasm for the first time. On June 29th, the right side of the face was paralysed, both the orbicularis oculi and oris. On July 8th, the patient became delirious, and had a violent spasm, with opisthotonos, lasting several minutes. As it passed off, sensibility returned; and, after large doses of chloral, he slept quietly the following night, when it was noticed that his mouth was more open than when awake; in fact, the rigidity of the jaw-muscles was then slight; but the moment the patient awoke, the rigidity came on. On July 9th and following days, he became much weaker, at times collapsed and insensible. Brandy was given, and opium instead of chloral. On July 14th, he had a severe spasm, with extension of the legs, flexion of the arms, and marked bending of the trunk, with the concavity to the left side; the right side of the face, however, remaining relaxed; there was no laryngeal or pharyngeal spasm, fluids being easily swallowed throughout. After this, the attacks occurred at longer intervals—the last on August 4th. On August 16th, the facial paralysis had quite disappeared, the knee-jerk was normal, and ankle-clonus could no longer be obtained. The patient now got up and walked, though with some difficulty and slight inco-ordination. He was discharged cured on August 18th.

REMARKS.—The interesting points in this case are, first, the long duration of the disease—forty-five days from the commencement of the symptoms to the last tetanic spasm (see case by Mr. Howard Marsh, lasting forty-two days, *Lancet*, April 7th, 1883); secondly, the marked superiority of chloral in affording relief, as compared with opium; as much as 240 grains of the former drug being taken daily for some weeks. But, in attributing any part of the successful result to drugs, it must be remembered that there was a complete absence throughout of any laryngeal or pharyngeal spasm, with their too frequent accompaniments, asphyxia and exhaustion from starvation. Pathologically, the association with paralysis of the facial nerve on the same side as the injury (see case by Mr. Nankivell, *Lancet*, July 14th, 1883) is very interesting. The affection commenced in the muscles on the right side of the neck. May not the pathological change, whatever it be, which is associated with tetanus, have passed beyond the stage of irritation, with its result of excessive nervous discharge, in the region of the origin of the right cervical nerves, to that of greater damage, with the result of paralysis, in the region of the right facial nucleus? And may not the more powerful action of the left trunk-muscles have been due to irritation in the right half of the medulla above the decussation? The clinical evidence in this case points, at any rate, to a lesion more marked on the one side, and suggests careful examination for a similar change

in future cases of tetanus associated with facial paralysis. The increased irritability of the deep reflexes, knee-jerk, and ankle-clonus, is in harmony with a recent observation on the same subject.

COUNTY ANTRIM INFIRMARY, LISBURN.

GANGRENE OF NOSE FROM USE OF ARSENICAL PASTE: SUCCESSFUL RHINOPLASTIC OPERATION.

(Under the care of Dr. ST. GEORGE.)

WILLIAM JOHN S., aged 26, married, a thread-worker, was admitted on February 8th, 1883, suffering from gangrene of the entire nose. His history was, that he had been under the care of the late Dr. William Thompson, in the same institution, suffering from a small ulcer on the point of his nose, on January 11th, 1882, that the ulcer was destroyed with chloride of zinc, that the wound healed, and that he was discharged as cured on March 25th, 1882. The disease returning, he was recommended by a surgeon to go to the Richmond Hospital, Dublin; he said that the diseased part was there scraped and destroyed with caustic. He was discharged from this hospital as relieved. When he returned to Lisburn, the disease again made its appearance; and he was advised by a clergyman to try a paste composed of arsenic and white of egg. The result of this application was gangrene of his entire nose.



After the entire nose had been destroyed, and the parts had cicatrised (the only parts left being the bony sides of the nasal cavity), Dr. St. George, assisted by his pupil, Mr. H. Bertram Greene, and Mr. George Waring and Mr. B. Feuar of Sir Patrick Dun's Hospital, Dublin, proceeded, on March 28th, 1883, to restore the lost



organ by a plastic operation. After raising a flap from the forehead, where two small arteries required torsion, and having made the edges of the nasal cavity raw, and all oozing having ceased, he attached the flap by six fine silk sutures to the surrounding surface. A small pledget of lint, moistened with carbolic oil, was inserted carefully into each nostril; the wound in the forehead was closed with two hare-lip pins, and dressed with lint dipped in boracic acid lotion. The sides of the nose were dressed with dry boracic lint, and the whole upper part of the face enveloped in cotton-wool for forty-eight hours. The operation was very tedious, lasting nearly three hours, and no chloroform was used during the whole time. The patient was very sick after returning to bed, but he said that he thought it was caused by the blood he had swallowed. The face was dressed on the third day, when all was found looking healthy. The patient, however, complained that the smell of the oil made him sick; it was therefore omitted, and lint dipped in boracic acid lotion was substituted. The sutures were removed at intervals, beginning at the fourth day. The face was covered with cotton-wool, except the eyes, for four weeks. Union having taking place all round on April 27th, the connection with the forehead was divided, a small artery in the nasal side requiring torsion. All went on favourably from this time, and the patient was discharged on May 15th, 1883, cured; he returned to his work on May 21st, and is still quite well. The second photograph was taken on June 11th, nearly one month after his discharge.

SIR PATRICK DUN'S HOSPITAL, DUBLIN.

DISEASES OF THE SKIN.

(Under the care of Dr. J. MAGEE FINNY.)

1. *Acute Urticaria.* [From notes taken by Mr. EDWD. CARRIGAN.]—Andrew B., aged 23, was admitted on May 5th, 1883, having presented himself at the out-patient department that morning. He was a labouring man, and had been drinking very freely for the previous three years; his usual drink was porter, and he said that his average daily allowance was ten pints. Every fortnight or three weeks, he had symptoms of an attack of delirium tremens—such as dyspepsia, sleeplessness, and waking out of short sleeps in a fit of terror. For three nights before presenting himself at the hospital, he had had no sleep, and his tongue and hands trembled. He knew of no cause for the present illness, as he had made no change in his diet or habits, nor, on questioning him, was there any circumstance discovered which might account for it, such as peculiarity of diet, etc. On May 2nd, he noticed hard "blisters" about his wrists, which were extremely itchy; the same evening, they spread up his arms and appeared on his legs; and next morning, they covered his whole body, even to his face. When first seen, his face was flushed; and the eyelids, right cheek, and forehead were so swollen as to suggest the possibility of erysipelas. Distinct wheals could be felt on the forehead and under the jaw; they were found in great numbers on the back, over the shoulders, on the sides of the abdomen, and on the forearms and legs. In other places, the wheals were confluent, and formed patches varying in size from a florin to the palm of the hand. These patches were on the front of the thorax and along the ulnar aspects of the forearms, and assumed various shapes—round, oval, or irregular. The isolated spots were typical, being round, raised, and circumscribed, with a white centre and a reddish border, and very closely resembled those produced by the sting of a nettle. On the face, the eruption resembled more that of a general erythema. There was a fair amount of symmetry shown in its distribution, particularly on the extremities.

The patient stated that the rash was itchy; but it did not seem to give him very much annoyance, nor as much as is usual in urticaria. He was ordered a warm alkaline bath, in which he remained for half an hour. This gave him great relief. Sleep was induced by a mixture containing bromide of potassium, chloral-hydrate, liquor opii sedativus, and spiritus ammoniæ aromaticus.

May 7th. The rash had almost disappeared, except a few large wheals on the front of the tibia and on the forearms. He was ordered a tonic aperient, containing two grains of sulphate of quinine in the dose.

He left the hospital, well, the next day.

REMARKS BY DR. FINNY.—Urticaria is by no means an uncommon affection, particularly among children and young people. It is, however, occasionally met with in the adult, and can then be directly traced to some of its well-known causes: shellfish, mushrooms, or the stings and bites of insects, or as a complication of eczema and scabies. But it is extremely rare to find it attacking an adult in the universal way in which this patient was affected. The diagnosis was readily made when the various parts on which the rash appeared were noted, and illustrated the necessity of a thorough and general examination of every patient who presents himself with any erup-

tion. Otherwise, owing to the symptom of "stinging" being in abeyance, the œdematous eyelids and red cheek and forehead might have been mistaken for erysipelas, and the large and single wheals on the tibia for erythema. The disease is plainly of a neurotic type, as testified by its sudden appearance, its often equally sudden departure, and its rough symmetry.

2. *Syphilitic Disease of the Face* (*Syphiloderma*). [From notes taken by Mr. W. T. SWAN.]—Robert W., aged 54, unmarried, a pedlar from Connemara, was admitted on November 13th, 1882, at the request of a medical man, who sent him as a case of lupus of the face.

The prominent features were inflammation of the right side of the face, including the eye (which was partly closed), and of the nose, spreading across to the left side of the face. The masseteric region of the right side was marked by a smooth and firm, but thick cicatrix, extending down to the neck, which, the patient said, was the result of a burn received when young. The whole of the right cheek above the lips, along with the nose and the upper part of the left cheek as far as the outer angle of the eye, was the seat of disease. The skin of the parts affected was of a dull bluish-red colour; the nose was ulcerated, the right ala deeply eaten into, and the right nostril occluded; on the left cheek, there were half a dozen flattened pustules covered with a dirty thick crust. From these latter, pus escaped on pressure, and their removal left small circular depressions, with sharply cut edges. There were no distinct tubercles to be seen, but around each pustule there was considerable induration. There was no pain. The disease spread; the skin became red, inflamed, and thickened, and pustules subsequently broke out on the surface. The patient stated that no pustules appeared when the disease was progressing on the right side. Its progress was rapid; a fortnight only had elapsed since it attacked the left side, and it had already advanced as far as the outer angle of the eye. There was no history to account for it, as the patient most strongly denied having ever had syphilis, and said his habits were temperate and diet good.

Fifteen months before admission, his right eye became inflamed, and the eyelids were closed. He went into hospital at Mullingar, and remained under treatment for seven weeks, and left well. Two months ago, he again was an inmate, and at that time the right nostril was diseased, and the disease spread rapidly, Four months ago, an eruption attacked the left buttock, due, he thought, to the irritation caused by his pack rubbing against his hip. No mention was made of this until it was discovered by physical examination. It presented over a large area a glazed appearance of a light purplish colour, on which were situated several large scabs; at its outer and lower margin was a thin whitish scar.

The treatment consisted of iodide of potassium and liquor arsenici et hydrargyri hydriodatis (Donovan's solution), and local applications of iodoform and of calomel by means of Kane's atomiser. Under this treatment, the patient rapidly improved, the swelling and redness disappeared, and he was discharged cured on December 3rd, having been little more than three weeks under treatment; and nothing but a few superficial scars marked the seat of disease.

REMARKS.—This case presented some points of difficulty in its diagnosis. It lay between three diseases, namely, lupus, syphiloderma, and epithelioma. Scrofuloderma might have been thought of had the patient been young, and the situation of the disease different, but was out of the question in this instance. Epithelioma, as a disease of adults, and associated with ulcerations and destruction of tissue, might have resembled the appearances of this case, but the situation of the affection, the mode by which it spread across the nose, and the absence of pain, were enough to exclude it. The differential diagnosis was between lupus and syphiloderma—diseases which, in their ulcerative stages, so closely resemble each other, and more particularly so when occurring on the face. The following considerations, in spite of the strenuous denial of the patient as to his ever having had primary sores or secondary symptoms, led to the conclusion that it was a case of syphiloderma, not a case of lupus. 1. The patient's age (54), which was not incompatible with tertiary syphilis, was strongly against the invasion of lupus; the latter usually attacking the young. 2. The absence of pain indicated syphilis rather than lupus; for, in the latter, and particularly in the cold raw winter season, pain is one of the most constant and distressing symptoms; in fact, it is severe—altogether out of proportion to the apparent amount of disease, or parts affected—in lupus. 3. The comparatively recent origin, and subsequent rapid extension of the disease, militated against it being lupus. Lupus is an affection, it may be, of many years' duration, and one that slowly invades adjoining tissues by new deposits, which, after periods of quiescence, undergo ulceration, and give rise to destruction of the superficial tissues involved. 4. The small ulcers on the left cheek were sharply defined and deep, and covered with a thick greenish-grey crust; the crusts in lupus are superficial, red, and dry. 5. The coexistence of an eruption of considerable size on the nates, which was stated to have been but of four months' duration, strongly pointed to syphilis. The immediate good results which attended the administration of Donovan's solution and iodide of potassium (in increasing doses), and the local application of calomel in minute subdivision, more than confirmed the diagnosis.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 6TH, 1883.

J. WHITAKER HULKE, F.R.S., F.R.C.S., President, in the Chair.

Diverticula of the Small Intestine.—Dr. NORMAN MOORE exhibited the intestines of a man aged 40, showing three diverticula in the first three feet of the small intestine, and a congenital stricture at the commencement of the jejunum. The diverticula were each an inch long, and about as much in diameter, and were on the mesenteric side of the intestine. Their walls consisted of all the intestinal coats, and they were not mere hernial protrusions. The stricture was caused by an internal ring of mucous membrane, and would but just admit the little finger. It was obviously a variety in development, and not due to any morbid change. Neither peculiarity gave rise to symptoms, and the man died of bronchitis. Such cæca had been described, but were believed to be very rare; while a congenital stricture so high up in the small intestine was still rarer.—Mr. TREVES observed that these diverticula usually occurred on the mesenteric side, and were not uncommon in the upper part of the intestine; but all the specimens he had seen differed from the one now shown, in that their walls were formed of mucous membrane and peritoneum only. A further point of interest in Dr. Moore's case was the absence of obstruction.—Mr. SUTTON said that there was a specimen of a curious form of malformation of the alimentary canal in the museum of the Middlesex Hospital. The intestine immediately beyond the pylorus ended in a blind cavity, and did not communicate with the rest of the duodenum; yet the child had lived four days, and its stomach contained food.—Dr. GOODHART did not think that it had been clearly shown that there had been no obstruction in Dr. Moore's case; these diverticula might perhaps be due to long-existing distension. In the museum of the Royal College of Surgeons was one specimen of diverticula on the mesenteric side.—Dr. NORMAN MOORE said that there was no history of distension; but, as the condition was unsuspected during life, no special inquiries had been made. He did not think the condition could be common, as, out of over 4,000 necropsies made at St. Bartholomew's Hospital, this condition occurred only once, while Meckel's diverticulum was found twenty-seven times.

Atheroma of the Coronary Artery.—Dr. SAMUEL WEST described a case which was of great interest in its bearing on the question of the coronary circulation. The patient was a man who died of cardiac dropsy. The heart was dilated, large, heavy, and fatty; there was no valvular incompetency, but the aortic valves were diseased, and there was extreme atheroma of the aorta. The orifice of the right coronary artery could be seen, but that of the artery on the other side was not visible; on dissecting out this artery, the orifice was found to be closed by a calcareous plate. Dr. West said that in most of the recorded cases the blocking of the coronary artery had been connected with atheroma, in a few cases it had been due to old clots, and in still fewer to recent clots. In one recorded case, both coronary arteries were found to have been blocked, but yet no cardiac symptoms had been noticed, and the patient died of cancer. Hyrtl had taught that the coronary arteries did not anastomose; but Dr. West had been led, by the occurrence of such cases as the one exhibited, to make a few experiments, and had quite satisfied himself that the two coronary arteries anastomosed freely; it was only necessary to wash the heart thoroughly before attempting to make the injection, and to keep the heart warm while the fluid (gelatine and carmine) was being injected. It was therefore evident that, in cases where one artery remained patent, the whole heart could receive its blood-supply from it, though how this could be sufficient was not very plain. In some of these cases, the pulse was exceedingly slow, and, when this was the case, the prolongation of the diastolic period might permit a more than usually

complete filling up of the patent coronary artery; but this slow pulse was far from being a constant symptom. — Mr. HENRY MORRIS said that, some years ago, he had questioned Hyrtl's accuracy, on the strength of some injection-experiments made at his suggestion. — Mr. SHATTOCK observed that Hyrtl had no doubt used wax for injection, and spoiled his specimens. The same statement had been made about the tongue, and was in that case also founded on the use of coarse materials for injection.—The PRESIDENT had satisfied himself that, in his statement that the two lingual arteries did not anastomose, Hyrtl was mistaken. It had been often said also that no vessel entered the head of the femur through the ligamentum teres. All these misstatements were due to the use of coarse materials for injection.—Dr. WEST said, in conclusion, that he had microscopical sections from a part of one of the hearts which he had injected, to which no fluid could have penetrated if Hyrtl's theory were true; yet, in the specimens, the injection of the vessels, down to the minutest capillaries, was most perfect.

The Pathology of Congenital Club-Foot.—Mr. R. W. PARKER and Mr. SHATTOCK showed several specimens illustrating the pathology of congenital club-foot. In one foot the muscles and nerves were dissected, and in another the shape of the tarsal bones was demonstrated. The authors also showed microscopic preparations of the spinal cord, of the nerve-trunks, and of each of the muscles of the limb. These microscopic preparations showed no appreciable deviation from the normal histological standard. In the bones, on the other hand, certain changes were described, but the authors considered that these changes were not primary, but the result of the altered position in which the bone had been placed. The views expressed were chiefly based on the fact that, though altered in extent, the normal outlines of the articular surfaces could still be distinctly traced. Reviewing the various theories of causation, the authors rejected the theory of nervous origin, on the evidence of their own case; for a like reason, the theory that the disease was due to bone-change, the theory which the late Professor Hueter had chiefly supported, was rejected, as they agreed with Mr. W. Adams that these changes were a result, and not a cause. As to whether talipes was only an exaggeration of a physiological standard they were undecided, because some additional power was required to bring about a well-marked case. They believed that the mechanical theory, in some shape or other, best explained their own case. A brief allusion was also made to the insufficiency of the classification into the congenital and non-congenital forms. The authors thought that nervous lesions might exist in some congenital cases.—Mr. WM. ADAMS thought that too few specimens of congenital varus had been preserved in the museums. Mr. Adams gave a short historical view of the subject, and observed that these deformities were at first attributed to osseous malformation; but in 1852 he had been able to exhibit to the Society a specimen which showed that the astragalus at the time of birth presented all the deviations in form which were found in the astragalus in adult cases of talipes. He agreed with all that Mr. Parker had said with reference to the anatomical points; but he did not believe that the deformity was produced in a mechanical way. He thought that all cases of club-foot were due to disease of the central nervous system. The action of the muscles of the calf, and of the tibial muscles, which were more powerful than the opposing muscles, was to put the foot into the position of congenital varus, as might be seen in *rigor mortis*. Further, the deformity might be seen in fœtuses of the fourth or fifth month, where no pressure could be exerted by the walls of the uterus. In some cases of transverse presentation, it was true, there was some distortion of the foot; but this did not amount to congenital varus. —Dr. SAMUEL WILKS said that the subject needed further investigation. There was a great tendency to atrribute all local disease which could not be easily accounted for, to the influence of the central nervous system. Information was wanted on the point whether infantile paralysis commonly went on to the production of club-foot; in his experience, it did not.—Mr. ADAMS inquired whether Dr. Wilks had any information to impart with regard to antenatal disease of the nervous system; and the latter gentleman replied in the negative.—The PRESIDENT thought that some cases were due to pressure, and some to nervous disease; but it was undoubtedly true that in most cases there was no evidence of palsy. Mr. Parker had spoken of the condition as an exaggeration of a natural attitude; but would it not be better to say that it was the *persistence* of an attitude natural at an early stage of fœtal development? —Mr. A. Q. SILCOCK thought that Cruveilhier had been misunderstood when he was regarded as teaching that the deformity was due to the pressure of the uterus; he attributed it, on the contrary, to the pressure of one part of the fœtus upon the other; and the drawing in his *Atlas* certainly supported the view, for the feet were seen to be jammed against the jaw. He was able to exhibit to the Society a fœtus in which the condition was quite similar to that shown in Cruveilhier's drawing, though less extreme. An examination of the fœtus seemed to him to show in the clearest way that the deformity in this case, at any rate, was due to the mutual pressure of the limbs upon each other, and upon the neck and chest. It was not necessary to suppose that the pressure must be exerted directly by the pressure of the walls of the uterus; the pressure within the cavity of the uterus was equal in all directions, and this whatever the quantity of the amniotic fluid. With reference to the theory of a nervous origin, he might mention that, in one case which Mr. De Watteville had recently examined at his request, the electric reaction of the muscles was quite normal.—After a remark by Dr. LONGHURST with reference to the occurrence of talipes in the lower animals, Mr. PARKER replied. He agreed with the remark which the President had made, that talipes was more properly a persistence than an exaggeration, but this applied only to the condition at the time of birth; subsequently, he believed, that condition became exaggerated. With reference to the question of the nervous origin, he had but to remark that, in the case examined, the ganglionic spinal cells were quite healthy. So far from the occurrence of the deformity at an early period of fœtal life tending to favour this supposition, he thought that it went in the opposite direction, since it was difficult to believe that the nervous centre was sufficiently differentiated.

Two Cases of Ruptured Heart.—Dr. W. B. HADDEN said that the first case was that of a boy aged 6, who had swelling of the left foot two weeks before admission into St. Thomas's Hospital. On examination, there was a large ulcer on the outer side of the left ankle, exposing the peronei tendons and the external saphena vein. There was some pain and tenderness about the right hip. The boy had severe constitutional symptoms, cough, pulmonic signs, and high fever. He died suddenly two days after admission. There was an abscess behind the right hip-joint, but unconnected with it; the left calcaneo-cuboid joint was quite disorganised. There was an abscess, with localised pleurisy, in the lower lobe of the left lung, and numerous small abscesses in the kidneys. The pericardium was filled with recent clot, which had escaped from the heart through a rupture in the wall of the left ventricle posteriorly, near its junction with the auricle, and just below the coronary sinus. The external opening was larger than the internal, ragged and partially plugged with toughish clot. The internal opening, which was smaller and more clearly defined, was concealed by the posterior flap of the mitral. There was very intense pericarditis. The muscular fibres did not appear abnormally soft. There was no endocarditis. The case was undoubtedly one of pyæmia. It was probable that there was myocarditis secondary to the pericarditis, and that the muscular walls gave way at a spot naturally weak; that is, the junction of the left auricle and ventricle. The next case was that of a gentleman about 50, who died very suddenly, without previous symptoms. At the *post mortem* examination, there was a ragged rent, two inches long, passing right through the anterior wall of the left ventricle. The muscular fibres were found, on microscopical examination, to be fatty. The heart itself was surrounded with much fat.—Sir WM. MAC CORMAC inquired how long a man might live after rupture of the heart; the second case related by Dr. Hadden had been under his care, and he thought the patient must have lived five hours after the rupture occurred.—Dr. WILKS observed that these lacerations evidently occurred gradually; in pistol-shot wounds, death was often long delayed; thus, in one case which he had seen, the patient survived fifty-four hours.—Dr. NORMAN MOORE said, that in the Museum of St. Bartholomew's Hospital was the heart of a bullock, which had been driven for several miles after the rupture had occurred.—Dr. W. B. HADDEN observed that, in one of the cases he showed, the outer aperture was partially closed by rather firm clot.

The Anatomy of Hæmorrhoids.—Mr. ROECKEL said that there were two views with regard to the structure of hæmorrhoids; according to the one they were varices, according to the other they were vascular growths (angiomata). He had examined about thirty specimens; as a rule a pile consisted of a layer of mucous membrane enclosing some submucous tissue in which lay enlarged veins with thickened walls; in one specimen only did arteries contribute in any sensible degree to the bulk of the pile, and in one case also the pile contained some muscular tissue. The epithelium on a pile ceased, at a certain point, to be columnar, and became squamous; the transition was not gradual but quite sudden.

Living Specimen, Ten Years after Removal of nearly the whole of the Lower Jaw for Necrosis.—Mr. WAREN TAY reminded the

Society of a case which he had exhibited to it towards the end of the year 1873. The patient was a child then aged 5 years, from whom the whole of the lower jaw, with the exception of the condyle on the right side, had become necrosed, and was removed. At that time there had been a fair amount of reproduction of bone, and he brought the case forward now, ten years after the necrosis had occurred, to show that the reproduced bone had permanently remained. As might be seen, the chin was very receding, but the jaw was firm and strong, and on the left side, where the bone had been entirely removed, a tooth had recently begun to appear. The necrosis was probably due to phosphorus, for the child had been frequently seen sucking matches.

Card Specimens.—The following were exhibited:—Dr. SIDNEY COUPLAND: Ulceration of large Intestine from a case of Enteric Fever, which Died in the Seventh Week of the Disease.—Dr. BANTOCK: Hydated Cyst removed from the Calf.—Dr. BURNETT: Sacculated Aneurysm of the Aorta.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

ORDINARY MEETING, OCTOBER 26TH, 1883.

D. C. LLOYD OWEN, F.R.C.S.I., in the Chair.

Introductory Address.—The CHAIRMAN, in the course of a short introductory address, alluded to the change decided upon last year to hold the meetings alternately in the evening and afternoon, and expressed his belief that this change would prove beneficial to the Section. He also drew attention to the somewhat neglected clinical functions of the Section, and urged members to read notes of cases, and to remember that therapeutics was not outside the scope of their proper work, which embraced all that came within the scientific practice of our profession.

Radical Cure of Exomphalos.—Mr. LAWSON TAIT read a short paper, which will be published in the JOURNAL, on the radical cure of umbilical hernia, by means of abdominal section, and sewing together the opposite walls of the sac. He advocated a similar procedure in other forms of hernia as likely to give more permanently good results.—Mr. BENNETT MAY thought the results of the ordinary operation for hernia so satisfactory, that he could not follow Mr. Tait in his desire to substitute intra-abdominal methods for it; he doubted the possibility of operating otherwise than externally in many cases. With regard to umbilical hernia, the ordinary methods failed, and abdominal section afforded the best chance of a satisfactory result.—Dr. BARLING spoke of the mortality attending the old methods of treating umbilical hernia, and considered that Mr. Tait's experience threw a hopeful ray of light upon a hitherto gloomy department of surgery.—Mr. LAWSON TAIT, in replying, urged that the high mortality in operations for strangulated hernia could not be regarded as satisfactory; and not only this, but the subsequent condition of the patient must be considered. The ordinary operation increased the size of the aperture, even if the sac were removed or occluded; and, therefore, any suggestions which afforded a hope of better results deserved consideration. He did not think that the difficulties of operating from inside the abdomen were greater in the case of hernia than in other conditions in which, by practice, surgeons became quite expert.

Cystic Tumour of the Conjunctiva.—Mr. PRIESTLEY SMITH showed a patient, aged 72, with a small cystic tumour of the conjunctiva, the size of a split pea. It had been noticed for two months; there was no history of injury; the tumour was situated opposite the inner margin of the cornea, and was a semitranslucent colourless cyst. Such tumours were probably the result of dilatation of the lymphatics of the conjunctiva. The best treatment was the removal of the growth by scissors, and the application of nitrate of silver in solution.—Mr. EALES mentioned a case in which the cyst had seemed to follow a hæmorrhage into the conjunctiva.

Hereditary Syphilis; Phagedæna of Soft Palate.—Mr. EALES showed a girl aged 16, who was under his care for interstitial keratitis, in whom there was the scar of a phagedænic ulcer, which had first perforated, and then divided, the right half of the soft palate. This was the second case he had had recently.—Dr. SAUNDBY mentioned two cases which had been under his care, and spoke of the absence, so far as he knew, of any careful account of this condition as a manifestation of hereditary syphilis, although its occurrence was noted in Hill and Cooper's *Manual*.

Lumbar Nephrectomy for Scrofulous Kidney.—Mr. BENNETT MAY showed a kidney removed by the lumbar incision, and the other kidney removed two days later, *post mortem*. Both kidneys, but especially the latter, were in an advanced stage of tubercular disease.—In a discussion, in which Mr. Lawson Tait, Dr. Windle, Dr. Barling, Dr. Saundby, and Mr. H. R. Ker took part, the impropriety of nephrectomy for scrofulous kidney was agreed to.—Mr. H. R. KER mentioned a case in which he had made a lumbar incision and drained the kidney, with advantage to the patient's general health, though a fistulous opening remained.—Mr. LAWSON TAIT was of opinion that the lumbar operation should be given up, in favour of the intra-abdominal method, by which information as to the state of the other kidney could often be obtained.

Ovariotomy: Death from Granular Kidneys.—Mr. H. R. KER read the notes of a fatal case of ovariotomy, in which the kidneys, *post mortem*, were found to present the changes characteristic of granular kidney. He emphasised the importance of using every means to discover the condition of the kidneys before operating. He could not agree with Mr. Knowsley Thornton that these deaths were due to the neglect of the spray.—Mr. LAWSON TAIT said ether had been used in this case, and he had shown positively that ether suppressed the functions of the kidney. In all cases over 40, where he was doubtful about the state of the kidneys, he used bichloride of methylene.

Specimens.—The following specimens were shown by Dr. B. C. A. WINDLE: 1. Caries of Vertebræ; 2. Cancerous Absorption of Vertebræ; 3. Retinal Hæmorrhages; 4. Gouty Deposits in Great Toe-Joints.

LIVERPOOL MEDICAL INSTITUTION.

OCTOBER 25TH, 1883.

H. G. RAWDON, M.D., Vice-President, in the Chair.

Aneurysm of the Splenic Artery.—Dr. DAVIDSON showed the spleen from a woman, aged 55, who had died of epithelioma of the œsophagus, in which the splenic artery showed four or five small sacculated aneurysms. The coats of the vessel appeared perfectly healthy, and, excepting some atheroma about the arch of the aorta, the circulatory system was normal. The little aneurysms were all situated at the bifurcations of the vessel, and the spleen showed two large infarcts; so that Dr. Davidson was of opinion that an embolus had been carried into the splenic artery and rested awhile at its first division, and that it had been broken up, parts of it resting again at other divisions, and being ultimately carried on into the spleen. He thought that where the embolism had rested, the arterial coats might have become softened, and subsequently dilated, thus explaining the position of the aneurysms.

Uterine Fibroma.—Dr. J. WIGLESWORTH showed an uterine fibroma, weighing forty-nine ounces, removed after death from a negress, who died in the Rainhill Asylum. The point of interest was that it had pressed upon and obliterated the cervical canal, so that the patient, while under observation, suffered from amenorrhœa, and the cavity of the uterus was found to be filled with retained menses.

Recurrent Myeloid Tumour of the Upper Jaw.—Mr. PAUL showed a patient with a very interesting history, she having been under hospital observation for thirty years or more. At the age of 15, or earlier, she observed that the left upper jaw began to enlarge. It slowly increased in size, and, at the age of 24, producing marked deformity, was excised by Mr. Bickersteth. The specimen was macerated, and preserved in the museum; it was one of hyperostosis. From the time of the operation the enlargement gradually spread across the middle line, and involved the opposite upper jaw, and, owing to a more rapid increase setting in, she appeared again before Mr. Bickersteth at the age of 47, when he removed the remaining superior maxilla. At the operation, the zygomatic fossa was found filled with soft new growth, which recurred extremely rapidly, invading the orbital, temporal, and zygomatic fossæ. At this stage the case would have been left alone, only that the microscope showed the growth to be a pure myeloid sarcoma; and, trusting to its local character, Mr. Paul undertook its removal, the case having been courteously given up to him by Mr. Bickersteth. She recovered completely from the operation, and, although a small recurrence appeared on the cheek, she neglected it until three months ago, when it had attained the size of an orange. It had now been removed again at the age of 51, and this time, the operation and hæmorrhage being less extensive, there was good reason to hope for a more favourable result. The patient enjoyed the best health, and was not nearly so disfigured as one would suppose, the vomer and middle line of the palate having been left, and a pad being worn on the side where the eye and cheek had been extensively removed. The myeloid tumour seemed a not unnatural sequence to the slowly progressing hyperostosis, and it was interesting to observe that, since the

occurrence of the former, the latter seemed to have subsided. In reference to the hyperostosis also, it should be mentioned that the patient, while under observation, suffered from palmar psoriasis, which rapidly yielded to antisyphilitic remedies. There was no other evidence that she had any inherited taint.

Sympathetic Ophthalmia.—Mr. G. E. WALKER showed two cases of this affection in reference to his method of treating it. One had already been before the British Medical Association; but since his views had not been generally accepted, he thought it well to bring the matter up again. The essential point in the treatment was profuse mercurial inunction. The man whom he had shown before had rubbed into his skin four pounds of the strongest oleate of mercury, and this without any salivation or other evil effects from the drug. In cases in which the iris of the eye secondarily affected was wholly attached to the front of the lens, he considered that no form of treatment was of any avail; but in all of less severity, he felt confident of success. The second case shown was that of a girl who, in March 1877, was operated on for complete sympathetic inflammation of the eye. An incision was made in the upper part of the cornea; the false membrane, including the remainder of the lens, was seized with toothed forceps, and torn away, together with most of the upper half of the iris. The eye collapsed, as the vitreous was fluid; but the wound healed, and after using mercurial inunction for some time, the sight became $\frac{15}{30}$ + 1 Jäger.—Messrs. R. WILLIAMS, C. E. LEE, and SHEARS, criticised the mercurial treatment, but expressed themselves willing to try it.—Mr. R. N. PUGHE had tried it, and found it effectual.

Observations on the Daily Range of Temperature.—Dr. CARTER read a paper based on two series of observations made on the night-sisters and night-nurses of the Royal Southern Hospital during a week in 1879 and 1882 respectively. These were primarily undertaken for the purpose of discovering whether inversion of the habits disturbed the periodic nightly depression and daily elevation of temperature said to characterise ordinarily healthy people. Dr. Carter's conclusions were that there was such oscillation; that it was not altered by change of habit; that a daily range, amounting in a few instances to 3° Fahr., occurred; that an axillary temperature of 96° at some period of the night was quite common, and consistent with good health; and that the great diurnal wave was but slightly affected by food.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

OCTOBER 11TH, 1883.

H. F. BANHAM, M.B., President, in the Chair.

Removal of a Piece of Steel from the Vitreous Body by the Electro-magnet.—Mr. S. SNELL related particulars of this case, and introduced the patient, a young man, who, whilst striking a wedge in a coal-pit, had been hit with a splinter in the left eye. The accident occurred three weeks before he came to the Sheffield Infirmary. A piece of steel was discovered with the ophthalmoscope moving about in the vitreous body; it had passed through the cornea at its lower margin, and had also penetrated the lens, of which there was a slight opacity. It was immediately removed through a sclerotic wound by means of the electro-magnet needle. At the time of exhibition of the patient, twelve days after the operation, the eye was quiet; the vision was = $\frac{20}{40}$; the fragment weighed .0046 of a grain.

The Conditions of the Muscles in Cases of Diseases of the Spinal Cord.—Dr. BANHAM (President) read a paper on this subject. Attention was first called to a condition of rigidity which occurred as a conspicuous symptom of lateral sclerosis, as well as many cases of hysterical paralysis, and which was probably due in both cases to unrestrained reflex action; in the one case, the controlling impulses from the brain being intercepted by organic disease of the lateral columns of the spinal cord; and in the others, there being either a want of development of those controlling impulses in the brain, or their arrest, owing to a suspension of function in some part of the motor tract. The rigidity due to sclerosis of the lateral columns of the cord (crossed and direct pyramidal tracts) generally affected the flexors of the upper extremity and the extensors of the lower; and the same condition was frequently met with in cases of hysterical origin. The rigidity from meningitis frequently involved the flexors of both extremities; it was spasmodic, and generally associated with sensory phenomena. Marked flaccidity occurred where the reflex arc was interfered with, and the course of voluntary motor impulses also arrested. Such conditions obtained frequently in infantile paralysis, as well as in some cases of myelitis. The nutritive condition of the muscles was next referred to, and was described as due to the integrity of the motor nerve-fibres, as well as to that of their cells of origin and trophic centres—*i. e.*, the multipolar nerve-cells of the anterior cornua. Reference was made to cases of rapid atrophy, due to a disturbance of the conditions referred to, striking examples of which were seen in injuries to nerves, in polio-myelitis anterior acuta, and in many cases of acute myelitis. The atrophy from disuse merely was independent of any special nervous lesion, and was slow in development. Other cases occurred where little or no atrophy ensued, and these were often associated with some excess of reflex action. The condition of the reflexes was next referred to, and the reflex arc, upon the integrity of which reflex movements depended, was described. In health, both the superficial and deep reflexes were present; and, under ordinary circumstances, their absence must be considered as a morbid sign. It was, however, to be remembered that occasionally they were physiologically absent, and, in addition, they were absent in very young children and in old people. In the former class, the reflex paths seemed not to have established themselves, and in the latter their absence was probably due to defective nutrition of the lower part of the spinal cord. Attention was called to the anatomical peculiarities of the circulation in the spinal cord, and especially as regards the lower part of it; and it was remarked that the shuffling gait in old people was probably due in large measure, although not entirely, to the absence of the reflexes. The meaning and clinical value to be assigned to the absence or alteration of the reflexes as a morbid sign was discussed at some length. Before dealing with the electrical reaction of the muscles in spinal disease, the normal healthy reactions were briefly reviewed. Passing to their condition in disease, it was remarked that the inferences derived from quantitative changes, except where very marked, were liable to mislead, owing to the difficulties in the way of exact measurements. A detailed account was then given of the mode of response of nerve and muscle in cases of malnutrition from interception, by injury and disease, between the distal extremities of the nerves and their nuclei of origin in the anterior cornua, or in the nuclei themselves. It was pointed out that, in a comparison of the series of closing and opening galvanic current contractions of healthy muscles corresponding with increasing strength of current, the one series differed from the other by a simple reversal of the direction of the current. For example, the first contraction of healthy muscle with a minimum current was the cathodal closing contraction, and of a muscle undergoing degeneration the anodal closing contraction; and in a similar manner the whole of the two series were contrasted with one another. The changes in the mode of response of healthy and degenerating nerves and muscles were also noted.—Drs. Law, Drew, Dyson, and Garrard took part in the discussion that followed.

OCTOBER 25TH, 1883.

H. F. BANHAM, M.B., President, in the Chair.

Obscure Case of Pott's Disease.—Mr. C. ATKIN read the notes of an obscure case of Pott's disease under the care of Dr. Law at the Infirmary, occurring in a strong and otherwise healthy labourer in his fortieth year. The symptoms were of a very negative character, the only complaint being constant pain in the lumbar region. He remained in this condition a year, when he was suddenly seized with the following symptoms, and died in a few days: retention of urine, paraplegia, pyrexia, muttering delirium, and double optic neuritis. At the necropsy, tubercles were found in the lungs and in the kidneys, and disease of the intervertebral disc between the first and second lumbar vertebræ. The body of the bone on each side was infiltrated with yellow tubercular deposit. Mr. Atkin made some remarks on the difficulty of diagnosis, and on the probable tubercular origin of the disease, and said that the eye-symptoms—viz., asthenopia, photophobia, and congested optic discs—were due to the spinal irritation; and, as the pia mater of the spinal cord and brain was found very congested, the symptoms were probably due to an ascending meningitis.

Swallowing of Palate-Plate with Artificial Teeth.—Mr. PYE-SMITH showed a silver palate-plate, containing three artificial teeth, and measuring two inches, by one inch, by half an inch, which had been swallowed by a woman aged 34, in her sleep, and was passed with the fæces three days later. The patient was under observation in the Sheffield Public Hospital and Dispensary, so that there was no doubt about the passage of the foreign body.

Canine Tooth removed from Dentigerous Cyst in Jaw.—Mr. PYE-SMITH showed a canine tooth which he had removed from a dentigerous cyst in the lower jaw of a man aged 29. The absence of this tooth from the mouth without history of extraction, together with

the existence of fluctuation in the tumour, rendered the diagnosis pretty certain. The tooth was well developed, but misplaced, the crown looking directly outwards, and the fang towards the mouth.

The Surgical Treatment of Renal Calculus.—A paper on this subject was read by Mr. GARRARD, the chief part of which was taken up by the relation of two cases. In one, he had successfully removed by nephrectomy an uric acid calculus, weighing forty grains, from the pelvis of a man's kidney, at the Rotherham Hospital. The man had never had any symptom of calculus, except a deep sinus in his left loin, over the kidney. The wound was entirely healed in six weeks, without any bad symptom of any kind. The other case was one of strumous kidney, with pyelitis and perinephritic abscess, which was at first thought to be a case of calculus. The kidney was explored, the pus evacuated, but no stone was found. After careful examination, a drainage-tube was left in. The patient at first went on improving; but ultimately, in three months, sank exhausted by the drain from the sinus, which never closed. A *post mortem* examination revealed the fact, that the kidney-structure was replaced by caseous tubercles, which had softened down, leaving little else than the capsule, enclosing a bag of pus, and only a small shell of recent phosphatic deposit. In conclusion, Mr. Garrard thought that cases of calculus would be found to show better results than any other cases of renal-disease which were suitable for operative treatment; that nephrectomy, in such cases, would be found remarkably free from risk; and, whilst admitting the great difficulty of making a certain diagnosis in renal calculus, the exploration of the kidney was thoroughly justified, especially since large wounds were now much better treated than formerly.—A discussion ensued, in which Messrs. Wrench, Pye-Smith, B. Walker, and Atkin took part.

MANCHESTER MEDICAL SOCIETY: MICROSCOPICAL SECTION.

JULIUS DRESCHFELD, M.D., F.R.C.P., President, in the Chair.

Bone-Changes in Rickets.—Dr. J. S. BURY read a paper on bone-changes in rickets, and illustrated his remarks by numerous specimens, sections, and drawings. After a brief sketch of normal ossification, which included the description given recently by Kassowitz of "metaplastic ossification," Dr. Bury described the chief variations met with in a growing rickety bone. Briefly, these were as follows. In moderate rickets, the columnar zone of the cartilage was lengthened and widened, owing to an increased growth of the cells; in more advanced cases, the rapidly growing and soft cellular columns, being compressed between the firm cartilage above and the bone below, also became arched, and thus the epiphysal swelling was greatest at the middle. There was an increased formation and enlargement of the vascular canals in the lower zones of the cartilage; these latter were surrounded by borders of ossified cartilage, and they contained osteoid tissue and large vessels. The calcification of the cartilage took place very irregularly, and in extreme rickets was almost completely absent. The "medullary spaces" also presented an irregular character; they advanced to different heights, and burrowed into the cartilage in all directions. Ossification of cartilage went on here and there between and around the medullary spaces, which low down might be seen lined with lamellæ of bone. The medullary spaces often attained great size; in parts, their bony septa might disappear, inasmuch as, at the same time that new bony layers were being deposited, the architecture of the bone became completely altered. With regard to defective calcification, Kassowitz's view—viz., that both in rickets and in osteomalacia the limeless parts were new formations laid down in the place of absorbed calcified bone, and were never due to decalcification—was discussed and illustrated. The immature periosteal deposits were next referred to. Dr. Bury next related the particulars of a case of infantile osteomalacia, and exhibited some of the bones. These were very soft, and filled with red pulpy material. They presented no epiphysal enlargements. Lastly, the nature of rickets and its pathological affinities were briefly considered. Dr. Bury regarded mere hyperplasia as the main pathological feature, deeming it inexpedient to class it as an inflammatory condition, on the ground of insufficient evidence.

Card Specimens.—The following were exhibited.

Dr. DRESCHFELD: 1. Specimens of actinomycosis; 2. Sections from a case of gangrenous abscess of the lung.

Mr. A. H. YOUNG: Preparation and sections of a polypoid growth from the wall of the left ventricle of the heart. Microscopically, it presented the structural characteristics of a syphiloma.

REVIEWS AND NOTICES.

TRAITÉ DE LA VACCINE ET DE LA VACCINATION HUMAINE ET ANIMALE. Par le Docteur E. WARLOMONT, Directeur de l'Institut Vaccinal Belgique, etc. Paris: J. B. Baillière et Fils; Bruxelles: Vve. Manceaux. 1883.

THE name and position of the author of this work are alone sufficient to insure for it a favourable reception—a reception which cannot fail to be enhanced by the character of the work itself. It has been produced to meet a want that has existed for several years—viz., the want of a practical treatise on vaccination written in the French language. Bousquet's admirable treatise, indeed, must always remain a standard work; but the latest edition of that treatise was published so long ago as 1848, and the advances since made, both in the theory and in the practice of vaccination, have rendered it in many respects obsolete. The present work supplies this want in a manner altogether satisfactory. Both in its treatment of the theory of vaccination, and also (and more especially) in its practical instructions—based, as they are, on an unrivalled experience—the work deserves the highest commendation.

The author appropriately enough begins his work by a brief preliminary chapter devoted to small-pox—the disease which it is the end and aim of vaccination to mitigate or prevent. The disease is dealt with chiefly in its pathological aspect, and a very fair summary is given of our present knowledge of that subject.

The next chapter relates to "Small-poxing" (variolisation), or the artificial production of small-pox with a view to conferring protection from the natural disease. Besides what is usually known as inoculation, the only method which has hitherto been systematically employed in the human subject, the author describes a method of transmitting the disease, which he terms "small-poxing by general absorption." Various experimentalists have shown that immunity from certain contagious diseases may be conferred on animals by the intravenous injection of the virus of these diseases. Moreover, according to the experiments of Chauveau, it would appear that, by such injection of the virus, it is possible to confer vaccinal immunity on the horse, without the appearance of a superficial eruption. Dr. WARLOMONT was led, by these experiments, to investigate the effects of deep injection of small-pox virus in the case of the bovine species. After making an incision, the edges of which he cauterised so as to prevent the possibility of superficial inoculation, he introduced some variolous lymph deeply into the tissues of a young calf. In the result, he found that, while no true eruption appeared, there was subsequent complete vaccinal immunity. This remarkable phenomenon leads him to make the suggestion that, where small-pox rages, and where vaccination cannot be had recourse to, some such plan of "small-poxing by general absorption" might be adopted, in the case of human subjects, to confer immunity from small-pox.

A brief chapter is devoted to vaccines in general—the term "vaccine" having, thanks to the labours of Pasteur, attained a wider signification than it originally possessed. The chapter consists chiefly of a quotation from Bouley's *Leçons de Pathologie Comparée*, descriptive of the experiments of Pasteur and his followers in reference to fowl-cholera, etc. The author seems to be unacquainted with the recent important researches of Klein (*Report of the Medical Officer to the Local Government Board for* 1881), which negative such a general view of the attenuation of virus as Pasteur would propose.

Passing to vaccine in its more usual and more correct sense, the author discusses, very fully and ably, the question of its origin. Cow-pox and horse-pox, both natural and artificial, are described, and their relation to each other and to humanised vaccine carefully considered. On the question of the identity of cow-pox and variola, the author, although not expressing himself strongly, inclines to agree with M. Depaul that vaccinia is "nothing else but small-pox, modified and attenuated by passing through the organism of the horse or cow."

Under the head of Human Vaccine, the author describes the pathology of vaccine and its specific micro-organism, and details the methods of preserving the lymph, and the manner of operating. In regard to the *modus operandi* in arm-to-arm vaccination, the author quotes with approval the practical instructions of Bousquet, who recommends puncture. But in vaccinating with preserved lymph, Dr. Warlomont condemns the use of the puncture—"nous tenons la piqûre pour detestable"—and thinks that the best method is scarification. So far, at least, as regards the positive value of scarifica-

tion, our experience confirms that of Dr. Warlomont; but we think that, in this matter, the personality of the operator plays a considerable part. The author declares also that the quantity of preserved lymph used is of considerable importance; but on this point we are by no means inclined to agree with him.

The chapter dealing with Animal Vaccination will be studied with special interest, inasmuch as it is with animal vaccination that Dr. Warlomont's name is more especially associated. The author introduces the subject by pointing out the reasons that led to the introduction of this method of vaccination. These reasons were (1) the risk of the inoculation of syphilis attendant on the use of humanised lymph; and (2) the relative penury of humanised lymph, the difficulty of providing a constant and sufficient supply in countries like Belgium and France, where there is no continuous series of arm-to-arm vaccinations. The important question of vaccinal syphilis is fully and impartially discussed. The author shows that the inoculation of syphilis in the operation of vaccination is not impossible, and he brings forward clear proof that such inoculation has actually, in some cases, occurred. After a review of the whole question, he concludes that, while a risk does undoubtedly exist, there is practically none in the hands of a careful operator. If, he points out, the vaccinator be careful in his selection of vaccinifers, and careful to use only pure lymph unmixed with blood or other extraneous matter, there need be no fear of any untoward result.

The practical instructions as to the methods of procedure in animal vaccination form, probably, the most valuable section of the work. The choice of animals, their management before and after vaccination, the actual operation, the proper time to collect the lymph, and the various methods of storing it, are all carefully and minutely detailed.

Here we may be pardoned for making a digression in order to notice an objection to animal vaccine raised by Mr. P. A. Taylor, which finds a full answer in this section of Dr. Warlomont's work. Writing of cow-pox, Mr. Taylor remarks: "This ridiculous imposture has been well exposed by one of the heads of the veterinary profession by two simple qeestions. 1. Whoever heard of a zymotic disease confined to the female sex? and, 2, whoever heard of bull-pox?" According to Dr. Warlomont, the disease, cow-pox, is not confined to the female sex, and he points out that for the reproduction of lymph, "les mâles ne valent ni plus ni moins que les femelles." The females are, however, to be preferred, for reasons of convenience and cleanliness.

There is, however, a more serious objection sometimes urged against vaccination, whether human or animal, but more especially the latter, viz., the possibility of the inoculation of tubercle. That tubercle may be transmitted by inoculation is now established beyond doubt. The question, therefore, arises whether the operation of vaccination may not sometimes prove the occasion for the inoculation of this terrible disease. Dr. Warlomont deals with this question at considerable length, and the conclusions at which he arrives are reassuring. He points out, on the one hand, that there is an "absence of any fact establishing the possibility of producing tuberculosis by means of a superficial insertion, such as that made in vaccination," and, on the other hand, that, notwithstanding the many millions of vaccinations that have been performed, there is no single instance on record of tubercle appearing at the site of insertion of the vaccine virus. He concludes, therefore, that we may very well put aside the possibility of the occurrence.

In the remaining chapters of the work, the author deals, among other points, with "vaccinisation" and "false" vaccine, the proper age at which to vaccinate infants, the utility of vaccination, and the objections that have been raised against the practice. A good bibliography is appended to the chapter on Animal Vaccination, and the volume is furnished with a full analytical table of contents, but the absence of an index is a decided blemish.

In concluding this notice, we again express our high opinion of the value of Dr. Warlomont's treatise. It is a most valuable addition to the literature of vaccination, and we cordially recommend it to all who are interested either in the theory or in the practice of vaccination.

A Handbook of Therapeutics. By Sydney Ringer, M.D., Professor of the Principles and Practice of Medicine in University College, Physician to University College Hospital. Tenth Edition. London: H. K. Lewis. 1883.

It may perhaps be urged that, when the tenth edition of a work is called for, it is beyond the range of criticism. We are hardly prepared to take this view of the matter, for there is much that is new in the book before us, and much that might be fairly criticised. It is generally supposed that Dr. Ringer's *Therapeutics* is devoted entirely to treatment; but the first hundred pages or so have little to do with therapeutics, and constitute in reality a separate work, which may be regarded as introductory to the study of clinical medicine. The articles on the pulse, tongue, temperature, etc., are thoroughly practical, and are deserving of the best attention, both of students and of those already in practice. An excellent account is given of the "capillary pulse" often met with in aortic regurgitation. "When the skin is reddened by irritation, the blush pulsates synchronously with the heart's beat. It is observed best in parts situated on a higher level than the heart, as the forehead and temporal region. With each diastole, the skin becomes pale, and reddens again with the systole. The explanation of these changes is obvious. During diastole, the blood flows back into the ventricle, and the arteries become comparatively empty, those especially situated above the cardiac level; hence, during diastole, the irritated skin grows pale, but the systole again fills the dilated vessels, and a blush diffuses itself over the skin."

A good account is also given of the recurrent pulsation in the radial arteries, first described, we believe, by Dr. Augustus Waller. After compressing the radial pulse, and completely obliterating it, the pulse in many cases still beats at the distal side of the fingers. The arterial wave which produces the pulsation comes from the ulnar artery, and travels the radio-ulnar inosculating arteries, so reaching the radial artery. If the ulnar vessel be also compressed, the pulsation at the distal side of the fingers ceases. The "recurrent pulsation" is found generally in persons with relaxed arteries, in whom the heart beats fairly well, for a weak heart is unable to propel a wave from the ulnar to the radial artery.

The chapter on Chronic Fever is one of the best in the book, the subject being admirably treated. A great deal of space is devoted to the discussion of the effects of water, in its various forms, on the system. Thus, there are articles on the Cold Bath, including Sea-Bathing, on Cold Baths in Fevers, on the Warm Bath or Hot Bath, on the Shower, Douche, or Sponge Baths, on the Turkish Bath, on the Wet Pack, on the Medicinal Uses of Ice, on the Spinal Ice-bag and Spinal Hot-water Bag, and on the Internal Use of Water. Each of these subjects is treated in a thorough scientific spirit, and without the slightest tendency to exaggeration.

Turning to that portion of the work which is devoted more especially to the study of the physiological action of drugs, we find some thoroughly practical remarks on the relative effects of potassium and sodium salts, which will serve to explain to those unacquainted with the progress which has been made of late in pharmacological science, why it is that the salts of sodium have in practice almost superseded those of potassium. It may be as well to notice that the sodium salts act nearly as powerfully as the potassium on the cardiac muscular tissue, but sodium salts do not weaken the spontaneous rhythm, in this respect differing strikingly from potassium salts. These points have been well brought out by experiments on the detached frog's heart, made recently by Dr. Ringer, in conjunction with Dr. Sainsbury. In the article on Manganese, an account is given of the observations of Ringer and Murrell on the influence of these salts on the menstrual flow. Permanganate of potash is undoubtedly our best remedy for functional amenorrhœa. In girls at school, in whom this complaint is prevalent and troublesome, the administration of a few permanganate of potash pills acts with greatest certainty. It is a practical point which is as yet but little known. The chapter on Nitrous Oxide Gas was written by the late Mr. Clover, and is an admirably clear and lucid summary of our knowledge of the subject It is with some surprise that we find that only a single page is devoted to such an important subject as Iodoform. It may be pleaded that it is a drug used more commonly by the surgeon than the physician, but still a less meagre account might have been given.

Nitro-glycerine receives its fair share of attention, and the author appears to have been satisfied with his experience of this valuable remedy. He says: "Dr. Murrell recommends nitro-glycerine in angina pectoris. It is certainly equal, if not superior, to nitrite of amyl. In many cases, it is certainly superior. I have seen cases where the relief from amyl was very transient, but much more persistent from nitro-glycerine. Nitro-glycerine is slower in relieving pain, but its effects are often more prolonged." On the succeeding page, a terrible mistake is made, nitrite of sodium being recommended, on the authority of Matthew Hay, Mitchell, and Law, in angina pectoris and epilepsy, *in twenty-grain doses*. This is not a misprint; and the explanation is that these observers employed, not nitrite of sodium, but an impure compound containing not more

than half its weight of nitrate of sodium. If twenty grains of pure nitrite of sodium—as now ordinarily supplied by chemists—were taken, the results would probably be disastrous. It would be a most unfortunate circumstance if an accident were to occur; and we are glad to see that Dr. Ringer has already taken steps to correct a mistake which, although it did not originate with him, might lead to serious trouble.

In the article on Digitalis, the local application of the infusion as a remedy for inflammation is mentioned. Cases are narrated of acute inflammation of joints, acute inflammation of the leg from varicose ulcers, severe inflammation of the breast, and of erysipelas, yielding speedily to fomentations, made by infusing a small teaspoonful of the dried leaves in half-a-pint of boiling water, and applying by means of flannels wrung out in this decoction. We are told that De Haen, Andral, and Trousseau, used "agaricus", with great success, in the sweating of phthisis. This, of course, means the agaric of the larch, but it would be as well to say so; for, as the paragraph occurs in the article on Muscarin, it might lead to confusion.

Taking it on the whole, the work is singularly free from mistakes. It is a thoroughly practical book; and a student who knows his "Ringer" well will rarely be at a loss when called on to treat a case. The author is to be congratulated on the success which has attended his efforts to produce a reliable work on therapeutics.

POLITZER'S TEXT-BOOK OF DISEASES OF THE EAR AND ADJACENT ORGANS. Translated and edited by JAMES PATTERSON CASSELLS, M.D. London: Baillière, Tindall, and Cox. 1883.

THIS book, as the work of a recognised master in this department, needs no commendation at our hands. It may not be out of place, however, to indicate briefly its scope and character, and to make a few friendly remarks on the share which Dr. CASSELLS has had in producing the English version. The original was produced in German in two volumes, which appeared, the first in 1878, the second in 1882, simultaneously, we believe, with Dr. Cassells' translation of the whole in a single volume.

The arrangement of the matter is unusual, as will be seen from the following. After describing the anatomy and physiology of the sound-conducting apparatus, the author considers the diseases of the middle ear, and discusses in succession the pathologico-anatomical changes in the middle ear, the methods of examining the ear, the diseases of the membrana tympani, acute inflammation of the middle ear, catarrh of the middle ear, diseases of the naso-pharynx and nasal cavities, adhesive affections of the middle ear, and purulent inflammation (acute and chronic) of the tympanum. The remainder of the work is devoted to diseases of the mastoid process, diseases of the external ear, the anatomy, physiology, and diseases of the internal ear, cerebral disturbances of hearing, malformations of the ear, deaf-mutism, and hearing-instruments for the deaf. The author's division of acute inflammation of the middle ear into two forms, according to whether the membrane becomes perforated or not, is peculiar, and strikes us as somewhat artificial; for in both forms (which he styles respectively "acute inflammation of the middle ear" and "acute purulent inflammation of the middle ear"), he describes the exudation into the tympanic cavity as muco-purulent or purulent in character. The former does not, therefore, correspond to what is usually understood as acute catarrh of the middle ear. In his "acute inflammation of the middle ear," the author is not in favour of paracentesis, except when appearances lead one to suppose that perforation of the membrane is likely to occur. In acute suppurative inflammation, on the other hand, paracentesis should be performed as soon as it can be inferred that a collection of pus in the tympanic cavity has taken place. In the after-treatment of the last-named disease (after perforation has occurred), the author recommends very strongly injection of warm water through the catheter into the middle ear. In chronic catarrh of the middle ear, accompanied by exudation, he performs paracentesis in those cases in which, after the application for several days of the usual treatment (Politzerising with the Eustachian tube in the most dependent position, etc.), no decrease in the exudation is observed; and in those in which, even when no exudation is demonstrable, the improvement in the hearing produced by inflation is lost almost entirely in one or two days. He also finds that it shortens the duration of the treatment if performed in cases in which, at the first examination, the secretion is seen to be copious. In his description of the adhesive processes, the author mentions a new operation, which he has recently performed with advantage in two cases, viz., division of the anterior ligament of the malleus.

Where all is good, it is difficult to select any part for special mention; but the chaper on Chronic Purulent Inflammation of the Tympanum (to which, with its complications, no less than 144 pages are devoted) strikes us as particularly lucid and practical in character. In the treatment of this affection, the author gives (and rightly, we think) the palm to the antiseptic treatment with boracic acid; next in order of utility, he ranks the alcoholic treatment, the caustic treatment of Schwartze, the treatment with astringents, washing out the tympanic cavity through the Eustachian tube with warm water (from which he has sometimes found great benefit in cases in which any previous treatment had been without result); and, lastly, the dry method of treatment. For removal of inspissated masses from the meatus, and also from the tympanic cavity, the author uses an India-rubber tube, five to eight centimètres long, and four millimètres wide, smooth, thin, and somewhat rounded at its anterior orifice, the other extremity being fitted on to the syringe. This tube is pushed two centimètres deep into the meatus before the syringing is commenced. The manipulation is so simple, that it may, if necessary, be entrusted to the patient. In opening the mastoid process, the author recommends Schwartze's method with a chisel; and, in chronic suppuration of the tympanum, when all other means fail to arrest the suppuration, he thinks that removal of a wedge, limited to a half to three-quarters of a centimètre, from the mastoid process, may be tried.

Dr. Cassells' translation we have found, on the whole, accurate and readable, although it is almost a matter of course that, in the reproduction of such a large work, errors should occasionally creep in. We notice, for instance, that, on p. 31, the translator speaks of "interior meatus;" whilst, a few pages later (p. 34), he renders it correctly, "internal meatus." On page 656, seven lines from the bottom, the word "spiegel" should not be rendered "speculum," but mirror. It would be invidious to point out Germanisms which occur here and there, but do not impair the value of the work. A more important defect is the faulty reproduction of Politzer's graphic woodcuts in the English edition. This is especially evident in Figs. 98, 101, and 102. One figure (No. 130 in the German edition), we notice, is omitted. Dr. Cassells has shortened the table of contents considerably; but, on the other hand, he has added a copious index, and a very useful appendix, containing a collection of the therapeutical formulæ occurring throughout the work, in a form easy for reference. In conclusion, we may say that the work, which is an essential one to the specialist, is, at the same time, one which can be most highly recommended to the general practitioner. Dr. Cassells is to be thanked for having placed it within the reach of those readers in this country and in America who are unacquainted with the German language.

ELEMENTS OF SURGICAL PATHOLOGY. By AUGUSTUS J. PEPPER, M.S., M.B.Lond., F.R.C.S.Eng., Fellow of University College, London; Surgeon to St. Mary's Hospital, and Teacher of Practical and Operative Surgery at the Medical School. Illustrated with eighty-one engravings. London: Cassell and Co.

ALTHOUGH pathology has no actual medical and surgical limits, the necessities of professional education and practice demand an artificial division of the science into the study of diseases as met by the surgeon, and of diseases which require the care of the physician. Mr. PEPPER, a most competent writer, has devoted the manual in question to the pathology of surgical diseases. We consider that a more general manual, like that of Dr. Green, should be studied first of all, but a student engaged in surgical work will find Mr. Pepper's *Elements of Surgical Pathology* to be an invaluable guide, leading him on to that correct comprehension of the duties of a practical and scientific surgeon, which is the groundwork of the highest type of British surgery. Such a work is a good introduction to the study of larger text-books, like that of Cornil and Ranvier, where the relations of normal and morbid pathology are allowed a prominence to be desired elsewhere, or Ziegler's work, where the inquirer can find a classified description of micro-organisms, and thereby obtain a clear idea of certain matters so often discussed in relation to antiseptics.

It is a common idea among students that "pathology means tumours." Mr. Pepper has done his best to avoid the perpetuation of this fallacy in the present generation of students; and out of his ninety-four chapters only the last fourteen are devoted to new growths, but the quality of the information on the subject is simple and excellent. The chapters on bone are particularly satisfactory, and

we are glad to find that Mr. Pepper throws doubt on certain prevalent ideas, taken by the student as truisms, such as the "tarry blood," said to be frequently seen in the bodies of patients that have died of septicæmia. "I have never seen this," observes our author; and such is the case with others who have had some experience of septicæmia in the dead-house. Mr. Pepper writes in the conventional style of British pathologists, and rightly prefers description to definition, and definition to nomenclature; and with regard to technical names he is most merciful to the student, especially in the chapters on tumours. We are glad to see the good old term "benign," but regret that such hybrids as "hypersecretion" have not been entirely kept out of this manual. The woodcuts are very good, especially those representing bone; which is to be expected, as they have been drawn by Mr. C. Berjeau, whose admirable illustrations of the bones of animals already adorn the published archives of several learned societies.

INSANITY: ITS CAUSES AND PREVENTION. By HENRY PUTNAM STEARNS, M.D. Pp. 248. New York: Putnam and Co. 1883.

THIS work consists of a series of essays which, having been previously published, are now "rewritten." "It is not written for specialists,.....but rather for those in the general practice of medicine, educators, and the more intelligent lay members of society." We have here allowed the author to state his claims for readers of his book, and proceed to enumerate the several headings under which he treats his subject. These are: Increase of insanity; insanity and civilisation; the insane diathesis; the influence of education; industrial education; moral education; heredity; consanguineous marriages; alcohol; tobacco; sex in relation to insanity; poverty; religion; and insufficient sleep. These several topics, we concede, are all ably treated of, and cannot fail to convey a large amount of information to non-professional readers. We trust, however, that we shall not be deemed wholly hypercritical if we express the notion that we have met with very much of the matter, and also of the manner, in well-known writers on mental physiology and pathology on this side of the Atlantic—evidence, indeed, that the author is well read in the literature of mental derangement. For his statistics, recourse must inevitably have been had to the Reports of the Commissioners in Lunacy of Great Britain. The population of the United States being to a very large extent migratory, a census, or homogeneous statistics, are thereby rendered impossible for the present. Beyond a general estimate that, in the States, bodily labour is in excess of mental strain as a cause of insanity, we do not learn from Dr. STEARNS that mental disorders differ in any degree in the United States from what is observed in the United Kingdom; as might, indeed, reasonably be anticipated, looking to the historical relations of both.

REPORT ON THE WORKING OF THE GOVERNMENT CHARITABLE DISPENSARIES IN THE CENTRAL PROVINCES (INDIA) FOR THE YEAR 1882.

THIS report shows that gradually native prejudices are giving way, and that the people of the Central Provinces are learning to avail themselves of the advantages of Western medical science. But still there is much to be done in developing the Government dispensaries, and in bringing them within reach of the outlying villages.

Dr. B. Simpson, the Deputy Surgeon-General for the Central Provinces, has made a careful inspection of the dispensaries within his district, and offers some important suggestions for their improvement in his report. The number of dispensaries at the close of 1882 was 82, one more than in 1881. These dispensaries are divided into four classes: the first three classes receive in-patients, and are subdivided according to the accommodation they offer; the fourth class receives out-patients only. The best of these in-patient dispensaries are in the large centres, where there is a resident civil surgeon. But of those which are situated in outlying districts, and which are under the care of native hospital-assistants, the report does not speak in very favourable terms. "Several of them are little better than almshouses for starving travellers, lepers, and so forth." And the hospital-assistants are apt to admit persons as in-door patients from a desire to profit by the facilities for entertaining servants and for making special charges which their admittance involves. It is no wonder, then, that these dispensaries are unpopular, and that, in many instances, the beds are not half occupied. Such being the case, Dr. Simpson recommends that some of them should be reduced to the fourth class; and he further suggests that the native assistants should be sent, at stated intervals, to make a tour through the neighbouring villages, so as to afford relief to such poor sufferers as are unable to travel to the dispensary. While the number of out-patients treated throughout the district increased from 545,516 in 1881 to 584,948 in 1882—showing that the native assistants can deal satisfactorily with minor cases—it appears that the more severe class of cases, and such as require surgical operations, can only be treated efficiently at those dispensaries which are under the supervision of civil surgeons. It is only as the native assistants become better educated, that the treatment at the outlying dispensaries can be raised to the same standard as at the central dispensaries.

NOTES ON BOOKS.

Reports of Trials for Murder by Poisoning. By G. LATHAM BROWNE and C. G. STEWART. 1883.—This is a volume of selected reports of the most remarkable trials for murder by poisoning which have been held for the past forty years, by Mr. BROWNE, with essays and notes explanatory of the methods of detecting the various poisons, by Mr. STEWART. It includes the celebrated trials of Tawell for poisoning by prussic acid; of Palmer and of Dove for poisoning by strychnine; of Madeline Smith, of Pritchard, of Smethurst, and of Lamson, for poisoning by aconitine. In the reports, which are chiefly *verbatim* reprints of those published at the times of the various trials, the evidence of the witnesses is grouped under the heads of the case to which they specially apply—a distinct advantage, which will render the volume valuable to the forensic expert and to the lawyer. Mr. Stewart has done his part of the work carefully, and added experiments of his own in elucidation of questionable points of testing. The chapter on the chemistry of aconitine is mainly from the pen of Mr. Clayton. We observe that he adopts the often reiterated statement, that English aconitine is pseudo-aconite prepared from *Aconitum ferox*, the Indian aconite. We are assured by the best English makers that it is entirely prepared from *Aconitum napellus* of British growth. We can, on the whole, highly commend the book; but it has one serious defect, in the slovenly manner in which the sheets have been passed through the press. Misprints and dropped letters are abundant throughout the work, and seriously detract from its value as a book of reference.

Guide to the Examinations of the Apothecaries' Society of London; with Examination-Questions; Tables of Medicine, Materia Medica, Midwifery, Forensic Medicine; and Advice on Books, etc. By W. E. DAWSON, L.S.A.L., etc. London: Baillière, Tindall, and Cox.—This thin octavo can hardly be said to challenge serious criticism; it belongs to a class of books, the existence of which is not an unmixed advantage, and it does not appear to be above the average of the class. Rather more than half the book is occupied by a statement of the regulations of the Apothecaries' Society with regard to examinations, and hints as to the degree of acquaintance with each subject which the candidate may expect to find himself called upon to exhibit, as well as some advice on the best books to study. Lists of questions which have been set at the two examinations—the "Primary" and the "Final"—are given; and we have no doubt that these pages may be studied with great advantage by a student shortly before presenting himself for examination. The second part of the book consists of a series of singularly meagre tables, which may possibly be of use under the same distressing circumstances; but, even to fulfil this purpose, it would have been better to have made them fuller and more systematic.

Des Effets Comparés de divers Traitements de la Fièvre Typhoide, et de ceux produits en particulier par l'Ergot de Seigle de bonne qualité. Par le Dr. DUBOUÉ (de Pau), Membre Correspondant de l'Academie de Médecine de Paris. Paris: G. Masson. 1883.—In this little pamphlet, Dr. DUBOUÉ extols the virtues of ergot in the treatment of enteric fever. He believes it is efficacious, from its physiological action on the muscles (including the heart-muscle), which become enfeebled in this disease, and so lead to various serious symptoms. The drug should be administered in doses of about 1½ to 3 grammes (23 to 46 grains) to adults, and about 40 centigrammes to 1 gramme (6 to 15½ grains) to infants between six and twelve; but these doses are to be varied according to the circumstances of the particular case under treatment. It is necessary, in using the drug, to make sure that it is of good quality; otherwise, it may do harm rather than good. The author has been able to attain very great success by the use of this drug, even in very severe cases of typhoid fever; and, like most authors who introduce a special treatment, his successes have apparently been greater than any sceptic who follows is likely to achieve.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 10th, 1883.

PETTENKOFER ON CHOLERA AND QUARANTINE.

THAT epidemiologists and sanitarians owe much to the indefatigable research and scientific ingenuity of Pettenkofer, even those who are least disposed to agree with all his conclusions will not deny. It was he who first called attention to the part played by variations of level in the ground-water, and the consequent movements of the ground-air in determining the incidence and intensity of several diseases, and few men in Europe have given more study to the causes of the spread of cholera. Once more, in view of its presence in Egypt, the Munich professor has published to the world his views on the question and on the probability of the extension of the epidemic to Europe in the present or the coming year.

He shares with many of our Indian surgeons, the belief in a special liability of certain places to, and an immunity of others from, attacks of cholera, for reasons as yet imperfectly understood, and not easily referable to their sanitary condition; his own town, for example, having been visited on three occasions only, and then but lightly, although it could boast of no sanitary superiority over others which suffered heavily; while the remarkable immunity enjoyed by Lyons presents a problem of the greatest difficulty.

Pettenkofer, however, is far from denying the influence of human intercourse and commercial relations in determining the march of the pestilence, and in this respect he differs entirely from the school of Fayrer, Chevers, and Cunningham; and he connects the appearance of cholera in Europe fifty years ago, with the increased facilities then offered by steam and the "overland passage" for communication with India and the East.

But he is no believer in the efficacy of any practicable quarantine, and in support of his position he adduces the case of Malta, where, in 1865, in spite of the most stringent precautions that could be conceived, cholera broke out simultaneously in several parts of the island, within a few days of its having been reported from Alexandria, these places being the same as had been first attacked on previous occasions.

Though persons are the vehicles of transportation and introduction of the disease, infected places are, he maintains, the means of its propagation; and, if we understand him aright, we agree with him to a great extent. The germs, we believe, must be brought by man himself. We cannot assent to the assertion of Chevers, for example, that the appearance of cholera at, say Malta, a few days after its appearance at Alexandria, is independent of, and would have occurred without, any communication between these places; but it is certainly no less true that cholera is infectious or contagious only in a very slight degree; and, though an affected individual brings it into a place, it is by and through the pollution of the water, soil, etc., of the locality with the poison contained in his evacuations, that a focus is created, the intensity of which will vary as the amount of organic matter in the soil, and the opportunities for the contamination of the air and water, especially those of the ground. Pettenkofer adduces the comparative immunity of the attendants on cholera-patients, and mentions a case of one who was literally drenched with rice-water stools, which dried on his person. Of course, we know of many who have fallen victims to their devotion to the sick; but the seeming paradox of the *greater* immunity enjoyed by these persons than by the inhabitants of infected localities, even under such circumstances as those of the man just mentioned, may, we think, be easily explained by the greater cleanliness and care bestowed in hospitals on the disposal of the evacuations and the soiled bedding, etc., as well as by the observations of Sanderson as to the virulence of the stools on each day after evacuation. He found that, of mice fed with them within the first twenty-four hours, only 11 per cent. died; on the second day, 36 per cent.; on the the third day, every one; on the fourth, 71 per cent.; on the fifth, 40 per cent.; while after this they ceased to be capable of communicating the disease. We must strongly protest against Pettenkofer's conclusion that it is not necessary to remove the sick from the care of their families; the more so as, on his own showing, the aggregation of patients in a hospital does not create a focus of disease; simply, we maintain, in consequence of the greater facilities presented by hospital-arrangements for the removal of the real source of infection.

Again, that cholera has always made its appearance in Munich after a rise in the ground-water, is directly dependent on the conditions of the soil saturated with the filth and excreta of centuries, the emanations from which are forced out by the rising water, while in a pure soil the ground-water may rise and fall without any such risk. Cholera, in fact, will fail to get a firm footing in any town with well-constructed sewers, pure water-supply, and good domestic sanitary arrangements.

Pettenkofer gives no credit to the current stories of the introduction of cholera into Egypt by our troops or steamers; at the same time, he is inclined to believe that it was not developed *de novo* in that country, but probably imported from India last year, the germs remaining dormant during the colder months. Such an apparent subsidence on the approach of winter, and fresh outbreak without a fresh importation, have often been witnessed in Russia and eastern Prussia, and are claimed as examples of origination *de novo* by the disbelievers in the doctrine of its conveyance by man. We do not see any incompatibility between the supposition of a resuscitation of dormant germs and the rapid loss of virulence in the stools recorded by Sanderson; for we are familiar enough with the existence of stages in the life-history of the lower organisms, in which they possess very different degrees of resistance to external influences, and the bacteria may be highly perishable though their spores are extremely tenacious of life.

There is one more question on which Pettenkofer dwells at some length, and which certainly deserves consideration; viz., the immunity of ships on the high seas, or rather the speedy disappearance of cholera after a ship has left an infected port, if the passage be prolonged for many days. Thus, in 1873, though 152,135 emigrants sailed from Europe in four hundred ships, mostly from cholera districts, only one hundred cases occurred in four of these vessels. Again, there is no instance of the conveyance of the disease by Indian steamers to Australia, the Cape, or even to Mauritius, though the majority of the passengers by the last line are coolies. As regards England itself, as Pettenkofer points out, the direct importation of cholera from India or Egypt is more than doubtful; we have always received it from the Baltic or North Sea ports. The case of the French troopship *Corrèze*, to which he does not allude, is perhaps the most striking exception to the general rule on record.

Though there are several things in Professor Pettenkofer's paper with which we cannot entirely agree, we may congratulate ourselves on having at least one, standing deservedly high in the opinion of Continental epidemiologists, who, without taking up the position

of an advocate or partisan, expresses so hearty an approval of the policy of our Government in the present crisis.

CLASS-MORTALITY AND STRATIFIED STATISTICS.

A PAPER contributed by Dr. T. W. Grimshaw, the Registrar-General of Ireland, to the *Transactions of the Academy of Medicine in Ireland*, and entitled "Some important relations between Census-Statistics and Sanitary Statistics," has recently been reprinted, and possesses interest apart from that due to its authorship. The paper deals mainly with the bearing of census-statistics upon two features of mortality-statistics; first, the formation of estimates of population as a basis of death-rates; and, second, the construction of death-rates for different social classes.

As regards the difficulties of framing trustworthy estimates of the population of urban districts during intercensal decades, and the effect of errors of estimate upon the calculated rates of mortality of the large towns dealt with in the returns issued by the Registrars-General of the several divisions of the United Kingdom, Dr. Grimshaw's paper contributes little, either as to facts or suggestions, that is not familiar to most of those who have devoted any attention to this important subject; his re-statement of the case is, however, useful. It has long been urged by all students of vital statistics, that a decennial census does not afford the means of calculating annual statistics of population in large towns sufficiently accurately to serve as a basis for trustworthy mortality-statistics; and Dr. Grimshaw is evidently of the same opinion when he says, "I have, therefore, arrived at the conclusion that, in order to keep death-rates absolutely accurate, it will be necessary to collect facts more frequently than is usually done." It is suggested that each annual estimate should be based upon the known number of inhabited houses, and "in alternate years, or at triennial periods, a simple enumeration of the population might be made." Dr. Grimshaw proposes that these "simple" intercensal enumerations should be undertaken by each sanitary authority; but we are inclined to think that, in order to secure uniformity of system and date, it would be preferable that such intercensal numberings should be carried out under the central direction of the Registrar-General. Experience shows that, while local authorities are anxious enough to have estimates of population raised if they appear to be understated, there is very seldom a corresponding anxiety to secure corrections of estimates which appear to have been overstated. It is quite clear that a return of the number of inhabited houses on the rate-book in the middle of each year would be valuable, and should be furnished to the authority charged with the duty of estimating the population of the sanitary district in the middle of each year. It is usually safe to assume that the population of a town bears a tolerably constant proportion to the number of inhabited houses.

Dr. Grimshaw deserves the gratitude of vital statisticians for his attempts, imperfect as they necessarily are at present, in the direction of supplying materials for the calculation of death-rates for different classes of society. In order to render such statistics possible, it is necessary to know, not only the number of persons engaged in each trade or occupation, but also the "number of persons dependent on each trade for subsistence," including the wives and families. The Irish Census Report contains, for the first time, tables showing the sex, age, and social position of every inhabitant of the Dublin registration district. For instance, the numbers of carpenters, carpenters' wives, and carpenters' children are given; and the aggregate of these gives "the total number of persons dependent on carpentering, and occupying the social position of a working carpenter." With the help of this table, Dr. Grimshaw divides the Dublin population into five classes, according to occupation and social position. These classes are called professional and independent, middle class, artisan class and petty shopkeepers, general service class, and inmates of workhouses. This classification is necessarily somewhat arbitrary in character, and is probably susceptible of improvement; but, as an attempt to provide the means for calculating class death-rates, it should be welcomed as a valuable contribution to vital statistics. Since the beginning of the year, Dr. Grimshaw, with a view to turning these new census-statistics to account, has had the deaths in Dublin classified each week, in the weekly return for that city, according to the same five classes of occupation and social position. Dr. Grimshaw notices, in the paper before us, that, in the first four weeks of this year, the annual death-rate in Dublin averaged 30.6 per 1,000, while the rates prevailing in the several social classes of the population were as follow:—Professional and independent class, 22.5; middle class, 25.4; artisan and petty shopkeepers, 26.1; general service class and inmates of workhouses, 37.2. There is one serious flaw in Dr. Grimshaw's figures; no account is taken of the varying age, and constitution of the different classes, and the general death-rate of classes which ignores this important disturbing element must be more or less misleading. Moreover, we cannot but regard it as a mistake of classification to class domestic servants (who may be said, as far as regards urban mortality statistics, never to die) under the same heading as hawkers, porters, and labourers. There can be no question that Dr. Grimshaw's figures, partly on account of the omission of the age-element, and partly from the nature of his classification, understate the terrible waste of life among the lowest working-classes of Dublin. We must thoroughly appreciate, however, the value of Dr. Grimshaw's experiment, proving, in his own words, that "in certain ranks of society the death-toll is levied with a degree of severity quite inconsistent with our boasted civilisation and our national zeal for sanitary reform."

We trust that these experiments will lead to further attempts in the direction of the statistics of class-mortality, the national importance of which, both from a social and a sanitary point of view, cannot be over-rated.

THE SALE OF POISONS.

THE recent meeting of the National Association for the Promotion of Social Science was enlivened by the reading of two able papers by Dr. Tidy and Mr. G. Latham Browne, a barrister, on the amendment of the law regulating the sale of poisons; and by a lively discussion.

After an elaborate exposition of the existing law relating to the sale of poisons, in which Dr. Tidy expressed an opinion, which must not, however, pass unquestioned, that the legally qualified medical practitioner is obliged, in cases where articles scheduled as poisons under the Act of 1868 are employed as ingredients in his medicines, to place on the bottle his name and address, and also enter the prescription in a book, he reviewed the question—What is a poison? He added, that the law nowhere defines it, but uses the terms: "poison," "noxious thing," "noxious material," "destructive thing," "stupefying drug, matter, or thing," "overpowering drug, matter, or thing," "poisonous drug," "injurious drug or substance," "poisonous ingredient," "poisonous matter," and "poisonous preparation," thus greatly complicating the question. Dr. Tidy would do away with the poison-schedule altogether, and rely upon a definition of the word poison, as "anything which, otherwise than by the agency of heat or electricity, is capable of destroying life, either by chemical action on the tissues of the living body, or by physiological action from absorption into the living system." The adoption of this definition, and the abolition of the poison-schedule, would probably be a retrograde step; and we may remark that the above definition would bring brandy and other strong alcoholic liquors within the class of poisons, no doubt to the great joy of total abstainers.

Although we differ from Dr. Tidy on this vital point, we cordially endorse his remarks when he says that we can never, by any possible

legislation, prevent poisons from getting into the hands of those who have made up their minds to get them and to use them improperly. The best we can do, as he says, is to improve such conditions that, in the event of an improper nse, we have at any rate some chance of discovering the criminal. Perfect efficiency is impossible. Most emphatically, too, we endorse his weighty remarks on the storage of poisons, and on the strange neglect of the Pharmaceutical Society to avail themselves of their statutory, but neglected privilege, to make regulations for the safe storage of poisons. The time has indeed come, when whoever keeps for sale or dispenses poisons—medical men included—must be ready to accept some regulation in the matter of storage. Accidents are sufficiently numerous—in pharmacies, in medical practice, and in the wards of our hospitals—to demand that this should be done. We argue on the assumption that a poison-schedule is to be continued; for, were a mere definition of the term "poison" substituted, it would, we believe, be found impracticable to lay down regulations for storage, so numerous would be the list of substances in an ordinary pharmacy to be specially stated. We know that, in first-class pharmacies, elaborate means are adopted to prevent accidents; but the practice is by no means so general as we desire to see it.

Mr. Latham Browne says that, although vermin-killers are placed n the schedule of poisons, and their legal sale restricted to chemists and druggists, there is no doubt that they are still sold by unqualified persons, especially in poor neighbourhoods and in country places. We doubt, nevertheless, whether this statement is warranted by facts; and, if it be, the police are, we imagine, at fault.

For our own part, we are of opinion that a careful *bonâ fide* registration of the sale of poisons, so that the purchaser may be traced, adequate attention to the safe storage of poisons, the prominent labelling of all preparations containing dangerous quantities of poisons, a more extended schedule of poisons, periodically and more frequently revised and added to, and the non-exemption of patent medicines from the provisions made for the sale of poisons, will achieve all that can be done by legislation for the safety of the public. A perfect guarantee of safety from accident and the improper use of poisons is impossible. The subject is ripening for legislation, which, indeed, cannot long be further delayed.

THE THORNTON HEATH MURDER.

THE respite of James Cole, who was found guilty of murder at Thornton Heath, occurs under circumstances of unusual and grave importance in their relation to the administration of justice. The energetic protests which we made last week against the mode in which this case was conducted by the Public Prosecutor, prove to be well founded in fact; and the conclusions to be drawn from them as to the urgent necessity of improvement in the investigation of cases of this kind by the Public Prosecutor are, we submit, irresistible. Had Parliament been sitting, attention would certainly have been drawn, in a public and forcible manner, to the peculiar dangers, and, we can hardly help adding, scandals, which the facts of this case disclose. It is evident that the witnesses who could have proved this man's insanity, as to which no one now entertains the least doubt, were in court; although the witness who could have given the most important information, the wife, could not be called, according to English law.

The moral of this case is plainly that the Treasury Solicitor, when he undertakes, in the public interests, the prosecution of a case of this description, should not only prosecute, but should take adequate steps to ascertain all the material facts, whether for or against the prisoner—one of these very material facts being the mental condition of the prisoner. It is for the public interest that a lunatic should not be hanged as if he were sane. If this be granted, it fol lows that it is for the public interest that the question whether a prisoner is or is not a lunatic should be carefully investigated; and the Solicitor to the Treasury, when he undertakes a prosecution, should also undertake the duty of getting this investigation made. It is not enough to give facilities to the witnesses for the defence to come forward; facts must be sought for; and this can only be done by a medical investigation, specially undertaken with a view of ascertaining all the facts of the case.

THE Registrar-General reports that 271 persons were killed in the streets of London and the suburbs last year.

CHANGES are expected in the Sanitary Administration of Egypt. The International Board of Health will be abolished.

MR. W. H. CALDWELL, of Caius College Cambridge, has been appointed to the Balfour Studentship, the value of which is £250.

THE ninth donation of £1,000 towards the Birmingham Suburban Hospital has been given by Mrs. Simcoxon, Sparkhill.

SIR CHARLES DILKE has ordered a reorganisation of the staff of clerks of the Local Government Board.

A REUTER'S telegram from Bombay states that during the past fortnight only two deaths from cholera have occurred there.

IN consequence of cholera appearing at Meccah and Djeddah, the steamers conveying the pilgrims will, on returning from Djeddah, undergo a quarantine of twenty days' duration.

LAST week, the mean temperature registered at the Royal Observatory, Greenwich, was 50.9°, or 1.5° above the average in the corresponding week of twenty years.

A BUST of the celebrated surgeon Dieffenbach was, on November 1st, unveiled in the operating-room of the surgical clinic of the University of Berlin.

THE Gaslight and Coke Company and the South Metropolitan Coke Company have each sent a contribution of £100 to the funds of the National Smoke Abatement Institution.

MR. W. L. BURR was appointed on November 2nd, by the Journal and Finance Committee, to the office of Assistant-Secretary to the British Medical Association. There were fifty-four candidates.

THE Conseil Municipal of Paris has decided to name one of the streets of the city Rue Thuillier, to honour the memory of Louis Thuillier, the member of the "Pasteur Cholera Commission," who died at Alexandria whilst pursuing his investigations.

DR. BROWN-SÉQUARD has withdrawn his name from among the candidates for the vacant place in the medical and surgical section of the Académie des Sciences. M.M. Charcot, Sappey, and G. Hayem are the remaining candidates. The election will take place in three weeks.

AT the Congregation at Oxford on November 1st, Professor Michael Foster, Fellow of Trinity College and Professor of Physiology, and Professor Alexander Macalister, Fellow of St. John's College and Professor of Anatomy, were presented by the Public Orator for admission to the complete degree of M.A. *honoris causâ*.

WE are informed that a debate on the "Practice of Vivisection," will be held at the St. John's Institute, Foxley Road, S.W., on Monday, November 12th; and we are assured that gentlemen who may wish to attend and take part in the discussion, especially to defend experimental research, will be welcomed.

A MEETING was held last week in the Adelphi, to promote a movement for introducing medical women into India. The native women have a repugnance to medical treatment by men; and hence the Calcutta Medical College is offering facilities for the training of women as doctors.

EDMUND STEDHAM, of Bradninch, was fined £2 10s. at Exeter, this week, for persisting in selling old clothes infected with small-pox, in spite of the orders of the police-inspector. "If Mr. Stedham, of Bradninch, has not been recently vaccinated, would it be very wrong," asks the *Globe*, "to wish that he might catch the small-pox?"

DR. TANNER, of fasting notoriety, was recently arrested in the State of New York, on a charge of not being properly registered as a medical practitioner. He holds a diploma from the "Eclectic Medical Institute," endorsed by the "United States Medical College of New York," which is not a legally recognised institution.

AT a recent meeting of the Conseil Municipal of Paris it was decided that mortuaries should be established at Père-Lachaise, for the purpose of receiving dead bodies in cases where the relatives of the dead are so humbly lodged as to be unable to keep the corpse awaiting burial. A special mortuary will be provided for the bodies of those dead from contagious diseases, also a room for the purpose of disinfecting clothes and furniture.

THE *Charity Organisation Society Reporter* observes that a letter has been addressed by the President and Vice-Presidents of the Hospital Saturday Fund to the Committees of the different hospitals and dispensaries which participate in the Fund, appealing to each to admit on its board of management a working-man member. It says that, to make these managing boards in any way representative of the class benefited is one step in the direction of converting pauperising into provident institutions.

SINCE the outbreak of trichinosis in Emersleben, in Prussia, over four hundred persons have, a Berlin telegram states, been taken ill; but, up to the present time, only eighteen deaths have occurred. In consequence of these reported deaths from trichinosis, the French Minister of Commerce, at the instance of the Committee of Public Health of France, has despatched a mission to the spot, to inquire into and report upon the circumstances. Dr. Brouardel has been commissioned to preside over the mission.

THE Metropolitan Board of Works intend to introduce a Bill into Parliament in the ensuing session to enable them to acquire the open spaces of the metropolis. At the present time, the Board has no power to pay compensation to claimants for damage to their private interests; and litigation against the Board has been threatened by some of these, who, however, have consented to stay their suits pending the acquisition by the Board of the power of giving compensation in such cases.

AT a recent meeting of the Académie des Sciences, M. Vulpian presented, in the name of M. Conti, a memoir on the condition of sensory nerves in poisoning by strychnine. According to this memoir, the sensory nerves are not stimulated in strychnine-poisoning; on the contrary, they are less easily acted on. It is also an error to suppose that the spinal cord and the brain are stimulated. M. Conti believes that cerebral activity is greatly diminished, and that the cord presents functional disorder rather than over-stimulation.

ROYAL INSTITUTION OF GREAT BRITAIN.

AT the last general monthly meeting (Sir William Siemens in the chair), Dr. William Miller Ord was elected a manager, in the room of the late Mr. William Spottiswoode, P.R.S.

HOUSING THE POOR.

IT is understood (the London correspondent of the *Manchester Guardian* says) that the question of amending and enlarging the Acts relating to labourers' and artisans' dwellings has been for some time under consideration by the Local Government Board, and it is not unlikely that the Government will bring in a Bill on the subject in the course of next session.

HOSPITAL SUNDAY IN BRIGHTON.

SUNDAY, October 28th, was the first "Hospital Sunday" on an extended scale in Brighton. About sixty churches and chapels collected, on or before that day, or will do so shortly, and the amount obtained is upwards of £1,000, to be divided between the County Hospital, the Alexandra Children's Hospital, the Lying-in Institution, the Dispensary, the Eye, Homœopathic, and Hospital. A number of bazaars, lately held for medical and other charities, have probably lessened the result to some extent, but it is considered successful.

COPPER AND CHOLERA.

AT the last meeting of the Conseil d'Hygiéne, M. Pasteur, who was asked by M. Dujarden-Beaumetz to communicate the results of his experiments on the action of copper, stated that M. Thuillier was put on the copper-regimen before he left for Egypt, when he died from an attack of cholera. M. Dujardin-Beaumetz is commissioned to study the action of copper on typhoid fever.

FATAL ACCIDENT TO A SURGEON.

MR. ALDERMAN JOHN DEIGHTON, J.P. for the borough of Cambridge, died on Saturday from the effects of injuries he received on October 17th, when he and his coachman were thrown out of a dog-cart through collision with a cart in Bridge Street, Cambridge. But for the accident, Mr. Deighton would probably have been elected mayor of Cambridge this week. Mr. Deighton was a surgeon in practice in Cambridge; he was educated at St. George's Hospital, and he was admitted a member of the Royal College of Surgeons in the year 1842.

A RARE DISEASE.

DR. RHODE lately exhibited to the Baltimore Academy of Medicine (*Maryland Medical Journal*) a girl, thirteen years old, with the following history. When two years old, a reddish patch was noticed under her eye. This spread until it involved the entire face, ears, and neck to the clavicle, the palms and back of the hands, in one arm extending to the elbow, in the other, to midway between the hand and elbow. There was very little infiltration, but the surface was rather scaly. There had never been any vesiculation, nor fissure, nor itching, nor discharge of fluid. The finger-nails were ridged transversely. There were circinate markings on the face. Under the microscope, with a one-fourth inch objective, no parasite was discovered. This is an affection which was described two years ago, by Duhring, as pityriasis maculata et circinnata; but in the last edition of his book he terms it p. rosea. In Duhring's cases it ran its course within two months, and the same occurred in some cases reported by

French observers. The English have never observed it. The treatment, which had been continued for three weeks, consisted of full doses of cod-liver oil and an ointment consisting of fifteen grains of yellow oxide of mercury and one ounce of vaseline smeared on cloths in which the hands were kept wrapped all night. The ointment was used experimentally, but she exhibited marked improvement, giving hope of her ultimate complete recovery. The pathology of the disease, of which Duhring is the only American who has described a case, is unknown.

TRANSFUSION OF BLOOD BY HYPODERMIC INJECTION.

DR. PALADINI reports (*Gaz. Med. Ital. Prov. Venete.*, August 25th) an interesting case of successful injection of blood into the subcutaneous cellular tissue of the abdomen, in a woman suffering from profuse menorrhagia. R. S., pluripara, aged 48, was reduced by menorrhagia to a profound degree of anæmia. On August 4th, the loss was so great that the patient's state became most alarming. Transfusion of blood was urgently indicated; no apparatus for this being at hand, it was determined to inject the blood by means of an exploratory trocar and an ordinary syringe into the subcutaneous cellular tissue of the abdomen. The blood, taken from the husband's arm, was heated, to prevent coagulation. The trocar was inserted about four fingers' breadth to the left of the umbilicus, and pushed well in so as to somewhat break up the meshes of the cellular tissue, and thus secure room for the blood to be injected. The stitch being withdrawn, an elastic tube was fastened to the end of the cannula; the blood was taken up by an ordinary metal syringe (about 90 cubic centimètres capacity), its nozzle being made fast to the elastic tube, and injected into the subcutaneous cellular tissue, where it appeared as a lump about the size of an egg. Two syringefuls were thus injected. The patient felt no pain; and, after two hours, the swelling had entirely disappeared. No abscess or other ill effect followed, a slight ecchymosis only for a few days marking the site of the injection. On the next day, the patient was much better, and began to take and retain nourishment and sleep well; for some days before, there had been constant vomiting, and no sleep. The lax connective tissue lends itself admirably to the transfusion of blood and to its rapid absorption. The quantity of blood might be easily increased, by repeating the injection in two or three different places, to 300 or 400 grammes (about 10½ or 14 ounces). This method is free from the dangers of venous or intraperitoneal transfusion, and is most easily done.

ORGANISATION OF CONVALESCENT AID.

MR. C. S. LOCH, Secretary of the Charity Organisation Society, writes to the *Times*:—In consequence of an appeal put forth in June, the Convalescent Subcommittee of the Charity Organisation Society have been able to send away to homes and cottages at the seaside and in the country about five hundred men, women, and children, up to the present date, at a cost of about £550. No letters have been used; but in all cases payment has been made, sometimes on the case, bnt chiefly by adopting the plan of reserving beds in various homes up to the end of October. Rapidity of treatment and satisfaction afforded to the homes are marked features of this system of permanent beds; but the period of reservation on prepayment is now expiring, and still applications are coming in at the rate of more than twenty per week. To meet this pressing demand, and to afford accommodation for surgical and other cases during the winter, the Charity Organisation Society propose to reserve beds at a probable average cost of £25 per bed for the whole year. Any persons contributing towards, or collecting, this sum, will receive, should they wish it, details of the home in which their bed is taken, and, it is hoped, will thus retain a special interest in its occupants throughout the year. Subscriptions to permanent beds will be received, and further information given, by the undersigned, or by the Honorary Secretary of the Convalescent Committee, Charity Organisation Society, No. 15, Buckingham Street, London, W.C.

MR. SHUTER AND THE STUDENTS OF ST. BARTHOLOMEW'S HOSPITAL.

A MEETING of students of St. Bartholomew's Hospital was held in the Medical Theatre, on Friday, November 2nd, to express sympathy and condolence with the family of the late Mr. Shuter, in their great loss. The chair was taken by Mr. Tait, who had been Mr. Shuter's house-surgeon. In opening the meeting, he said he had known Mr. Shuter perhaps longer than anyone else present. He had always found him kind and considerate to those about him. He was one of the best friends the students of Bartholomew's ever had. Mr. W. S. Richmond, in moving a resolution expressing the sympathy of the meeting with the friends of the late Mr. Shuter, said that when the terrible news was first made known at the hospital it seemed almost incredible. It was hard to realise that one, who yesterday was amongst them apparently in perfect health and strength, to-day lay lifeless. Death had snatched from them one who had endeared himself to their hearts. He had been for many years acquainted with Mr. Shuter, who was one of the kindest men he had ever known. All who knew him liked him, and many would miss his kind and friendly aid which he was ever ready to extend to students. Mr. A. C. Fletcher, whose evidence at the inquest is given further on, explained the facts of the catastrophe, and observed that Mr. Shuter was essentially the students' friend, and by his death they had sustained an irreparable loss.

THE PADDINGTON CANAL-BASIN.

AT a meeting of the Paddington Vestry on Tuesday last, November 6th, Mr. Churchwarden Young in the chair, a report was presented by the Committee recently appointed to consider the communication from the Local Govenment Board, asking for information as to the alleged nuisance caused by the canal. The Committee recommended the Vestry to pass a resolution concluding as follows. "The nuisance complained of may, to some extent, be attributed to the manner in which certain trades are conducted on the banks of the canal; but the evil more particularly referred to by a resident of Paddington, is in a great measure due to the unsanitary condition of the canal-basin, which, for a period of twenty-five years, has baffled the energies of the local authorities. This Committee hopes, however, now that public attention has been called to the subject, that the Local Government Board will assist the Vestry in impressing upon the Directors of the Grand Junction Canal Company the necessity of their adopting prompt and efficient means for mitigating the nuisance so long complained of." Mr. Mark H. Judge, proposed the following addition to the resolution: "That the Local Government Board be requested to institute an inquiry into the condition of the canal-basin and the nature of the trades carried on in connection with the same, in order that reliable data may be obtained for considering how best the nuisance may be removed." This was seconded by Mr. Walter Hallet, and supported by Dr. Danford Thomas, but was lost; and the resolution as recommended by the Committee was agreed to, and ordered to be sent to the President of the Local Government Board.

A CASE FOR INQUIRY.

MR. JUSTICE STEPHEN, in his criticism of the Ilbert Bill which appeared in the *Times* of the 3rd instant, remarks on the light which is often thrown on criminal cases by the statements and explanations of prisoners in the dock; and, on the very day on which his letter was written, a case was tried at the Manchester Winter Assizes which seems to us to give point to his observations. A learned judge, an intelligent jury, and able counsel, were then and there engaged in puzzling over the case of John Scully, who, on the 27th of July last, in the streets of Lancaster, suddenly and without pro-

vocation, drew his knife, and stabbed a lad named Pinch, who happened to be passing him with a wheelbarrow; when John Scully himself supplied the clue to his extraordinary conduct by intimating that he was insane at the time. He had been, he said, under treatment for mental disease in Netley Hospital, and was discharged from the army on account of insanity, and was still so light-headed that a small quantity of alcohol deprived him of reason and self-control. Only by supposing that he was mad at the time could he account for his murderous assault on a youth whom he had never seen in his life before, and whose sole offence was that he was trundling "a harmless necessary" wheelbarrow. No inquiry seems to have been made into the truth of Scully's statement, and it was, of course, too straightforward and reasonable in itself to find favour in legal eyes; so Scully was sent by Mr. Justice Hawkins to five years' penal servitude. His case requires further inquiry. Should it prove correct that he has incurred brain-disease in the service of his country, it would seem somewhat harsh to punish him severely for one of its symptoms, and to deprive him of the prospect of ultimate recovery, which suitable treatment in an asylum would afford. Penal discipline can only deepen and intensify that kind of insanity that is characterised by sudden homicidal impulses; and, if Scully be left to undergo it while labouring under that species of insanity, we shall not improbably hear of him again one of these days as the perpetrator of a murderous attack on a warder.

COLLECTIVE INVESTIGATION OF DISEASE.

THE *Journal* of the American Medical Association recently explained the system of collective investigation adopted by the General Committee of the British Medical Association, and gave in illustration a specimen of the circulars and of the blanks for return of answers, together with the fact that the American Medical Association had been invited to co-operate in the same line of investigation, and that the proposition was referred to a committee for consideration. It now announces that, wishing to test the practicability and value of co-operating with the work in Great Britain, by using circular notes, questions, and blanks for returns so nearly identical that the results will be strictly comparable, the American committee has commenced correspondence with that of the British Association, with a fair prospect of harmonious action. To facilitate the work, it asks all members of the American Medical Association engaged in active general practice, in any part of the country, who are willing to engage personally in making collective investigations, to send their names and address to the editor of this journal within the next thirty days.

SALICYLIC ACID AS AN APPLICATION TO EPITHELIOMATOUS GROWTHS.

ON Thursday last, at St. Bartholomew's Hospital, during a consultation on an interesting case of rapidly growing epitheliomatous vegetations springing from the floor of a rodent ulcer, Mr. Thomas Smith advised Mr. Howard Marsh, under whose care the patient was, to use a saturated solution of salicylic acid as a local application. Mr. Smith said that, some time ago, he had been induced to make use of this remedy in the treatment of simple papillomata, and the result had been so favourable that he was led to apply it to epitheliomatous cases also. In the first case, which had now been under observation for some time, the application was entirely successful, the epitheliomatous growth having been entirely destroyed in two or three weeks. We understand that Mr. Smith is giving salicylic acid an extensive trial, and that Dr. Thin has also had favourable experience of the remedy.

ST. BARTHOLOMEW'S HOSPITAL.

THERE will be no lack of candidates to contest the election of an assistant surgeon, to fill the vacancy caused by the lamented death of Mr. Shuter. At present the candidates are Mr. Macready, Mr. Bruce Clarke, Mr. Edwards, Mr. Eve, Mr. Lockwood, and Mr. Bowlby. Mr. Macready, a most able surgeon, warmly contested the last election; he has for several years held the appointment of surgical registrar to the Hospital; Mr. Bruce Clarke, Mr. Edwards, and Mr. Lockwood, besides holding clinical appointments elsewhere, have had the advantage of great experience in medical education, all being demonstrators of anatomy to the Medical School of St. Bartholomew's Hospital; Mr. F. S. Eve is pathological curator to the Museum of the Royal College of Surgeons, and Mr. Bowlby holds a similar appointment at St. Bartholomew's Hospital. The contest is certain to be very strong, and as all the candidates are most deserving men, the choice of any one of them will be no misfortune to the great city Hospital.

SMALL-POX IN BIRMINGHAM.

IN the report on the health of the borough of Birmingham for the quarter ending September 29th, 1883, Dr. Alfred Hill says:

"Small-pox has been more destructive to life than in any quarter since the second quarter of 1875, the deaths from this malady being 54, while the cases have numbered no fewer than 567, the percentage of deaths to cases being 9.5; in the height of the last epidemic, in the year 1874, the mortality was considerably greater, viz., 16.8. In the third quarter of 1882, only 33 cases and 9 deaths from this disease came to my knowledge. Though the disease has been scattered more or less over every portion of the town, by far the greater number of the cases have occurred in the northern portion, more especially in All Saints' Ward."

Since then, there has been a gradual diminution in the number of cases reported, but they continue to occur at the rate of about thirty a week. The epidemic has been very mild, the mortality among vaccinated persons having been under 2 per cent.

HOSPITAL MANAGEMENT.

THE third meeting of the committee appointed at the recent hospital conference was held at 1, Adam Street, Adelphi, on Wednesday. The draft constitution of the proposed hospitals association was provisionally adopted, and it was ordered that copies should be issued at once for the consideration of the governing bodies, committees of management, medical boards, and honorary medical officers of the principal hospitals. The objects of the proposed association are to be, firstly, to facilitate the consideration and discussion of matters connected with hospital management; and, where advisable, to take measures to further the decisions arrived at; and, secondly, to afford opportunities for the acquisition of a knowledge of hospital administration, both lay and medical. The association, moreover, proposes to afford facilities for the reading, discussion, and publication of approved papers; for the delivery of lectures, and for the holding of conferences on hospital administration, hospital management, medical relief, medical education in relation to hospitals, free and provident dispensaries, and other kindred subjects, and will found a library, consisting of works on hospital administration, construction, finance, and statistics. The committee will be called together again in December to finally adopt the constitution of the new association, which has already received wide and influential support. The committee consists of the following members:—The Earl of Cork and Orrery, K.P. (St. George's Hospital); Viscount Powerscourt, K.P. (Ireland); Sir T. Fowell Buxton, Bart. (London Hospital); Sir Rutherford Alcock, K.C.B. (Westminster Hospital); Sir Joseph Fayrer, K.C.S.I., M.D., LL.D., F.R.S. (Charing Cross Hospital); H. W. D. Acland, M.D., C.B., D.C.L., F.R.S. (Oxford University); William Bousfield, Esq. (King's College Hospital); J. S. Bristowe, M.D., F.R.S. (St. Thomas's Hospital); Henry C. Burdett, Esq. (Seamen's Hospital and Home Hospitals Association); J. H. Buxton, Esq. (London Hospital); Mackenzie Chalmers, Esq. (London Fever Hospital); The Rev. Canon Erskine Clarke, M.A. (Bolingbroke House Pay Hospital); R. Farquharson, M.D., M.P. (Scotland); Captain Douglas Galton, C.B., D.C.L., F.R.S. (University College

Hospital); S. Leigh Gregson, Esq. (Southern Hospital, Liverpool); Timothy Holmes, Esq. (St. George's Hospital and Provident Dispensaries): G. B. Lloyd, Esq. (General Hospital, Birmingham); Charles Macnamara, Esq. (Westminster Hospital); Francis S. Powell, Esq.; Richard Quain, M.D. (Consumption Hospital, Brompton); Alexander H. Ross, Esq., M.P. (Middlesex Hospital); E. H. Sieveking, M.D. (St. Mary's Hospital); T. Gilbart-Smith, M.D. (London Hospital); Joseph White, Esq., F.R.C.S. (General Hospital, Nottingham); John Wood, Esq., F.R.S. (King's College Hospital); E. Parker Young, Esq. (St. Mary's Hospital). The secretary *pro tem.* to the committee is Mr. J. L. Clifford-Smith.

INQUEST ON MR. JAMES SHUTER.

THE inquiry as to the cause of death of Mr. James Shuter, whose obituary will be found in the present number of the JOURNAL, was held on Saturday, November 3rd, by Dr. Danford Thomas. Mr. G. Acton Davis stated that the deceased, his brother-in-law, had injured his hip while in Brussels, three years ago, and had ever since felt more or less pain, which prevented him from taking active exercise. On the evening of Wednesday, October 31st, witness was summoned to Lawn House, Tufnell Park, and found deceased in a state of unconsciousness. He was informed that, in order to ease the pain in the hip, the deceased had given himself a hypodermic injection of morphia, which he had not, he believed, ever done before; and, in spite of every effort made by the medical gentlemen present to restore him, artificial respiration being maintained for eight hours, he died shortly before six on Thursday morning, November 1st. Immediately before using the injection, deceased had written to Mr. Luther Holden a letter, in which he said, "I am laid up with rather a heavy cold, which has affected my hip in such a way, that I consider it sciatica. I am just going to give myself a morphia injection over the great trochanter. There is nothing I should like better than to run down to see you from Saturday to Monday, and I will try to do so. I will let you know on Friday." The prospects and worldly affairs of the deceased had been very satisfactory, and his disposition very cheerful. Mr. W. H. Kesteven, who had been called in, found deceased suffering from marked symptoms of narcotic poisoning. An ounce bottle, labelled "liq. morphiæ hypodermicus" was found broken and empty on the dressing-table. There were also two glasses, one empty, and one containing an ounce of saline mixture, such as would be taken for a cold. He found that deceased was suffering from albuminuria. One-sixth of a grain of morphia was an ordinary dose, but the presence of the albumen, indicating kidney-disease, would render a patient more susceptible to its action. In conjunction with Mr. Dodd, Mr. Fletcher, and Dr. West, he used his utmost efforts to restore the deceased, who had evidently taken the morphia solution by mistake for the saline mixture. Mr. A. C. Fletcher, surgeon of Great Coram Street, an intimate friend of deceased, who had called upon him casually, found him deeply comatose, and artificial respiration was being performed. He ascertained that, in getting out the stopper, deceased had broken the bottle containing the morphia, and asked his sister for another, which was not to be obtained. Three quarters of an hour later his sister, going to his room to see if he were sleeping, found him breathing unnaturally, and unconscious, and at once sent for Mr. Kesteven. Witness believed that, having failed to obtain another bottle when that containing the morphia was broken, deceased had poured out the contents into a glass on the dressing-table. On the table was another glass, containing a mixture for a cold, untouched, and covered by a piece of paper. The deceased had probably, after pouring out the morphia into the glass, intended to cover it over, in order to protect it from dust and prevent evaporation, but, by mistake, had covered over the glass containing the mixture The morphia and the medicine were alike in colour and quantity, and deceased, having a severe cold, would have been unable to detect any difference in taste or smell. The deceased had evidently given himself an injection, as a blood-stain was found on his linen, and a syringe lay by his bedside. In the semi-conscious condition that followed he had remembered the saline mixture, taken up the wrong glass, and drunk the whole ounce of morphia. Dr. Samuel West stated that, when called in, he found the deceased, a very old friend of his, in the most profound state of coma he had ever seen. The pupils had become widely dilated, indicating an extreme stage of morphia-poisoning. All possible measures were taken for his restoration, but without result. A very small dose of morphia occasionally produced death, but he thought it exceedingly probable that deceased had taken a very large quantity, and he quite agreed on that point with Mr. Fletcher's evidence as to the way in which so large a quantity was taken. The deceased was an eminently careful man, and of an exceedingly cheerful disposition. He had no doubt as to the facts of the case. The jury at once returned the following verdict: "That the said James Shuter was found dying, and did die, from the mortal effects of poisoning by morphia. And the jurors are further of opinion that the deceased took a fatal dose of a solution of morphia, in mistake for a saline mixture; and that the death was from misadventure."

WORKMEN'S HOMES IN LONDON AND PARIS.

IN an article in the *Times* on "The Dwellings of Parisian Workmen," in which the condition of the *ouvrier* in Paris is contrasted with that of the artisan in London, it is pointed out that though the population of Paris is not so large nor so rapidly increasing as that of London; nevertheless the two millions of Paris are crowded into a narrower space than that occupied by any similar number of Londoners. In the matter of parks and gardens, the Londoner is much better off than the Parisian. If the Parisian want to stretch himself on the grass, he must go four or five miles from the heart of the city. Additional open space and a better class of dwellings will soon be provided for the poor in London, by broad avenues to be cut through slums, and by the building of tall houses on sites at present covered with low buildings. But in Paris every acre on which tall houses can be built has already been utilised. Moreover, the London workman can live outside London, and come in daily by train. In Paris, the *octroi* is the great bar to extramural residence. Nearly every article of food entering Paris has to pay duty, so that people who pass the *octroi* with parcels have to exhibit their contents; and under such circumstances, trains full of workmen carrying their baskets of tools and dinners could not pass rapidly to their destinations as they do in London. There is again no inducement in cheapness of rent to live outside the city. The article shows, moreover, that of the children born to the working classes in Paris, more than 50 per cent. die in the baby-farmers' hands before they reach their second year. It is also shown how the progressive extinction of home-life among the Parisian workmen has had the most demoralising results.

DANGERS OF THE STREETS.

A NEW terror seems likely to be added to the ordinary alarms of those who go their way in the streets. Colonel Hutchinson's report to the Board of Trade on the steam tramcar accident at Huddersfield has just been published. The disaster occurred in July last. Seven persons lost their lives by falling from the roof of the tramcar as it overturned, and fifteen others, nearly all roof-passengers, were more or less injured. The accident was found to have been chiefly caused by the engine "running away" and passing rapidly round a very sharp curve, which has only a radius of forty-one feet. A variety of conditions concurred in the production of the accident. In the first place, one of the pistons of the engine, made of a brittle metal, was found to have broken to pieces; and this prevented the reversing of the engine by the driver from having its proper effect in checking the rush of the tramcar down a steep gradient. This initial accident,

however, need not have led to further mischief if the brake-power of the engine had been in due working order; but it appears that the driver, by closing a valve, had paralysed the action of the "governors," and so deprived the brake of its efficiency. The car, being thus unchecked in its dangerous speed, left the rails and toppled over, its overturning being contributed to by overloading on the roof, and by the rush of the roof-passengers attempting to escape. Tramcar traffic is being rapidly multiplied in populous places. The details of the complex causation of the catastrophe in Huddersfield prove once more the necessity for the organisation of some efficient official inspection and control of the working of our passenger tramways. Several accidents have recently shown that the most frequent and chief cause of tramcar disasters is found in insufficient or defective brake-power. This, of course, is an entirely preventable circumstance. No tramcars ought to be allowed to run which are not supplied with brake-power amply sufficient to stop their progress under all possible contingencies; and frequent inspection ought to ensure that the brakes are always maintained in sound working order. If all tramcars were fitted with really efficient brake-power, the rushes of panic-stricken passengers, which have more than once contributed to upset a car at a critical juncture, would be practically prevented.

VACCINATION.

AT the rooms of the London Society for the Abolition of Compulsory Vaccination, on October 15th, Dr. Bernard O'Connor read a paper entitled "A Consideration of some of the Causes of Popular Objections to Compulsory Vaccination." After tracing the history of small-pox from the earliest times, he spoke of the intensity of natural small-pox, and dwelt upon the probable changes that take place in the blood after the introduction of the small-pox poison, adverting to the immunity from small-pox which a few even of the unvaccinated enjoy. He discussed inoculation, and the question of the identity of the poisons of cow-pox and small-pox, stating, as his belief, that they are "similar poisons, and identical in their kind." After reviewing the minor objections to compulsory vaccination, and criticising adversely Mr. Hopwood's return, he went on to speak of the inoculation of syphilis with vaccination. There unquestionably had been, in this country, a few cases of syphilis resulting from vaccination; but nearly all of the many instances, in which vaccination had been charged by the parents with inoculating their infants with syphilitic disease, were instances of hereditary constitutional syphilis, occurring at the usual period, and presenting the characteristic symptoms. By degrees, the effects of the syphilitic poison had been detected in one or other of the parents—such as throat-affection, loss of hair, skin-symptoms, repeated abortions, etc. There was every inducement for the parents to saddle vaccination with the responsibility for the appearance of the syphilitic symptoms in their children; and what surprised Dr. O'Connor was, that vaccination was not more often charged with being the cause of this widespread infantile disorder. He saw twice a week, at a charitable institution, a crowd of syphilitic human beings, of all ages; and the majority of the infantile syphilitic cases, whose average age was four months, had never been vaccinated on account of their unnatural infirmity. He had observed the occurrence of many diseases, the symptoms of which were usually regarded as the direct consequence of vaccination, more frequently in the unvaccinated than the vaccinated. He had noticed repeatedly that a slight scratch, in a child with hereditary syphilis, became a true syphilitic sore; and why might not a like result follow the incisions made on the skin during vaccination, without any blame attaching to the lymph? He believed that, if properly performed, there need be no fear that vaccination will injure health, or communicate any disease; but, even if syphilis were sometimes communicated, and the occurrence of seven cases in England during the past fourteen years showed that this did occasionally take place, that could not be regarded as a valid objection against vaccination rightly performed, any more than could an occasional railway accident be regarded as the signal for the cessation of railway travelling. Dr. O'Connor thought that there was a great amount of inefficient vaccination in both urban and rural districts, coupled with negligence in the selection and mode of preservation of the lymph; and stated that sometimes public vaccinators filled up forms of successful vaccination, when, in reality, the operation had not been successful. A long residence in a small-pox hospital had convinced him of the almost complete protection afforded by duly performed vaccination; but nothing would shake this conviction sooner than the diversity of statements made, by professional men, as to the power of protection of vaccination (primary), as to the area of the vaccination scar, the necessity for the repetition of vaccination, etc. Jenner had set his estimate of the protection against small-pox afforded by vaccination performed in infancy too high; and Dr. O'Connor thought that, in addition to the best possible primary vaccination, revaccination should be enforced at puberty, and that this should be repeated again and again, at intervals of six months, until the individual was no longer influenced by the vaccine virus. In conclusion, he observed that a careful perusal, during the past year or so, of all the antivaccination-literature he could lay his hands on, had shown him that it abounded in distorted statistics, and microscopic and disconnected quotations; while the ignorance of the laws of health, and of the elements of physiology and pathology, displayed by most of the writers and speakers against vaccination, showed their unfitness to sit in judgment on a subject beyond their comprehension.

THE PREVENTION OF BLINDNESS IN CHILDREN.

THE following excellent popular directions for the prevention of the frequent form of blindness arising from the destructive purulent ophthalmia of newly-born infants is being published and diffused by the Society for the Prevention of Blindness. "One of the most frequent causes of blindness is the inflammation of the eyes of new-born babies, a disease which can be prevented and always cured. In almost all blind-schools in England and the Continent, a third, and even more, of the children's blindness is caused by the neglect and unsuitable treatment of this disease. In the Wilberforce School for the Blind at York, it is said that, out of eighty-nine pupils, thirty-seven are blind from this cause; and several eminent oculists state that half the blindness in Europe is due to this inflammation of the eyes of new-born babies. This frequent blindness is largely owing to the general ignorance of mothers, and to the unpardonable neglect of the midwives, nurses, and others who have charge of the infants in their earliest days. In many cases, these persons prevent resort to skilled medical assistance, in order to try some unsuitable domestic remedies, until it is too late, even by the most skilful treatment, to save the child's sight. Although the disease appears sometimes in a very mild form, it may still, without some suitable treatment, have an unfortunate issue; but, in most cases, the disease takes a more determined character, and then, if left to itself, it may develop with such rapidity that, in the course of a day or two, all hope for preventing blindness is lost. In general, newly-born babies seldom suffer from any other eye-disease, and its first appearance is easily recognised by the redness, swelling, and heat of the eyelids, and by the discharge of a yellowish-white matter from the eyes. This dangerous and ruinous disease is always curable if treated at once. Immediately on the first appearance of these symptoms, send for a medical man; and, until his arrival, proceed at once to keep the eyes as clean as possible by very frequently cleansing away the mattery discharge. It is the discharge which does the mischief. The cleansing of the eye is best done in the following manner. I. Separate the eyelids with the finger and thumb, and wash out the matter by allowing a gentle stream of tepid or warm water to run between them from a piece of rag or cotton-wool held two or three inches above the eyes. II. Then gently move the eyelids up and down in a circular way, to bring out the matter collected under

them; wipe it or wash it off in the same manner. This cleansing will take three or four minutes, and is to be repeated regularly once every half-hour at first, and later, if there is less discharge, every hour. III. It must be borne in mind that sight or blindness depends entirely in these cases on the greatest care and attention to cleanliness. Small pieces of rag or cotton-wool are better than a sponge, as each rag is to be used only once, and should be burnt immediately; sponges should never be used, except they are thrown away or burnt after each washing. IV. A little washed lard should be smeared along the edges of the eyelids occasionally, to prevent them from sticking. V. The eyes should not be covered up by any bandage or handkerchief, as the discharge is thereby prevented from escaping. VI. Fresh air and an equal temperature in the sick-room are absolutely required, and the eye, while suffering from the disease, should be kept carefully from all strong lights. Many cases of this disease might be entirely prevented by cleanliness of the eyes. 1. Immediately after the birth of the baby, and before anything else is done, the eyelids and all parts surrounding the eyes are to be wiped with a soft dry linen rag; afterwards, these parts must be washed with tepid water before any other part is touched. 2. Avoid exposing the baby to cold air; do not take it in the open air when cold; at any rate, dress the infant warmly, and cover its head, because cold is also one of the causes of this eye-disease.

THE WORKING OF THE ANTI-ADULTERATION ACTS.

IT is startling to find that, in many populous places in England and Wales, the anti-adulteration laws are practically a dead letter. In spite of all that has been said and written in recent years about the prevalence of adulteration of foods and drugs in this country, and in spite of numerous exposures, in the law-courts, of flagrant instances of the fraudulent sophistication of those necessaries, there is still no general, much less uniform, employment of the stringent powers which the law furnishes for the punishment of those who wilfully corrupt food-supplies and medicines for the purpose of increasing the profits which accrue from their sale. From official reports on this subject for last year, it appears that the Local Government Board, acting under authority derived from the Sale of Food and Drugs Act, 1875, has appointed 224 public analysts; 52 in counties, and 172 in boroughs. There are, besides, 39 public analysts appointed by the vestries and district boards of the metropolis, making a total of 263 officials in England and Wales provided by the law to secure that Her Majesty's subjects shall be supplied with the articles they purchase in a genuine condition, and not adulterated by or for the seller for the enhancement of his gain. Although the report of the Local Government Board shows some improvement in the records for 1882, as compared with the previous year, 20,000 analyses, or 1,600 more than in 1881, having been performed, the laws for the suppression of adulteration are still very irregularly and very inadequately enforced. There are still many large towns, and yet more rural districts, where the anti-adulteration laws are never employed, and where, as the report complains, the dairyman may still safely water his milk, and the grocer add chicory to his coffee. These local anomalies are mainly due to the apathy of the local authorities. It is true that private persons may set the law in motion, and command the services of public analysts on fixed terms; but, where the public authority is indifferent to the question, it is not to be expected that private individuals will generally undertake the prosecution of adulterators. It appears that in the counties of Berks, Dorset, Hereford, Hertford, and Suffolk, the office of public analyst was last year a sinecure, not a single sample of an article of food or a drug being sent for analysis. Even in such large towns as Nottingham, Preston, and Plymouth, as in many other places of almost equal importance, little or no use has been made of the anti-adulteration Acts, and the local authorities seem willing to leave the public almost entirely unprotected against the cupidity of unscrupulous dealers. We understand that in some places the law is applied with a culpable lack of discretion, policemen in uniform having been appointed to purchase samples intended to be analysed. Even in less flagrant cases, it seems to have been quite customary to employ well-known persons for the purchase of analysts' samples, and whose errand was more than suspected. In some cases, cream has been known to have been added by dairymen to milk, when they knew they were selling samples for public analysis. Until the anti-adulteration laws are administered with something like uniformity throughout the country, a comparison of the statistics of their working in different localities is full of fallacies. For example, it appears that last year, in a large midland borough, only one sample of food or medicine in 119 was officially condemned; while, in a neighbouring county, 52 specimens out of 169 were found to be impure. Such great discrepancies seem to point to great local divergencies of practice in the stringency with which the powers of the law are employed.

SCOTLAND.

PROFESSOR DU BOIS REYMOND.

A CONGRATULATORY address, on the occasion of his recent jubilee, was sent to the eminent physiologist, from the University of Glasgow.

SCOTTISH NATIONAL INSTITUTE FOR IMBECILES.

AT the annual meeting of the Ladies' Auxillary Association of the Scottish National Institute for Imbeciles, held in Edinburgh on Tuesday, it was stated that at present there are 180 inmates in the institute at Larbert, and that the condition of the affairs of the institute was prosperous. Unfortunately, they had to deplore the deaths of two directors.

SICK CHILDREN'S HOSPITAL, EDINBURGH.

DURING the month of October, 104 patients were treated in the wards of the Royal Hospital for Sick Children, Edinburgh. Of these, 59 were admitted during the month, while 45 were in the hospital at the end of September; 32 were discharged as cured or recovered, while 5 were relieved. The average daily number of beds occupied was 56. In the out-door department, 749 patients were treated, and 23 were vaccinated. Of 471 new cases, 376 were from Edinburgh, 66 from Leith, and 29 from elsewhere.

THE ELECTION OF LORD RECTOR IN EDINBURGH UNIVERSITY.

ON Saturday last, the arbitrament of the poll in Edinburgh University decided the occupancy of the Rectorial chair for the next three years. As previously stated in the JOURNAL, there were (for the first time since the institution of the office) three candidates. The contest, as far as two of them were concerned, was a keen one, and the usual appeals were made to the sympathies and prejudices of the respective parties. The result of the voting showed that Sir Stafford Northcote had been elected by a majority of 52 votes. The respective numbers were: Sir Stafford Northcote, 1035; Mr. Trevelyan, 983; Ex-Professor Blackie, 236.

HEALTH OF GLASGOW.

DURING the fortnight ending October 27th, there were 469 deaths registered, representing a death-rate of 24 per thousand living. The chief features of the fortnight have been an increase in the mortality from pulmonary diseases, the reappearance of some cases of small-pox, and a greater activity of typhus fever—the cases of this last disease having risen from 9 in the previous fortnight to 23 in the present one. There were 164 deaths from diseases of the chest, constituting 35 per cent. of the total deaths; while those from fever numbered 9—namely, 5 from enteric and 3 undefined. Both the

cases of small-pox occurred on the south side of the town, and as yet no connection can be traced between the two, or any common cause of the disease. The number of deaths from the infectious diseases of children was 33—namely, 16 from scarlet fever, 13 from whooping-cough, and 4 from measles. There are at present in the hospitals of the Council 226 cases of scarlet fever, 76 of enteric fever, 47 of whooping-cough, 31 of typhus, 25 of measles, 5 of erysipelas, and 4 of small-pox—in all, 414 cases, the same as in the previous fortnight, and as compared with 251 at the corresponding date last year.

MELANCHOLY DEATH OF A MEDICAL STUDENT.

A MELANCHOLY accident occurred on Tuesday in the Union Canal, Edinburgh, by which a medical student, named Robert Wrixon, from the colonies, lost his life. He had gone out boating in a canoe, and was observed to make some movements, as if to adjust himself; the canoe overbalanced, and student and canoe disappeared. He had evidently been entangled, for it was some time ere he made his appearance, and then was so exhausted as to be unable to make further exertion, and he almost immediately sank again, and before any assistance could be rendered. In a few minutes his body was recovered, but life was extinct.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General, for the week ending October 27th, show that the death-rate in the eight principal towns during the week was 22.4 per thousand of estimated population. This rate is 1.0 above that for the corresponding week of last year, and 3.0 above that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 11.9 per thousand; and the highest in Glasgow—viz., 26.0 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.8 per thousand, being 0.4 greater than the rate for the previous week. Acute diseases of the chest caused 101 deaths, or 16 more than the number recorded during the previous week. The mean temperature was 45.3°, being 1.8° below that of the week immediately preceding, and 2.3° above that of the corresponding week of last year.

THE ABERDEEN MEDICAL PROFESSION AND VERSIFYING.

IN his introductory lecture, Dr. Geddes, the Professor of Greek in the University of Aberdeen, made the following remarks on the above subject. "I cannot but advert to the fact how largely the patrons of the classic muse have been numbered—in Aberdeen, at least—among the ranks of the medical profession. It is a circumstance which I remark with especial pleasure that the greatest Latin composer of former times in Aberdeen was a physician—Dr. Arthur Johnston; that the greatest composer in the present generation was another doctor—Francis Adams; and that the only special benefaction within the University, for the encouragement of classical verse, we owe to another learned physician—Dr. Alexander Kilgour. In recalling to remembrance such facts as these, we may feel confidence in the possibility of combining medical study and classical culture; and we may entertain the hope that the physicians of the future will follow in the footsteps of the learned and generous physicians of the past."

THE ROYAL MEDICAL SOCIETY OF EDINBURGH.

ON Friday evening, November 2nd, the Royal Medical Society of Edinburgh had its one hundred and forty-sixth session inaugurated by an address from Professor John Chiene. The senior president of the society, Mr. J. Greig Soutar, M.B., occupied the chair. There were present various professors, lecturers, practitioners, and a large number of students. In his address, Professor Chiene spoke strongly of the desirability of developing the individuality of every student, and of the difficulty that lay in the way from the existence of large classes. He also spoke of the importance of the extramural school, both on its own account, and in its stimulating influence on university teaching. He gave a sketch of the life, struggles, and success of Dr. John Gordon in Edinburgh at the beginning of this century, and pointed to him as a worthy model for members of the society. Mr. Chiene also expressed his belief in the value of the Royal Medical Socisty, professionally and socially; and, at the conclusion of his address, he was awarded a hearty vote of thanks by the society.

GLASGOW ROYAL INFIRMARY DORCAS SOCIETY.

FOR nearly twenty years, this Society has laboured in connection with the Glasgow Royal Infirmary, and each report shows how valuable is the assistance it renders. Its aim is to supply with warm and sufficient clothing poor patients, who, after a term of treatment in the hospital, are so far restored to health as to be able to leave the Infirmary, and return to their own homes. In many instances, also, food is given, if that seems necessary, and very liberal assistance is furnished to those patients requiring artificial limbs or other surgical appliances. During the past year, 1,014 cases were relieved, or nearly one-fifth of all the patients that went into the Royal Infirmary. Seeing that the aid so given came at a time when it was especially needful, namely, in the weeks of convalescence after severe injuries and long illnesses, we cannot speak too highly of the operations of this Dorcas Society, as a most valuable adjunct to the hospital to which it is attached. We regret to see that the financial report is not so satisfactory as it might be, the contributions falling far short of the expenditure.

THE BURNETT LECTURES IN ABERDEEN.

MR. G. G. STOKES, Lucasian Professor of Mathematics in the University of Cambridge, Secretary to the Royal Society, began, in Marischal College, a course of twelve lectures on "The Undulatory Theory of Light, its nature and medium; and, in connection with it, the structure and functions of the eye, having regard to the illustration afforded by the subject of the evidence that there is a Being all-powerful, wise, and good, and by whom everything exists." Mr. Burnett left a sum of money, whose interest is to be given at stated periods for a treatise or lectures which shall afford the evidence of the theme that there is a "Being all-powerful," etc. On two previous occasions large money prizes were given for theological treatises, and on this occasion the trustees are trying the effect of lectures instead, and Professor Stokes is the first holder of the lectureship. Four of the twelve lectures will be given each year. Professor Stokes dealt, in his first lecture, with the nature of light, and gave a critical estimate of the corpuscular and undulatory theories.

GLASGOW UNIVERSITY COUNCIL.

THE half yearly meeting of Glasgow University Council was held on October 31st, there being a large attendance of members. The subjects discussed were the Universities Bill, the proposed new Doctorate in Arts, and Science, presentation bursaries, and the extension of the medical school. It was decided that, should the Universities (Scotland) Bill be again brought forward in the House of Commons, the same steps as formerly agreed upon should be taken to obtain modifications of the unlimited powers conferred by it. The Council was in favour of the desirability of establishing a higher degree, or doctorate, in arts and sciences, and approved of a representation to that effect being made to the University Court. Upon the question of the proposed extension of the medical school, there was also complete unanimity. The facts of the case, as stated by Professor Cleland, and seconded by Professor McKendrick, clearly show that the progress made by the medical school has been so great that the present accommodation is insufficient for the students now attending the classes. A committee appointed by the senate of the University have considered the matter, and from their

statement it appears that the sum of £3,000 is needed for enlargements that are absolutely necessary, and must be gone on with; but that the extension of the buildings sufficient to place the medical school in a satisfactory condition for years to come, will involve an outlay of £18,000. What is contemplated is to build additions which, while harmonising with the other buildings, shall be free from costly architectural details, and be as suitable as possible in their internal arrangements for the purposes to which they are to be devoted. No doubt, in one sense, it must be disappointing to hear that more room is already required in what are new university buildings; but it is a very gratifying fact that the medical school has increased so rapidly; and we are sure that there will be a liberal disposition on the part of old graduates and the public to furnish the funds necessary to maintain the present prosperity of the medical school, and allow of its work being carried on efficiently and thoroughly.

OPENING OF THE GLASGOW MEDICAL SCHOOLS.

THE different medical schools in Glasgow were formally opened last week for the winter session, and at all of them introductory addresses were delivered. At the University, that of Professor Young embraced several topics of interest. He drew attention to the large increase of students attending the medical classes since the opening of the new University buildings thirteen years ago, so that the present accommodation was quite inadequate to their wants, and, as a consequence, an extension of the medical school was contemplated. Allusion was made to the great liberality which had furnished the University with such buildings as the Bute and Randolph halls; but what Professor Young urged very strongly as likely to strengthen the prosperity of the University generally was the establishment of teaching Fellowships for successful graduates, and large additions to the space for efficient practical work in the scientific classes. As an illustration of the need of these scientific studies to the medical man, the germ-theory of disease was quoted, the views about which, Professor Young thought, were now veering round; and that the latest researches seemed in favour of the germs being, as he had predicted two years ago, not the cause, but the carriers, of disease. While some difference of opinion is sure to exist on Professor Young's ideas as to how the period of the medical curriculum should be spent, he being a strong advocate for a large proportion of it being devoted to science, his address was exceedingly well received, and it could not fail to prove a healthy stimulus to the work of the winter session. At the Royal Infirmary Medical School, the students listened to a lecture from Dr. Stirton on a purely medical subject; and at Anderson's College the classes were opened by Dr. Wallace, who dwelt chiefly on the relations between medical men and the public, pointing out several subjects in which the profession could bring their influence to bear on the opinions of their non-professional brethren when the good of the whole community was involved. The inaugural address of the Glasgow Western Medical School was given by Dr. Eben. Duncan, who chose as the subject of his remarks the relative power of drugs as compared with hygienic measures in the treatment of disease He offered, also, some very suitable words of advice to the students as to the spirit in which they should pursue their studies, and he spoke very hopefully of the prospects of this, the youngest of the Glasgow medical schools. As far as can be at present judged, the number of students attending the medical classes in the different schools is fully equal to the average of last year.

IRELAND.

THE meeting of Convocation of the Royal University of Ireland, summoned for Tuesday, October 30th, for the transaction of very important business, fell through in consequence of the attendance of members falling below the requisite number of thirty.

BY the recent death, in Manitoba, of Sir John Corrigan, Bart., at the age of 23 years, the baronetcy conferred on the late Sir Dominic Corrigan, Physician in Ordinary to the Queen in Ireland, in 1866, becomes extinct. Sir John Corrigan succeeded to the title as second baronet, on the death of his grandfather in 1880.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

MR. ALEXANDER FRASER, M.B., and C.M., of Glasgow, and Senior Demonstrator of Anatomy, Owens College, Manchester, was elected to the Professorship of Anatomy in this College on the 1st instant, *vice* Dr. Cunningham. The election of this occasion was the first held under the provisions of the new supplemental charter, by which, *inter alia*, the entire Council—instead of seven members of that body chosen by ballot—made the election. There were five candidates, including gentlemen from London, Edinburgh, and Dublin, for the chair.

VIOLENT DEATHS IN IRELAND.

THE annual report of the Registrar-General for the year 1882 shows that the number of deaths referred to "violence" was 1,986, namely, 1,397 males and 589 females, or 39 in every 100,000 of the population, which is slightly under the average of the preceding ten years. By far the larger portion of the violent deaths were the results of accident. As many as 1,733 are thus accounted for, including 745 from fractures and contusions, 395 from burns and scalds, and 359 from drowning. The cases of homicide (murder or manslaughter) were 141, and there were 105 suicides. There were 2,229 inquests held during the year, being one inquest to every 40 deaths registered.

DUBLIN HOSPITAL SUNDAY FUND.

THE tenth annual collection on behalf of this Fund will be made to-morrow, the 11th instant. The hospitals in aid of which the Fund is distributed admit annually upwards of 11,000 patients, attend upwards of 3,000 lying-in women at their own homes, treat as extern patients upwards of 8,000 accidents, and relieve many thousands at their dispensaries; they contain nearly 1,200 beds, many of which, unfortunately, remain unoccupied. The work done by these hospitals costs about £40,000 a year, of which about 10 per cent. is supplied by the collections on Hospital Sunday, but a great deal still remains undone for want of funds. The amount collected last year was £4,193 16s. 10d.; and a sum of £35,862 9s. 4d. has been distributed by means of this noble fund since its establishment among the hospitals of the city.

HEALTH OF BELFAST.

FROM the monthly report of Dr. Browne, Superintendent Medical Officer of Health for Belfast, it appears that 24 cases of zymotic diseases were reported from the several dispensary districts of the town; these were, typhus fever 2, typhoid 4, and scarlatina 18 cases. The Registrar-General, for the five weeks ending October 27th, makes returns of 95 deaths from zymotic diseases in Belfast; viz., scarlatina 32, diphtheria 2, whooping-cough 15, typhus 3, enteric or typhoid 2, simple fever 5, and diarrhœa 36 deaths. There were 136 deaths amongst children under one year of age, and 67 deaths of persons above sixty years of age; and in the same period there were registered 66 deaths from phthisis, and 101 from disease of the respiratory organs, making 167 deaths from lung-diseases. The total births in the five weeks amounted to 707, and the deaths to 485, showing a natural increase of 222 individuals. The average death-rate from all causes was 23.6, the rate from disease of the lung 9, and from zymotic diseases 4.6. The average reading of the barometer was 30.06; the average temperature, 54.8°. There were eighteen days of westerly and thirteen of easterly winds during the month. A cold atmospheric wave swept over the North of Ireland between the 14th and 19th of the month, which was followed by a marked increase of deaths from phthisis and other affections of the

respiratory organs. The amount of zymotic diseases has been light, and the town has been specially free from typhus and enteric fever. Scarlatina, which was very prevalent for some months, appears now to be on the decline.

A CONJOINT EXAMINATION FOR IRELAND.

ANOTHER attempt is, we understand, about to be made to form a conjoint examination for medical and surgical qualifications in Ireland, by an alliance between the King and Queen's College of Physicians and the Royal College of Surgeons in Ireland. The Council of the latter body has resolved: "That with a view of re-opening the negotiations for the giving of a double qualification by the Colleges, a committee be appointed to confer with the College of Physicians on the subject, and to report to this Council as to the terms upon which this may be carried out." Four former attempts to establish a conjoint examination between the two Colleges have failed; and there is no reason to anticipate that the present attempt will prove more successful than the preceding ones.

TESTIMONIAL TO PROFESSOR ALEXANDER MACALISTER, F.R.S.

A GENERAL meeting of the pupils of Dr. Macalister was held in the Anatomical Theatre, Trinity College, Dublin, on Wednesday, October 31st. The meeting had in view the presentation of a testimonial to Dr. Macalister, who has been recently appointed to the chair of anatomy in Cambridge. The following gentlemen were appointed as a committee to receive subscriptions, and to carry out the objects of the meeting: — Messrs. Greenwood Pim, M.A., *Chairman*; William C. Neville, M.D.; Thomas Donnelly, M.A.O.; N. Falkiner, J.C.S.; A. Middleton, B.A.; A. Findlater, B.A.; D. F. Conway, B.A.; H. H. Fleming, B.A.; R. Miller, B.A.; and J. Barton, M.D., F.R.C.S.I., and Edgar Hogben, B.A., *Honorary Secretaries.*

MATER INFIRMORUM HOSPITAL, BELFAST.

ON Thursday, November 1st, this new hospital was formally opened for the reception of patients. Though the building was formerly a large detached private residence, yet it has been so altered and improved as to make it most suitable and convenient for the purpose it is now devoted to. On the first floor are a large reception-room for the use of the medical staff, and all the other rooms connected with the extern department. On the second and third floors are large airy wards, capable of accommodating seven beds in each. Attached to each of these wards are a bath-room, a lavatory, and a pantry supplied with hot and cold water and every other convenience. Projecting from the ward which is intended for male patients is a large glass-covered verandah, upon which the patients may sit or walk, and have a view of the adjacent gardens and of the busy traffic which passes at this part of the town. In addition to the two wards already mentioned, there are two small private wards, besides commodious apartments for the house-surgeon and for the Sisters of Mercy, under whose care and management the hospital will be conducted. The hospital, at present, will only contain sixteen beds, but there is ample room for extension; and it is intended, in a few years, to build a much larger hospital. In the rear of the building there is a large garden and extensive conservatories, which will be used as a recreation ground for convalescent patients. The furniture, beds, and other fittings are similar to those used in the Mater Misericordiæ Hospital, Dublin, and it is intended to be managed on exactly the same principles as that institution. Patients, without distinction of creed, if deserving and suitable cases, will be admitted without recommendation or charge of any kind. There is an extern department in connection with the hospital at which medical attendance and medicine are given free. The Sister who organised and established the Mater Misericordiæ Hospital, Dublin, and St. Michael Hospital, Kingston, has taken charge of the arrangements, and will remain until a staff of nurses sufficient for the requirements of the Mater Infirmorum Hospital are thoroughly instructed in their duties. The following officers have been appointed to the institution. *Consulting Physician:* Dr. Hoskin; *Consulting Surgeon:* Mr. Fagan; *Medical Officers on Staff:* Dr. O. Mulley, Dr. Dunprey, and Dr. O. Connell; *House-Surgeon:* Dr. Dwyer.

PROGRESS OF SMOKE ABATEMENT.

THE question of smoke abatement is making slow, but steady, progress throughout the country; and, in an address on the subject, delivered at the Parkes Museum this week by Mr. Ernest Hart, Chairman of Council of the Smoke Abatement Institution, he was able to announce that, in London, a very marked increase was observable in the activity with which the Smoke Nuisances Acts were put into operation; and to state that there was reason to anticipate that, before long, the improvements which would be carried out in the Pottery districts in Lambeth would materially diminish the volumes of smoke which, from time to time, they poured into the air. A Royal Commission on the subject was urgently needed; and steps were being taken to move the Government to accede to the resolutions brought forward at the Mansion House meeting, before the vacation, by the Duke of Westminster and the Duke of Northumberland, and supported by Sir William Siemens and Sir T. Spencer Wells, in favour of a thorough Governmental inquiry into the amendments of the law which the progress of science, and the great technical improvements in the uses of fuel have now rendered urgent or possible. The speaker also gave examples of the awakening of public interest in those questions in a number of the great manufacturing towns, and referred especially to the active public sentiment in those directions in Manchester, where a new sanitary organ was now being issued, under the editorship of Mr. Scott, which was doing much to add to knowledge and to progress in this direction.

At the last sanitary congress in Glasgow also, smoke-abatement was a prominent topic, and the Provost of Glasgow had expressed his warm interest in it, and desired to further the necessary measures. The improvement in gas-making, and especially the most recent discoveries in realising economies in cooking and the utilisation of the waste products of coal, which were attaining great value, all pointed to an early realisation of the great desideratum of improved methods of producing cheap gaseous fuel. The utilisation of gaseous fuel for heating and cooking purposes was making rapid strides. The recent reports of Dr. Dudfield, and the highly important special reports of Dr. Angus Smith and Dr. Leigh, of Manchester, were significant indications of the increasing attention which medical officers of health and scientific persons were directing to the injuries which the excessive production of smoke was causing, to the health of the population, and these interesting reports also testified to the earnestness with which the means of abating smoke were being pressed upon the public attention. The time was rapidly arriving when the economy with which nearly all manufacturing processes could be carried out without the excessive production of smoke, would be so clearly demonstrated that there would be no hardship in imposing much more stringent laws in that respect than were at present to be found in the statute books, and when public opinion would justify and demand a more effectual application of the existing legislative enactments. Mr. Hart especially referred to the anomalous action of the London police magistrates, many of whom directly contravened the spirit and the letter of the law by imposing diminishing, instead of increasing, fines upon offenders against the smoke Acts, on repeated convictions. He stated that in respect to London, there was urgently needed an amendment of the existing smoke prevention Acts, which should include the whole police district of London within the area of legislation. At present, extensive districts, in which were seated the worst offenders, were beyond the jurisdiction of the police, owing to the fact that these Acts were only in force in the limits of old London.

In respect to the results achieved by the Smoke Abatement Exhibition, he regretted that architects and householders did not study the conclusions pointed by the reports of the jurors, since those tests showed that many of the grates tested were six times less efficient than others; and, nevertheless, architects and householders continued, in ignorance of these results, to introduce into new houses patterns of grates which practical tests had shown to be less efficient and less economical in their heating power, and most

wasteful in the consumption of coal and the excessive production of smoke.

Referring generally to the theory of open grates, and the principles on which they should be constructed, the lecturer observed that the first principle to be borne in mind was that every grate should be thickly lined with a non-conducting material, of which the cheapest and best was fire-clay. Iron backs and sides to grates inevitably cooled the mass of coal, arrested combustion, and tended to waste and to the production of smoke. It had been demonstrated that the heating power of any open grate had a direct relation with its power of radiation. Radiation went on effectually only from the hottest part of the fire, that is to say, where the combustion was active and complete. As far as possible, therefore, a fire should, to speak familiarly, be all front and top. No grate should be more than six inches deep. It should be thickly lined with fire-clay, and should be so constructed as to favour radiation. The air should have free access in front and below, and the grate should, therefore, not be closed at the bottom.

THE ROGERS TESTIMONIAL.

THE following additional subscriptions to the fund for a testimonial to Dr. Joseph Rogers have been received. It should be understood that the subscription to this fund is not confined to Poor-law medical officers. The Treasurer is Mr. J. Wickham Barnes, 3, Bolt Court, Fleet Street, E.C.; and subscriptions are received by the Editor of the BRITISH MEDICAL JOURNAL.

Second List of Subscriptions.—C. H. Cornish, Esq., Taunton, £1 1s.; Dr. F. de Havilland Hall, Queen Anne Street, £1 1s.; J. F. Churchill, Esq., Chesham, £1 1s.; J. A. Shaw Stewart, Esq., Eaton Place (per E. Hart, Esq.), £5; Dr. Samuel Benton, Bennett Street (per E. Hart, Esq.), £1 1s.; W. H. Michael, Esq., Q.C., Cornwall Gardens, £2 2s.; J. Raglan Thomas, Esq., Llanelly, £1 1s.; Dr. Burchell, Kingsland Road, £1 1s.; H. Roberts, Esq., Lewisham, £1 1s.; Dr. Fegan, Blackheath, £1 1s.; Dr. Gayton, Homerton, £1 1s.; Dr. Fowler, Old Burlington Street, £1 1s.; Dr. Cogswell, York Terrace, £5 Dr. Rayner, Hanwell, £1 1s.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed.*

Applications should be addressed to

The Secretary of the Collective Investigation Committee,

eptember, 1883. 161A, Strand, W.C.

LIST OF RETURNS RECEIVED IN OCTOBER 1883.

I.—PNEUMONIA (34).

J. Allan, M.D. (3); C. Boyce, M.B. (2); C. Broomhead, M.D.; J. Brown, M.B.; M. Campbell, M.B.; N. T. Cant, Esq.; C. W. Cunnington, Esq.; F. H. Daly, M.D. (2); T. W. H. Garstang, Esq. (2); W. M. Harman, M.B.; E. H. Howlett, Esq.; D. J. Mackenzie, M.D.; J. Mackinlay, Esq.; H. C. March, M.D.; W. A. Michie, M.B. (2); T. Morgan, Esq.; W. Newman, M.D.; S. H. Owen, M.D.; J. I. Palmer, Esq.; A. C. Rayner, M.D.; E. S. Scott, M.B. (4); J. A. E. Stuart, Esq. (2); G. Whitwell, M.B.; E. T. Wilson, M.B.

II.—CHOREA (12).

F. H. Appleby, Esq.; C. Boyce, M.B.; C. Broomhead, M.D.; M. Campbell, M.D.; T. Fiddes, M.B.; C. Harrison, M.D.; E. H. Howlett, M.D.; F. B. Mallett, M.D.; C. J. Myers, Esq.; S. H. Owen, M.D.; T. C. Railton, M.D.; G. W. Steeves, Esq.

III.—ACUTE RHEUMATISM (14.)

C. Broomhead, M.D.; W. A. Carline, M.D.; E. O. Daly, M.B.; T. Fiddes, Esq.; S. Haynes, M.D.; C. H. Milburn, Esq. (2); Surgeon-Major A. B. Myers, (6); W. Rowlands, M.B.

IV.—DIPHTHERIA, CLINICAL (8).

F. T. Bond, M.D.; C. Boyce, M.B.; F. W. Jordan, Esq.; J. Mullin, M.D.; W. Newman, M.D. (2); C. S. Richardson, Esq. (2).

IVa.—DIPHTHERIA, ETIOLOGICAL (4).

F. W. Jordan, Esq.; W. Newman, M.D.; C. S. Richardson, Esq. (2).

Total number of cards received, 72.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—The next meeting of this district will take place at Gravesend, on Tuesday, November 13th. Gentlemen desirous of reading papers or exhibiting specimens, are requested to communicate as early as possible with the Honorary Secretary of the district, A. W. NANKIVELL, F.R.C.S., St. Bartholomew's Hospital, Chatham.—October 5th, 1883.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at Newport, on Thursday, November 15th. Members wishing to read papers, etc., should send titles to either of the undersigned at once.—A. SHEEN, M.D., D. A. DAVIES, M.B., Honorary Secretaries.—October 10th, 1883.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Wednesday, November 28th. Dr. Ellis, of Eastbourne, will preside. Gentlemen desirous of contributing papers should at once communicate with the Honorary Secretary, T. JENNER VERRALL, 95, Western Road, Brighton.—October 16th, 1883.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The autumn meeting of the above district will be held at Worthing on Thursday, November 22nd, Dr. Kelly in the chair. Gentlemen intending to read papers are requested to communicate with the Honorary Secretary, G. B. COLLET, 5, Steyne, Worthing.—October 15th, 1883.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of the above District will be held at the Kent and Canterbury Hospital, on November 15th; Dr. Joyce of Cranbrook in the chair. At 2 P.M., Mr. Wacher will conduct members over the new Union Infirmary. The Collective Investigation Subcommittee will meet at the Hospital at 2.30 P.M. At 3 P.M., the following communications: Dr. Stowers: Infantile Eczema. Dr. Gogarty: Gout in Diagnosis. Dr. Joyce: Whether the recognised Infectious Diseases be ever simulated by Non-infectious Forms; The Communicability of Disease from Animals to Man. The dinner will take place at the Royal Fountain Hotel, at 5 P.M. All extant cards of the Collective Investigation Committee can be obtained by applying to T. WHITEHEAD REID, Honorary Secretary, 34, St. George's Place, Canterbury.—October 31st, 1883.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Station Hotel, Stoke-upon-Trent, on Thursday, November 29th, at 4 P.M.—VINCENT JACKSON, General Secretary, Wolverhampton.—October 30th, 1883.

THAMES VALLEY BRANCH.—The first meeting of the Thames Valley Branch will be held in Richmond, at the Richmond Hospital, on Wednesday, November 28th.—A. ROBERT LAW, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The next meeting will be held at 2.30 P.M. on Tuesday, November 20th, at the Infirmary, Truro. Members intending to make communications are requested to give notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will take place on Thursday evening, November 15th, at the Hackney Town Hall; the chair will be taken at half-past 8 o'clock. Dr. Charlewood Turner will read a paper on Endocarditis. Mr. M. Greenwood will read a paper on The Signs of Impending Dissolution.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road.

SHROPSHIRE AND MID-WALES BRANCH.—The next quarterly meeting of this District will be held at the Wrekin Hotel, Wellington, on Tuesday, November 13th, at 3 P.M. Members wishing to read papers, etc., should send titles to either of the undersigned at once.—EDWARD CURETON, ARTHUR STRANGE, Honorary Secretaries.

STAFFORDSHIRE BRANCH: ANNUAL MEETING.

THE tenth annual meeting of this Branch was held on Thursday, October 25th, 1883, at the Station Hotel, Stoke-upon-Trent. Dr. Totherick introduced the president-elect, Dr. C. ORTON, who took the chair. Twenty-six members were present.

Vote of Thanks.—Dr. ARLIDGE proposed: "That the best thanks of this meeting be given to the retiring president, Dr. Totherick, for his services during the past year." This was seconded by Dr. REID, and carried unanimously.

President's Address.—The PRESIDENT delivered an address upon "The effects of our present system of education on the health of our children." On the motion of Mr. J. V. SOLOMON, seconded by Mr. SPANTON, a cordial and unanimous vote of thanks was passed to Dr. Orton for his excellent and opportune address.

New Members.—The following gentlemen were elected members of the Branch: Mr. E. C. Watts, Wolverhampton; Mr. A. Cook, Cheslyn, Hay, Walsall.

Report of Council.—Mr. VINCENT JACKSON read the annual report as follows.

"Your Council beg to report that during the past year three general meetings have been held, and that the average attendance of members at each has been much greater than in the previous years.

"The chief feature of the session has been the establishment of a Local Committee in connection with the Collective Investigation Committee of the British Medical Association. It is now in full work, and its organisation is so complete, that every medical practitioner in the county can be solicited to co-operate through the means of the four district secretaries. Each of these gentlemen, being resident in the centre of the four divisions of the county, is enabled, without much difficulty, to distribute the cards to those living within his area. Cards for recording individual cases of the following diseases have been prepared by the General Committee. Acute Pneumonia, Chorea, Acute Rheumatism, Diphtheria (clinical), Diphtheria (sanitary), Syphilis (acquired), Syphilis (inherited), Acute Gout. They may be had upon application to Mr. Vincent Jackson, Dr. McAldowie (Stoke), Dr. Lowe (Burton-upon-Trent), Dr. Malet (Wolverhampton), and Dr. Reid (Stafford). In connection with and to further the objects of this Committee, at the May meeting at Wolverhampton, a successful debate took place upon Acute Pneumonia and its treatment.

"During the year, the constitution of the British Medical Association has undergone a great, important, and as many think, a very necessary reform. Its Executive bodies have been remodelled. The Council, which is composed almost wholly of members directly elected by the Branches, will shortly disappear. The Committee of Council, composed of members elected or nominated from the Council, with, in addition, the secretary of each Branch and a few life-members, will, in the month of August next, cease to exist, and will be replaced by a governing body, to be called 'The Council,' which shall consist of the President, the President-elect, the President of the Council, the Vice-Presidents of the Association, and the Treasurer (who shall all be *ex officio* members of the Council); and of members representing the Branches, who shall be elected as follows:

"'(*a*) Every Branch shall be entitled to elect one representative member, and every Branch consisting of more than 200 members shall be entitled to elect an additional representative member for every complete 200 members of which it shall consist.'

"'(*b*) The election of such member or members shall be annual, and he or they shall hold office from the second day of the Annual Meeting of the Association next after his or their election, until the second day of the next following Annual Meeting.'

"The following members have, by their contributions at the various meetings, earned the thanks of your Council:—Dr. C. Orton, Mr. J. G. U. West, Mr. W. D. Spanton, Dr. Hatton, Mr. Vincent Jackson, Mr. Folker, Dr. McAldowie, Dr. Monckton, Dr. Arlidge, Mr. Wolfenden, Dr. J. H. Tylecote, Dr. E. W. Hope, Mr. Lawson Tait, Mr. F. E. Manby, Dr. Malet, Dr. W. G. Lowe, Dr. Reid.

"The number of members (4 being new) is now 129.

"Your Council cannot help expressing the opinion that the past year has been the most prosperous of the nine years which have preceded it, and they look forward with hope and confidence, feeling convinced that the future career of the Branch will be one of usefulness, of progress, and of great success."

The adoption of the report was moved by Mr. L. TAIT, seconded by Mr. WOLFENDEN, and carried.

Financial Statement.—Mr. J. G. U. WEST read the statement of accounts for the past year, which showed a balance of £28 12s.

Next Annual Meeting.—Mr. FOLKER proposed that the next annual meeting be held at Stafford. This was seconded by Mr. ALLCOCK, and agreed to.

Election of Officers for 1883-84.—The following were elected. *President-Elect:* Dr. E. T. Tylecote. *Vice-Presidents:* Dr. J. K. Wynne, Dr. Totherick. *General Secretary:* Mr. Vincent Jackson. *Financial Secretary:* Mr. J. G. U. West. *Auditor:* Mr. Folker. *Council:* Dr. Arlidge, Mr. Boldero, Dr. Reid, Mr. J. J. Ritchie, Mr. F. J. Gray, Mr. H. M. Morgan, Dr. McAldowie, Mr. J. T. Hartill, Dr. Millington, Mr. G. G. Sharp, Mr. Mulville Thomson, Mr. J. W. Wolfenden. *Representatives in the Council of the Association*, 1883-84: Dr. Arlidge, Dr. J. Alcock, Mr. W. H. Folker, Dr. Monckton, Mr. W. D. Spanton, Mr. F. E. Weston. *Representative in the Council of the Association*, 1884-85: Mr. Vincent Jackson. *Representatives upon the Parliamentary Bills Committee of the Association:* Dr. C. Orton, Mr. W. D. Spanton. *Collective Investigation Committee of the Association—Officers and Members of the Local Committee—Chairman:* Dr. J. T. Arlidge. *Committee:* Mr. J. G. Clendinnen, Mr. J. Cooke, M.B., Mr. F. J. Gray, Dr. G. H. Monckton, Mr. G. A. Phillips, Mr. G. G. Sharpe, Dr. J. Y. Totherick, Dr. J. H. Tylecote. *Honorary General Secretary:* Mr. Vincent Jackson. *Honorary District Secretaries:* North Staffordshire: Dr. A. McAldowie; Mid Staffordshire: Dr. G. Reid; East Staffordshire: Dr. W. G. Lowe; West Staffordshire: Dr. H. Malet.

Votes of Thanks were passed to the Auditor and Secretaries, on the proposition of Dr. C. ORTON, seconded by Mr. RITCHIE.

Members in Arrears: The Financial Secretary having reported that four members were in arrears with their subscription, it was resolved that, in accordance with Rule 19, the above four gentlemen "shall cease to be members."

BORDER COUNTIES BRANCH: AUTUMN MEETING.

THE autumn meeting of this Branch was held in the King's Arms Hotel, Dumfries, on Friday, October 19th. Dr. MACDOUGALL, the President, occupied the chair, and there were twenty-three members and visitors present.

Spring Meeting.—It was intimated that the spring meeting would be held in Carlisle towards the end of February, and that it would be an evening meeting. The members cordially approved of the suggestion that a discussion on puerperal pyrexia should form a leading part of the programme on that occasion.

Medical Family Registers.—The President, for Dr. Barnes, brought before the meeting Mr. Galton's scheme for procuring medical family registers.

New Members.—The following were admitted members of the Branch: S. Rutherford Macphail, M.D., Garlands; J. Leith Waters, M.B, Carlisle; T. B. Green, M.R.C.S., Kendal; J. Meggat, M.B., Kirkpatrick, Durham.

Communications.—The following communications were read.

1. Dr. Kerr (Dumfries) gave notes of cases illustrating the beneficial results of Conservative Surgery, and the value of Iodine as a Local Application for Erysipelas; also notes of a case of Rupture of the Rectum by Concussion.

2. Dr. Lediard (Carlisle) read notes of a case of Fibro-cystic Myoma of the Uterus, treated in the Cumberland Infirmary. The patient had a large abdominal tumour, which caused pain in the back and free hæmorrhage; there were occasional attacks of sickness, and generally an elevated temperature; but, after the last sounding of the uterus and bladder for diagnostic purposes, she became worse, and died in nine days, with symptoms of blood-poisoning. At the *post mortem* examination, miliary abscesses, of recent development, were found in both kidneys, aud infarcts in the spleen; whilst the lining membranes of the uterus and bladder were quite healthy. The diagnosis of uterine tumours was briefly touched upon, as well as the surgical treatment of these cases by removal of the appendages; but the point of most interest lay in the question whether the patient's death was connected with the sounding; and Dr. Lediard found it difficult to account for the morbid appearances in any other manner.

3. Dr. Russell (Carlisle) read notes of two Gynæcological Cases: one being a case of Pelvic Cellulitis, which had rapidly recovered under Chian turpentine; the other a case of Scirrhus of the Uterus, which had ulcerated in its peritoneal aspect, and caused hæmorrhage from the surface, and in which Chian turpentine had been of no value whatever.

4. Dr. Smith (Dumfries) read a paper on Pityriasis Rubra Univer salis, and its treatment by pilocarpine.

5. Dr. Lockie (Carlisle) showed an Aortic Aneurysm, fatal by rupturing into the pleura, there being no clot in the sac, although the patient had been long in hospital, treated by Tufnell's system and by iodide of potassium.

All the papers and pathological specimens gave rise to animated discussions, taken part in by Drs. Macdougall, Kerr, Lediard, Smith, Russell, Grange, Lockie, Richardson, Davidson, Waters, and Surgeon-Major Smith.

Dinner.—After the meeting, the members and their friends dined together.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

THE first meeting of the session took place at St. Thomas's Hospital, on Wednesday evening, October 24th; Dr. C. J. HARE, President of the Metropolitan Counties Branch, in the chair. There was a large attendance of members of the Association and visitors.

Dr. HARE delivered a short opening address.

Papers.—The following were read.

1. Dr. Bristowe read a paper on Masked Cerebral Tuberculosis. In the discussion which followed, Drs. C. Taylor, Forbes-Winslow, R. Fowler, and John Harley, and Mr. R. W. Parker took part.

2. Dr. G. H. Savage read a paper on the Leytonstone Murder, and Some Points in Evidence of Insanity in Criminal Cases. This paper gave rise to an animated debate, in which Drs. R. Fowler, Hack Tuke, Nicholson, and Bucknill, and Mr. S. Benton, took part. A resolution, proposed by Dr. HACK TUKE, and seconded by Mr. S. BENTON, to the following effect, was carried.

"That persons charged with crime, respecting whom there is any suspicion of insanity, shall be examined, at the expense of the Treasury, by three medical men—namely, the prison surgeon, the superintendent of the asylum in the neighbourhood, and a medical man of repute practising in the vicinity; and that their joint report shall be handed to the counsel for the prosecution."

Filaria in Chyluria.—Mr. Lloyd Jones showed living specimens of the filaria sanguinis hominis, from a case of chyluria.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE first ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday evening, October 25th; EDWARD CROSSMAN, Esq., President, in the chair. There were also present thirty-nine members and three visitors.

New Members.—The following gentlemen were elected: B. J. Baron, M.B., Clifton; C. N. Cornish, M.R.C.S., Bristol.

Papers.—The following papers were read and discussed.

1. Mr. Louis J. King read a paper on The Use of Ergot in some of the Simpler Forms of Eye-Disease. Mr. Mason made some remarks.

2. Mr. H. W. Freeman read a paper on Recurrent Fibromata of the Neck and their Relation to the Bronchial Arches; and showed microscopical sections. Observations were made by Mr. Bartrum and Dr. Skerritt.

3. Mr. A. W. Prichard related a Case of Death after Bone-Setting. Drs. Goodridge and Skerritt, and Messrs. Craddock and Crossman, took part in the discussion which followed.

4. Mr. Russell, in the absence of Mr. Fowler, related a Case of Rupture of the Fallopian Tube, and showed the specimen. Dr. Swayne, Mr. Tuckett, and Mr. Hopkins made some observations.

5. Mr. R. J. H. Scott showed a patient suffering from Seborrhœa Congestiva of the Back of the Hand.

DORSET AND WEST HANTS BRANCH: MEETING.

A MEETING of this Branch was held at the Town Hall, Wareham, on Wednesday, 24th October: W. H. WILLIAMS, M.D., President, in the chair.

Officers.—The following officers were elected for 1884. *President:* W. S. Falls, M.D., Bournemouth; *Vice-Presidents:* G. H. Batterbury, M.D., Wimborne; F. C. G. Griffin, M.B., Weymouth; *Honorary Secretaries and Treasurers:* W. G. Vawdrey Lush, M.D., Weymouth; C. H. Watts Parkinson, Esq., Wimborne.

New Members.—The following gentlemen were elected: Samuel Montgomery, Esq., Kinson; William Henry Williams, jun., Esq., Sherborne.

Next Meeting.—It was resolved that the May meeting should be held at Bournemouth.

Communications.—The following communications were read:

1. Mr. Husband: A Singular case of Dislocation of the Shoulder.

2. Dr. Griffin: Account of the Epidemic of Cholera at Southampton in 1866.

Discussion.—The following was the subject of discussion: Is Typhoid Fever always due to previous Typhus?

The Case of Dr. Joseph Rogers.—It was resolved unanimously:

"That this Branch, having read in the public journals that Dr. Joseph Rogers has been suspended from his office as Medical Officer to the Westminster Workhouse, ostensibly on frivolous and vexatious charges, but really for giving honest evidence in an inquiry into the conduct of the master, and his resignation demanded, whilst the master, against whom most serious charges have been established, has been continued in office, desires to enter a strong protest against the manner in which Dr. Rogers has been treated, and which materially affects the position of every Poor-law medical officer. This Branch trusts that the action of the Committee of Council and of this Branch will be supported, not only by every Branch of the Association, but also by the medical profession throughout the United Kingdom."

British Medical Benevolent Fund.—A grant of two guineas was made to the British Medical Benevolent Fund.

Dinner.—The members and friends subsequently dined together at the Red Lion Hotel; the chair and vice-chair being respectively occupied by Mr. Husband and Dr. Batterbury.

CORRESPONDENCE.

MEDICAL BULLETINS.

SIR,—The letter in your last issue, signed Henry Halford, in which the writer poses as *laudator temporis acti*, and cites the authority of Hippocrates against the disclosure of all knowledge acquired during professional attendance, bears no real relation to cases such as that of the Primate and Dr. Alfred Carpenter, where the patient, or the patient's immediate relatives, desire to communicate the true facts to all interested in them.

Professional secrets are undoubtedly as sacred with the profession in the present day as in any past period, and are, therefore, no more likely to be betrayed now than in the pre-Christian era; indeed, the letter referred to might well be imagined the production of some Rip van Winkle awaking from his prolonged trance, and finding all his surroundings strangely changed; instead of the slow old York coach, railways and the electric telegraph, the tax on paper abrogated, and every village hamlet supporting its local newspaper. In days such as these, of early supplied information, to attempt to make a mystery of the condition of the Primate would be absurd and futile.

I trouble you with these remarks, because my ow nname has occasionally appeared without my concurrence in the daily press. Recently, however, like Dr. A. Carpenter, I have been compelled to sanction its publication under the following circumstances. On October 23rd, Mr. Knowles, the senior member for Wigan, was attacked by sudden and alarming illness. For some days no authenticated report was issued, and, in consequence, unathorised statements appeared in the metropolitan and provincial newspapers, some of which were erroneous and misleading, and were a source of trouble to the family by describing the patient as getting worse, when he was actually progressing favourably. In this conjuncture, I was asked by the family to write a telegram for the patient's Wigan constituency, as they required an account of their member's condition. I indited a telegram, which I was then requested to authenticate by my signature. I appended the name of the able family attendant, Dr. Okell, and submitted that my own name was unnecessary, adding that I disliked its publication. To this objection reply was made that it was well known I was in attendance with Dr. Okell, and that the signatures of both were looked for, and that this confirmation of the report would be regarded as more satisfactory. My name was then added.

The various reports that had appeared in the metropolitan and provincial press previous to the publication of this joint bulletin, prove that not only the Wigan constituency, but the general public also, were interested in obtaining correct accounts of the condition of the invalid. Neither Dr. Okell nor myself sought, or even desired, publicity, but, erroneous statements having been promulgated, our names were required to rectify them.—I am, etc.,

Chester, November 6th, 1883. EDWARD WATERS.

A NEW TREATMENT FOR SLEEPLESSNESS.

SIR,—Now that "nerve-vibration" is beginning to be recognised as a therapeutic agent, and my percuteurs are in the hands of many practitioners, who are using them with a reasonably fair measure of success, will you allow me to ask a trial for a very simple method of treating sleeplessness? It is this: The patient lying on the right side—as all persons who experience difficulty in sleeping should lie, (1) in order that the abdominal viscera may fall away from the left side of the diaphragm, leaving the heart free from upward pressure, and (2) in order that any food which may chance to remain in the stomach may pass by gravitation through the pylorus—the percuteur, with a medium-sized disc, is passed, over the night-dress, slowly and lightly up and down the ridge of spinous processes from the seventh cervical to the lower dorsal, the percussion-rod giving about eighty or ninety blows per second. If this does not induce sleep in from five to ten minutes, the disc is applied over the left zygoma, near the transverse root, propagating fine and gentle vibrations across the base of the cranium. That rarely fails. I do not, of course, assert that this treatment will succeed in all cases; but it is worth trying in preference to the recourse to bromide of potassium, or chloral, or when these drugs prove useless, and is so easily managed that a nurse may be trusted to administer it. The percussion ought to be reasonably slight, and it should cease as soon as drowsiness is induced. I shall be glad to have the opinion of the profession on this method, when it has been more extensively tried.—Yours faithfully, J. MORTIMER GRANVILLE.

16, Welbeck Street, Cavendish Square, W.

THE ROYAL UNIVERSITY OF IRELAND.

SIR,—The annual meeting of Convocation was ordered by the Senate to be summoned for Tuesday, October 30th, at one o'clock, in the University Buildings, Carlsfort Terrace; and, though matters were to be discussed possessing considerable interest, it was found impossible to obtain a quorum, and, consequently, the proceedings fell through; this was mainly due to the marked absence of all the members of the Senate except the last two elected members. Indeed, the Senate evidently considered the meeting to be of small importance, as it actually had the Standing Committee transacting business at the same hour. This action on the part of the Senate is to be the more deplored, as it has been freely stated that the Senate take no interest in Convocation at present, as it is composed for the most part of graduates of the late Queen's University. It is hard to understand why this apathy exists in an important branch of a young university, and it affords a powerful argument for one of the notices of motion; which is, that the Senate be requested to summon Convocation to meet on a day whilst the examinations are proceeding, so as to give examiners, etc., an opportunity of attending. The consideration of the resolutions with regard to the propriety of altering the dates on which the medical examinations are held, and admitting candidates to two examinations in the year, was postponed in June to this meeting. Candidates who wished to have their cases examined being requested to send their applications to the Standing Committee for Investigation, what was the surprise of these gentlemen, when they did so, to learn from the Secretaries that this Committee would not meet again until after the autumn examinations! It certainly seems a strange proceeding for the governing body of an university to adjourn from one examination until after another, as questions affecting an approaching examination must of necessity arise, and require to be submitted to the authorities of the university.

Students were at first supplied with their marks immediately after an examination, this enabling them to ascertain their weak subjects. Now, a student is simply told he is rejected; he cannot obtain his marks, and he is, curiously enough, refused all information, if unsuccessful, until after the meeting of Convocation. By such arrangements, students feeling aggrieved are effectually debarred from bringing their cases forward for examination; and, if it be thought desirable to have no meetings of the Standing Committee between two examinations, in the interim, let their cases be investigated by a representative Committee of Convocation, and, if a grievance exist let this Committee bring the cases under the notice of the Senate, who might hold a meeting before the examinations begin.

It is found, on looking at the list of names proposed to form the annual Committee, that the manner of selecting the Committee is highly objectionable. Eighteen names are placed on it as the representatives of seven members. It was stated, at the last meeting, that each member would be requested to furnish some names to form this Committee, but few were favoured with this invitation; and, consequently, just eighteen members were nominated by these seven gentlemen, and, if there had been a meeting on this occasion, these eighteen would be elected mechanically. A Committee so elected and chosen cannot be surely called a representative one, and could not possibly possess the confidence of Convocation, no matter how highly these seven gentlemen may be personally appreciated.—Very truly yours, CHARLES FREDERICK KNIGHT, M.D.

91, Harcourt Street, Dublin, November 6th, 1883.

POPULAR LECTURES AT THE ANNUAL MEETINGS OF THE BRITISH MEDICAL ASSOCIAT ON.

SIR,—I have much hope and pleasure in endorsing the remarks contained in Surgeon-Major Evatt's letter, published in the JOURNAL of the 27th instant. I think the suggestions good, the cause worthy, the occasion suitable, the material ample, the public ready to welcome and appreciate, and that there are members capable and willing to give such popular lectures. I would suggest that, as a beginning, three popular lectures be given during the week of the annual meeting—say at 10 A.M. on the Wednesday, Thursday, and Friday—to be of about one hour's duration, to be given in the largest building available, and admission to be free and by ticket obtainable on application.

The subjects for selection might be taken chiefly from the Section of Public Medicine—*e.g.*, (1) on foods and drinks in general use; (2) on clothing, ablution, rest, exercise, and recreation; and on the ventilation, warming, and drainage of our dwellings; all these in their application to health and disease.

If the experiment should be found a success, an extension of number or a variation of subjects might be made, according to circumstances. By these means we should increase the local interest in our meetings, and allow the public to see us both in a social and in a semi-professional aspect, viz., by admitting them to our social entertainments, as well as by endeavouring to teach and enlighten them in subjects likely to increase their health and happiness; and I venture to predict that the ultimate result would be an increased welcome and popularity to the (annual meetings of the) British Medical Association.—I am, yours faithfully,

Clifton, October 29th, 1883. JOHN BROOM, M.D., etc.

ANATOMICAL STRUCTURE, OR CLINICAL FEATURES.

SIR,—In your annotation under the above heading, which appears in the last number of the JOURNAL, *à propos* of the case of cerebral tumour which I brought before the last meeting of the Clinical Society, it is stated that I had declared the case to be one of syphilis, because I had not seen such structural alterations as it presented in other cases than those of syphilis. As this statement is not quite in accordance with the facts of the case, I beg you will allow me to say that I did not stand alone in my opinion concerning the significance of these lesions, when I brought the case before the Society. It was plainly stated in my paper that, when called to see the patient, I made the diagnosis of cerebral tumour; and this was fully confirmed by the necropsy.

No one, however, could have been more surprised than myself to find, when the specimen was sent to me, that it presented the appearance of gummata and vascular disease, which are, at the present time, rightly or wrongly, held to be characteristic of syphilis. I am quite sure that you, sir, or any of your readers who are familiar with such specimens, would, on seeing it, have at once pronounced for the specific nature of the lesions. But as no indications of syphilis had existed during life, and the clinical features thus showed a complete discrepancy with the evidence of morbid anatomy, I decided to have another opinion on the pathological significance of the *post mortem* changes, and therefore sent the brain for minute examination to Mr. Bevan Lewis, of the West Riding Asylum, without giving him any indications of the symptoms which had been present during life, or my own notions concerning the specimen.

Mr. Lewis, who is deservedly considered one of the ablest and most experienced observers in the pathological anatomy of the nervous centres, expressed himself, without any hesitation, for the specific nature of the lesions; and his report, which is full and explicit, has been incorporated with my paper.

I offered, during the discussion which took place after the reading of my communication, to hand the specimen, if still in existence, for further examination to a Committee of the Society; but Mr. Lewis has since written to me to say that it has unfortunately been destroyed. As far as this case is concerned, the matter is therefore

at an end; but I have no doubt that such a Committee, if appointed, could only have arrived at the same conclusion as Dr. Lewis and myself. My communication to the Clinical Society will, however, have answered its purpose, if it be instrumental in drawing the attention of pathologists to a nicer discrimination between lesions which are at present believed to be caused by the action of one poison only.—I am, sir, your obedient servant,

JULIUS ALTHAUS, M.D.

48, Harley Street, Cavendish Square, W.

THE SOFT PALATE.

SIR,—I beg respectfully to enter a protest against Mr. Lennox Browne's assertion that "Mr. Behnke has been first among the teachers to demonstrate, at least in his published writings, that the soft palate may be educated by simple gymnastics, thereby making it tense, and enabling it to retract to a remarkable degree, facilitating the production of high tones, and increasing the resonance of the voice." Garcia wrote: "Keep the tongue relaxed and motionless, avert the base of the pillars, and render the whole throat supple." This is reproduced in my *Philosophy of Voice*. Had Mr. Browne asked anyone who had learned, he would have known that all good trainers train the elevation of the soft palate by repeated location of will-force. Cataneo—Borio's master and mine—tested the elevation by closing and opening the nostrils with the hand; if the tone changed, the palate was too loose. Professor Graham Bell tests it by closing one nostril, and pulsing against the other with a finger.

If a stranger advance hypothetical statements, common courtesy demands that he should believe some persons knew something before he appeared on the scene.—Yours respectfully, CHARLES LUNN.

P.S.—The photograph is that of a "distorted larynx," with the vocal cords twisted from the median line.

HOW TO MAKE SPECIALISM USEFUL.

SIR,—I am glad you have drawn the attention of the profession to Mr. Jonathan Hutchinson's important address, delivered before the Ophthalmological Society; and I hope the valuable suggestion contained in that address will not be allowed to drop until some active steps are taken to carry it out. I am distinctly of opinion that *schemata*, such as Mr. Hutchinson proposes, would be an immense boon to the profession generally and the public at large. They would also be useful to the specialists themselves, as I find that they are by no means agreed as to the treatment of the commonest diseases of the eyes. To give one instance: I find, on referring to two eminent authorities on the subject of corneal ulcerations, one recommends Pagenstecher's ointment, which Mr. Hutchinson extols so highly for this disease, and states that the strength should be from ten to twenty grains to the ounce. The other authority, in his published work, one which is much in use, does not even mention this ointment amongst the various remedies he recommends; but, in the formula at the end of his work, he gives the strength of the ointment as two to four grains to the ounce. Which of the two is right? Such a committee of the Ophthalmological Society as Mr. Hutchinson suggests would answer this question.

Mr. Hutchinson's address reminded me of what my predecessor, the late Mr. Hammerton, who was for forty years resident medical officer at St. George's Hospital, related to me, some years ago, of an incident in the life of Dr. Young, the great philosopher, and physician to that hospital. It seems that it was his habit to avoid the pupils attending the hospital by every conceivable means, and to go round the wards alone. His colleagues one day remonstrated with him on the matter, and intimated that he resorted to this practice from want of knowledge of his profession. Whereupon Dr. Young replied: "I can write on a sheet of paper all that can be positively proved as true and useful in medicine." This would not apply to medicine of the present day; but I verily believe, with Mr. Hutchinson, that much could be done in this direction in the most common and severe of eye-diseases. I trust, therefore, that the attempt will be made by the Ophthalmological Society.—Yours,

T. RIDGE JONES, M.D.

4, Chesham Place, S.W., October 27th, 1883.

HEALTH-MATTERS IN LIVERPOOL.

SIR,—That there is not the slightest foundation for Dr. J. Stopford Taylor's extraordinary statement, in criticising the article with the above title, that "the gentlemen who are so suddenly inspired with a desire for the sanitary well-being of our city are the accredited leaders of the opposition to compulsory notification," a single quotation from a recent leading article in one of the ablest of daily papers—the *Liverpool Daily Post*—will be sufficient to prove. It is as follows. "The fallacy set up is that the dirtiness and dissipated habits of the lower classes, and the want of notification of infectious disease, account for the excessive death-rate. The disadvantage which this and many other towns suffer from those causes is admitted; but it is ridiculous to attribute to them more than their share of mischief." Although the writer of the present letter does not in the least know who were the writers of the leading article now quoted from, and of other articles and letters in the Liverpool press to which he has alluded, he thinks it a fair inference that they may be reckoned among the leaders of the cause which they advocate. Yet want of notification of disease is acknowledged by one of them, as it probably would be by all, to be a disadvantage.

But there are no known leaders of an opposition to compulsory notification in Liverpool, seeing that there is no proof that such opposition has ever existed there. The great majority of the medical men of that city have objected, and probably will always do so, to being themselves constituted by law the notifiers, with an alternative of a fine in case of default; and they have given the soundest reasons for their objection. But they have never gone further than that. So far from objecting to compulsory notification *per se*, they have always advocated it.

And that Dr. Taylor's further statement that those who are now striving for an improvement of the dwellings of the poorest class are "suddenly inspired" with this desire, has no more foundation than the other statement alluded to above, a quotation or two will also prove. With regard to certain notorious fever-nests which existed before 1864, the *Liverpool Daily Post*, in its leading columns for October 24th, remarks: "The able medical men employed by the guardians notified over and over again that the scourge had its permanent abode in those places. They never ceased their notification of the fact to the medical officer of health." After a time, structural alterations were made according to their suggestions, and "the result was a success beyond expectation. The parish medical men were rewarded for their perseverance, and had the satisfaction to report that not a single case of fever occurred there after the improvements were completed." Some of those gentlemen still survive and labour in Liverpool, though not now as district medical officers; and both they and their successors in office have ever since been steady and consistent advocates of the policy thus proved to be so successful. There is no evidence of "suddenness" on their part at any rate. And with reference to a most conspicuous leader in this crusade, a member of the Health Committee, it will be sufficient to quote from a reply which he recently made to a very large deputation, constituted of men of different political parties, some of whom, as was stated by its chairman, had striven hard three years previously to keep him out of the Council, but who all now came to beg him to allow himself to be again nominated, to show that there is no such "suddenness" on his part. It was as follows: "Those who had taken the trouble to peruse remarks he made three and four years ago would certainly give him credit for having endeavoured to redeem the promises made on those occasions." To another deputation, which accompanied and remained with the first, he drew attention to the steady and prolonged difference of opinion between himself and the vice-chairman of the Health Committee as to the methods of dealing with unsanitary property; and in justification of his action, and of the resolution which he had moved requiring explicit information as to fever-stricken streets, related the following incident. "Coming from one of the committees one day, a working-man, evidently very poor, tapped him on the shoulder and said, 'Are you Mr. Stephens?' 'Yes.' 'Well, God bless you, sir, for the attempt to deal with those horrid fever-streets. I lived in one of them. I lost my wife and two dear children; and I feel I am indebted to you for doing the poor a service.'" Mr. Stephens then went on to say that he would "never leave the question undisturbed until every one of those fever-nests was removed;" and this resolution thus nobly conceived and fearlessly expressed in the interests of the poor, who are helpless in this matter of life and death to them, is characterised by Dr. Taylor as "wild talk about effectually eradicating disease."

Mr. Stephens is one of the gentlemen who, according to Dr. Taylor, "are endeavouring, by exaggerated statements, to divert the public attention from the necessity of obtaining powers for the early notification and isolation of persons suffering from infectious disease."

The spectacle presented by Liverpool is probably as unique as it is unhappy, and may help to explain much that is strange in its

sanitary history. It is that of a chief medical officer placing himself in an attitude of irritable personal conflict with those who may venture to suggest new departures in public health administration, and actually going out of his way to indulge in a poor and pitiful sneer at the earnest representatiors of such responsible public bodies as the Toxteth board of guardans, and such able members of his own committee as Mr. Stephens and others, all of whose protestations and appeals he conceives to be made from no worthier motive than that of a desire to divert public attention from a scheme to which he has personally attached himself. There has probably never been a more melancholy instance of the blindness which prejudice and officialism are capable of producing.—I am, sir, your obedient servant, THE WRITER OF THE ARTICLE.

October 27th, 1883.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Owens College Medical Students' Debating Society—Dr. Cullingworth's Address—Offer to the Manchester Royal Infirmary—Manchester Medical Society—Presentation to Mr. Lund.

THIS week and last, medical meetings have crowded thick upon us. On Monday evening Dr. Cullingworth opened the season by delivering an inaugural address, on the place of Literature in Medicine, to the Owens College Medical Students' Debating Society. In the course of a deeply interesting and thoughtful paper, he alluded to the causes which have of late years tended to the neglect of literary style in medical writings, and also drew a graphic picture of the dismay with which the student mind is struck on his first being brought face to face with the material of a large library like that of our Medical Society, for example. He then proceeded to point out the various methods by which the mental confusion caused by the *embarras de richesses* was to be removed, and gave examples how a subject should be properly worked up by systematic reference to bibliographies and dictionaries, English and foreign. His remarks were attentively listened to by a large audience.

At the last meeting of the Board of the Manchester Royal Infirmary a letter was read from the Rev. Dawson Burns, D.D., of Tooting, offering the sum of £1,000 to the board in case they should feel inclined to carry out a non-alcoholic experiment in the treatment of disease for not less than a year. The medical board have this remarkable offer under their consideration.

The President of the Medical Society has inaugurated his second year of office by a reception to the members of the Society and members of the general public known to be interested in scientific and literary pursuits. In the reading-room of the Society a large number of the bibliographical treasures (rare folios and books of plates) were exhibited, and attracted great attention. The physiological laboratories were thrown open, and a number of physiological demonstrations were made by Professor Gamgee; while those visitors whose tastes were more botanic in their nature inspected the large and varied assortment of specimens of materia medica displayed in Dr. Leech's department. Dr. Dreschfeld discoursed on micro-organisms; and Dr. Cullingworth read a paper (by desire) on "The Plan of Literature in Medicine," to large audiences in the medical and anatomical theatres respectively.

A brief musical interlude served as an admirable preface to the next item on the evening's programme, viz., the presentation of a testimonial to Mr. Lund by Mr. Heath, as chairman of the Lund Testimonial Fund. This fund has been subscribed largely by Mr. Lund's past pupils, but it has also been substantially increased by the unsolicited contributions of his many professional admirers and friends in this district. The testimonial has taken the form of a portrait by Mr. J. H. E. Partington and a service of plate. The presentation took place in the Chemical Theatre of the Owens College.

THE LATE DR. ROBERT SAMUEL HUDSON.—At the last meeting of the Redruth Board of Guardians, the following resolution was proposed by the Rev. Canon Chappell, and passed unanimously:—"That this Board desires to record its appreciation of the services of the late Dr. Hudson as the medical officer and vaccinator for Redruth, and to express its sincere sympathy with Mrs. Hudson in her bereavement, and that the clerk be instructed to forward to her a copy of this resolution."

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE WESTMINSTER UNION.

THE course which the Westminster Guardians are pursuing in reference to their officers is one which is, to say the least, surprising. At a recent inquiry, thirteen charges were substantiated against the Master. From this result of the inquiry, they appeared at first to have taken no action, except to indicate acute hostility to Dr. Joseph Rogers, who had been called to substantiate some charges. Thereupon, the Local Government Board called their attention to the gravity of the misconduct substantiated against the Master, and stated that they only refrained from directing peremptorily that he should be dismissed, out of deference to the views of the guardians; whereupon the guardians appear to have suspended the medical officer, who was guiltless, and whose conduct appears to have been exemplary in the matter, and certainly actuated by a conscientious desire to do his duty to the sick poor under his care, and to protect them; while, on the other hand, the guardians subscribed sixty guineas as a present to the Master, and contented themselves, under the pressure of the Local Government Board, by administering to the Master what was facetiously called a reprimand, at the same time that they told him that they thought he had largely atoned for his misconduct. Proceedings such as these are calculated to bring local self-government into discredit; and it is much to be regretted that this Board should take so perverse and so dangerous a view of its duties and responsibilities.

THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT the first meeting of the session, the new president, Dr. T. Orme Dudfield, Medical Officer of Health for Kensington, delivered his inaugural address. He took for his subject that one which is at present prominently before the public, viz., the sanitary administration of the metropolis. The need of unity, he urged, did not admit of question, as would be seen when it was considered that the care of the public health was committed to about forty seperate authorities, deriving many of their powers from one and the same Act of Parliament, yet practically independent, each in its own district. The metropolis stood alone in this respect, for in every other populous place there was but one authority deriving powers under codified laws, and dealing with every branch of public health and sanitary administration. A comparison was then drawn by the speaker between the almost perfect system of dealing with animal infectious diseases by notification, by isolation rigidly enforced, and by disinfection; and the imperfect means at the disposal of sanitary authorities for coping with human infectious diseases. The grant of necessary powers could be attended with the best effects for the community, but such powers would never probably be given while sanitary authority was scattered and disunited. In considering "how unity might be brought about," two courses, it was said, were open: the existing sanitary authorities might be swept away and an entirely new authority created to rule over undivided London, or, the present local machinery being retained, a central board might be established to take charge of all great questions affecting the metropolis as a whole, to establish principles on which sanitary administration should be carried out, and generally to exercise a supervising control over the work intrusted to the local board. The results he looked for in a complete unity of administration were: a system of compulsory notification of infectious diseases; provision of hospital accommodation; compulsory removal of the non-isolated infectious sick; and a complete ambulance service. The president, in conclusion, gave it as his opinion that there was no necessity for any material alteration in the constitution of the vestries and the district boards. On the contrary, he affirmed that they, or some practically identical and well-organised authorities, would be found necessary for local administrative purposes, whatever the constitution of the new central authority. On the motion of Dr. Buchanan, of the Local Government Board, seconded by Dr. Tripe of Hackney, thanks were voted to Dr. Dudfield for his address.

MEDICAL OFFICERS' PUPILS.

SIR,—Can you or any fellow-member inform me whether a board of guardians can prohibit me from sending my pupil to take temperatures and to dress wounds in the wards of the Union Infirmary to which I am medical officer. My board have refused access to the infirmary to my pupil unless he s accom-

panied by myself, without assigning any reason; but I believe prompted thereto by the master, because I did not ask the latter's permission.—Yours faithfully, ALPHA.

*** We refer our correspondent to the foot-note on page 44 of Lumley's *Manual for Poor-law Medical Officers*, third edition (published by Knight and Company, Fleet Street). This gives an extract from the seventh official circular 225, which shows that a medical officer can only employ *under his own superintendence* his assistant or apprentice. We fear, therefore, it must be read as precluding the employment of such assistant, pupil, or apprentice, as referred to in our correspondent's letter, even with the assent of the board of guardians.

SIR,—I am medical officer to a Union district, and I am totally unable to carry out my duties as I wish, in consequence of the relieving officer acting so much as my master. I have not been in office very long; consequently, I am not sufficiently well versed in the work to know what course to take. Perhaps yourself or some of your readers may give me a few hints. Now, the great grievance I have to complain of is that, when I write an order for meat, milk, or other necessaries for a sick person, and it is taken to the relieving officer, he puts himself into a passion, and tears it up in the face of the messenger, or throws it behind the fire, as a rule saying something to this effect: "Oh, I am not going to take orders from Dr. So-and-So; he is only a servant of the board; it rests with me what nourishment is given;" and so the patients go without, and do the best they can. This does not occur once now and then, but repeatedly, so that I find it useless to write an order. Sometimes, as if in order to curry favour or assert his authority, he will call on a sick pauper, and direct him to come to me for an order for three pounds of meat, as he thinks it would do the case good. Now, I ask, what am I to do? If I wrote a complaint to the guardians, ten chances to one I should come out second best, and make a greater enemy of this relieving officer; but, having had rather more than two years of this usage, I begin to chafe under it, and appeal to those older in the service to direct me in the proper course.—I am, sir, yours obediently, M.R.C.P.

*** It is right to state, with reference to other matters, not medicines, that the Local Government Board consider it is incumbent on the medical officer to prescribe for every pauper whom he may be called on to attend, whatever he may deem the condition of the patient to require, in the way of nourishment, stimulants, or the like. When he considers any particular kind or any extra quantity of nourishment to be necessary, he must certify the same in writing, and cause the certificate to be delivered to the relieving officer (or so that it may reach him), who is required by Art. 215, No. 5 of the General Consolidated Orders, to give due attention to such certificate. "The medical officer, however, is not empowered to order such extras, but only to certify that, in his opinion, they are requisite; and the certificate is to be attended to in such a way and to such an extent as the relieving officer and the guardians, on their own responsibility, and on their knowledge of the circumstances of the individual in whose favour it is given, may deem to be actually necessary."

Such are the regulations governing the action of the medical and relieving officer and board of guardians. In the case before us, we advise our correspondent to send, in all cases, a copy of his recommendation to the board of guardians, giving the reason therefor. Sooner or later, such a relieving officer will get himself into a scrape, and therefore it is as well to rest quiet, and wait for the same.

HOUSES NEAR OLD CHURCHYARDS.

SIR,—Will you kindly favour me with your opinion, in your next issue, as to whether it is prejudicial to good health to reside in a house adjoining an old churchyard? and much oblige, yours faithfully, MEDICO.

West Bromwich, October 24th, 1883.

*** Every such case must depend upon the individual facts. If by "old churchyard" be meant a disused churchyard, and there have not been any decided overcrowding, its vicinity will most probably not be injurious. If the churchyard be used at present, much will depend on the regulations in force, as if the interments be made subject to the orders in force for the government of new cemeteries, under the direction of the Local Burial Board, no injury to health should result. There is not an excessive prevalence of zymotic diseases, including diarrhœa, in the vicinity of the London cemeteries. If the soil be gravelly, and the house stand on gravel, without any concrete under the floors, and bodies be buried near to the foundations of the house, injurious gases might find an entrance through the soil into the house.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

STOCKTON RURAL DISTRICT.—In commencing his first report on this district, Mr. Blandford directs the attention of his authority to the value of a system requiring the notification of infectious diseases. He also properly recommends that plans of all sewers and drains should be deposited with the authority, so that they may be readily brought under his notice. During the year 1881 there were 339 births and 166 deaths registered, which, based upon a population of 10,194, represent rates of 33.2 and 16.2 per 1,000 respectively. Of the 39 deaths attributed to zymotic diseases, five were from diphtheria, three from measles, eight from whooping cough, and six from typhoid. There was a large number of infantile deaths, no fewer than 56 occurring in children under 5 years of age, which is attributed to improper feeding and insufficient clothing. The report for 1882 takes more cognisance of the prevalence of zymotic disease, but the chief part is occupied with an account of the existing sanitary condition of the various parts of the district. The mortality amongst infants still continues high, for no fewer than sixty-two, or more than one-third of the total number of deaths, were those of children under five years of age. During the summer, measles was very prevalent, but the disease was of a mild type, and three children only succumbed to the disease. Together, the zymotic diseases accounted for seventeen deaths, representing a rate of 1·6 per 1,000, while the rate of mortality from all causes was 16.5.

STURMINSTER RURAL DISTRICT.—While congratulating his authority upon the lowness of the general death-rate of their district (18.3 per 1,000), Dr. Comyns Leach had to report for 1881 a high mortality from zymotic diseases, the deaths from this class being 19 in number. Thirteen deaths from scarlatina occurred at Stalbridge, where a somewhat extensive epidemic prevailed during the summer and autumn months of 1881. At the commencement of the outbreak the health-officer found some difficulty in obtaining information of fresh cases, and indeed many cases occurred before he heard of the outbreak at all. Dr. Leach is therefore of opinion that the same facilities for obtaining the compulsory notification of infectious diseases should be given to rural that have been given to urban sanitary authorities. In the case of Stalbridge, every step appears to have been taken by Dr. Leach to prevent the spread of the disease, by house-to-house visitation, the circulation of printed suggestions as to disinfection, etc., isolation, as far as possible, the closure of the schools, and the stoppage of the supply of gloving. Of 56 deaths registered between the ages of five and sixty years, phthisis claims the large proportion of 17, a mortality which is attributed to the overcrowding that prevails in the district from the want of proper cottage accommodation.

The history of 1882 resembles in many respects that of the previous year. The general death-rate, which represented 15.6 per 1,000, was the lowest ever recorded in the district; the number of deaths from zymotic disease was identical with the number registered in 1882; and there was again a notable prevalence of phthisis. The report contains an account of the measures adopted for restricting the spread of infectious disease, special reference being made to the benefits resulting from the closing of schools during the prevalence of these disorders.

SUNDERLAND.—Mr. Harris appears determined to sustain the high reputation for interest and completeness which the Sunderland health-reports attained under the late Dr. Yeld. Following in the lines of his lamented predecessor, Mr. Harris commences with an elaborate analysis of the mortality statistics. The total deaths registered during the year 1881 amounted to 2,436, and represented an annual death-rate of 20.9 per 1,000, with one exception the lowest rate recorded in the borough for the last eleven years. There was a remarkable decrease in the deaths from zymotic causes, the number registered during 1881 (323) being considerably less than that registered in the preceding year, when 737 persons succumbed to these diseases. This decrease did not appear to be due to the reduced prevalence of one particular malady, but to all zymotic diseases, with the exception of diphtheria, which showed an increase of five deaths. Scarlet fever was present in the borough, though in a less virulent form than in the previous year, and proved fatal to 145 persons. Measles, however, was almost unknown during the year, and while this disease caused 99 deaths in 1880, but three only were registered during 1881. Diarrhœa was credited with 90 deaths, against 208 in 1880, the bulk of the cases occurring, as usual, in children under one year of age. No fewer than 1,095 of the total deaths (2,436) were those of children under five years of age. Of these, 672 were infants who had not completed twelve months of existence. There is little doubt that in Sunderland, as elsewhere, much can be done to reduce this enormous fatality by teaching the people how to feed their children. To this end, the health-officer intends seeking assistance to promote the enlargement of the functions of the Children's Hospital, or, if this be not possible, to organise a society of ladies, whose work will be to diffuse the necessary knowledge among the humbler classes. The publications of the National Health Society would be of much service in this very useful and important work.

The year 1882 was one of intense anxiety to those responsible for the sanitary wellbeing of Sunderland. During the period from August to December the weekly death-rate was above 30.0 per 1,000 no less than fourteen times, while on one occasion it reached the altogether phenomenal figure of 47.8. It was not until the third quarter that the death-rate assumed any serious proportions; then measles, of which, up to this time, there had been no cases in the

borough, made its appearance, and this disorder, together with diarrhœa, very greatly swelled the death-rate. Typhus fever also became prevalent, scarlet fever increased, and lung-disease became unusually fatal. The rapid spread of the epidemic of measles, which destroyed 191 lives, seems to have been chiefly due to the ignorance of mothers in taking their children to infected houses, and, secondly, to the unhealthy condition in which the people themselves kept their homes. From scarlet fever there were 168 deaths recorded, and here also the disease was most rife in those districts of the borough in which the sanitary conduct of the people's houses is least cared for. Unfortunately, but few persons availed themselves of the House of Recovery, which is attributed to the want of confidence that is felt in it. The question is now receiving special attention from the Town Council, and the subject may therefore be dismissed for the present. The rate of infantile mortality was higher than in any of the ten previous years, 184 children out of every thousand born dying before they attained their first year. Notwithstanding the high rates registered at various periods of the year, the rate of mortality for the whole of 1882 was at the rate of 26.5 per 1,000 of the estimated population.

Wallsend-on-Tyne Urban District.—This is a fairly complete report for a district possessing a population of only 6,400 persons, and credit is due to Mr. Aitchison for the arrangement adopted in its compilation. Commencing with a brief account of the climatic influences affecting the public health, the medical officer then deals with the mortality and sickness recorded in the district, concluding the report with an account of his sanitary work during the year. Notwithstanding the almost arctic severity of the first two months of 1881, the death-rate was as low as 6.1 per 1,000, while for the following months of March and April this rate was as high as 20.4 and 22.2 respectively. Scarlet fever was the most prevalent of the zymotics, causing five deaths, while diarrhœa accounted for six. Bronchitis, pneumonia, and pleurisy were fatal in fourteen cases, representing 14.2 per cent. of the whole mortality. Heart-disease resulted in seven deaths, and phthisis in four. Calculated on a population of 6,400, the mortality-rate from all causes is returned at 15.4 per 1,000; but, deducting the deaths from injuries and drowning, this rate is reduced to 14.2. Mr. Aitchison appears to have made periodical inspections of his district, and reports some minor improvements. There seems, however, to be room for improvement in the method of excrement-disposal and in the drainage-arrangements. The epidemic of scarlet fever which prevailed during 1881 still lingered in Wallsend at the commencement of last year, but, by the end of January, the disease had quite subsided. The district continued free from any fresh outbreak until July, when scarlatina broke out in several families, and a subsequent appearance of the disorder in September was attended with fatal results. The cases, however, were of a mild form, and the deaths (four) were chiefly due to dropsy supervening. The remaining death from zymotic causes was attributed to typhoid fever, of which disease several sporadic cases occurred, most of them being found in association with defective drainage, or with nuisances from privies or ash-pits. Deducting the deaths resulting from accidents, the death-rate was equal to 15.6 per 1,000 of population. The middens still continue to be productive of considerable nuisance, and Mr. Aitchinson properly advises the adoption of the water-carriage system. The health-officer also draws the attention of the sanitary authority to the rapid increase of their district, and he urges the provision of a small cottage-hospital for the reception of cases of infectious disease.

Lyme Regis.—As the report for 1881 was the last one that he made to this authority, Mr. Skinner briefly reviewed in it the present and past sanitary state of the district. From 1867 to 1876, the average number of deaths was 52.2; while the average rate for the following five years, 1877-81, was 39.6. Estimating the population at 2,598 (the number returned by the 1871 census), the average death-rate for the period of ten years was over 20.0 per 1,000. Taking the last five years at the census of 1881 (2,288), the average is a small fraction under 13.0; the actual rates for the two periods being respectively 20.47 and 12.93. There has thus been a decrease of 7 per 1,000 since the passing of the Public Health Act. Mr. Skinner thinks that these figures are sufficient argument that sanitary improvements were required, and that the authority may well point to them as convincing proofs that the expenditure was absolutely needed. During the first quarter of 1881, the town was unusually healthy, only five deaths occurring, while the total number recorded during the year was forty-two. Exactly half the mortality occurred in people over sixty years of age, while only five children succumbed before they reached their fifth year. But one death is attributed to zymotic causes, though the classification adopted seems open to question. The total mortality represented a rate of 18.3 per 1,000 of population. No report on this district will apparently be forthcoming for 1882, owing to the change of health-officer.

OBITUARY.

JAMES SHUTER, M.A., M.B., LL.B., F.R.C.S.,

ASSISTANT-SURGEON TO ST. BARTHOLOMEW'S HOSPITAL.

It was our melancholy duty last week to briefly record the very sudden death of Mr. James Shuter, at the age of 37. Mr. Shuter began his professional career by entering at Corpus Christi College, Cambridge, in 1864, having previously matriculated at London University. He took his B.A. degree, with mathematical honours, in 1868, and the LL.B. the same year. He became a Member of the Royal College of Surgeons in 1874, M.A. and M.B. in 1875, and F.R.C.S. in 1876. At St. Bartholomew's Hospital, he was house-surgeon to Mr. Holden, and house-physician to the late Dr. Black, and was awarded the house-surgeon's prize. In the schools, he held the offices of demonstrator of physiology and assistant-demonstrator of anatomy. In 1879, Mr. Shuter was appointed Assistant-Surgeon to the Royal Free Hospital; and in 1882, Assistant-Surgeon to St. Bartholomew's Hospital, and also Examiner for the second M.B. examination, Cambridge. He was Surgeon to the Provident Clerks' Mutual Life Assurance Association, an active member of several medical societies, and a frequent contributor to different medical publications. He was also co-editor of Holden's *Landmarks* and *Osteology*. Our readers will remember a recent discussion at the Clinical Society on a case in which Mr. Shuter had amputated the hip-joint, leaving the periosteum of the upper part of the femur, with the result that the patient had a movable stump, and could use an artificial limb. It was one of the first operations of the kind successfully performed in England. It was through the influence of Mr. Shuter that a friend and patient of his, Mr. Charles Kettlewell, came forward to give St. Bartholomew's Hospital £16,000 for the Kettlewell Convalescent Home, now being built at Swanley, in memory of his brother, who died at Naples of typhoid fever in 1881.

Mr. Shuter had ever been a diligent student and a very earnest worker; he had taken honours in examinations, was possessed of excellent degrees, and was, above all, a careful and accomplished surgeon. Even these, high claims though they be, are not the reasons why Mr. Shuter was held in so great a regard by all who knew him. They are not the reasons why his early death has filled the surgical world, and more especially his own hospital and school of St. Bartholomew's with a great and lasting sorrow. It may safely be said that no one ever heard him say a hasty or unkind word, or knew him do an unkind action. His colleagues at his hospitals have ever found him helpful, willing, and amiable. The students have never had a better friend; many, indeed, have this week been heard to say, in a meeting called for the purpose, that they never had so good a one. Every Bartholomew's student can tell of cases where he has found men doing nothing, or nothing but ill, and, at infinite cost of time and labour, encouraged and helped them to work. Indeed, no trouble seemed too great for him, if he saw a way to help where help was needed. His knowledge, his time, and his purse were ever ready. Generous and unselfish as he was, not a day passed, but he burdened himself with kindly offices for others whom he little knew, matters which concerned him no more than they should concern any other man bent on well-doing. Indeed, his unwearying industry in his profession, together with the constant duties self-imposed, led to a condition of health which, while it brought no suspicion of anything more than overwork, caused his family, from time to time, grave anxiety. The kidney-mischief, previously unsuspected, and an injury to the hip, were both indirect factors in producing his most melancholy death, which

has caused such grief, not only to his own family but also to his colleagues, his pupils, and a large circle of warmly attached friends. As a highly qualified and accomplished surgeon, his place may perhaps readily be filled, but in a more personal sense he was to many, friends and patients, what no other man can ever be.

The funeral took place at noon on Wednesday last, at Kensal Green Cemetery; it was largely attended by the staff, students, and governors of St. Bartholomew's Hospital, a detachment of lady-students from the Royal Free Hospital, and many personal friends of the deceased.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

Examinations for Degrees in Medicine.—The examiners for medical and surgical degrees for the current academical year are: First M.B.—Dr. S. H. Vines, Professor Garnett, Mr. Pattison Muir; Second M.B.—Professor Paget, Professor Milnes Marshall, Dr. Gaskill; Third M.B.—Professor Joseph Lister, Mr. Davies-Colley, Dr. Matthews Duncan, Professor Paget, Dr. O. Sturges, Mr. Handfield Jones. B.C. and M.C.—Professor Humphry, Professor Joseph Lister, Mr. Davies-Colley. M.D.—Professor Paget, Dr. Reginald Thompson.

The following is the plan of examinations (subject to alteration in details, of which due notice will be given). *Bachelor of Medicine.*—*First Examination:* Monday, December 17th, Mechanics and Hydrostatics; Botany. Tuesday, December 18th, Chemistry. Wednesday, December 19th, Heat, Electricity, and Optics. Thursday, December 20th, Practical Chemistry and Oral Examination. Friday, December 21st, Oral Examination. *Second Examination:* Thursday, December 13th, Practical Histology; Pharmacy and Pharmaceutical Chemistry. Friday, December 14th, Physiology; Human Anatomy. Saturday, December 15th, Comparative Anatomy and Oral Examination. Monday, December 17th, Dissection and Oral Examination in Human Anatomy. Tuesday, December 18th, Oral Examination. *Third Examination—Part* I.—Thursday, December 13th, Midwifery; Principles of Surgery. Friday, December 14th, Oral Examination. *Part* II.—Monday, December 17th, Pathology and Practice of Physic. Tuesday, December 18th, Clinical Examination; Pathology and Practice of Physic. Wednesday, December 19th, Clinical Examination; Medical Jurisprudence. Thursday, December 20th, Microscopical Examination, and Writing Prescriptions: Oral Examination. Friday, December 21st, Oral Examination. *Bachelor and Master of Surgery.*—Monday, December 17th, Surgical Operations and the Application of Surgical Apparatus. Tuesday, December 18th, Examination of Surgical Patients. The examination for the Degree of Master of Surgery will begin on Wednesday, December 19th.

VICTORIA UNIVERSITY, MANCHESTER.

MEDICAL DEGREES.—A meeting of the Court of Governors was held on November 7th; Vice-Chancellor Greenwood in the chair. Professor Ward submitted the draft statute and regulations prepared in the Council to give effect to the supplemental charter enabling the University to grant medical degrees. He stated that, of the examinations prescribed on entrance, the examination in Arts had no reference to the medical curriculum proper. The other examinations were included in it. The examination in Arts was designed to insure that medical students should have a substantial degree of general culture. After this came the examinations which constituted the medical curriculum, and they were so arranged that a student might pass in four years. These four years were the absolute requirement of the statute; and, under the terms of the supplemental charter, they must be passed in a college of the University. There were the preliminary examination in science, the intermediate examination for the Bachelor's degaee in medicine, and the final examination for that degree. Between the intermediate and the final examinations, two years must elapse, although a student might, if he liked, take half the final in twelve months from the intermediate. It was intended to make the degree of Doctor of Medicine a really distinguished one, and candidates would be required to present an essay or book embodying the result of personal observation or original research. The further degree of Master in Surgery was intended for surgical specialists; and an examination would be exacted, in which candidates would be required to show evidences of surgical study which ordinary students would not be able to present. The statute, after some discussion, was passed.

MEDICO-LEGAL NOTES AND QUERIES.

INCOME-TAX.

SIR,—During an appeal against excessive income-tax, which I made to-day, amongst the items of professional expenditure I had instanced the purchase of a case of *post mortem* instruments. One gentleman, who acted the part of public prosecutor against me, said that a *post mortem* case must be something for which I had been paid. After showing him his error, I told him there were other entries upon which I could enlighten him, and towards which he had taken exception. Amongst them, I mentioned a latch to the door of my consulting-room. The chairman thought it monstrous to name that as a fit deduction. One old gentleman, who neither hears nor understands very clearly, after learning what I gave for the *post mortem* case, said that it ought not to be deducted. The chairman objected that I had put down so many small matters. The fault lay in their pettiness rather than in their character, for they were all strictly professional. I have always been used to make out my income-tax returns with great exactness. Probably this old gentleman never handles figures nearly so small as mine.

I should like to know whether I was right or wrong in my opinion; and whether there is any appeal beyond these petty magnates, when they attempt to strain the law in this manner.—Believe me, yours, etc., E. G. W.

*** The expense of a latch to the door hardly seems an allowable deduction, but the other expenses probably ought to have been allowed. Small deductions are often not claimed, because of the trouble necessary in order to prove them; and the Commissioners may naturally, though improperly, be impatient when they have to investigate them. A right of appeal to the High Court of Justice is given by the Taxes Management Act, 1880. The conditions are that the appellant shall, (1) immediately after the determination of any appeal under the Income-tax Acts by the general Commissioners, if dissatisfied with their decision as erroneous in point of law, declare his dissatisfaction to them; and, (2) within twenty-one days after the determination, by notice in writing addressed to their clerk, require the Commissioners to state and sign a case for the opinion of the High Court thereon. A fee of twenty shillings must be paid to the clerk for the case.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of Examiners on the 5th instant, and, when eligible, will be admitted to the pass examination, viz.:

Messrs. F. Peard and R. T. Kent, students of Guy's Hospital; W. B. Mackay and C. G. Traill, of the Edinburgh School; E. M. Sympson, of the Cambridge School; R. J. Hamilton, Liverpool; F. Jeeves, Sheffield; T. R. Bradshaw, Dublin; J. E. Coad, Newcastle; R. W. Councell, Bristol; R. E. St. Romaine, Calcutta; E. Poonen, Madras; and J. Birt, St. George's.

Two candidates were referred for six months, and nine for three months.

The following gentlemen passed on the 6th instant, viz.:

Messrs. E. H. Walker, W. S. Tebb, E. J. Tatham, and G. F. A. England, students of the Cambridge School; J. H. Pringle, G. R. Ayshford, and T. E. S. Scholes, of Edinburgh; J. Carrol and H. T. Bewley, of the Dublin School; N. E. Mackay, of St. Thomas's Hospital; H. S. Baumgartner, of the Newcastle School; H. Shackleton, of the Leeds School; T. R. A. Harney, of University College; J. P. Hubbard, of the Birmingham School; E. H. Hicks, of St. Mary's Hospital; and J. I. Sankey, of the Middlesex Hospital.

Seven candidates were referred for three months, and one for six months.

The following passed on the 7th instant, viz.:

Messrs. J. A. Rigge, A. S. Tredinnick, F. Norman, C. J. Horner, and P. H. Dunn, of St. Bartholomew's Hospital; E. E. Powell, C. F. Glinn, and R. Emmett, of St. George's Hospital; H. D. Brook, N. J. Newbould, and G. S. Sims, of St. Thomas's Hospital; W. R. Thomas and F. G. Walker, of the London Hospital; H. S. Stockton, of the Charing Cross Hospital; S. A. M. Copeman, of Cambridge; E. H. Brock, of Guy's Hospital; W. B. Aitkin, of the Glasgow University; and F. Collins, of University College.

Six candidates were referred for three months.

UNIVERSITY OF EDINBURGH.—The following is the official list of candidates who passed the first professional examination during the month of October:

Messrs. J. H. Acheson, A. Aikman, J. Allison, G. Anderson, J. Atkinson, A. F. Barlow, H. A. Beckers, A. Beecroft, A. J. Beehag, E. D. Bell, J. S. Bell, C. N. Bensley, E. G. Blanc, G. P. Boddie, A. E. Booth, A. Borrodaile, N. L. Boxill, D. Brown, T. H. Bryce, F. J. Butt, W. G. Campbell, E. Capper, E. W. W. Carlier, E. C. Carter, J. T. Chamberlain, F. H. Clarke, A. Clarkson, J. H. Conyers, R. J. Copeland, A. J. W. Dalzell, E. C. S. Daniel, E. N. Darwent, D. N. P. Datta, W. Denby, W. O. Drew, J. C. Dunlop, F. C. W. Durrant, A. Edington, J. Edmondson, W. J. Fairlie, M. Farquharson, O. Field, I. G. Fletcher, R. J. Fox, N. S. Fraser, A. E. Frere, T. Galbraith, J. Galletly, I. D. Gamble, P. C. Garson, G. D. C.

Gibb, H. L. Gordon, R. P. R. Gordon, E. A. Hall, W. H. A. Hall, J. F. Haswell, L. A. Hawkes, T. Henderson, H. B. Hetherington, J. Hewat, W. Hewat, J. H. Horsburgh (with distinction), G. T. W. Howison, P. G. Hullard, R. P. Jack, J. B. Jameson, L. Jardine, F. H. Jeffcoat, B. Jones, G. E. Keith, C. P. Kennard, P. M. Kerr, A. Kirkwood, W. H. E. Knaggs, D. J. Lawson, W. L. Legg, C. A. S. Leggatt, P. A. Lindsay, T. F. M'Farlane, A. D. M. Macintyre, H. J. Mackenzie, T. Mackenzie, M.A., H. R. Maclean, D. M'Nish, R. H. Maddox, C. C. Manifold, H. H. Marshall, G. J. M. Melle, H. B. Melville, J. Monteith (with distinction), J. T. Morrison, A. Morrow, R. H. Mortlock, E. Morton, G. W. Moseley, J. Musgrove, C. S. Patterson, W. A. Peterkin, M. J. Petty, W. Philp, M.A., G. A. Pirie, G. H. Pollard, A. Primrose, A. R. Rainy, W. B. Reid, A. Richardson, E. V. Roberts, A. Robertson, M.A., J. W. Rodger, J. Ross, A. Rowand (with distinction), L. A. Ryott, S. R. Savage, M. A. Scott, A. Sellers (with distinction), W. C. Sillar, J. C. Simpson, E. W. Skinner, A. E. Sloman, J. Smith, W. Smith, A. C. Smyth, C. E. G. Stalkartt, W. Steven, T. Stevenson, G. G. Stuart, D. G. Sutherland, W. Symington, A. H. Taylor, A. W. Taylor, H. I. Taylor, J. Teixeira, G. Thomas, F. W. Thomson, G. Thomson, J. Tillie, H. W. M. Tims, J. Townsley, M. L. Trechmann, W. A. Turner, H. W. Vernon, H. Vine, J. Waddell, H. J. Walker, H. J. Waller, T. H. Ward, P. Wardle, H. F. Waterhouse, G. A. Watson, J. P. Watt, M.A., Aberdeen, J. I. Welch, M.A., J. R. Whitwell, J. Wilkinson, G. L. Williams, J. R. Williams, W. W. Williamson, A. O. Wilson, A. W. Wilson, C. B. Wilson, G. Wilson, Bermuda, W. B. Wilson, H. W. Wise, H. S. Wood, H. M. Woodhead, W. F. Wright, D. J. van Wyk, L. G. Wynn, E. B. Young, and W. A. Young.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 1st, 1883.

Boobbyer, Philip, Hillwood, Hendon, N.W.
Taaffe, John Ferdinand Hugh, Broadstairs.
Thornton, Francis Henry, Milton Road, South Hornsey, N.
Waller, Charles Brooke, Ipswich.

In the list published last week, "Becher, George John Dashwood," should have been "Becher, George Tobin Dashwood."

MEDICAL VACANCIES.

The following vacancies are announced:

BRISTOL GENERAL HOSPITAL.—Physician's Assistant. Salary, £50 per annum. Applications by November 10th.

CALTON AND BRIDGETON COMBINED DISTRICTS OF THE BARONY PARISH.—Medical Practitioner. Salary, £300 per annum. Applications to P. Beattie, 38, Cochrane Street, Glasgow, by November 14th.

CUMBERLAND AND WESTMORELAND ASYLUM.—Second Medical Assistant. Salary, £80 per annum. Applications to Dr. Campbell Garlands, Carlisle, by November 24th.

DENTAL HOSPITAL OF IRELAND, 29, York Street, Dublin.—Dental Surgeon. Applications to the Registrar by November 17th.

DENTAL HOSPITAL OF LONDON (London School of Dental Surgery), Leicester Square.—Lecturer on Dental Anatomy and Physiology. Applications by November 12th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Medical Officer for the Dispensary. Salary, £180 per annum. Applications to the Chairman of the Medical Board by November 27th.

GENERAL INFIRMARY, Leeds.—Resident Assistant House-Surgeon. Applications to the House-Surgeon by November 17th.

GESTO HOSPITAL, Edinbane, Skye.—Resident Medical Officer. Salary, £275 per annum. Applications to J. McLennan, Solicitor, Portree, by December 1st.

GREAT NORTHERN HOSPITAL, Caledonian Road, N. — House-Surgeon. Salary, £63 per annum. Applications by November 19th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary, £200 per annum. Applications by November 14th.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square.—Visiting Physician. Applications by November 23rd.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, W.C.—Medical Registrar. Honorarium, 50 guineas. Applications by November 21st.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, W.C.—Surgeon. Applications by November 21st.

LIVERPOOL NORTHERN HOSPITAL.—House-Surgeon's Assistant. Applications by November 15th.

LONDON LOCK HOSPITAL AND ASYLUM, Female Department, Westbourne Green, Harrow Road.—House-Surgeon. Salary, £100 per annum. Applications by November 24th.

LONDON HOSPITAL.—Surgical Registrar. Salary, £100 per annum. Applications by December 17th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £70 per annum. Applications by November 27th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Resident Clinical Assistant and Registrar. Salary, £70 per annum. Applications by November 27th.

NOTTINGHAM DISPENSARY.—Senior Resident Surgeon. Salary, £160 per annum. Applications by November 30th.

NOTTINGHAM DISPENSARY.—Two Junior Resident Surgeons. Salary, £140 per annum each. Applications by November 30th.

QUEEN'S HOSPITAL, Birmingham.—Honorary Physician. Applications by November 26th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Anatomy and Physiology. Applications by November 24th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon. Applications to Dr. Broster, Honorary Secretary, Marland Place, Southampton.

ST. ASAPH UNION.—Medical Officer. Salary, £83 per annum. Applications by November 14th.

SCARBOROUGH HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications to the President by the 21st instant.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME.—House-Surgeon and Dispenser. Salary, £71 per annum. Applications by November 20th.

WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer and Dispenser. Salary, £120 per annum. Applications by November 24th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon. Applications by December 1st.

WEST LONDON HOSPITAL, Hammersmith.—House-Surgeon. Salary, £80 per annum. Applications by November 17th.

MEDICAL APPOINTMENTS.

ASHWELL, H. G., M.R.C.S., appointed Assistant House-Surgeon, *vice* H. Handford, M.D., resigned.

ATKINSON, T. Renel, M.R.C.S., L.S.A., appointed Medical Officer, Public Vaccinator, and Medical Officer of Health to the Madley District of the Dore Union, *vice* Alexander Lane, resigned.

BROOMFIELD, H., L.R.C.S.I., L. and L.M.K.Q.C.P.I., appointed Senior Demonstrator of Anatomy to the Carmichael College, Dublin.

BUCK, Lewis A., M.R.C.S., L.S.A., appointed House-Surgeon to King's College Hospital.

BURD, G. V., L.R.C.P., re-elected Medical Officer of Health to the Borough of Okehampton, Devon.

CHILDE, Charles P., M.R.C.S., appointed Assistant House-Surgeon to King's College Hospital.

DACRE, John, M.R.C.S., L.R.C.P. (Lond), appointed Assistant Resident Medical Officer and Pathologist to the Bristol Royal Infirmary.

DAWSON, W. E., L.S.A., appointed Surgeon to the City Provident Dispensary and Surgical Appliance Association, *vice* J. Rhys, M.R.C.S., resigned.

DENT, Harry L. R., M.R.C.S., L.S.A., appointed Physician-Accoucheur's Assistant to King's College Hospital.

DOWNS, H., M.R.C.P., appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest.

DRAPES, T., M.B., appointed Resident Medical Superintendent to the Enniscorthy District Lunatic Asylum.

DUNCAN, William A., M.D., M.R.C.P.Lond., F.R.C.S.Eng., appointed Obstetric Physician to the Royal Hospital for Children and Women, Waterloo Bridge Road, S.E.

DONKIN, C., L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator to the Third District of the Faversham Union, *vice* W. E. Dring, L.R.C.P., resigned.

FURLONG, N., L.K.Q.C.P.I., appointed Visiting and Consulting Physician to the Enniscorthy District Lunatic Asylum, *vice* T. Drapes, M.B., resigned.

GOULD, A. P., F.R.C.S., appointed Surgeon to the Royal Hospital for Diseases of the Chest, City Road, *vice* W. J. Walsham, F.R.C.S., resigned.

HEAD, Henry H., M.D., F.K.Q.C.P.I., Senior Physician to the Adelaide Hospital, Dublin, appointed Consulting Physician to the Monkstown Hospital, co. Dublin.

HILL, R. Bryden, M.D., San. Sci. Certif. Cambridge, appointed Medical Officer of Health for the Borough of Oldham, and Physician to the Westhulme Hospital for Infectious Diseases, *vice* J. M. Sutton, M.D., resigned.

KERSHAW, J. E., M.R.C.S., appointed Resident Clinical Assistant to the Hospital for Consumption and Diseases of the Chest, *vice* J. B. Howell, M.R.C.S., resigned.

KIDD, P. H., M.B., appointed Assistant Medical Officer to the Hartlepools Friendly Societies' Medical Association, *vice* W. Hewetson, L.R.C.P., resigned.

LILBURNE, James T., B.A., M.R.C.S., L.S.A., appointed Assistant House-Accoucheur to King's College Hospital.

LYNAM, ROBERT G., M.R.C.S., L.S.A., appointed Physician's Assistant to King's College Hospital.

MALCOLM, W. A., M.B.(Edin.), appointed House-Surgeon to the Ayr County Hospital, *vice* C. C. Scott, M.B.(Edin.), resigned.

MORRISSON, D. S., M.B., appointed Medical Officer to the Parochial Board of Kilmory Parish, *vice* J. A. Jamieson, resigned.

POWELL, S., M.R.C.S., appointed Resident Medical Officer to the Portland Town Dispensary, St. John's Wood, N.W., *vice* E. Thurston, L.R.C.P., resigned.

RICHARDSON, H. E., L.R.C.P., appointed Junior House-Surgeon to the Birkenhead Borough Hospital.

RUSSELL, Robert H., M.R.C.S., appointed House-Surgeon to King's College Hospital.

SHORT, Thomas S., M.R.C.S., L.S.A., appointed Assistant House-Physician to King's College Hospital.

THOMPSON, A., M.D., appointed Medical Officer of Health to the Rural Sanitary Authority of the Ulverstone Union, *vice* D. Page, M.D., resigned.

TOOTH, H. H., M.B., appointed Assistant Demonstrator of Physiology to St. Bartholomew's Hospital, *vice* S. Nall, M.B., resigned.

VERITY, H. W. S., M.R.C.S., appointed Resident Medical Officer to the Kilburn, Maida Vale, and St. John's Wood General Dispensary, *vice* A. Bird, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

DAVIES.—On October 31st, at 41, Queen Square, Bristol, the wife of D. S. Davies, M.B.Lond., of a son.

JONES.—November 5th, at 32, Sheep Street, Northampton, the wife of Arthur H. Jones, M.D., of a daughter.

RAYNER.—On the 6th November, at Hanwell, the wife of H. Rayner, M.D., of a son.

REID.—Oct 31st, at 12, Bridge Avenue, Hammersmith, London, the wife of John Reid, M.D., of a son.

SPARROW.—On the 5th instant, at "Haslemere," Clarendon Road, East Southsea, the wife of Dr. G. Gordon Sparrow, of a son.

MARRIAGES.

JAY—RAWLINS.—On the 8th instant, at the church of St. James', Piccadilly, by the Rev. Lionel Davidson, M.A., Frederick Fitzherbert Jay, M.D.St.And., L.R.C.P.Lond., and M.R.C.S.Eng., of Slough, Bucks, to Annie, only surviving child of George Rawlins, Esq., of Fair View House, Upton, Slough, and late of Lee Park, Romsey, Hants.

JOHNSON—SMALE.—At All Saints, Margaret Street, by the Rev. J. E. Hall, Frank William Johnson to Eliza Licette (Lulla) Smale. At home at 18, Rosemont Road, Richmond, Wednesdays in December.

BEQUESTS AND DONATIONS.—The London Hospital has received £9,000 under the will of a gentleman lately deceased.—Mr. John Newton Mappin, of Sheffield, has bequeated £1,000 each to the Sheffield General Infirmary, the Sheffield Public Hospital and Dispensary, and the Rotherham Public Hospital and Dispensary.—The Border Counties Home for Incurables has received a donation of £1,000 anonymously.—The General Hospital and the Queen's Hospital, Birmingham, have each received £200, and the Birmingham and Midland Eye Hospital and the Birmingham Orthopædic and Spinal Hospital each £100, under the will of Mr. Thomas Yates.—Mr. William T. Watson has bequeathed £200 each to the Bristol Royal Infirmary, the Bristol General Hospital, and the Weston-super-Mare Sanatorium.—The Sussex County Hospital, Brighton, has received £300 under the will of Mrs. Sarah Ann Frankland.—The British Home for Incurables has received £100 under the will of Miss Fanny Larwill; and £100, less duty, under that of Mr. Henry Coleman.—Sir Fowell Buxton, Bart., and Lady Louisa Buxton, have each given £50 to Miss Mary Wardell's Convalescent Home for Scarlet Fever Patients.

RETREATS FOR HABITUAL DRUNKARDS.—At a recent meeting of the Lambeth Board of Guardians, it was moved:—"That this Board, being deeply impressed with the necessity of provision being made for the more stringent dealing with habitual drunkards, do memorialise the Local Government Board to take such steps as will lead to the law being so amended as to give power to local authorities, or boards of guardians, to establish and maintain inebriate retreats, either in connection with existing workhouses or asylums, or in separate establishments, as may be thought most desirable; and, further, that power be given to magistrates to commit habitual drunkards to such retreats, with or without their consent, provision being made for the recovery of the cost of their maintenance when it is ascertained that persons restrained have means for their own support, or that there are relatives or guardians who, under the existing law, are liable and able, wholly or partially, to maintain them." The motion was carried, there being only one dissentient.

FLEET-SURGEON Leonard Henry Joseph Hayne, M.D., R.N., has been placed on the retired list, from October 15th, with permission to assume the rank and title of Retired Deputy-Inspector-General of Hospitals and Fleets.

PRESENTATION.—Dr. W. S. Porter, who has been appointed Honorary Physician to the Sheffield Public Hospital and Dispensary, has been presented by the patients of the Sheffield General Infirmary with a handsome clock bearing a suitable inscription.

SUICIDES IN RUSSIA.—The official statistics state that during the last year 1,811 suicides have taken place in Russia, and during the last five years, 7,713. Moscow heads the list, then follow Kief, Warsaw, and St. Petersburg.

VACCINATION.—Mr. J. W. Haywood, medical officer and public vaccinator to the second district of the Blean Union, has received a government grant of £16 11s. for efficient vaccination.

IN London, last week, 2,724 births and 1,450 deaths were registered, and the average death-rate was 19.1 per 1,000. In twenty-eight great towns of England and Wales, the rate was 20.2 per 1,000.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....Guy's, 1.30 P.M.—Westminster 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 PM.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. F. De Havilland Hall: A Case of Malposition of a Tooth (sequel). Dr. Stephen Mackenzie: On "Paroxysmal Hæmoglobinuria." Mr. Clutton: A Case of Fistulæ in the Penile Portion of the Urethra, successfully treated by a Plastic Operation after opening the Urethra in the Perinæum.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. R. W. Parker: On a Case of Spontaneous Inguinal Aneurysm in a Boy, for which the External Iliac Artery was tied; with Notes of Cases of Aneurysm in Young Persons.

WEDNESDAY.—Hunterian Society, 7.30 P.M., Council. 8 P.M., Mr. Charters J. Symonds: 1. A Recent Specimen of Dislocation of Femur; 2. Sequel to a Case of Lupus of Foot (patient and microscopical specimens to be shown). Dr. Charlewood Turner: On the Etiology of Cerebral Hæmorrhage. Dr. J. Herbert Stowers: On the Treatment of Acne Rosacea and Vascular Hypertrophy of the Nose.—Royal Microscopical Society, King's College, 8 P.M. Professor Abbe: On the Relation of Aperture to Power, Part III. Mr. Crisp: On Optical Tube-length.

THURSDAY.—Harveian Society of London, 8.30 P.M. Clinical evening. Mr. Malcolm Morris: Cases of Scleroderma. Dr. A. Routh: Case of Symmetrical Gangrene. Mr. Noble Smith: A Case of Deformity. Mr. A. Q. Silcock: Specimen. Chronic Peritonitis. Dr. Ewart: Two Cases of Disappearance of the Auscultatory Signs of Excavation in Disease of the Apex of the Lung.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr. Garrod: A Visit to the Leper Hospital at Bergen.—Parkes Museum, Margaret Street, 8 P.M. A Lecture, by Dr. Robert J. Lee, on the Disinfection of the Atmosphere.

FRIDAY.—Society of Medical Officers of Health, Adam Street, Adelphi, 7.30 P.M. Brigade-Surgeon Edward Nicholson, Army Medical Department (retired list): The Water-supply of Troops in India.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

HOME FOR IMBECILES.

SIR,—I hope that you will allow me to state, in reply to Mr. Phillips's question about a home or establishment for imbeciles upon a small scale, that I receive first-class boarders, with a view to their special care and treatment, at my residence at Preston Lodge, Prestonpans, East Lothian.—I am, etc.,

October 13th, 1883. W. W. IRELAND, M.D.

TRICYCLES FOR MEDICAL MEN.

SIR,—A few weeks since, one of our members asked which was the best tricycle for general use. I have been waiting a reply to this, and in the meantime completing a series of experiments with the machines of various makers. I find much depends on the gradients of the locality and the quality of the roads. A tricycle that can go fast on level roads and in summer may be absolutely useless in wet wintry and muddy roads and on hills. For the former, the Imperial Club, or the Sparkbrook National, or Cheylesmore, in fact, almost any large-wheeled machine, will do; but for all-round work, wet or fine, hilly or flat, commend me to the handy little Merlin, with which one can jog along at six or seven miles an hour all day.—I am, sir, very faithfully yours,

PROBE.

October 29th, 1883.

CONSULTANTS AND GENERAL PRACTITIONERS.

SIR,—There has been a good deal of discussion lately in the BRITISH MEDICAL JOURNAL on the above subject, and the general feeling seems to be one of dissatisfaction with the present state of things. It appears to me that in provincial towns the position of consulting physician—using the term in its old sense as meaning a doctor practising pure medicine only, and taking fees only, and not as meaning anyone with a licence to practise physic—is practically untenable, except by a gentleman independent pecuniarily of his profession. In former days, there was a distinct line of demarcation between the aristocratic physician with an university degree and the ordinary apothecary, who was often only moderately well educated, and was not above making his own pills and grooming his own horse. The public could appreciate the distinction, and did not hesitate to pay a guinea willingly for the "best advice" in serious cases. A different state of things now exists. The physician is still understood to give only the best advice for a guinea fee. He is still a highly educated gentleman, but a process of levelling up has been going on, and the apothecary has become also an accomplished gentleman with an university degree or a licence from the College of Physicians. The public are not unaware of the change that has been going on, and are reluctant to pay guinea fees when they can be satisfactorily attended at a more moderate rate. The consequence is, the physician finds his fees unpleasantly few and far between. It is true his connection with a hospital gives him some advantage over those who have no such appointment, but it gives him no advantage whatever over his surgical colleagues, who have all the prestige of a hospital appointment, and feel themselves at liberty to engage in all kinds of practice. They undertake medicine, surgery, midwifery, vaccinate, hold clubs, and even parish appointments. The bulk of the profession, feeling that they are about on a par with both physicians and surgeons as regards social standing, education, and competence, avoid as far as they can calling in consultation either, but of the two they are more willing to avail themselves of the help of the skilled surgeon, feeling that his assistance is imperative in critical cases.

In provincial towns of moderate size, there are often half-a-dozen physicians' and as many surgeons' appointments. The former must be held, according to present etiquette, by men practising pure medicine only and taking fees only; the latter are always held by general practitioners. Why should this be? The positions are equally responsible, and those who occupy them are generally equally highly educated. But the positions are by no means equally valuable; for, while the surgeons, as a rule, are overwhelmed with work, the amount of consulting practice for their medical brethren being very limited, there is necessarily very little for the physicians to do. Surgery has made immense advances as an art of late years, and has given those who follow it a pre-eminent position in the medical profession. Has not the time now come when hospital-surgeons and hospital-physicians should practise their respective branches under equal conditions? and would it not be well that those only should assume the position of, and be recognised by their brethren as, "consultants," who, after having gained ample experience in public positions, had yielded their posts to younger men anxious to work and follow in their footsteps?—Yours truly,

M.R.C.P.

October 22nd, 1883.

VETERINARY SURGERY.

MR. R. T. GRUBB (Harlow) writes that "A Country Practitioner" might possibly find *Veterinary Notes for Horse-Owners*, by Captain Hayes (published by Thacker and Co., 87, Newgate Street), useful. At the same time he advises him, unless he have had considerable experience in veterinary surgery, to leave the treatment of his horses in the hands of a respectable veterinary surgeon.

J. O. D. MARRIOTT suggests that most of the information required will be found in *Horses and Stables*, by Colonel Fitzwigram, published by Longmans and Co.

INSURANCE OFFICES AND MEDICAL MEN.

SIR,—The following correspondence speaks for itself; and, if a few leading medical men would take the same ground, we should very soon hear the last of half-guinea fees for life-assurance examinations.—Yours faithfully,

INDICUS.

No. 1.—*The —— Insurance Company to Dr. ——.*

The usual letter to the ordinary medical attendant, but with a printed heading that the guinea fee is paid when the amount exceeds £500, and only half a guinea when below that sum.

No. 2.—*Dr. —— to Insurance Company.*

Gentlemen,—I regret to be unable to give you a report on Mr. ——'s life, but I decline on principle to give opinions to any insurance-office which does not properly remunerate its medical referees; and, until the —— alters its practice, and pays the full fee for every examination, it must accept my clients, if it accepts them at all (and if it does not, other offices will), without assistance from me.

I shall send Mr. —— a copy of this letter, in order that he may not be prejudiced with other offices, should you refuse to accept him.—Yours faithfully,

——.

No. 3.—*The —— Insurance Company to Dr. ——.*

Sir,—We have your letter of , and, in reply, beg to say that the practice of this branch of the —— is, and always has been, so far as we are aware, the same as all the other Indian insurance-offices, viz., to pay a fee of one gold mohur, or Rs. 16, to the medical referee in every case. We shall be obliged if you will be good enough to inform us upon what you base your information that this office remunerates, or has remunerated, its Indian medical referees by lower fees. At present, we are at a loss to understand your severe attack upon the office.—Yours faithfully, ——, Agents, —— Insurance Company.

No. 4.—*Dr. —— to —— Insurance Company.*

Gentlemen,—The ——, by a printed notice at the top of the letter you sent me, ranges itself among those offices which do not properly remunerate their medical referees. It does not do so in India (where no medical officer will accept the reduced fee), but that does not alter the fact that it does so in England,

The medical profession has always protested against the half-fee system, but competition and want of professional unity have hitherto enabled certain offices to keep to it; and the only way to make them change the rule is for medical men to refuse to act for them.

I do so in the interests of the profession, and to my own personal loss, and do not see that the company has any cause to complain. As soon as it conforms to the usual custom of high-class offices, I shall be very happy to work for it.—Yours faithfully, ——.

*** An eminent authority to whom we have submitted the above correspondence, annotates it thus.—

"With reference to the question submitted to us on the subject of fees payable by insurance-offices to individual referees, we would remark that, while it is an undoubted advantage to the office to obtain the report of the ordinary medical adviser of an applicant, and therefore right that he should be remunerated by the office, the amount of the fee ought, equitably, to depend upon the amount to be insured. It may not be considered adequate by the medical referee, and he is at liberty to decline giving information. But he ought to consider that, by so doing, he fails to assist in a most important and valuable social work, which concerns him as a citizen quite as much as it concerns his professional interests; and, while we would in no way counsel his neglecting the last, it is only fair to remind him that the company has to guard the interests of its policy-holders, to say nothing of possible shareholders; and everyone who is familiar with assurance business knows that insurances for small amounts are not lucrative. The expenses on small insurances are so large that, in this case, the whole first year's premium is more than absorbed by them. The medical referee, therefore, in our opinion, while asserting his claim to be paid, should not insist upon his remuneration being larger than an insurance-office can reasonably afford to pay. There is a tendency in most men's minds to regard a company as having unlimited means, and thinking that it is mere penuriousness which prevents their listening to any demands of medical men; but their transactions show that, while they benefit by the information supplied by the medical profession, they must, like every trader, consider very carefully how much they can justly afford to pay for the help required."

ABSCESS IN PERINÆO.

SIR,—In answer to your correspondent "M.B., M.A.," I would say that, in his patient's case, although there is no history of injury or stricture, yet there is undoubtedly communication between the urethra and the abscesses, and that complete relief can only be given by free incision of the perinæum. This should be done upon a full-sized median lithotomy-staff, or, if such cannot be passed, upon a Syme's staff, the urethra being freely opened. A gum-elastic catheter should then be introduced through the penis into the bladder, tied in, and the usual method of draining by a tube from the catheter to a vessel under the bed, employed. The catheter may be retained for three or four days, or until urethritis is excited, and a full-sized instrument passed occasionally during healing. I have operated in this way upon eight cases similar to "M.B.'s," with the best results.—I am, yours truly,

W. MACFIE CAMPBELL, M.D., Surgeon to the Northern Hospital.

Liverpool, October 20th, 1883.

ASSISTANTSHIP ABROAD.

L.R.C.P. asks for information on the following points. 1. Is it possible to obtain an assistantship abroad, say in New Zealand, previous to going out; and, if so, how? 2. If not possible, would there be much, or any, difficulty in getting one immediately after arrival there?

TREATMENT OF DIABETES MELLITUS.

MR. W. J. BEATTY, Stockton-on-Tees, recommends "M.B." to keep his patient nearly entirely on skimmed milk, and give half-drachm doses of liquid extract of ergot three times a day.

The Hind Fund.

A general meeting of the subscribers will take place on Thursday, November 15th, at the Briton Life Offices, at 5.30 P.M. The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank.

	£	s.	d.		£	s.	d.
Dr. C. J. Hare	10	10	0	Dr. Wraith	1	1	0
G. Richmond, Esq.	7	0	0	E. Skinner, Esq.	1	1	0
J. Prince, Esq.	5	5	0	C. D. Waite, Esq.	1	1	0
Dr. J. Hall Davis	5	0	0	Dr. Martindale C. Ward	1	1	0
F. D. Mocatta, Esq. (per Dr. Arcedeckne Duncan)	5	0	0	Dr. F. J. Corbould	1	1	0
				Samuel Burrows, Esq.	1	1	0
T. W. Carmalt Jones, Esq.	3	3	0	Dr. C. H. Browne	1	1	0
Three Friends at the Turkish Baths	3	3	0	"Not Unmindful"	1	1	0
				W. Davies, Esq.	1	1	0
Dr. B. W. Richardson	2	2	0	W. F. Forsyth, Esq.	1	1	0
Dr. C. H. F. Routh	2	2	0	Dr. McOscar	1	1	0
J. H. Callender, Esq.	2	2	0	Dr. Penhall	1	1	0
A. H. Boys, Esq.	2	2	0	Professor R. Owen	1	1	0
Dr. W. B. Dalby	2	2	0	Sir W. Mac Cormac	1	1	0
F. Le Gros Clark, Esq.	2	2	0	Anatomist	1	1	0
Maj.-Gen. F. W. A. Robson.	2	0	0	Pupil (H.)	1	1	0
Dr. Paul	1	1	0	W. B. Dalby, Esq.	1	0	0
G. Bishop, Esq.	1	1	0	G.	1	0	0
H. Taylor, Esq.	1	1	0	Edward East, Esq.	0	10	6
Malcolm Morris, Esq.	1	1	0	W. Druitt, Esq.	0	10	6
R. W. Dunn, Esq.	1	1	0	W. R. Dambrill-Davies, Esq.	0	10	6
Lennox Browne, Esq.	1	1	0	X. Y. Z.	0	10	0
E. Bowen, Esq.	1	1	0				

Subscriptions may be made to Dr. Richardson, F.R.S. (Chairman), 25, Manchester Square; John Tweedy, Esq., F.R.C.S., 24, Harley Street, Honorary Treasurer; A. J. Pepper, Esq., F.R.C.S., 122, Gower Street; and T. Wakley, jun., Esq., L.R.C.P., 96, Redcliffe Gardens, Honorary Secretaries; or to Messrs. Coutts and Co., Strand.

Hairs in the Urine.

SIR,—Will any of your numerous readers consider the following case, and offer any suggestions that their experience and views may enable them to make?

The patient, when he first came under treatment, was seventy years of age, and had all the painful and well-marked symptoms pointing to calculus in the bladder. On examination, this was found to be the case, and the stone, weighing about two drachms and two scruples, was crushed and removed at one sitting. This took place in April 1880. Since that time, five more operations have been required, the last having been performed on the 18th of August of this year. The calculi were all oxalates, and, in the intervals between and soon after each operation, small, rough, hardened fragments passed through the urethra, causing agonising pain, and the urine remained persistently alkaline; but the unaccountable feature in the case was the frequent discharge of capillary formations, exactly resembling human hair—some very dark-coloured, some brown, and some of a bright vermilion. Occasionally, they have been seen quite two inches long, but in general they appear in a mesh or bunch, twisted through and through each other, and incased in mucus. Another extraordinary fact is that, in the *débris* extracted in each operation, none of these formations have ever been discovered, even under the microscope.

The question is, where are these hairs formed, and is there any treatment that will prevent their formation? The last operation was performed now about two months since, and the patient is again passing quantities of these same capillary formations, which cause much irritation, and frequent and sudden desire to micturate night and day.

The diet has been strictly limited, to the avoidance of butter, fat, sugar, vegetables, and alcohol and wines. The mineral acids have been freely given, and the urine is now normally acid and clear.—I am, etc., MEDICO.

*** The literature of the subject is very scanty. In 1851, the eminent pathologist, M. Rayer of Paris, published, in the *Gazette Médicale de Paris* for August, an elaborate article, in which he classified and described the conditions under which hairs have been, or are said to have been, found in the urinary passages. A summary of the paper was published in the *London Journal of Medicine* for November 1851. The following is an extract from M. Rayer's conclusions. "The hairs which are sometimes observed in the urinary passages, in the urine, in gravel, or in calculi, may arise in one of three ways: (1) by being formed in the urinary passages (trichiasis); (2) by being evacuated from cysts; (3) by being introduced from without. Trichiasis of the urinary passages is a very rare affection.....Trichiasis is characterised by the emission of hairs in urine, either not altered in its appearance and composition, or containing more or less mucus, blood, or pus. The hairs may be intermingled with uric acid or phosphatic gravel; they may also be deposited on the surface or disseminated in the interior of calculi. The emission of hairs sometimes takes place without pain; but it is much more frequently accompanied by dysuria, sanguinolent or purulent urine, etc. The causes of this singular affection are quite unknown.....Nothing is yet known of the arrangement of the hairs, or of the anatomical state of the mucous membrane in trichiasis of the urinary passages.....When trichiasis coexists with uric acid gravel, the employment of alkalies is indicated; acids are preferable when it is phosphatic gravel that the hairs are mixed with. For inflammation accompanying trichiasis, the ordinary antiphlogistic remedies are to be employed." Reference to cases in which hair was passed in the urine will be found in the *London Medical Record* for 1874, p. 39.

Congenital Club-Foot.

SIR,—I shall be glad if you will publish the following correction of your report of my remarks at the Harveian Society on the 18th instant. I endeavoured to show that there are many reasons why we should discard the uterine pressure theory, and many others which afford very strong evidence in favour of the "nerve-disturbance" theory of the origin of congenital club-foot.—Yours faithfully, E. NOBLE SMITH.

24, Queen Anne Street, Cavendish Square, W., October 30th, 1883.

Pure Water for Cattle.

MR. BOWLES'S letter to the *Times* (see JOURNAL, October 13th, p. 736), stating that cows were commonly provided with drinking-water containing animalculæ, and that "if milk taken from cows that have drunk this water were kept two or three days, the same animalcula will be found in it," etc., has given rise to some discussion. The fact that cattle are not unfrequently suffered to drink from ponds into which sewage drains is admitted, but that this polluted drinking-water is directly concerned in the production of typhoid fever in the human subject, or foot-and-mouth disease in animals, is disputed.

Mr. Jabez Hogg supplements Mr. Bowles's complaint. After an outbreak of contagious fever among cattle, he inspected a number of farms, in some of which the disease prevailed. In almost every case, the pond which received the drainage of the farm or district was the only or principal source of drinking-water. He examined microscopically numerous specimens of the water of the farms, and also the milk of the cows, and almost invariably discovered in both the same species of bacteria. He refers also to the case of a farm-labourer's wife, who was suffering from a low form of fever, and at the time suckling a sickly-looking infant; on examining a specimen of her breast-milk, he discovered the same form of bacteria. It certainly may be said, Mr. Hogg concludes, that bad water and want of attention to sanitary matters are the cause of cattle-disease at all times and in all places. It is equally true that outbreaks of typhoid fever are produced by the milk of cows drinking sewage-polluted water; and equally true that neither good butter nor good cheese can be made from sewage-contaminated milk.

Mr. Maignen argues that water is the easiest of all vehicles to carry the germs of disease, and thinks that germs falling into a stream where the sick animal has quenched her thirst may be carried on and drunk by cattle lower down, thus spreading disease. He suggests that every pond, stream, or ditch to which cattle might have access should be so hedged and protected that they could not drink there, and that pure filtered water only should be given to all our domestic and dumb animals.

Then follows a letter from Dr. Robert Barnes, in which he asks for proof of the assertion that cows drinking impure water may give milk capable of transmitting typhoid fever to human beings who may drink it. That typhoid fever has been produced from drinking impure milk is already established; but in these cases it is probable the sufferers did not drink the milk as drawn, but after dilution. It has been known some time that impure drinking-water may produce fever in man, and, of course, it may still do so when added to milk. This is, however, a different thing from the hypothesis that the cow drinking impure water may transmit the fever-germs through her milk to human beings who drink it. As Dr. Barnes says, this may be so, but scientific proof is wanting.

MR. ARTHUR O. SANKEY (Baschurch, Shrewsbury) will be obliged if anyone can give him the address of M. Hartnack, the microscope-maker, or inform him whether he makes photographic lenses.

The York Medical Society.

THE following song was sung at the annual dinner of the York Medical Society October 17th.

Mr. President and Gentlemen.—This festive opportunity
Occurs for any vocalist to warble with impunity;
So, with your kind permission, for the sake of some variety,
We'll attempt a little ditty, called "The Medical Society."

When a long night's vigil terminates in some such curiosity
As a babe anencephalic, or some similar monstrosity;
When Cheyne-Stokes's respiration supervenes on paronychia,
And we feel the situation growing every moment dickier;
When we venture at one sitting to crush up a massive calculus,
Or find in typhoid fever some unheard-of vegetaculus,
We consider that these cases may with evident propriety
Form communications minor to the Medical Society.

When, in spite of antiseptics, we are beaten by bacteria;
When metallo-therapeutics get the better of hysteria;
When we fail to find the serum after tapping pleurodynia,
Or ten minims of gelseminum prove fatal to Lavinia;
When we score off Dr. X., Dr. Z., or Mr. W.,
On some diagnostic detail with which I need not trouble you;
Why, these and other matters furnish even to satiety
Our topics for discussion at the Medical Society.

We are practical, and fanciful, and general, and clinical;
In short, we feel we occupy a most exalted pinnacle.
By turns we are obstetrical, and medical, and surgical,
Ophthalmic, psychological, and almost thaumaturgical,
And yet we can unbend ourselves, and dally with the trivial,
And, as you may perceive, we can even be convivial.
And although we can't be peers, it is not at all chimerical
To claim a sort of clanship with the legal and the clerical;
"Though we don't want to fight, yet by Jingo! if" you threaten us
We don't mind the risk of erysipelas or tetanus.
So I think you'll admit, in all calmness and sobriety,
What a splendid set of fellows are the Medical Society.

Heredity of Cancer.

SIR,—J. H., aged 57, a platelayer on a railway, came for advice to my house on October 23rd. I think the family history of the patient of sufficient interest to be reported.

His mother died of cancer of the stomach; his sister of cancer, but of which part of the body I could not ascertain; two of his brothers also died of cancer of the stomach; two brothers, living in Australia or America, are in good health, and he had no sisters. The patient himself had cancer of the stomach, the hard nodules being quite readily felt on examination of the abdomen.

In the members of this family, there would appear to be the cancerous heredity of unusual strength, as in some families we find the phthisical heredity all-powerful for evil. Do not say, What is heredity? I cannot tell; only surmise it is something which dates as far back as civilisation itself; and assuredly it is the one great stumbling-block—the *bête noire* of many germ-theories of this day.—Yours respectfully, WM. DALE, M.D.Lond.

Lynn, October 23rd, 1883.

The Boast Fund.

SIR,—Will you be so good as to allow me to add the following names as subscribers to the above Fund, for which I wish to tender my sincere thanks. At the same time, may I encroach on your valuable space by again reminding hundreds of my esteemed friends that our appeal is urgent and for a noble cause, and that I am looking forward for cheques or P.O.O., made payable to me, or to my friend G. Jackson, Esq., F.R.C.S.Eng., Plymouth, or to S. H. Burton, Esq., F.R.C.S., Norwich.

Subscribers.	£	s.	d.
A. E. S., Torquay	0	10	0
Dr. J. W. Sheridan, Stowmarket	1	1	0

—I am, yours, etc.,
J. D. ALLMAN.
40, 41, and 42, Charlotte Street, Great Eastern Street, E.C.

SIR,—I have received the following additional subscriptions:

	£	s.	d.
Dr. Owens, Long Stratton	1	1	0
J. Cheesman, Esq., Buckingham	1	1	0
W. H. Day, Esq., Norwich	1	1	0
H. Turner, Esq., Norwich	1	0	0

—Yours faithfully,
S. H. BURTON.
64, St. Giles' Street, Norwich, November 7th, 1883.

Royal College of Surgeons of England.

THE following were the questions submitted to the candidates for the diploma of membership of the Royal College of Surgeons, at the primary examination on the 2nd instant, when they were required to answer four out of the six questions, both in Anatomy and in Physiology. *Anatomy:* 1. Describe the origin and insertion of the muscles of the orbit, and give their Nervous Supply. 2. Describe the sacrum. How would you distinguish between the male and the female bone? 3. Describe the dissection required to expose the infraspinatus muscle. Give its attachments, its blood- and nerve-supply. 4. How would the collateral circulation be carried on after ligature of the third portion of the subclavian artery? 5. Describe the interior of the larynx. 6. Give the dissection required to expose the profunda-femoris artery.—*Physiology:* 1. Name the morphological and chemical constituents of the blood. What are the uses of these constituents? 2. What are the changes which the food undergoes in the mouth? 3. What is the structure of a medium-sized artery and vein? In what way are the arteries and veins concerned in the circulation of the blood? 4. Describe the movements of respiration, and explain the manner in which the air in the pulmonary alveoli is renewed. 5. What are the chief ferments in the body? By what circumstances are their actions facilitated or retarded? 6. Describe the structure of the iris. By what nerves are its movements incited? Mention the chief circumstances which induce enlargement and contraction of the pupil,

A MEMBER should apply for the information he requires on the qualifications for a factory-surgeon to the Home Office.

Determination of Sex.

SIR,—Will you kindly accord me space once again to reply to Dr. Shelly's interesting, and, in many respects, valuable letter. To begin with the postcript: it may be impossible to prove that, in multiple birth from a single coitus, as in the sow, the ova were all of the same age, and that the spermatozoa reached them simultaneously; but I think we are safe in assuming that an immature ovum cannot be impregnated, and that a ripe one does not improve by keeping.

It is rather for Dr. Shelly to prove the converse, which he apparently upholds; viz., that fresh ova continue to ripen after the impregnation of those already ripe at the time of coitus; and that the yet unmated spermatozoa continue to lurk about the female passages for an indefinite period, until these later ova are ready to receive them. But suppose we admit that an ovum grows in vigour after it is ripe—why not a spermatozoon also?

"Heat," which in the higher vertebrata is coincident with ovulation, is but a brief phenomenon; the female only permits coitus at its crisis, when her ova are presumably ripe and fertilisable; and her refusal to permit coitus immediately "heat" is over, shows that her ova have passed the period when they were capable of impregnation. Ovulation in animals is well-marked by "heat;" but, in the human subject, it is so masked by emotional and moral factors as to be only dimly, if at all, recognisable. May it not be that the human female, having for countless generations given way to coitus, at other times than when prompted thereto by ovulation, has gradually lost the distinctive features which still mark the function in animals?

Menstruation is not, as some of your correspondents seem to suppose, either synonymous or coincident with ovulation, but only marks the funeral obsequies of disappointed and defunct ova. It is possible, but probably rare, as pointed out by Kirkes and others, that a fresh ovulation follows close upon the heels of the menstruation which marks the extrusion of the last ill-starred ovum, and that, more probably, a period of rest occurs between menstruation and the next sending to the front of a fresh ripe ovum. "And that the ovum fertilised is that which is discharged in connection with the first absent, not with the last present, menstruation" (Kundrat).

I do not dispute, in regard to bees, any of the discoveries of Dzierzon, Huber, or Von Siebold, nor deny the fact of parthenogenesis; but that the sexual peculiarities of the articulata are a law to the vertebrata has yet to be proved. Dr. Shelly argues that the tendency of the human ovum must be masculine, because virgin "queen" bees and neuters produce only "drones." But if the sexual proclivities of mankind are the same as those of bees in this one particular, why not in all? And I would ask him to point out what "tendencies" in mankind correspond to the filling of the "spermatheca," at a single coitus, with sufficient semen to last a lifetime (Dzierzon); the not to be wondered at death of the drone that provides the supply; the existence of a "neuter sex;" the manufacture, when required, of a perfect female out of the larva of a neuter, by feeding it upon "stimulating jelly;" or to the annual massacre of the entire community of drones?

It is not easy to follow Dr. Shelly when he says, in regard to early forms of reproduction, "in any case, it would be to the advantage of the resulting offspring that this subdivision" (of the ovum) "should be preceded by the union of one parent.....with another individual." But if, as he maintains, the tendency of this union be to compel into a female what, if left alone, would have been a male, where is the "advantage to the resulting offspring?" Which of us would consider it an advantage to be transformed into a female? and where the advantage of two sexes, if one be sufficient?

To say that, in the higher forms of life, "it would be to the advantage of the offspring" that it was preceded by union of the parents, is misleading; because, except in some articulata, no offspring is possible without it. We might as reasonably say that it would be to the advantage of a picture that its production was preceded by an union of colours and canvas. When Dr. Shelly says, "should it ever be found that a virgin female—say amongst higher mammals even—had produced young without the possibility of any previous sexual intercourse, this would not prove any break of continuity in the laws of nature and of evolution," he is wise to use the "if." For we might say exactly the same "if" an amputated leg grew into a man, in accordance with the tendency of the self-segmenting amœba.

As a matter of fact, in all vertebrata, the female element, if left to itself, never "produces individuals possessed of, or capable of, developing sperm-elements," but simply dies; and the result of "selection and inheritance" has simply been not, as Dr. Shelly maintains, to increase this tendency, but to suppress it.

Dr. Shelly says "it is reasonable to suppose that the older the ovum at the time of impregnation, *i.e.*, the longer time it has had to develop its own inherent potentiality of developing into a male, the less likely would it be" to produce a female. But where is the proof that ova improve by keeping—once they are ripe, and ready to be impregnated?

If we watch the operation of salmon-breeding, we shall see thousands of ova, apparently identical in all their characters, squeezed into a tub of water, by the operator. "Milt" from the male fish is obtained in the same manner, and stirred by the hand of the operator amongst the ova, which then and there are impregnated, their contents turning opalescent, and the phenomena of gestation following in regular sequence. And the "resulting offspring" are of both sexes.

I would ask Dr. Shelly for his authority for the statement that the experience of cattle-breeders is that cows or mares, covered towards the end of the period of heat, generally produce males, and females towards the beginning. Herbert Spencer well says, "there are no inductions so trustworthy as those that have undergone a mercantile test." I have this morning received a letter from a well-known and intelligent stock-breeder in Worcestershire, in which he says, "it is impossible to predict either sex, at one time or another." A thoroughbred stallion, *cæteris paribus*, is of far more value than a mare; but, notwithstanding, fillies will come where colts are eagerly desired. Dr. Shelly supports as "reasonable" the proposal to secure female offspring by early postmenstrual coitus. I am not aware that "the daughters of Israel" have ever been markedly less numerous than his sons, yet the Jews are strictly forbidden coitus until the lapse of seven clear days after menstruation has ceased (*Leviticus*, ch. xv, v. 38). But, were Dr. Shelly's theory correct, surely daughters, under such circumstances, would be few and far between.

A word in conclusion as to the traits of the father developing in the daughter, those of the mother in the son. I have under my observation at present two brothers, aged eight and ten. The elder, in feature, manner, and disposition, follows the father, being taciturn, ill-natured, and, in some ways, ungenerous; the younger is like his mother, sprightly, amiable, and generous. The elder has not even a distant resemblance to his mother, the younger scarcely any to the father.—I remain, yours truly,
31, Hereford Square, S.W. C. M. CAMPBELL, M.D.Edin.

Carbolic Injections.

DR. W. J. KELLY has recently called attention to a new source of carbolic acid poisoning, and consequent nervous irritation (*Columbus Medical Journal*). He alludes to the growing tendency to seek ways and means to avoid conception, and the frequent use of carbolic injections after coitus. He reports the cases of four patients suffering from extreme nervous prostration who were victims of this habit, and who rapidly recovered after discontinuing it. One of them was using as much as four ounces of acid a week. It is suggested that, if the truth were known, many cases of this kind occur.

Scurf following Eczema.

SIR,—I shall be greatly obliged if your readers will kindly inform me of the best application for scurf in the head following eczema. I have applied citrine ointments (diluted), the red oxide of mercury ointment, cod-liver oil and vaseline, glycerine and borax; and have attended to the general health. The patient's age is 21, and he is slightly rheumatic. He is well in other respects. Hair-lotions do not act even as well as greasy applications. Scurf is thrown off in large quantities daily.—Yours faithfully EDINBRO'.
October 29th, 1883.

The Feet of New-born Infants.

SIR,—At a discussion on club-foot a short time ago, it was asserted that a large proportion of children at birth presented a modified varus. Such an assertion as this could only come from one that views the facts through orthopædic spectacles.

It is perfectly true that the feet naturally turn inwards, as all feet must do of necessity if the position of a child *in utero* be assumed, the feet and head being brought into juxtaposition.

The chief cause of in-turning of feet in infants is the fact that all the large flexor muscles going from the leg to the foot pass round the internal malleoli, and, until the erect posture is assumed, with the feet on the ground and the weight of the body above, they are naturally drawn inwards for want of a fixed point for the plantar surfaces.—Yours truly, PERCY BOULTON, M.D.
6, Seymour Street, W.

Noiseless Shoes.

SIR,—Your paper recently contained some remarks on the attire of nurses, in which the writer dwelt, very sensibly, on the desirability of their wearing noiseless shoes. As such, combining also warmth and durability, are not always easy to find, allow me to introduce to your notice the alpargata, made and worn by the natives of the Argentine Republic, South America. I send you a pair by parcels post. You will see that the "uppers" can be readily made of any suitable material. The special feature is the soles, which might form a new article of industry for blind asylums, industrial schools, etc. They could be made waterproof by dipping in a proper solution.—I remain sir, yours faithfully, JAS. MCKENZIE DAVIDSON.
Lochhead House, Aberdeen, October 22nd, 1883.

Sprain at Tennis.

SIR,—I sprained my arm playing tennis this summer, which, at the time, I did not mind very much; but each time I played afterwards, if I attempted to strike a ball back-handed, I found my arm very painful, and now, after two months' rest from playing tennis, I find any exercise makes my arm quite as bad as at first. I pulled out a difficult lower molar tooth a few days ago, and since my arm is of little use and very painful. In my case, it is sprain of the pronator radii teres. I have tried Martin's bandage (as recommended by a correspondent), liniments, stuping, etc., with little benefit; and will be very glad if any member who has had experience in this sprain can suggest any remedy. Perfect rest is, I believe, the only cure—which, unfortunately, I cannot have.—I am, yours faithfully,

A MEMBER.

October 24th, 1883.

The History of Epidemics.

SIR,—As I am reading up all matter connected with the origin and course of epidemics, may I ask any fellow-member who has the knowledge at his command to direct me to any paper or book on Epidemiology, or subjects connected therewith, which would be to my advantage to read.—I am, yours truly,

ENQUIRER.

*** Enquirer will find that Dr. Guy's *Lectures on Public Health* (Renshaw) not only contain a large amount of facts in a very small space, but, in the references, a guide to nearly all that has been written on the subject. Hirsch's *Historical Pathology*, now being translated by Dr. Creighton, is without a rival. Hecker's *Epidemics of the Middle Ages* is a classical work. Beyond these, we do not know of any work specially devoted to epidemiology. Several suggestive references may be had from the first volume of Aitken's *Medicine* respecting particular epidemics. As to cholera, the most comprehensive work is the *Report on the Epidemic in* 1873, with history and maps of every previous epidemic in Europe and Asia, as well as America.

A Man without Hands and Feet.

THE Geneva correspondent of the *Times* records the death of Jean Trottet, a man who, by dint of sheer courage and energy, overcame almost insuperable difficulties, and showed that life, even when it seems almost a curse, may be well worth living. The man in question was born in 1831, at Arare, in the canton of Geneva, without hands and without feet. His short arms were pointed; and his legs, such as they were, not being available for progression, he was able to move only by twisting his body from side to side. His case greatly interested the surgeons of the neighbourhood, and local Barnums made the parents, well-to-do peasants, many tempting offers to turn their child's misfortune to account by exhibiting him about the country. But these offers were invariably declined, and, when Jean was old enough, he was sent to school. In writing, he held his pen at the bend of the elbow; and, as he grew older, he took great interest in husbandry, became an active haymaker, used the reins with dexterity, and was so good a shot, that he often carried off the first prize at the village *tirs*. He enjoyed, too, some reputation for sagacity, was consulted by his neighbours on matters of importance, and has left a widow and four children amply provided for.

Left-Handedness amongst the Ancient Hebrews.

SIR,—The subject on which Dr. Milward, of Cardiff, has so ably written in your JOURNAL, viz., Dr. Erlenmeyer's theory that the ancient Hebrews were a left-handed people, is a most interesting physiological question for medical men. History, however, does not support this theory. The Phœnician characters of the Moabite stone are the most ancient forms of Semitic letters within our reach, and date from about the year 900 B.C. Now this inscription reads from left to right, as we do in the present day. Such is the case also with the following Semitic records: The inscription on the tomb of Eshmunazer, King of Sidon: 600 B.C.; the tariff of fees in the Temple of Baal at Marseilles; the inscription from the necropolis at Tharros, in the Museum of Cagliari, Sardinia; the Carpentias inscription, an inscription from Carthage. We know from the characters on the coins of the Maccabæan princes, and upon some signet-stones, that the above Phœnician letters can be associated with the most ancient Hebrew letters.

The practice of writing from right to left came into use about the time of Ezra, when probably the square form of the Hebrew characters began; the characters of the Samaritan and the Phœnician alphabets are nearly like those of the Moabite stone.

The earliest Greek inscriptions, nearly allied with the Phœnician, are sometimes written from right to left; others from left to right. Others, again, show how the difference between the two methods was bridged over by the immediate practice of writing alternately—like an ox ploughing—and therefore called Boustrophedon writing.

The general use of the late square Hebrew character, and the habit of writing it in the absurd traditional way we call "backwards," are great hindrances to the popularisation of Semitic research.—I am, sir, yours, etc.,

Salisbury, October 17th, 1883. J. LARDNER GREEN.

Preparation of the Oleates.

L. C. P.—Oleic acid is very readily absorbed by the skin; so are oleic solutions of alkaloids and metallic oxides, known as oleates; such preparations of mercury, zinc, lead, copper, morphia, veratria, aconitine, atropine, quinine, and strychnia are used medically; those of mercury, zinc, lead, and morphia in immense quantities. Lead-plaster is but an oleate of lead, and unguentum diachyli a weak form of it. Without this, and oleate of zinc, in powder and as an ointment (which leave no crust of oxide on the sore as zinc-ointment does), how could modern skin-physicians treat eczema with the certainty of cure that they do now in such a short time? The epidermic use of the oleates of the alkaloids offers a means of medication by their absorption which, in many cases, will prove valuable, where a hypodermic injection is not suitable, or is objected to, or where the stomach is irritable or will not assimilate. "There are conditions of stomach in which you might as well put your medicines in a bladder, and hang it up on a nail," quotes Dr. Squibb, in No. 6 of his *Ephemeris*, page 158. This number is almost entirely devoted to a description of medicinal oleates, their mode of preparation, and their epidermic and hypodermic use. Further, see original lecture introducing them to the notice of the medical profession, by Mr. John Marshall, F.R.S., in the *Lancet*, vol. i, 1872, p 709; also the article "Oleata," in the *Extra Pharmacopœia*, by Martindale and Westcott (out of print, we believe, at present, but of which a second edition will no doubt be ready shortly).

COMMUNICATIONS, LETTERS, etc. have been received from:

Dr. Crichton Browne, London; Dr. Colmer, Yeovil; Mr. C. E. Shelly, Hertford; Dr. W. W. Reeves, London; Dr. Sawyer, Birmingham; Dr. Elliston, Ipswich; Dr. Ransome, Bowdon; Mr. G. E. Barron, Winkfield; Dr. R. B. Hill, Oldham; Mr. P. H. Day, Millom; Dr. T. Churton, Leeds; Dr. C. S. W. Cobbold, Red Hill; Dr. Puschmann, Vienna; Dr. W. P. Biden, Hyères; Dr. W. Campbell, Carlisle; Dr. W. A. Duncan, London; Mr. A. J. Vyser, London; Mr. Alfred E. Barrs, Leeds; Our Aberdeen Correspondent; Dr. J. Sinclair Holden, Sudbury; Dr. H. Page, Redditch; Our Edinburgh Correspondent; Our Glasgow Correspondent; Dr. Orange, Broadmoor; Mr. Thomas Tinley, Whitby; Dr. Thomas Dutton, Sidlesham; Dr. W. W. Ireland, Prestonpans; Mr. S. B. Mason, Pontypool; Mr. R. J. Horn, Attleborough; Dr. Althaus, London; Dr. S. Rees Philipps, Exeter; Mr. Thomas Jackson, Thornton Heath; The Honorary Secretaries of the Harveian Society; Mr. A. W. Nankivell, Chatham; Dr. Arthur W. Edis, London; Dr. W. M. Campbell, Liverpool; Dr. W. B. Kesteven, Enfield; Dr. McKendrick, Glasgow; Mr. E. White Wallis, London; Mr. C. G. Wheelhouse, Leeds; Dr. Tibbits, Bradford; Dr. R. Eardley Wilmot, Leamington; Mr. S. Knaggs, Huddersfield; Mr. G. A. Wright, Manchester; Mr. Samuel Osborn, Datchet; Mr. Joseph Beatty, Monkstown; Mr. Samuel Benton, London; Mr. S. H. Barker, Norwich; Mr. Mark S. Judge, London; The Secretary of the Metropolitan Counties Branch; Mr. J. Smith, London; Our Belfast Correspondent; Dr. Vinen, London; Our Dublin Correspondent; Dr. Collie, Homerton; Sir E. Saunders, London; Mr. F. Wallace, London; Mr. J. W. Hayward, Whitstable; Mr. T. M. Stone, London; Mr. A. P. Fiddian, Cardiff; Dr. Cosgrove, Bolton; Mr. T. Renel Atkinson, Madley, Hereford; Mr. W. Hamilton Allen, Bardney; Mr. J. Bain Sincock, Bridgwater; Dr. J. W. Moore, Dublin; Mr. E. Penny, Greenwich; Our Birmingham Correspondent; Dr. Martin, London; Mr. Walter Gripper, London; Castigo Mores Videndo; Mr. John Dacre, Bromley; Mr. A. B. Clarke, Gainsborough; Dr. Myles, Limerick; Mr. Wm. Prowse, Bristol; Dr. H. Cripps Lawrence, London; Dr. Waters, Chester; Dr. J. Curnow, London; Mr. Alfred Sargant, London; Dr. C. F. Knight, Dublin; Dr. Horace Dobell, Bournemouth; Mr. J. S. Purvis, London; Dr. Joseph Coats, Glasgow; Dr. Danford Thomas, Loudon; Dr. C. Charles, Streatham; Mr. J. Evans Smith, Snodham; Dr. Osborne D. Marriott, Sevenoaks; Dr. Dawson W. Turner, London; Mr. Wm. J. Beatty, Stockton-on-Tees; Mr. Arthur Sankey, Baschurch, Shrewsbury; Mr. W. H. Platt, Kilburn; Mr. Richard Jefferys, Chesterfield; Dr. Fairlie Clarke, Southborough; Mr. Charles C. Scott, Twickenham; Dr. A. D. Macdonald, Liverpool; Mr. Raven, Broadstairs; W. J. P.; Dr. L. Holland, Newcastle-on-Tyne; Mr. D. S. Davies, Bristol; Dr. Arthur H. Jones, Northampton; Dr. Imlach, Liverpool; Mr. G. H. Webster, Wareham; R. B.; Dr. Aitken, Rome; Mr. J. Dallman, London; Messrs. Somervell Brothers, Kendal; Mr. A. Macpherson, Chester; Messrs. Brown, Shipley, and Co., London; Dr. W. G. Mortimer, New York; Mr. David S. Skinner, London; Dr. J. Solis Cohen, Philadelphia, etc.

BOOKS, ETC., RECEIVED.

Medical Notes and Essays. By Peter Eade, M.D. London: J. and A. Churchill. Norwich: Jarrold and Sons. 1883.

Handbook for Southport, Medical and General, with Copious Notices of the Natural History. By Edward Day Nicoll. Third Edition. Southport: R. Johnson and Co. 1883.

Insanity, Its Classification, Diagnosis, and Treatment; A Manual for Students and Practitioners of Medicine. By E. C. Spitzka, M.D. New York: Bermingham and Co. 1883.

Practical Clinical Lectures on Syphilis and the Genito-urinary Diseases. By F. N. Otis, M.D. New York: Bermingham and Co. 1883.

The Diagnosis and Treatment of the Diseases of the Ear. By O. D. Pomeroy, M.D. New York: Bermingham and Co. 1883.

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A LECTURE
ON
ECLECTICISM IN OPERATIONS FOR CATARACT.

Delivered at St. Mary's Hospital.

BY ANDERSON CRITCHETT, M.A., Cantab.,
Ophthalmic Surgeon to, and Lecturer on Ophthalmic Surgery at, St. Mary's Hospital.

GENTLEMEN,—No patriarchal experience in ophthalmic surgery is needed to carry us back to the period when the time-honoured flap-extraction was the generally recognised operation for senile cataract. Using a Beer's knife, and unaided by either forceps or speculum, the operator strove to accomplish a large flap, involving almost half of the cornea; and he considered that it was discreditable to his manipulative skill should he accidentally sever any portion of iris, or emerge through the cornea prematurely. When all went well at the operation and during the process of healing, the result was very perfect, and both optically and cosmetically surpassed that which is usually obtained with modern modifications of the old proceeding. The patient retained a small round movable pupil; and the edges of the wound would sometimes heal with such exact apposition, that the king who failed to solve the problem of the apple and the dumpling would have been amply justified in expressing bewilderment as to how the cataract could have made its exit.

In a large proportion of cases, however, the eye fell a victim to one or more of the numerous perils by which it was surrounded. When the stages of the operation were happily accomplished, the constitutional vigour of the patient was sometimes unequal to the task of healing so large an area of cut cornea, and suppuration ensued; or a slight movement on the part of the patient might displace the flap ere union had occurred, and a prolapse of iris, often of considerable size, would force the edges of the wound still further apart, and cause the pupil to be drawn into, and occluded by, the section; so that the best efforts of a skilful operator to repair the damage could give but a poor result in the matter of sight.

Amongst the great ophthalmic surgeons of the past, the late Mr. Tyrrell was pre-eminently skilful in the performance of the true flap-operation. He took justifiable pride in the completeness of the flap which his dexterity accomplished, and the first shock which the operator received was on the discovery that his results at Moorfields were unsatisfactory in comparison with those of a less skilful colleague, who usually, *malgré lui*, severed the portion of iris which unsteadiness and premature escape of aqueous humour brought in front of his knife, and who completed his operative fiasco by making a species of curvilinear instead of a flap-section. Looked at by the light of our modern experience, the solution of the mystery is simple. The involuntary iridectomy prevented iritic prolapse, and the edges of the curvilinear wound came readily and firmly together. Some years, however, elapsed before linear extraction was suggested by Professor Schuft, who, following in the track of modern reformers, determined that the change introduced should be thorough and radical. In place of the extensive corneal incision, he gave us a narrow slit at the corneo-scleral junction, and the instrument employed was the triangular knife which is still in general use for the operation of iridectomy. A portion of iris was removed, and the anterior capsule was lacerated, but it was found necessary to introduce a spoon to ensure the removal of the cataract through the slit-like opening; and more than one eminent ophthalmic surgeon placed the hall-mark of his inventive capacity upon the form of spoon which he deemed best suited to the operation.

The merits of the new proceeding were much canvassed; and it was noticed that, while the previous risks of suppuration and extensive iritic prolapse were to a great extent avoided, fresh troubles had arisen to militate against the success of the new method.

It was found that the passage of the spoon under the lens frequently caused rupture of the hyaloid membrane and loss of vitreous humour, while in cases where the cataract was somewhat immature, numerous fragments of lens-substance remained behind to set up traumatic iritis, with cyclitis and its accompanying dangers. In the course of a few years, the new plan had fallen so much into disrepute on the Continent that our Teutonic brethren were, in many instances, returning in despair to their old love, the flap-operation, when a paper, read by my late father in 1864 at the congress at Heidelberg, on the favourable results obtained at Moorfields by Mr. Bowman and himself with linear extraction, attracted the attention of Von Gräfe, and caused him to bring to bear on the subject the light of that genius which illuminated, and still illuminates, many regions of ophthalmic science which formerly were clouded and obscure.

He saw that the object to be gained was the power of making a curvilinear section of sufficient size to allow the ready exit of the cataract without the introduction of a spoon or vectis into the eye; and he cut the Gordian knot of difficulty with the narrow needle-knife which will always be associated with his name. The use of this instrument enabled the operator to make his incision in the situation, and of the size, which he deemed best; and, perhaps, the ready adaptability of the operation to suit various opinions, proved a chief factor in its almost universal acceptation.

In the method suggested and carried out by Von Gräfe, the incision was made entirely in the sclerotic, and iridectomy was always performed.

A comparatively brief trial of the new operation sufficed to prove that, with hitherto unknown advantages, came fresh and peculiar dangers. It was found that, if either the point or the blade of the knife encroached too closely on the ciliary region, sympathetic ophthalmia, with destructive cyclitis, might supervene in the other eye; and, secondly, in cases where the operation was successfully accomplished, and all gave promise of a happy issue, traumatic iritis made its appearance, usually about the tenth day, retarding the recovery, and not unfrequently resulting in a closed pupil. In addition to these subsequent troubles, whenever the incision was carried in the least degree too far into the sclerotic, there was increased liability to rupture of the hyaloid membrane, and loss of vitreous humour during the expulsion of the cataract. I was, therefore, not surprised to hear at the International Ophthalmic Congress, held in Paris in 1867, that each one was performing von Gräfe's operation with modifications, some of these latter being of a very sweeping and revolutionary character. The method that my father then employed, and which he subsequently abandoned, and, indeed, used as his text for enunciating the principle of "eclecticism" which I here advocate, was to make the puncture and counter-puncture in the sclerotic, and to emerge in the cornea. By so doing, he avoided the risk of loss of vitreous humour; but experience showed that he was braving a double peril, for while his puncture and counter-puncture might wreck him on the Scylla of cyclitis, his incision might overwhelm him in the Charybdis of suppuration. He, therefore, came to regard this plan as alike illogical and inexpedient, and, during the last twelve years of his life, dealt exclusively with either cornea or sclerotic, being guided by experience and judgment as to which of these two tissues should be selected in each individual case.

Following the broad lines of the above-mentioned principle, it was easy for one who kept an open and receptive mind to take advantage, or, at any rate, to make trial of the various modifications and improvements which were from time to time brought forward, both on the Continent and at home.

I may briefly allude to a few of these, some of which have stood the test of time, whilst others have fallen into disuse. I would speak, first, of the operation devised by the late Professor Pagenstecher of Wiesbaden, for removing the lens in its capsule, and which I had the advantage of seeing performed by its originator. An unusually large incision, confined, as nearly as possible, to the corneo-scleral margin, was made with a Gräfe's knife, a liberal portion of iris was removed, a capacious spoon was then introduced beneath the lens, and the latter was removed in its capsule.

The operation was frequently performed without an anæsthetic, and the incision was made downwards. When no catastrophe happened, the result was exceptionally brilliant, and the avoidance of subsequent needle-operation was a decided gain; but the passage of the necessarily cumbrous spoon below the lens too frequently led to a more or less copious escape of vitreous humour; and, although this misfortune by no means involves immediate or total loss of vision, the recovery is always more tedious, the optical result is imperfect, and the existence of such an eye for useful purposes is frequently of slow duration. Were there insurance-offices for sight as well as for life, such an eye would be penalised with a large additional premium. The operation still musters adherents, and modifications have been introduced by Mr. Macnamara, and by Dr. Andrew of Shrewsbury. The former makes his incision at the outer side of the cornea, using a very broad keratome. He does not usually perform

iridectomy, but introduces a spoon through the previously dilated pupil, and, depressing the proximate edge of the lens, turns the latter over into his spoon, and removes it in its capsule. Dr. Andrew follows a very similar plan; but, before using the spoon, he inserts a small wire hook to free the lens from its attachments.

The next operation which claims our attention is that of Dr. Lebrun of Brussels. In this method, the incision was made entirely in the cornea, the insertion of the needle-knife being opposite to the centre of the pupil, and the line of section lying nearly midway between that point and the corneo-scleral margin. Iridectomy was not used; but, after the emergence of the cataract, eserine was employed to induce myosis, and to prevent anterior synechia. The operation was almost invariably performed without an anæsthetic; and the advantages of making an upper or a lower section were respectively advanced by rival advocates.

The attractions which this method offers are that it is very easy of performance; that, as the section is corneal and the iris is untouched, comparatively little pain is inflicted on the patient; vitreous humour is seldom lost; and when perfect union occurs by first intention, the preservation of nature's pupil gives an excellent optical result. The other side of the picture shows that the average of failure is larger than in cases where iridectomy is performed; and the most frequent source of trouble lies in the tendency to the formation of extensive anterior synechia, the iris being in some instances prolapsed and clamped between the edges of the wound, leading not unfrequently to sympathetic ophthalmia in the other eye. In addition to this, the effort to heal so extensive a corneal section proves more than some feeble constitutions are able to compass; and the terrors of the old flap-extraction are to some extent revived in the absolute absence of movement and effort which the patient must endure.

Another very ingenious, but too complicated, operation, which deserves mention, though it can never be brought into general use, and has, to a great extent, been abandoned by its parent, is one suggested by Dr. Bell Taylor of Nottingham. Desiring to avoid prolapse and synechiæ, and at the same time to preserve the integrity of the pupil, he removed only a sufficient portion of the peripheral margin of the iris to permit the passage of the cataract. The result in successful cases was very perfect, the iritic aperture being entirely covered by the upper lid; but so much time was occupied in procuring the egress of the lens through this narrow and delicate aperture, and so much technical skill was necessary in the performance of the operation, that it could never be universally adopted.

Time would fail me, and I should unnecessarily tax your patience, were I to allude to various other modifications of modern operations. Scarcely a month passes without the introduction of one or more of these; and in the Ophthalmic Section of the meeting of the British Medical Association at Worcester last year, no fewer than three novel and ingenious operative suggestions were made for the removal of cataract. I, personally, am prepared to welcome these, and others which will inevitably follow, and to regard them as so many additional strings to our bow; and, following out the principle of eclecticism, I should not object to their multiplication till the bow became converted into a harp, though long and mature experience can alone render us capable performers upon the somewhat complicated instrument which will be in our possession.

I had the exceptional advantage of sharing my father's operative work and watching its results for many years; and from my practical experience there and in my own practice, I have acquired a conviction of the importance of carefully selecting a method of operation according to the condition of each particular case. I may quote, as an example which well bears out this theory, the case of a medical man where my father performed an operation for cataract on the right eye. As the patient objected to the administration of an anæsthetic, the Brussels or corneal operation without iridectomy was selected. Every stage of the proceeding was passed through successfully, and the edges of the section were so absolutely in apposition that it was difficult to believe that any operation had been performed; and as we left the house, I congratulated my father, and somewhat rashly ventured to prophesy a complete success. A few hours only sufficed to prove me entirely in the wrong, for suppuration rapidly ensued, and the eye was absolutely lost. The patient being naturally much disappointed at the issue, elected to place his hope of success in the other eye in the hands of another ophthalmic surgeon. My father, on hearing the name of the gentleman who had been selected, and knowing that he invariably performed the corneal section, wrote him a full account of his own operative disaster, and ventured to suggest that, as the first eye had been lost by suppuration, it would be well that in the second eye the section should be limited entirely to the sclerotic. He received a very courteous rejoinder from the distinguished ophthalmic surgeon to whom the letter was addressed, in which that gentleman thanked him for his suggestion, but declined to follow it, as he had unbounded faith in, and was in the invariable habit of, performing one form of operation only. The lamentable issue in the second eye was that it suppurated with, if possible, greater rapidity than its fellow.

Now, so rarely do we encounter in the same individual a tendency to suppurative inflammation and also to destructive cyclitis, that I have little hesitation in expressing the belief that had my father's suggestion been carried out in its integrity, there would have been every probability of a successful result. I have personally a strong objection to the performance of a double operation for cataract; but if, owing to exceptional circumstances, such a proceeding be forced upon us, we may expect almost to ensure success in one eye if we limit our incision to the cornea on the one side, and to the sclerotic on the other.

In choosing the initial operation which is to be performed upon any particular patient, you will be guided in your selection of a method by various considerations. If no anæsthetic is to be given, and there is no direct constitutional contra-indication, the corneal incision will be preferable, partly on account of its comparative insensibility to pain, and partly because by this method the vitreous humour is less likely to be lost through involuntary spasmodic movement on the part of the patient. If there be some special reason for preserving the integrity of the pupil, you may, in isolated instances, elect to run the hazard of a Brussels operation; but you will, in my opinion, largely increase your chances of success if you carry your incision nearer to the corneo-scleral margin, and supplement it with iridectomy. This latter form of operation, I have reason to believe, finds the most general acceptance amongst modern ophthalmic surgeons. I have little doubt, however, that the majority of them would be ready to adopt a different mode of proceeding, should special circumstances suggest that such a course would be preferable.

I have recently operated on a clergyman, who, at his first interview, conveyed to me the somewhat alarming information that, if he accidentally cut or scratched himself, the wound invariably showed signs of sloughing, and took an inordinately long time to heal. I should have regarded it as little less than an act of recklessness to pass my knife through his cornea; and, in the operation which I performed upon him some weeks since, I limited my incision strictly to the sclerotic. His recovery has been unusually slow, but I am glad to say the final result has been most successful.

I point out to you the corneal operation as one to be avoided also in patients of very advanced age or enfeebled constitution, especially when analysis of the urine has revealed degenerative renal changes.

Many of you will doubtless remember that the only two instances of suppuration of the cornea after cataract-extraction, which occurred in this hospital last year, were in the cases of two paupers who were admitted from the workhouse. Should similar cases come under my care in the future, I should in the first instance draw somewhat largely upon the hospital funds in preparing the patients for the operation by a liberal administration of nourishing diet; and, in the second place, I should leave their corneal tissue uninvaded. In cases where a cataract is not yet matured, or where a sufficient store of time and patience can be placed at your disposal, I believe that you may add a very appreciable percentage to operative success by performing a preliminary iridectomy at least four months before the removal of the cataract. I certainly advise that this course should be adopted in the second eye, where failure, whether from suppuration or from other causes, has resulted in the first.

We must not forget that individuals are to be met with who pass safely through the shoals and quicksands of cataract-extraction, and are subsequently wrecked, when within sight of port, by a comparatively simple and usually harmless discission of the capsule. I have in my mind an instance of this in the person of one of my own patients, who made a rapid recovery in each eye from the major operation, and was afterwards the subject of prolonged inflammation when the capsule was torn through.

Guided by this experience, in operating upon the second eye of such an individual, I should seriously contemplate the advisability of endeavouring to remove the lens in its capsule. Whilst dealing with the question of capsules, I must not omit to mention Dr. Knapp's very ingenious and valuable suggestion that, in cases where we suspect the cataract to be somewhat immature, or to have ripened with unusual rapidity, we shall lessen chances of traumatic iritis from

irritative lenticular fragments by incising the capsule at its margin only, so that the soft lens-matter which remains after the nucleus has made its exit may rest within the shelter of its natural protector, to be dealt with at a subsequent period.

Any ophthalmic surgeon will, from time to time, have such a prolonged run of successful cases with a particular form of operation, that he may begin to persuade himself that the goal to which we all desire to attain is to be reached through that method only. But the tide will inevitably and relentlessly turn, and the favoured method will be found wanting. "'Tis not in mortals to command success, but we'll do more, Sempronius, we'll deserve it;" and, in my humble opinion, that operator is most likely to be most uniformly successful in restoring the priceless boon of sight, who keeps a firm hand upon the reins of his judgment, and uses his most matured judgment in adopting the particular form of operation which operative and clinical experience has proved to be most suitable for each individual case.

By following these principles, if failure should, in any unfortunate case, result in the loss of the first eye, we may go far towards ensuring success in the second; for we have then an opportunity of avoiding the hidden rock upon which we ourselves, or others, have struck, and so may ultimately guide the vessel safely into harbour.

With this end in view, it is impossible to overestimate the value of such meetings as our International Ophthalmic Congresses and those which are now regularly held at our newly fledged Ophthalmological Society, where the interchange of varied experience places us in the possession of ever-increasing facilities for bearing aid to suffering humanity.

CROUPOUS PNEUMONIA TREATED BY COLD SPONGING.

By O. BOWEN, M.R.C.S., Everton, Liverpool.

IN the JOURNAL for October 13th, there is reported fully, by Dr. Day, a case of croupous pneumonia in a child treated successfully by the cold bath. From its obscure nature, it was at first considered to be a case of typhoid fever, and that was partly the reason why cold water constituted part of the treatment, because it was immediately withheld when the physical signs of pneumonia could be detected.

In connection with Dr. Day's case, the following may be of interest. On October 22nd, I was called to a man, aged 21, who was perfectly well up to the previous afternoon, when he had a rigor, and almost immediately afterwards a pain in his right side. He was delirious, and had a dry brown tongue, and sordes on his teeth; the skin was hot and dry, and a slight pleuritic rub existed where he had complained of pain. I diagnosed "probably pneumonia," and ordered a diaphoretic mixture, a mustard poultice on his side, and a Dover's powder. In the evening his skin still felt hot and dry, and he remained delirious. His temperature was between 102° and 103°. I now told his wife to sponge his body and limbs with cold water, and to apply linseed poultices to the side, which had the effect of lessening the delirium, and making his skin act freely.

October 23rd.—He had had rather a restless night, wandered a good deal, was feverish, and, on auscultation over the base of the right lung, the breath-sounds were weak, but there was no crepitus.

October 24th.—There was fine crepitation, with scanty rusty expectoration. Temperature 103°. He was sponged well two or three times.

October 25th, 11.30 A.M.—Temperature 104°. The usual signs of consolidation were present, and there was delirium. Cold sponging was again recommended every hour, which had the effect of reducing the temperature in a few hours to 101.8°. He now expressed himself as feeling much better, and the delirium had ceased.

October 26th.—Redux crepitation was heard. Temperature 101.6°. It was improving.

October 29th. He had been steadily getting better. The temperature was normal. The breath-sounds were nearly normal.

The brief account of this case helps to prove that the external application of cold water in pneumonia, pure and simple, may be apparently fearlessly and beneficially resorted to. The good result from its use on the 25th was, to my mind, very marked.

MR. JOHN P. HOWARD, of Burlington, Vermont, has just given 40,000 dollars to build a new medical department at the University of Vermont. In ten years, Mr. Howard has given 400,000 dollars to this institution.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

THE MAGNET AND ELECTRO-MAGNET IN OPHTHALMIC SURGERY.

Read in the Section of Ophthalmology.

BY SIMEON SNELL, M.R.C.S.Eng.,
Ophthalmic Surgeon to the Sheffield General Infirmary, and to the Institution for the Blind.

WHEN honoured with the request that I should open with a paper a discussion on the use of the magnet in ophthalmic surgery, I felt some hesitancy in complying, as my little work (*The Electro-Magnet in Ophthalmic Surgery;* Churchill, London), embracing my experience, had so recently passed through my hands. Anything, therefore, I could bring before you, I had thus previously treated of, and in a much more complete manner than I could possibly hope to do in the time now at my disposal. It was, however, pointed out to me that the meetings of our Association took place, perhaps, more for the diffusion of ascertained experience and facts, than for the registration merely of novelties. Moreover, I was led to consent to read this paper from the knowledge that our meetings are attended by others than those engaged more especially in ophthalmic practice; for the treatment of the class of cases in which the magnet should find employment is, I conceive, as much, or nearly as much, a matter of importance to the general practitioner as to the specialist. As surgeons to large works, it is they to whom, in the first instance, those suffering from these injuries frequently apply; and to be used with success, in its widest meaning, the electro-magnet must be employed early. I may here remark that two of my own cases, before coming under my observation, had passed in rapid succession under the notice of the same medical man, to whom, following the usual course in accidents, they had been taken in his capacity of medical officer to the works.

In this paper, I can only treat of the subject before us in a very general way; and I hope, in this manner, by avoiding details and references to individual cases, to take a survey of the present state of the question in its whole range, which otherwise, in the time at my disposal, it would be impossible to do. It will be maintained that the introduction of the employment of magnetism into ophthalmic surgery has been a decided advance in the treatment of ocular injuries, by separating, and making more amenable to treatment, those particles on which the magnet exerts affinity.

The question we are discussing must be regarded as one of the *present;* a *past* can hardly be said to be connected with it; for, though the employment of the magnet was suggested and practised in the seventeenth, eighteenth, and earlier half of the present centuries,[1] yet it was so advocated only by a few operators, and its use was in the crudest manner, and with no definite ideas as to the means of arriving at the ends they had in view. It is only from the year 1874 that we date the employment of the magnet on anything like precise lines, and its holding a place in the *armamentaria* of the surgeon. To our distinguished associate, Dr. McKeown of Belfast, the meed of praise must be rendered for attracting attention to the usefulness of this procedure by a series of successful cases published by him at the date given. He employed a simple bar-magnet. It is, however, only with the construction of instruments, mostly electro-magnets, designed to treat chips of steel or iron of varying size and position, and with a greatly augmented attractive power, that the rapid increase in the recorded cases in which magnetism has been employed has occurred. This has especially been so during the last two or three years. In my little work, I have collected about one hundred cases, mostly recorded, but others communicated to me by the operators; but of this number about half have occurred in the hands of McKeown, Hirschberg, and myself; and, if my aggregate number is at present the largest, it arises from my practising in a town—"Steelopolis," as it is sometimes called—where accidents to the eye unfortunately abound, perhaps, more than elsewhere, and of which injuries those

[1] Fabricius Hildanus, 1646: Milles, 1745; Morgagni, 1779; Meyer of Minden, 1842; Dixon, 1858; White Cooper, 1859.

associated with a fragment of steel or iron in the interior of the globe are, comparatively, a large proportion.

McKeown showed by his cases what could be accomplished by a simple magnet. Gruening of New York devised a more complex, but still a simple magnet, made up of a series of cylinders, joined together at each end by a cap. An electro-magnet, however, possesses manifest advantages over the best designed simple magnet. I can only allude now to the greater power attained by such an instrument, with an extremity sufficiently small and convenient for employment in the interior of the eye, and to the manner in which an electro-magnet allows its extremity to be advanced up to a particle before the needle is rendered magnetic, and displacement of the chip, which might otherwise occur, is thus obviated. I shall not trouble you with any account of the electro-magnet I myself employ, as I fancy I have, on previous occasions (*Electro-Magnet in Ophthalmic Surgery*, Churchill, and in the BRITISH MEDICAL JOURNAL, 1881, vol. i, p. 843), said sufficient about it. I would merely observe that increased experience leads me to be well pleased with the suitability of the instrument for the cases we have to treat.

The practical advantages derived from being able to change at pleasure one needle for another, stouter or thinner, straight or curved, or, if the extremity be removed, being able to employ an electro-magnet of great force, are evident. Mention should here be made of the labours in this direction, also, of Hirschberg, Bradford, and McHardy. Hirschberg was probably the first adopter of an electro-magnet for ophthalmic purposes; but his first instrument, made in 1875, proved a failure. The electro-magnet he employs now he has made use of in several instances with success. From the labours of all these workers, the principles on which any electro-magnet to meet the ends we have in view should be based, are now well known. Except in my early experiments, I have employed exclusively an electro-magnet, and it is with experience derived from such an instrument that my remarks have almost entirely to do.

As to the situations of fragments, for which the magnet may be with advantage employed, it may be roughly stated to be likely to be of service in a very large proportion of chips of steel or iron located anywhere from the eyelids to the retina, or it may be in the orbital cavity itself. From the eyelids, I have derived aid by the electro-magnet in removing splinters; in the conjunctiva, however, it must be seldom, if ever, necessary or useful, and the same remark will apply to those particles in the outer part of the sclerotic; but, though I have never seen reason to use the magnet in this region, I can conceive there might be cases in which its use would be serviceable. From the cornea, generally speaking, the chips or "moats" so frequently met with are more easily and better removed by other means. These particles are mostly small, and, in addition, frequently have come from the surface of the metal (scale), and, being chemically altered by oxidation, are only indifferently acted upon by the magnet. There are, however, instances of fragments in the cornea, generally of appreciable size, where advantage will be derived from the use of the electro-magnet. A very good case of this kind has only recently occurred in my practice. McKeown, Griffith, Hirschberg, Bradford, Joy Jeffries, and others, have recorded cases of removal of the fragments to which we are alluding. Several cases are on record of the extraction of chips of steel or iron from the anterior chamber and from the iris. Hirschberg, McKeown, and Williams have related such cases. From the lens, I have myself removed seven fragments, and other such cases have occurred in the hands of other practitioners. It is, however, from the vitreous body that the removal of metallic splinters with the electro-magnet shows in the most marked manner its superiority over the older methods. Contrast for a moment the employment of an instrument capable not merely of seeking but of attracting particles of steel or iron, with the older searching of the interior of the eye with forceps, hooks, etc. Now, if the particle be visible, and it be not imbedded in the tunics, its removal is, in the very great majority of cases, a certainty. If it be hidden from view, extraction is more difficult, but mostly effected. I have removed chips in nine instances from this region. My first case, after the lapse of three years, still retains perfect sight $\frac{20}{20}$. From the retina, as far as I know, only one case has been recorded in which a fragment was removed; and in that, a case by Galezowski, complete preservation of sight resulted.

A few words now as to the mode of employing the electro-magnet. Time compels me to be brief. Generally speaking, it is used with the needle attached; there are cases, however, in which the electro-magnet may be usefully employed without the extremity. Rothmund and McHardy have both succeeded, by bringing near the eye a powerful electro-magnet, in causing a splinter to spring forward from the lens-capsule; and, in each case, removal was thus facilitated. If the injury be recent, it will often be well to make use of the original wound for the introduction of the needle of the electro-magnet into the eye. Should the wound be closed, the operator is left free, by making a fresh incision, to select a position the most convenient for removing the foreign body. In recent cases, it is also not unfrequently well to employ a fresh incision, in preference to the original wound, and this remark applies particularly to vitreous cases. With one exception, my lens-cases were treated by a fresh corneal section. The lens-capsule was then ruptured, and the needle of the magnet passed in; as much of the softened lens-matter as possible was removed, and the case subsequently treated almost as a cataract-extraction. The section was made above or below, just as the one or the other was more convenient. Fragments in the vitreous will differ in their treatment often, accordingly as the piece of steel or iron has passed through the cornea and lens, or entered through the sclerotic. In the former, the case would generally be treated by a corneal section, and, after allowing the cataractous lens to escape, passing the needle into the vitreous body; this method, of course, particularly applies to recent cases. In the second class of cases, the vitreous body would be entered through the sclerotic, either by means of the old wound, or, preferably, a fresh section. It is convenient to incise the sclera generally towards the equator, and Hirschberg has suggested the direction of the incision as being meridional. The importance also, in order to avoid peeling off of the fragment at the edge of the wound, of making the incision T-shaped, has been pointed out by Bradford; and I have practised it in my cases. This remark, of course, applies equally to the removal of fragments elsewhere.

It is a good plan to separate the conjunctiva a little distance in front of the intended seat of puncture of the sclera, forming in this manner a flap over the deeper wound. A suture in the conjunctival flap will obviate often the necessity of uniting the lips of the scleral wound. Some operators have magnetised their instruments, and employed them instead of the magnet. McHardy and Hirschberg have recorded cases of this kind. Dr. Lucien Howe of Buffalo (*Buffalo Medical and Surgical Journal*, March 1883, page 345) has quite recently adopted in this way an ingenious procedure. A foreign body was on the surface of the iris. He removed an iridectomy-knife from its handle, and screwed it into an electro-magnet (Frohlich's), incised with this the cornea, and the foreign body became adherent. It peeled off at the wound, and was afterwards removed with a piece of iris. The ingenuity of this procedure cannot be questioned. If, however, a peripheral corneal incision had been made, and the needle of the electro-magnet introduced, I fancy it would have been simpler and more satisfactory. I have never used magnetised instruments, as, with a variety of needles, always ready for adjustment, I have not felt the necessity or advantage of their employment.

Another use of the magnet must be mentioned. I allude to its value as a probe in recent doubtful cases, in which often the injury has been severe. I have adopted it in several cases; and, though I never detected a particle, whilst using the needle of the electro-magnet in this way, yet, on the other hand, in no instance that afterwards came to enucleation did I find a fragment, nor did the subsequent progress of other cases lead me to suppose a chip had been overlooked. Hirschberg has employed the electro-magnet as a probe with success in recent cases.

The total number of instances in which I have employed magnetism for the removal of fragments from all regions of the eye is twenty-one, or, including probing cases, fully twenty-nine. In one of these twenty-one, failure resulted with a simple bar-magnet; in the remaining twenty, the electro-magnet was exclusively used, and two cases were unsuccessful.

The early employment of the electro-magnet is in the highest degree essential to success, as regards both vision and the removal of the fragment. I have been enabled, however, to give particulars in my little work of a remarkable case kindly communicated to me by Professor Hirschberg, in which a splinter was successfully removed at the end of sixteen years. Burgl also mentions the extraction of a particle after the lapse of three years. The failures in my own cases are readily accounted for. In the first, a simple bar-magnet was employed. At the subsequent enucleation, the chip was noticed loose at the fundus. If the electro-magnet, such as I have since employed, had been used, I believe the fragment would have been removed. In the second case, an early examination appeared to conclusively negative the presence of a foreign body. Removal of the opaque lens in a few days was necessary. The needle of the electro-magnet was introduced. The battery was in

bad order, and gave the magnet hardly appreciable power; but, not expecting there was a fragment of steel, a battery in better condition was not substituted. The eye was later on excised, and a piece of steel was found sticking in the ciliary processes; and this impaction might have had an influence in preventing its removal, even had the battery and magnet been working satisfactorily, as will be seen from the next case. Here a mass of lymph in the vitreous body at its posterior part was thought to surround a piece of steel. After incising the sclerotic, the needle of the magnet was advanced up to this yellowish mass. Failure to remove the fragment of steel ensued; a larger needle was substituted with no better result. After excising the eyeball, the fragment of steel was found firmly imbedded in the optic disc, from which I believe it would have been impossible to remove it by any electro-magnet that one could introduce into the interior of the eye. Similar cases have been recorded by Hirschberg, Lloyd Owen, and Appleyard. It is evident, I think, that we must anticipate failure in cases of this kind where the fragment is firmly imbedded in the ocular tunics. From experiments, made in my early investigations on this subject, with fragments of steel and iron coated over with gelatine, and with others enclosed in gelatine capsules, I arrived at the conclusion that, "whatever effect the electro-magnet might have over pieces of metal slightly coated over, it does not seem likely for sufficient attraction to be exerted to drag a particle away from its adhesions." Experience has, I fancy, proved the accuracy of these surmises. It is possible for particles surrounded by lymph, which certainly reduces the effect of the instrument on them, to be removed by the electro-magnet, as has been abundantly shown; and, even with a measure of impaction, it is not impossible to achieve success, if the needle, or the magnet itself, can be introduced right up to the particle. With particles firmly fixed, as in the case I have related, a different result must be anticipated.

The foregoing observations complete as much as time permits me to say on the employment of the electro-magnet for the removal of metallic fragments. Let us turn our attention now to a different manner in which magnetism may be applied.

Fortunately, in many of the cases that come before us, the presence of a chip of steel or iron is readily made out. There are, however, other cases in which the diagnosis is beset with difficulties, and the uncertainty engendered destroys, it may be, the prospect of restoring vision, by postponing the employment of the magnet. There are cases again in which, though a foreign body is visible, its nature is uncertain, whether steel, or iron, or other substance. Does magnetism afford any help in these cases? Undoubtedly it does; and, whilst by no means asserting that we have reached finality in the construction of our electro-magnets, and their application to the removal of splinters from the eye, it is, I fancy, in the field of diagnosis that new light is wanted, towards the attainment of which our attention may well be directed. Knowledge gleaned in this direction must, it is certain, be of value.

Let us, then, consider briefly the help at present afforded us in diagnosis. Some have asserted that, on the contact or close proximity of a powerful electro-magnet to an eye containing a particle of steel or iron, a sense of discomfort or pain is noticed by the patient. I have had complaints of this nature, but I have seen sufficient only to regard this plan as a by no means certain aid to diagnosis.

If a magnet be approached to an eye containing a metallic splinter, its influence on the chip will often be noticeable. McKeown thus, by observing a supposed particle "quiver," learnt its nature, and Williams also ascertained that a fragment lying on the iris was steel and not stone. In one of my cases, several facts of interest and value were learnt after this manner. On approaching the sclerotic with the electro-magnet (needle not attached), a mass of lymph in the vitreous body, which was presumed to contain a fragment of steel, was noticed to spring about, and follow the magnet from point to point, and to recede on withdrawing the instrument. The experiment taught the following facts: 1. The presence of a foreign body and its nature; 2. That the adhesions around it were of the loosest character, and this notwithstanding its presence in the eye for six weeks; 3. Its removal was feasible. I may add that it was readily extracted with the needle of the electro-magnet through a sclerotic incision.

Taking for his principle that, if a fixed magnet attracts a movable piece of steel, a fixed piece of steel must attract a movable magnet. Dr. T. R. Pooley of New York made a series of experiments with a suspended magnet, to ascertain if by this means any help could be afforded in the diagnosis of particles of steel or iron. The suggestion was apparently new as far as ophthalmic surgery was concerned, but the employment of the magnetic needle had been suggested and adopted in general surgery by Smee, Aveling, and others. Sir B. Brodie, also, before the Royal Medical and Chirurgical Society in 1876, related the interesting and successful experiments on his son, who had a needle in his leg.

Pooley's trials were made on eyes excised and in those of live animals; but I cannot now refer further to them, nor to the conclusions at which he arrived, beyond saying that he believed the method enabled one to detect the presence of pieces of steel or iron in the eye. He believed, also, that the employment of the magnetic needle had a useful future before it in ophthalmic surgery. Pooley, moreover, alluded to the importance of magnetising the fragment, either by induction, or by passing a galvanic current through the eye; the results obtained in this way, as one would expect, being more marked.

Pagenstecher, after experiments of his own, was able to corroborate Pooley's conclusions. Alexander, on the other hand, only obtained a negative result in a case from which he afterwards removed a foreign body. McHardy also met with no better result; he states, however, that the failure, considering the smallness of the fragment and its depth from the surface in his case, would agree with Pooley's deductions. I should not omit to say that Pooley employed sewing and other fine needles, magnetised and suspended by a silk thread.

I have experimented in several cases with a suspended magnet, and I am disposed to think favourably of the aid its employment may afford. As at present used, improvements are needed in its application, but I shall allude to this again. In two of my cases, the action of the magnetic needle was unmistakable, and in one, its value in diagnosis was most marked. Permit me to refer briefly to this case. The man had been injured some days before coming under my care. A large scar was in the sclerotic, at its lower part, commencing just below the cornea. Suffice it further here to say that, in the condition of the eye, no foreign body was detected, and the account of the accident made the presence of a fragment of steel in the eye doubtful. It was looked upon as a "suspicious" case, and carefully watched. Some days later, after magnetising the chip, if there were one, by the apposition of the electro-magnet (without the needle), a very delicate suspended magnet was brought in front of the eye. The deflections of the needle were most distinct, and particularly marked in the region of the sclerotic wound. A piece of steel was understood thus to be situated in the interior of the eye, and to be located near the point of entrance. It is enough for my purpose to add that the needle of the electro-magnet was introduced into the vitreous body, and immediately the "click" was heard, and the fragment was detected close to the wound. The chip was, however, so large, that, though drawn to the wound, the opening was insufficient to allow the electro-magnet to remove it. It was seized with a pair of forceps and extracted. The chip measured half an inch by a quarter; it was thin, however, and weighed between two and three grains.

In other cases, the magnetic needle has only yielded a negative result. These were suspicious cases, but the subsequent progress of none of them led one to suppose that a metallic splinter had been overlooked. The importance of rendering any chip magnetic, in the manner before indicated, is of the highest moment. In one case, no deflection of the needle was evident, though I afterwards removed a piece of steel; but, if I recollect rightly, it was not previously magnetised. The suspended magnet is less likely to be useful in iron than in steel fragments, in consequence of the former readily parting with their magnetism. A large proportion of the particles met with are, however, steel of some kind.

My experience, on the whole, I think, tends to support Pooley in his conclusions. The needles I have employed have been of various kinds. Those I am at present using are particularly delicate. There are various matters to take into consideration in estimating the movements of the needle. The breath of the patient, or any jars or draughts, all produce their effects. These may be partly avoided, perhaps, by placing a mask over the patient's face. The necessity, also, of taking into account the earth's magnetism has been suggested; but this, I believe, will, in a measure, be overcome by placing the patient in the magnetic meridian. Our apparatus, at present, is only rough at the best; improvements can be made, and are much to be desired. It is a subject I conceive worthy of your attention.

Dr. McKEOWN (Belfast) thought the profession much indebted to Mr. Snell for the labour he had undertaken in collecting the cases

recorded of the use of the magnet in ophthalmic surgery. He did not purpose touching upon mere details, or discussing in any very close way the relative power of the magnets which had been brought under notice within the last few years. He rather proposed to deal with general principles, without a thorough knowledge of which magnets of every kind and every power would be used in vain. The cardinal points to bear in mind were that the most powerful magnet was a very weak instrument, that a magnet with a portative capacity of two or three hundredweight would not extract a small piece of metal through the most delicate membrane of the eye, or through a small layer of healthy vitreous body; that infinitely more depended on the skill of the surgeon, and a correct appreciation of the conditions under which the magnet might be used successfully, than on the more or less of power which the magnet might possess. Now, what were these conditions? It should never be forgotten that the eye was a very complex organ, comprising structures of very different kinds, and of varying degrees of consistence and of resistance. The vitreous body *par excellence* was the field for the magnet. Here was a structure easily broken up, and offering very slight resistance. Hence it was obvious, in case of a penetrating wound into the vitreous body through the sclerotic, with lodgment, or suspected lodgment, of steel or iron, the proper course to take was to introduce into the eye a pointed magnet through the broken-up vitreous body. So, in case of lodgment of a fragment in the iris, if the iris were not bound down, the iris, being a movable curtain, would be influenced by a magnet held outside the eye, thus affording clear demonstration. A body lying loosely upon the capsule of the lens would jump forward to the posterior surface of the cornea under magnetic influence, simply because the aqueous humour offered hardly more resistance than air to the passage of a small body through it. It was useless to attempt to extract metallic bodies well lodged in a hard lens, or in the cornea or sclerotic, simply because of their firm resisting structure. The magnet was useful when the lens was soft. He was sorry to have to refer to these fundamentals, but he considered it necessary to do so, to secure for the method introduced by him in 1873 the place which it merited. Too much should not be expected, and so disappointment would be avoided. Nothing so tended to bring any method of medical or surgical practice into disrepute, as vague language and exaggerated reports. A gentleman, who was probably present, had written, some time ago, in an extraordinary way. He stated that, in his inquiries at workshops, he had found it quite common for the workpeople, in case a comrade were struck on the eye with a piece of steel or iron, to approach a powerful magnet to the eye, with the common result that the metal left the eye. There was, therefore, no novelty, he said, in the use of the magnet in ophthalmic surgery. Had he stated that he had found that small particles, sticking very loosely on the surface of the cornea, were sometimes removed in this way, he would have conveyed a more accurate idea of the fact. Some cases were recorded long ago of the use of the magnet by surgeons, and by the wife of a surgeon; but they did not indicate any more knowledge of how a magnet should be used than that possessed by common workmen. They were only cases in which fragments of metal had been removed from the cornea, softened by suppuration. To compare or to classify together the cases of removal of particles loose in or on the cornea, with those of removal from the vitreous body, was simply trifling with the profession. The old use, and the new use, of the magnet had no more relation to each other than paring a nail and a capital operation. Since the publication of his (Dr. McKeown's) first case in the BRITISH MEDICAL JOURNAL, in 1874, and other cases in the *Dublin Medical Journal*, in 1876, no addition had been made to the knowledge of the general principles for which magnets should be used. So much novelty pertained to the procedure introduced by him, that it was years after his first case before anybody followed his example. The first case afterwards was that of Professor Hirschberg. Dr. McKeown exhibited the magnet which he used in his first case, and other permanent magnets which he used, and indicated a ready means of keeping these small magnets constantly saturated, and ready for use. He used a large horseshoe-magnet, with considerable space between the poles. The poles were notched at the ends for the reception of the ends of the small magnets. He recommended that the pointed ends should all be of the same polarity, and this was easily managed by having the same ends in contact with the same end of the horseshoe-magnet. In that way, there was no risk of imparting to a piece of steel in the eye a certain form of magnetism at one end, and then, on applying another magnet, repelling, instead of attracting, the fragment. As regarded electro-magnets, Professor Hirschberg was so good, on his request, as to send him one, but he found it little, if at all, more serviceable than his own permanent magnets. Mr. Snell's magnet was a very good one. It had certainly very great portative power for its size, and he would recommend every one wishing a good magnet to have one. Still, electro-magnets and batteries were not always to be depended upon, and immediately available; and he thought, for general practitioners, who saw many accidents immediately, the permanent magnets, arranged as he had suggested, more convenient, being always ready for use. He did not think that any further advance would be made in ophthalmic surgery by any mere increase in the power of the magnet. The way had to be made to the body, if not made by the wound, before the magnet would extract. The magnetic needle might yet render important service in ophthalmic surgery, as Mr. Snell had very properly observed. It was a very long time since this needle had been used in general surgery to indicate the location of steel needles embedded in the tissues. Mr. Snell's case, in which there was decided dipping, did not do anything to advance our knowledge. The fragment was about an inch long, but, in ophthalmic surgery, we had commonly to deal with particles of two or three grains in weight. When Mr. Snell, or any other person, made a needle of such delicacy, and laid down the method by which such needle would prove the presence of such small particles, they should all accord him the honour of having made a most important advance, and say nothing about the question of "novelty." It should be borne in mind, also, that the cases which gave most trouble in diagnosis and treatment were those in which the particles were lodged near or in the tunics, and these were precisely the cases in which the needle was most likely to be influenced. Altogether, he considered the work in this branch which had been done since 1873 most satisfactory.

Mr. CHARLES HIGGENS (London) asked in what percentage of eyes, where a foreign body had lodged in the vitreous body, sight, or a sightly eye, was preserved by the use of the magnet. Mr. Snell had stated that he had to excise some eyes after he had used the magnet; and it was well known that cases occurred in which foreign bodies remained within the eye without doing harm.

Mr. LLOYD OWEN (Birmingham) agreed with Dr. McKeown on the necessity for passing the magnet directly on to the piece of metal. It was by no means sufficient to pass the magnet into the neighbourhood of the piece of metal, because of the difficulty of drawing any body through the hyaloid tissue. If the vitreous body were broken up, the withdrawal was easy. In the Birmingham Eye Hospital, where a large number of eyes were admitted with pieces of metal impacted in the various structures, the electro-magnet, made upon Mr. Snell's pattern, was kept in readiness, and used in many cases with signal success. As to the propriety of trying the magnet in all suitable cases of pieces of metal in the eye, because in a few cases foreign bodies did remain in the eye, became coated with lymph and caused no trouble, the evidence gathered from a large number of cases was that, as the vast majority went on to suppuration, there could be no hesitation in using the magnet, with the chance of removing the body and possibly saving the eye from suppuration, even if sight were impaired. One case of failure in Mr. Owen's experience had been due to a small rugged projection of the piece of metal being imbedded in the sclerotic. The piece of metal lay visibly on the retina, and appeared to present a most favourable case for the use of the magnet. The firm attachment to the tunic, however, rendered all efforts futile.

Dr. EMRYS JONES (Manchester) mentioned a case of Dr. Samelson's, in which he assisted in the attempt to remove a foreign body from the interior of the eye; there was a large corneal wound and traumatic cataract; the point of the magnet was introduced and moved about in various directions without success. Enucleation was performed a fortnight later, and a very small chip of iron was found lying on the retina, close to the optic nerve.

Mr. MCHARDY (London) said that he had very little to add to what he had already published on this subject in the BRITISH MEDICAL JOURNAL and in the *Transactions of the Ophthalmological Society*. No practical worker in this matter could question the very great superiority of electro-magnets over permanent magnets for ophthalmological purposes. When a permanent magnet was required for any special purpose, it could be readily made by placing any steel instrument of convenient form and size in contact with the electro-magnet. In the only case in which he had successfully drawn a buried foreign body through a closed wound in the ocular envelope, he used an exceptionally powerful electro-magnet, which would lift seventy pounds. Such magnets were awkward to manage, but occasionally proved useful. He habitually used Bradford's electro-magnet, or one of very similar construction. Mr. Weiss had set up a similar electro-magnet, which, complete, with five polar ex-

tensions and a battery, cost fifty shillings. He had some of his polar extensions concave at the end, so as to minimise the chance of an attached foreign body being wiped off during withdrawal of the magnet. The foreign body was easily moved into the concavity by a wriggling movement of the pole prior to commencing its withdrawal. When an eye was seen immediately after it had been penetrated by a concealed piece of iron or steel, Mr. McHardy liked to magnetise the chip by induction, then to probe the wound with a suitable pole of the electro-magnet. If the wound had healed, then he believed the right course would usually be to allow blood to be absorbed from the vitreous body, and not to attempt extraction of the chip while matters remained quiet, and while there was no certainty of the presence of the chip and of its probable position; an attempt should then be made to reach it by introducing the pole of the magnet through a scleral section. He was no advocate for blindly probing with a magnetic pole the recently closed wounds by which chips had penetrated, for such wounds were necessarily most often in the front of the eye. Altogether, he could reckon eight eyes which he had saved by the use of magnetic instruments. The following was an interesting and obvious example. A fine splinter of steel, after entering through a minute and very oblique puncture, was lying with three parts of its length on the pupillary edge of the pupil. The chip measured 4½ millimètres by 1 millimètre. He magnetised it by induction; then a broad cutting needle was similarly magnetised. In this way, he had a cutting point and a foreign body which were mutually attractive. Thus prepared, he cut down immediately over the more peripheral extremity of the chip, without any fear of this receding from the point of his magnetised knife. Next, on introducing an electro-magnetic pole through his incision, the chip was instantly and successfully removed.

Mr. SNELL replied to various points raised by different speakers; and in connection with Dr. McKeown's remark as to the largeness of the fragment in the detection of which the magnetic needle had been of service, observed that elsewhere he had recorded an instance where, with a particle weighing less than half a grain, the suspended magnet was of use.

ON SOME KINDS OF ALBUMINOUS AND PURULENT URINE IN CHILDREN.

Read in the Section of Diseases of Children.

BY SAMUEL J. GEE, M.D., F.R.C.P.,
Physician to St. Bartholomew's Hospital, and to the Hospital for Children.

THE urine of children is sometimes found to be albuminous, purulent, or bloody, when there are no other reasons for suspecting disease of the urinary organs. Bloody urine seldom escapes notice. But purulent urine may be easily overlooked, especially in the case of babies who pass their urine into a napkin. And albuminous urine cannot be distinguished by the eye from healthy urine; so that it is a good rule to follow, to examine the urine of all children, even of the youngest, who are suffering from serious or obscure disease. And hereby the nature of an illness, which is otherwise inexplicable, sometimes becomes quite clear.

I will speak, first, of purulent urine; and, next, of spontaneous nephritis.

I. PURULENT URINE.—At the outset, let me exclude all cases in which the urine of little girls is rendered purulent by mixture with discharges from the vagina or pudendum.

Urine which is purulent within the bladder, becomes so in consequence of cystitis, pyelitis, or destructive ulceration of the kidney. I cannot recall an instance of an abscess having opened into the urinary passages of a child. Again, purulent urine is either a temporary or a chronic condition; and it is to the temporary form of the disease that I wish to call especial attention.

1. *Urine Purulent for a Short Time only.*—In cases of this kind, it is hard to say whether the mucous membrane of the bladder, or of the pelvis of the kidney, or of the whole urinary tract, is inflamed. Some children suffer from the symptoms of cystitis; that is to say, the urine is passed often, in small quantities, and with pain; but other children have no local symptoms of any kind. And cystitis, even when present, may be only a part of more extensive disease.

I will narrate two instances of this temporary purulent urine; one of which possesses the unusual interest of having been followed by a *post mortem* examination.

The little daughter of a well-known surgeon, a child aged nine months, brought up by hand, suddenly became very feverish and ailing. Asked to see her, I could discover no cause for these symptoms, until, after a few days had passed, the nurse noticed that the napkins were stained in an unusual manner. Some of the urine being saved, it was found to contain pus, and nothing unnatural besides pus. Micturition was painless, and not more frequent than usual. Her urine remained purulent for several weeks, and then she completely recovered; and, at this moment, when she is four years old, she is quite well; her urine is natural, and always has been so since that illness.

A girl, aged two years and a half, was admitted into the Hospital for Sick Children on account of an illness which began on July 4th, 1878, with fever and the signs of cystitis: that is to say, she suffered pain when she passed urine, which she did very frequently, so that she often wetted the bed. On July 15th, the day of admission, her condition was as follows. She looked very ill, and was febrile, with a temperature of 104°. She cried when she passed urine. The urine was pale yellow, alkaline, and slightly albuminous. It yielded a flocculent sediment, which constituted about a quarter of the whole; and which consisted of mucus and of corpuscles. The corpuscles were faintly granular, larger than ordinary pus-globules, and looked as if swollen with water. Each corpuscle contained a large and distinct nucleus; some corpuscles had two nuclei. There were no casts of renal tubuli. She was sounded, but no stone was felt. There were no other signs of definite disease. The fever continued until August 10th, and the temperature not seldom rose to 104°, sometimes nearly to 105°. After August 10th, it was natural for the most part, but, on three occasions, it rose for a day or two without obvious cause. On August 5th, the urine was still purulent; but there is no note after this date until September 2nd, when the urine was free from pus and albumen. On September 23rd, the urine was almost clear, and threw down hardly any sediment. On October 3rd, she went out, a very different child from what she was on admission, being quite well, fat and firm; the urine was natural.

Eighteen months afterwards, she was attending for bronchitis, and died in the out-patient room. Dr. Abercrombie made a *post mortem* examination, and I extract these details from his report. There were the signs of bronchitis and congestion of the lungs. A small cheesy nodule, of the size of a pea, lay in the lower lobe of the left lung. The tracheal glands were large and cheesy. The kidneys and ureters were natural. The bladder was dilated, the walls thin, the mucous membrane natural. All other parts were natural.

Concerning the treatment of these cases: a milk and farinaceous diet is to be advised. The drugs which I have found to be useful are two; namely, benzoate of ammonia, and pareira brava.

2. *Chronic Purulent Urine.*—When the urine remains purulent for more than a few weeks, the question of tubercular disease or of stone arises. How long a simple cystitis or pyelitis may last, I cannot say.

a. The best account of tubercular disease of the urinary organs is given by Mr. Thomas Smith in the eighth volume of *St. Bartholomew's Hospital Reports*. There is a good description of the morbid anatomy in Matthew Baillie's *Morbid Anatomy*, published at the end of the last century. (See *Works*, by Wardrop, 1825, vol. ii, pp. 244, 262.) In the eighth volume of the *Clinical Society's Transactions*, Mr. Humby has narrated an unusual case of perforation of the bladder by a tubercular ulcer. I agree with Mr. Smith that the disease commonly begins in the kidney. I once saw, at a *post mortem* examination, most extensive tubercular destruction of one kidney; and yet, during life, no albumen, pus, or blood had been found in the urine, although it had been examined many times. The kidney had been quite shut off from the urinary passages.

b. Stone in the kidney of a child sometimes seems to be latent, and to afford no signs besides purulent urine. In cases of this kind, I do not see how a diagnosis can be made. In other cases of stone in the kidney, the diagnosis becomes possible: when there are symptoms more or less like those of renal colic; when there are symptoms of stone in the bladder, and yet no stone can be discovered there; or when the kidney can be felt by deep pressure.

II. SPONTANEOUS NEPHRITIS.—Acute nephritis, not secondary to any discoverable disease, and not due to the operation of any known poison, is common enough in adults; and I believe that primary spontaneous nephritis is far from being uncommon in children. The question of latent scarlet fever always rises. But when acute nephritis occurs in a child who has never shown any signs of scarlet fever, who has not (so far as can be made out) been exposed to scarlet fever, and whose brothers and sisters, living in the same house, have not shown any signs of scarlet fever, I think that the burden of proof lies upon him who affirms that such nephritis must needs be scarlatinal.

This acute spontaneous nephritis is sometimes wholly latent. The child is ill, but affords no symptoms which draw attention to the kidneys. It is only when the urine is asked for and examined, as a matter of course, that the nature of the disease becomes apparent. The onset is sometimes attended by a high degree of fever, but this is not always so. Indeed, the temperature is sometimes never raised at all.

There is often no dropsy from beginning to end of the disease. On the other hand, the dropsy is sometimes great, and even causes death by hydrothorax and œdema of the lungs.

Vomiting may attend the onset of the nephritis. When the vomiting is frequently repeated, the case becomes serious. Sometimes the child is dangerously exhausted from want of food. I have known a little patient, suffering in this manner, whose life seemed to be saved by nutritious enemata. Again, incessant vomiting is dangerous when it causes much falling off in the quantity of urine secreted. Occasionally the vomiting is attended by diarrhœa.

In several adults, I have known an ordinary acute sore throat to be attended by profuse renal hæmaturia. The whole disease is short, lasting not more than a week or ten days. One of my patients suffered in this way twice. The same combination of disorders may happen in a child; I will narrate an instance. A boy, four years old, complained of his neck; his temperature was 102°; the next day he seemed well. On the morning of the third day he seemed well, and his urine was natural to the naked eye. In the evening of the same day his neck swelled again; his temperature was 101°, and his urine was highly bloody. On the fourth day his temperature was 103°; the left side of the neck, both in front of and behind the sterno-mastoid muscle, was much swollen; one large gland could be felt; the swelling was very tender, and he could not open his mouth, so that the state of his fauces remained unknown. The urine was scanty and very bloody; by the microscope were seen numerous blood-discs, leucocytes, and casts, large and small, more or less corpuscular; there was no dropsy. On the fifth day he was better; temperature 101°; the swelling of the neck was less; the tonsils were much swollen, and on the left was a small white excoriation. The urine was still very scanty, but hardly bloody, yellow-green in colour, very albuminous, turbid, containing casts, leucocytes, and a few red discs. For the next few days the character of the urine remained the same; the swelling of the neck and fauces gradually became less. On the tenth day, the right side of his neck was somewhat swollen. On the eleventh day, he was altogether better, the urine rather more abundant, and much less albuminous. On the twelfth day, the urine was much more abundant, and very slightly albuminous. In a day or two afterwards he was quite well. At the present time, more than six years afterwards, he remains in good health.

More or less drowsiness sometimes attends acute nephritis in children, whether they be febrile or not. In some cases the drowsiness amounts to coma, as in the following instance. A girl, aged 4 years, became unwell on March 24th, and her urine was found to contain many pyoid corpuscles, no casts, and not much albumen. On March 27th, she became febrile and drowsy. The fever continued, and the drowsiness increased. There were no vomiting and no convulsions; the pulse was regular; the pupils were natural; there were no physical signs of disease in the chest or belly. On March 30th, I saw her for the first time with Dr. R. M. Miller of Norwood, whose patient she was, the question being whether her drowsiness was due to disease of the brain or of the kidneys. I will now quote from a report which Dr. Miller kindly sent me. "On April 2nd, there was a most abundant discharge of kidney-casts with epithelium. She became more and more gravely unconscious and ill, and, on April 3rd, her pulse was 180, and temperature 106.8°; dry brown tongue, sordes; and she was quite unconscious. About three days later there was a little improvement, her temperature came down, and she took food better. On April 9th, there was a decided change for the better. She was not yet conscious, but when spoken to she moved her eyes from side to side. Up to the twenty-seventh day of illness, she never spoke a word. The pyoid corpuscles were absent from the urine for the first time on the twentieth day. After the fourth week she made a rapid convalescence." I may say that I have seen several other cases like this, but in none was the unconsciousness so deep.

Dr. CAMPBELL POPE (London), a few weeks ago, had under observation an infant, just under twelve months old, whose illness commenced with vomiting; and this having continued some days, drowsiness came on, and cerebral disease was suspected. On examination, however, of the urine, which had been difficult to obtain, it was found to be loaded with albumen and casts, and in a few days became profusely mixed with blood. There was no renal colic or other evidence of stone, and the urine remained albuminous in gradually decreasing quantity for about six weeks, when the child became well and the urine normal. There was no history of scarlatina, or any case of that disease in the house or neighbourhood, as far as could be ascertained, within a few weeks before or after the occurrence of this case.

Mr. R. W. PARKER (London) was glad to have heard Dr. Gee refer to the probable presence of stone in the kidney, without any other signs than pus in the urine. This absence of what in adults was considered one of the most characteristic signs—namely, renal pain—had frequently struck him. He briefly referred to the case of a girl who had been subject to periodical attacks of hæmaturia and pyuria. She had no renal colic, and even during the height of an attack only complained of a little uneasiness about her umbilicus. Thus it was impossible to say in which kidney the stone was present, although he had little doubt that stone was the cause of the mischief.

Dr. ASHBY (Manchester) was glad Dr. Gee had called attention to the importance of examining the urine in infants, a proceeding often neglected on account of the difficulty of saving it. The urine of infants was not unfrequently albuminous, both in general conditions of the body and in disease of the kidney, and doubtless also occasionally purulent. Dr. Ashby also agreed with Dr. Gee in his belief that acute nephritis, other than scarlatinal, occurred frequently in children. Recently, he had seen three such fatal cases; and it would be important to examine such kidneys microscopically, to see if such were cases of glomerulo-nephritis, as it had been stated by Friedländer and others that this condition was confined to scarlatina.

ON SOME POINTS CONNECTED WITH THE REPAIR OF FRACTURES.

Read in the Section of Pathology.

BY A. QUARRY SILCOCK, M.D., B.S., F.R.C.S.Eng.,
Pathologist to St. Mary's Hospital.

THE very diverse statements which have been and are still made with respect to the structure and pathology of the callus growth which invests the seat of fracture of bones, both of men and the lower animals, induces me to lay before you these specimens, together with the following facts and conclusions for consideration.

First of all, let me call your attention to the typical process of repair in a simple fracture of a bone, the fractured surfaces of which are in perfect apposition, and so retained with complete immobility, either naturally, as in a fissured fracture of the skull, or by the aid of appropriately applied apparatus. The most noteworthy fact in connection with this class of cases is that there is very little new material or callus to be found connecting the fragments. Indeed, Sir James Paget writes (*Lectures on Surgical Pathology*, 4th edition, page 180): "When portions of bone are placed and held in exact apposition, they may be united without any new material being formed for their connection; a continuity of tissues being restored, as in the cases of healing by immediate union of soft parts."

Now, although such a notion of the mode of healing in bones is to me inconceivable, there can be no doubt that, for example, in the case of fissure of the bones of the skull, the amount of new material, or provisional callus, as it is called, which is thrown out, is extremely slight, and often imperceptible. If, however, perfect immobility be not secured, callus is thrown out to an extent more or less proportionate to the amount of mobility and displacement of the fragments; and so disposed, as a rule, that it is found in greatest abundance where support is most required. For instance, in all cases of angular displacement of fractures of long bones, the largest amount of callus is situated in the concavity of the fracture, whereas comparatively little is observable on the convexity. The explanation of such a disposition of the new material, not at first sight obvious, may, perhaps, be sought in the fact that the periosteum with its vessels is less stretched and torn on the concave side of the bend than on the convexity, whilst, at the same time, in the former case, it is more widely separated from the bone; again, the compression of the surrounding parts, tendons, muscles, fasciæ, etc.

would certainly, for a time, be greater over the more salient points of the fracture, and probably less than natural in the bend itself, so influencing the deposition of the callous growth, which one would reasonably expect to be most luxuriant in the direction of least resistance. Then, as to the structure of the callus in such cases: at an early period, it consists of a small-celled tissue, which, later on, tends to develop into more or less perfect fibrous tissue and cartilage (usually in the form of fibro-cartilage), finally becoming partly ossified and partly calcified. The presence of a cartilaginous callus has been much debated; some pathologists (Fœrster, for instance) asserting that they have never seen such in man; others, that whilst it is found in children and animals, it rarely occurs in the case of adults; some, again, that a cartilaginous tissue is always present to some extent. Mr. Greig Smith writes: "In the specimens which I have examined, the part played by callus-cartilage in repair was almost ridiculously small;" again, "I do not argue that this callus-cartilage in the lower animals is not a new growth specially provided for the purposes of fracture-repair. All I would maintain is that I have seen nothing to show that it is such in man."[1] In the specimens of the ribs and the ulna before you, the presence of abundant formation of cartilage in the callus is obvious to the naked eye, chiefly, it is true, in the form of fibro-cartilage, but still showing tendencies towards a more perfect type of cartilaginous structure. In several specimens in the College of Surgeons', and other museums, in which there is a considerable degree of displacement of the fragments, so involving much mobility, probably, masses of cartilage are imbedded in the fibrous tissue of the callus. In this case of ununited fracture of the humerus, which exhibits an almost perfect—if I may use such an expression—false joint, the fractured surfaces are covered with a layer of hyaline cartilage, which is thicker towards the periphery of the joint, that is, in the parts nearest to the periosteum. In another case, also a fracture of the humerus, with a less completely finished false joint, in St. Mary's Hospital Museum, fibro-cartilage was discovered in the callus around the joint, but none over the fractured ends. In animals, cartilaginous callus is, I believe, invariable, except in the case of compound fractures.

It would appear that the amount of callus-cartilage produced is in direct proportion to the amount of mobility and displacement between the fragments; the process of healing stretching over a long period, and the parts involved being exposed to prolonged and continuous irritation. Thus it is that an abundant formation of cartilage takes place in the case of animals, perfect immobility being exceedingly difficult to secure. In the case of the ribs (and these are not peculiar, for I think that a cartilaginous callus is invariable in fracture of ribs), the application of the explanation is obvious; and in that of the forearm, no splints had been applied, or other treatment adopted. As to the practical utility of this cartilage-callus, it is manifest that it constitutes a far more efficient splint than would slowly organising fibrous tissue, clasping the fragments together until ossification has had time to spread through it. I do not assert that the presence of cartilage is necessary or essential, but that the significance of its presence lies in the fact that it is found in the class of cases which I have described, where strength and toughness of the callus is required; so that it does seem to me to be a "new growth specially provided for the purposes of fracture-repair;"[2] and here, of course, I join issue with Mr. Greig Smith.

The layer of hyaline cartilage which overlays the fractured ends of the bone in the case of the false joint of the humerus which I show you, and in other like cases, is remarkable. It is a perfect example of the adaptation of structure to the ends it subserves, and is, I imagine, to be regarded pathologically in the same light as the cartilage-formation in the callus-rings of the ribs; that is, as a concomitant of the mobility and irritation to which the parts must have been subjected, though differing therefrom in function or utility. The cartilage, and the callus generally, is chiefly derived from the cell-proliferation of the periosteum around the seat of fracture, but there is no doubt that the medulla is capable of producing it, for specimens exist in which the cavity of the latter is plugged by a mass of cartilage. It is interesting to note, in connection with these considerations, that Kassowitz has described cartilaginous development as preliminary to ossification, in connection with the subperiosteal tissues of some bones which may be said to have an intramembranous origin; this is the case with the clavicle, the ends of which are found to be cartilaginous prior to its complete ossification; also with the symphysis, and the articular and coronoid processes of the halves of the lower jaw. He has also described like developments at the tuberosity of the radius and spine of the scapula; in fine, if one may draw the conclusion, that a cartilaginous basis is formed as a preliminary to ossification in those situations where a stronger and more durable support is required than would be supplied by young connective tissues.

We may foresee the future of the callus in the specimens before you; it is, to a large extent, ossified, especially in the case of the ribs. In the microscopical sections of the growing radius; a good opportunity is afforded of contrasting the natural process of growth with that of healing in the same bone. One is struck, I think, rather by the resemblances between the two processes than by their differences, though the ossification proceeds with far less regularity and definition in the latter than in the former case.

My friend Mr. Shattock, however, who examined the microscopical sections, pointed out to me the fact, and I completely agree with him, that in the specimens of the radius the cartilage-cells appear to flatten out and assume the characters of bone-corpuscles, whilst the cartilage-matrix is becoming at the same time calcified, a process exactly akin to that described by Kölliker as occurring in the formation of rickety bone—that a spurious kind of bone is, in fact, developed in the callus of the specimens. This, if it be generally true, would constitute a specific difference between the process of natural ossification and that of fracture-repair. It is right, however, to state that the radius and ulna are both to a slight extent rickety, and therefore no general conclusions in this respect can be drawn from them.

I must apologise for the incoherency and inadequacy of this short paper; but the specimens before you seemed especially to illustrate the points I have touched upon, and I trust its deficiences may be excused. (The specimens were from St. Mary's Museum.)

Dr. COATS (Glasgow) said he was pleased to hear the paper of Dr. Silcock, as he also had found cartilage in the callus of fractured ribs. He adverted to the fact that, in the fractures of animals, cartilage was regarded as a regular constituent. This illustrated a somewhat important matter, namely, the virtual identity of cartilage, bone, and connective tissue. The processes in connection with union of fractures were inflammatory in character, the most immediate product being granulation-tissue. It depended on circumstances whether this fundamental tissue developed one permanent tissue or another. If the parts were kept perfectly at rest, then bone formed; with a less degree of rest, cartilage; and with very imperfect rest, fibrous tissue, as in ununited fractures. Taking this view of it, the exact significance of the cartilage was not exactly that of the provisional cartilage of a growing bone, that is to say it was not produced with the view merely of forming bone. It seemed rather to be a tissue, intermediate in rigidity between bone and fibrous tissue, which developed when the parts were not sufficiently rigid to allow bone to develop. This did not exclude the development of bone out of the cartilage, which Dr. Coats had actually observed, but this was only occasional, and not necessary.

Dr. CHARTERS SYMONDS (London) mentioned that, in examining a specimen of uniting fracture of the neck of the femur, he had found a large amount of cartilage occurring in the newly-formed material. The age of the patient being seventy-eight, the occurrence was considered the more remarkable, and appeared to represent a stage in the formation of the permanent bone. As indicating that not alone in the inflammatory processes attending the union of fractures was cartilage produced, he mentioned that he had also found hyaline cartilage in a specimen of new bone, forming from inflamed periosteum over a necrosing femur. Cornil and Ranvier stated that the reason that cartilage had been overlooked in the material uniting fractures, was the fact that compound fractures had been chiefly examined, these authors describing cartilage as a constant factor in the reparative material found in fractures. The part played by cartilage in these inflammatory and reparative processes seemed to require further investigation.

Dr. SILCOCK said, in reply to Dr. Coats, that he did not regard the cartilage in the callus as a tissue especially provided for, or essential to, the process of ossification of the callus material, but only in the manner set forth in the paper. He explained the divergencies of opinion amongst pathologists with respect to the presence of cartilage in the callus, by observing that, in many instances, general conclusions had hastily been drawn from the examination of, perhaps, one or two specimens only, and by the fact that opportunities of examining simple fractures in man in process of repair but seldom occurred.

[1] "Histology of Fracture-Repair in Man," *Journal of Anatomy and Physiology*, vol. xvi, pp. 187 and 188.
[2] Greig Smith, *op. cit.*

THE QUESTION OF PROFESSIONAL REMUNERATION.[1]

(ARGUMENTUM AD CRUMENAM MEDICAM.)

BY W. BOYD MUSHET, M.B., AND M.R.C.P.Lond.,

Honorary Consulting Physician to the Liverpool Mariners' Home, etc.

THE topic which I venture to introduce possesses paramount interest, wider and more pressing than researches on a questionable bacillus, or esoteric discussion of pathological problems. Yet I approach it with diffidence—spite of its overwhelming importance to the profession—from distrust of my own competency to emphasise with sufficient stress inveterate enormities and abuses.

It is indisputably affirmed that our endeavours should be directed to promote the welfare of humanity. I acquiesce in this proposition, with the proviso, as it is invariably admitted charity commences at home, that our primary efforts should be devoted to the amelioration of our medical fellow mortals.

Sometime since the question of fees was prominently debated by a layman, who adopted the ambiguous soubriquet of "An Overwrought Patient." I leave this person to decide his individual differences with his medical attendants, and proceed to the consideration of unpaid medical services, of ill-paid medical services, and of patients who habitually defraud the doctor. Notwithstanding the chivalric sentiments expressed in introductory lectures, that we *must* live (vivendum est nobis) may be accepted as an axiom, the pertinency of which is not contested, even by those who, if they become ill, do not pay.

It is proverbial that "nobody pays the doctor." This humiliating stigma has arisen from our chronically unpaid and scantily paid public services. The claims of the lawyer, parson, architect, or engineer are not disputed, because they never work gratuitously. The time has arrived when the profession must permanently unite to wrestle with this hydra-headed python, until every ill-paid, every gratuitous medical appointment be abolished, whether it be to the largest hospital or to the remotest parish. No one attempts to secure the services of a barrister without payment, and almost all the lawyers and secretaries (whose posts are nearly sinecures) of charitable institutions are remunerated. Yet, during last year, 1882, fifty-eight vacancies were advertised (see list) in the *Lancet*, of which twenty-four were for physicians, twenty-three for surgeons, and eleven for obstetric physicians to metropolitan and provincial charities. Of course, all these vacant offices (with the exception of physician to out-patients at Wolverhampton and Staffordshire General Hospital, honorarium £100) were unsalaried, forty-five of which occurred in London at general and special hospitals and public dispensaries. All these institutions must have an efficient medical staff; but, as I have on former occasions pointed out, that hospitals, infirmaries, dispensaries, reformatories, refuges, cottage-hospitals, and convalescent homes should be officered *gratuitously:* that the Local Government Board should obtain the services of qualified men almost for nought, depends on our own apathy and obsequiousness. There is nothing objectionable in attendance on club-patients who are unable to afford a higher scale of payment; nothing more meritorious than to render gratuitous service when warrantable. But to undertake hospital and parochial appointments for nothing, or next to nothing, and to submit, in addition, to the insulting arrogance of the British governor and guardian, can be no longer tolerated.

Again, evidence should not be rendered in courts judicial, before magistrates or others, unless paid for. If this were a matter of custom, the authorities would soon capitulate.

Information should never be given to a surly coroner, or testimony regarding lunatics, orally or by certificate, without sufficient fee.

It ought to be the law that every man, needy or otherwise, requiring a doctor in an emergency, should be able to procure one, without quibble, through the police; on the understanding that, if the patient do not pay, the charges of the medical attendant are to be defrayed by the State, or from the consolidated or county fund. If the sick poor be neglected, guardians or relieving officers should be punished.

The profession is equally scandalised by the disgraceful proceedings at Guy's Hospital, and the refusal to pay for a fracture in an obscure union of Cambridgeshire. Such events would be alike impossible were we peremptorily united, and undeviatingly true to our own interests and honour. A position or incident which elevates a particular member tends to ennoble the whole profession. Any act or circumstance which degrades a member, tends to lower our entire body.

Not a shadow of argument can be adduced why all the medical services adverted to cannot be as well, if not better, performed when properly remunerated, as when insufficiently paid for or gratuitous. The continuance of present grievances is due to professional supineness and pusillanimity. The medical renegade who accepts or retains any honorary or badly paid appointment ought to be, if I may use the term, henceforth "boycotted." All such appointments should be resigned on a given day.

> "So may a thousand actions, once afoot,
> End in one purpose, and be all well borne
> Without defeat."—*Henry V.*

To turn to private practice. At some time or other, not any of our fellow-citizens can do without us, and even poor old Voltaire must have recanted his cynicisms on doctors before death. Patients are most grateful, if at all grateful, at the period of recovery. If payment be deferred, the adage widely rules—"Præmia cum poscit medicus, Sathan est."

Medical men in watering-places especially suffer from loss of fees, on account of the large number of visitors, who often disappear, and leave not a wrack behind. To meet this abuse, a "black list" should be compiled, and the "names of the defaulters published in the medical journals"—to quote a young F.R.C.P. in the BRITISH MEDICAL JOURNAL—if such publicity be not illegal. On this point, it may be desirable to seek the opinion of counsel. When a defaulter decamps, an account might be sent to the registrar (if such an one will volunteer), and the name published in the journal, with a description of the debtor. The registrar could also be referred to when a suspicious character enters a neighbourhood. Special information might be obtained by writing, with necessary stamps, to the list-keeper. If the correspondence proved extensive, a small payment might be advisable, or a percentage on the money recovered. To such a mutual protection society all medical practitioners—hospital, dispensary, parochial, and private—should belong, as it concerns every rank and grade of the profession. Opinion may be divided as to the mode of organisation, but it must embrace all England. To the professional man and his family, this question is infinitely more important than that of titular distinctions, medical advertising, or schemes of medical reform.

I conclude this brief paper by proposing the following resolutions:

"The British Medical Association universally and absolutely condemns the acceptance and tenure of all *gratuitous* medical appointments, whether to general, special, home or cottage hospital, dispensary, infirmary, convalescent home, or other institution. It resolves that a permanent committee be appointed to accomplish their speedy and utter abolition.

"That the same committee report on the inadequacy of the salaries of medical officers in the service of the Local Government Board, and devise prompt and energetic measures for equitable payment.

"That the committee also determine a scheme to ascertain and register a list of defaulting patients throughout the country."

[These resolutions, the last on the agenda, were submitted at the annual meeting of the British Medical Association in Liverpool, at twenty minutes before midnight, after the meeting had virtually broken up, impatient from protracted consideration of the by-laws. I was scarcely permitted to read my paper. The motion was seconded; instantly, without discussion, put to the vote, and declared to be lost, amid confused cries and general disturbance, which the President endeavoured in vain to control.—W. B. M.]

[1] Read at the Annual General Meeting in Liverpool on July 31st, 1883.

MEDICAL MAGISTRATE.—Mr. Herbert M. Morgan has been appointed a Justice of the Peace for the City of Lichfield.

DEATH FROM VACCINATION.—An inquest was held recently at Cornard, Sudbury, Suffolk, on the body of an infant aged eighteen weeks, who died shortly after being vaccinated. The medical certificate attributed death to erysipelas. The deceased and another child were vaccinated from an infant at Cornard, and all three died. Dr. Mason, the operator, stated that the lymph was procured from a healthy child at Sudbury, and was used for other children successfully. The grandfather of the infant from whom the lymph was taken suffered from erysipelas; and the witness believed the child caught the infection, which was communicated to the other deceased children by vaccination. A verdict was returned, "That the deceased died from erysipelas, conveyed by vaccination from a person suffering from erysipelas."

SOME POINTS IN THE TREATMENT OF THE SEVERER FORMS OF CONSTIPATION AND OF INTESTINAL OBSTRUCTION.[1]

By JAMES SAWYER, M.D.Lond., F.R.C.P.,
Senior Physician to the Queen's Hospital, and Professor of Therapeutics in Queen's College, Birmingham.

I PURPOSE to make some remarks on some points in the treatment of the severer forms of constipation and of intestinal obstruction. I venture to do so, because the subject of fæcal retention and occlusions of the bowels is a practical topic of the greatest importance to us, as medical and surgical practitioners; because the details upon which I shall touch have especially and long engaged my attention as a physician; and because I hope I may be fortunate enough to lead the way to a discussion from which we may all reap substantial profit. It is not my intention to attempt anything like a complete examination of the whole question of constipation and intestinal obstruction. The subject, if treated systematically, could not be dealt with, even in a cursory manner, within the limits of the time at my disposal. You know that the literature of the subject is very extensive, that it reaches back to the earliest records of medicine, and that I could not give a summary of it within the compass of a readable paper; you know that intestinal lesions, and especially those pathological changes which tend to fæcal obstruction and intestinal closure, have shared in being the objects of the analytical precision which is the leading note of the medicine of our century, and that I could not recount these details within a single sitting of our Society. Keeping to what is practical in the pathology, and practicable in the treatment, of some of the commoner forms of constipation and intestinal obstruction, as I have met with them in my own reading and clinical experience, I propose to ask you to consider with me the progress of our art in one of the most important and most striking departments of its usefulness.

We must avoid a common confusion of terms in the use of the familiar words, constipation and intestinal obstruction. It is not strictly accurate to speak of intestinal obstruction, as some writers have done, as an exaggerated, an ultimate, form of constipation. It is quite true, that some of the worst and most fatal forms of intestinal obstruction are usually long marked by a prodromal constipation, as, for example, cancerous constrictions of the larger intestine. But the phrases, constipation and intestinal obstruction, when properly understood, do not merely mark different degrees of a similar result. They apply to different extents of the intestinal tube. Constipation concerns the large intestine only; intestinal obstruction, the whole of the intestines, small as well as large. Constipation is slow fæcal progress in the large intestine, where alone true fæces are to be found. Intestinal obstruction is a grave disturbance of intestinal permeability, in any part of the intestinal canal; it is practical impermeability of the intestines to the passage of their contents, either in the large or in the small intestine, in any part of the bowel, from pylorus to anus. "Constipation is essentially slow progress of the fæculent mass from the cæcum to the anus."[2] It is this, and nothing more than this, so far as the mere position of the difficulty concerns us; albeit the pathological causes of constipation, when organic, and when such as narrow the lumen of the bowel, are apt, in their extremer developments, to determine intestinal occlusion.

The manifold errors of habits, of effort, and of diet, which tend to constipation, are well recognised by our profession. In the discovery of some of these, and in their timely and persistent rectification, we can cure, without drugs, many of the slighter forms of fæcal retention. We should make quite sure that we exhaust these measures in the treatment of every case of habitual constipation. In the slighter cases, such non-medicinal treatment is usually sufficient for a good result; in severer cases, when drugs and instrumental aid cannot be avoided, all that well-ordered habits, well-directed efforts, and well-chosen diet can do, should be regarded as the indispensable adjuvant of a more direct therapeusis.

Our pharmacopœias, official, non-official, and popular, are richer in purgatives than in remedies of any other class. I must not digress into a comparison of the relative value of our cathartic drugs, although the subject is a very tempting one. The practitioners of rational medicine have accumulated a vast store of precise and valuable information concerning the actions of purgative medicines, and this important branch of therapeutics is still growing. Each of us has his favourite cathartics; if we have tried their adoption well, we should not lightly change them. For cases of habitual constipation which do not yield without drugs, my favourite remedy is socotrine aloes. I have litttle faith in belladonna, and none in nux vomica. Aloes is especially useful in the fæcal sluggishness of sedentary persons. Properly given, the drug may be taken daily for years, without either losing its aperient efficiency, or producing any but the best results. I give one, two, or three grains of socotrine aloes in a pill, combined with a quarter of a grain of sulphate of iron, and one grain of extract of hyoscyamus, at bedtime every night.[3] I find out, in each case, the exact quantity of aloes required to produce one full alvine evacuation after the morning meal. In this combination, the quantity of aloes will need readjustment from time to time, usually in the direction of reduction.[4] I shall mention only one other drug for the class of cases I am now considering, namely, the American cascara sagrada. From my former experience of so-called new drugs, I have learned to employ such preparations with much caution, and to recommend them with more. But I now venture to state that I have used cascara sagrada in two or three cases of severe habitual constipation with marked success. I have given from fifteen to thirty minims of the American liquor, thrice daily, adapting the dose by the result, and endeavouring to secure one, or at most two dejections, in each twenty-four hours.

The ordinary symptoms of extreme fæcal retention are well known. Our experience, in the main, justifies us in expecting that such symptoms shall be acute, or at least subacute, in their urgency and duration, and that they shall be associated with complete temporary absence of alvine dejections, or at least with very obvious insufficiency of such evacuations, both in quantity and frequency. But we shall fall into error sometimes, if we expect considerable fæcal retention always to be marked in this way. Of exceptional forms of extreme fæcal retention, I have met with two distinct varieties. In both, the process of accumulation has been slow; but in one, the graver signs of intestinal obstruction have at last become urgently and rapidly developed, as it were, as a climax; while, in the other, and rarer form of slowly developed fæcal retention, the condition has been chronic throughout, and the disorder has not perhaps been recognised until after a belly, only distended by a dilated colon filled with fæces, has been regarded as the seat of a huge tumour, the nature of which has been variously interpreted. I have known the extremest fæcal retention, filling the belly, encroaching on the thorax, and displacing the liver, lungs, and heart, presenting itself as a chronic condition, lasting for many years. Let me quote, very briefly, an extreme and very instructive instance of this kind from my note-book.

In the year 1871, a medical friend sent a case to me at the Queen's Hospital as one of obscure abdominal tumour, which had long resisted treatment at two neighbouring charities, and about the nature of which he was in doubt, and desired my opinion. I found the patient a pale ill-developed girl, aged 14. Her mother stated that, when the child was only two years of age, it was noticed that there was some enlargement of her belly. The child's bowels had habitually been confined, a week or more often elapsing without the passage of a motion. The evacuations had generally consisted of small portions of hardened fæces; but, from time to time, frequent and scanty liquid stools were passed. The quantity of urine appeared to have been normal; the appetite poor and capricious. The abdominal enlargement had gradually increased up to the time of the patient's application to me. I at once admitted the girl as an in-patient. I found she complained of occasional griping pains in the belly. She had never had any vomiting. Her motions were small in quantity and very watery. The tongue was clean. There was no pyrexia. The body was fairly nourished. The abdomen was generally enlarged, and the lower part of the thorax expanded. The

[1] A paper read before the Birmingham and Midland Counties Branch.

[2] This sentence is quoted from a clinical lecture on "Retention of Fæces," by Dr. Matthews Duncan, published in the *Medical Times and Gazette*, November 4th, 1879.

[3] We are indebted to that veteran therapeutist, the late Sir Robert Christison, for the valuable suggestion of combining iron with aloes when we use aloes as a laxative. Neligan, in reference to the use of aloes in habitual constipation, wrote: "Christison states that the cathartic property of aloes is much increased by its combination with sulphate of iron, and that its irritating action on the rectum is counteracted by combining it with the extract of hyoscyamus, both of which statements my experience fully confirms."—Neligan's *Medicines*, edited by Macnamara, sixth edition, page 130.

[4] I was led to adopt this combination of aloes and iron in the treatment of habitual constipation, by reading a paper by the Rev. David Bell, M.D., which was published in the BRITISH MEDICAL JOURNAL, November 5th, 1870, entitled, "Remarks on the Beneficial Effects of Combining Tonics with Aperients in Chronic Constipation." Dr. Bell stated in this paper that he had tried various combinations of drugs in the treatment of constipation, and had come to the conclusion that the best formula was the following. ℞ aloes socotrinæ, extracti hyoscyami, *ăă* gr. x ij; quiniæ disulphatis, gr. vj; ferri sulphatis gr. iv. To be well mixed and divided into twelve pills. Dr. Bell has found these pills to produce uniformly good results without inconvenience.

superficial veins of the abdomen were slightly enlarged. A solid tumour could be felt to occupy the whole of the right side of the abdomen; it had no distinct margin above, and reached laterally about two inches to the left of the middle line; below, the edge of the hand could be readily passed between the tumour and the pelvis. The tumour was uniformly dull on percussion; palpation gave the impression of a doughy consistence, and firm and sustained pressure with the tip of a finger upon the mass produced a depression which lasted for some minutes after the finger was withdrawn. The heart was displaced upwards considerably; its apex was found to strike the chest-wall at a point one inch and a half above, and one inch to the inner side of, the left nipple. The circumference of the abdomen at the umbilicus was thirty-one inches. The rectum was found to be largely distended, and filled with hardened fæces. The patient was ordered a pill, consisting of a grain and a half of socotrine aloes and half a grain of extract of hyoscyamus and a third of a grain of extract of nux vomica, to be taken with a drachm of sulphate of magnesia in one ounce of infusion of roses, thrice daily. An enema of cold water and table-salt was given night and morning. Before the administration of the first enema, I freely broke up the contents of the rectum with my forefinger and the handle of a large table-spoon, and I removed a very large quantity of hardened fæces, together with three plum-stones. On the following day, two chamber-pots were literally filled to the brim with pultaceous fæces, and the abdomen was found markedly diminished in size. On the next day, two chamber-potfuls of fæces followed the morning injection. On the following day, three copious motions were passed. On the next day, there were two free actions of the bowels, and it was noticed that the abdomen was smaller and softer, and that the heart's impulse had fallen to the level of the left nipple. In three days more, the enemata were finally discontinued. Careful physical exploration failed to find any abnormal signs in the abdomen. Faradisation was ordered to be gently applied to the abdominal muscles daily. From this time the patient did well, without interruption, and was discharged fourteen days after her admission. She attended a short time as an out-patient, taking steel and aloetic purgatives, and remained well, without any fæcal reaccumulation.

In this case, you will notice that extreme fæcal retention, sufficient to displace the heart into the infraclavicular region, to distend the superficial veins, and to form a very large abdominal tumour, was unattended by vomiting, scanty urine, abdominal tenderness, or other local disturbance than "occasional griping pain in the belly." You will notice, too, the record of an important point in diagnosis. A large portion of the patient's abdominal cavity was obviously occupied by some solid mass. I had to decide upon the nature of the abnormality. I found that firm and sustained pressure with the fingers over the tumour produced a depression in its mass which lasted for some minutes after the pressure was withdrawn. This very exceptional physical sign is almost absolutely diagnostic of considerable fæcal accumulation. The successful progress of the case illustrates, also, the value of using together a variety of therapeutic measures. In the treatment of fæcal retention, the best results are only obtainable by the adoption of a well-considered combination of remedial resources. I did not rely on only one method of emptying the distended intestine. I broke up and dug out all the excrement I could reach through the anus, and I kept up the concurrent and continued use of aloetic purgatives, enemata, and faradisation.

I am afraid our profession does not adequately appreciate the immense advantages to be derived in the treatment of many of the severer forms of constipation and intestinal obstruction from the efficient use of the enema. In France, I understand the enema is the routine domestic aperient. We do these things better in England. The custom of relieving slight constipation by an immediate resort to an enema has never become popular on this side of the Channel, and it is well it is so. My experience has led me to discountenance decidedly the systematic use of rectal injections in the ordinary domestic treatment of the slighter forms of fæcal sluggishness. Such cases may be treated better, and especially with less tendency to chronicity, by other means. On the other hand, however, in the severer forms of fæcal retention, we ought always to use aperient enemata, and we must take care we use them efficiently. In persons past the meridian of life, and especially in persons of sedentary habits, what may be called simple fæcal retention is a very frequent form of constipation. In such persons, this form of constipation is relatively very frequent, both as compared with other varieties of constipation, and also as compared with the same form of constipation at other times of life, and in individuals of other habits. In such persons, coprostasis (a good old name for fæcal stagnation) is especially apt to produce complete intestinal obstruction. It is in these cases, especially, that life may be saved by enemata. I do not know any form of intestinal obstruction in which enemata can do harm. In most cases, they take a chief place amongst our most potent means of doing good. In many cases which are at first uncompromising, and even when the predisposing cause of the obstruction is some organic and incurable disease, we may repeatedly relieve a threatening fæcal accumulation, and long keep off a fatal fæcal stagnation, by the due use of enemata. It is, perhaps, not too much to say that enemata far surpass any other remedies in curative value in the simple coprostasis of advanced life. Within the limits of this paper, I cannot particularise all the practical details of apparatus, of quantity, quality, and frequency of intestinal injection, and the various manipulative niceties of administration concerned in the question of the therapeutic use of aperient enemata. But I would take this opportunity of affirming that, in all severe cases of constipation, and in all cases of intestinal obstruction in which we use enemata, we can only administer our injections efficiently by means of the long tube of O'Beirne.[5] Let me recommend O'Beirne's classical treatise on defæcation to those who are unacquainted with it. Than from a study of its pages, I do not think I have ever reaped more practical profit from any of my medical reading. The gist of O'Beirne's book is the recommendation of the long enema-tube which, for fifty years, has been known by his name. Never entrust the use of O'Beirne's tube to a nurse. The efficient passage of the instrument into and through the sigmoid flexure of the colon is a delicate and difficult operation, which the medical attendant ought always himself to perform for his patient. Much unnecessary detail has been taught about the composition of enemata. When we use an enema for the purpose of clearing the bowel of fæces and flatus, the quantity of the injection is its chief quality. I am accustomed to tell my pupils that, when they give an enema, they should always ask themselves whether it is to be retained or returned. If it be designed that the injection shall be retained, as in the case of a nutrient and sedative enema, its quantity can scarcely be too small; if, on the other hand, it be intended to move the bowels to the expulsion of their contents, the quantity of an enema can scarcely be too large. The quantity of an aperient injection is precisely so much of it as can be passed into the bowel. For such an enema to be as large as possible, is only to be large enough.

I now ask you to favour me with your further indulgence while I consider very briefly the celebrated question of the treatment, and especially the operative treatment, of intestinal occlusion. I feel I need not apologise, because, as a physician, I ask you to consider with me the operative treatment of intestinal impermeability. In the treatment of this most grave and anxious condition, it often happens that it is not only the office of the physician to determine whether and when the aid of the operating surgeon is to be sought, but also to join with him in deciding upon the special operative measures to be adopted in each particular case. This question is no new one: it is celebrated in the records of controversies which reach back to the earliest portions of our literature. Whatever our conclusions on this question, they can only be accepted as provisional. From time to time its issues must be examined anew, so that they may be brought to the level of our latest curative advances. It is especially necessary that we should often turn to this important question now, when we are witnessing such rapid advances in the safety, precision, and scope of abdominal surgery. In these advances, as fresh and signal triumphs for our art, I humbly claim to share a common pride with my surgical brethren. I take this opportunity of offering my sincerest congratulations to this Branch upon the great advances which have been established in peritoneal surgery in our times, for with these advances the names of some of our members are honourably and indissolubly connected.

I shall not pause to enumerate the long list of lesions which may determine the clinical urgencies of intestinal impermeability, and which, by causing that most grave condition, may demand from us relief if life is to be preserved. As intestinal compressions, constrictions, impactions, obturations, and stenoses, these manifold pathological conditions have been fully described. If, with practical purpose, we translate the anatomical causes of intestinal occlusion into their clinical manifestations and history, we shall find that they fall into three fairly defined groups. A. Causes which come into operation quite suddenly, and which lead at once to complete

[5] *New Views on the Process of Defæcation*, etc. By James O'Beirne, M.D. Dublin. 1833.

intestinal occlusion. Here, we have sudden compressions, displacements, and distortions, as all kinds of strangulations and torsions or kinks; some cases of intussusception, especially in children; and some cases of plugging by gall-stones. B. Causes which manifest themselves acutely, but which do not give rise to immediate and complete occlusion, although they produce very grave disturbances of intestinal permeability. Here, we have partial strangulation of all kinds, many cases of intussusception, many cases of peritonitis, and cases of partial obturation by gall-stones and foreign bodies. C. Causes which are developed slowly, and which give rise, often for weeks, months, or years, to marked signs of impaired intestinal permeability, and which either lead to a series of subacute seizures of intestinal occlusion, yielding, for a time, to treatment, but successively increasing in severity and danger, or culminate in a single, sudden, and final attack of complete and unyielding obstruction, or lead to death in some indirect way, as by perforation, peritonitis, or asthenia. Here, we have intestinal cancers and neoplasms generally, strictures and stenoses of all kinds, chronic local or general peritonitis, compressions from the pressure of slowly growing tumours, and fæcal impactions and chronic fæcal retention from degenerative changes in the muscular coats of the larger intestine.[6] These various conditions teem with practical interest, both in the niceties of their differential diagnosis, and in the details of their varying therapeutic requirements. Into these points I cannot now enter; but I would state generally that, by a consideration of the age of the patient, of the history of his illness, of his special symptoms and physical signs, and of the results of our treatment, checked by a recollection of the pathological possibilities of intestinal occlusion, and some accurate knowledge of their relative frequencies, we can usually make a practically correct diagnosis, both of the particular portion of the intestine which is affected, and of the pathological nature of its lesion. I cannot, however, leave this part of my subject without reference to certain well-ascertained statistics and approximate generalisations, which are of great practical importance, and which have often stood me in good stead at the bedside, in the diagnosis of the kind and place of an interesting occlusion. First, it is generally true that sudden and very marked obstructions, such as strangulation, torsions, intussusceptions, and pluggings, affect the smaller intestine; while more chronic, but less accentuated, difficulties of permeability, such as strictures, cancers, and intestinal degeneration, affect the larger intestine. Again, an intestinal stricture is a circumscribed diminution of the lumen of the bowel; it arises either from contraction of the mucous and submucous tissues, or from the encroachment upon the intestinal canal of some new growth from the intestinal walls. The latter process is usually cancerous, the former is usually a consequence of ulceration. "Stricture may be met with in any part of the intestine, yet it occurs in different parts with very different degrees of frequency. The published statistics of fatal cases show that its occurrence as a fatal disease in the small intestine is comparatively rare (according to Dr. Brinton,[7] in 8 out of every 100 cases); and that, as regards the large intestine (to quote again Dr. Brinton's figures, with which those of other writers agree pretty closely), out of 100 fatal cases, 4 are in the cæcum, 10 in the ascending colon, 11 in the transverse colon, 14 in the descending colon, 30 in the sigmoid flexure, and 30 in the rectum. Dr. Brinton calculates that stricture occurs three times in men to twice in women; and that the average age of death is $44\frac{2}{5}$ years."[8] From these figures, we may gather the important practical generalisation that at least four-fifths of the strictures of the larger intestine are situated to the left of the middle line of the body. Again, excluding the grosser forms of hernia, of all the different forms of obstruction of the bowel, intussusception is one which is "most commonly attended with the pressure of manifest tumour;"[9] and, further, excluding cancerous disease of the larger intestine, the discharge of blood *per anum* is characteristic of intussusception, and is generally present from the onset of the affection. Again, we have Mr. Jonathan Hutchinson's valuable generalisations, from which I select the following as being the most important. "When a child becomes suddenly the subject of symptoms of bowel-obstruction, it is probably either intussusception or peritonitis. When an elderly person is the patient, the diagnosis will generally rest between impaction of intestinal contents and malignant disease. In middle life, the causes of obstruction may be various; but intussusception and malignant disease are now very unusual. If repeated attacks of dangerous obstruction have occurred with long intervals of perfect health, it may be suspected that the patient is the subject of a chronic diverticulum, or has bands of adhesion, or that some part of the intestine is pouched, and liable to twist. If, in the early part of a case, the abdomen become distended and hard, it is almost certain that there is peritonitis. If the intestines continue to roll about visibly, it is almost certain that there is no peritonitis. This symptom occurs chiefly in emaciated subjects, with obstruction in the colon of long duration. The tendency to vomit will usually be relative to three conditions, and proportionate to them. These are, (1) the nearness of the impediment to the stomach; (2) the tightness of the constriction; and (3) the persistence, or otherwise, with which food and medicine have been given by the mouth."[10]

No clinical spectacle is more terrible than that afforded by a case of acute and complete intestinal obstruction. All of us, probably, have seen some examples of it. In the midst of perfect health, without obvious cause or warning, or after some unusual and sudden muscular effort, or after a blow on the belly, or after a trifling diarrhœa or some slight constipation, or following some ordinarily insignificant error of diet, a vigorous adult is seized with severe pains in the abdomen. The pains are mostly griping and colicky in character, they usually come and go at short intervals, and they are usually referred to the neighbourhood of the navel. Sometimes the pains are excruciatingly violent, or they are persistent, or they spread over the whole of the belly, or they are of a "bearing-down" character, and are attended by painful but fruitless efforts at stool. Acting on the familiar hypothesis that something has "disagreed," and requires clearing off, the patient usually forthwith takes a domestic purge. The pains continue, and grow more frequent and severe, and the bowels remain unrelieved. At this stage, vomiting generally appears, and a doctor is summoned. The gravity of the patient's condition is usually recognised, and pains are quelled and peritonitis staved off by opium, while efforts are made to open the bowels by enemata; sometimes, unhappily, the pathological possibilities are not adequately appreciated, and the stronger cathartics are injudiciously administered. Save for the passage of a little delusive flatus, or of the contents of the bowel below the difficulty, the belly remains ominously closed. Vomiting continues, and, in a variable time, the vomited matter becomes fæcal in appearance and odour, while at first it consisted only of ordinary stomach-contents, or of a "bilious" fluid. The case grows more desperate; marked collapse soon declares the patient's increasing danger. The extremities chill, the respirations become shallow and frequent, and the voice fails and thickens; while the pulse is small and rapid, the abdomen distended and drummy, and the face pinched, with pointed nose, sunken eyes, and thin, retracted lips. Hour by hour, and day by day, the sufferer grows worse, until, bathed in cold sweats, with parching thirst, frequent fæcal eructations, hiccup, shortening and shallower breathing, voice all but extinguished, dry brown tongue, Hippocratic face, failing and uncountable pulse, and mind unclouded to the end or gently wandering in the last few hours, death closes one of the saddest and sharpest scenes which human misery can show.

But the terrible and lethal condition I have described is not wholly hopeless. It is true, it is very generally fatal within six days, at the most; yet patients have got well, without surgical operation, even when internal strangulation has brought them to the very verge of death. Surgical art, I freely and thankfully acknowledge, has rescued not a few whom the skill of the physician has proved powerless to save; and this art promises, I believe, to include, in a no distant progress, a material reduction of the present high mortality of intestinal closure. "There is no cause of acute occlusion of the intestine," writes Leichtenstern, "which cannot spontaneously disappear as well as originate. An intestinal knot can loose itself, an incarcerated or strangulated loop can become free, an invagination can become disengaged, compression cease, twisting or dislocation of the intestine with angular bend can straighten itself, a lodged gall or intestinal stone or foreign body may be dislodged and evacuated, and severe fæcal obstruction may be overcome."[11] But we must never forget, I would strongly insist, that the relative proportion of cases of spontaneous recovery from acute intestinal

[6] This classification is a modification and amplification of one to be found in Dr. Leichtenstern's valuable essay on Constrictions, Occlusions, and Displacements of the Intestines, contained in Dr. Von Ziemssen's *Cyclopædia of the Practice of Medicine*. See English Translation, vol. vii, p. 487 *et seq.*

[7] *Intestinal Obstruction*. By W. Brinton, M.D., F.R.S. 1867.

[8] "Obstruction of the Bowels." By J. S. Bristowe, M.D., F.R.C P. Reynolds' *System of Medicine*, vol. iii, p. 74 *et seq.* 1871.

[9] Dr. Bristowe. *Op. cit.*, p. 100.

[10] "Notes on Intestinal Obstruction." By Jonathan Hutchinson, F.R.C.S BRITISH MEDICAL JOURNAL, August 31st, 1878.

[11] Leichtenstern, *op. cit.*, p. 508.

occlusion is very small indeed—so small, as only to support a very uncertain hope of life in any particular case. I fear such a hope is often a harmful one, for I am afraid that its sympathetic exaggeration has sometimes inspired a disastrous inactivity, which has frittered away, in fruitless endeavours and vain expectations, the hour for a fair cast for life by surgical interference.

For want of time, I am compelled to pass over many important points in the treatment of intestinal occlusions, such as, for example, how far purgatives are to be given, if at all, the use of opium, of ice, of the best methods of feeding, of copious enemata, given while the patient is inverted or otherwise, of abdominal kneadings and manipulations, of warm baths, of rectal insufflation of air, of intestinal puncture with an aspirating cannula. We mostly do well to combine these measures variously, according to the special indications of each particular case; for clinical experience has abundantly shown that cases of obstruction of the bowel, even when they appear most unpromising, not seldom exhibit the best results of a wise combination of therapeutic resources. But I must now pass by these important topics, because I want to raise again the question whether, when, and how, the abdomen is to be opened for the relief of unyielding intestinal closure. If it be clear we have to deal with a case of acute intestinal occlusion, if a reasonable delay have been afforded for the operation of suitable therapeutic procedures, and for a chance of spontaneous relief, if a due examination of all the hernial openings, including the obturator foramina, the sciatic notches, and the vagina in the female, has excluded the evidence of external strangulation, if the rectum be found free, if full enemata, the passage of O'Beirne's tube, and exploration of the abdomen and loins by percussion and palpation, have demonstrated that the difficulty is not in the colon, then the question must be decided whether laparotomy or laparo-ileotomy should be undertaken or not.

Laparotomy is abdominal section, with the view of finding and effectually relieving an acute intestinal occlusion. Laparo-ileotomy is abdominal section, *plus* the formation of an artificial anus in the ileum. Against the performance of laparotomy, the following considerations may be urged, with various degrees of cogency, namely: there are some cases of acute internal strangulation which cannot be relieved by laparotomy; consent is not usually given to the operation until the patient is so far *in extremis* that recovery is impossible; the intestine may be found so brittle, that it is impossible to avoid fæcal extravasation into the peritoneal cavity; the surgeon may not find any obstruction to relieve; the diagnosis may be incorrect; there is always a chance of spontaneous recovery; the operation in itself adds very seriously to the risk of death; the results of laparotomy are not such as to justify the performance of the operation. But to these considerations it may be answered: the cases of acute intestinal strangulation which cannot be relieved by laparotomy, such as very complicated and extensive volvulus, are so rare, as to be practically unworthy of consideration in determining our action in any particular case; again, that laparotomy has hitherto been performed only when the patient has been in a hopeless condition, is not an argument against the performance of the operation, but only a reason why the procedure should be adopted earlier; and again, the difficulty of diagnosis in cases of acute intestinal closure is daily diminishing, and is already sufficiently certain for all practical purposes; and, if the diagnosis of the exact lesion in any particular case be obscure, there is usually no difficulty in the prognosis that the patient will die unless relieved, and laparotomy gives him, at least, a chance of life. I have already said that the chance of spontaneous recovery is so small, as not to be a just ground for putting off an operation when other means have had a fair trial and have failed. With regard to the pouring out of fæces into the abdominal cavity, from the breaking of intestine from extreme brittleness during a surgeon's search for an occlusion, I may say that I have seen such a case myself, and that I find instances of this fatal condition are recorded as having occurred in the experience of Billroth, Fergusson, and other eminent surgeons. In my case, the patient was a young lady, in perfect and vigorous health up to her seizure with symptoms of acute intestinal closure; we did not put off the operation too long, and the case seemed quite favourable for the performance of laparotomy, with a fair chance of success.

As to the operation of laparotomy being a serious risk in itself, I suppose I shall be told that, in these days, it is not. But, when we have duly weighed all these considerations for and against laparotomy, it seems to me that the strongest point in favour of the operation lies in the practical hopelessness of acute intestinal occlusion, if left to itself; while the strongest point against the operation is to be found in the records of its results. No very large statistics of the results of laparotomy have been collected, and those which have been published probably show a result better than the truth, because of the unfortunate tendency amongst us to think our unsuccessful cases unworthy of publication. I find, however, that Leichtenstern has collected 79 cases, giving 55 deaths, or a mortality of 70 per cent. So far as cases within my own knowledge have enabled me to judge, I have been inclined to conclude that it is usual in laparotomy for a surgeon to find "something," and to relieve it; and that it has, nevertheless, been very usual for the patient to die shortly afterwards.

I have good authority for stating that laparo-ileotomy is an operation "far less dangerous than laparotomy, and easy of execution, even by unskilled surgeons." (Leichtenstern.) Upon this point, which I regard of great practical importance, I hope I may be so fortunate as to elicit the opinion of my surgical brethren. I have a strong impression, based on some experience of the results of abdominal sections performed in cases of acute intestinal closure, that it is usually safest for the patient for the surgeon to follow the great example of Nélaton, and not to attempt a search for the occlusion with a view to its direct relief, but to be satisfied with the establishment of an artificial anus in the ileum, above the seat of intestinal stoppage. As compared with laparotomy, laparo-ileotomy is a much safer operation, and a much easier one. Even the relative disadvantage of a permanent artificial anus is not always entailed, for many cases of successful laparo-ileotomy have been recorded in which the artificial anus healed upon the spontaneous establishment of intestinal evacuations *per vias naturales*. I once met with a case of this kind in an elderly gentleman whom I saw in consultation with my friend and colleague Mr. Oliver Pemberton. Excluding cases of insuperable intestinal obstruction in the colon and rectum, for which well-established and special surgical procedures are required, there is, I think, only one class of cases of closure of the intestine for which laparo-ileotomy is unsuited—namely, for cases in which the occlusion is situated very high up in the bowel. These cases, which are very exceptional, are indicated, amongst other signs, by the absence of marked or of general tympanites.

My experience and my reading have led me to the following conclusions. If I had to deal with a case of acute intestinal closure affecting the smaller bowel, other than a case of external hernia, I should allow fair opportunity for relief by such remedies as opium, enemata, time, and belladonna; but I should by no means wait till the patient was *in extremis* before I urged surgical interference. If I obtained the patient's consent to such interference, I should hope my surgical colleague would perform laparotomy and relieve the occlusion, but only if its seat were so near at hand, and its nature so clear, that the operation could be thoroughly accomplished without much search amongst intestinal coils; but I should hope that he would rather perform laparo-ileotomy than subject the patient to the direct and collateral risks of a prolonged effort at disentangling his bowels.

But, as I have already said, our decisions on these topics can only be provisional, as, indeed, all our therapeutic decisions must be, if we be worthy the name of scientific practitioners. The scientific spirit accepts no result as final, but with stern impartiality presses steadily to fuller truth, by ever assimilating the fruits of an ever-widening knowledge. In such a spirit, if we are faithful to it, we shall still expect and still secure further vantage in our conflict with disease; and, in this spirit, our practice shall ever promise progress, and our art attempt and accomplish achievement.

AN INSTRUCTIVE CASE OF INTESTINAL OBSTRUCTION.

By J. WAUGH, M.D., M.Ch., Toddington, Beds.

On the night of July 10th, I was called to see W. O., a farm-labourer, aged 50, residing at a village about four miles off. He is a man of small stature and spare habit, and stated that he had always enjoyed good health. I found him suffering great pain, with tumefaction of the abdomen; he had had no relief from his bowels for twenty-four hours, although he had taken large doses of Epsom salts with senna, also of castor-oil; but had been able to work up to the afternoon of that day. He showed signs of intestinal obstruction, with approaching peritonitis. I put him on opium, which gave relief from pain, and, considering the cause to be impacted fæces, next day, I gave him a warm-water enema, which brought away a scybalous motion. The opium-treatment was ontinued with benefit

—so much so that, on the fourth day, he left his bed; but, on the sixth, I was again requested to see him, as he had a swelling in the left groin. On visiting him, I found considerable swelling in the region indicated, extending to the inside of the thigh, with heat and redness, portraying impending suppuration; fomentation and poultices were applied. Two days after this, on going to see the case with the intention of opening the abscess, I found it had burst, and the fæcal smell was most offensive. Being in doubt if the abscess communicated directly with the bowel, and thinking it just possible that the odour occurred by endosmosis, I refrained from probing the wound, as, even if there were no direct communication, there was no doubt that the neighbouring portion of the sigmoid flexure of the colon must, at least, be in a condition bordering on sphacelus. Poultices were continued, and strict cleanliness enjoined. Next day, the wound appeared much healthier; and, whilst superintending the removal of dressings, and revolving in my mind the bearings of the case, I noticed a movement in the bottom of the abscess, which, on closer inspection, proved to be the head of an *ascaris lumbricoides*, which I seized with the dressing-forceps, and carefully removed; it measured between six and eight inches. There was now no longer any doubt as to the opening into the intestine. On the removal of the next poultice, four more worms crawled forth, one rather larger than the first, and three smaller ones. The poultices were continued another day; then the wound, commencing to granulate, was dressed with zinc and carbolic acid ointment. It regularly and firmly healed. The man made a perfect recovery, and resumed work on August 14th, a little over one month from the date of my first visit. The diet throughout consisted of beef-tea, broth, and milk. This, I think, was important, as avoiding any fæcal mass. Small doses of opium were also continued, to minimise the peristaltic action of the intestines.

The case is instructive, as showing that worms should not be overlooked as a cause of obstruction. Partial relief was produced by the warm-water injection, which removed the fæcal stoppage, but left the *fons et origo mali*, the *lumbricoides*, which no doubt had, by their presence, set up irritation, inflammation, and sphacelus of a spot of the sigmoid flexure, ending in abscess, through which the worms were discharged externally, just above Poupart's ligament. The case is also instructive, as indicative of what may be achieved by abdominal surgery for the relief of such cases.

INVAGINATION OF THE BOWEL: A CASE PRESENTING DIFFICULTIES IN DIAGNOSIS

By ROBERT KIRKLAND, M.B., Cheltenham.

In reading over the notice of the illness of the Bishop of Peterborough in the JOURNAL for August 4th, I was struck with the similarity it presented at that time to that of a patient whom I was then attending. On August 1st, I received a message to go into the country to see Mrs. K., who had been suddenly attacked with violent pain in the bowels, accompanied with vomiting, and slight tenesmus. When I arrived the pain had somewhat abated, but she looked flushed and feverish; the pulse was 110. There was tenderness on pressure over the abdomen, at a spot a little to the left of the umbilicus, and for two or three inches above and below it. The tongue was a little furred, with a tendency to become dry. She attributed the sudden pain to a potato she had eaten some hours before. She had had dyspeptic troubles for many years, and on several occasions had been attacked with severe pain in the bowels, and vomiting, but never so severe as at the present time. I prescribed a mixture containing belladonna, and ordered warm bran-poultices to be applied to the abdomen. During the next two or three days, there was little change in her condition, except that tenderness was manifest on pressure down towards the right iliac fossa, and, to a less extent, up towards the right lobe of the liver. The vomiting, also, had occurred several times since, and there had been no motion of the bowels since the onset. No tumour could be discovered near the umbilicus, and there was no enlargement of the liver to be made out. The temperature, during these days, had been a little over 100° Fahr., and the pulse was weaker, about 110. The tongue was becoming dryer, and more furred. She got a full enema of castor-oil and oatmeal-gruel, and some small hard fæces came away. On the 5th, the vomiting ceased, and the bowels acted naturally. I could discover no gall-stones in the stool, which was of a yellow clayey colour; neither did it contain any blood. Above the primary seat of pain, and to the right towards the liver, the bowels, on pressure, emitted a gurgling noise; they seemed to contain a great amount of fluid.

On the left side of the abdomen, percussion was quite tympanitic, as also over the stomach. Beneath the liver, however, there was slight dulness, probably from exudation, and, as time went on, this extended down towards the anterior superior iliac spine, and seemed to be continuous with the dulness of the right lobe.

On the 7th, the bowels again acted. She seemed much better, the tongue was a little moist and beginning to clean, and the pain was not so severe. The pulse was not so quick, about 100; but the temperature did not fall. The thirst, which she had experienced from the first, was not so great. The slight abdominal distension had subsided a little, and altogether her condition seemed much more favourable. During the nights of the 8th and 9th, however, she had been rather delirious, and the skin several times had been bathed in cold sweat, but there had been no rigor. Up to the eleventh day, although Dr. Hogarth, my partner, who several times saw the case, and I myself, carefully examined for tumour, none could be discovered, on account of the distension of the abdomen and tenseness of the rectus abdominis muscle. On that day, an oblong slightly movable tumour, tender on pressure, and about three inches in length, was found inclining obliquely from the umbilicus downwards, towards the left. Diarrhœa now set in, the stools being watery and shreddy, but containing no blood or pus.

She gradually became worse on the 12th, and on the 13th, at four in the morning, she was seized with excruciating pain, and died after six hours' severe suffering.

At first, my diagnosis was invagination of the bowel, which, I think, was confirmed subsequently by the history of the case. Before the tumour was discovered, however, I had many doubts. The tenesmus, at the onset, I could not lay much stress on, as she had a prolapse of the bowel, which at times was rather painful, and was so at that time. The fact of the tumour not being made out for the first ten days was rather against my first opinion. Her statement of previous sudden pains, with vomiting, seemed rather in favour of its being a case of impacted biliary or pancreatic calculus. Narrowing of the bowel, with impaction of a portion of imperfectly masticated food, was not altogether inconsistent with the previous history of dyspeptic troubles, and with her opinion of the causation of her illness. A possible, though not very probable, cause of the peritonitis was embolism of the superior mesenteric artery; a *post mortem* examination, revealing such a lesion, I had once the opportunity of witnessing, where, during life, sudden colic and other symptoms not unlike this case had resulted in sloughing of a portion of mesentery and bowel. On auscultating Mrs. K.'s heart with this probability before me, I found decided blurring of the first apical sound. Most likely, the bowel involved in the invagination was the ileum. Symptoms of local inflammation then set in, with exudation upwards towards the liver, and downwards towards the right iliac fossa. The delirium and occasional clammy sweats were probably due to septic absorption from the sloughing part of the bowel. On the 13th, when the slough most likely had separated, perforation had resulted on the process, and thus occasioned the sudden death.

OBSTETRIC MEMORANDA.

SEQUEL TO A CASE OF THE ALBUMINURIA OF GESTATION.

In the JOURNAL of July 1st, 1882, p. 15, I published a remarkably interesting and encouraging instance of induction of premature labour for the state which, I think, is best termed the albuminuria of gestation, and which I attended in conjunction with Dr. T Morrish of Dingle, wherein both mother and child ultimately did well. The parents, through the father, were warned by me that it would be wise to limit their family to the one child; but, as occasionally happens, particularly in obstetric experience, hints are disregarded, and successfully too, as in the present instance, the patient having again become pregnant in December last. Until the beginning of the ninth month, when a doubtful trace was recorded, there was no albumen in the urine. No trace was afterwards observed by heat or nitric acid, and no tube-casts were found either by my friend, Dr. W. Y. Orr, or myself. Then came the most important part of this sequel, the second confinement, in which I delivered Mrs. L. of a healthy male child, weighing 8 lbs., by Sir James Y. Simpson's long forceps, without giving chloroform. The patient is now quite well; the urine is phosphatic, but free from albumen; and the family is in a thriving condition.

The general statement of a case of this kind suffices to show its bearings on induction of premature labour in such cases, and on the

occurrence of subsequent pregnancies. I will only, therefore, add that, as this form of puerperal albuminuria still only suggests to me the old problem in hæmadynamics (*plus* the postulate of abnormal distribution of the renal veins), we must explain the entire exemption from renal symptoms, in the second pregnancy, by the effect of the physiological, as well as mechanical, relaxation resulting from the pregnant state. A. DRUMMOND MACDONALD, M.B.Ed., Liverpool.

CLINICAL MEMORANDA.

PURULENT URINE AFTER CATHETERISATION.

THE important remarks lately made on this subject by Sir Andrew Clark, and again by Mr. Jonathan Hutchinson in his address to the Lancashire and Cheshire Branch, offer a new and suggestive explanation of a form of disease by no means uncommon, and call the attention of our profession to its prevention.

The purulent condition of urine which sometimes follows in cases of continued retention from any cause, not alone prostatic, has been usually attributed to the irritation of the residual alkaline urine exciting acute cystitis. This explanation will no longer hold good, when it is possible for an antecedent and external cause to exist, capable of producing these changes in the urine, in the form of septic germs or matter, introduced by the catheter. In the majority of cases of retention, the catheter can be used with impunity daily for a long time, and prolongs life; but there are other cases in that state of health which renders them peculiarly susceptible to septic changes; in these, there can be little doubt that from the use of a catheter not absolutely clean, or from its admitting impure air into the bladder, putrefactive changes ensue which quickly imperil life.

I have lately had three cases in which this last condition occurred, but fortunately was able to check the commencing cystitis before it had become dangerous. The means adopted were simply antiseptic injections into the bladder each time I used the catheter. After the urine was withdrawn, from two to five ounces of warm carbolic lotion (1 to 100) were injected by a bulb-syringe, slipped on to the catheter by means of a short bit of rubber-tubing: the fluid was held in the bladder for about half a minute, and then allowed to be ejected. This little operation was always easy, rapid, and gave no pain. One of these cases of retention was due to prostatic disease; it came on suddenly after some fatigue; the catheter had to be used three or four times a day. On the third day, I noticed a slight cloudiness in the last few drops of urine withdrawn; and, when examined microscopically, it was found to be due to numerous pus-cells. The antiseptic injections in a few days completely checked the formation of pus, and quieted the irritable state of the bladder; the injections were continued until he found himself able to micturate naturally, which he did in about a week. The other two cases occurred with ladies after difficult parturition. Spasm of the neck of the bladder, from the bruising of the urethra, set up retention of urine, requiring the frequent passing of the catheter; in both cases, pus appeared in the urine after a few days, and in both it disappeared under the influence of the antiseptic injections. In one of the cases, I do not think that the catheter was much to blame, as urethritis preceded the cystitis, affording an external communication by which bacteria might travel to the bladder, the catheter, no doubt, assisting the introduction.

As it is impossible beforehand to discriminate which cases of retention of urine will escape and which will succumb to the danger arising from the presence of septic matter in the bladder, it is all the more necessary to adopt antiseptic precautions in every case of catheterisation. One precaution is very obvious—that is, only to use an absolutely clean catheter. To insure this, it should be washed in a 1 to 20 solution of carbolic acid both before and after using it. For anointing it, I use a thymol-ointment—ten grains to one ounce of vaseline. The catheter is thus perfectly aseptic. The general adoption of catheters without the *cul-de-sac* beyond the aperture, as recommended lately by my friend Dr. Allan Ward, would get rid of a favourite hiding-place for dirt, and facilitate their being washed.

But it is not sufficient to have only a clean catheter. Impure air may enter the bladder through the cleanest catheter, and particularly the female one, and may excite purulent inflammation. This air can be prevented from being injurious by injecting one or more ounces of warm carbolic acid solution, of 1 to 100 strength, into the bladder after the urine is drawn off, and allowing it to escape just as the catheter is withdrawn.

Until some better method of antiseptic catheterisation is discovered, these precautions will be found, I trust, both effective and practical. J. SINCLAIR HOLDEN, M.D., Sudbury, Suffolk.

THERAPEUTIC MEMORANDA.

HISTORICAL NOTE ON CONVALLARIA MAJALIS.

THE employment of the lily of the valley, as a remedy in certain conditions of valvular disease and cardiac weakness, has become more general since the publication in the JOURNAL of an abstract of Dr. A. E. Sansom's Lettsomian Lectures; and the preparations of this plant are commonly regarded as amongst the latest additions to the materia medica, although it is well known that the plant has been in domestic use amongst the Russian peasantry, for the cure of dropsy, for a very long period of time; and, from its similarity of action to digitalis, we can readily understand its being curative, in many such cases, by its effect upon the heart and circulation.

I have lately met with an account of the use of this drug, in cardiac disease, as far back as the commencement of the seventeenth century, of which I give a translation. It occurs in an old Italian book of *Commentaries on the Materia Medica of Discorides*, by Dr. Pietro Andrea Matthioli (physician to the Emperor and to the Archduke Ferdinand of Austria), and was published in Venice in 1621. He says: "The Germans use lily of the valleys to strengthen the heart, the brain, and spiritual parts, and also give it in palpitation, vertigo, epilepsy, and apoplexy; also as a remedy for the bites and stings of poisonous animals; to quicken parturition; and for inflammations of the eyes. For this purpose, they are wont to prepare the wine from the flowers at the time of the vintage; and then infuse them in old wine for forty days in the sun, and subsequently distill and redistill (but not many times) along with lavender-flowers, rosemary, and other aromatics. They then preserve it as one of the most precious things which are to be found amongst medicines, and they call it 'aqua aurea,' and preserve it in vessels of gold and silver against sudden attacks. They even believe that, given to persons actually *in articulo mortis*, it is able to prolong life for several hours. In this, however," he drily adds, "they are not unfrequently deceived, as I have myself witnessed."

Amongst other interesting matters in this book, there are descriptions of experiments on criminals under death-sentence, witnessed at Prague and in Rome, under the Pontificate of Clement X, by Dr. Matthioli, on the effects of aconite and nux vomica, and their supposed antidotes.

EDWARD DRUMMOND, M.D., Rome.

SURGICAL MEMORANDA.

PAINLESS PARACENTESIS.

THE inhalation of anæsthetics is frequently inadmissible, both in thoracic and abdominal paracentesis from (*inter cetera*) cardiac displacement in the one case, and the hectic condition of patients in the other, and yet it is most desirable that the operation should be performed painlessly. This was most forcibly impressed upon me some time ago by a patient, into whose thorax a hepatic abscess had opened, and upon whom it was necessary to repeat aspiration. On the second occasion, owing, I think, to œdema, I did not at first hit off the intercostal space, and the pain apparently undergone seemed undesirable. I should mention, too, that the skin had been incised previous to the insertion of the trocar. I, therefore, determined on the next occasion that all suffering should be prevented, and before the operation I applied a mixture of ice and salt for about twenty minutes. The result was even beyond my expectation, and the poor fellow seemed quite surprised when he saw the pus flowing without his having suffered, as on the previous occasion. He said he felt no pain whatever.

I have since employed this method in paracentesis both of the thorax and of the abdomen, and the result has been so gratifying, that I am desirous of recommending its adoption to those surgeons who may not have tried it. Whether it would enable a surgeon to make an intercostal incision in empyema completely without pain, I cannot answer positively, but, from my experience in paracentesis, I think I should be entitled to draw such an inference. If it would do so, it would apparently have many advantages over general anæsthesia in the performance of the operation which is, not improbably, likely soon to become the routine method of dealing with empyæma, viz., incision.

I am quite aware that there is nothing new in the production of local anæsthesia by the freezing mixture; but I fancy its use in paracentesis, at all events, may not have been sufficiently resorted to The same result, no doubt, can be produced by the ether-spray, but the reactionary stage in this method is not always free from pain.

The smell of ether is very disagreeable to some patients, while the liability of the gutta-percha to get out of order, either from disuse or from the effects of warm climates, is too well known to require more than a passing mention. These circumstances, however, seem to point to the use of the freezing mixture as a more preferable method in inducing local anæsthesia.

F. P. STAPLES, Surgeon-Major A.M.D., Gibraltar.

EXTRACTION AND REPLANTATION OF TEETH.

THE recently introduced practice of extracting teeth to stop them, and replant them (as it is called), is, I fear, becoming more common than is prudent, because there have been many cases reported as successful, which, in the end, are altogether the reverse. An instance of the kind has recently come under my notice, and, I think, should be cited as a warning against the operation; the more so, because the same case formed the subject for a special communication to the Odontological Society, advocating the more frequent adoption of the practice.

About five years ago, the patient was suffering from an abscess in connection with the palatine fang of a decayed first upper molar tooth; it was extracted, the decay removed, and all the lost structures replaced with gold, so that the crown looked like a solid gold tooth. In addition to this, the apex of the palatine fang was capped with gold; a wire running through the root connected this cap with the filling in the crown. This done, the tooth was replaced. For three weeks the suffering was very great; but at the end of that time it subsided, and the tooth, reuniting by the two external fangs, became firmly fixed in its place. The palatine fang, however, never united, but kept up a chronic state of subacute inflammation; so that the tooth was never comfortable or practically useful, and, being very conspicuous, was a great deformity. I therefore extracted it again. Now that it is removed, it weighs 108, instead of about 40 grains. The two external roots are tolerably healthy; but the palatine fang is necrosed, and so much absorbed that the gold wire inside it is visible throughout its length.

In my opinion, this operation was dangerously hazardous; and I think the patient most fortunate to have escaped disease of the antrum, or similar mischief. If it has to be performed at all, it should be confined to the single-fanged teeth, and only then when no other treatment is practicable; and the temptation to do a grand operation, especially when a large fee is obtainable, should be more strongly resisted than it sometimes appears to be.

N. STEVENSON, Wimpole Street.

TOXICOLOGICAL MEMORANDA.

SULPHATE OF SODA IN CARBOLIC ACID POISONING.

MRS. W., aged 35, drank, with suicidal intention, somewhat less than four fluid ounces of crude carbolic acid. When seen half an hour afterwards, she was comatose, the pupils were contracted, and cornea-reflex was absent; the pulse at the wrist could with difficulty be felt; the first sound of the heart was almost inaudible; whitening of the lips and mouth were not present, yet the breath smelt of carbolic acid. The pump was not used; but about an hour after taking the poison, four drachms of sulphate of soda dissolved in five ounces of water were injected into the stomach through a catheter; two hours later, three-quarters of an ounce of the salt in five ounces of water. After each injection, the patient appeared to be somewhat relieved in breathing; four hours after this, or about seven after takiug the poison, cornea-reflex had returned, the patient groaned somewhat, and the pulse had slightly improved. Three-quarters of an ounce of sulphate of soda in five ounces of water was now injected, after which the patient appeared to be easier. She died in about forty minutes.

Ether was injected at the end of the first, third, and fifth hours, and probably the result would have been different had an injection been given at 2 P.M., after which I had to leave somewhat suddenly. The patient had been ailing for some time. Sulphate of soda has succeeded in the case of animals,[1]; and if this drug have not been used in man, the case may be of interest.

JOHN REID, M.B., Rochdale.

[1] Cafrawy, Étude expérimentale sur l'antagonisme du Phénol et du Sulfate de Soude (*Thèse de Paris.*)

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. BARTHOLOMEW'S HOSPITAL.

CONSULTATIONS.

Abdominal Tumour.—On November 8th, a woman, aged 53, who had been under the care of Mr. WILLETT for some weeks, was brought into the theatre for consultation. The patient was a married woman, who had enjoyed good health until July 1883. She had had three children born alive, and one miscarriage. Towards the end of the year 1882, she had slight hæmoptysis, and about Christmas-time she noticed that her abdomen was enlarging, but it caused her no inconvenience until the following July; then she was suddenly seized with a shooting and burning pain in the left lumbar region, which extended upwards into the right hypochondriac region. This pain had grown less as time wore on, but had never ceased; there was no history of renal colic, and the catamenia had ceased for eight years. When she was admitted, the abdomen presented a hard, somewhat elastic tumour, which occupied nearly the whole of the umbilical, left lumbar, and left hypochondriac regions; it extended under, but was not in contact with, the liver, and into the right hypochondriac region, where its border became indistinct; in the middle line, it extended to about two inches below the umbilicus; it was movable, but not very freely, was dull on percussion, and gave, on palpation, the sensation of containing fluid. There was no hæmaturia nor hæmoptysis, nor was blood passed from the bowel; there were no physical signs of pulmonary disease. The urine was acid, pale, clear, of specific gravity 1012, and contained a trace of albumen. Dr. Gee saw the patient with Mr. Willett, and, on October 17th, a puncture was made in the left lumbar region with a large aspirating needle, and about eighteen ounces of a thick sanious fluid drawn off; the tumour was diminished by about a third of its bulk. Microscopical examination of the fluid showed that it contained numerous red blood-corpuscles and some colourless bodies resembling puscells. A small mass of connective tissue containing spindle-cells was also seen, but it was not possible to determine its precise nature.

Mr. Willett, after the patient had been removed, said that he felt some doubt with regard to the diagnosis of the nature and relations of the tumour; it was easier to say what it was not, than to determine what it was; it was not connected with the pelvis, so that it could not own an ovarian or uterine origin, and was so clearly separated, both from the liver and the spleen, by an area of clear resonance, that it could not be connected with either of those organs; it probably sprung either from the left kidney or from the omentum. The character of the fluid drawn off could not settle the difficulty, for, though evidently not urine, it was equally plainly not blood; that it was blood mixed with some other fluid was shown by the specific gravity, which was 1025. [Professor Gamgee, in his *Text-Book of the Physiological Chemistry of the Animal Body*, says: "The specific gravity of the living blood cannot, for obvious reasons, be ascertained; that of defibrinated human blood drawn from healthy subjects has been found to vary between 1045 and 1062, the average being 1055; greater variations than are indicated by the above numbers are, however, consistent with health, the widest limits being probably indicated by the numbers 1045-1075." The lowest recorded number seems to be 1035; this was in a case of chlorosis.] Mr. Willett was inclined to believe that the growth was a sarcoma containing cysts. The patient was now a permanent invalid, almost entirely confined to bed; she had come up from a distant part of the country, and, as he could not hope for any benefit from tappings, the question that he wished to put to his colleagues was, whether it would be advisable to make an exploratory incision to ascertain the exact nature of the tumour, and then, if the operation seemed feasible, to endeavour to remove it; that, however, would be an extremely hazardous operation. On the other hand, the disease, if left untouched, would probably soon end fatally. He thought that the proper course was to explain the matter fully to the patient, and to abide by her decision.

Dr. GEE said that, when he had first seen the patient, he was inclined to think that the tumour was of renal origin; but it had gradually altered its form, and had grown more to the right, so that

its long axis was almost horizontal, whereas a renal tumour always tended to have its long axis in the vertical direction. If he had felt any confidence that the growth was renal, he would have advised its removal, but now that the probabilities seemed to be greatly in favour of its having sprung from the omentum, he would advise strongly against interference; indeed, he was not aware that such an operation as the removal of an omental growth had ever been attempted.

Mr. SAVORY agreed as to the diagnosis of the nature of the tumour; its relations to the viscera were very doubtful, but it was probably not renal, and he would advise against any operation.

Mr. THOMAS SMITH concurred in the view that the tumour was a sarcoma, and therefore, from a clinical point of view, a malignant tumour. He did not think an operation advisable.

Mr. HOWARD MARSH thought that the growth was omental, founding his opinion chiefly on the direction in which it had enlarged. He would refrain from pressing an operation, but would be willing to make an exploratory incision if the patient desired it.

Mr. BUTLIN, on the other hand, thought that, if the tumour were omental and sarcomatous, it would certainly be adherent in more than one direction, and he would, therefore, be inclined to dissuade the patient from any operation.

Mr. HARRISON CRIPPS believed that the tumour might possibly be a hydatid of the omentum, and would consider it advisable to tap with a large trocar, and drain the cavity, with antiseptic precautions.

Mr. WILLETT, however, stated that, after the previous tapping, a large solid mass of tumour had remained. On the whole, he felt confirmed by what had been said in his original resolution not to interfere.

Rodent Ulcer and Epithelioma.—Mr. HOWARD MARSH said that the patient whose case he submitted to the judgment of his colleagues had first come under his care about three months earlier, on account of a large rodent ulcer of the left cheek. The patient was a woman rather past middle age, and the ulcer had been present for about nineteen years. The ulcer covered so extensive a surface—it reached forwards on to the nose, upwards to the border of the eyelid, downwards to the lower lip, and backwards over the greater portion of the malar bone—that he had thought it better to scrape only the anterior half, applying chloride of zinc to that portion. The patient was then sent away to recruit her health, but had returned with this condition, that, while the part of the ulcer which had been scraped was almost entirely cicatrised, the posterior half had become the seat of a rapidly-growing tumour, rather pale, firm, but not hard, and evidently, as it seemed to him, of the nature of an epithelial cancer. Most pathologists were now agreed that rodent ulcer was itself a form of epithelioma; and in its bearing on this point the present case was of great interest. He did not think that it would be possible to excise the growth completely, as it appeared to be attached to the bone.

Mr. THOMAS SMITH agreed that an operation would be a very formidable undertaking. He thought the case one very suitable for the trial of a new remedy, which he had recently found very useful in a similar case. The patient was a lady who presented a growth which looked just like this one. Under the continuous application of a saturated solution of salicylic acid; it had entirely disappeared in less than three weeks. The application was not very painful.

Mr. WILLETT did not think the growth looked like an ordinary epithelial growth; it could not be easily dealt with by the knife, and he would certainly recommend the adoption of Mr. Smith's suggestion.

Mr. BUTLIN observed that the growth was a very peculiar one, but was most probably epithelioma.

BRISTOL HOSPITAL FOR SICK CHILDREN.

CASE OF CHRONIC OTORRHŒA SUDDENLY TAKING ON AN ACUTE FORM: DEATH.

(Under the care of W. BARRETT ROUÉ, M.B., M.S.Durh., Physician to the Hospital.)

A. B., aged 11, was admitted on April 11th, 1881. She had been ill one week, was constantly sick, and complained of pain in her "bones" and abdomen. Her mother volunteered the information that it hurt the child to go up and down stairs, and that, when in bed, she always had her legs drawn up. She had had measles and scarlet fever, the latter about seven years before admission, since which there had been a constant discharge from her right ear.

Physical examination of the chest showed that there was slight dulness at the left apex, with prolonged expiration, but no moist sounds, that there was considerable abdominal tenderness on the least pressure, and that the pulse was 120, and the temperature was 100°F.

From her symptoms and general appearance, incipient pulmonary and abdominal mischief, probably of a tubercular nature, was suspected. Next morning nearly all the acute symptoms had disappeared, the temperature was normal, there was no sickness, and hardly any abdominal tenderness. The lung, however, was much in the same condition as on admission. The right ear was discharging as usual. The patient from this time steadily improved, and the lung cleared up; on April 14th she weighed forty-nine ponnds, and, on April 25th, fifty-two pounds. She was now thought well enough for the convalescent home in the country connected with the hospital. The discharging ear was cleansed every day with a little warm carbolic water.

On May 9th the girl returned, complaining of severe pain in the head, and evidently seriously ill. She had an abscess, the size of a hen's egg, behind the right ear, which, on being opened, discharged a quantity of pus so fœtid, as to leave little doubt about its connection with bone. The girl complained much of the light. The temperature was 101.6°. She was ordered a mixture containing bromide of potassium; her hair was cut off, and cold was applied to her head.

May 10th.—The temperature was 100°. She had been very restless all night, and complained of pain in the head. She could move her arms and legs, but could not stand.

May 11th.—The temperature was 102°F. She was very drowsy, but could be roused by calling her sharply. Several times she had suddenly shrieked out loudly, and tried last night to get out of bed. A night-draught of chloral hydrate was ordered.

May 12th.—The temperature was 102.6°F., and she was decidedly worse. She constantly moaned, and, when not unconscious, complained of her head. The pulse was 102, small, weak, and irregular. The condition of the child was at this time so grave, that the parents were informed through the house-surgeon that recovery was doubtful. The parents then insisted on taking away the child with them, argument and remonstrance being alike useless.

REMARKS BY MR. ROUÉ.—I am informed, on good authority, that the child died three days after her removal, in a condition bordering on acute mania. This case seems interesting as an illustration of the fact that chronic disease of the ear may unexpectedly take on an acute form, and rapidly prove fatal. There is but little doubt that carious destruction of the internal ear had been slowly progressing for years, and that, suddenly opening up the mastoid cells, it had caused suppuration of these cavities. Nature tried to relieve herself by pointing the abscess outwards, posterior to the ear, but, unfortunately, not until irreparable damage had been done to the deeper structures, which passed on their irritation to the membranes of the brain, and caused the child's death, with decided symptoms of acute meningitis. Of course we are all aware that chronic otorrhœa is common enough in children after exanthemata, and that such a case as the above is rare: but the fact of its occurrence should make us cautious in giving a prognosis in a case of ordinary chronic ear-discharge. One of these, treated as a trifle (as is but too often the method adopted), yet followed on a future day by fatal results, would be likely to bring the practitioner (especially if he happen to be one of the junior members of the profession), into disgrace. To the consideration of my young professional brethren, then, I would respectfully offer anything they may find instructive in the above report.

MEDICAL MAGISTRATE.—Dr. Peter William Long, of St. Stephen's Green West, has been placed on the Commission of the Peace for the City of Dublin.

DONATIONS AND BEQUESTS.—"A Friend" (per Messrs, Hall and Co., Union Bank) has given £1,000 to the Sussex County Hospital, Brighton.—Mr. J. Coulthart, of Islington, bequeathed £500 each to the Royal Hospital for Diseases of the Chest and the Royal Hospital for Incurables.—The General Hospital, Birmingham, and the Queen's Hospital, Birmingham, have each received £200 under the will of Mr. Thomas Yates, £100 under that of Mr. Thomas Lowe, and £100 under that of Mr. William Gadsby.—The Orthopædic and Spinal Hospital, Birmingham, has received £100 under the will of Mr. Thomas Yates—Miss Stone (per Mrs. Octavius Corder) has given £100 to the building-fund of the Eastern Counties Asylum for Idiots.—Mr. F. S. Bolton has given £100 to the Ladywood building-fund of the Birmingham General Dispensary.—"Z. O. B." has given £40 to the new Hospital for Women.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 13TH, 1883.

JOHN MARSHALL, F.R.S., President, in the Chair.

On a Case of Spontaneous Inguinal Aneurysm in a Boy aged 12 years 8 months, for which the External Iliac Artery was Tied. With notes of the other recorded cases of Aneurysm in Young Persons. By ROBERT WILLIAM PARKER, M.R.C.S.—Frederick L., aged 12 years 8 months, was admitted into the East London Hospital for Children with chronic ankylosis of the right hip, and an aneurysm in the left inguinal region, about the size of a pullet's egg. The boy first experienced a pain, while asleep in bed, three weeks before he came under Mr. Parker's observation, after which the aneurysm gradually developed. He continued to attend school until within two weeks of his admission into hospital. There was extensive aortic disease. After ten days' rest in bed the external iliac artery was tied, under strict Listerian precautions; a carbolised silk ligature was used. The wound healed within about a week, and the aneurysm was cured. Thirty-four days after the operation severe epistaxis occurred and recurred, and the boy died of anæmia and exhaustion rather suddenly. At the necropsy, vegetations were found on the aortic valves, and the aortic orifice was narrowed. The heart was hypertrophied. Mr. Parker then gave a summary of all the hitherto recorded cases of spontaneous external aneurysm in persons under twenty years. The table contained fifteen cases, including his own. It was shown that in no fewer than eight of the fifteen cases, there was disease of the valves; in two cases only was the heart found healthy, while in the remaining five cases its condition was not stated. The association of vegetations on the valves and aneurysm had also been noticed in internal aneurysms. The views of various authors on the relation of embolism and aneurysm were quoted. Mr. Parker, while agreeing that this must be more than mere coincidence, felt that the exact mode in which the aneurysm was brought about had not yet been satisfactorily demonstrated, and he invited discussion thereon. The object of the criticisms was to show that much remained to be made out, even if the embolic doctrine were accepted.—Mr. MARSHALL thanked Mr. Parker for the valuable table which he had laid before them, and hoped that so good an opportunity of discussion of the relation of embolism to aneurysm would not be lost. For himself, he had only to suggest two questions to Mr. Parker—viz., Was the ankylosed hip due to any rheumatic disease? and, Was there any symptom of syphilis?—Mr. HOLMES congratulated Mr. Parker on his paper, as opening the way to many points of interest. He himself felt the discussion of the matter difficult, as he was compelled to agree with Mr. Parker that, though there was a causal connection between embolism and aneurysm, yet the method of action had not yet been satisfactorily made out. In fact, in the case Mr. Parker had related to them, there was no absolute proof that the aneurysm had been caused by an embolus. Among the specimens on the table which illustrated Mr. Parker's paper, he noticed one, from the museum of St. George's Hospital, with which he was familiar. It was from a boy with a pulsating tumour of the forearm, which Mr. Pollock had brought before his colleagues, and suggested arterial ligature, on the hypothesis that it was an aneurysm; the more general opinion, however, was, that it was a pulsating cancerous tumour, and no artery was ligatured. The boy died soon afterwards, and this aneurysm of the ulnar artery was found, and, along with it, vegetations in the heart and emboli in the spleen—a condition which certainly strongly suggested an embolic origin for the aneurysm. There was no doubt that a large percentage of the aneurysms which were found in early youth were associated with endocardial vegetations; and for this he could only suggest two reasons—either that the tension of the circulatory system, or the disturbances of heart-disease, had a general tendency to produce dilatation of the arteries; or that the aneurysms resulted directly from plugging of the arteries by emboli. The first reason seemed to him very inadequate, as such systemic variations of tension would be likely to produce general dilatation rather than aneurysm. The second reason was more competent to explain the result; for it was very possible that the artery should give way within a few hours after it was plugged. Such giving way had been, in a few cases, noticed after ligature of an artery. The obstruction by a clot was not, as a rule, so sudden as by a ligature: the clot remained at first as only a partial obstruction; and, as far as this was concerned, he was obliged to admit that, *a priori*, a ligature was more likely to produce an aneurysm than an embolus. But, in such a case as Mr. Parker's, he could not help thinking that though the arteries did not seem abnormal either to the naked eye or on microscopical examination, yet they were weaker than they ought to be in proportion to the violent and tumultuous action of the heart. That there was a causal connection between embolism and aneurysm was a conclusion he had come to independently, and it was afterwards much strengthened by a case published by Mr. Tufnell of Dublin, in which he had shown a popliteal aneurysm caused by an embolus. There were also other points of interest in Mr. Parker's paper. He had described an ankylosis of the right hip in the boy, so that there could be no doubt that an abnormal strain must have been thrown on the left side, on which the aneurysm was. He was quite ready to agree with Mr. Parker in including in "spontaneous aneurysms" all those in which there was no piercing wound of the vessel; but the limitation was somewhat artificial, for he could not help thinking that all aneurysms were more or less mechanical in their origin, although the predisposing causes were vital. The artery had been tied with carbolised silk under antiseptic precautions, a method which was most successful in avoiding the rupture of the outer coats, and had led us nearer to Hunter's ideal. But the obliteration of the artery was in such a case less extensive; it was sometimes almost linear. He had himself applied a distal ligature, and found that not more than a thin diaphragm was stretched, in consequence, across the lumen of the vessel; the external puckering did not involve as much as a quarter of an inch. In conclusion, he acknowledged a debt of gratitude to Mr. Parker for his collection of cases of aneurysm in the young; he had contributed to the conclusion that they went alone with heart-disease, and were probably due in some way or other to the mechanism of embolism.—Mr. BARWELL admitted the frequent concurrence in young subjects of warty disease of the valves of the heart along with aneurysm, but had not seen any proof of the embolic origin of Mr. Parker's case, or of the aneurysm of the ulnar artery to which Mr. Holmes had referred; and, in fact, was unable to see how embolism could produce aneurysm unless the artery were diseased at the spot where the embolism lodged. A complete compression of an artery, as for example, by the application of a tourniquet, did not produce an aneurysm, and it was therefore not likely that a plug, such as an embolism, would do so. The theory that Dr. Goodhart had advanced, of a softening round the embolism, was at present purely hypothetical. In Mr. Tufnell's case, to which Mr. Holmes had alluded, there was no adequate proof of embolism; the arterial swelling came on rapidly, and declined again before death; after death there was only slight dilatation of the artery to be found. In the thin arteries of the brain and viscera, it might be more possible that aneurysms should be caused by emboli. In Mr. Parker's case the ankylosis of the right hip had led the boy to double himself up, and increased the strain on the left side, so as to tend to aneurysm in the left groin; and besides, the hæmatemesis and epistaxis subsequently had shown that the arterial system was weak, though Mr. Parker had not found, *post mortem*, arterial disease. Further, in the cases which Mr. Parker had collected, there was only proof of heart-disease in eight patients out of fifteen.—Dr. GOODHART said he had not heard anything that made him doubt his former conclusion, viz., that embolisms were in some cases the cause of aneurysms, though not, of course, in the solid viscera, such as the spleen, where the artery was well supported. He was equally certain that the emboli were impacted at the bifurcation of arteries, and that was where, in Mr. Parker's case, the aneurysm was found, as in other cases which he had observed himself. Mr. Barwell had pointed out that aneurysm did not follow ligature of arteries; but in ligatures there was not the local inflammation of the artery, or the consequent suppuration and softening of the arterial coats, as in impacted embolisms, and to these processes he attributed the subsequent aneurysm. The embolus which was competent to produce aneurysm, he must insist, was not the simple embolus of an ordinary endocarditis; but the product of that which was best called a fungating endocarditis, in which the vegetations were very large, and often, though not always, accompanied by ulceration. Such septic clots as resulted from this led to aneurysms. Cases of this fungating endocarditis were nearly always fatal, and that led him to doubt whether the ligature of aneurysm in such cases were ever expedient.—Mr. BARKER wished to call attention to the results of the antiseptic application of a silk ligature in Mr. Parker's case, and which they seldom had the opportunity of examining. The ligature was shown to hold perfectly, and the parts around to be in excellent condition. That, he hoped, would encourage surgeons to the more frequent use of carbolised silk, which was, in comparison

with catgut, a more certain material, and much more readily and universally obtainable.—Mr. BERKELEY HILL, in commentary, quoted a case in which Mr. Heath had applied a silk ligature, and in which the microscopist who reported on the local results described the neighbourhood of the ligature as showing all the signs of a chronic abscess.—Mr. BARKER replied that he was familiar with the microscopical appearances of that case, and considered them evidence of such an exudation as he should have expected, but not of degenerative or purulent changes.—Mr. R. W. PARKER, in replying to the questions which the President had originally proposed, said that he had made careful enquiries as to the evidence in his patient of rheumatic or syphilitic disease, and had found none. The appearance of the ankylosed hip was that of strumous disease. He was obliged to admit that, even supposing the embolus to have existed in the artery, he was still unable to explain satisfactorily the method of formation from it of aneurysm. In Tufnell's case, he understood that there had only been a temporary aneurysm during life, and that after death an obliterative arteritis only had been found. In his own case the universal health of the arterial walls had made it difficult for him to understand what had determined the locality of the aneurysm, or to agree completely with Dr. Goodhart's account of the origin of aneurysms by inflammation round the embolus. As to the material for ligature, he had found carbolised silk very successful in operations for hernia, and he had good hope that, as an animal substance, it might be finally absorbed.—The PRESIDENT, in conclusion, remarked that there was a tendency often observable to refer one result to one cause, as, for example, the aneurysms they had been discussing to embolism; whereas, in organic bodies, the factors of any result were so numerous that arterial disease, embolism, and perhaps many other conditions, might unite in contributing to the one result of aneurysm.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 9TH, 1883.

SIR ANDREW CLARK, Bart., M.D., LL.D., F.R.C.P., President, in the Chair.

Case of Wound of the Plantar Arch; Secondary Hæmorrhage on the Thirteenth and Sixteenth Days following the Injury.—Mr. G. R. TURNER read notes of this case. E. S., aged 10, schoolboy, was admitted into the Seamen's Hospital, Greenwich, under the care of Mr. Turner, on April 16th, 1883, with a punctured wound of the sole of the left foot, received from a glass-cut two days previously. The patient was a healthy boy, and had no hæmorrhagic diathesis. Bleeding from the wound was arrested by pressure for ten days. On the thirteenth day after the accident, hæmorrhage recurred; ether was administered, the wound enlarged and explored, but no wounded vessel could be found; the parts around by this time were sodden and rotten; it was therefore decided to tie the posterior tibial artery, and, if necessary, the dorsalis pedis. On ligaturing the first vessel behind the inner malleolus, the hæmorrhage ceased only momentarily; the dorsalis pedis was therefore also secured, chromic acid catgut being used as a ligature in both cases. Hæmorrhage returned on the sixteenth day, three days after the proceeding, and was finally arrested by sponge-pressure after the application of the actual cautery. Mr. Turner thought the case of interest as bearing on the question of treatment of these injuries. Should the vessel be secured at once, without taking heed of the injury done to the tendons of the foot and other structures of the sole? or was it right to first try the effect of pressure? Had the actual cautery failed eventually to arrest the bleeding, ligature of the femoral would perhaps have been indicated.—Mr. HENRY LEE said this subject had recently been discussed elsewhere; and it was an important one, since hitherto no definite rules had been laid down for treatment of such cases as that described. In wounds of the palmar arch, for instance, after styptics had been employed and the arterial trunks tied one after another in vain, up to and including the axillary, final resort to amputation of the limb had been found necessary; and in face of such possibilities he regarded Mr. Turner's mode of treatment as safe, effectual, and rational. He had employed this method three times successfully. The temperature of the iron should be 30° lower than boiling point, and it should be left for half a minute applied to the bleeding point, when the surrounding tissues would adhere to the cautery slightly, and should be removed by scraping with the handle of a scalpel. There was, he said, a preparation in St. George's Hospital Museum from a patient so treated. The vessel was occluded for two inches, and this showed that the formation of coagulum in the bleeding artery under the influence of the cautery effectually controlled hæmorrhage, the coagulation extending beyond the original site of the injury. From experiments he had performed he concluded that something in the nature of the iron itself assisted the production of the coagulation of blood.—Mr. CHRISTOPHER HEATH asked for further details as to the treatment and dressing the case had undergone.—Mr. TURNER said the boy was admitted to hospital two days after the injury was inflicted. A compress, applied before admission, was removed, and replaced by another, which was changed prior to the recurrence of the hæmorrhage.—Mr. HEATH expressed great faith in the efficacy of graduated pressure with proper bandaging and elevation of the wounded limb, as means of controlling these hæmorrhages; this treatment never failed when the arm was in question. It was, however, essential to leave the dressing undisturbed for at least a week. While agreeing that the cautery was a useful agent, he was not so enthusiastic a supporter of its employment in serious cases as Mr. Lee. He would fear to trust a large artery to the eschar produced by searing the tissues with a hot iron, believing that the bleeding would recommence when the eschar separated. Mr. Turner's proposal to ligature the femoral he regarded as unnecessary and dangerous.—Mr. CRIPPS approved the employment of graduated compresses to control hæmorrhage, and urged that the actual mode of procedure must vary with circumstances. Enlargement of the wound was useful in certain cases by facilitating access to the artery. The arteries of the foot were most favourable to treatment by pressure when ruptured, but the whole limb should be bandaged. Some years ago, Mr. Skey, of St. Bartholomew's Hospital, was about to remove an arm on account of hæmorrhage from the palmar arch, which continued in spite of successive ligatures to all the arterial trunks, including the axillary, when, a bandage having been applied previously to the operation, the bleeding permanently ceased. He (Mr. Cripps) would have treated Mr. Turner's case by pressure, combined with bandaging of the limb, and rest of the latter on a splint.—Mr. BARKER asked whether the wound was clean or septic.—Mr. LEE explained that the hot iron should be applied only long enough to produce a surface-char, and not long enough to destroy the tissue. He still believed Mr. Turner would treat his next case by cautery and not by bandaging.—Dr. GLOVER narrated a case in which pressure of a graduated pad successfully controlled and cured hæmorrhage from the palmar arch, caused by a scissors-wound.—Mr. TURNER said he was deterred from continuing treatment of his case by pressure, because the tissues around were sodden, rotten, and swollen. Subsequent treatment was antiseptic. He had seen two cases do badly in which wounds of the palmar arch were treated by the pressure method. He should not think of ligaturing the femoral artery unless such a course were indicated by continual bleeding, notwithstanding pressure and ligature of the parts below. In his experience of the cautery, which was applied in conformity with Mr. Lee's directions, the tissues did not adhere sufficiently to require separation. The parts were septic before ligature of the dorsalis pedis and posterior tibial arteries.

Case of Ununited Fracture of the Patella treated by Suture of the Fragments.—Mr. G. R. TURNER read particulars of this case. The patient was Henry St. C., aged 39, a seaman, who was admitted into the Seamen's Hospital, Greenwich, in August 1881, with an ununited fracture of the left patella of six months' standing. He had broken the bone first in 1859, and the fracture had been treated in the ordinary way. The uniting medium gradually stretched; and, early in 1881, he fell on to the left knee, and felt the knee-cap give way between the pieces of bone. The fragments, on admission six months later at Greenwich, were 2½ to 3 inches apart. He was helpless, and could just hobble about with the aid of a stick. On October 26th, ether was given, and the fragments were exposed by a vertical incision. The lower one was small and comminuted. To drill it obliquely would not have been possible. Two wires were passed through the upper fragment and the larger of the two lower ones. The joint was drained posteriorly on each side, after the manner described by Professor Lister, and the limb placed on a posterior splint. Strict antiseptic precautions were adopted. The case at first did very well, the temperature on the 28th and 29th being normal; between 99.2° and 100.2° for the next three days, to November 1st; he then shivered, and his temperature rose to 102.8° (the highest point it attained). Freer exit was given to the discharges, and some pus evacuated. His temperature for the next fortnight ranged between 100° to 102° at night, falling to normal in the morning. There was some burrowing of matter in the ham. After November 21st, the discharge lessened, and the wounds gradually healed. The stout wire was removed on February 7th; the spray was discontinued on February 20th. No attempt at passive movement was made; the patient refused it, saying "all he wanted

was a stiff knee." He was now doing work as porter to the hospital. The patella, enlarged by new osseous deposit, could be moved laterally on the femoral condyles to a slight extent. The man was very active, though the knee was stiff. Although the case did not pursue an aseptic course, the antiseptic precautions largely influenced it for good. It seemed to be a mistake to discard them if, by any chance, the wound became septic. The fever in this case was more like slightly exaggerated hectic fever, as seen in a negro, than anything else. The patient, once a helpless cripple, was now earning his livelihood as hospital-porter, and was more than satisfied with the result himself. A summary of fifty cases, the majority of them unpublished, was then read, and an analysis of them, with the results of operation, was given, as follows. Hector Cameron: Old case, 1.—Thoroughly useful joint. Lister: Recent cases, 5; old cases, 2.—All excellent results. Six cases were shown at the Medical Society on October 29th, 1883. Rose: Recent cases, 2; old case, 1.—The recent cases did well (published). The old case suppurated, and ankylosis ensued (not yet published). Royes Bell: Recent case, 1; old cases, 3.—In the recent case, suppuration and sloughing occurred; there was slight movement eventually. In one old case, the wire passed to the inner side of the patella. Good results ensued in the old cases (one case as yet published). Pye: Old case, 1.—Suppuration and burrowing of matter in the thigh followed, with considerable constitutional disturbance; ankylosis ensued. Jessop: Recent cases, 2.—Good movement was obtained in both cases. One case, a compound fracture, suppurated, and for a time there was considerable constitutional disturbance (for nine days). Eventually, after the exercise of passive motion for eight months, the patient recovered with a nearly perfect joint. In the simple case, which did well, no provision for the drainage of the joint was made (both cases published). Amphlett: Recent case, 1.—Ankylosis. It was doubtful whether suppuration occurred. The patient subsequently sustained a compound fracture of the united patella; and excision of the joint was performed by Mr. W. Thomson, of Dublin (published). Wheelhouse: Recent cases, 2.—Good movement in both. One a compound fracture. No provision for drainage of any kind in this case. It did perfectly well (published). Johnson Smith: Old cases, 3.—Suppuration and ankylosis ensued. In one case, bronchopneumonia, caused by prolonged etherisation, followed the operation (not yet published). Mansell-Moullin: Old case, 1.—In this case, the operation was abandoned. After the fragments were wired, it was found impossible to get them together. The patient did well, and was no better and no worse eventually. Jordan Lloyd: Old case, 1.—Partial movement. The fragments could not be brought nearer than one inch from each other, even after the division of the quadriceps, ligamentum patellæ, and lateral incisions into the aponeurosis of the vasti. The wound for removing the wire suppurated without affecting the joint (published). Holmes: Old case, 1.—Suppuration and ankylosis. "A colleague, who helped me in manipulating the wires, had not previously washed his hands in the antiseptic fluid. Of course, however, his hands, like everything else that touched the wound, were bathed in the carbolic spray." Mr. Holmes, *St. George's Hospital Reports*, vol. x., p. 496. Henry Smith: Old cases, 1.—Use of joint, recovering rapidly (published). Teale: Recent case, 1.—Good result. Slight impairment of the power of complete flexion. The lower fragment was small, so it was found necessary to pass the sutures through the ligamentum patellæ into the cavity of the joint (published). Holderness: Old case, 1. Rushton Parker: Old case, 1.—Good results mentioned by Mr. Jordan Lloyd in his paper in the *Birmingham Medical Review*, vol. xiii. Howse: Old cases, 4.—One patient was operated on during the incubative period of syphilis. Ankylosis, without any previous suppuration ensued. Perfect recovery in another case. A third case had but little movement, and the patella broke again whilst passive motion was being employed. Eventually the patient recovered, with "increased but not perfect movement." The fourth case was still under treatment, doing well (not yet published). Golding-Bird: Recent case, 1.—Still under treatment; doing well. Silk used. Oliver Pemberton: Old case, 1.—Fibrous union. Firmer at the end of three months. The patient was then going about with the knee in a case (not published). Sydney Jones: Old case, 1.—Partial movement. The patient returned to work before passive movement was employed. Suppuration, requiring incisions, followed. Turner: Old case, 1.—Suppuration and ankylosis. The lower fragment was comminuted and small. Wires were passed right through the fragments. No passive movement. Davies-Colley: Recent cases, 2.—One case a compound fracture; one wire passed right through both fragments. Fibrous ankylosis ensued, allowing slight movement of the joint. Passive movement had not yet been attempted. The other case resulted in fibrous union of the ligaments with good movement. One wire was passed through the ligamentum patellæ (not published). Bloxam: Recent cases, 3.—Good movement. In one case there was a slight purulent discharge. No rise of temperature, however (not published). Wood: Old cases, 3.—In one, good movement (not published). In another, partial movement (not published). The third case died of pyæmia (not published). The risks of the operation were explained to the patient, who asked for it to be performed. The skin between the patellar fragments was adherent to the femur. The operation was tedious. The quadriceps and vasti had to be divided before the fragments could be approximated. The patient did well for ten days or so, was then attacked with a rigor, the joint suppurated, and he died about the third week. Metastatic abscesses were present. Bryant: Old case, 1.—Fragments separated by 1¾ inches, uniting medium thin. Operation performed January 20th, 1882. The wound was well washed with iodine water, and dressed with terebene and oil. Leiter's metallic coil was applied. Second day, the wound was dressed, and was free from discharge, temperature 98.4°. Sixth day, there was a slight purulent discharge, temperature 100.4°. Ninth day, the wound was healthy, temperature normal. February 15th, there was some burrowing about the lines of suture, otherwise the patient was doing well. March 26th, the sutures were removed. April 29th, Bavarian splint applied; there was very little movement of the joint, good union of the patella. November 2nd, 1883, the joint was stiff, but very useful. Van der Meulen, of Utrecht: Recent case, 1.—Good result, *Lancet*, 1880. Sir W. Mac Cormac: Old case, 1.—The patient, a hard drinker, was the subject of an old ununited fracture of the patella, which rendered his limb useless and his life a burden to him. The fragments were separated by about 3¾ inches. It was at his own urgent request an operation was performed. The quadriceps had to be divided to approximate the fragments. The wound never did well, taking on an unhealthy action at once; the joint suppurated; amputation of the thigh became necessary, after which the patient rapidly sank with acute septicæmia; the liver and kidneys were fatty. Previously to operation, all sorts of mechanical contrivances had been found useless. The cases of Professor Cooper, of San Francisco, were not included in the above.—The PRESIDENT congratulated Mr. Turner on the admirable paper he had just read, which, however, he remarked, instituted no comparison between the new operation and the older methods.—Professor LISTER admitted that he had come to the meeting in fear and trembling lest he should hear that his teaching had led to the death of a patient after operation for recent fracture of the patella. He was glad that such had not been the case. Some of the cases epitomised in the paper exhibited the difficulties experienced in operating on old ununited fractures. He hoped that a time might come when there would be universal acceptance by surgeons of at least *a* method of antiseptic treatment which should be trustworthy. Mr. Lister urged that no surgeon should perform so serious an operation unless either prepared himself to dress the patient's wound as required, or convinced of the ability of the assistant in charge to do so. Where, as sometimes happened, a single house-surgeon was required to act under several chiefs of different views, uniform results of treatment could not be obtained. In a German hospital which he had visited, the house-surgeon was appointed without the surgeon under whom he was to serve having any previous acquaintance with him necessarily; but in this institution the surgeon paid daily visits to his wards—a custom which, Mr. Lister thought, might be introduced into London with advantage. Ovariotomists saw their patients two or three times a day for a while after operation, all for the sake of saving a human life. Surely, if after-treatment was of the first importance, then it was incumbent on the surgeon either to see the details carried out himself, or to depute a competent assistant to do so. He had that day operated on a fractured patella. The patient was a scene-painter, fifty-four years old, who suffered transverse fracture of the patella eight weeks ago. For seven weeks the limb was encased in plaster-of-Paris, and it was thought that good union of the fragments had been obtained. After walking on the recovered limb for one week, however, the ligamentous union stretched, in spite of a posterior splint, until, at the time of operation by Mr. Lister, the pieces were half an inch apart. Mr. Lister showed the tissue which had served to join the broken bone, and which he characterised as a poor sort of stuff, imperfect tissue in which a few osseous granules only could be discovered. When the limb was bent to 30°, the union gave way. This case, which came under the category of ununited fractures, showed the difficulties they presented, as compared with recent cases.

The surface-tissue had to be pared away from the fragments, and these themselves required to be chipped into form with hammer and chisel, being rounded off even in the time which had elapsed since the accident. Mr. Lister was convinced that, by-and-by, fracture of the patella would be generally treated on the plan he described, in order to secure a perfect joint, without risk, under antiseptic precautions.—Mr. HOLMES observed that Mr. Turner did not say in what proportion of cases osseous union of the fragments took place. Doubtless, in certain cases restored by ligamentous union, there was risk of stretching the ligamentous or uniting material; but how often this occurred had not been determined. Similar difficulty would be experienced after wiring the patella. The points that arose for discussion related to—1, the safety of the operation; 2, its application to old and recent fractures; and 3, its necessity and comparison with other methods. Mr. Lister had urged that surgeons should be aroused to the danger in which their patients were placed; but this did not always appear to be evident to his followers. He himself (Mr. Holmes) had treated a case of fractured patella most carefully, with full antiseptic precautions; but being assisted by Mr. Pick to the extent of pulling the wire through the drill-hole, Mr. Pick having unfortunately omitted to previously wash his hands in carbolic water, the case progressed badly. Mr. Holmes argued that, if this slight omission imperilled the success of the operation, then it must frequently be performed at great risk to the patient; and, further, that no one could, under such circumstances, possibly open the knee-joint with absolute safety. Good results were probable in recent cases, but less so in old cases of ununited fracture; and the two cases of septicæmia recorded by Mr. Turner were both of this latter class. Mr. Holmes, however, insisted that the operation could only be justified in some old cases, and not in new ones; and he said that much error had arisen concerning the frequency with which good results from the old plan of treatment were gained. In his own wards, he recently had under treatment for fractured patella an intelligent man, in whose presence he discussed with his colleagues the advisability of operating after Mr. Lister's method. The patient then informed him that his other patella had been also fractured two years previously, and that ever since he had done his work as usual, and without in any way being prevented. The fracture had been treated in the ordinary way, and the man thought he could not do better than have it repeated on the new injury. Mr. Holmes asked if surgeons would elect to have fractures on their own persons treated by opening the knee-joint; and insisted that there was no ground for defending exposure of a patient to such risks, so long as perfect results were obtainable by the older non-dangerous plan of procedure.—Mr. HEATH agreed with Mr. Holmes that the operation might be justified in old cases of ununited fracture, which, however, occurred only because the principles of the ordinary treatment were not fully understood, viz., that displacement of the fragments arose from effusion of blood and serum into the joint; this he first treated by aspiration, before applying splints. He had that day treated a case of fractured patella, in a woman. The limb had been put up in plaster-of-Paris, and Mr. Heath undertook to produce the patient six weeks hence, and exhibit in her successful union of the fragments. Mr. Lister's last case had not been successfully treated at first, owing to the absence of efficient support of the limb. He feared Mr. Lister's paper before the Medical Society might cause loss of many knees, if not of many lives, because it would stimulate country surgeons to repeat his operation under circumstances which rendered antiseptic treatment impossible. In recent cases, Mr. Heath insisted, the operation was both unnecessary and unjustifiable.—Mr. BRYANT read notes of thirty-two cases of fractured patella treated by the ordinary method, and collected from Guy's Hospital registers by Mr. Poland. This table showed that the injured limb in these cases, after intervals of from fifteen to twenty years and upwards, remained perfectly useful as a result of treatment, and in every way admitted the usual avocations of the patients being followed. With such an experience, Mr. Bryant thought the risk to life incurred by Mr. Lister's plan could not be justified.—Mr. BOWLBY made some remarks on the result of dividing the quadriceps extensor in cases of fractured patella, and mentioned a case in which, after this proceeding, a useless limb was produced.—Mr. ROYES BELL corrected a statement of Mr. Turner's, that one of his cases was a recent injury. All had been old united fractures. The case mentioned by Mr. Bowlby was an exceptional one, and having been under his own (Mr. Bell's) care, he was able to state this fact.—Mr. LUNN pointed out that a prime factor in producing retraction of the upper fragment of a fractured patella could be found in neglect of nutrition of the quadriceps muscle. After the knee was released from flexion something must give way to compensate the diminished action, and this was the quadriceps; the condition of which should therefore be maintained by shampooing when inflammatory changes had subsided.—Mr. H. MORRIS advocated extensive employment of an apparatus used at the Middlesex Hospital for the treatment of patients suffering from fractured patella. It was made by Mr. Hawkesley, and was arranged to limit motion in the limb, being provided with means of being gradually changed in position to accommodate the slow flexion of the leg as recovery progressed. The instrument fitted in front of the limb, and was worn by very many patients, who possessed with it very useful limbs. One such patient had been a coal-carrier for three years. Two of the cases exhibited by Professor Lister, before the Medical Society, could not be regarded as quite satisfactory, since the kneeling posture could not be assumed by them.—Mr. LISTER pointed out that the cases mentioned by Mr. Morris were examples of old ununited fracture. The first was, prior to the operation, absolutely unable to walk, and the other, a woman, who had been previously unable to walk, could afterwards bend her knee well to a right angle; in the first case almost a similar result ensued.—Mr. TURNER, replying to the discussion, observed that he believed the time would arrive when every fracture of patella would be treated by suture. He could not tell in what proportion of cases osseous union was secured. In four of those tabulated it was fibrous.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 5th.

Sir JOSEPH FAYRER, President, in the Chair.

Treatment of Fracture of the Patella.—The PRESIDENT invited discussion on Mr. Lister's paper, which had been read at the previous meeting.

Mr. BRYANT spoke of the great surgical importance of the subject, He had no hesitation in accepting the principles of the treatment adopted by Professor Lister; and, indeed, was of opinion that no room for criticism in the matter existed. He was pleased also to learn that one suture was enough to hold the fragments together. But he felt himself at issue with the author when he came to consider to what cases the treatment was applicable. Professor Lister had spoken in no uncertain words on this point. He had distinctly indicated that he preferred to operate on recent as compared with old cases. The atrophy of the fragments, the prolongation of the operation, and the separation of fragments, were the chief difficulties in the old cases; the treatment was more likely to be successful in recent instances, because these difficulties were absent. Mr. Bryant then proceeded to say that he did not understand some of Professor Lister's expressions. What was the meaning, for instance, of being morally certain that all septic influences could be avoided? He confessed that he was unable to fully comprehend that expression. What was it to be morally certain? Did Professor Lister mean that his method was so good that it made him certain? Mr. Bryant thought that, if that were Professor Lister's interpretation, then it seemed to him as though such statements represented what was beyond human power. And he expressed himself in similar terms of the notion that "serious risk" could be changed into "absolute safety." He asked Professor Lister whether he literally meant that. Was he able to provide against the dangers which lurked in the background; dangers which arose from the possible existence, prior to the accident, of organic visceral disease? By no stretch of his imagination could he fall in with such expressions. He ventured to say, with all feeling of respect for Professor Lister's great authority, that the use of such terms instilled overconfidence in his juniors and disciples. But, although Professor Lister had made use of these words, Mr. Bryant could not believe that he meant what he said; for, in another part of the paper, allusion is made to certain "disasters" which may occur. Under what conditions should the operation be performed? He believed he interpreted Professor Lister aright when he said that Professor Lister only insisted upon the grand principles of antisepticism. It was not now construed that the Listerian method was the only mode of applying the principles. Twenty years ago, there could be no doubt the operation would have been scouted by us all as outside the field of legitimate surgery. What an interesting study was a surgeon's death-book! There we should find disasters recorded due to causes quite beyond the ken of all surgeons. In many instances, though the surgeon had done his very best, yet how untoward the result! He felt sure that what was true of his own death-book, was applicable to the death-book of other surgeons.

With all that could be done, our principles would fail us sometimes. If, then, disasters and bad results must occur, in what cases was this operation justifiable? Now, since good results were the rule in the ordinary treatment of fractures of the patella, why risk, even in the least, the life of the patient? Mr. Bryant then instanced four or five cases which had come under his notice during the past two years. One was a woman, aged 57, who broke her left patella in 1863, and her right in 1867. In 1883, she again fractured the left patella through the lower fragment, but up to that time she had had a perfectly useful limb, although the fragments were separated an inch and a quarter. A man, aged 41, fractured both patellæ in January 1882; and, although there was a separation of half an inch, yet he could go up a ladder as well as ever. Another man, aged 29, refractured the patella through the lower fragment; and, although there had been separation of an inch and a half, he could walk perfectly till January 1882, when the second fracture occurred. In another case, a man, aged 31, sustained a second fracture, again through the lower fragment, after three years, during which his limb had been fully useful. In all his experience, Mr. Bryant had only seen once an useless limb, and that was in a nervous lady. In this case, he had performed Mr. Lister's operation with a good result. Another case of fracture of both patellæ with very wide separation was instanced as showing how well union may take place under the old-fashioned treatment. To sum up, then, Mr. Bryant felt that he should hesitate to accept the operation as one to be applied generally; the bulk of cases of simple fracture did well without the operation, and a very small percentage did badly. As a primary mode of treatment, he should not recommend it, but, as a sign of the value of the antiseptic method, he praised most warmly the surgeon who recommended it.—Mr. ADAMS spoke in terms of great praise of the wonderful cases shown by Professor Lister. It was a marvel to him to see bony union with perfectly free motion; and he felt that a new and valuable operation had been added to practical surgery; but he rather agreed with Mr. Bryant in actual practice. He had recorded, in the *Pathological Transactions*, vol. ii, 1860, many cases which went to prove that the rule in fractures of the patella was to get non-union. From his experience, he would divide cases into four series. The first, with separation of half an inch, would do well with the ordinary treatment; the eversion of the edges of the fragments was a feature of importance, and had to be overcome. In the second class of cases, with separation of fragments of about an inch, he would use Malgaigne's hooks. In the third series, a question would arise whether Malgaigne's hooks or Professor Lister's operation would be best; and here he thought the skill of the surgeon would settle the point. Finally, there were cases of ununited fracture, and for these, in an experienced surgeon's hands, Professor Lister's method was no doubt the correct treatment.—Mr. ASTLEY BLOXAM showed three cases to the Society, all of which had done well under the operation recommended by Professor Lister. In none was there any febrile movement or untoward accident, and in all the final result was excellent. He thought the operation was one which ought to be done after all recent fractures.—Mr. SYDNEY JONES thought that the operation was not desirable in all cases of fracture of the patella, because the old-fashioned treatment gave us all that could be desired, and why should we have a wound in the joint in such cases? In later stages, or when the limb was useless, the operation might be performed with success and justification.—Mr. ROYES BELL read notes of four cases in which the limb was useless in a greater or less degree. In all he had performed the Listerian operation with final success. He was rather in favour of free incision—say of six inches—through which the quadriceps tendon might be divided if necessary. No harm seemed to follow from such extensive procedures under antiseptics.—Mr. GANT, in the main, concurred with the views of Mr. Bryant. He thought the operation ought to be tested by its results. We had to regard the operation from two points of view. First, as to the state of the limb; and secondly, as to the life of the patient. In this respect he felt sure that, in ordinary cases, the old-fashioned mode of treatment gave results with which no operation could compare, all things being considered. He believed that the Listerian operation was of great value in dealing with cases of compound fracture of the patella uncomplicated with fracture of the other bones of the limb.—Mr. MORRIS began by remarking that he had declined at first the invitation to take part in the discussion, as he had not performed the operation, and had no practical experience of it. He had, however, seen and examined the patients brought before the Society by Mr. Lister, and had read Mr. Lister's address; and since doing so had been induced to speak upon the subject. He desired, however, in the first place, to pay his tribute of honour to the surgeon who, by his consistent advocacy and practice had done so much by antiseptic means to improve the surgery of the day. Mr. Morris had lived long enough to remember the time when nearly all wounds were treated by linseed poultices, and when surgeons, perhaps, washed their hands after dressing a wound. And if Mr. Lister had done nothing more than impress the profession with the necessity of washing hands and instruments before as well as after dressing wounds, he had thereby greatly diminished mortality and deserved a high niche in the history of surgery. Having made these remarks, Mr. Morris hoped he would not be misunderstood in his criticisms, which might be placed under two heads: (1) Was bony union the best and most desirable union after fractured patella? and, (2) Had not equally good results from operation on the patella been obtained without the special Listerian form of antiseptics? Mr. Morris, from a consideration of many cases, had come to this conclusion, that a short fibrous union was better than osseous union; that it was less likely to become refractured, and that it permitted of an equally useful limb. The rarity of ruptured quadriceps tendon, or tendo patellæ, as compared with fracture of the patella; the greater frequency—in refracture of the structures in front of the knee—with which the patella was broken in a fresh part, as compared with the yielding of the uniting fibrous medium of the first fracture, had led him to this conclusion; and Mr. Bryant's cases had tended to confirm this opinion. The tough structure of the fibrous medium, like that of the normal tendinous structures, was more calculated to resist strain than the friable tissue of the sesamoid bone developed within the tendon. Again, the osseous union was rarely, if ever, complete between the broken surfaces, and all museum-specimens of osseous union proved that, after fracture of the patella, the uniting osseous medium was less strong and more friable than the original bony substance. But to secure a good short fibrous union it was essential to restrain the flexion of the joint for many months by means of a properly adjusted hinged splint or support, not for a few weeks only, as in some of the cases submitted to this operation. And, further, to secure osseous union, operative measures were not requisite. Mr. Morris referred to cases in which osseous union by ordinary methods of treatment had been obtained; and stated that, out of an examination of a very large number of cases of fractured patella, Professor Hamilton had found that in only two out of twenty-seven refractures had the fibrous union given way after a period of five months. Further, in illustration of the danger of osseous union after the operation of Lister, Mr. Morris read an account of the very grave accident which happened in the case reported by Mr. W. Thomson of Dublin in the BRITISH MEDICAL JOURNAL of August 26th, 1882, an account of which Mr. Thomson read before the Worcester meeting of the British Medical Association, and at the same time Mr. Thomson condemned the reckless practice of ligaturing the broken patella. Mr. Morris next pointed out that the practice of Professor Cooper of San Francisco, published in London medical papers in 1861, proved that equally good success from wiring the patella could be obtained without the Listerian form of antiseptics. Mr. Morris next read passages from Mr. Lister's address, which he stigmatised as lacking in the breadth and comprehensiveness with which grave surgical proceedings ought to be considered. To say that any first year's student could safely perform these operations upon the great joints of the body, provided only he employed antiseptic means, was to exalt a method of dressing to a position of overwhelming importance, and to ignore the importance of manual dexterity and surgical skill in operating, whilst it was conducive to carelessness in operative procedures, provided the antiseptics were well arranged. Surely Mr. Lister had insufficiently considered this statement. Moreover, it totally ignored a very great factor in surgery, namely, the material upon which the surgeon had to work. Every surgeon of experience must know that there was an element of danger in the subject of the operation, and that, no matter how perfect the mode of dressing, or how skilful the operator, operations would go wrong in some persons, as, for instance, in those with granular, or other latent disease of the kidneys. Mr. Lister had undoubtedly proved that, under antiseptics, these operations could be done. In another place it had been proved that the Channel could be crossed in a tricycle, properly rigged, or in a light skiff; but Mr. Morris believed that as, despite the latter case, most persons would prefer to cross the Channel by the large steamships, so, despite the former, most would prefer the safer plan of non-operative interference. Further, that as the navigators of these frail barks did not attach exclusive importance to the vessel, but attached much to the pilotage and to the state of the weather, so the ardent advocates of Listerian antiseptics would do well to introduce into their

teaching more consideration for the constitution of their patients, and for the dexterity, or want of it, in the surgeon.—Mr. EDMUND OWEN expressed his high appreciation of the results afforded by Mr. Lister's own operations, but was of opinion that such results were not practically within the reach of all Mr. Lister's disciples. It was whispered that other operators, following in Mr. Lister's steps, had found the result of the operation unsatisfactory, if not disastrous; and that with the intelligent adoption of all the recognised precautions. He would venture to ask, if Mr. Lister that night were to fracture his patella, would he advise one of his disciples to open his joint and suture the fragments? If Mr. Owen were called in, he would straighten and raise the limb, keeping it stiff for at least five months. He would not keep his illustrious patient in bed for more than a few weeks. But he was strongly of opinion that, in those cases in which the fibrous union of the fragments of the patella gave way, it was on account of the knee-joint having been allowed to resume its movements at too early a date. He would ask, "Has the past of fractures of the patella been so unsatisfactory, that their most appropriate treatment must now consist in following Mr. Lister's advice to open the joint? For his own part, he would answer "No;" and he trembled for the future of the simple fractnre if every practitioner who might consider himself "morally certain" of being able to promise such results as Mr. Lister had shown should adopt the treatment which Mr. Lister recommended for the recent transverse fracture. Mr. Owen saw occasionally a patient of his own, with a short ligamentous union of a broken knee-cap, carrying sacks of coal down steps. Such a result of treatment might be within the reach of every practitioner who insisted on the knee being kept stiff for the five months, and that without subjecting the patient to any risk of sepsis whatsoever. The surgeon who did not feel competent to promise the subject of recent transverse fracture of the patella a return of the usefulness of the joint by the ordinary treatment was hardly the man to be trusted to open the joint and wire the fragments together. Certainly, the series of cases exhibited by Mr. Lister were perfect successes; but, as regards the principle of the operative procedure, he would say, with the greatest respect, "C'est magnifique, mais ce n'est pas la chirurgie."—Mr. MORRANT BAKER was surprised to hear it assumed that in cases of fractured patella, treated by ordinary methods, the result was anything but extremely good—quite as good, practically, as in those which had been successfully treated by wiring the fragments. He was of opinion that in all but a very small minority of cases, any operation was quite uncalled for; and he thought it was justified only in those few instances in which the limb had remained comparatively useless. He did not think it should be done in recent cases.—Mr. G. R. TURNER had collected the results of fifty cases, and the success which had attended the operation in recent cases was very pronounced.—Sir JOSEPH FAYRER said that the discussion had not turned solely upon the success of a particular operation, but also on the real merits of the antiseptic system. He spoke of the wonderful results which Professor Lister had shown to the Society; and, whatever might be said of the operation as a mode of treatment for every case of fracture of the patella, he should still look back on those cases of Professor Lister's as having fully convinced him of the wonderful value and marvellous success of the antiseptic system of surgery.—Professor LISTER, in reply, said that he first wished to undo an injustice which he had unwittingly committed when he said, in his paper, that the cutting short of the sutures and hammering down the twist had originated with him. This method had, in fact, been first performed by Van der Meulen, of Utrecht, on a case of recent fracture of the patella in a woman, aged forty-five, with the result that bony union and perfect motion were obtained after four months. Professor Lister then went on to say that it gave him great satisfaction to learn how universally the antiseptic principle had been recognised. So long as the grand principle of antisepticism remained, it mattered not whether carbolic gauze, eucalyptus-gauze, salicylic cotton-wool, or iodoform, were used, provided they were used effectively, though iodoform did not seem to be protective against erysipelas. Since Koch and others had shown that corrosive sublimate was destructive not only of bacilli but their spores, some surgeons had employed that agent. If the truth must be spoken, he would say that in his paper he alluded not to disasters which might happen to himself, but to such accidents which might befall those surgeons who did not feel fully confident of their powers to exclude septic influences. He alluded to the disorder which he had witnessed in out-patient rooms, where all kinds of dressing were mixed together without regard to their nature. If volatile antiseptic dressings were freely exposed, and if dressings impregnated with boracic or salicylic acids, which were non-volatile, were yet allowed to remain where all sorts of dirt might be picked up, he could not wonder at the bad results which would ensue upon their use. But we ought to be sure that we used them so that we might be certain that their antiseptic principles were not exhausted before the dressing was changed. Corrosive sublimate was very soluble in water and easily washed away by discharge, and so it was necessary to use it in large mass. In Germany he had lately seen an absorbent wool, made of wood-shavings which were imbued with the sublimate, and he believed that used thus in large mass such dressings were very efficacious. He protested strongly against the use of antiseptic agents in the random fashion in which he knew they were still employed. He knew that Mr. Bryant used iodine, and he (Professor Lister) would not be in the least disconcerted if that agent alone remained to him, though it did rust the instruments. With regard to the justification of the operation in recent cases, what he said was that if one had not a thorough belief in the powers of the antiseptic treatment, the operation should not be performed. He could not agree that the ordinary results of the treatment of fracture of the patella were so good as some gentlemen had depicted them. He referred to the cases read by Mr. Royes Bell. He had seen great stiffness last a whole lifetime under such treatment. Moreover, he thought that laying the patient up for six months, or restricting the movement of the joint for a year or more, as Mr. Morris recommended, had positive disadvantages as compared with a treatment which required six weeks merely. It was a very large question, indeed, when we came to the subject of what would justify a surgeon in performing a given operation. Who was to decide what risk might be run in operations, speaking generally? Even in simple operations like the removal of fatty tumours, or atheromatous cysts of the head, considerable risk of erysipelas was run under the old system. So with cases of removal of loose cartilages from joints, great risks were incurred unless surgeons were very sure indeed of their antiseptic arrangements. In his early life, he was told that it was justifiable to operate in a case of ununited fracture of the humerus, but not in one of ununited fracture of the femur, because the patient might die of pyæmia; but not very long ago he had known an operation for ununited fracture of the humerus prove fatal from pyæmia. Since last Monday, he had performed an operation on a case of ununited fracture of the femur, and dovetailed the fragments together. The patient suffered considerably from the immediate effects of the operation. He had calculated on that; but now, so long as the wound was aseptic, he considered the patient practically safe. Hence, he considered that the justifiability of an operation was a very large question, dependent on many factors. And, speaking for himself, he would repeat that in many cases strict antiseptic treatment effected a conversion of serious risk into complete safety. But there was a great difference between different cases. The difference between the surgical treatment of fracture of the olecranon and that of the femur was enormous; in the former, there was no shock and no loss of blood. He ventured to say that Mr. Bryant would perhaps be surprised at his (Professor Lister's) death-list. Professor Lister had operated on a number of cases of ununited fracture of the femur and of loose cartilages in joints, on a multitude of cases of disease of the knee-joint, and without any fatal result. Alluding to Mr. Owen's quotation, he could but remark that he considered that was "chirurgie" which saved people's lives. He would by no means encourage all surgeons to operate in cases of recent fracture of the patella; though he would say that for himself he was firmly convinced of the strength of his position when he said that he regarded the operation as easy and without risk so long as antiseptic principles were strictly adhered to. But he had brought the cases of suture of the patella before the Society rather with the object of illustrating what could be done, than to advocate its employment under all circumstances. Professor Lister concluded by appealing to his surgical hearers not to reject the advantages of antiseptic surgery in such necessary operations as ligature of arteries and removal of tumours.

VACCINATION.—The Government grant for successful vaccination in the Walsham District, Stow Union, has been awarded to Mr. Sherrington E. A. Gilder, of the Beeches, Walsham-le-Willows.—A grant of £8 12s., for public vaccination in the Tarleton district, has been awarded to Mr. Henry Wickham, of Rufford, Ormskirk, Lancashire.

REVIEWS AND NOTICES.

TRAITÉ COMPLET d'OPHTHALMOLOGIE. Par L. DE WECKER AND E. LANDOLT. Tome iii, premier fascicule. REFRACTION ET ACCOMMODATION. Par E. LANDOLT. Pp. 324. Paris: Adrien Delahaye. 1883.

THE above work forms the first portion of the third volume of Drs. WECKER and LANDOLT'S systematic and exhaustive treatise on ophthalmology. Those who already possess the earlier portions of this excellent work will welcome the appearance of the present instalment. In it, Dr. Landolt handles in a very masterly and thorough manner the subject of refraction and accommodation from a purely optical point of view. The present portion of his work deals only with the static refraction of the eye. The second portion, which is speedily promised, will treat of dynamic refraction, or, in other words, the clinical application of the laws of optics to the correction of certain faulty states of vision.

The plan of Dr. Landolt's book is essentially a sound one. He recognises from the outset that he is necessarily writing for two distinct classes of readers—the mathematical and the non-mathematical. To the former, nothing is more satisfactory or conclusive than a neat formula; to the latter, it may safely be said nothing is less attractive or intelligible. But, as mathematics form the essential basis of the science of optics, it was clearly difficult to discuss the former without some reference to the latter. Dr. Landolt has very satisfactorily overcome this difficulty by relegating the mathematical calculations and formulæ to a separate chapter, to which he constantly refers those of his readers who are skilled in such methods. The rest of the work may be said to be non-mathematical. In the first part, he deals with the physical properties of light, with the laws of refraction from plane and spherical surfaces, with the functions and powers of lenses, and with the formation of retinal images generally. This portion may be looked on as a chapter in physics, so far as they bear directly on ophthalmology. What follows is the practical application to the eye of the facts and doctrines laid down in the first chapter. The book, therefore, consists essentially of two parts. The first treats of optical appliances and optical methods. The second treats of their direct bearing on the phenomena of vision.

In this second portion, the author has dealt with a large and difficult subject in a very thorough and skilful manner. Commencing with the most elementary facts, he leads his readers, by a series of plain deductions, to an appreciation and clear conception of more difficult and complex phenomena. Under the chapter, Refraction of the Eye, the whole subject of emmetropia and ametropia, except in its clinical bearings, is thoroughly gone into. Then comes a full description of the various methods of determining refraction and accommodation, and this is followed in turn by a separate chapter devoted to the consideration of regular and irregular astigmatism. With this, the present instalment of the third volume ends.

In estimating the value of a work such as Dr. Landolt's, regard should be had to the purpose which the author himself had in view. This was, as he tells us in the preface, to write a manual of accommodation and refraction which should be simple, clear, and practical. It was also to be complete, that is, not necessarily to contain all that might be, or had been, said on the subject, but just so much as was indispensable to the scientific ophthalmologist.

In this purpose, Dr. Landolt has succeeded admirably. His work is full enough to teach most specialists something, and elementary enough to place in the hands of any student for the higher examinations. It is full of excellent and well digested matter, and is written in a style of remarkable clearness and perspicacity. The non-mathematical treatment of physiological optics was a happy and original idea, for the conception of which, no less than for the way in which, he has carried it out, the author deserves no little credit. His work supplies a want which has long been felt in this particular branch of ophthalmology. While founded in the main, as all such treatises must be, on the great work of Donders, it is, nevertheless, both in arrangement and style, and, to some extent also, in subject-matter, essentially an original work. It is erudite without the prolix and vague condition, which wearies while it does not instruct. It is simple in arrangement, clear in style, and scientific in tone. It deals exhaustively with a subject which has hitherto been looked on as one of peculiar difficulty, and the practical value of which has been much underrated. In publishing this work, Dr. Landolt has rendered a real service to scientific ophthalmology. His work promises, should the second portion be of equal value with the present, to be one of the best manuals on the special subject of which it treats. The publishers have also performed their portion of the work exceedingly well. The engravings are numerous, and well drawn, and serve very materially to elucidate the text.

ADDRESS ON THE AIDS AND HINDRANCES TO THE GENERAL PHYSICIAN OR GENERAL PRACTITIONER OF MEDICINE. By WILLIAM HICKMAN, M.B., etc. London: 1883.

THIS address, delivered at the last annual meeting of the Harveian Society of London, is marked by good sound sense, and is evidently the product of much previous thought and reflection. The writer has arrived at the conviction that the division of the profession into physicians and surgeons is an artificial development of a bygone age. This conclusion colours the title of the address, pervades it throughout, and obtains complete expression in its concluding paragraph, where the anticipation is indulged in, that the various Colleges of Physicians and Surgeons may be united into one "*great National College of Medicine*, the 'general practitioner' members of which will be the physicians, the Doctors of Medicine of the future." This levelling process is, we believe, indeed "in the air," and will, in course of time, take on a definite shape; nevertheless, we hold that the different tastes, proclivities, opportunities, and talents of individuals will never fail to separate a certain number for the especial pursuit of medicine, and others for that of surgery.

Further, Dr. HICKMAN joins in the growing impression among medical men that the style of education required by the examining bodies is dictated too largely by, and is too much under the control of, a privileged class—the physicians and surgeons of hospitals—whose interests are too deeply connected with it for the public good; and, as to the results of the system, he is persuaded that they are unsatisfactory—that medical education, as conducted, does not turn out good general practitioners. It sends out men deficient in practical information, who have to learn what ordinary practice requires of them after they have embarked on its responsibilities. To remedy this defect, he would require a period of assistantship with a general practitioner, or a dispensary-appointment, after the final examination of the student.

Provident dispensaries are, in the opinion of the author, damaging to the well-being of the profession, and deprive it of a portion of its legitimate gain. And he is very severe on those members who, under the guise of philanthropy, and of meeting the needs of the sick poor generally; or the pretence of providing for the treatment of some special maladies, become the promoters of dispensaries, infirmaries, and hospitals, the tendencies of which are to multiply paupers and to impoverish the practitioner. Again, he advocates the utilising of hospitals in the interests of general practitioners, whom he credits with a persistent desire to follow the practice of those institutions, and to listen to lectures by their senior officers. He, moreover, goes further, and asks why those in general practice "should be debarred from whatever advantages may be obtainable from public practice and public teaching?" These aspirations read well, and might be reduced to a system upon paper, but we much question whether in practice they would be found workable. A similar misgiving forces itself upon us, though in a lesser degree, with reference to the author's scheme for conducting necropsies, as well in hospitals as in private practice, by appointed skilled persons, who shall keep registers of all cases examined, and place on record minute investigations respecting lesions met with, in books kept at the hospitals, and accessible to all.

From the foregoing account of this pamphlet, it will be seen that it is replete with subjects of interest and importance, and that it throws out suggestions well deserving consideration, many of which will, indeed, in the future, make their way forward for practical discussion.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By JAMES NEVINS HYDE, A.M., M.D. London: Churchill. 1883.

THE rapidly increasing number of text-books on diseases of the skin threatens to create some embarrassment; and, as each succeeding volume is sent out into the world, the task of the reviewer becomes more and more difficult. The number is already decidedly in excess of the demand, and has attained dimensions that task the most rigid and devoted specialist, to say nothing of the "students and practitioners" for whom most of them profess to be written.

It was thus with somewhat mixed feelings that we took up the volume which has just been written by Professor HYDE, of Chicago; and, if we speak well of it, the reason is to be found in the merits of the book only.

Dr. Hyde finds that observations in dermatology are so numerous and valuable, that it becomes necessary, at shortly recurring intervals, that someone should attempt the task of presenting, in a comprehensive form, the results of the latest experience. Of the number of such observations, there is, we confess, little doubt; the value of many of them is open to question. The excellence of a work like the present, presumably aiming at giving the very last information on its subject, depends, of course, on the judgment, as well as on the diligence, with which the author executes his work.

Dr. Hyde's diligence in investigating dermatological literature up to the most recent date is worthy of praise, and, for the most part, we believe, he has shown good judgment in the arrangement of his materials. Readers will find, in his book, full information on all the points which have been recently discussed by dermatologists; and, in this respect, the work is second to none of those recently published. More than that, Dr. Hyde shows himself to be an acute and original thinker, and treats with ability the doctrinal problems that divide dermatologists into schools. Judged from this point of view, the work is likely to command attention from dermatologists themselves, and is one that will maintain a prominent place amongst recent treatises on this branch of medicine. No dermatologist's library will be complete without it. To the students and practitioners who are the objects of so much solicitude on the part of specialist book-writers, we can recommend this handsome volume of about five hundred odd pages, as being as useful as some of the best works of the kind, and as having a more substantial *raison d'être* than many of them. Had Dr. Hyde's fellow-countryman, Dr. Duhring, not already given us a very complete compendium of skin-diseases, we should have felt more justified in urging the claims of the present work; but even those who possess Dr. Duhring's book, if they wish to have a very complete library of reference, will find it convenient to include Dr. Hyde's book in their collection.

The woodcuts, illustrative of the histology of the skin, deserve special mention for their excellence.

The arrangement, nomenclature, and principles of treatment introduced by Hebra are closely followed by Dr. Hyde, and his attachment to the views of the Vienna school is indicated by the dedication to Professor Kaposi.

On turning to the touchstone of the principles on which a dermatologist bases his treatment—his management of eczema—we are struck by Dr. Hyde's remarks on arsenic. "It is," he states, "an uncertain remedy in all cutaneous diseases; it is, if possible, more uncertain in eczema; and has unquestionably aggravated more cases than it has relieved. Its value in chronic and persistent forms of the disease is attested by men of distinguished reputation; and upon such authority it may be conceded a position among the internal remedies for the malady of possible value. It has been my ill-fortune to observe many obstinate forms of squamous and papular eczema aggravated by its employment."

We believe Dr. Hyde does good service in calling attention to the over-lauded action of arsenic in eczema.

The directions for treatment are, everywhere in the volume, full, clear, and judicious, and indicate for Dr. Hyde a high position as a clinical observer. That he is a suggestive writer, admits of no doubt.

NOTES ON BOOKS.

Agricultural Chemical Analysis. By P. F. FRANKLAND, Ph.D., London: Macmillan and Co. 1883.—This student's manual is based upon the well-known work of Dr. Krocker, but some of the sections of that book have been altered and others augmented. Dr. P. F. FRANKLAND'S directions for the analysis of waters occupy no less than one-fifth of the pages assigned to quantitative analysis, instead of one-fourteenth only as in the original text. The agricultural bearing of a large part of this chapter is somewhat remote; indeed, we are unable to say that this English adaptation of Krocker is exactly the sort of manual, as to soundness and usefulness, which we should like to place in the hands of students and teachers of agricultural chemistry. Some chapters, of course, are more satisfactory than others—notably, as might have been expected, the chapter on water, and also that on the chemical (not the mechanical) analysis of soils. The section relating to tobacco is condensed from the excellent chapter on that subject in Grandeau's *Traité d'Analyse des Matières Agricoles*. But on the other hand, the few directions given concerning milk, butter, and cheese analysis are very imperfect and even misleading. The important subject of the examination of oil-cakes is practically omitted altogether, while the sections on roots and herbs are vitiated by serious errors. It will suffice to draw attention to the omission, from the directions for butter-analysis, of any allusion to the saponification method, and to the tests of specific gravity and melting-point. Not a word can we find about the very special processes needed for the proper study of linseed-cake and similar cattle-foods; while, in the matter of the analysis of potatoes, the student will meet with no caution as to the presence, in these tubers, of a very large proportion of non-albuminoid nitrogen; for we are directed (on page 178) to multiply the total percentage of nitrogen found by 6.25, in order to arrive at the percentage of albuminoids. This plan will often give a figure nearly twice as high as the true proportion; and there is another and more curious mistake recurring in most of the paragraphs about root-analysis. We are told on pages 163, 164, 173, 180, and elsewhere, that beetroots, potatoes, and Jerusalem artichokes, contain gelatine as one of their considerable constituents; directions, moreover, are given for its separation. On turning to Krocker's original text, we find that Dr. Percy Frankland has mistaken the meaning of the word *gummi*, and has most perplexingly substituted for the non-nitrogenous vegetable gum which it represents, the highly nitrogenous animal gelatine. In future editions, this handbook will be open to improvement.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

FUMIGATION AND ANTISEPTIC INHALATION FOR THE EAR, THROAT, AND NOSE.

THE value of chloride of ammonium in catarrhal states of the naso-pharyngeal tract, and the drum-cavity of the ear, is widely known and acted on. The importance of disinfection, in the many conditions dependent upon parasitic infection of the nasal and aural passages, has been clearly established. The same remark applies to several lung-changes, which modern research has shown have a similar relationship. The value of iodoform in syphilitic states is well known: in foul discharges from the ear and nose, otorrhœal and ozænatous, in catarrhal conditions of the naso-pharynx, often associated with the latter, its vapour and topical application as an ointment is now commonly employed. The general value of eucalyptus, in throat-affections, is evidenced by its universal application in the shape of lozenges and gargles: the inhalation of its volatile oil, in slight catarrhal attacks of the throat, larynx, and bronchial tubes, is attended by marked benefit, and oftentimes immediate relief. Carbolic acid has its universal reputation as an antiseptic in aural, nasal, pharyngeal, and pulmonic affections. With these facts before me, I have used with benefit in several cases cigarettes made, at my suggestion, by Messrs. Corbyn and Co. The basis of all is loosely powdered eucalyptus-leaf. The eucalyptus and carbolic acid cigarettes have sufficient of the oil to saturate the leaf, and half a grain of carbolic acid, in each cigarette. The iodoform have (the stronger) one-fourth of a grain, and (the milder) one-eighth of a grain, in each. The chloride of ammonium cigarettes contain five grains of the salt in each.

The nasal passages can be freely exposed to the vapour by expelling it through the nostrils, by the ordinary trick of smokers. The vapour can be retained a certain time in the naso-pharyngeal space before expulsion. By Valsalva's method, the cavity of the tympanum may be inflated; and, in cases of otitis media and otorrhœal discharges, the aural passages may be subjected to the influence of the vapour. The cigarettes are not unpleasant to smoke. It is not necessary to point out the many other conditions in which these cigarettes may be employed, not merely in affections of the respiratory tract and pharynx, but where we desire to fumigate pleasantly the air we breathe.

H. MACNAUGHTON JONES, M.D., etc.

THE LATE MR. JAMES SHUTER.—At a meeting at St. Bartholomew's on Monday, November 12th, it was unanimously decided that a memorial of some permanent and suitable form, to be hereafter decided, should be raised to Mr. James Shuter by past and present students and personal friends.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 17th, 1883.

CANVASSING FOR HOSPITAL APPOINTMENTS.

THE energetic public contest which has been set on foot for the vacant appointment on the surgical staff at St. Bartholomew's Hospital has necessarily attracted public and professional attention. The contest now taking place is the sequel of a tragic event which has painfully interested the professional mind, and it has begun with a vigour, unremitting promptitude, and exuberant activity, which are well calculated under such circumstances to bring out all the most unfavourable features of the system of election still prevailing at St. Bartholomew's, and which its example tends to keep alive elsewhere. The grave had not closed over the remains of the promising young surgeon whose sad fate has overtaken him so early, before the papers were defaced with the advertisements of the intending candidates. We desire to say nothing harsh, and to imply no individual blame in expressing the opinion that a proceeding which is in itself objectionable, became, under these circumstances, distressing. The candidates acted, in proceeding without delay with public advertisement of their claims and wishes, under the sense of what is practically an imperious pressure; they strove to take no unfair advantage; on the other hand, they felt that to be behind-hand in the race might be to lose an opportunity and show sluggishness in the competition, and might possibly lose votes, and give an impression of slowness or indifference. Nevertheless it is evident that a system which not only allows but impels educated, cultured, and reticent members of the profession, seeking for a post which leads, naturally to some of the highest professional positions, to adopt a course felt, by the public and the profession alike, to be almost on the verge of palpable impropriety, must be a vicious system, and one calling for early reform.

The mode in which the members of the staff of St. Bartholomew's are elected recalls to some of the worst traditions of the past; some of those which have been successfully annulled elsewhere. It behoves this hospital seriously to reconsider them. The governors of St. Bartholomew's Hospital belong to the upper classes of the social world and to the most successful order of the commercial community. It would be unreasonable to suppose that they are less servious to the dictates of reason and good feeling than are other bodies of hospital-governors. The privileges of being personally canvassed by a number of young men anxious for selection to a professional post is one that can be valued by few, and which many must feel to be at least as burdensome as it is honourable. To speak plainly, it is certain that the majority of the governors of St. Bartholomew's Hospital must feel the importunities with which they are assailed, on each successive election, to vote for one candidate or another to be irksome, irritating, and distasteful. They must be conscious that neither their avocations, their leisure, nor their special information, give them facilities for making the most suitable choice; and the pressure often put on them to vote for one or other candidate upon personal grounds, and to oblige influential friends is a hurt to their consciences if they yield to such pressure, and a source of pain if they disoblige persons who consider they may have claims upon their consideration.

The influence of the staff of the hospital with the body of governors is deservedly great, and we can hardly doubt that, if they chose to use it collectively in this matter, their opinion as to the impropriety of the whole proceeding and of its obvious unfitness for the end in view would have a conclusive effect in convincing the governors that some more intelligent and less public mode of election would be better suited to the exigencies of the case and to the welfare of the hospital.

In a great number of hospitals—we are inclined to think, indeed, in the majority—it is now the practice to appoint a committee of the governing body, to whom such applications should be made, and by whom, through various machinery, the ultimate choice is decided. It is, indeed, tolerably well known that at this hospital, as in all other bodies of the kind, a predominating influence in such selection belongs to the leading persons who administer the affairs of the hospital, and who are, in such a case, in the habit of seriously taking into consideration the opinions and councils of the staff; but, in the absence of any recognised machinery for the purpose, all the disorder, all the disadvantages, and all the bias, incidental to a general canvas still prevail. Such a state would not be creditable to any hospital; it is in a high degree derogatory to the dignity and unworthy of the influential position of a great and leading hospital, such as the Hospital of St. Bartholomew's, that it should still remain a conspicuous example of this obsolete form of election. Nobility has its obligations; and in the nobility of medical science St. Bartholomew's holds a foremost rank. It is hardly seemly that the newspapers should, on each successive occasion, be besieged by advertised letters addressed in title to the governors only, but in fact appearing as a common advertisement setting forth all the life-history and unfledged claims of junior candidates promising to attain future distinction, and enumerating their chief professional achievements up to date. A candidate who feels compelled to resort to this expedient, because it is the rule of the game, is often placed in a position which makes severe demands upon his judgment, his self-respect, and his reticence. How much to say and how much to leave unsaid must commonly present itself as a problem of insoluble difficulty to the mind of a young man anxious to do justice to his past and to advance his future achievements, and at the same time having the modesty and self-respect which belong to the best class of professional minds of which this hospital and its staff have furnished so many conspicuous examples. To omit any portion of his tale, would often seem to do himself an injustice. To set out fully all that he thinks can fairly be said in his own favour in seeking such an appointment is a task from which we can conceive every candidate has shrunk with diffidence, if not with disgust. It would not be difficult, but it would be invidious to exemplify this by quotations and by illustrative examples, but the questionis one of principle and not of detail.

It is fair to give credit to all these gentlemen, and to all who are placed, or may yet be placed, in a like position, for the instinctive modesty and the scientific and social self-respect which must make the whole proceeding distasteful to them.

The practice on the present occasion has not, so far as we know, differed in any sensible respect from that which has been previously observed, although the lamentable circumstances of the vacancy have naturally drawn more pointed attention to the proceedings which have followed it. The feelings thus aroused should not, we think, be wasted in merely pointless indignation, still less should they be made the occasion of any personal blame or individual attack. The mode of election at St. Bartholomew's needs to be revised, and the selection delegated to a body to whom should be

addressed applications, in lieu of public advertisements through the newspapers; still less should the practice be to word such advertisements so as to include the statement by the candidate of his past life and achievements. Such advertisements as those which have appeared on this occasion must be felt to be injurious to the dignity of the profession at large, and therefore peculiarly unworthy of the great hospital and school where such practices still prevail.

THE CLINICAL USES OF NITRITE OF SODIUM.

SOME discussion and hostile criticism have appeared in lay journals on the subject of a paper recently published by Professor Sydney Ringer and Dr. Murrell on the clinical uses of nitrite of sodium. Few have done more to add to the resources of modern medicine, and to enlarge the *armamentarium* of remedies in acute and painful disease during the last few years, than these two distinguished therapeutists; and it is with no small pain that we have noticed that their most recent effort in this direction has been treated with harshness, chiefly arising, we imagine, from a misconception of the facts, and from erroneous deductions. Nitrite of sodium is a remedial agent which has recently been introduced to the notice of physicians, in an able paper in the *Practitioner*, as a valuable remedy in epilepsy. It belongs to a class which, although comparatively new in materia medica, has yielded results second to none in alleviating the acute agony of diseases previously most difficult to relieve. Indeed, until the investigations and labours of Lauder Brunton, of Ringer, and of Murrell, had familiarised us with the remarkable antispasmodic power of the class of nitrites, including nitrite of amyl and nitro-glycerine, there was a large class of acutely painful spasmodic affections which defied the art of the physician even to palliate. It is unnecessary to say how vast a sum of human suffering has been relieved by the introduction of this class of drugs; for each succeeding year has widened the range of the utility of these remedies, and their valuable applications to the treatment of painful affections. Angina pectoris, asthma, neuralgia, dysmenorrhœa, epilepsy, and various forms of Bright's disease, have, in succession, been brought within the range of the beneficent action of the nitrites. Hence, when Dr. Law recently gave, in the *Practitioner*, his clinical experience of the valuable uses of nitrite of sodium in epilepsy, physicians hailed with satisfaction the introduction of another remedy of this class, and learnt with interest that their field of usefulness promised to be still further widened. It was under these circumstances that Dr. Murrell, with whose name the remedial uses of nitro-glycerine are indissolubly connected, turned to nitrite of sodium as a still further addition to the resources of the physician. The dose indicated by Dr. Law's clinical experience was twenty grains. Dr. Murrell, however, with laudable caution, began to employ it in doses of half that strength; and, in the first case in which it was administered, the patient, after using the medicine for a week, not only showed no symptoms indicating that the dose was one of excessive strength, but, on the contrary, expressed, at the end of the week, the opinion, arising from his personal experience, that the dose was insufficient, and accordingly it was increased to fifteen grains. In other cases, however, the ten-grain dose produced giddiness and a feeling of sickness. Dr. Murrell then reduced the dose to five, and, subsequently, to three grains; and Dr. Ringer, to whom Dr. Murrell communicated his experience, ascertained experimentally, by the administration of the drug to animals, that with the pure drug, at least very much smaller doses should be employed than those indicated by Dr. Law from his clinical experience, which was, as Dr. Law points out in a letter in to-day's JOURNAL, made with an impure drug. Dr. Murrell, with the frankness and true candour of a physician bent solely on the advancement of the art of healing, and on cautioning his fellow-practitioners against the quicksands of practice, and against a hitherto unsuspected source of danger, communicated to the profession his full results, reciting the inconveniencies which had been felt by the patients to whom he had administered half the dose which had been recorded as, not only harmless, but distinctly beneficial in Dr. Law's hands. He recited also the subsequent experimental researches on animals of Dr. Ringer, and thus added, in a degree which probably will very shortly be more fully appreciated, to our knowledge of the uses of a remedy which is in itself promising, and which has already achieved good results.

It is strange and pitiful that a weapon should be forged from this experience, and from this useful, honourable, and promising work, with which to attack the humanity and the credit of this eminent young physician. We do not choose here to reproduce the bitter and cruel things which have been said, or to criticise them with the severity which we think they deserve. It is impossible not to reprobate the unthinking and ungenerous promptitude which has been shown to attack the reputation and to injure the character of physicians who, in the exercise of one of the highest and most sacred of their functions, have endeavoured to enlarge the means at the disposal of the healing craft, and to add one more useful remedy to our means of combatting epilepsy, one of the most direful and distressing of diseases with which humanity is afflicted. It is hard enough for physicians to have to incur the ordinary risks, dangers, difficulties and anxieties incidental to the daily fight which they carry on with disease. Hitherto it has been rightly assumed that in their daily work, and still more in their laborious efforts to advance the knowledge of their art and to carry further the conquests of medicine, they would be secure in the sympathy alike of the public and the profession. This is not the first instance in which that just hope has been dashed with bitter disappointment from the misrepresentations of the uninformed classes who are opposed to scientific research, and who describe themselves as anti-vivisectors, They scan all such inquiries with distorted and jaundiced vision; and attacks proceeding from them have to be supported with equanamity and fortitude by those who are conscious that time and truth and the whole knowledge and sympathy of their professional brethren will fight on their side, and will ultimately aid them to achieve a brilliant victory in the cause of science and humanity. But in this case it has unfortunately become apparent that those who undertake such work as has been indicated, cannot always count upon forbearance, or even justice, from professional critics in whom such qualities may fairly be expected. The hostile judgments to which we refer, and to which currency has been given in the professional as well as in the lay press, have evidently been founded upon a hasty and incorrect appreciation of the facts, for we feel that under no other circumstances could such a condemnation have proceeded from any professional journal; nor can we doubt that, in view of the statement which we publish to-day from Dr. Murrell on the subject, whatever *amende* is possible will be made. Dr. Murrell may feel confident in this matter of the full sympathy and support of his professional brethren. We trust that the annoyance which he has had to endure will not deter him from continuing in the future those valuable therapeutical researches which have already in the past largely contributed to the advance of the healing art. In respect to its bearings upon the question of experimental research upon animals, this incident adds additional force, if any were needed, to the argument in favour of such research. For had a full series of experiments upon animals been carried out at an earlier stage, the important results which Dr. Murrell has attained as to variations in the physiological effects of different qualities of the drug would have been available, and the clinical indication would have been more full and exact. The outcry against such experiment has here received a severe practical rebuke.

LEGISLATION FOR INEBRIATES.

THE recent opening of the Dalrymple Home for Inebriates at Rickmansworth, of the pleasant surroundings of which a short description was published in the BRITISH MEDICAL JOURNAL of October 27th, page 836, once again directs pointed attention to the Act under which this and other similar retreats may be established, and also to the regulations which must be complied with by any patient and friends when he or she is seeking admission into a retreat. The Habitual Drunkards' Act (42 and 43 Vic., chap. 19), was passed in 1879, and is entitled "an Act to facilitate the Control and Cure of Habitual Drunkards; and it defines an habitual drunkard as "a person who, not being amenable to any jurisdiction in lunacy, is, notwithstanding, by reason of habitual intemperate drinking of intoxicating liquor, at times dangerous to himself or herself, or to others, or incapable of managing himself or herself and his or her affairs." The Act provides that such a person may be admitted into a retreat licensed by the proper authority, to which retreat must be attached a qualified medical practitioner, on the production of a statutory declaration of two persons to the effect that the applicant is an habitual drunkard within the meaning of the Act, and on his own application for admission for any period not exceeding twelve months. Such application must further be attested by two magistrates, who shall have satisfied themselves that the applicant is an habitual drunkard, and has understood the effect of his or her application for admission into a retreat, and reception therein. The patient, once admitted, unless discharged, or legally authorised by licence to leave, is not at liberty to quit the retreat until the expiry of the term mentioned in his application. If he escape, a warrant may be issued for his recapture, and when apprehended, he may be remitted to the retreat. The introduction into a retreat, and the supplying to any inmate detained therein, of any kind of intoxicating liquor, or sedative narcotic, or stimulant drug or preparation, without the authority of the licensee or medical officer, is strictly prohibited. The licensee is compelled by the Act to report at once to the local magistrates all admissions to the retreat, and the retreats are visited at the least twice a year by the Government inspector, who has to furnish an annual report to Parliament, whilst any of the judges, including county court judges (with certain restrictions), may authorise a special inquiry into the case of any patient, and subsequently (if they deem fit) order such patient's discharge. Moreover, any person admitted to a retreat under the Act, may be discharged by order of a magistrate, upon the request of the licensee of the retreat, if it shall appear to the magistrate to be reasonable and proper. It will thus be seen that abuses of the powers conferred by the Act are fully provided against. Unfortunately, the Act, unless renewed, will expire in 1889. From the above short explanation of its chief provisions, it will be observed that the admission of an inebriate into a retreat must be a voluntary act. He or she must, before entering a home (under the Act), make application before two magistrates, otherwise the licensee has no power to detain him or her in the retreat, if the patient should desire to leave before the expiry of the full term during which personal liberty was resigned when the original application was made. Of course, a patient can voluntarily, for any length of time, enter a retreat, as any other house, upon making arrangements with the licensee, but in that case no authority rests with any one to restrain his or her departure should the patient at any time change his or her mind. The speciality of the retreat, therefore, exists in the physical inability to procure alcoholic drinks which the patients there experience, and in the power to detain therein which is given to the licensee Thus restrained from following their own devices, the large majority of patients entering these homes in Australia and in the United States, where retreats have been established for many years, are found to recover, and are restored to lives of usefulness and sobriety. To render the English Act more nearly perfect, and a greater boon to the inhabitants of the British Isles, it requires to be made a permanent enactment. Also, as Dr. Norman Kerr pointed out at the recent meeting of the Social Science Congress at Huddersfield, the present difficulties encountered by a patient seeking admission into a retreat should be considerably lessened; and the power to commit habitual drunkards to retreats, with or without the consent of the inebriate himself, should be conferred upon magistrates. With these and a few smaller amendments, the Act would undoubtedly be rendered far more efficacious than it can be as it at present stands.

THE COMMUNICABILITY OF PHTHISIS.

THE most striking, and perhaps the most valuable, part of the work done by the Collective Investigation Committee, has been that relating to the communicability of phthisis. The Committee has collected a mass of information which far exceeds in extent that obtained by any previous inquiry upon this subject, and may be regarded as a fair representation of the professional opinion of this date in this country upon the question.

To their inquiries, the Committee received 1,078 replies; of these, 673 were simple negatives, but 261 replies affirmed the proposition that phthisis may be communicated from the sick to the healthy, and afforded evidence in support of that opinion.

No small importance attaches to these 261 opinions, coming, as nearly all of them do, from gentlemen engaged in family practice. They may be regarded as affording the popular confirmation to that view which has been shared by such eminent observers as Budd, Andral, Williams, Guéneau de Mussy, Jacobi, and Hermann Weber.

On carefully reading these replies, much evidence of their individual value will be noted. They are not merely statistical units, but highly instructive clinical records, bearing with precision upon the point at issue. It is in this form that collective investigation promises to be most useful; and, if the Committee had done nothing else than to procure us these returns, they would have rendered good service to medicine.

Out of the 261 replies, the large majority, as might be expected, refer to husbands and wives or near relatives. In those few instances in which there was no relationship, the persons had been sleeping together, or had been otherwise closely associated. Among the latter class, the following remarkable series of cases is related by Dr. C. Spriggs of Great Barford. Miss R., aged 48, a dressmaker, living in rather a lonely cottage at C., Bedfordshire, had three apprentices, young girls of from 17 to 19 years of age, not related, from three adjoining villages, who took it in turn to remain in the house and sleep with her, each one a week at a time. During their apprenticeship, Miss R. was taken with phthisis, of which she died. In less than two years afterwards, all three apprentices died of phthisis, although in the family history of each no trace of phthisis existed; and the parents, brothers, and sisters of two of them are alive and well at this time. Another interesting case is related by Mr. G. F. Blake, of Moseley, Birmingham, in which a perfectly healthy child, with a family history free from all trace of tubercle, is reported as becoming infected by a phthisical nurse, and having died with profuse hæmoptysis, after the disease had run a rapid course. The rapidity of most of the cases resulting from infection is a remarkable fact, not yet explained.

One hundred and ninety-two observers report cases between husband and wife; and, in 130 of these, it is expressly stated that no family history of the disease existed in the partner to whom the disease was supposed to be transmitted.

In opposition to this positive evidence, there are 105 observers whose opinion is negative; yet even here the facts adduced are not always adverse, as the following.

(Return 306.) "Have observed several instances of husband and wife both suffering from phthisis, but have had no direct proof that the one received it from the other."

Return 309 is a list of six cases in which husbands and wives died of phthisis.

A large amount of impressive evidence is forthcoming, that persons who are free from hereditary predisposition may acquire phthisis by being brought into very close personal contact, and especially from sleeping with phthisical patients; but the precise conditions under which the disease is communicated have yet to be studied. While this is perfectly true, it must also be remembered that communication is rather the exception than the rule, and that, while it suggests the precautions of good ventilation, disinfection of air and sputa, and separate beds, sufferers from this disease may be tended with comparatively little risk.

With reference to disinfection, a trial of sulphurous acid may be recommended, in the shape of burning sulphur daily in the sleeping apartments of phthisical patients. Cantani's experiments upon the therapeutic results of inhalations of the vapour of sulphurous acid in phthisis have shown that it is easily tolerated, and apparently beneficial in allaying cough and checking expectoration.

WE have good reason for believing that it is not true that Her Majesty's Government have accepted any invitation from the Italian Government to a Congress on Quarantine, as has been stated in the Italian and other papers. It is manifestly absurd to discuss rules for quarantine before the manner in which cholera is propagated has been fairly ascertained. Such a congress would, therefore, at the present moment, be premature and useless.

WE regret to learn that Dr. Borchardt, the President of the Lancashire and Cheshire Branch, is seriously ill, and that his condition is such as to cause grave anxiety to his friends.

AMONG the recently elected Mayors are the following members of the medical profession: Dr. Eade, Norwich; Mr. J. H. Webster, Wareham; and Mr. J. Williams, Carnarvon.

THIS week, at Manchester Assizes, Thomas Arthur Ford, an unqualified medical practitioner, at Ashton-under-Lyne, was charged with the murder of a servant girl, named Amelia Addy, by performing an unlawful operation. He was found guilty of manslaughter, and sentenced to five years' penal servitude.

THE fever-returns at the metropolitan asylums showed a decrease in numbers received during the fortnight; but, in the number remaining under treatment, there was an increase of 52 over the number remaining a fortnight ago. In all, on last Saturday, there were 649 patients, of whom 472 were scarlet fever patients, 3 were typhus patients (these in the western and south-western asylums), and 174 cases of enteric disease. In the same period only 5 cases of small-pox had been brought to the asylums, 4 had died, and 14 had been discharged, leaving only 35 under treatment.

WITH regard to our remarks last week concerniug the working of the anti-adulteration Acts, we note with satisfaction that the St. Saviour's Board of Works are about to take somewhat more active measures to punish the vendors of adulterated articles. At their last meeting, they passed a resolution to the effect that the practice of forwarding letters of caution to vendors of food and drugs found to be adulterated would be discontinued on and after the 7th instant, and that it was their intention to prosecute in future cases of adulteration. The St. Saviour's Board cannot, perhaps, be regarded as pioneers of progress in this direction, but their recent action has set an example which might be followed by other metropolitan authorities with advantage to themselves and to the long-suffering public.

THE arrangements for the lectures during the forthcoming session at the Society of Arts are, as usual, of great scientific as well as popular interest, and the subjects appear to be specially well chosen. The Cantor lectures include a series of lectures on "The Scientific Basis of Cookery," by Mr. Mattiere Williams; a course on "London Houses," by Mr. R. W. Edis; a course on "Alloys," by Professor Chandler Roberts; a course on "Fermentation and Distillation," by Professor Hartley. Dr. Percy F. Frankland will lecture on "The Upper Thames as a Source of Water-Supply"; Mr. W. Lant Carpenter "On Science-Teaching in Elementary Schools"; Mr. Preece on "The Progress of Electric Lighting."

THE MEDICAL SOCIETY.

AT the meeting of the Medical Society last Monday, Dr. de Havilland Hall read notes of a case of malposition of a tooth. Dr. Stephen Mackenzie read a paper on Hæmoglobinuria. In the discussion which ensued, Dr. Dickinson, Sir Joseph Fayrer, Mr. Owen, and Dr. Theodore Williams took part.

SIR PRESCOTT HEWETT, BART.

SIR PRESCOTT HEWETT has, we regret to learn, retired from the active practice of his profession; but we hasten to express our gratification that this step is not in any way due to failing health. The retirement of so distinguished a surgeon will be felt as a great loss, not only by the profession, but by the general public; for in both classes he inspired confidence and affection by soundness of judgment, straightforwardness of speech, and kindliness of manner. Sir Prescott Hewett has well earned the right to rest; and we trust that, in the leisure of his country home, he may now be able to put on record, for the benefit and advancement of surgery, the results of his vast surgical experience. We may also be permitted to indulge the hope that we may frequently see further proofs of his well-known artistic skill at the exhibitions of the Royal Society of Painters in Water-Colour, a society of which he is one of the vice-presidents.

IMPURE WATER FOR CATTLE.

A RATHER animated correspondence has gone on lately, in which many of the writers take up the standpoint that, because cattle in their experience have frequently appeared to prefer impure water to pure drinking water, therefore, no pains should be taken to supply them with pure water. This is a form of the argument *post hoc, propter hoc*, which practical as well as scientific men will be disposed to regard with the utmost distrust. When cattle are provided with water in tanks, agriculturists too often forget to supply them with, at the same time, a liberal supply of rock salt. It is injudicious and cruel to keep cattle without free access to salt. In their desire for saline food animals will roam far, will drink the most impure fluids, and will eat earth. This is a hint which very practical men, such as Mr. Herman Biddell, who finds the scientific view of the deleterious effects of sewer-water on cattle highly amusing, would do well to consider in their treatment of cattle.

THE CHILDREN'S HOSPITAL, BIRMINGHAM.

THREE vacancies have just arisen in the honorary staff of the Hospital for Sick Children at Birmingham. Dr. Jordan, the senior physician, retires upon the completion of twenty years of service, which is the full period of office allowed under the laws of the institution. Dr. Jordan has been one of the physicians of the hospital since its foundation. He has proved himself an able, courteous, and popular officer, and he has used his clinical opportunities in the production of some valuable records in pædiatrics, amongst which are his observations upon the nature and treatment of scarlatina, which were recently published in his Ingleby lectures. Dr. A. H. Carter and Dr. Drury respectively resign their offices as extra acting

physicians. Dr. Carter, afer several years of service to this charity now retires because he is obliged to reduce his public duties on account of his increasing engagements. Dr. Drury gives up his junior appointment upon his candidature for the full physicianship falling vacant by Dr. Jordan's retirement. For the two vacant assistant-physicianships, several strong local candidates are already in the field.

THE METROPOLITAN ASYLUMS BOARD.

THE charges of mismanagement and extravagance brought against the Metropolitan Asylums Board hardly needed disproof; but they have probably been effectually disposed of in the energetic speech of which Mr. Galsworthy, the chairman of the Asylums Board, delivered himself at the Marylebone Vestry on the 8th instant. The scheme of the so-called "Conference of Metropolitan Poor-law Guardians" is in effect a reversion to the old ridiculous and extravagant plan that was in force before the Asylums Board was brought into existence to systematise, as far as possible, certain departments of Poor-law relief. The constitution and functions of the Board are, no doubt, susceptible of improvement; but to talk of its "extravagance" and the like is an erroneous statement, born of an imperfect knowledge of the Board's usefulness and the densest ignorance of economic principles.

SEVERE HICCOUGH.

DR. RUHDORFER in the *Allgemeine Wiener Medizin. Zeitung*, 1883, No. 38, reports a severe case of the above, lasting for three months, and which morphia, given hypodermically, could only check for a few hours or days. It resisted all the usual remedies, such as quinine alone and with extract of belladonna, tincture of castoreum, or tincture of valerian, in water or with aromatics, mustard poultices over the stomach, dry cuppings down the spinal column, chloroform, ether, zinc, bismuth, numerous emetics, and purgatives. The patient dragged on for three months under various remedies, morphia being administered whenever a single attack lasted beyond eight hours. At last the attack became overpowering, and the hiccough was so loud that the patient could be heard outside the house, through two doors. She sat up in bed, supported by her parents; there were dyspnœa and cyanosis, the head was jerked in all directions, the pulse was small and frequent, the neck was distended. Remembering a case in the *Revue Médico-Chirurgicale*, Dr. Ruhdorfer injected a solution of pilocarpine hydrochlorate (3 centigrammes in a gramme of water. The hiccough was at once cured, as if by magic, and has never returned since.

THE HOMES OF THE POOR.

Now that politicians of the first rank have taken up the question of the Homes of the Poor as a more or less party cry, there is some hope of the subject receiving the attention that its importance and its urgency alike demand. Amongst the signs of the times deserve to be noted an important paper by the leader of one political section in the accredited organ of his party, an imminent contribution to another of the more thoughtful reviews by a Cabinet minister of quite another school of thought, to say nothing of special reports and leading articles in the metropolitan and daily provincial press. We observe with pleasure that an energetic contemporary, the *Bristol Mercury*, has taken up the subject of workmen's dwellings in its usual thorough fashion, and has commenced a series of articles on the "Homes of the Bristol Poor," which should have a very important influence in educating local public opinion. Thanks principally to the energy and devotion of its health officer, Bristol has done more in the direction of sanitary reform than other towns similarly circumstanced; but there are still many hideous fever-nests in its midst; and if the articles in the *Mercury* should assist in the discovery and extirpation of these, the paper will have done yeoman's service to the city.

PUBLIC BATHS.

AT a time when so many real and imaginary defects are discussed by sanitarians, it is surprising, says our contemporary the *Architect*, that no one has called attention to an arrangement that is common in some, if not in all, the public baths of London, as well as in provincial towns, and which appears to be a source of danger. It is well known that in them there are second-class and first-class baths; but it is not so well known that the water with which the second-class baths are filled has been used by the first-class bathers. In one public bath in London, it is said that water is kept circulating for more than a week before it is allowed to escape. The reason given for this thrift is the cost of water; but when it is found that, in London, baths pay only sixpence per thousand gallons to the water-companies, the fee charged for even a second-class bath might be expected to insure a sufficiency of clean water. There are medi cal men, like the late Sir William Fergusson, who are sceptical about the risk arising from dirty water, and second-class bathers may escape contagion; but we maintain that it should be made compulsory for the managers of baths to announce the character of the fluid which they supply, whenever it differs from pure water.

TWENTY-FIVE YEARS' PROGRESS IN THE EAST END OF LONDON.

DR. CORNER, the health-officer of Mile End Old Town, has prepared a report summarising the sanitary work accomplished in the district since the passing of the Metropolis Management Act, 1855. During the period of twenty-six years covered by the report, the population of Mile End has increased from 61,500 to 110,000, and most of the vacant spaces have been built upon. For cesspools and imperfect brick-drains, an arterial system has been substituted, which is being extended to receive the overflow of excessive rainfall. Wells, mostly polluted, more or less, with sewage-infiltration, have been closed, and an abundant supply of water substituted. Great improvements have also been effected in the paving of the streets, in the provision of dust-bins and abolition of dust-heaps, both in the back-yards of the houses, and in such places as offered a tempting receptacle for the deposit of offensive and injurious rubbish. Dr. Corner conclusively shows that general sanitary measures persistently carried out may do much for the promotion of health and the abatement of disease. A continuance of vigilance and care is properly recommended by Dr. Corner; since, as he well observes, any relaxation in this respect is sure to be visited with its inexorable retribution, for the germs of disease can easily be encouraged and fostered by neglect, as they may, by prudence and suitable measures of sanitation, be rendered innoxious, or may even be entirely stamped out.

PROVISION FOR CHOLERA IN THE METROPOLIS.

THE announcement was made by Sir Edmund Currie, at the Asylums Board on Saturday, that, in the event of a visitation of cholera to the metropolis, provision can be made at once for 1,670 patients within the districts of the metropolis. The information now laid before the Local Government, Asylums, and other Boards, shows how much London has improved in regard to provision for the sick poor. Formerly, there was not room for the sick, except in the underground cellars of some workhouses; so little were the guardians instructed in the necessities of sickness. Now, of the whole number which can be provided over and above the general wants of the sick poor, 160 beds can be given in the Poor-law Sick Asylums, 652 in workhouses and infirmaries, 250 in the Asylums Board Hospitals, and 608 in the general hospitals. The workhouse authorities who can make no provision, or will not, are the Bethnal Green guardians, who think that cholera can be best treated outside the workhouse; the St. George's-in-the-East guardians, whose "accommodation is limited;" St. Giles's and St. George's, Bloomsbury (but assist at Cleveland Street Asylum). Hampstead and Holborn cannot give

any beds, for want of accommodation; the Lewisham Union is in the same position; while the Greenwich Union authorities do not answer. The City of London Poor-law authorities do not consider the matter worth answering, nor apparently do the Wandsworth and Clapham authorities. In addition to the beds provided, some of the authorities state that they will be ready to co-operate, should the necessity arise.

TESTIMONIAL TO MR. JONATHAN HUTCHINSON, F.R.S.

AT a general meeting of the subscribers to the Hutchinson Testimonial Fund, held at the residence of Sir Andrew Clark, Bart., on on Saturday evening last, the Committee of the fund reported that a sum of about £400 was available for the purposes of the testimonial, the total amount subscribed to date being £422 8s. 6d.; but a further sum of about £15 still remained to be collected from those who had intimated a desire to join the movement. The number of subscribers was 310, all, with six or seven exceptions, being past or present London Hospital students, the testimonial being essentially a local one. It was resolved that a portion of this amount should be devoted to the purchase of £300 worth of debenture bonds, and invested in the names of three trustees for the foundation of a Hutchinson prize essay for clinical surgery, to be awarded every three years to members of the hospital of not more than ten years standing from entrance. It was also determined that a personal testimonial should be purchased with the remaining surplus of the fund, and that this personal testimonial should be formally presented at a dinner to be given in Mr. Hutchinson's honour at the Holborn Restaurant on the 29th instant.

THE NEW SUBURBAN HOSPITAL AT BIRMINGHAM.

A MEETING of the governors of the General Hospital, Birmingham, was held in the first week of this month, under the presidency of Lord Lyttleton, to consider the munificent offer of Mr. Jaffray to provide, at his own sole cost, as a free gift to the General Hospital, a suburban branch hospital for the reception of chronic cases. As we have previously announced, Mr. Jaffray proposed to erect, on a suitable freehold site in the neighbourhood of Birmingham, a new hospital, to be built in accordance with the most approved principles of construction, and to be completely equipped for the reception of fifty beds for patients, with the necessary domestic and administrative offices, and to present the whole to the governors of the General Hospital, to be used as a much-needed extension of that venerable medical charity. In accordance with a recommendation of the committee, a resolution was passed, on the motion of the noble President, seconded by the Mayor of Birmingham, to gratefully accept the offer, and to perpetuate the name of the donor by calling the new institution "The Jaffray Suburban Branch of the General Hospital." A separate banking account was authorised to be opened for the reception of contributions to an endowment fund, and power was given to the committee to invite the co-operation of persons willing to help in completing the pecuniary provision for the maintenance of the new extension. It was announced that the list of donations to the endowment fund now amounted to £12,800, besides new annual subscriptions to the amount of £70.

THE HOSPITAL SATURDAY FUND.

AT the recent Conference on Hospital Management, it was stated by Mr. G. B. Lloyd that, at Birmingham, £5,000 a-year is collected by the Hospital Saturday Fund for the medical charities of the town. Recently, the working men have claimed to be represented on the several committees. This claim it has been thought well to allow; and, in future, two or three representatives will have seats on the Committee of the General Hospital. In London, a somewhat similar claim has lately been made. A letter recently appeared in the *Times*, signed by the President and Vice-Presidents of the Hospital Saturday Fund, setting forth certain reasons why working men should be allowed to become life-governors of the various dispensaries and hospitals to which grants are made. This proposal has met with strong opposition on the part of the hospitals. In London, the Saturday Fund has not achieved any great success. It does not collect much more than the Birmingham Saturday Fund, and that notwithstanding the street collections and other extraneous assistance. That the managers of such a fund should wish to have their nominees appointed life-governors of the hospitals and dispensaries, is a request which is not likely to be conceded. But if the Hospital Saturday Fund change its character, and become a working man's collection, properly so called, and if its claims to representation be put forward in a more moderate form, we have no doubt that, as at Birmingham, the committees of the hospitals and dispensaries will be ready to meet them in a liberal and friendly spirit. The present footing on which the Saturday Fund stands is regarded by some as so unsatisfactory, that it has been proposed that its separate existence should cease, and that it should be merged with the Hospital Sunday Fund; but it may be expected that stern criticism will help to purify and strengthen a movement in itself laudable and beneficent.

THE ADULTERATION OF FOOD IN FRANCE.

THE Director of the Paris Municipal Laboratory, M. Girard, under whose auspices much good and useful work is being performed in the way of exposing the multifarious forms of food-adulteration, reports that the skill and ingenuity displayed by fraudulent inventors would suffice to make their fortunes a dozen times over in any honest capacity. The chemical knowledge applied to the concoction of spurious foods and drinks is of a very high order, the latest thing being the manufacture of gooseberry-jelly entirely from seaweed, there not being a particle of gooseberry in it. It is coloured with fuchsine or some similar material, and the flavour is given by a compound of five parts of acetic ether, four parts of tartaric acid, and one each of aldehyde and œnanthic acid. M. Girard gives also the composition of nine other chemical compounds for imitating the flavours of strawberry, pine-apple, melon, apple, pear, cherry, peach, apricot, and plum. Unfortunately, too, in the coarser and commoner forms of adulteration, quite as much activity is displayed. Flour is exposed to damp, so as to make it weigh heavier, the result being that the gluten is altered and rendered less fit for bread-making, and more liable to mould. Mineral products are often mixed with flour, such as lead, copper, zinc, sulphate of lime, and chalk. Of thirty-one specimens of flour examined at the laboratory, only thirteen were found to be pure, a sample which came from Rotterdam containing as much as thirty per cent. of plaster, while another held thirty per cent. of sulphate of barium.

THE CHILDREN'S HOSPITAL, ORMOND STREET.

WE understand that it has become necessary to close for a time the Hospital for Sick Children, Great Ormond Street; and that this step has been rendered imperative by the discovery of serious defects in the sanitary arrangements of the hospital, which affect both the old and new portions. Mr. Rogers Field, M.Inst.C.E., is acting as the engineer for the improvements. The work of the out-patient department has not been interfered with.

THE MIDLAND MEDICAL SOCIETY.

THE inaugural meeting for the present session of the Midland Medical Society was held on Wednesday evening, November 7th, in the Grand Hotel, Birmingham, under the presidency of Dr. Bodington, of Kingswinford. About 170 practitioners of Birmingham and the district assembled to hear an address by Mr. Jonathan Hutchinson, who chose for his subject "Some Definitions of Diseases for Clinical Use." The lecturer said he desired to call attention to the great importance of attending more than had hitherto been done to

the definitions and names of diseases, and the adjectives used in describing them. There could be no difference of opinion as to the importance of the subject. There was nothing which so much hindered medical research as the vague way in which terms in common use are employed. Especially did this difficulty apply in the case of the names which had descended to us from past generations—names originally given by those who possessed comparatively little knowledge of the real nature of the diseases to which they had given the names. One important source of error in medical nomenclature proceeded from the fact that almost every disease was capable of a threefold name. A disease might be named in reference to its cause, a pathogenetic name; the name might have reference to the result which the cause produced, a pathological name; whilst the name might refer neither to cause nor result, but to some conspicuous feature shown by the disease, or the clinical name. Many mistakes have been made, or rather, want of success in giving medical definitions arose, from an attempt to combine together these three ways of naming diseases. Mr. Hutchinson, at considerable length, illustrated the errors thus produced, and pointed out how much the study of medicine and surgery would be advanced if more attention were paid to the important question of correctly naming and accurately defining diseases.

THE WEST LONDON HOSPITAL PREPARATORY SCHOOL OF MEDICINE.

FOR some time, the authorities of the West London Hospital have been desirous of utilising its resources to the utmost extent within their powers. The extensive and populous surrounding district, the facilities for conveyance from London and from the remoter suburbs, and the neighbouring river-traffic, fill its wards with patients seeking relief from every variety of injury and disease. The staff, therefore, desire to utilise this material for the work of medical education by the establishment of a preparatory school of medicine, combined with a school of natural science. The nearness of the hospital to South Kensington, the national centre for science teaching, and which contains an incomparable museum of natural history, offers great advantages. The objects now aimed at are shortly stated as follows. 1. To give, in a more complete and systematic manner than has heretofore ever been attempted, all the advantages of a year's pupilage at a first-class provincial infirmary or county hospital. 2. To give thorough and practical instruction in natural science, such to be carried up to the standard of the preliminary scientific (M.B.) examination of the London University. 3. To give intending medical students an early insight into medical work, so that every student may, without needless loss of time or money, be able to judge whether or not he has chosen the profession most suited to his abilities. The following series of elementary lectures have already been arranged. For the Winter Session: Clinical Medicine, by Dr. G. Goddard Rogers; Clinical Surgery, by Mr. Alfred Cooper; Elementary Principles of Medicine, by Dr. D. W. C. Hood; Elementary Principles of Surgery, by Mr. Keetley and Mr. F. S. Edwards; Elementary Physiology and Histology, by Dr. T. D. Acland; and Osteology, by Mr. Ballance. For the Summer Session: Ophthalmology, by Mr. Vernon; Materia Medica and Pharmacy, by Dr. Venn and Dr. Herringham; Osteology, by Mr. Bruce Clarke; Elementary Practical Medicine, by Dr. F. G. D. Drewitt; Elementary Practical Surgery, by Mr. Bruce Clarke and Mr. Boyce Barrow, with demonstrations on Dental Surgery by Mr. Underwood, and on Elementary Pathology, by Dr. Herringham. In the Science School, Mechanic Philosophy and Physics will be undertaken by Mr. Barrow; Chemistry, by Dr. Drewitt and Mr. Tressider; Botany, by Mr. Boulger; and Zoology, by Dr. Garson. The lectures on the more advanced subjects will be purely elementary, being, in fact, adapted to excite an intelligent interest in, and to give a general idea of, hospital practice. But the instruction in materia medica, osteology, and the subjects of the Science School, will be more comprehensive. The committee of the Science School is not yet complete. Its chairman is Dr. Hart Vinen, and it includes Mr. J. F. R. Firth, M.P., Sir Algernon Borthwick, the vicars of Hammersmith and Fulham, and various members of the medical staff.

POISONING BY CARBOLIC ACID.

A CASE of death through poisoning by carbolic acid, attributed to misadventure, has occurred at Monsall Hospital, Newton Heath. It was stated at the inquest that the deceased, who was 37 years of age, entered the hospital on Sunday fortnight suffering from scarlet fever, and was placed under the charge of the head nurse. The medicine prescribed by Dr. Tomkins, which was sent up from the surgery from the dispenser, was placed in the medicine cupboard prepared for the purpose in the lobby of the hospital. The head-nurse said carbolic acid was not usually kept there, but it was put there sometimes after being used for disinfecting purposes. Such bottles were always labelled "poison," and were very plain. The bottles were of the same size, and form, and colour as medicine bottles, except a very few, which were fluted. Deceased was under treatment and recovering rapidly, and able to go about up to the 4th instant. About nine o'clock on Sunday evening she told the nurse to give deceased a dose of his medicine, and immediately afterwards nurse met her, when she looked at the bottle, and found it was carbolic acid. She said, "You have not given him this?" She replied, "Yes." She went immediately for Dr. Tomkins and told him. The gas was at full light opposite the cupboard from which the carbolic acid was taken. Dr. Tomkins deposed to visiting deceased, and applying the usual remedies. It was a standing rule that no strong preparations of any kind should be kept in the medicine cupboard there being a place specially appointed for them. The nurse in question was a probationer, and had only been three weeks in their employment. She had only given medicine two or three times before. The jury returned a verdict of "Death from misadventure and carbolic poison," and recommended a heavy censure on the hospital officials. It was certainly necessary that, in an institution where people were sent to be specially cared for, they should be subjected to such carelessness as that which had occurred. The coroner said the jury had taken a merciful view of the case. It was doubtful whether they would not be doing their duty in sending the two nurses to the Assizes for causing the death of the deceased by manslaughter. The police might take a different view from the jury, and it might be that they would yet have to appear before the magistrates on a grave charge. The medical officer promised to take greater care in the future with respect to poisons, and said they would be locked up in a separate chest.

PROFESSOR DEPAUL.

THE Faculty of Medicine of Paris has suffered severe losses this year; first, by the death of Professor Lasègue; then by that of Professor Parrot; and now by the almost sudden death of Professor Depaul. Depaul (Jean Marie) was born at Morlaas, Basses-Pyrénées, July 26th, 1811. In 1832, he was nominated extern under Paul Dubois; in 1834, he was appointed intern; and, in 1841, he was promoted to the post of chef de clinique. He frequently acted for Dubois in his absence, and succeeded him as clinical professor in 1862. Depaul was one of the founders of the Société du Biologie. He had recently occupied himself with political affairs; and, after the war, he was elected municipal councillor of Paris. More recently, he had been elected general councillor of the Basses-Pyrénées. In 1874, he was made commander of the Legion of Honour. Professor Depaul was an active obstetrician throughout his life, and contributed a large number of papers on obstetrical and gynæcological subjects. Depaul had a great reputation as a practitioner, and was twice sent for to Brazil to attend the Emperor's daughter in labour. Up to the last years of his life, he attended himself to his hospital operations. "One night, he was sent for to

the clinique. He arrived in evening dress and white tie. He had left the table of his friend, M. Thiers, President of the Republic." Depaul had prepared for himself, in the Basses-Pyrénées, his native spot, an agreeable retreat, where he looked forward to spending the last days of a laborious life in rest. This was not granted to him; he was taken off, almost suddenly in three days, by an attack of pneumonia, just when he was preparing to return to his chair. He was buried at Morlaas.

HARVARD UNIVERSITY, BOSTON.

THE one hundredth anniversary of the establishment of the medical school of Harvard University was celebrated on October 17th. The proceedings commenced with a meeting in the Huntington Hall of the Massachusetts Institute of Technology. The chair was taken by Dr. Eliot, President of the Faculty of Medicine; and there was a large assemblage of visitors, among whom were Sir Lyon Playfair and Sir William Mac Cormac. The proceedings commenced with an address by Dr. Eliot, who said that, a hundred years ago, the school commenced with the appointment of John Warren, Benjamin Waterhouse, and Aaron Dexter, as professors of anatomy and surgery, medicine, and materia medica. From that modest beginning the school had grown, until it now possessed ten professors, six assistant-professors, nine instructors, thirteen clinical instructors, and nine assistants—in all, a teaching staff of forty-seven persons. In recent years, the required course of study in each year had been doubled; an admission-examination in English, Latin, Mathematics, and other subjects of general education, had been instituted; and a voluntary fourth year of study had been established. In the last ten years, the school had received 320,000 dollars by gift and bequest. It had erected a spacious and well arranged building, at a cost of about 220,000 dollars, and had increased its annual expenditure for salaries of teachers. After the conclusion of the President's Address, an oration suitable to the occasion was delivered by Dr. Oliver Wendell Holmes, Emeritus Professor of Anatomy. Afterwards, Dr. Francis Meriot, in the name of the former and present pupils, presented to the school a portrait of Dr. O. W. Holmes, who "by his eminent scientific attainments, his sound methods of teaching, his felicity of illustration, and his untiring devotion to all the duties of his chair, inspired those who were so fortunate as to come under his teaching with the importance of a thorough knowledge of anatomy, the foundation of medical science." Dr. Samuel Green then presented, on behalf of many friends of Dr. H. J. Bigelow, a bust of that eminent surgeon, to be placed in the surgical lecture-room of the new buildings of the College. Dr. Bigelow had long been surgeon to the Massachusetts General Hospital, and had for thirty-three years filled the chair of surgery in the Harvard University; and, on retiring from the chair, had been appointed Emeritus Professor. The company then adjourned to the new buildings of the school, where, after a dedication prayer by the Rev. Dr. Peabody, President Eliot, in behalf of the President and Fellows of Harvard University and of the Medical Faculty, declared the building devoted to medical science and the advancement of the art of healing. Dr. H. W. Williams, on behalf of the Medical Faculty, accepted the gift of the building; and Colonel Honeybee spoke on behalf of the contributors to the building fund. Finally, Dr. H. P. Bowditch, the Dean of the Faculty, expressed their acceptance of the trust and responsibilities imposed on them. The day's proceedings terminated with a public reception by the Faculty of the Medical School, which was largely attended.

DEATHS UNDER CHLOROFORM.

WE regret to have to record the recent occurrence of two deaths under chloroform. A man died on November 2nd at the Seamen's Hospital, Greenwich, during the administration of chloroform. He was twenty-eight years of age, and had been in the hospital since March last for urethral stricture, for the treatment of which he had already been placed three times under ether. On the present occasion, he positively refused to take ether, as he had such unpleasant recollections of the after-effects of that process, and chloroform was therefore administered on lint. The heart was not examined at the time, but a previous examination had not detected anything abnormal. On beginning the administration the pulse was good, though rapid, the latter quality being evidently due to the excited state of the patient. To the same nervous excitement was probably due an attack of retching, which came on before he had taken many inspirations. When this had passed off without any evacuation from the stomach, the administration was recommenced. Nothing noticeable took place until after some five minutes; just as he seemed about to pass into the final stage, when a good deal of muscular rigidity came on, and the face suddenly became pale, the pallor appearing at the nose first and spreading thence over the face; at the same time, the pulse became lost. The patient was at once placed face downwards on the table, while artificial respiration and galvanism were employed; but there was no return of the pulse, and the breathing became slower and slower, though it seemed that some minutes must have passed before respiratory action finally ceased. About half an ounce of chloroform had been used since the administration began. On *post mortem* examination, there was found very extensive tubercular disease of the right kidney and ureter, with early tuberculosis of the epydidimis on both sides, as well as a complicated stricture in the urethra. The heart was free from valvular disease, but a considerable amount of subpericardial fat was present, and the muscular tissue of the organ was decidedly pale. Microscopical examination has not yet been made.—A death from the effects of chloroform also occurred on the same day (November 2nd) at St. Thomas's Hospital. The patient was a man, aged 47, in whom no organic disease could be detected, but whose appearance and history were both somewhat alcoholic. He had previously been operated on for fistula in ano, on which occasion ether was administered. He appears to have taken it badly, and to have suffered severely from its after effects. He was admitted on October 23rd, and on Friday, November 2nd, it was decided that a further operation was necessary. The patient, on being acquainted with this decision, particularly requested that chloroform should be given him instead of ether. His heart having been carefully examined and found normal, it was decided to accede to his request; and, at 9 P.M., chloroform was administered. At first, he took it very well, but, after about thirty inspirations, commenced to struggle, the struggles lasting perhaps half a minute, after which he quieted down, and in a short time was fully under the influence of the drug. The operation was proceeded with and just finished, when his breathing suddenly became shallow, and then stopped, the pulse at the same time becoming weak and rapid, but still quite evident. Artificial respiration was at once commenced, and maintained for one hour and twenty minutes, during which time stimulants, such as ammonia, cold affusions, and galvanisms, were tried. The pulse, however, gradually faded, the heart became inaudible, and automatic respiration was never established. At the necropsy, all the organs were found to be healthy, with the exception of the liver, which showed marked signs of fatty degeneration.

GENERAL HOSPITALS AND CASES OF ACUTE MANIA.

ON October 29th, a man aged 40, named William Martin, entered a cab at Streatham Hill and drove to Brixton; he directed the cabman to drive to the police-station there, and, after paying the fare, walked into the station. The inspector on duty, finding that he was bleeding profusely from the neck, summoned the divisional surgeon. The man presented a deep incised wound, three inches long, and evidently inflicted by a pocket-knife, which he still held in his right hand; two empty bottles of "chlorodyne" were also found, one in his pocket

and the other in the cab. He was taken to St. Thomas's Hospital, and admitted; three days later, on November 1st, he was transferred to the Lambeth Workhouse Infirmary, and died there a few hours later. Dr. Robert H. Lloyd, Medical Superintendent of the Infirmary, stated in his evidence, at an inquest held by Mr. W. Carter, that death was due to the self-inflicted wound, but that it had been accelerated by his removal from the hospital. The surgical resident at St. Thomas's Hospital made a statement with regard to the circumstances which led to the patient being removed from the hospital to the infirmary. When admitted on November 29th, he presented small pupils and some other symptoms of opium-poisoning, but was in a state of great excitement; this excitement did not abate, and it soon became evident that the man was labouring under an attack of acute mania. Inquiry elicited that, for some time previously, he had shown symptoms of mental alienation. The attack of acute mania was exceedingly severe, and the patient was very violent. There are not in St. Thomas's Hospital conveniences for isolating, at a sufficient distance from others, a patient in the violent and dangerous condition in which this man was; and it, therefore, became necessary to remove him. Death was to be attributed to the exhaustion produced by the acute mania. The management of cases of acute mania is one of the great difficulties with which the General Hospitals have to contend; it is sometimes almost impossible to refuse admission, or perhaps the disease develops subsequently. General hospitals have not, as a rule, special rooms or skilled attendants for the management of dangerous lunatics; and it is open to question how far they can be properly called upon to provide such accommodation. It is evident, however, from this and other cases, that from the absence of such facilities for the isolation of individual cases of the kind, they are at present unequal to a condition of emergency which from time to time arises, and in respect to which they are liable to criticism of a more or less severe character. The position of residents called upon to deal with cases of this kind is often very difficult, and not even a quasi infallible judgment would save them from occasional mishaps such as this. The provision might, we think, be made without any great difficulty or expense.

FRACTURE OF THE PATELLA.

THE Medical and Clinical Societies of London have recently been the scene of animated debates on the treatment of fracture of the patella. At the former society the subject was introduced by Professor Lister, in an important and detailed communication published in the columns of this JOURNAL, of the 3rd instant. A discussion on that paper, characterised by much surgical acumen, took place at the adjourned meeting of the Medical Society on the 5th instant, and is reported in to-day's BRITISH MEDICAL JOURNAL. The subject formed also the basis of a long and carefully prepared paper read before the Clinical Society and discussed at its last meeting, and reported at page 974 of the present number of the JOURNAL. From these two papers, and the subsequent discussions thereon, some useful lessons may be gleaned. The problem in fracture of patella, as everyone knows, has been to keep the fragments of the broken bone in such close apposition that bony union may take place. According to one set of observers, the separation of the fragments is chiefly produced by the drawing-up of the upper piece by the contraction of the quadriceps extensor muscles, to meet which complication various devices for the drawing or forcing of it downwards by means of strapping, Malgaigne's hooks, etc., have been suggested and employed. Other surgeons entertain the view that the separation of the fragments arises from the fluid blood and serum poured into the joint, which Mr. Heath, at any rate, first treats by aspiration before putting the joint in splints. It is true that bony union, in spite of all the care and skill employed, has generally been a rare event, and that fibrous bands, with some osseous granules, have usually formed the uniting medium, with an interval varying in extent from a quarter or half an inch to two or three inches in extreme cases. It is notorious that the interval between the fragments which may have been very short when first the splints and bandages are removed—say in about six or eight weeks after the accident—becomes much wider when the patient begins to walk about, and returns to his occupation. In such a case, the uniting fibrous band, being soft, has stretched when traction has been made upon it. For this reason, many surgeons keep the knee extended by a mechanical apparatus, and unable to be bent, except within a very small range, for some months after the fracture—until, in fact, the fibrous uniting medium has become firm and non-extensile. The result of this treatment has been moderately good. As all authorities agree, patients with intervals of one, two, and even three or four inches between the fragments have been enabled to earn their daily living at laborious occupations. The list of thirty-two cases, for instance, compiled for Mr. Bryant by Mr. Poland from cases at Guy's Hospital, and read by the former gentleman during the debate at the Clinical Society, was conclusive of this point; the most notable case being that of a man, aged 64, who, thirty-two years before, had fractured the patella, and in whose limb the fragments were four inches apart. He was, at the time of observation, able to work well as a cellarman. In some instances, it is true, the joint has remained weak, and occasionally patients have been quite unable to follow their employments. But, whatever the subsequent resulting feebleness in the limb, from the adoption of former plans of treatment, may have been, the patient's life has, at any rate, been preserved. Professor Lister now recommends the opening of the joint soon after the accident by a longitudinal incision extending over both fragments of the broken bone; he then clears out clots, unites the fragments by one strand of wire, hammers down the ends of the wire on the front of the bone under the skin, and closes the incision in the skin by sutures. The whole procedure is, of course, accomplished under strict antiseptic precautions; and the result has been a firm bony union between the fragments in all the five cases (of recent fracture) in which he has carried out this plan of treatment. Mr. Turner, in the summary of fifty cases thus treated by various surgeons, which he read before the Clinical Society, had found a fatal result occurring in two instances, whilst suppuration and ankylosis of the joint frequently supervened. The deaths were both in cases in which the operation was performed for an old fracture, where an useless limb had resulted; and, when ankylosis occurred after the operation, it was also nearly always in cases of old fracture. The recent cases, it is true, furnished generally most successful results. Nevertheless, it must be remembered that the cases hitherto subjected to this treatment have been under the care of surgeons of acknowledged repute; whilst in most instances, the antiseptic method has been carried out in its entirety. Yet, with all this caution, ankylosis has resulted; nor can it be doubted that in a certain percentage of cases more disastrous effects would ensue, particularly if the operation became a common procedure amongst men not adequately trained in all the niceties of rigorous Listerism. For the present, therefore, it is argued that the simpler and less hazardous methods of treatment, supplemented by all that can benefit the patient, and ensure recovery with an efficient limb, should be first attempted; and that when these milder means have failed, the more vigorous measures proposed by Professor Lister should be employed. Such, at any rate appeared to be the opinion of the large majority of the many practical hospital surgeons who at these two meetings addressed themselves to the question. When Mr. Holmes, Mr. Heath, Mr. Bryant, Mr. Morris, Mr. Sydney Jones, Mr. Gant, and Mr. Morrant Baker echo almost the same sentiments, as they did at these two meetings, they may be taken to represent the prevailing opinion for the moment of English surgeons upon the point in question.

SCOTLAND.

THE number of beginners in medicine in Aberdeen University for the year, we believe, is larger than on any previous occasion.

THE sum of £12,000 has just been presented to the Senate of Glasgow University, by Mrs. Elder, for the foundation of a professorship of naval architecture; while Mr. Armistead has announced his intention of giving £2,000 for establishing one or more scholarships in connection with the Dundee University College.

GLASGOW UNIVERSITY RECTORIAL ELECTION.

THE rectorial election in Glasgow, as in Edinburgh, has been a triangular contest, the three candidates nominated by the students being the Marquis of Bute, Mr. Fawcett, and Mr. Ruskin. Mr. Fawcett has been successful; the numbers being, Fawcett, 797; Bute, 670; Ruskin, 379.

SCARLET FEVER AT STONEHAVEN.

SCARLET fever prevails to some extent in Stonehaven, and has interfered, to a considerable extent, with the school attendance. The school boards, however, have determined not to close the schools, but to adopt precautions with regard to families in which fever exists.

TYPHOID AT FINDON.

AN outbreak of typhoid fever has occurred at the fishing village of Findon, on the Kincardineshire coast. The medical officer of health has reported on the cases, and expresses his belief that the outbreak is due to defective sewerage arrangements. A committee of the local authority has been appointed to inquire into and to take proper steps for arresting the disease.

GLASGOW PHILOSOPHICAL SOCIETY.

THE eighty-second session of this Society was opened on the 7th instant, when the President (Dr. Wallace) gave an opening address, choosing for his subject "Crystalline Forms." In the course of his remarks, he spoke of the very prosperous condition of the Society, and announced that the second Graham Lecture would be delivered by Dr. Angus Smith early next year.

THE FEVER EPIDEMIC IN DUNDEE.

NOTWITHSTANDING the exertions of the sanitary authorities there seems to have been somewhat of a fresh outbreak of the disease, new cases having occurred in parts of the town which were previously uninfected. Last week four deaths occurred, and twenty-six cases of fever have been reported since the beginning of the month.

TERCENTENARY OF EDINBURGH UNIVERSITY.

THE authorities of Edinburgh University have resolved that the tercentenary celebration will be held on the 16th, 17th, and 18th April, 1884. The arrangements for the ceremony will, of course, require considerable time for elaboration. Considering that the university has its medical graduates in every part of the civilised and uncivilised globe, this event will certainly cause a world-wide interest, and it is to be hoped that all who can, will aid in the celebration of an event which is of such happy interest, and which will certainly be unique in their lifetime.

ROYAL INFIRMARY, EDINBURGH.

THE increasing importance of gynæcology as a distinct department of medicine, especially in so large and important a school as that of Edinburgh, is evidenced by the fact that the managers of the Royal Infirmary, Edinburgh, have determined to create a new appointment in its staff, namely, that of Assistant-Physician for the Diseases of Women. This is certainly a step in the right direction, both in the interests of the institution and for the valuable inducement it offers for those specially qualified for such an appointment. We are glad to learn that Dr. D. Berry Hart and Dr. J. Halliday Croom, will be among the candidates for the post.

THE LORD RECTORSHIP OF ST. ANDREW'S UNIVERSITY.

MR. J. RUSSELL LOWELL has been brought forward as a candidate for this post by a considerable body of students, who are urging his claims, not on political grounds, but on his reputation as a poet and man of letters. The other candidates spoken of are Lord Reay and Mr. W. H. Mallock, but we understand the former has declined to allow himself to be put in nomination, lest he should appear to be willing to oppose Mr. Lowell.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General for the week ending November 3rd show that the death-rate in the eight principal towns was 21.0 per thousand of estimated population. This rate is 3.3 below that for the corresponding week of last year, and 1.4 below that for the previous week of the present year. The lowest mortality was recorded in Perth—viz., 10.2 per thousand; and the highest in Glasgow—viz., 24.9 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.0 per thousand, or 0.8 below the rate for the previous week. Acute diseases of the chest caused 122 deaths, being 21 more than the number recorded during the previous week. The mean temperature was 47.7°, being 2.4° above that of the week immediately preceding, and 3.2° above that of the corresponding week of last year.

THE GLASGOW TRAINING HOME FOR NURSES.

THIS institution, which not only partakes of the character of a paying hospital for patients who are able and willing to pay for private wards, but trains also nurses for Glasgow and its neighbourhood, has just had considerable additions made to it, it having been found that the old premises were inadequate for the present needs of the establishment. By the alterations which have just been completed, a series of nice airy wards, each containing four beds and eight private rooms, together with improved accommodation for the nursing-staff, have been provided. A new operating-room has also been fitted up, and, altogether, the Home has been placed on a better footing for carrying on its work; and the demands constantly being made for its trained nurses, and the accommodation it provides, show that it is meeting in Glasgow a decided want.

BURNETT LECTURES IN ABERDEEN.

PROFESSOR STOKES, of Cambridge, continued his lectures on the undulatory theory of light. In his third lecture, he discussed reflexion and refraction, and referred *in extenso* to the effect of a crystal of Iceland spar upon light, and the phenomena of double refraction, and proceeded to discuss the polarisation of light. The Professor has the lectures written out, and, with the aid of a very few diagrams, he expounds his subject. There are no experiments to illustrate so abstruse a subject; and one facetious gentleman was heard to remark that, "from excess of light, there was darkness." Be that as it may, we cannot help thinking that the course of lectures would have been of greater benefit to the audience had it been fully illustrated by experimental demonstration.

AMBULANCE-WORK IN PEACE AND WAR.

LIEUTENANT-COLONEL DUNCAN, R.A., delivered a lecture on this subject to the rifle-volunteers last week in Aberdeen. After giving a short account of the rise, decline, and resurrection of the Order of St. John, the lecturer gave some practical demonstrations on ambulance-work, including the applications of splints in fractures, and the arrest of hæmorrhage. In speaking of the former, the gallant

lecturer said that almost everything came handy for such a purpose, and remarked that even "a stiff old Tory newspaper" was useful. Dr. Farquharson, who moved a vote of thanks to the lecturer, smartly remarked that he was quite sure that a "stiff old Tory newspaper would effect a radical cure."

IRELAND.

THE Annual Congress and Sanitary Exhibition of the Sanitary Institute will be held in Dublin in the year 1884.

THE Chairman of the Nenagh Dispensary Committee, at a meeting recently held, alluded in feeling terms to the loss which they had sustained in the death of Dr. Edward Kittson, who for a period of nearly forty years was connected with the Union.

THE death is reported of Dr. James F. White, at Roscommon, aged 28. Deceased was a graduate in medicine and surgery in the Queen's University in Ireland; and his untimely death was due to an attack of typhus fever, which he contracted in the discharge of his professional duty.

THE COOMBE LYING-IN HOSPITAL.

THE Board of Governors of this institution will proceed to the election of a master to the hospital, in succession to Dr. Kidd—whose term of office has expired—on December 13th.

THE LATE DR. LOFTIE STONEY.

AT a largely attended meeting of the students of the Carmichael College of Medicine, Dublin, held in the theatre of the College last week, it was decided to erect a memorial to the late Dr. Stoney, Lecturer on Anatomy in the College. A Committee was appointed, and a subscription-list opened. Mr. M. E. Thompson is the Honorary Treasurer, and Mr. H. B. Beatty the Honorary Secretary of the Committee.

THE CITY OF DUBLIN HOSPITAL.

MR. ARTHUR H. BENSON, M.B.Dub., F.R.C.S.I., Assistant-Surgeon to St. Mark's Ophthalmic Hospital, and Lecturer on Ophthalmic and Aural Surgery in the Ledwich School of Medicine, has been appointed Ophthalmic and Aural Surgeon to this hospital, *vice* the late Dr. H. Loftie Stoney.

CARLOW UNION.

DR. MCCABE, Local Government Board Inspector, in his half-yearly report on the condition of this workhouse, states that the hospital-accommodation is inadequate for the wants of the Union. He adds that Fallow Fever Hospital is in a dilapidated condition, and that the guardians will, ere long, have to provide a new hospital. The site of the present hospital is also, he remarks, the most unsuitable that could be found for an institution of the kind.

QUEEN'S COLLEGE, BELFAST.

DR. REDFERN, having acceded to the request of the Lord Lieutenant, and withdrawn his resignation of the Chair of Anatomy and Physiology in the College, met his class on Monday afternoon, November 5th, and delivered his inaugural lecture to the session. He was received with great enthusiasm by the large body of students who had assembled to hear him. The applause was renewed again and again. Dr. Redfern briefly expressed his thanks to the students for the warmth with which they had received him, and the great pleasure it gave him to be once more amongst them. His address dealt with the past and present position of medical science, and the advances which had been made in recent years. He also advised the students on their duties during their course of study, the strict attention to which would fit them for the more important duties which they would be called upon to perform in after life as members of the medical profession, and which would bring credit to themselves and to their alma mater, and shed a blessing on the age in which they lived. Dr. Anderson, the demonstrator of anatomy, also delivered his inaugural lecture on the early part of the same day, and was warmly received by his students. The other classes are now in full swing, and the session of 1883-84 promises, from the number of students entering, to be very successful.

NEW CONSUMPTION HOSPITAL FOR BELFAST.

MR. FOSTER GREEN has offered £5,000 to the authorities of the Belfast Royal Hospital to establish an institution, in connection with their own, for the treatment of consumptive patients. The Belfast Royal Hospital has already connected with it a convalescent home and a children's hospital, built on the Throne lands, and known as the Throne Hospital. The former was opened about seven, the latter about ten, years ago. The Throne Hospital is situated about three miles outside Belfast, on a magnificent site. The feeling appears to be that the building, which is so constructed as to be capable of extension without much outlay, should be so added to or altered as to make it suit the purposes of a consumption hospital, as well as those it already fulfils. The present building is a very handsome one; and its internal construction has been carried out on the most approved principles, and embraces every modern convenience requisite in an establishment of the kind. Another reason for attaching the Consumption Hospital to this building is the fact, that it could be worked much less expensively than if it were a separate hospital, and that the same staff of officers could attend to both. A subcommittee of the Board of Management of the Royal Hospital have reported in favour of the Throne Hospital; and the Board have adopted their report, and will submit it to the forthcoming annual meeting. Other sums, besides that mentioned, have been promised for the same purpose.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of Council held on November 8th, 1883, the first report, dated October 30th, 1883, of the Committee on the Mode of Election to the Council, and on other Matters relating to the Charters and By-laws of the College, was approved, adopted, and directed to be entered on the minutes. The following is a copy of the report.

"*Members of the Committee:* Sir James Paget, Bart. (Chairman), Dr. G. M. Humphry, Mr. J. E. Erichsen, Sir T. Spencer Wells, Bart., Mr. T. Holmes, Mr. E. Lund, Mr. W. Cadge, The President, The Vice-Presidents. The Committee appointed, on the 12th of July, 1883, to consider and report to the Council on the following resolution, viz.: 'That it be referred to a Committee to consider and report to the Council whether it is expedient that, at the election of the Council, the Fellows shall be allowed to vote either in person or by voting-papers, and, if so, in what manner,' have held three meetings, on the 11th, 25th, and 30th of October, 1883, and have agreed to the following as their first report, viz.: The Committee, having fully considered the question referred to them in the foregoing resolution, recommend to the Council that the Fellows of the College should in future be allowed to vote at the election of the Council either in person or by voting-papers transmitted to the Secretary, and that with that object steps should be taken to effect the necessary alterations in Section 15 of the Charter of the 7th Victoria (see page xxxix of the Calendar) and in Section IV of the By-laws (see page lvi of the Calendar). The Committee adopted this recommendation at their first meeting on the 11th instant, and have since had under their consideration a petition in favour of this change in the mode of voting, signed by nearly four hundred Fellows of the College, which was referred to the Committee by the Council on the 18th instant. The Committee reserve for a future report the details relating to the necessary alterations in the Charter of the 7th Victoria and the By-laws to carry out this recommendation, and also their opinion on the further question submitted to their consideration by the Council on the 9th of August last, viz., as to whether it is desirable that any, and, if so, what, alterations should be made generally in the Charters and By-laws of the College.—JAMES PAGET, *Chairman*."

INTRODUCTORY ADDRESSES AT THE MEDICAL SCHOOLS IN DUBLIN.

SCHOOL OF PHYSIC: UNIVERSITY OF DUBLIN.

PROFESSOR CUNNINGHAM, who delivered the inaugural address, said he assumed the duties of his chair with serious responsibility. This feeling proceeded partly from the importance of the subject he was called upon to teach, but chiefly from the fact that it now devolved upon him to maintain, as best he could, the high reputation which had been given to this chair by those who preceded him in office. More especially did he anticipate difficulty in the task when he reflected that, without doubt, the most eminent anatomist who had ever occupied the chair was his immediate predecessor. He felt that it would be hard indeed to succeed Professor Macalister, to fill the blank in the University which his removal to Cambridge had caused. His profound learning and wide range of knowledge, his power as a teacher, and the importance of his original work, had all contributed to raise the anatomical department of Trinity College to a position unrivalled in this country. It was, indeed, an honour which he appreciated deeply, to be appointed to succeed such an anatomist. The lecturer then proceeded to deal with the subject of his inaugural address—Human Anatomy. In medical schools, he said, it was too much the custom to treat human anatomy as if it was an isolated science—a subject standing upon a separate and independent basis. Acting on this principle, it was apt to be taught almost exclusively in its direct bearing upon the practice of medicine or surgery. Far be it from him to disparage this line of teaching. If they were to be successful practitioners, they must be ever ready to apply the knowledge they acquired of the structure of a man to the treatment of the body in a state of disease; but they must look at both sides of the shield, for any subject when studied only from one point of view became tedious, and, what was more important, its full scope could not be appreciated. The only truly scientific way of studying anatomy was constantly to keep it before them that it was merely a minute corner of the great biological field, and that to sever it from its associated sciences was to present it in an altogether false light. Innumerable side lights could be let in to brighten the study of human anatomy and explain facts which in themselves were bald, unattractive, often uninteresting. The history, origin, and antiquity of man, his relations to the lower animals, his development, etc., had all a direct bearing on his structure. It was, he was aware, the habit of his predecessor to teach anatomy from this wide standpoint. It would be his ambition to follow in Professor Macalister's footsteps. Such, then, being the case, it appeared to him that the proper method of beginning a course of lectures upon human anatomy was to fix as far as possible the position of man in the zoological scale—to determine the position he occupies in relation to the lower animals, and then to glance at the information which science afforded as to his origin. To the elucidation of these two points the lecturer devoted his introductory address. He placed before his audience what appeared to be the essential features of structural difference between man and apes. These differences, he said, were by no means significant, as many are inclined to believe, but they were not sufficient to warrant them in establishing a separate order for the reception of man. At the same time, he would have them to be careful not to exaggerate the affinities. As Huxley remarked, there is not a bone in the gorilla which does not bear a mark by which it can be distinguished from the corresponding human bone; and they might add that the same rule applied to every organ in the body.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE introductory lecture was delivered by Dr. FOOT, who, in the outset, recommended to the students the advantages of enthusiasm, diligence, and perseverance. "Remember," he said, "the course of education on which you are entering is one which admits of no delay. Your time is short, although the final issue may now seem lost to view in the haze of an immeasurable distance; for, after all, four years is but a short time for a mind still immature to be occupied in mastering and digesting so many subjects and so many details. A ladder is provided (to use a phrase of Professor Huxley's), reaching from the gutter to the highest position in the profession, which each one of you has the chance of climbing as far as he can prove himself fit to go. To climb this ladder of education he must be enthusiastic, diligent, and persevering; if not, he will have to give place to those who are. Work from the start. Procrastination will never procure you a more convenient season than the present, while the potentialities of youth are still incalculable, and while you enjoy the priceless blessing of unfluctuating health. Attack your studies in detail with resolution and intrepidity; aim at perfection in your class and year. Although perfection in most things is unattainable—for it is indeed no easy task "to pluck bright honour from the pale-faced moon"—still they who aim at it and persevere, who attack their difficulties again and again, undaunted by repulse, will come much nearer to it than those whose indolence and despondency make them give it up as hopelessly beyond their reach. The influence of birth, fortune, and patronage sinks into insignificance in comparison with enthusiasm, diligence, and perseverance. The former are adventitious helps, treacherous, and not always at your command; the latter are personal helps, your own property, for your own separate use and disposal. The best help any of you can take advantage of is self-help. The humblest student can patiently work his way upwards into the aristocracy of genius, like the pawn which, at the start ranking lowest in the chess army, on arriving at the extremity of the board, becomes a queen. But in reference to the promotion of the victorious pawn, note that he advances slowly, step by step, and that he is the only man who cannot retreat.....The most experienced forester cannot predict which or how many acorns, of all externally alike, will, in the struggle for existence, prove fully fit for survival, and tower Colossus-like over their brethren of the wood; so there may be sitting here, invisible in the morning mists of youth, some destined in the after-time to occupy the thrones of science, and to prove that the country which has produced a Crampton, a Graves, a Stokes, has not forgotten how to be a nurse of heroes in surgery and medicine."

THE RICHMOND HOSPITAL.

THE inaugural address was delivered by Dr. Banks, who, referring to the hospital, said it had originally been a nunnery, and that the building was not all they could desire for an hospital. Great interest was, however, taken in the subject by the governors, and by the Board of Inspectors of Dublin Hospital, and a move had been made to build a new Richmond Hospital. The tripartite institution—the Richmond, Whitworth, and Hardwicke Hospital—now possessed great advantages, with its 310 beds for patients. In these hospitals every form of disease that flesh was heir to was treated, and, in addition, the diseases of the eye—a most important subject now—formed a special study. In close proximity to the hospitals was the Richmond Lunatic Asylum. The subject of mental disease had been until lately taken little interest in by students of medicine, because in the curriculum of medical authorities it had not been taken notice of except by the University of London. It was now included in the curriculum of the Royal University, Dr. Lyons, Dr. Cruise, the late Dr. Hayden, and himself, having been determined that they would not be behindhand in introducing the subject. The lecturer next proceeded to speak of the medical men connected with the hospital who had done so much to build up the fame of the Dublin School of Medicine. His allusions to the surgeons would be very brief, as his colleague Mr. Thomson had, on a former occasion, dwelt on their achievements. Passing over the names of the earlier surgeons, the name of Robert Moore Peele appears, a surgeon of great distinction, and renowned as the inventor of instruments, which he exhibited at the Academy of Paris in 1790, the principal one of which has been adopted, he was informed by Mr. Stokes, in Buchanan's rectangular staff. Next came Todd, to whom was due the credit of having introduced the treatment of aneurysm by pressure, the first successful case being treated in the Richmond Hospital; and he might observe, in passing, that in the families of Todd and McDowel they recognised a heritage of high mental endowment. Having given precedence to the surgeons, Dr. Banks proceeded to speak of his own predecessors. He referred to Clegham, Bryan, and others, while Percival, their successor, held the highest rank in Dublin for many years as a consulting physician. Next came Cheyne, who held an office long since extinct, physician-general, and who, by his writings on fever and other subjects, raised the reputation of the hospitals in a marked degree. After Cheyne came Crampton—a name never to be mentioned without feelings of profound respect and admiration. He (Dr. Banks) had the advantage of being the colleague and personal friend of the late Sir Dominic Corrigan, and he wished he could portray him as he remembered him, gifted with so many of the attributes which command success in their profession, and, above all, his wonderful self-reliance and indomitable courage. Speaking of some of the hospital's clinical clerks and pupils in former and recent times, Dr. Banks proceeded to say that

they followed with interest the career of "our boys," whether they were engaged in a struggle against disease, in the peaceful pursuits of life, or combating not only against disease, but also with the enemy on the battle-field. They could understand with what a thrill of pride they followed the deeds of daring of Reynolds of Rorke's Drift. Or, as another example, he might mention Charles Kilkelly in the Indian Mutiny, and their latest contribution to the service of the Queen, Louis Fulton Young, of whom Dr. Haughton, senior lecturer in Trinity College, said he was the most distinguished medical student that ever left their walls. Besides a brilliant university career, he took first place in the M.B. examination, with the highest marks on record, and hecarried off first place in the Army Medical Service. Before closing, he deemed it his duty to address a few words of advice and warning. To those who have passed the portals, he would say, "You have put your hand to the plough; do not look back," for he seldom knew a man to succeed who had not fixity of purpose. To those who were still outside the gate, and, mayhap, hesitating, he would say, "Have you well considered the step you are about to take? Are you prepared to enter a learned profession? If not, take to some other calling; for any man who is not an educated gentleman is an intruder."

THE ADELAIDE HOSPITAL.

THE inaugural address at this hospital was given by Mr. WARREN, who said—Perhaps one of the most marvellous advances in modern surgery is the procedure known as "bone-transplantation," for which we are indebted to Dr. McEwen of Glasgow. The case of inter-human osseous transplantation, in which over two-thirds of the shaft of the humerus was restored, is one which must for ever stand out in bold relief in the history of operative surgery. No less wonderful are the procedures, now constantly practised with such satisfactory results, of skin-grafting, sponge-grafting, and the implantation of teeth; whilst the ever-increasing successes of abdominal surgery surpass our most sanguine hopes. Our operation-theatres, which, at the commencement of the present century, were little better than torture-chambers, are now completely transformed. Our operations, then appalling by the suffering they necessarily entailed, are now rendered painless by anæsthetics, and bloodless by the application of Esmarch's bandage. Let me here give you a final admonition on the importance of constantly directing your minds to the scientific aspect of medicine, as well as to the practical. If you would seek to advance physic, remember that you must not only do what is needful and right, but know why you do it. Clinical medicine is of such vital importance that those actively engaged in its pursuit are tempted to forget the close and dependent relation which all work at the bedside—to be really scientific—must bear to the knowledge and principles of medicine considered as a pure science. The latter cannot with impunity be neglected. Expertness in the recognition of symptoms and the ready application of remedies, is not science; it is only an invaluable form of art. . . . . In conclusion, gentlemen, I may add a few words upon the social position of the profession of medicine. Unfortunately, it is true, that many influences—some difficult, if not impossible, to remedy—some painful even to think of—have depressed it below the just standard. So far as this point is concerned, I think we shall act most wisely by accepting our vocation for its own sake; by struggling, each one according to his ability, to elevate it in the estimation of those around us. Neither should we ever waver from its duties to follow that glittering apple which once was thrown before Atalanta, and ever since has let and hindered the course of those who stooped to pick it up. Wordly prosperity is an incident, not an essential, to our calling; but our true honorarium is the memory of insufferable pain relieved, the rescue of valued lives from premature death, the restoration of fathers and mothers to their helpless families, and the saving the lives of little ones that seemed doomed to die. For all this the physician may reap innumerable thanks—inexpressible gratitude; for this he may earn a name, if not renowned, at least beloved. Finally, gentlemen, guard the honour and dignity of your profession as you would your own, bearing in mind that it is not the establishment of our own opinions, whatever they may be, for which we strive, nor the vain glory of personal triumph, but the advancement of our common profession, and the most jealous care of that priceless jewel which has been entrusted to us—the prestige of Irish surgery."

ST. VINCENT'S HOSPITAL.

THE introductory lecture was delivered by Mr. MCARDLE, who said he was glad to welcome back the older students to the scene of their early labours, and to have the privilege of being the first to address, with reference to their medical studies, those whose lot it was to be cast with them during the course which they had that day inaugurated. He felt that the selection of a subject befitting the occasion would be the most difficult part of his duty, for his audience would be so diverse, that to make an address worthy their attention would require an amount of ability which he could not bring to bear on the subject. Therefore, as he was obliged to confine himself more or less to some one class of his hearers, he thought that he should mainly direct the few observations he intended to make to the junior of those present. He should first allude to an event now fast approaching—the fiftieth anniversary of the foundation of St. Vincent's. Before the opening of another session, that day would have come and gone. It would, therefore, be becoming that he should not allow the present opportunity to pass without congratulating the sisterhood on the growth and development of the hospital since the commencement of its career, under the guidance of its gifted foundress, Mrs. Aikenhead. Coming now to the subject of his address, he would endeavour to show the relation of anatomy, physiology, and pathology, to the study of medicine. Physiology treated of the functions of that marvellous organism, the human body, and all would see at a glance the advantage of a thorough knowledge of this subject; for if they knew not the proper mode of action of an apparatus, how could they detect the cause of failure if it ceased to act, or acted irregularly? Take for example the circulation of the blood, and let them picture to themselves the haziness of the information which variations of the pulse would give to one who knew not the cause of its production; again, what information would derangements of motion and sensation give to one unacquainted with the functions of the brain and spinal cord? And so it was in innumerable other cases, for to trace the physiological connection between diseases of distant organs formed part of the every-day work of the enlightened practitioner. Should they wish to become acquainted with the working of the simplest mechanism, they should first examine the individual parts of which it was composed. Anatomy had another bearing apart from the necessity of knowing it. As a step towards physiological study it was of the greatest importance to the practical surgeon, for without being acquainted with the position of important structures, his knife might increase the injury or defect he was called upon to rectify. For the proper treatment of fractures and dislocations they should know the position and relations of bones, and the attachments and actions of muscles. Mr. McArdle next pointed out the importance of pathological study, and gave advice as to how the students should dispose of their time during their course of studies; and, in concluding, said it was his heartfelt wish that their efforts there should be crowned with success, and he asked them to remember that on their exertions would depend in part the future efficiency and reputation of Irish surgery.

THE MEATH HOSPITAL.

DR. MOORE, in the course of his address, said he might be permitted to advance four reasons why, in the interests of the convalescents themselves, they should provide for them a temporary home outside the hospital precincts. 1. The health of convalescents was often seriously injured if they were kept in hospital beyond a certain period in their progress towards recovery. Often had he been an eye-witness of the unnecessarily tainted air of an hospital, and he could not help thinking how different it might have been had the sufferers been removed in good time to a purer air. 2. The surroundings in even the best-managed hospital could not fail to exercise a depressing influence on the minds of the patients who were recovering from illness. 3. It should not be forgotten that beds were being occupied by convalescents which might probably be urgently required at that very moment for other patients in earlier stages of sickness. 4. Lastly, it was most desirable that those who toiled for their daily bread should not leave hospital to return at once to their wonted employment. It frequently happened that the sudden strain in this way put upon the bodily powers, not yet recovered from the deadly conflict with sickness, led to disastrous results, the least of which was perhaps an attack of fever, while in some instances the seeds of permanent organic diseases were thereby sown. Impressed with these and like considerations, the most thoughtful among the pioneers of sanitary science were ready to concede that convalescent homes were not less desirable than necessary in their warfare with disease, and that the machinery of no hospital can be regarded as complete unless a convalescent home is attached to it. Having alluded to the Convalescent Home at Bray, a noble gift presented by Lord and Lady Brabazon, the

lecturer said it now became his duty to point out where the hospitalship was crank, and what portions of its machinery required a thorough overhauling if it was to buffet successfully the winds and waves of a searching criticism. In the first place, the out-patient department, including the so-called "dispensary," stood sorely in need of reform. The hospital very properly afforded out-door medical and surgical relief; and, consequently, a separate building was with much propriety set apart as an extern dispensary. When they came to inquire into details, however, the existing arrangements were found to be eminently unsatisfactory, and devoid of all system. If justice was to be done to the patients who were treated in their dispensary—if the hospital resources were to be economised, while the dispensary "formulary" was efficient—some check must be put upon the indiscriminate admission of patients to the extern departments. Alluding to the nursing question, Dr. Moore said that a nurse without training was like a man who had learnt experience only from his own blunders. Blunders in executing physicians' or surgeons' orders upon the living body were hazardous things, and might kill the patient. Without bringing any personal charge against the noble band of self-denying women who discharged their onerous duties in the wards of the hospital, he had to assert that, as a rule, their nurses laboured under the grievous disadvantage of having received no preliminary systematic training before their appointment. How were they to provide nurses for the community at large unless to each of their hospitals there was attached a training institution with a fully equipped staff? First, there should be a trained lady-superintendent, the example and leader of her nurses. Secondly, there should be trained head-nurses, or "ward-sisters," part of whose duties it should be to train the pupil-nurses or probationers. Pardon him for speaking thus plainly of the shortcomings of the hospital; they were not, he felt sure, of the number of those who would say, "Prophesy not to us right things; prophesy deceits."

MATER MISERICORDIÆ HOSPITAL.

DR. J. REYMOND, who gave the introductory address, after some speculations on the origin of the art of healing, briefly referred to the labours of Linacre, Vesalius, Boyle, Harvey, Jenner, and others. The most important, perhaps, of all discoveries in medicine hitherto made was that of vaccination by Jenner, though its ultimate bearings were not yet discovered. The discovery of anæsthetics by Sir J. Simpson, and its paramount importance in the progress of surgery, next called for comment. The absence of hurry in operating had always been an important factor in success, and thus the introduction of anæsthetics has obviated the imperative requirements of haste. The next important truth which received recognition at the hands of the faculty was the axiom that all surgery to be successful must be antiseptic. The most important investigations of the past year had unquestionably been those which related to bacterial pathology, and in those France had led the van, in the person and genius of Pasteur. The lecturer next referred to the subject of tubercle. As early as 1865 Villemui showed that tubercle was capable of inoculation from the human subject into the lower animals. Our knowledge of the disease passed through various stages, till Creighton drew certain notable inferences in regard to the causes of consumption. But all these views, more or less speculative as they were, Dr. Koch in his etiology of tubercular disease had reduced to the severity of a science. His investigations result in the startling statement that one-seventh of the deaths of the human race is due to tubercular disease, and he has proved to demonstration that the formation of tubercles is as much due to the growth of bacilli as are the common eruptive fevers. A further discovery of this scientist was the presence of bacilli in the matter expectorated from the lungs of persons affected from phthisis, matter so infective as to expose to great danger persons inhaling the same air with consumptive patients. Previously to these researches, several physicians were of opinion that certain scrofulous affections, diseased joints, etc., were caused by a microphyte, a species of the bacillus. This theory still stands in need of verification, which a series of well considered experiments in the lower animals may supply. Dr. Koch, when in charge of the German Scientific Commission in Egypt, found, on examination, considerable numbers and varieties of bacilli in the dejections of cholera patients. The bowels accordingly were submitted to investigation, and it was observed that the bacilli had penetrated beneath the epithelial lining of the intestine and produced inflammation and other dangerous results. This discovery of Koch was of the greatest importance; and once the theory that the cholera process depended upon the presence of these bacilli receives its final verification, science will speedily reach this terrible parasite, and bring to a termination its future ravages. He next urged on the students their duties alike to their hospital and country, and touched shortly on the ample provision made for all their requirements, both as regards the materials for instruction and the teachers to impart it. He concluded by the words: "And haply, it may be that amongst those I am addressing, there may be a Galen, a Harvey, a Jenner, a Pasteur, or a Koch, who shall solve the dark enigmas of our science, and hand down his name as a glory to his country, and his work as a κτῆμα ἐς αἰεί, a possession for ever to all the sons of men."

THE ENTRIES AT THE PROVINCIAL MEDICAL SCHOOLS.

THE popularity of Cambridge as a School at which to commence the study of the Institutes of Medicine seems to be steadily on the increase. We learn from a paragraph in the *Cambridge Review* that not fewer than ninety of the freshmen this term were intending to study medicine; these new comers were distributed among the several colleges, but the largest entry was 25 at Gonville and Caius College, and the next largest, 16, at Cavendish College; the number of those who may have commenced as non-collegiate students could not be ascertained. Probably these figures are rather under than over the mark; for, when students first go up to Cambridge, they are usually at first occupied in their general studies, and it cannot be known whether they intend to pursue medicine or some other subject; some, no doubt, do not know themselves. The Medical School of Cambridge is therefore rapidly increasing in the importance which a large number of students indicates; it would appear to stand second on the list of English Schools this year, being surpassed only by St. Bartholomew's Hospital, with its 120 full entries, and approached by University College, London, with 86. A somewhat different, and possibly more correct, notion of the magnitude of the Cambridge School may be gathered from the fact, of which we have been informed, on inquiry, that there are about one hundred students now dissecting. Cambridge, however, is and must remain a school to be frequented chiefly in the first two or three years of a student's career; great clinical schools can only exist in great centres of population, and it is probably by students from Cambridge that the numbers of entries at the London schools for "special courses" (see BRITISH MEDICAL JOURNAL, October 20th, 1883, p. 791) is largely swelled; thus at five of the medical schools in London this year there was a total of 125 students entered for special courses, and of these 49 and 25 entered at those two great clinical hospitals, the London, and St. Thomas's respectively. Of the other provincial schools, from which we have received returns, Owens College has far the largest entry, namely, sixty full entries, and eighteen for classes in the preliminary sciences; the Leeds School stands next with twenty-four full entries this winter, which, added to seven who entered in May last, makes a total of thirty-one students who began their first winter session this year, besides two who have entered for special courses, and one dental student. The Bristol School also maintains a good position, with twenty-five full entries, and two for special courses.

UNSANITARY DWELLINGS.

THE following description of Queen's Place, Whitechapel, a typical slum, which has for twenty-five years successfully defied the efforts for its improvement of the resident clergy, the medical officer of health, the Metropolitan Board of Works, the Artisans' Dwellings Acts, and several assaults by meetings of indignant ratepayers, may be found useful at the present time, both as a picture of the sanitary evils to be encountered, and of the difficulties to be met with in removing them.

Queen's Place is entered between 80 and 81, High Street, Whitechapel, through a narrow dirty passage. The passage widens out a little into the interior of the court, into which very little sun can penetrate, and round which the houses are built; on one side there are no back yards to the houses, and, on the other, a space of 100 square feet only for two houses.

The five houses of which the court consists are all occupied, and there is never a room vacant for many hours, the demand for accommodation being greater than the supply. The rooms, of which each house contains from six to eight, are either let separately, at from 1s. 6d. to 3s. per week, or two rooms together, back

and front, at from 3s. to 4s. 6d. per week. This represents an annual rental of from £150 to £190, or a total sum of something like £4,500, which the owner has received from this property since he began so successfully to defy the law twenty-five years ago. It was stated that, at least, 100 persons resided in these 30 rooms, but this seems to be below the average, as inquiries proved that one house had two families, consisting of four adults and four children, on the top floor, four adults and eleven children on the second, and two adults and seven children on the ground floor, or thirty-two persons in all. In spite of this state of things, the sanitary inspector reported to the Vestry, on the 6th instant, that there were but four houses, containing seventeen rooms, occupied by fifty-three persons. This report was so remarkable, that we have made inquiries into the matter, and we are informed that the inspection was made between midnight and 1 A.M., as follows: "Houses Nos. 1 and 2 were partially inspected, but all the doors were not opened, neither were all the rooms even looked into; No. 4 was scamped through, while houses Nos. 3 and 5 were not examined, the inspector declaring that No. 5 house was not in the court."

It is evident, therefore, that the inspector averaged the occupants of the houses in this court on the people returned as residing in the smallest house, and so made the occupants but 53 for four houses, or 66 for the five. If we multiply the inhabitants we find residing in house No. 4, viz., 32 persons, by the total number of houses (5), it will show a total of 160 persons. It is, therefore, fair to assume that we shall be understating the permanent occupants of these five houses if we calculate them as $\frac{160+66}{2}$, or 113 on an average. This is about the number returned by the vicar of the parish, the Rev. A. S. Barnett, and is, no doubt, more reliable in every way than that given by the inspector. To these 113 residents must be added an army of loafers and prostitutes, who take advantage of the landings and staircases to secure a shelter at night gratis. The night-air of these tenements can be better imagined than described. Fumes of fermenting filth from the foul ashpit beneath one's bedroom, mingled with stench from the narrow court and overcrowded rooms below, *plus* the fumes of bad tobacco and other emanations from the occupants of the stairs, must combine to produce an atmosphere so thick that it is a marvel human beings can breathe it for hours and exist; for to live under such conditions must be impossible, as the appearance of the unfortunate people sufficiently testifies. Probably no ray of sunlight ever penetrates the lowest rooms of any one of these five houses. Dark, dirty, dismal, and in disrepair, they stand a monument to disregard of law and of the rights of the poor people. These houses are bad enough for the people who reside in them, as they get practically no sun, no current of air, pure or otherwise; but what is to be said for the people whose washing is done in the laundry, to which purpose one of the rooms is devoted during the daytime, or whose clean linen is sent to be mangled in the bedroom above the foul ashpit? Those who know the district and the work of the late medical officer of health, Mr. Liddle, will know that Mr. Liddle, than whom there has seldom been an abler officer of health, as his valuable and lucid reports testify, would not remain inactive in the face of such a scandal as the condition of Queen's Place. Nor did he do so.

In the year 1859, Mr. Liddle brought Queen's Place under the notice of the vestrymen, who formed the members of the Board of Works for the Whitechapel District, on the ground that "the consideration of the question of the working classes being provided with healthy habitations," compelled him to bring to their notice, for the second time, the class of buildings (the tenement-houses above described) lately erected in this court. The question was thereupon referred to the Metropolitan Board, and proceedings were taken against the owner, who demolished a part of the houses, and so saved himself from further interference. The Metropolitan Board of Works, however, promoted a Bill, giving them greater powers of control in these cases, which duly became law. Thereupon, Mr. Liddle again took action with regard to Queen's Place, on the ground that the space at the rear of two of the houses was but fifty feet to each. It was obvious, in this case, that the buildings were not in accordance with the requirements of the Building Act; and a complaint was again lodged against the owner, who again defied the law by causing a door-way to be made in the party-wall between these two houses. This arrangement was held to be legally sufficient to convert these two houses into a single house, whereby the entire space at the rear, which was 100 square feet, made up the amount of back-yard the Act required. As Mr. Liddle pointed out at the time, upon this principle, half a dozen or more houses could be converted into a single house, whilst the open space in the rear, for lighting and ventilating the back rooms, need not exceed one foot in width, providing the building extended 100 feet. Monstrous as this device of the owner was, it succeeded in its object, and once more the health-officer was foiled; nor was this all, for immediately the district surveyor passed the houses as legally satisfactory, and, so soon as they were tenanted, the door-way was bricked up, and the one house was again turned into two, and so it has remained to this day. Further inquiries have revealed the fact that a warehouse originally stood where these two houses now stand, which the owner pulled down to enable him to place on the site the more profitable houses now in question, although they were built in the teeth of the remonstrance of the medical officer of health, and in successful defiance of his requirements. Further than this, an attempt has been made to bring them into a scheme, prepared under the powers of the Artisans' Dwellings Act, 1875; but the Metropolitan Board of Works refused to include Queen's Place, although Mr. Liddle condemed these houses as unfit for habitation. Failing at every point, an attempt was made to put Torrens's Act in force; but it could not be applied, because these abominable houses were not then unfit for habitation from defective condition in point of repair, but only because of the confined space on which they stand, and the stagnant atmosphere which surrounds them. This omission in Torrens's Act has been the cause of perpetuating the occupancy of many houses unfit for habitation. The Legislature ought at once to take steps to remedy this serious oversight, if for no other reason than because the external surroundings of houses, and the want of light and ventilation, are often more dangerous conditions than the defective structural repair. For nearly twenty-five years, the owner of these houses in Queen's Place has been able to defy the law, and to realise a handsome income from property which ought never to have been allowed to exist at all, since they are a class of buildings Parliament specially intended should not be occupied by human beings.

DR. MARION SIMS.

THE sudden and unexpected death of Dr. Marion Sims, of which the news reached London this week by cable, will be received by the profession at large in this country, and especially by his very wide circle of attached friends, with profound grief. Dr. Marion Sims, the details of whose life will be found in our obituary column, was one of the notabilities of the age. His achievements are written in imperishable letters in the annals of modern surgical practice; and there are thousands now living, and succeeding thousands in generations yet unborn will have reason to rise up and call him "blessed." Originally a country practitioner in Alabama, he succeeded, by the sheer force of unaided genius, and by the characteristics of thoroughness, simplicity, and ingenuity of character and methods, in introducing such improvements in the surgery of some of the most obscure and previously irremediable diseases of women, as to have brought about something like a revolution in the methods and results of practice. His work, his example, his teaching, and his instruments, created a new departure in the surgical treatment of fistula of the urino-genital passages and viscera. An operation which before he improved and simplified it by his practical genius and untiring energy, overtaxed the patience and the operative skill of the most highly experienced and deft operators, and which, even in their hands and after repeated operations extending over a long period of time, was only rarely crowned with success, became easy, simple, and almost uniformly successful. Plastic operations for the relief of such injuries and affections are now and have long been the commonplace and every-day work of nearly all practitioners.

The writings of Jobert de Lamballe suffice to show the severe operations, the intricate procedures which were in vogue; and the very slight modicum of success which attended it, even in his persevering and skilful hands, proves how little the resources of surgery were at that time equal to relieve this wearing and distressing malady.

We cannot here and now recount the history of the life of Marion Sims, and of his great achievements in gynæcology. He made the tour of Europe, and everywhere he left behind him admirers, disciples, and successful imitators. The greatest success which any surgeon of genius can hope to achieve is to be able to definitely and largely add to the power of surgery to save life, to relieve misery, and to effect cure. This success Marion Sims attained in a degree which few can hope to attain. He was known in all the capitals of Europe, and in all he has left an enduring monument, and bequeathed a legacy, for which suffering humanity will ever have cause to feel grateful. His professional achievements bear the stamp, and were due to the qualities, of his admirable personal cha-

racter. Simple, direct, and thorough in his intellectual qualities, he aimed always at banishing mystery. His methods and his instruments were alike devised with the object of facilitating thorough inspection, and easy and direct manipulation.

At the basis of much of his success in operating, and of that which others have achieved in following him, lies the application of this principle; and his instruments, of which Sims' speculum is a type, have done almost as much as his methods of operating and his skilful demonstrations to facilitate and advance a wide range of successful procedures which are now engrafted on the every day practice of gynæcologists. As a man, Dr. Sims was remarkable for an engaging sweetness of disposition, for a frank, affectionate, and sympathetic cordiality, which wove the ties of affection and esteem which bound him to innumerable friends in all quarters of the world. There were few cities in Europe, and perhaps none in America, in which he did not count, among the most eminent members of the profession, personal friends who reciprocated with him feelings of the warmest attachment. His nature was guileless, his sympathies were tender and strong, his handsome and finely cut features spoke of a quickly-moved, impulsive, generous and feeling nature. He was welcome everywhere, and as much at home, as simple, as warm hearted, as unaffected, and as sincere, in his bearing in courts and palaces as in the hospital and the homes of the poor. In New York he will long be remembered, not only as the pioneer of a new era in the surgery of women, and an enduring name of honour in American surgery, but as the founder of a Woman's Hospital, which has, in the hands of his successors, amply sustained the high reputation which he at once gave to it, and has been the scene of further achievements and advances in the art and practice of gynæcology. He died suddenly, in the full possession of his physical and intellectual powers, and in the midst of work, and almost on the day following a characteristic act of large and graceful hospitality. In the week preceding his death, he had welcomed Sir William Mac Cormac in New York by a great gathering of the profession there, characterised by the profuse and liberal hospitality which was a natural outcome of his warm-hearted disposition.

Of late years, his health had somewhat failed. He had suffered from severe pneumonia, at one time threatening his life, which had compelled him to pass the last winter in the south of Italy; and all his arrangements were completed for embarking for Europe again, to select a genial winter climate in the South. He was expected in London shortly, and one of his London friends had already arranged a dinner of welcome. There were many friends here whom he had already greeted in anticipation by letter, and who were hoping soon to grasp his hand. He was a familiar figure, and always a welcome guest, at the medical societies of London, and at the meetings of our Association. As an Honorary Fellow of the Obstetrical Societies of London and Edinburgh his presence and his share in their discussions were hailed with interest and satisfaction. He was a frequent contributor to our columns, and in these pages have appeared some of his latest, as well as many of his earlier and most valuable, contributions to surgical literature. Like many others, we mourn his loss with a sense of personal bereavement; for there were none who knew Marion Sims through the long years of his honoured, useful, and chequered career without feeling the charm of his personality, and loving him as much as they admired and respected him as a man. In him we all lose a teacher and a friend whose career had been long and memorable, and who can but ill be spared from amongst us.

THE ROGERS TESTIMONIAL.

THE following additional subscriptions to the fund for a testimonial to Dr. Joseph Rogers have been received. It should be understood that the subscription to this fund is not confined to Poor-law medical officers. The Treasurer is Mr. J. Wickham Barnes, 3, Bolt Court, Fleet Street, E.C.; and subscriptions are received by the Editor of the BRITISH MEDICAL JOURNAL.

Third List of Subscriptions.—Dr. Morell Mackenzie, £5 5s.; Septimus Sibley, Esq., Harley Street, £1 1s.; G. G. Whitwell, Esq., M.B., £1 1s.; Dr. Alfred Carpenter, Croydon, £1 1s.; Douglas M. Ross, Esq., M.B., Brighton, £1 1s.; Dr. Haward, Harley Street, £1 1s.; J. Grosvenor Mackinlay, Esq., Stratford Place, £1 1s.; Dr. Murray Lindsay, Mickleover, Derby, £1 1s.; Thomas Johnston, Esq., Belper, £1 1s.; J. R. White, Esq., Brentwood, 10s. 6d.; Dr. C. T. Aveling, Lower Clapton, £1 1s.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
IV*a*. Diphtheria, sanitary.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed.*

Applications should be addressed to

The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Wednesday, November 28th. Dr. Ellis, of Eastbourne, will preside. Gentlemen desirous of contributing papers should at once communicate with the Honorary Secretary, T. JENNER VERRALL, 95, Western Road, Brighton.—October 16th, 1883.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Station Hotel, Stoke-upon-Trent, on Thursday, November 29th, at 4 P.M.—VINCENT JACKSON, General Secretary, Wolverhampton.—October 30th, 1883.

THAMES VALLEY BRANCH.—The first meeting of the Thames Valley Branch will be held in Richmond, at the Richmond Hospital, on Wednesday, November 28th.—A. ROBERT LAW, Honorary Secretary.

SOUTH-WESTERN BRANCH.—The next meeting will be held at 2.30 P.M. on Tuesday, November 20th, at the Infirmary, Truro. Members intending to make communications are requested to give notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.

GLOUCESTERSHIRE AND WORCESTERSHIRE AND HEREFORDSHIRE BRANCHES.—The united meeting of the above-named Branches will be held under the Presidency of Dr. F. Cook of Cheltenham, Tuesday, November 20th, at half-past three o'clock, in the Board Room of the General Hospital, Cheltenham. Business:—1. President's Address: Dr. F. Cook. 2. The Physiological Unity of Surgical Therapeutics, to be followed by a practical demonstration of Wound and Fracture Treatment: J. Sampson Gamgee, Esq. 3. (*a*) The Etiology of Sporadic Puerperal Septicæmia; (*b*) Case of Delirium Tremens; death from Chloral Hydrate: Dr. Strange. 4. Cases in illustration of (*a*) the Diffusibility of the Infection of Diphtheria; (*b*) the Genesis of Enteric Fever; (*c*) the Relations of Measles and Scarlatina: Dr. Bond. 5. (*a*) A case of Compound Fracture of the Skull; Removal of the Bone and of Hernia Cerebri; Recovery (with patient); (*b*) Two cases of Fractured Patella treated by wiring the fragments: W. B. Shirley, Esq. 6. The treatment of Aneurysm by large doses of Iodide of Potassium (with notes and sphygmographic tracings): Dr. A. S. Currie. 7. Persistent Vomiting, treated by small doses of Carbolic Acid: W. Smith Batten, Esq. 8. A Case of Tetanus with Recovery: E. Cripps, Esq. 9. Notes on an instance of Poisoning by Milk: Dr. T. A. Chapman. 10. A simple Apparatus for producing a constant Stream of Dry Air, filtered, warmed, and charged with Antiseptic Vapour, as a substitute for the Carbolic Spray: T. S. Ellis, Esq. 11. Sudden Death from Rupture of a Large Vein in the Neck during the act of Vomiting: Dr. Crowe. 12. A Summary of Cases of Fractures of the Leg and Thigh in the Cheltenham Hospital from 1878 to 1881: G. Arthur Cardew, Esq. The dinner will be at the Plough Hotel, at six o'clock punctually; tickets, including wine, 7s.; morning dress.—G. W. W. CROWE, RAYNER W. BATTEN, Honorary Secretaries.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The autumn meeting of the above district will be held at the Marine Hotel, Worthing, on Thursday, November 22nd, at 4 P.M., Dr. Kelly in the chair. The following gentlemen have promised to read papers. Dr. Kelly, on House-Drainage; and Dr. Uhthoff. The dinner will be served at 6 P.M.—G. B. COLLET, Honorary Secretary, 5, The Steyne, Worthing.

CORRESPONDENCE.

PYOSALPINX.

SIR,—Will you kindly permit me to publish the following extract from a letter just received from Dr. Lusk, professor of surgery at the New York Hospital?

"As the first-fruit of my visit to Birmingham I have to report the removal of a tube distended with pus to such a degree that at first I could hardly believe it was not a portion of the large intestine. It was over two inches in diameter, and I was obliged to enlarge the abdominal wound to five inches before I could extract it. The operation was performed two weeks ago, and the patient appears to be relieved of the source of a great deal of suffering."

This letter goes to prove the points upon which I laid some stress at the last meeting of the Obstetrical Society, that these cases are not at all rare, that the patients are in constant danger of their lives, and that the disease can be dealt with only by abdominal section.—I am, etc.,

Birmingham, Nov. 13. LAWSON TAIT.

NITRITE OF SODIUM.

SIR,—As a recent paper by Dr. Ringer and myself on "Nitrite of Sodium as a Toxic Agent" has excited adverse criticism in the daily press, I venture to ask permission to say a few words by way of explanation. It has been said that we made experiments on our patients with the view of investigating the action of the drug. This is entirely untrue; and no experiments or experimental observations of any kind have been made on any one. The circumstances of the case are briefly these. In the early part of last year a paper appeared in a well known journal of therapeutics recommending nitrite of sodium as a remedy for epilepsy. It was stated that this drug was allied to nitroglycerine, but was superior to it, as its effects were more lasting. For some years I have used nitroglycerine with marked success in the treatment of many complaints, including angina pectoris, pseudo-angina, asthma, neuralgia, sick-headache, dysmenorrhœa, and the various forms of Bright's disease. When I heard of a remedy which was said to be superior to nitroglycerine, I hastened to give it a trial, for I was anxious that my patients should have the benefit of the latest discoveries in medical science. I was cautious, however, and gave it only in half the dose originally recommended, ten grains, that is, instead of twenty. The first patient who returned at the expiration of the week said that it had done him no good, and expressed an opinion that it was not strong enough. I then gave him fifteen grains, and this was the only case in which the dose was increased. The second patient, who had also taken ten grains, said it made him giddy and feel sick. He complained of other symptoms, which I thought could hardly be attributable to the drug, for I knew that it had been recommended in twice that dose, and I myself had just seen a man who had taken the ten grains three times a day for a week without the production of any symptom whatever. I asked the man how many doses he had taken, and he said only one. I urged him to try it again, but he declined, saying he had a "wife and family." A great deal has been made of this expression, but it was said jokingly, and without any intention of conveying the idea that it was a serious matter. As the other patients returned one by one and complained, I saw that the drug had really disagreed with them. This was the first intimation I had had from any source that nitrite of sodium possessed toxic properties. I at once reduced the dose first to five and then to three grains. It was at this stage that I communicated with Dr. Ringer. He thought the matter of such importance that he made two experiments on cats, forwarding me the results. I, in drawing up the paper, in deference to his seniority, placed these experiments first, but, in point of time, they were not made until long after I had observed the untoward effects of the drug on my patients. This is a plain, straightforward statement of facts. There has been nothing in the shape of experimentation; and I have prescribed nitrite of sodium only in those cases in which, from my previous experience with nitroglycerine, I was convinced that it would prove useful.—I am, sir, your obedient servant, WILLIAM MURRELL, M.D.

38, Weymouth Street, W., November 15th, 1883.

SIR,—It is much to be regretted that the recent investigation of Drs. Ringer and Murrell into the physiological action and dose of sodium nitrite should have been the means of eliciting hostile criticism from the lay press and public institutions. Of so potent an addition to our materia medica, too much cannot be known; and, in the interests of public safety, it was eminently desirable that the untoward effect of large doses of the pure drug should be prominently brought forward after careful investigation of the subject by competent observers. I feel anxious that wrong notions as to the dose of sodium nitrite should be corrected in all quarters, since to me, I believe, attaches the responsibility of introducing this agent to the notice of the profession in this country as a remedy. In the *Practitioner* for June 1882, I have described a case where I gave it in twenty-grain doses, with no ill-effects whatever. At that time, however, the drug was not in use as a medicine; and, though some was specially obtained at my request from a leading London firm, it was very largely adulterated with *nitrate*, and hence the harmlessness of scruple doses. I was not, however, aware of this impurity until some months afterwards, when Dr. Ralfe, who, at my suggestion, was using it at the London Hospital, discovered a most perplexing and dangerous variability of purity in a large number of specimens obtained from the principal makers, and to this circumstance is largely attributable the occasional ill effects following its administration, brought forward by Dr. Ralfe and Dr. Ramskill at the Royal Medical and Chirurgical Society in October 1882. It cannot be too widely known that it is unsafe to begin with a larger dose than two grains of Morson's sodium nitrite (less will often produce headache). Unfortunately, in the latest edition of Dr. Ringer's work on *Therapeutics*, the dose is given as 20 grains; and, as my name appears in connection with the statement, I am desirous of explaining that my conclusions were based upon the employment of what eventually proved to be a very impure specimen of the salt. To the mistakes of respectable wholesale firms is chiefly due the danger that has attended the ordinary use of sodium nitrite in medical practice; and it is of the greatest importance that the facts should be made known, and thus future mishaps avoided.—I am, sir, your obedient servant,

W. T. LAW, M.D., F.R.C.S.

St. Leonard's-on-Sea, November 14th, 1883.

SIR,—In the course of a review of the tenth edition of Dr. Ringer's *Therapeutics*, appearing in the JOURNAL of November 10th, there occurs the remark: "On the succeeding page, a terrible mistake is made, nitrite of sodium being recommended on the authority of Matthew Hay, Mitchell, and Law, in angina pectoris, and epilepsy, in *twenty-grain* doses." If the reviewer had either consulted my paper, or perused more carefully the work of Dr. Ringer, he would have found that I never recommended so large a dose of the nitrite. I employed it in small doses; and was the first to point out the great impurity of ordinary preparations of the salt.

Yours faithfully, MATTHEW HAY.

230, Union Street, Aberdeen.

COATS'S MANUAL OF PATHOLOGY.

SIR,—It is not customary nor desirable for authors to reply to criticisms of their works appearing in the public journals, but an exception may surely be made when matters of fact are in question. In the notice of my *Manual of Pathology* in your last week's issue, your reviewer, in illustration of his principal criticism, makes two statements, both of which I hope to show to be incorrect. He states (1) that I make out the whole pathology of tuberculosis to be expressed in the bacillus discovered by Koch; and (2) he goes on to state that, with the exception of a line and a half, in which it is stated "that it is only persons who have natural or acquired weaknesses that become the subjects of tuberculosis," that is the sum of my teaching.

As to the last mentioned statement, the quotation given is from p. 167; but at p. 165 there is nearly a paragraph devoted to the enunciation of the view that, "in order to the development of tuberculosis, there must be some existing condition of the body predisposing." The part of the book in which these quotations occur is that dealing with general diseases; and in this department the various local peculiarities did not call for prolonged consideration, these two references being judged sufficient to prevent the student inferring that the bacillus is everything. At pp. 543 to 546, where the causation of phthisis pulmonalis is treated of, the local peculiarities receive the greatest prominence, while the bacillus is scarcely more than mentioned.

The other statement of the reviewer is that, in my book, "the whole pathology of tuberculosis is expressed in the bacillus." Now, it is a singular commentary on this statement, that the whole of the article on tuberculosis, with the exception of the page devoted to Koch's discovery, was written more than a year before that discovery was announced. My notes show that this part was written before February 1881, while Koch's discovery was published in March 1882. I have just referred to the manuscript written at that time, from which the article was printed, and I find scarcely a word altered so as to conform to Koch's discovery, the account of that being intercalated and paged separately. It has struck me as remarkable, that Koch's facts could thus be inserted without dislocating anything. The main description of tuberculosis is based on the view, which I have held and taught for years, that true tuberculosis is, in its essence, an infective disease, owing its origin to a specific virus. Koch's discovery exactly met this view; and, considering the importance of this discovery, surely one page was not too much to devote to it. As a matter of fact, this is all the space it occupies.—I am, etc.,

JOSEPH COATS, M.D.

Glasgow, November 5th, 1883.

*** An author is naturally sensitive and critical, and, therefore, liable to be unreasonable, in his treatment of his reviewers; and we venture to think that, in making complaint of inaccuracy of statement as to matters of fact, of which we cannot admit the justice, Dr. Coats is under a misapprehension derived from this source. There is no inaccuracy of matters of fact, or only a seeming one. The writer had no means of knowing what Dr. Coats had been in the habit of teaching in regard to the pathology of tuberculosis prior to the discovery by Koch of the bacillus tuberculosis. All that could be said was, and we see no reason to amend it, that Dr. Coats is a thorough-going champion of the bacillus as a cause of tuberculosis. If anyone doubt the accuracy of the opinion, let him see for himself. We find it stated, for instance, that Koch's observations "distinctly prove that tuberculosis is a specific infective disease." One would be at a loss to know what more positive acceptance of Koch's views could be held. Nor is it easy to see what objection can be taken after it to the statement in the review that the whole pathology (not morbid anatomy, an attempt was made to distinguish between the two) of tuberculosis is expressed in the bacillus. If the bacillus be the cause of tuberculosis, there is but little room for any other pathology. What little room there may be left is occupied by the qualifying clauses concerning resistance of the tissues. The writer of the review happens to hold the opinion, not altogether singular, that it is much too early as yet to shake the bacillus tuberculosis so warmly by the hand, least of all in a text-book, the statements of which are copied, without question, everywhere. That all Dr. Coats's previous teaching led up to, and fitted in with, some such extraneous origin, is, no doubt, very valuable independent testimony to the importance of Koch's observations, but it hardly constitutes a sufficient body of evidence, to render it advisable to teach the student that the question is a settled one.

On the second head, all that was intended—it must be allowed that the wording admits of some objection—was that, concerning heredity, the power of resistance to the disease which some types of configuration appear to possess, its non-contagiousness, the extraordinary chronicity which many cases exhibit, the relations to soil, to climate, to race—concerning all these things, which bear upon, and constitute the pathology of, the disease, in the widest sense of that term, where not explained by the vagaries of growth of the specific bacillus, the sum of Dr. Coats's teaching seems to be fairly expressed by the line and a half quoted, "it is only persons who have natural or acquired weaknesses that become the subjects of local tuberculosis."

A conscientious reviewer must sometimes say things which appear a little harsh; but Dr. Coats may be assured that we desire to do him justice; and he must have seen that we have said some not altogether unkind things of his book. It has our best wishes, and we shall be glad to hear of a speedy call for a second edition.

FRACTURE OF THE PATELLA.

SIR,—I was present on Monday evening, November 5th, and heard with much interest the discussion on Professor Lister's paper at the Medical Society. It appeared to me that everyone was of opinion (as, indeed, I think all surgeons are) that bony union of the patella, after transverse fracture, is to be desired; but the general conclusion arrived at was, I think, that the risk incurred by opening the knee-joint is too serious a one, in ordinary cases of transverse fracture, to justify the operation proposed by Professor Lister. Now, in all probability, in most cases of transverse fracture, the fractured portion communicates with the knee-joint, and, therefore, the operation of uniting the two ends of the bone must, if performed immediately after the accident, necessitate opening the joint; but, by sufficient rest, the communication between the joint and the fracture would probably be closed, and then, by a careful operation performed antiseptically, might not the fractured bone be cut down on, the fractured edges pared, and brought together by silver wire suture, without opening the joint at all; and, at any rate, if this could not be done in recent cases, might it not be in those in which, after long treatment, the leg was found to be practically useless, and in which most surgeons seemed to consider Professor Lister's operation justifiable.

I may add that, during Monday evening, I mentioned this to two distinguished surgeons. One thought this operation not practicable, the other seemed to think it feasible. Under these circumstances, I think it worth while bringing this idea to notice, and am, sir, your obedient servant,

E. D. TOMLINSON,
Brigade-Surgeon (half-pay).

Junior Army and Navy Club, November 6th, 1883.

UNFOUNDED CHARGES AGAINST MEDICAL MEN.

SIR,—It seems to me high time, after the deplorable and lamentable deaths of two able and useful members of the profession, that we should wake up to the great danger to which we are always exposed, of being criminally accused of some assault or malpractice by nervous, hysterical, lascivious or evil-disposed women, and at once start a defence fund, so that in the event of any member of the profession being so accused, he might at once be defended by the most skilled legal advice in the country, and supported out of the purses of his fellow medical men.

Only this year a young lady, by birth, called upon me for advice, as her natural epoch had ceased, and positively assured me that she knew of no cause except that she had taken cold. I therefore innocently gave her medicine, until I was struck by the fact that she always came to me dressed in an ulster. I, becoming suspicious, changed her medicine to syrup of senna, that time might prove her condition. She, not being satisfied, went to another physician, by the advice of her friends, without first consulting me; and from his prescription I am certain he did not suspect that she was pregnant. Of course I refused to have anything more to do with the case. Not many weeks after this, she was confined, and was attended by another medical man, without even communicating with me, so my refusal did not inconvenience her in the least.

Now, I should not have been at all surprised had she aborted; and, had I obtained a warrant against her, which I certainly should have done, no doubt she would have met the charge by saying that she told me of her condition. How different it would have been had I been the guilty party. I think it would be only charitable on our part if we, after the trial in which the late Mr. Haffenden was accused, sent a deputation to his widow conveying our heartfelt sympathy in her sad bereavement, and offering to refund all the legal costs to which she may be put.

I trust also, although this is outside the scope of this letter, that the profession and students of University College, with the help of the outside public, will raise a memorial to the memory of the poor "Khan" who so courageously, and with such success, came to this country to master the difficulties of a profession which, even to a Britisher, are many, and after he had gained two of the most honourable diplomas cut short the good he might have achieved in a moment of despondency.

I will gladly forward my guinea for either of the above proposed funds.—I am, sir, yours faithfully,

THOMAS DUTTON, M.D., M.B., M.R.C.P.

Sidlesham, November 3rd, 1883.

SIR,—As the cases of Messrs. Bower and Keates, Mr. Haffenden and Dr. Edwards, are still fresh on our memories, could we not, as members of the British Medical Association, form a society for mutual protection, more especially as we find the Treasury with the public prosecutor arrayed against us? A small additional subscription, say 2s. 6d., would amply suffice to form a fund to engage a solicitor whom the members would have the right to consult if, on investigation, their case merited support.

As in Messrs. Bower and Keates' case, the expenses must have

been ruinous. I shall be happy to guarantee £5 5s. towards any subscription list.—Obediently yours, R. N.

THE SOFT PALATE AND LARYNGEAL PHOTOGRAPHY.

SIR,—I am sorry to be called on to occupy your space in answer to Mr. Lunn.

I cannot admit that direction to a pupil to "avert the base of the pillars"—whatever it may mean—or that "tests" of the tension of the soft palate, are the same as "gymnastic exercises" properly directed on physiological principles; but I must confess to ignoring metaphysical education, or "location of will force," which is the peculiar property of Mr. Lunn's "philosophy."

With regard to the photograph of the larynx, none but the most captious critic would fail to see that its slight divergence from the median line is a matter of photographic perspective due to the necessary position of the laryngeal mirror. It would have been easy to have "twisted" it straight; but I preferred to let the picture speak for itself in all the genuineness of the untouched original. Besides this, in the fixing on paper of nearly 12,000 impressions, some are necessarily placed less accurately than others. I can with confidence assert that not one of the many hundreds of my professional brethren, who, in Liverpool, had an opportunity of seeing Mr. Behnke's larynx, considered it "distorted." On the contrary, all remarks made were to exactly the opposite effect.—Yours faithfully, LENNOX BROWNE.

36, Weymouth Street, W.

EXPLORATORY OPERATIONS ON THE KIDNEY.

SIR,—In the JOURNAL of November 10th, Dr. J. W. Anderson relates an interesting case of movable kidney, which he explored by ventral incision and found to possess no meso-nephron. The wound was then closed, and the patient recovered with relief to her more urgent symptoms. The writer, in his remarks, says "This case helps to confirm the remarks of Mr. Clement Lucas in the JOURNAL of September 29th." I scarcely know to which remarks in my paper Dr. Anderson refers, but if to the rarity of a meso-nephron, I think it an additional and valuable contribution indicating the treatment to be adopted in other such cases.

In my paper, I advocated an exploration through an incision in the loin as a curative measure in cases of movable kidney, first, because a meso-nephron is so rare as scarcely to make it necessary to take it into account; and secondly, because the healing process serves to retain the kidney in position.

I wish, however, that it should be distinctly understood that I did not advocate exploration of the kidney through a ventral incision as a curative measure, nor should I deem it wise to adopt this incision except in rare cases.—I am, sir, your obedient servant, R. CLEMENT LUCAS, B.S., F.R.C.S.

Finsbury Square.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

WHAT IS A COMMON LODGING-HOUSE?

THE absence of a proper interpretation of the term "common lodging-house" is productive of no little inconvenience to health-officers, especially those in charge of districts where large public works are in course of construction. Until the question has been legally settled, the difficulty must be met according to the circumstances of each case. When consulted by the General Board of Health in 1853, the law-officers of the Crown admitted that the term was difficult of definition; but, looking to the preamble and general provisions of the Act (14 and 15 Vic., c. 28), it appeared to them to have reference to that class of lodging-houses in which persons of the poorer class are received for short periods, and, though strangers to one another, are allowed to inhabit one common room. They were of opinion that it did not include hotels, inns, public-houses, or lodgings let to the upper or middle classes. In regard to the expression, "strangers to one another," the law-officers, in a second opinion, explained that the obvious intention was to distinguish lodgers promiscuously brought together from members of one family or household. They were further of opinion that the period of letting was unimportant in determining whether a lodging-house came under the provisions now in question; and, having regard to section 87 of the Public Health Act, it may be taken that this also applies to lodging-houses under that Act. The question has arisen in two districts under the supervision of Dr. Bond, where the construction of the Severn tunnel has caused an excessive strain upon house-accommodation. There are a large number of houses which are practically little more than common lodging-houses, although they are not registered as such; and the difficulty in dealing with them arises from the want of a proper definition of the term under notice. The latest decision on the subject is that of Langdon *v.* Broadbent, 37, *L. T.*, n. s., 434, where a man was charged with default in not registering his house as a common lodging-house. It was shown that he admitted persons of an itinerant character, whom he charged sixpence a night; but, at the same time, it was proved that the defendant held a refreshment licence. Having regard to this fact, the magistrate dismissed the charge, but stated a case for a higher court. When heard at the Court of Common Pleas, Mr. Justice Grove observed that the object of the Act was to provide for the health of persons resorting to such houses by precautions to secure cleanliness, and to prevent overcrowding; and the evidence clearly went to show that the house in question was the kind of house to which such provisions were applicable. It was not necessary to show that the lodgers had been herded together to bring the case within the statute. In this, Mr. Justice Lindley concurred, adding that it was evident that the house referred to was open to all comers, and, therefore, required supervision.

THE ETHICS OF PUBLIC VACCINATION.

SIR,—A. and B. are practitioners in the same town. A. holds the office of public vaccinator; B., so far, has attended Mr. X. (a well-to-do farmer) and his family. A., without being sent for, calls at X's house, and vaccinates his infant.

Is this the duty of A.'s office? Does not the Local Government Board direct that the child, if well, be taken to the vaccinator? If so, is there any way of repressing the ardour of this too diligent officer?—I am, sir, yours, etc., B.

*** A public vaccinator who pursues the course here stated acts improperly both in a professional and in an official sense. Under his contract with the local guardians, he is bound to vaccinate only at the appointed stations, save exceptionally at the homes of the children, for special reasons which he is bound to record in his vaccination register. The child vaccinated in the case described would seem, moreover, to belong to a class above that for whom public vaccination is primarily intended. Perhaps a hint to the Government Vaccination Inspector of the district would be the most practical way of securing what our correspondent desires.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 10th inst., that the death-rate in Bombay was recently equal to 22.8; the 369 deaths included 12 from cholera, and 88 from "fever." According to the most recent weekly returns, the average annual death-rate in twenty-two large European cities was equal to 23.3 per 1000 of their aggregate population; this rate was 1.8 above the mean rate last week in twenty-eight of the largest English towns. In St. Petersburg, the rate was equal to 25.0, showing a decline from the rates in previous weeks; the 447 deaths included 18 from scarlet fever, and 14 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the mean death-rate was only 17.0, the highest rate being 17.8 in Stockholm; 3 fatal cases of scarlet fever were returned both in Stockholm and Christiania, while 2 deaths from typhoid fever were returned in Copenhagen. In Paris, the death-rate was 21.6, scarcely differing from the rate in London; the deaths included 30 from typhoid fever, and 5 from small-pox. The 157 deaths in Brussels were equal to a rate of 21.6, and included 15 fatal cases of small-pox. In Geneva, but 18 deaths were returned, and the rate did not exceed 13.4. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 22.0; the highest rate was 24.0 in Amsterdam, where the 162 deaths included 31 from croup, 8 from diphtheria, and 5 from measles. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.6; it ranged from 22.2 and 23.2 in Hamburg and Vienna, to 29.0 and 29.6 in Breslau and Prague. Scarlet fever and diphtheria showed somewhat fatal prevalence in most of these German cities, diphtheria being especially fatal in Berlin and Dresden; small-pox caused 29 deaths in Prague, and 2 in Buda-Pesth. The mean death-rate in three of the largest Italian cities did not exceed 20.6, the highest rate being 21.8 in Rome, where 18 of the 127 deaths resulted from malarial fever. The 119 deaths in Lisbon were equal to a rate of 30.8, and included 4 from diphtheria, and 3 from typhoid fever. The death-rate in four of the principal American cities averaged

20.8; the lowest rate was 18.9, in Brooklyn, and the highest (22.0) in New York. Typhoid fever caused 15 deaths in Philadelphia, and diphtheria 18 in Baltimore.

MEDICO-LEGAL NOTES AND QUERIES.

MAKING A PATIENT'S WILL.

A CASE has recently been tried before the Probate Division of the High Court of Justice, illustrating the danger which medical men incur when they draw up wills in their own favour—a practice which we believe to be very rare. In this case, where the property was small, the medical attendant succeeded in establishing the will; but, as the property was small, the costs, which were ordered to be paid out of the estate, will probably swallow up the whole estate; and the President of the Court made some strong observations in respect of the circumstances in which it was drawn up by the medical gentleman who propounded the will.

A Mr. T. was called on to attend medically the testatrix for the first time in February last. She kept a beer-house, and he found her suffering from chronic alcoholism. He had been only ten days in attendance, when a woman acting as nurse told him that his patient was anxious to make a will; and soon after, the testatrix herself told him so, and asked him to buy her a sixpenny form of a will. He did so; and subsequently, both his patient and the nurse spoke to him several times about a will. Mr. T. had, he said, up to this time, no idea that he was to be the object of the testatrix's bounty. Early on the morning of March 16th, the testatrix being then in bed, she sent the nurse for a book in which the will-form had been placed, and, telling her that she wished to have a private conversation with her medical attendant, requested her to leave the room. The testatrix then gave instructions to Mr. T., in accordance with which he drew up the will. In it, besides other legacies, he was left £100, *i.e.*, about one-third of the property, a pony-cart and harness. To his two sons, one of whom the testatrix had never seen, and the other but once, was bequeathed any "balance of cash" that might be found on the beer-house premises. No third party was present when the will was drawn up by the medical attendant; and it was almost immediately after attested by two women, one of whom was another patient of the doctor's. The testatrix died the same night, having been in perfect possession of her senses till within three minutes of her death. A previous will was set up in opposition to this last one.

The remarks of the President of the Court, in giving judgment, are worthy of all attention. He observed that the conduct of Mr. T., the medical attendant, was such as to give rise to the most serious suspicion. Fortunately, it was very unusual for it to be shown in that Court that a medical man drew up a will in which he had a large interest, in circumstances such as those which had been disclosed. The medical man who drew up the will had been called in to attend the testatrix only six weeks before her death, she being at that time in a state of chronic alcoholism, and he having no previous knowledge of her. The circumstance of his drawing up the will a few hours before her death, leaving himself and his two sons, of whom she had little or no knowledge, and one of whom she had never even seen, a large proportion of her property, raised suspicion, and he disapproved of the course taken by Mr. T. The proper and natural course for him to have adopted when the testatrix directed him to put in the legacy in his own favour, would have been to lay down the pen, and say, "Since you propose that I shall take so large a benefit under your will, there ought to be some other person here." Mr. T.'s conduct was improper, but that must not weigh against the evidence of other witnesses, and there was evidence in favour of the will, the weight of which he could not disregard. He did not reject the testimony of Mr. T., and pronounced for the will drawn up by him, but he would give all parties their costs out of the estate, and this would reduce Mr. T.'s legacy.

Mr. T. may congratulate himself on the result; for although he will doubtless lose most of his contemplated legacy, his honour has not been impugned. The case may serve as a warning to those of our professional brethren who may be placed under like circumstances. In no case is, we believe, a medical man justified in drawing up a will if a lawyer can be procured, and the patient's death be not imminent. The judge's remarks on the conduct of medical men, generally, as to pecuniary bequests made to them by their patients, are highly satisfactory to the profession, though no more than the facts warrant.

CORONERS AND HOUSE-SURGEONS.

SIR,—I am house-surgeon here, and, lately, the coroner has refused to call the house-surgeon to give evidence in cases of accident where a man has been brought in dead, thereby causing him (the house-surgeon) to lose a fee. Now, if a case come in and die a minute after admission, he would send me an order for the inquest, and expect me to make a *post mortem* examination. If a similar case to the latter should occur shortly, and I, bearing in mind how I have been treated, should refuse to attend to the warrant of the coroner, or, if I attended, refuse to give any evidence, what would be the consequences? Has the coroner power to commit me for contempt of his court?—Believe me, yours truly, ROBERT HAGGARD, Senior House-Surgeon.

The General Infirmary, Hull, October 29th, 1883.

*** It should be borne in mind that a hospital is not a proper receptacle for dead bodies, and that, if a dead body is brought to a hospital, the house-surgeon or other person in authority can direct that it be taken at once to a public or parish mortuary; and it is only by courtesy that it is allowed to remain in the hospital mortuary pending its removal elsewhere. The calling of medical evidence previous to the inquest is at the discretion of the coroner; but, if no medical man is called at the first inquiry, and the cause of death is not clearly explained to the jury by the evidence produced, a majority of the jury may request the coroner to adjourn for medical evidence and *post mortem* examination.

Should an injured person die in a hospital, it is a duty imposed by law on the house-surgeon, or other medical officer attending the deceased, to be present at the inquest, and give evidence, and he is not entitled by law to any fee for so doing (see answer to "Querist" in JOURNAL of November 3rd, page 903). If the evidence of the house-surgeon be not required, and he is not summoned to the inquest, we think he should hardly regard it in the light of "losing a fee." It should also be remembered that frequently some medical man may have seen and attended the deceased person immediately before being removed to the hospital; and then, if admitted dead, the practitioner who last saw the deceased alive would probably be summoned to give evidence at the inquest.

The coroner has power to inflict a penalty of £5 on a medical witness for non-attendance to a summons, and he has also power to commit for contempt of court any person refusing to give evidence when called upon to do so.

OBITUARY.

J. MARION SIMS, M.D.

ON November 13th last, there died at New York a man who bears a name that will ever be identified with gynæcology; indeed, Dr. J. Marion Sims must be considered as the establisher of that branch of medical science, which before his day had been looked upon as a mere accessory to obstetrics. He was born in Lancaster district in the State of South Carolina, on January 25th, 1813, some of his relatives being extensive and flourishing landholders under the system then prevalent in the southern United States, that came to an end in the great civil war. In 1832 he commenced his studies at the South Carolina College, and later on he completed his medical education at the Jefferson Medical College, Philadelphia. He commenced practice in the town of Montgomery, in the State of Alabama, in 1836. Here he enjoyed the opportunity of a very extensive experience in obstetrical and gynæcological practice, and performed many major operations in general surgery, advantages which he ever afterwards maintained were of incalculable value to him when he became a hospital-surgeon. On the plantations in Alabama a large number of young negresses were afflicted with vesico-vaginal fistula, not through any heartless carelessness on the part of their masters, but rather through their own disinclination to send for medical assistance even when labour was protracted. Such patients were very frequently sent to Dr. Marion Sims, and in 1845 he first conceived the idea of curing vesico-vaginal fistula. He met with very bad results for four years, which he attributed to the use of silk sutures. In 1849, he first employed silver-wire sutures. Success justified this step; the operation came into general repute, and Dr. Sims was henceforth strongly prejudiced in favour of silver sutures in almost every department of surgery. In 1853, bad health compelled him to leave Montgomery. He left behind him Dr. Bozeman, who had learnt from him how to treat vesico-vaginal fistula, and afterwards introduced some important modifications of the operation. After leaving Alabama, he settled in New York, where his reputation was already established, as he had previously published some of the results of his practice in medical periodicals. In New York, he established the Woman's Hospital, obtaining its charter, gaining pecuniary aid from the city and State, and securing an admirable site for the hospital-buildings. It has proved of great benefit, not only to the numerous patients that have obtained relief in its wards, but also to the cause of progress in gynæcology, some of the most eminent American authorities having been colleagues of the founder of the institution.

LIBRARY OF THE UNIVERSITY OF ILLINOIS

Soon after the outbreak of the American civil war, Dr. Marion Sims removed to Europe and settled in the west-end of London; he practised extensively, and, at the beginning of 1866, his *Clinical Notes on Uterine Surgery, with Special Reference to the Sterile Condition* appeared, a work which, containing some remarkable views, created a great sensation in the profession. In 1868 he returned to New York, resuming his duties at the Woman's Hospital, interrupted for a time by the Franco-German war, till his resignation in 1874. In 1870 he was on a visit to his family at Paris, when the war broke out; and it was through the combined energies of himself and Sir William Mac Cormac, that the Anglo-American Ambulance was formed. Both its founders, together with Drs. Frank, Pratt, and May, Mr. Marcus Beck and others, were exposed to heavy fire at Sedan in September, 1870. After 1874 he moved about a great deal between New York, Paris, and London, practising extensively among his numerous patients in all these cities. As his professional fame increased, he was made an honorary member of numerous British and French medical societies. He also wrote and spoke much in public about many questions of medical interest outside the range of diseases peculiar to women, such as the discovery of anæsthesia, and the control of the spread of contagious disease by legislative measures. In 1878, at Paris, he performed cholecystotomy, an operation previously unknown to surgery, but which has been performed several times since. The case was fully recorded by the operator in the JOURNAL (vol. i, 1878, page 811). He further contributed to our pages (vol. ii, 1881, pages 925, 971) a paper on the Treatment of Gunshot Wounds of the Abdomen, in relation to Modern Peritoneal Surgery, in which he advocated a prompt opening of the abdominal cavity, cleansing of the peritoneum, and search for visceral wounds, in all future cases of gunshot-wound of the abdomen, where perforation of the intestine was suspected,

In the course of the winter before last, he was attacked by pneumonia, which nearly proved fatal. During his stay in London he was treated with great kindness, skill, and success by Dr. Ord of St. Thomas's Hospital. He gradually recovered, and, when in London last summer with his son, Dr. Harry Sims, he appeared to be in remarkably good health. He left London, for the last time, this August, and was intending to return here from New York, when he was suddenly attacked by angina, apparently a recurrence of his illness of two years' since, and died on November 13th, having nearly completed his seventy-first year.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of Examiners on the 8th instant, and, when eligible, will be admitted to the pass examination, viz.:

Messrs. C. H. Wakeham, A. D. Owen, and W. B. Cosens, students of the London Hospital; F. A. E. Ford, W. J. A. Adye, and J. H. Stacey, of St. Thomas's Hospital; B. Shadwell, S. E. Ward, and G. R. Williams, of St. Bartholomew's Hospital; J. E. P. Sparrow and G. F. Ewens, of King's College; H. de B. Dwyer, G. S. Clarke, and G. A. Barr, of St. George's Hospital; P. J. Shopoff, of St. Mary's Hospital; and F. R. H. Potts, of Guy's Hospital.

Six candidates were referred for three months.

The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 12th instant, viz.:

Messrs. G. S. Carden, M.B.Edin., Bath, R. R. Giddings, M.B.Ed., Edinburgh, G. M. Reid, M.B.Ed., Melbourne, A. Macfadyen, M.B.Edin., Portobello, N.B., and J. M. Whyte, M.B.Edin., Nairn, N.B., of the University of Edinburgh; T. G. Alexander, M.B.Glas., Glasgow, and W. Stafford, M.B.Glas., Glasgow, of the University of Glasgow; F. H. Wigmore, L.S.A., Eccleston Street, S.W., J. H. Gilbertson, Hertford, M. Johnston, L.R.C.P.Ed., Bedford, and J. G. Wilson, L.S.A., Monmouth, of St. Bartholomew's Hospital; J. A. Hutchinson, M.B.Dur., Stockton-on-Tees, and H. M. Fenwick, L.R.C.P.Ed., Newcastle, of the Newcastle-on-Tyne School of Medicine; B. Blower, L.R.C.P.Lond., Liverpool, and T. D. C. Barry, L.K.Q.C.P.I., Liverpool, of the Liverpool School of Medicine; W. E. Ranson, L.S.A., Stafford, S. C. Lawrence, L.R.C.P.Lond., Bournemouth, and A. H. Hunt, L.S.A., Birmingham, of the Birmingham School of Medicine; N. Manders, L.R.C.P.Lond., Marlborough, of St. Mary's Hospital; H. Faulkner, L.R.C.P.Ed., Teddington, of University College; H. A. B. Davies, L.R.C.P.Ed., Swansea, of Guy's Hospital; H. Lockwood, L.S.A., Sheffield, and S. Ellis, L.S.A., Arundel, of King's College.

One gentleman was approved in Surgery, and, when qualified in Medicine, will be admitted a member of the College; and ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, including one who had an additional three months,

The following passed on the 13th instant, viz.:

Messrs. J. H. Brown, M.B.Ed., Whitby, R. Eassie, M.B.Ed., Lanark, and U. N. Mukerji, M.B.Ed., Calcutta, of the Edinburgh School; G. H. Graham, L.S.A., Anerley, S.E., H. W. Moor, L.R.C.P.Ed., Brighton, and D. T. Edmunds, L.R.C.P.Ed., Cranbrook, Kent, of Guy's Hospital; J. F. Steedman, L.S.A. Wellington, Salop, M. Smith, L.R.C.P.Ed., Weston-super-Mare, and H. W. Hooper, L.R.C.P.Lond., Sevenoaks, of St. Bartholomew's Hospital; M. W. Williams, L.S.A., Tunbridge Wells, and A. E. Rook, L.R.C.P.Lond., Forest Hill, of the Middlesex Hospital; J. M. Cotton, M.B.Toronto, Toronto, of the Toronto School of Medicine; N. H Turner, Redcliffe Gardens, of King's College; W. B. Tomson, M.B.Dur., Luton, Beds, of St. Thomas's Hospital; W. Blaxland, L.R.C.P.Lond., Sydney, N.S.W., of the London Hospital; and J. W. A. Wood, L.R.C.P.Ed. Manchester, of the Manchester School.

Seven gentlemen were approved in Surgery, and, when qualified in Medicine, will be admitted members of the College; and ten candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies—seven for six, two for three, and one for nine, months.

The following gentlemen passed on the 14th instant, viz.:

Messrs. S. Crawshaw, Wigan, and W. Carmichael, B.A.Lond., Manchester, of the Manchester School; J. V. Salvage, Lower Norwood, C. P. Walker, Blackheath, and S. B. A. Edsall, Brixton Road, of Guy's Hospital; S. C. Townsend, Burleigh Street, of St. Bartholomew's Hospital; P. R. Stevens, Biggleswade, of St. George's Hospital; J. Swain, Melbourne Square, of the Westminster Hospital; J. E. Jefferis, Sydney, N.S.W., of University College; A. H. Syrêe, Canterbury, of King's Colleges.

Eight candidates who passed in Surgery at previous meetings of the Court, having subsequently obtained medical qualifications, were admitted Members, viz.:

Messrs. S. G. Milner, L.R.C.P.Ed., Dulwich Wood, and C. P. Leaver, L.R.C.P.Lond., Bayswater, of St. Bartholomew's Hospital; P. J. Nunnerley, L.R.C.P.Lond., Powis Square, of University College; R. L. Knaggs, L.R.C.P.Lond., Putney, and W. Howard, L.R.C.P.Ed., Littlepool, of Guy's Hospital; J. H. Naylor, L.R.C.P.Ed., Drilington, of the Leeds School; D. B. Irving, L.R.C.P.Lond., Lockerbie, N.B, of St. Thomas's Hospital; C. D. Greenwood, L.S.A., Clapham, of King's College.

Three candidates passed in Surgery. Ten were referred for six months, and three for three months.

At the anatomical and physiological examination for the diploma of membership of the Royal College of Surgeons, which was brought to a close on the 8th instant, ninety-four candidates presented themselves, of which number twenty-eight, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, and three for six months. At the corresponding period last year, there were ninety candidates; sixty-seven passed, twenty-two were referred for three months, and one for six months.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 8th, 1883.

Ellis, Sidney, Brecknock Road, N.W.
Hasell, Edward Suter, Spring Grove, Isleworth.
Long, Jno. Wm. Francis, Stamford Street, S.E.
Mackay, Henry, Normanton Road, Derby.

MEDICAL VACANCIES.

The following vacancies are announced:

BASFORD UNION RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary, £400 per annum. Applications by November 28th.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Honorary Surgeon. Applications to Mr. Adam Fox, Honorary Secretary.

CLIFDEN UNION.—Medical Officer, Renoyle Dispensary. Salary, £120 per annum, and fees. Applications, by December 6th, to Mr. J. O'Donnell, Honorary Secretary, Moyard, Clifden, Co. Galway.

COUNTIES ASYLUM, Ealands, Carlisle.—Second Medical Assistant. Salary, £80 per annum. Applications to Dr. Campbell by November 24th.

CUMBERLAND AND WESTMORLAND ASYLUM.—Second Medical Assistant. Salary, £80 per annum. Applications to Dr. Campbell, Garlands, Carlisle, by November 24th.

DENTAL HOSPITAL OF IRELAND, 29, York Street, Dublin.—Dental Surgeon. Applications to the Registrar by November 17th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Medical Officer for the Dispensary. Salary, £180 per annum. Applications to the Chairman of the Medical Board by November 27th.

GENERAL INFIRMARY, Leeds.—Resident Assistant House-Surgeon. Applications to the House-Surgeon by November 24th.

GENERAL INFIRMARY, Northampton.—Assistant House-Surgeon. Salary. £80 per annum.

GESTO HOSPITAL, Edinbane, Skye.—Resident Medical Officer. Salary, £275 per annum. Applications to J. McLennan, Solicitor, Portree, by December 1st.

GREAT NORTHERN HOSPITAL, Caledonian Road, N.—House-Surgeon. Salary, £63 per annum. Applications by November 19th.

GREAT YARMOUTH HOSPITAL.—Resident House-Surgeon and Dispenser. Salary, £90 per annum. Applications to be sent forthwith.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, W.C.—Medical Registrar. Honorarium, 50 guineas. Applications by November 21st.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, W.C.—Surgeon. Applications by November 21st.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square.—Visiting Physician. Applications by November 27th.

LIVERPOOL DISPENSARIES.—Assistant House-Surgeon. Salary, £108 per annum. Applications by November 26th, to R. R. Greene, Esq., Secretary, 34, Moorfields, Liverpool.

LONDON LOCK HOSPITAL AND ASYLUM, Female Department, Westbourne Green, Harrow Road.—House-Surgeon. Salary, £100 per annum. Applications by November 24th.

LONDON HOSPITAL.—Surgical Registrar. Salary, £100 per annum. Applications by December 17th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—House-Surgeon. Salary, £70 per annum. Applications by November 27th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Resident Clinical Assistant and Registrar. Salary, £70 per annum. Applications by November 27th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Resident Medical Officer and Registrar. Honorarium of 40 guineas per annum. Applications by December 10th.

NOTTINGHAM DISPENSARY.—Senior Resident Surgeon. Salary, £160 per annum. Applications by November 30th.

NOTTINGHAM DISPENSARY.—Two Junior Resident Surgeons. Salary, £110 per annum each. Applications by November 30th.

PADDINGTON GREEN CHILDREN'S HOSPITAL.—Honorary Dental Surgeon. Applications to the Secretary.

QUEEN'S HOSPITAL, Birmingham.—Honorary Physician. Applications by November 26th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Anatomy and Physiology. Applications by November 24th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant-Surgeon. Applications by December 5th.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House-Surgeon. Applications to Dr. Broster, Honorary Secretary, Marland Place, Southampton.

SCARBOROUGH HOSPITAL AND DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications to the President by the 21st instant.

SHERBORNE HOSPITAL AND DISPENSARY.—Dispenser. Salary, £70 per annum. Applications to Dr. Booth by December 1st.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY AND CONVALESCENT HOME.—House-Surgeon and Dispenser. Salary, £71 per annum. Applications by November 20th.

WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer and Dispenser. Salary, £120 per annum. Applications by November 24th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon. Applications by December 1st.

WEST LONDON HOSPITAL, Hammersmith.—House-Surgeon. Salary, £80 per annum. Applications by November 17th.

YOUNG'S PARAFFIN LIGHT AND MINERAL OIL COMPANY, Limited.—Medical Practitioner. Salary, £300 per annum. Applications by December 1st.

MEDICAL APPOINTMENTS.

FIELDEN, W. E., M.B., appointed House-Surgeon and Secretary to the Chichester Infirmary.

KILLEN, J. M., M.D., appointed Medical Officer for the Larne Dispensary District, Larne Union, *vice* J. Kane, L.R.C.P., deceased.

LEWIS, C. J., M.D., M.R.C.S., L.R.C.P., appointed Assistant-Surgeon to the Birmingham Ear and Throat Infirmary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

PALMER.—On the 9th instant, at Barton-under-Needwood, the wife of Clement Palmer, of a daughter.

MARRIAGES.

CARMALT-JONES—ROXBURGH.—On the 10th November, at Holy Trinity Church, Paddington, by the Rev. Alfred Ainger, Reader of the Temple, assisted by the Rev. Henry Thompson, Vicar of Aldeburgh, Suffolk, T. W. Carmalt-Jones, M.A., F.R.C.S.Edin., of 6, Westbourne Street, Hyde Park, eldest son of the late Thomas Jones, Q.C., to Helen, eldest daughter of Sir Francis Roxburgh, Q.C.

NEWTON—MCNAUGHT.—On the 7th instant, at Cressington Park Church, Richard Arthur Newton, M.R.C.S., of Newhall Street, Birmingham, to Mary, youngest daughter of James McNaught, Esq., of Woodcroft, Cressington Park, Liverpool.

TIBBITS—RUSSELL.—BOWMAN—DOWELL.—On November 10th, at St. George's, Hanover Square, by the Rev. W. H. L. Gilbert, M.A., assisted by the Rev. E. Capel Cure, M.A., Rector of St. George's, Herbert Tibbits, M.D., F.R.C.P.E., of Wimpole Street and Highgate, to Arabella, widow of the late Aubrey Russell, and eldest daughter of Charles Dowell; and, at the same time and place, William Bowman, of Lee Road, Blackheath, and Cullum Street, City, to Florence Louisa, youngest daughter of the above-named Charles Dowell. Indian and West Indian papers please copy.

DEATHS.

BROWN.—On the 10th instant, at 3, Hartfield Terrace, Eastbourne, and formerly of Beckenham, Kent, Charles Robert Brown, M.D., aged 37.

HEWSON.—On the 10th inst., John Dale Hewson, Extra Lic. R. Coll. Phys., Lond., M.R.C.S.Eng., and L.S.A.Lond., for thirty years the Medical Superintendent of the Coton Hill Institution for the Insane, Stafford.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY......King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S, 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S, 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Warner: On Posture as expressing the Condition of the Mind. Dr. Milner Fothergill: On Some Nervous Derangements of the Heart.

TUESDAY.—Pathological Society, 8.30 P.M. Mr. Durham: True Bone developed in Primary Tumours unconnected with the Osseous System: 1. In Epithelioma of Cicatrix; 2. In Adenoma of Breast. Dr. Hale White: Charcot Joint-disease. Mr. Eve: 1. Pedunculated Adenosarcoma of the Skin; 2. Hydatid Cyst in Muscle of Calf (card); 3. Sarcoma of Lower Jaw of Horse (card). Dr. Money: Necrosis of the Upper Jaw after Typhoid Fever. Dr. Heneage Gibbes and Mr. Sutton: Tuberculosis in Birds. Dr. West: 1. Suppurative Pericarditis in Pyæmia; 2. Stomach from a Case of Carbolic Acid Poisoning (card). Mr. Symonds: Suppurative Arteritis. Mr. Barker: Tongue with Extensive Tubercular Ulceration. Mr. Lunn: Fracture of Spine (card).

THURSDAY.—Harveian Society of London, 8.30 P.M. Harveian Lectures by Dr. Broadbent: Subject—On Prognosis in Heart-disease.—Parkes Museum, Margaret Street, 8 P.M. Lecture, by Mr. George Murray on the Potato disease.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr F. Andrewes: Ferments.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Thin: On Cases of Thickened Epidermis treated by Salicylic Plaster. Dr. Dawtrey Drewitt: On a Case of Myxœdema. Dr. Cayley: On a Case of Pneumothorax occurring in the Course of Typhoid Fever. Dr. S. West: On a Case of Complete Recovery from Idiopathic Pneumothorax, without Effusion of Fluid. Living Specimen (8 P.M.). Mr. Mansell-Moullin: Thrombosis of the Inferior Vena Cava.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

IN reference to the matter of dispute between Dr. Arthur and Mr. Eugene Hart of Brighton, the details furnished us as to the matter in question are so contradictory, that we do not feel justified in pronouncing an opinion either way; and we would therefore suggest, if it is thought wise to carry the dispute further, that each gentleman should name a friend, who, together with the president of the local medical society, should thoroughly sift the matter, and, we hope, bring about a favourable solution of it. We shall be happy, if the arbitrators think it well, to publish their award.

SYMPATHETIC OPHTHALMIA.

SIR,—Your report of the proceedings of the Liverpool Medical Institute on October 25th, speaking of Mr. George Walker's cases of sympathetic ophthalmia, states, "Messsrs. R. Williams, C. G. Lee, and Sheare, criticised the mercurial treatment, but expressed themselves willing to try it."

The reporter appears entirely to have mistaken the point and object of my remarks, which were not intended to be so much a criticism of the mercurial or any other treatment, but rather an expression of surprise at the nature of one of the cases reported by Mr. G. Walker.—I remain, sir, yours obediently,

CHARLES G. LEE.

84, Bedford Street South, Abercromby Square, Liverpool, Nov. 13th, 1883.

M.R.C.S.E. asks if there be any hospital in or near London where a gentleman of moderate means can, by payment, get admission for treatment of chronic eczema.

CEREBRO-NERVOUS DISORDERS PECULIAR TO WOMEN.

SIR,—In the JOURNAL of October 27th, a paper appeared under the above heading from the pen of Dr. More Madden.

Dr. Madden is of opinion that many women are detained in lunatic asylums for want of proper gynæcological treatment. Quoting the Lunacy Commissioners, he gives the number of registered insane in Great Britain as 85,167, out of which number 46,566 are females; and then, turning to Ireland, he quotes the statistics of the private lunatic asylums, to show the preponderance of female insane in that country, viz.: 385, against 236 males. Why is he silent about the public asylums? Out of twenty-two, in two only do the females exceed the males.

Further on Dr. Madden mentions "sixty thousand women who are now secluded in our asylums." He has already given 46,566 as the number in Great Britain, and 385 as the number in private asylums in Ireland: are his readers to infer that besides the 385 there are over 13,000 registered insane females in Ireland? Of his "sixty' thousand, he says many are improperly detained in asylums for want of being treated by gynæcologists, though he says in the next sentence that a certain proportion of these might be restored to reason by proper treatment.

He does not say what should be done with those who could not be restored to reason, though, on his showing, lunatic asylums are not the places for them. If it be a fact that many women are detained in lunatic asylums for want of proper medical treatment, that state of things should be met by a Commission of Inquiry, and not by the appointment of gynæcologists, in the future.

Dr. Madden lays it down that superintendents of asylums, however well-qualified in all other respects, are not competent to pronounce any opinion concerning the necessity of uterine treatment, or as to the mode of carrying it out. In the discharge of their other responsible duties, superintendents have to treat bronchitis, pneumonia, fractures, strangulated hernia, and all manner of ailments; and if Dr. Madden grants they are competent to do so, is it not too sweeping to charge them with incompetence in the treatment of uterine complaints?

For the accumulation in asylums of females suffering from insanity due to uterine disorders, Dr. Madden gives as a reason the peculiar insensibility to physical suffering which prevents insane persons from making known their complaints. To meet the evil, he says all such females should have special and independent gynæcological advice; but he has already admitted that, for obvious reasons, it would be injurious to insane patients to examine or treat them for uterine disorders without absolute and well-proved necessity.

Does Dr. Madden mean to convey that gynæcology teaches its students how to diagnose uterine mischief in an insane female without making an examination?—I am, etc.,

JOSEPH PETIT, Resident Physician
District Lunatic Asylum, Sligo.

WATER-ANALYSIS.

Dr. H. PAGE writes; A Medical Officer of Health will, next to the last edition of Parkes' standard work, find the most suitable work on *Water-Analysis*, by Wanklyn (Trübner), but he will do well by also perusing the article "Water," in Dr. Fox's *Sanitary Examinations of Water, Air, and Food* (Churchill) and *Water-Analysis*, by Dr. Frankland (von Voorst).

SUBCUTANEOUS INJECTION OF ETHER.

SIR,—"Inquirer" asks for some particulars with regard to the administration of ether hypodermically. I have had occasion to employ this method on seventeen different occasions, using an ordinary hypodermic syringe, and the spiritus ætheris sulphuricus of the *British Pharmacopœia*. The dose was usually fifteen to twenty-five minims, the maximum being limited by the capacity of the syringe; but as this amount has been repeated within one minute, in more than one instance, and with nothing but good effect, I should not hesitate to give half a drachm or more in certain cases. The immediate result was always satisfactory, and was, in one instance, the first step of a resuscitation from a condition absolutely moribund. I have not seen abscess follow the operation, and in only one instance was pain in the site of the puncture felt for more than a few minutes. The ages of the subjects varied from seven to seventy-four years. The administration was always strictly subcutaneous, the needle being thrust through the depth of the true skin and superficial fascia, and then entered for about three quarters of an inch parallel to the surface. I prefer to use a glass syringe with fine pointed steel needle. The part of the body selected for the operation is not, probably, of much consequence; but, in practice, the flexor aspect of the right forearm usually presents itself as convenient and accessible. As ether is a ready solvent of fat, it is advisable to look to the leather packing of the piston of the syringe as soon as possible after using it, and to re-oil it. The ether also attacks the cement used to secure the mounts to the glass barrel, and they will, sooner or later, become loose. Moreover, as it acts upon "celluloid," a syringe made of this material should not be used.—I am, sir, yours truly,

Hertford. C. E. SHELLY, M.B.Cantab, etc.

NITROUS OXIDE GAS.

SIR,—Having had nitrous oxide gas administered to me on the 12th instant, by Mr. Wallace, dentist, of Glasgow, for the extraction of two teeth, I think the feelings experienced were sufficiently peculiar to deserve some notice. I may add that I resolved, before taking it, to observe the sensations caused by it. I had it about six years ago, but could not describe anything on recovering consciousness, and had slight confusion for ten minutes afterwards.

On inhalation of the gas, I had the usual sensation of ringing in the head with a feeling of fullness in the chest, but I felt as if my brain were revolving with fearful velocity. The next thing I noticed with my mind's eye was the back tooth flying off at a tangent on the circle which I thought I saw before me. I had a most pleasurable feeling at the thought—well, that one is away.

I did not feel the instrument applied, nor any pain, but I seemed to be conscious of the actual removal of the tooth, though it did not seem to be mine. After the removal of this tooth I watched for the next, and, as in the first, I saw it fly off at a tangent on the circle, which seemed to be a reflection of myself. In a few seconds, the next thing I observed was a voice saying "spit out here."

The account given above I described to the dentist in a tenth part of the time taken to write this. I had no confusion after taking it as I had last time.—I am, etc.,

Beith. W. SNEDDON, M.D.

THE POLITICAL REPRESENTATION OF THE MEDICAL PROFESSION.

SIR,—The future representation of the profession will, no doubt, no matter how carefully arranged, fall into the hands of men who will be politicians first and medical men afterwards, and who will allege that to be so is the proper duty of honest men.

How then can we hope to better the condition of the profession by such men? If, by a miracle, a genuine unanimous feeling or cry could be established, our power, already great if properly used, would make itself felt in any legislature. If this is so, do we need special representatives? But, sir, can we be unanimous, have we ever been so? and this must not be lost sight of. Even when we have seemed most so, there have always been those among ourselves who have checkmated all endeavours, openly or otherwise. Was it not so with the last Medical Bill? The several sections of the profession are more or less antagonistic, divergent rather than convergent; even when not antagonistic, they have no real union. This is the true experience of all. Do we not see some physicians (I would fain not write many) practising as general practitioners, some surgeons (consulting) attending midwifery, descending even to the level of the general practitioner in the matter of fees, yet scorning to be called so, while some general practitioners rival each other for work, producing the merest pittance, that would be scorned by tradesmen, even by artisans? How, then, seeing we are so unfaithful to ourselves, can we expect our representatives to be otherwise to us? Our prominent men have not always proved reliable. Exposed to new surroundings, new temptations, increased anxieties with increased expenditure, added to old rivalries and jealousies, they will drift more and more from professional into political matters, and hanker after the "fleshpots of Egypt." Many inducements will be brought to bear upon them. Though some may stand firm, it is in the nature of events that the majority will be led astray. In the future, when Utopia is nearer, political doctors may be serviceable; but at present they would be looked upon with suspicion, if independent of party.

The question of peerages for medical men may have something to be said for it.—Yours faithfully,

J. R. L.

CHILD-BEARING LATE IN LIFE.

SIR,—The following may prove of interest. On the 6th October, 1883, Mrs. H., the wife of a blacksmith in this town (Wellington), was delivered of a healthy female child, after a natural labour. She was 48 years of age on the 19th of February last; has had several children; more than eight years elapsed since the one before this. Her life has been one of hard work. Mrs. H. tells me that her mother was in her fiftieth year when she had her last, her fourteenth child. The family is well known in this neighbourhood, and I have no hesitation in accepting the statements as correct.—I am, etc., JOHN MEREDITH., M.D.

Wellington, Somerset.

PUBLIC VACCINATORS.

ALL medical men admitted to practice since January 1st, 1860, are required to produce a special certificate of proficiency in vaccination, signed by one of the teachers and examiners approved by the Local Government Board, unless such certificate was one of the certificates required for the diploma. No other certificate will be accepted by the Local Government Board.

How to Keep the Hypodermic Syringe in Order.

Dr. William H. Morse of New York describes the following method of keeping the hypodermic syringe in order (in the *New York Medical Record*). "It is," he says, "the very best," the syringe being always ready and in good order, even if it has not been used for months. The method, besides being simple, is inexpensive. "Unscrew the bowl of your syringe, take out the piston-rod, unscrew the lower piston-leather and take it off, then put in its place a small piece of chamois-skin, and replace the leather and screw it tight. Now trim the chamois to the size of the bowl, and replace the piston, and the work is done. You will observe that you have only placed a bit of chamois between the two piston-leathers. You now have a syringe which is in working order the moment water is introduced."

Errata.—In the Journal of October 27th, page 850, col. 2, in the list of licentiates of the King and Queen's College of Physicians who have been enrolled as members under the supplemental charter, *for* "J. D. O'Connell," *read* "O'Connell J. Delahoyde." In Dr. W. Macfie Campbell's paper in last week's Journal, page 860, col. 1, at line 4 of second paragraph, *for* "corresponding form," *read* "corresponding furrow."

The History of Epidemics.

In reference to the letter of Enquirer (Journal, Nov. 10, p. 954), Dr. C. R. Francis (Clapham Common) directs attention to *A History of Epidemic Pestilences from the Earliest Ages, 1495 years before the birth of Our Saviour, to* 1848, by E. Bascombe, M.D. Published by Churchill. He has found it of great service.

Mr. J. Foster Palmer (8, Royal Avenue, S.W.) directs "Enquirer's" attention to a very comprehensive paper read last year at the Statistical Society. The paper is not yet published, but Mr. Palmer can give "Enquirer" further information if he would like to communicate with him.

Portrait of Dr. Jenner.

Sir,—I have in my possession a mezzotint engraving of Dr. Edward Jenner, painted by J. Northcote, R.A., for the Plymouth and Plymouth Dock Medical Society, engraved by Say, and published by Thomas Palser, August 1804. Can any of your readers inform me whether it is scarce, and what is its value? Is the Plymouth and Plymouth Dock Medical Society still in existence?
—Yours, etc., Medicus.

Club-Surgeons.

Sir,—I consider F. H. T. made a great mistake in visiting a club-patient residing four miles beyoud the prescribed limit. I make it a rule, in the rare cases in which I am asked to visit patients residing beyond the radius laid down in the club-rules, to stipulate for the payment of a moderate fee at each visit, and it has very seldom been objected to. If it be, I decline to attend the case. Whether, in consideration of the ignorance, or, possibly, the poverty of the patient, F. H. T. might think it worth his while to give a small donation towards the bill (£1 12s.) referred to, is a matter for his own consideration. There certainly can be no claim upon him.—I am, sir, yours truly, J. G.

Home for an Idiot.

Sir,—A person has applied to me for information respecting an institution for the admission of an idiotic daughter, aged 13 years; she has, during the past five years, been at the Earlswood Asylum, but the friends cannot afford the expense of another election, and they have been consequently told that the patient must be taken away at the end of this month. The father has a large family (ten children) dependent upon himself, and he cannot offer any large sum for her maintenance. Could you, or any of the readers of the Journal, oblige me with any information respecting any asylum where the case would be admitted for a small weekly payment? An answer in the coming week's Journal will be esteemed a favour.—Yours,
A Ten Years' Subscriber.

COMMUNICATIONS, LETTERS, etc., have been received from:

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BOOKS, ETC., RECEIVED.

Sexual Impotence in the Male. By W. A. Hammond, M.D. New York: Bermingham and Co.

Transactions of the Medical Society of the State of Pennsylvania at its Thirty-Fourth Annual Session held at Norristown, May 9th, 10th, 11th, 1883. Vol. XV. Published by the Society, and printed by Collins, printer, Philadelphia. 1883.

Phthisis, its Cause, Nature, and Treatment. Part II. Of the Antidotal Treatment of Disease. London: David Bogue. 1883.

Transactions of the College of Physicians of Philadelphia. Third Series. Volume the Sixth. Philadelphia: Printed for the College and for sale by P. Blakiston and Son. 1883.

Sanitary Principles, More Especially as Applied to India. By Surgeon J. S. Thompson, S.Sc.C.Camb., H.M. Bengal Medical Service. Calcutta: Brown and Co., booksellers and publishers, 12, Government Place. All rights reserved.

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AN ADDRESS
ON COLLECTIVE INVESTIGATION OF DISEASE.

Delivered at a Meeting of the London District of the Metropolitan Counties Branch.

By SAMUEL WILKS, M.D., F.R.S.
Physician to Guy's Hospital, etc.

I HAVE much pleasure in coming forward and stating that I regard the object in view as one of the utmost importance, and one likely to bear fruits in the future which can scarcely be estimated. It may appear like a truism to state that a knowledge of disease can only be obtained by united observation of those who are engaged in its study and treatment; and it is only telling you what you already know, that, if this has not reached the degree or extent which could be desired, it is because the busy practitioner does not possess time or opportunity to record the results of his experience. Now, I take it that it is the object of the present movement to enable you to overcome this difficulty. I believe it to be true that all medical men would be only too willing to contribute their mite towards the general fund of knowledge: their contributions to the weekly journals sufficiently attest the fact. There may be a few who regard their profession as a means of livelihood, and, beyond this, their interest in it ceases; but if there be such, they constitute but a very small minority. Yet, with all the willingness of the majority of the profession to aid the good cause, the opportunity is wanting. Now I do not refer to the general practitioner only, for in this greater number must be included most consulting physicians and surgeons, for I apprehend these latter make little use of their private cases for any scientific purpose.

In private practice, where the facilities for the investigation and the recording of diseases cannot be so efficient as in hospitals, a very large part of the experience which is personally obtained is lost to the profession. Now, this new association aims at nothing less than offering everyone an easy method by which this experience can be recorded, and thus saved for the general benefit; and this experience will not be a mere strengthening of or adding to the knowledge already existing, it will be of a kind which cannot be obtained elsewhere; and this I regard as one of the most important features of the movement, that the general practitioner will be able to supply absolutely new and fresh facts, which can rarely be obtained by the consulting physician, much less by the hospital officer.

A moment's consideration will remind you how large a number of diseases are almost solely in the hands of the general practitioner; and therefore it is to him we must look for information concerning them. Take, for example, the specific diseases, and more especially their clinical features; and now look into any learned treatise respecting the question of contagion and incubation. You will find that the writer very seldom has much knowledge of his own, and is dependent entirely for his facts on those who have been practising amongst these diseases. You will find, probably, that these writers are by no means agreed as to the incubative period of many specific diseases; and it would seem that precise knowledge on this subject is wanting. I believe that an important question of this kind could be at once settled, could the voice of those who are in possession of the facts be only reached. I believe the knowledge actually exists, for I constantly find, when meeting general practitioners, that they have been in the midst of an epidemic of typhoid fever, scarlatina, or other specific disease, and that they are in possession of most valuable facts respecting several important points. Being acquainted with the locality, they have an intimacy with their neighbours; they know of their arrival and departure from the place; and thus have most precise knowledge with respect to the origin of diseases and the time of infection. A medical man has said to me when meeting him over a case of small-pox: "I know almost to an hour when the patient commenced to be ill. I know when the rash first appeared, and I am acquainted with the exact time when he paid a visit to a house where small-pox existed." I have naturally exclaimed: "Then pray make a note of the facts;" when I receive an answer: "I am too busy for that kind of work during the day, and am too tired for any writing when I arrive home at night." I remember meeting two gentlemen in different parts of the country, who told me they had had an epidemic of mumps, and could give me the most precise information as to its incubative period. Their knowledge of the time has now, I suppose, passed into the air.

Then take the subject of contagion. Facts ought to be collected with respect to the question of the propagation of scarlet fever by swallowing the germs; with respect, also, to the contagiousness of the secretions of the nose and mouth in measles; or to the possibility of carrying whooping-cough from one locality to another in the clothes. Then we want to know at what stages fevers are most contagious. Is it true or not that scarlatina is most catching at the desquamative period? On all these points we require more facts, or, rather, we want the means of extracting these facts from general practitioners. If we can in any way assist the busy general practitioner in recording his facts, he himself will feel proud in contributing his portion towards the general fund of knowledge, and the profession will receive it with hearty thanks. Is so-called scarlatinal rheumatism true rheumatism or pyæmia? Is the presence of albumen in the urine, in the case of severe sore-throat, always indicative of a specific disease, as diphtheria or scarlatina? Then there is more to know about vaccination. What is the frequency of pyæmia or other diseases after vaccination?

In the matter of therapeutics, also, much good might be done. It would be very interesting to ascertain in what way many diseases are treated throughout the country. The best men in the profession have not yet discovered any laws to guide them; they can do no more than recommend certain remedies under certain conditions. The consequence of this is that the same diseases, or exactly similar cases, receive very different treatment at the hands of medical practitioners. Take the case of pneumonia. This is one of the diseases regarding which I am very frequently called into consultation. I therefore have had an opportunity of watching the different modes of treatment, and am astonished at the utter want of method or system which I see adopted. Hot applications are used by some, and ignored by others; blisters at once applied by some, deprecated by others. The old remedy, antimony, still considered most valuable by a few medical men, is utterly abolished by others from their prescriptions as dangerously depressing. Again, opium in pneumonia is regarded by some as a true antiphlogistic remedy, by others it is looked upon as most hazardous in all acute affections of the chest. One practitioner adopts a lowering treatment by active drugs, whilst another pours in ammonia and brandy. Then I constantly find special drugs given, such as aconite and digitalis. What is the experience of the profession of these drugs in this disease? I should much like to get a response from every man in England to the question, How do you treat pneumonia? What is the best accepted treatment in typhoid fever, scarlatina, or measles? What is the opinion of the profession about local treatment in diphtheria? We also want information as to the value of particular drugs in various diseases, such as aconite in sore-throat. I think it would be interesting to know, also, from general practitioners on what drugs they most rely, and to have a list of all the medicines they use; also the remedies outside the *Pharmacopœia* which they regard as sufficiently valuable to be made officinal. On these and many other points, a collection of facts derived from the general practitioner would be of essential service. I am sure that, in many good and valuable treatises on medicine, there is great room for more information on the slighter ailments which are daily coming under the notice of medical men. I trust that this section of the Association will commence some good work in this direction, and give an impetus to the movement throughout the whole profession.

BEQUESTS AND DONATIONS.—Under the will of Mr. David Roberts, the Royal Infirmary, Aberdeen, has received £1,300 (viz., £1,000 for the extension and improvement of building account, £200 for the Convalescent Hospital, and £100 for the Samaritan fund); and the Hospital for Incurables has received £200.—A bazaar in aid of the Border Counties Home for Incurables, Carlisle, has realised £1,612 9s. 8d., leaving goods unsold of the value of about £300, for the disposal of which a supplementary bazaar is to be held in the spring.—The Great Northern Hospital has received £300 under the will of Mrs. Hopkins.—The Eastern Counties Asylum for Idiots, Colchester, has received £300, less duty, under the will of Mr. G. C. Seaman, of Whitby, Suffolk.—The Cumberland Infirmary, Carlisle, has received £147 10s., the proceeds of a ball held in January.—Messrs. Kirk and Parry, of Sleaford, have given £103 9s. 3d., being the balance from the insurance of workmen's fund, on finishing the Spalding and Lincoln Railway, to the Lincoln County Hospital.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

SOME REMARKS ON THE OPERATION OF OSTEOTOMY FOR DEFORMITY OF THE LOWER LIMBS.

Read in the Section of Surgery.

By A. RABAGLIATI, M.D., Surgeon to the Infirmary, Bradford.

THE remarks I am about to make refer to thirteen patients on whom twenty-eight divisions of bone were performed for various reasons. In all the cases, the operation was perfectly successful. All were done antiseptically. The deformities treated were all, with one exception, in the lower limbs; one was in the upper limb, being an ununited fracture of the right radius in a young man aged 23. This case is not yet completed, but it has been included in the list because, as an osteotomy, it has been perfectly successful, in so far as this, that though the radius was exposed about the junction of its lower and middle thirds, above the attachment of the pronator quadratus, and a piece of bone removed from it, no fever resulted, and very little suppuration. That there was any at all was, I think, due to the fact that it was necessary to dissect and reflect several of the muscles, and more or less to interfere with the position of the parts. In all the cases, so far at least as can at present be stated (for some of them have been very recently performed), the deformities have been so far rectified as to merit the name of cure. Of the twelve cases of deformity of the lower limbs, nine were cases of knock-knee (of which two had also bow-leg on the other side), and two were double. Four were cases of bow-leg, including the two which had genu valgum on the other side, and two of these were cases of double bow-leg, and had the operation performed on both sides. One was a case of great deformity from rickets, in a child aged 8 years; and, in this case, both tibiæ and fibulæ were divided at about the junction of the middle and lower thirds; and, in addition, the right femur was also divided for knock-knee, so that five osteotomies were done on this little boy at one sitting. As to febrile disturbance, one may describe it as absent. In only one case was 101° Fahr. reached, and in most of the cases the temperature did not reach 100° Fahr., while, in several, it did not even reach 99.2° Fahr., so that we may say the febrile symptoms, in one case only, rose to the subacute state, and, in several, did not rise above mild. I suppose this result to be due to the use of antiseptics, by means of which compound fractures can be so treated as, for all practical purposes, to be no more dangerous than simple ones.

Nearly all of the patients were adolescents, there being only two children, both of whom were eight years of age. A peculiarity in several of the adolescents struck me, which seems to be worth reporting. I was told by these patients that the deformities came on more or less suddenly. One lad, aged 15, told me that his legs were straight six months before he applied for relief, but that, somewhat suddenly, they began to give way, and that he had a great deal of pain in his right knee, that limb being affected with genu valgum. Another sufferer, of about the same age, told practically the same story, except that he said the deformity had lasted about two years, during all of which time it had been increasing, till it culminated in the genu valgum on one side, and varum on the other, which he displayed. In neither of these cases had there been any definite febrile or other illness; and there were other cases of a similar character, and equally without history of previous illness. One may suppose, in cases of this sort, that a more or less sudden fatty degeneration takes place in the bones, which, for this reason, give way and bend under the weight of the superincumbent body. As bearing out this view of the pathology of the disease, I may mention that, in one of my cases, the fibula was cut by the mere pressure of the hand on the osteotome, without the use of the mallet at all, this extraordinary softness being due, as I imagine, to the fatty degeneration of the bone. In course of time, if the disease be left to itself, the fatty changes disappear, the fat-cells are absorbed, and the bone attains not only ordinary hardness, but an excessive degree. This is known as the stage of eburnation. Eburnation, as I take it, is merely a particular case of the general law of action and reaction, which seems to be the fundamental law in organic affairs; and, indeed, when we come to reflect on it, appears to govern inorganic phenomena also. By virtue of this law, whenever a change takes place in the economy, either in the direction of depression or of excessive action, that change tends, in course of time, to be followed by its opposite. The softening of fattiness is thus replaced in the young subject (of course the advance of age interferes with all the laws of organised bodies) by the hardening known as eburnation, just as the soft granulations of a wound are succeeded by the fibrous hardening of the cicatrix. On this great law depend also the changes by which the over-action of simple and specific inflammation and of fever, follows the depression which ushers in those diseases. Again, just as these excessive actions tend to be succeeded by depression below the normal, so in course of time does the eburnation tend to give way to a subsequent softening, not showing itself perhaps for many years, but tending to manifest itself in an earlier senescence than occurs generally. Mr. Macewen says that "rickets does not appear to shorten the life of those who recover from its effects," and supports the proposition by the statement that a skeleton of a man, aged 77 years, showing evidence of rickets, exists in Bonn University Museum; but I suppose he would not deny that rickets is a condition determining the chance of earlier senescence than when it is not present. The question is, would not the man in question probably have lived to 80 years of age if he had not had rickets? No doubt some strumous persons attain advanced life; but this would not warrant the inference that struma "does not tend to shorten life in those who recover from its effects."

Be this as it may, there can be no question as to the fact of eburnation taking place as the secondary stage of rickets. In one little boy, T. N., the tibiæ and fibulæ showed an appearance very characteristic of rickets, being twisted and curved with great deformity, while the wrists were expanded, and the child had the prematurely old look often seen in rickets. This is often due, as it certainly was, in great measure, here, to the fact that the boy had not yet cut his new incisor teeth. But the tibiæ (not the femur, by-the-by, which was divided at the same time) were so hard that the osteotome made scarcely any impression on them, and the chisel had to be driven upon them with very great force before they could be cut. The hardness of the bones led to a very awkward accident, happily unattended by serious consequences, but which might have been very serious. While the osteotome was being held against the right tibia, and the preliminary knock with the mallet given, to make the osteotome bite, the instrument slipped backwards amongst the muscles, causing a good deal of hæmorrhage, which, however, was easily assuaged. I waited anxiously the result of the boy's waking from chloroform, and was much relieved when the house-surgeon telephoned to me that sensation was everywhere intact, and that the child could move his toes freely, and the feet both inwards and outwards. In this case, the deformities could not have been corrected without section of the fibulæ, as well as of the tibiæ, because both bones were so curved and twisted, that no less extreme measure would have sufficed. I shall refer to section of the fibula in genu valgum later.

The accident that occurred during the operation on T. N. reminds me that, in one of my cases (No. XI), paralysis of the peronei muscles followed the operation of dividing the leg-bones. I observe that Kolaczek notes "transient paralysis of the extensors of the leg" as having followed in a case. If this be the same lesion as I have had the misfortune to chronicle, it is possibly due in both cases to division or injury of the external popliteal nerve. Kolaczek's case is described as "transient." Mine is certainly passing off, but the patient has not yet quite recovered, six weeks after the operation. If this be the correct explanation of such an accident, it suggests a possible complication not before noted. My patient was in a low state of health, and somewhat stupid, having had typhoid fever before the operation; but he says he had no paralysis before.

As regards the operation for genu valgum, nine cases of which have been performed, I operated in my first cases by making a section of the femur after the method recommended by Mr. Macewen, by making an incision on the inner side of the thigh, just above the tubercle, for the attachment of the adductor magnus. The result was satisfactory. In a subsequent case, I pursued the same plan. Several of my colleagues on the infirmary staff were present, but I was specially assisted by Mr. Miall, then senior, and now consulting surgeon. When I had made the section, I had the curiosity to examine the bone, and therefore passed my finger well into the wound. To my surprise, I found that the end of the femur was split into three pieces, and I therefore asked Mr. Miall to pass his finger in and

make an examination also. There could be no doubt that the impact of the osteotome against the bone had not only cut it as I wished, but had also split it in the manner described, and of course the splitting extended into the knee-joint. The case did well, and the amount of motion in the knee-joint was sufficiently extensive; but, on thinking the point over, I came to the conclusion that it would be an improvement if this fracture into the joint could be avoided; and the best means of doing so seemed to be to make a section of the tibia below the knee, because the tibia, though it is a good deal more difficult to cut than the femur, is much more coherent and much less brittle than it, and therefore has not the same tendency to split. On doing this, I found that I could escape the risk of opening the joint, and that very often I could correct the deformity as well as by dividing the femur.

Mr. Macewen says that "one accustomed to the great amount of straightening brought about by the femoral incision, is much disappointed by the small comparative result brought about by division of the tibia at the foot of the anterior tuberosity," and that this happens equally when the fibula is also divided. Now I admit that the straightening is not so great, and that in some cases, as has happened to myself, after division of the bones of the leg, it is necessary further to divide the femur before the deformity can be corrected. Still, this is not always so, as, for instance, my eighth case proves; for there there was a double genu valgum, which separated the internal malleoli by ten and a half inches, and this was wholly rectified by section of both bones of the leg on both sides, without section of the femora. The projections of the internal condyles meet one another; and when the lad stands quite erect, the internal malleoli are still two inches apart, but the centre of gravity on both sides falls well within the feet, and there is no more giving way of the limbs.

Mr. Macewen says he has never seen the necessity of cutting the fibula in any case of genu valgum. I do not presume to offer to an operator so much more experienced than myself any advice, but it seems to me that division of the fibula in many cases materially assists the rectification, because the deformity is often due to a sudden curvature of both bones of the leg outwards (in addition to the inward projection of the condyle); and if the fibula be not divided it still retains that curve, and is apt to persist in its outward direction. It seems to me that, at least, division of the fibula gives an additional chance of rectification; and, as it is a most simple operation, I think it ought to be done in those cases where the hypogonatic operation seems advisable; otherwise, I do not know whether the dissatisfaction which Mr. Macewen expresses with this operation is in any way due to his confining the section to the tibia; but it may be so to some extent. Neither am I aware whether the splitting of the femur into the knee, which undoubtedly occurred in the case to which I have referred, takes place as a rule, or to any great extent in hypergonatic operations in general; but if it do, this seems to me a sufficient reason for preferring the hypogonatic operation to the hypergonatic. No doubt, the fibula is entirely carried by the tibia at its upper articulation, but still, division of a bend in the fibula, with rectification of it, seems to conduce to a straighter limb than division of the tibia alone, especially as the sections can be made obliquely and in opposite directions, so that, when the limb is straightened, the bones fall into better position. For instance, in my sixth case, the fibula was divided obliquely from below upwards and inwards, and the tibia from below and inwards, upwards and outwards, so that the cut parts met one another and the bones lay even.

In all my cases, I believe that the bones snapped right through, either by the operation or by subsequent bending. I am at least very sceptical about the existence of green-stick fracture in persons above the age of childhood. As regards division of the femur, I have done it from the inside, in the way advocated by Mr. Macewen, and also from the outside, as recommended by Mr. Barwell, but which Mr. Macewen does not approve. It seems to me that the objections to the latter operation are theoretical only, and that it is a matter of more or less indifference which side the section is from made. In one of my cases, I divided the femur about the bottom of the middle third, not far from the point where the vessels wind round the bone. As the bone is very thin here, the operation is much easier than when a section is made through the condyloid portion. The result was quite satisfactory, and of course the osteotome did not go near the knee at all. In cases in which there is much projection of the internal condyle, this operation would not be suitable, but slighter cases may often, I think, be rectified by means of it.

I have said nothing, except incidentally, as to the mode of performing the operation, but anyone can get the details from Mr. Macewen's valuable monograph. The question of the causation of these deformities is an inviting one, but there is no time to discuss it. I may, however, say that there seems to me to be evidence that, if rickets be the cause in many cases, rickets is in turn allied to strumous affections, if, indeed, it should not be looked on as one of the numerous sets of phenomena whose aggregate is called struma. Occasionally, the cause is connected with accident. One of my cases was due to fracture of both limbs in childhood and faulty setting by a bone-setter, the whole occurring coincidently with rickets.

Other points might be detailed, as, for instance, refinements which the surgeon learns to introduce in the operation, so as to save time subsequently; but space does not allow the introduction of details of this sort.

And it now remains only to say a few words about the after-treatment of genu valgum. I am not particular to put on a splint immediately after the operation. The limb is laid between sand-bags in the first instance, so as to avoid any pressure on the cut bones, and, therefore, to obviate any tendency to tension and to suppuration in the wound. The wound generally requires to be dressed within twelve hours of the operation; after that, it may often be left for a week or ten days, or even fourteen. At the end of a week, the splint may be put on. Even if the wound be healed, of course the bones have not united, and it is quite easy to put on traction by the bandage, so as to bring the limb straight.

In my first cases, I placed an ordinary long splint from the axilla along the outside of the limb. This did very well. Of course, it ought to be hollowed for the trochanter, and the external malleolus well padded. There is, however, an objection to this splint, that, arrange it as we may, it tends to work above the great trochanter, and the external condyle to work above the splint. This causes an obliquity in the limb, which does not come out quite so straight after the operation as it might do. To obviate this, I have had a splint constructed with the following features. In the first place, to obviate the tendency to work behind the trochanter, I have had a piece fastened rectangularly about the upper fourth of the splint. This goes in front of the thigh when the splint is on, and it is hollowed for its rounded contour. Secondly, the splint is made five inches wide at its upper part, and gradually tapers down to the lower, where it is two and a half or three inches wide. The edge which lies on the straw palliasse is straight, while the upper one slopes. By these arrangements, the tendency to work above the condyle, and to throw the limb into an oblique position, with the knee above the splint, can be overcome; and certainly the labour of the surgeon is diminished by its use. A list of my cases is appended.

LIST OF CASES.

1. Grace H., aged 16. Genu valgum; femur divided.
2. Walter C., aged 17. Genu valgum; femur divided.
3. Charles B., aged 15. Bow-leg; femur divided.
4. Mary J., aged 16. Genu valgum, double; femur divided on one side; both bones of leg on the other.
5. George K., aged 16. Double bow-leg; both femora divided.
6. Joseph B. (brother of No. 3), aged 20. Genu valgum of right leg; bow-leg (left); division of right tibia and fibula; division of left femur from outer side.
7. Michael G., aged 16. Genu valgum; section of femur.
8. Jeremiah D., aged 14. Genu valgum, double; division of both bones, right and left.
9. Annie P., aged 8. Genu valgum; division of both bones of leg.
10. Robert N., aged 17. Genu valgum; division of both bones.
11. Benjamin B., aged 15. Genu valgum and bow-leg; division of both bones of leg.
12. Osteotomy for ununited fracture of right radius.
13. Tom N., aged 8. Anterior tibial and fibular curves, and knock-knee (right); division of both bones of both legs; also of right femur.

In all the cases, the limbs were made quite straight, except in No. 9 (Annie P., aged 8), where the internal lateral ligature seemed to be weak, but even she was relieved.

QUEEN'S COLLEGE, BELFAST.—The following is a list of the scholarships for 1883-4 in the Faculty of Medicine:—*Fourth year:* anatomy, physiology, and medicine: James Morwood, Thomas Grainger, a prize. Therapeutics and pathology: N. J. McDonnell, J. S. Lytle, a prize. *Third year:* W. B. McQuatty, Andrew Buchanan. *Second year:* E. M. Woods. *First year:* James Hunter (Dunville scholarship), J. J. Redfern (Porter scholarship), R. J. T. Donald, James Lennox, a prize (Sullivan's scholarship), Samuel Meek (Sir Hercules Pakenham scholarship), William Irwin.

ON THE TESTS OF VISION WHICH SHOULD BE APPLIED TO SAILORS.

Read in the Section of Ophthalmology.

By W. A. BRAILEY, M.D.,
Assistant Ophthalmic Surgeon to Guy's Hospital, etc.

THE objects which must be recognised at sea are, for the most part, ships and landmarks by day; and, by night, lights, whether of lighthouses or other vessels. Of these, we shall probably consider the last to be the most important, when we think of the terrible character of collisions at sea.

What, then, is needed for the proper recognition of ships' lights, and how are these conditions to be met?

A sailing ship is required, by the regulations of the Board of Trade, to carry two lights, red on the left side, and green on the right. These lights are about nine inches in diameter, and should be recognised at two miles' distance in clear weather. Besides these, steamers carry in front a white light, which should be recognised at five miles.

These distances are certainly not too great. Take the case of two steamers meeting by night. They cannot see each other's coloured lights, even in the clearest weather, and, consequently, can get no indication of their relative positions till within two miles of each other.

Supposing each to proceed at twelve miles an hour, this gives two minutes and a half for any change of course that may be required. This is under the most favourable circumstances, supposing the look-out man to have perfect eyesight, and to be giving perfect attention. But, when the weather is hazy, the distance at which the lights are visible becomes much shortened, till, finally, lights may become almost useless, and the ship must, in extreme cases, be guided under diminished speed, by sound-signals alone.

Supposing, therefore, everything perfect, a ship will not have too much time. There are, however, besides fog, numerous imperfections, from which it results that the average distance at which the red and green lights can be recognised is much below two miles. The size of lights varies, and must vary, with the size of the ship. The lamps are not always well trimmed. It is the custom in many sailing ships for all lights to be extinguished directly they have quitted the Channel. Sailors and officers, with the rest of human kind, are apt to be careless and neglectful.

Only in February last, one of Her Majesty's ironclad ships, the *Northumberland*, when on a two hours' trial trip in the Channel, came into collision with a Russian barque. And the melancholy circumstances of the collision between one of Her Majesty's steam-yachts and the *Mistletoe* are probably fresh in everyone's mind. No amount of regulations by the authorities, or of scientific care on our part, will provide against such things. But some things we can do, some improvements we can suggest.

In the first place, ships' lights are not uniform in colour, but vary according to the fancy of the manufacturer. It is well known that blue glass cuts off so many of the luminous rays of an ordinary light that a blue light is recognisable only at a shorter distance than red or green, and at a vastly less distance than yellow. I myself, when repeating experiments by the aid of the instrument devised by Dr. Donders for the Dutch State Railways, can detect the blue colour at only about half the distance of the red or green; and not only this, but I fail to see the light at all, even as a light, till I approach considerably nearer than for the other colours. Mr. Nettleship, in some experiments with discs of paper, found, as other observers have done before, much the same thing.

It is therefore obvious that an admixture of blue with the green makes the green ship's light, which, however, is then really a bluish green, less visible at a distance. And if this admixture be considerable, the green light ceases to be recognised at the same distance as the red. Hence a double disadvantage. Not only does a ship showing its green light fail to be made out at a proper distance, but one showing both red and green would be considered as showing its red light only, and thus fatal mistakes might arise.

Joy Jeffries has most patriotically devoted both time and trouble to the procuring of standard colours in red and green glass. He has presented such lamp-glasses both to the United States Government and to ours. What reply the former Government has made, I do not know. His benevolent intentions remain unacted upon, and I think I may say scarcely acknowledged, in this country.

Admitting, therefore, that lights of a standard colour are necessary, what vision is required on the part of those whose duty it is to recognise them?

All regulations are made on the supposition that everyone who may be put to look out has perfect vision. This, however, is only too far from being actually the case. The various conditions requiring spectacles, defects of form and colour arising from the use of tobacco and perhaps of alcohol, those due to nervous diseases, too many of them of syphilitic origin, are at least as common among sailors as among landsmen. When we add to these congenital defects of colour, and also such conditions as glaucoma and cataract, we become impressed with the gravity of the subject.

How common are these defects, we shall never know exactly till the authorities wake up from their present apathy, and step in with some legislation. Probably as little is known on the entire question of signals at sea by Her Majesty's Ministers as by any member of the public. Mr. Chamberlain, answering last year in the House of Commons a question put by Mr. Gibson, stated that: "All persons applying for certificates as masters or mates, had to undergo an examination for colour-blindness."

He did not state that any officer failing to pass such an examination was still perfectly free to become captain of a steamer of the greatest size and speed, trading in the most crowded waters of the world. Nor did he state, for how should he, with his engagements and temporary tenure of office, know, that the examination for colour is little more than a farce, and that there is no guarantee whatever that the persons appointed by the Board of Trade to conduct it know one tittle about the subject?

This is a matter that cannot be left to private enterprise. Sailors, who are the victims of mishaps at sea, are uninterested in, and also prejudiced against, anything appearing to them to be scientific. The whole English mind is so conservative as to have a bias in the same direction. Shipowners will make no move till they are touched in their pockets. They are apprehensive that an examination may be the means of raising the wages of the better class of sailors. So long as their money-losses are covered by insurance, some of them can bear with equanimity the loss of their ships, and even of the lives of those manning them. The people of this country should know the exact circumstances of the case. A few instances may be of value.

For one, I may refer to a case which I last year brought before the Ophthalmological Society, that of a captain to whose short-sightedness the loss of two ships, in as many voyages, was clearly due. He is now in command of a large sailing vessel. His defect was known neither to the legal authorities nor to the Board of Trade, because it was not spoken of at either of the inquiries. It was, however, perfectly well known to all his friends. Another gentleman, a patient of my own, the second officer of a ship of 2,000 tons burden, was so shortsighted as not to be able to see the details of the rigging of his own vessel. His scruples on the subject of his sight were, however, ridiculed by his owner, who also called his captain an "old woman," in that he shared the young officer's apprehensions. Another officer, who had just received his certificate from the London examiners of the Board of Trade, immediately after being rejected on account of colour-blindness by the Liverpool examiners, was, in the hands of other and more competent examiners, found so defective as to match green wools with scarlet. He is now at sea. Early this year a Gravesend pilot came to Guy's Hospital on account of his sight. He was found totally incapable of distinguishing a red from a green spot, a quarter of an inch square, at any distance, and his vision was, moreover, defective in other respects. And similar cases have been recorded by Morton and others.

But the returns of the Board of Trade itself furnish facts quite as striking; for in two years they found, even by their present crude system of examination, twenty-six candidates for officers' certificates who called a *red* light *green*, and the reverse. These sailors had been at sea for an average period of eight years, and ten of them had already served as officers. So long as these ten colour-blind officers can pass their examination in seamanship, there is nothing to hinder them from becoming captains of vessels.

It will be asked, How do such persons obtain admission to, and remain in, the service? The answer is plain. No one in the mercantile service, whether officer or sailor, is subjected to any test whatever as to his acuteness of sight for form. Thus we have absolutely no guarantee that the man by whom alone, except in the very largest vessels, the look-out is kept, can see more than to guide himself about. One of the colour-examiners of the Board of Trade told me that he himself, when in command of a vessel, shipped a sailor who, after doing the usual duty for some time, including his

turn as look-out man and helmsman, was discovered to be nearly blind, by his falling, in broad daylight, down an open hatchway, which he had not sight enough to avoid.

And, though the Board of Trade has instituted a colour-test, it is limited to officers at the time of admission to their grade, and is, moreover, of a kind that we may not unfairly call childish. For, whereas a green or red light, nine inches in diameter or less, is required by their own regulations to be recognised at two miles, they test with sheets of coloured glass, perhaps six inches square, held before a candle, at a distance of one yard from the candidate.

But the most wonderful part still remains. If an officer describe the red glass as green, he may still become captain of any vessel, so long as she carries cargo only; and, if his ship trade in home-waters, or between this country and the adjacent Continental coasts, he may become a captain without previously going through the process of calling the colours incorrectly; for he neither is nor has been subjected to any examination whatever.

Notwithstanding the obvious importance to sailors of good colour-vision, this is, in my opinion, still secondary to good sight in other respects. I have found, experimentally, that so low a degree of artificial myopia as one dioptre reduces by one third part the distance at which I can distinguish test-types, whereas the distance at which I can distinguish a coloured light is diminished more than one-half. We shall not be beyond the mark if we estimate that 8 per cent. of the English people suffer from refractive errors which diminish vision to this extent, whereas not more than 2 per cent. of males are liable to mistake red for green. In this conjuncture I may remark that the English are probably the least short-sighted of all sea-going peoples.

What, then, is to be advised? The essential requirements appear to be these:—

1. An examination of sharpness of sight for form, of all officers, look-out men, and pilots;

2. A proper examination of the same as to their power of distinguishing colours;

3. That these examinations be first made when anyone begins a sailor's career, and repeated periodically, say at intervals of five years, the period advised by the International Congress of 1881.

The examination for form should be with test-types, after the plan of Snellen. Anyone unable to read the standard distance-types without glasses should not be allowed to serve as officer of the watch, look-out, or pilot. As a matter of expediency, we should not be too hard on those already in the service.

For colour, we must have some rational test in place of the methods now in use. I have no doubt that coloured spots and coloured discs of glass, imitating exactly the real signal lights, are the best. The instrument of Donders is after this plan. The types of Stilling were recommended by the Congress. Since then, the faith of many in them has been shaken. Lately I examined a total colour-blind who, by his fine appreciation of light and shade, could read nearly all of them. Moreover, like the coloured wools of Holmgren, they are ineffective against central scotoma, and to sailors they appear to be unfair, from their dissimilarity to anything really encountered in their duties at sea. The types of Ole Bull, though admirable for our own investigations, are open to the same objection.

Also, competent examiners are required who shall be able to discriminate between a curable fault, such as ignorance of the names of colours, and an incurable condition, such as congenital colour-blindness. In these last, cases the re-examination now held at the end of three months might then be dispensed with, and the examiners will no longer give to the rejected candidate the absurd advice that his defect is probably due to biliousness, and that he should come again after experiencing the potency of a blue pill and a black draught.

THE TESTING OF COLOUR-SENSE AND VISION, ESPECIALLY WITH REGARD TO SAILORS.

Read in the Section of Ophthalmology.

BY E. C. SNELLEN, M.D.,
Professor in the University of Utrecht.

THE physiological appreciation of colour-sense is still an open question. Even now there is a conflict of opinion whether the appreciation of the different colours be localised in the retina, or in the brain, or in both.

The nature of the colour-sensation is, as much as the localisation, unknown to us. The first step to knowledge is the adoption of a hypothesis, to which the phenomena and all known facts may be applied.

We have already such hypothesis, even two; between which, however, there is much controversy. Indeed, they are so conflicting, that defending one means rejecting the other. However, it is very possible that both may prove partly right and partly wrong. The theory of Young, the great English genius, is well-known, and needs here no further analysis. He suggests three perceptive elements, each of which is differently, in quality and in quantity, affected by the different rays of light. Some of these colour-sensations are complementary to each other; and additions, in special proportions, cause the sensation of white.

The theory of Hering suggests for the colour-sensation two perceptive substances, each of which has two antagonistic actions, which he regards as chemical, and which he calls assimilation and dissimilation. Thus, one perceptive substance will give either red or green, and the other yellow or blue. The chief arguments in favour of Hering are found in the phenomena of antagonism of the said colours. If we look at a red stripe, such as a ribbon, and then at a white surface, we shall see on the white surface a green stripe, corresponding to the red. Just in the same way, looking first at green gives a "consecutive contrast" of red. The same occurs with yellow and blue. A similar effect is obtained by seeing red and green, or yellow and blue, side by side. Every painter knows well that the green of his fields becomes more intense as soon as he puts a red figure into them. Hering calls this the "simultaneous contrast." There is a similar contrasting action between the combinations of red and yellow, or of green and blue, and also between white and black. We get a far intenser black, by first looking at a white spot and then at a black field.

Another argument for antagonistic action, according to Hering's theory, it seems to me, is the effect of the galvanic current through the retina and optic nerve. The positive and negative currents are opposite in their effects, the one giving a sensation of darkening and the other of brightening, and, at the same time, a sensation of violet, which is a combination of red and blue, and a sensation of yellowish green. Analogous antagonistic sensations are observed at the moment of opening and of shutting each very weak galvanic current. It is quite in harmony with the theory of the antagonistic colour-sensations that, if a person fail in the perception of one colour, he will also lose the colour-sensation of the antagonistic colour.

If we look through intense green glass, the red rays of light being absorbed by the green glass, any red colour appears darkened. At first, all the rest seems more greenish, as compared to the white we saw before; but, by continuing to look through the green glass, we lose the sensation of green, and we only distinguish yellow and blue, and bright and dark.

In a similar condition are the Daltonists. A complete Daltonist confounds red and green, and for him all hues are formed by yellow and blue in their various depths of shade.

In order to find which colour will appear darkened, I have arranged coloured letters on a grey ground, both as much as possible of the same brightness. By looking through a green glass, the red letters show dark on a bright field, and the green letters as much brighter. To the same experiment we may submit the colour-blind.

There are certainly different kinds of colour-blindness; but red-blindness—more or less complete—occurs far more commonly, even to 5 per cent. amongst men—much less amongst women. Loss of colour-sense for blue and yellow is very rare.

It may seem curious that just those colours which often fail should be chosen for signals. The probable reason will be, that yellow would prove as unsatisfactory, on account of all white becoming yellow by some atmospheric influences. Also blue is less visible at a distance. Under the circumstances I have just stated, it is clearly necessary that any man should have his colour-sense ascertained before he is put to observe coloured signals. The practical way of examination for such purpose seems the method of Donders, by which small red, green, blue, and yellow lights, corresponding to the lights used as signals, are exhibited. It is here to be observed that red-blind persons will discriminate the red lights as the darker, and the green as the brighter ones. It is only after increasing the brightness of the red light as to make it show to the red-blind equally bright as the green light, that the failure of colour-sense becomes conspicuous.

But it is not only impaired colour-sense that will prevent from discerning coloured signals. All decrease of general vision will

as much. Thus, next to colour-sense, the acuteness of vision has to be ascertained.

In order to get a quantitative estimation of vision, I introduced a scale of test-types, on which is marked the distance at which they are seen under an angle of five minutes. This angle I have found to be the average visual angle of healthy eyes. The utmost distance at which the letters are actually seen, divided by the distance at which they ought to be visible, gives the measure.

Impaired vision for distance may depend upon faults of refraction. Each signaller, or look-out man, ought to be provided with glasses that correct his ametropia. I leave alone for the moment the question whether those requiring glasses can be admitted to service in ships; but it is certain that such a man on the look-out will be in a worse condition without the glasses he needs. In the first instance, each disturbance of the eye, which is the result of diseases that are prone to return or to grow worse, will have to be regarded as a reason for exclusion.

There is no doubt that international resolutions on the excluding of sailors with impaired vision, in view of the safety of life and property, are absolutely necessary. It is the duty of each citizen to insist on this with the Government of his country. But it seems to me that the special vocation of the oculist and of the medical man here ceases. Ours is the scientific aspect of the question. Its practical application should be seen to by those who have the most personal interests; such being, in first instance, all owners of ships, the marine companies, and all institutions for assurance of life and property at sea.

Dr. C. E. FITZGERALD (Dublin) considered the question one of great importance from a public point of view. The observations of Dr. Brailey and others showed that there was no examination of sailors' vision. The warm interest which Mr. Gibson took in the question, satisfied the speaker that there would be no difficulty in getting the matter brought under the notice of the Government. Dr. Fitzgerald probably held stronger views than most people on the subject, for he considered that no man with defective sight should be allowed to serve as a sailor. He would extend the prohibition even to jurymen. He was of opinion that no person with defective sight or hearing should be permitted to serve upon a jury, and he had no hesitation in giving a certificate to that effect to an individual whose sight or hearing was impaired. He thought there would be great difficulty in giving glasses to sailors, for in foggy or misty weather the glasses would so soon become clouded over, that the condition of the individual's vision would be worse than without them.

Mr. GEORGE E. WALKER (Liverpool) said that, as regards ametropia in seamen, the rules passed by the International Congress were somewhat too strict, seeing that many cases of considerable ametropia occurred in seamen, officers and men, who could discern lights as well as men who could pass the severest tests.

Dr. MACMILLAN (Hull) said that the subject of colour-blindness was a matter of great importance, and each day was bringing forward instances where it was desirable that the defect should be well ascertained in each individual subject to it. He suggested that an expression should emanate from the meeting that it was desirable that the pupils of board-school should be subjected to an examination; so that, if this defect were discovered, the subject should be told what calling he should not follow.

Mr. MCHARDY (London) said that he would direct attention to the fact that the use of visual tests, applied by other than ophthalmological experts, was encompassed by two distinct dangers—danger to those whom the tests were intended to protect at the expense of candidates with impaired visual powers, and danger to ambitious absolutely normal eyed and sighted youthful candidates. The risk of youthful candidates with normal eyes, normal refraction, and a perfectly normal acuity of vision, being excluded from service in the Royal Navy, was not hypothetical. An ambitious, intelligent lad, who had secured a nomination for the Royal Navy, doubled his efforts to prepare for the entrance examination, at which there was reason to believe he would take a high place. His taking a high place at the entrance examination would have given him certain advantages in commencing the special education for the profession of his selection. Prior to the arts examination, he was subjected to a medical examination, at which he was rejected without the opportunity of appeal. He was rejected through failing to respond, to the medical officer's satisfaction, to the routine visual tests employed. The real cause of his inability to comply with the visual tests was simulated myopia. His recent prolonged application to book-work had stimulated a spasm of accommodation, with a resulting temporary assumed myopia of rather over three dioptres. This fact was demonstrated by a thorough use of atropine-drops, which revealed a total hypermetropia of scarcely half a dioptre, a singular absence of astigmatism, no organic defect, and a visual acuity of $7\frac{1}{2}$-6, with Snellen's type. Mr. McHardy considered that the present medical examination of candidates for cadetships in the Royal Navy, so far as it concerned the fitness of their eyes for navigating purposes, was altogether delusive, and that great care should be taken in insisting upon the essential necessity of allowing none but ophthalmological experts to pronounce a final verdict regarding the fitness of any pair of eyes for any particular calling in life. He regretted that Dr. Brailey should, by his constant allusion to the mercantile marine, have appeared to imply that his strictures upon professed visual tests were not equally applicable to the Royal Navy. Furthermore, he objected to the assertion that seafaring persons were antagonistic to anything and everything scientific. He believed that seafaring persons were very far from antagonistic to science, and that they were preeminently practical. The scientific opinions of ophthalmologists needed more of the ballast of the seaman's practical views. The profession should first be educated to an appreciation of the facts, then the same should be done with the public; then something might be deduced that would withstand the essentially honest tests by which a preeminently practical class, such as seamen, would approve the recommendations. At present, the best advice was based upon very incomplete knowledge. The sailor could not use spectacles in the prosecution of his navigating duties. The conditions of ship-life were absolutely prohibitory to the use of spectacles in navigating. Moreover, the worst fears of his shipmates would be awakened if they saw an officer navigating with spectacles on. Even on shore, railway directors and officials allowed the fastest trains to be driven by men whose defects of vision precluded them from distinguishing any form of signal. Such drivers filled highly responsible positions so long as they displayed no spectacles; but they at once fell into discredit if, by the adoption of suitable glasses, they rendered themselves fit to undertake the duties entrusted to them. All lovers of truth must place high store on the sailor's power of seeking out from the chaos of conflicting scientific views those immediately applicable results which his calling enabled him to utilise. There were few more interesting pastimes during a long sailing voyage, than to investigate scientifically the why and wherefore of the sailor's many "rule of thumb" procedures. It was doubtful whether science would ever teach the sailor anything useful about the management of his craft in bad weather. In conclusion, what explanation could be offered of the following facts? Many myopic seamen secured among their emmetropic shipmates a reputation for exceptionally useful vision. Such myopic look-out men were often described as having a "hawk's sight" by night. Was this attributable to their more constant use of the spy-glass? He did not wish to hinder legislation which should tend to exclude amblyopic persons from responsible navigating duties. But he desired to prevent, as far as possible, ill digested recommendations from being prematurely advocated. He would very earnestly urge the great importance of not passing any recommendation which might, by any exercise of prejudiced ingenuity, be interpreted to express an approval with the visual tests at present applied to candidates for admission as cadets in the Royal Navy. Two dangers needed to be avoided: (1) the obvious one of permitting the admission of candidates with such visual defects as might be overlooked by not specially trained (or expert) examiners; (2) the more cruel and less obvious danger of candidates with perfectly normal acuity of vision and colour-perception being finally, rejected, because of a temporary failure to respond satisfactorily to a routine-test applied by any but an expert examiner.

Mr. EDGAR A. BROWNE (Liverpool) said that it was important, in dealing with this question, to place before shipowners and the sea-going class tests that were practical. It would be well to make and arrange a simple set of tests that should bear a special relation to the work to be done, and that could be applied by a competent examiner, not necessarily a skilled oculist. Undoubtedly, the present system of colour-testing was very imperfect; and the tests for form were evaded. He referred to the cases of a captain, highly myopic, who was obliged to use a binocular to see details on his own ship: of a mate, after operation for cataract, with normal acuteness of vision with convex glasses, who absolutely refused to wear any glasses; and of a man who had central atrophy in one eye, and was astigmatic in the other, who was passed by the examiners.

Dr. MCKEOWN (Belfast) thought that the testing of vision was a matter of so much importance, that it should not be entrusted to any person but a competent oculist. Some other conditions and affec-

tions of the eyes, besides colour-blindness or defects of refraction, were attended with great danger. For example, in cases of double vision occurring in seamen or railway-drivers, it was quite obvious there was no little risk of collision. He instanced cases of diplopia, retinitis pigmentosa, and colour-blindness, which had come before him. He agreed with Dr. Fitzgerald's observation regarding jurymen, but he thought it would be of even more advantage to the interests of justice that the members of the police-force should be examined at regular periods. He was surprised that he had never heard of the question of identity being raised on the ground of defective vision. It was quite well known that persons who were presbyopic saw relatively much worse at night than persons without any defect. It was very easy to imagine mistakes occurring under such circumstances. He had been told by some that, since the development of the presbyopia, they had a constant dread of making mistakes during night-duty, and were anxious for the termination of their period of service without anything happening to interfere with their position and prospects.

Dr. GROSSMANN (Liverpool) had, in addition to the cases referred to by other speakers, to report several instances in which sailors came to consult him. They were slightly myopic; they wore glasses while on duty, but took care not to be seen doing so when any of the officers were about, fearing they might be discharged at once. They were very smart at their duty, and at the night watch. There was no reason not to admit the wearing of glasses in the navy, provided the amount of shortsightedness did not exceed a certain degree, and was not like to very much increase in the next few years, which it was often easy enough to foresee, and provided, further, that the acuteness of vision was at least $\frac{20}{20}$.

Mr. SHADFORD WALKER (Liverpool) mentioned some cases. One was that of a Welsh captain (who had been in one or two collisions) who was so myopic, that he could not see a load of hay 250 yards off, and would not admit that he was shortsighted. There was no system of testing sight on board the training ships. This was illustrated by a boy who was disqualified from being a seaman after being on board the *Conway* two years, on account of his myopia. Boys, tested imperfectly after education in the nautical school, were often rejected when they wished to join the Royal Navy. Hence there was a necessity for proper examination by competent persons.

[The discussion terminated with the adoption of a series of resolutions, which were published at page 334 of the JOURNAL for August 18th.]

IVORY EXOSTOSIS OF THE EXTERNAL AUDITORY MEATUS: REMOVAL BY THE AMERICAN DENTAL ENGINE.

Read in the Section of Otology.

BY G. P. FIELD, M.R.C.S.,
Aural Surgeon to St. Mary's Hospital.

THE few notes that I will now proceed to read I venture to bring before you, because they illustrate a class of cases of which as yet comparatively little has been recorded.

My patient, Miss A., at the time when, at the suggestion of Dr. Harry Moore of Ipswich, I first saw her, February 17th, 1882, had for twelve years been constantly subject to an offensive purulent discharge through the right membrana tympani, with much deafness, the sequel of measles at the age of six. Since Christmas, 1881, she had experienced increasing deafness with the right ear. On examination, I found the external auditory meatus partially blocked by a small ivory exostosis growing from its posterior wall; and, since its size was not yet such as to impede the free exit of the discharge, I did not recommend immediate operative interference. By May, however, when my patient again presented herself, the exostosis had increased to such an extent as to leave only sufficient space for the passage of a slender probe between it and the anterior wall of the meatus; the discharge was escaping with difficulty, and the deafness had become complete.

Mr. Dalby, with whom I consulted, agreed with me in thinking that an operation for the removal of the growth was now requisite. On May 16th, accordingly, I proceeded to clear away the tumour, employing, as on similar occasions, the American dental engine as first recommended by Dr. Arthur Mathewson of Brooklyn, and a steel guard which I had had made for me, for the protection of the internal structures of the ear, in the event of the drills slipping. The patient was placed on a couch about four feet in height, in order to obviate any necessity for stooping in the management of the dental engine. Having made by the side of the guard a small perforation, I slowly enlarged the same until a meatus of fair size had been secured, removing the drill from time to time to sponge or syringe away a somewhat free flow of blood.

The patient was altogether thirty-five minutes under chloroform. Soon after the operation, she was able to hear with her right ear at a distance of several inches; and on July 14th, when I last heard of her, the discharge from it had nearly ceased, and her hearing was fairly restored, considering that she had a perforation in the membrana tympani.

It would appear that, in the case just described, the exciting cause of the exostosis was the perpetual irritation of a purulent discharge from the middle ear. Strangely enough, most of the cases of double ivory exostosis with which I have had to deal have, as I pointed out some years ago, been due to the daily ingress of seawater into the ears in habitual bathing. I cannot say that my experience has hitherto led me to adopt the view that either gout or syphilis is an inseparable, or at all an usual, concomitant of ivory aural exostosis. The softer and less rare outgrowths from the bony meatus—spongy osteomata, as they may be called—are doubtless, like the ivory exostosis, the result of some kind of inflammatory action, and in the removal of these there is not much difficulty. When exostoses are multiple, they may, by mutual pressure, maintain a passage through the meatus (generally a triangular aperture) sufficient for the purposes of hearing, so long as it remains unblocked by cerumen. The ivory exostoses cannot, I am persuaded, be satisfactorily excised without the aid of the dental engine; and since, by this progressive growth, they, sooner or later, as a rule, effectually occlude the external auditory meatus, their removal is obviously an imperative necessity in cases where otorrhœa is a complication.

The ivory exostoses, or hyperostoses, as similar growths would be called in other parts of the body, I have observed to be more common in men than in women. The first case I had under treatment was that of a gentleman, aged 32, in whom each meatus was blocked by an outgrowth from the petrous portion of the temporal bone, of adamantine consistence. Before the operation his deafness was extreme; but, on seeing him a few weeks ago, six years subsequently to the removal of the tumours, I found him in possession of perfect hearing.

I think I may conclude that the operation of drilling in such instances as I have described is the best possible method of treatment.

NOTES ON AIX-EN-PROVENCE AS A WINTER HEALTH-RESORT.

BY W. H. ALLCHIN, M.B., F.R.C.P.,
Physician to, and Joint Lecturer on Medicine and Pathology at, the Westminster Hospital.

ONE of the many questions that the medical man has frequently to determine is, where to send a patient when a change is found necessary. In a large number of cases, the nature of the malady limits the choice; but there still remain many for whom a residence abroad in the winter is desirable, the selection of which is usually left in the physician's hands.

With the view of contributing towards a knowledge of what may be called "indifferent" resorts, where no "specific" advantage is to be obtained, I propose to make a few remarks upon Aix-en-Provence, of which I had, in January 1882, some personal experience. The similarity of name with the better-known Aix-la-Chapelle and Aix-les-Bains, and perhaps the additional reason, that it is off the ordinary track, would seem to have operated somewhat to its disadvantage, in recent years, as regards popularity, notwithstanding the fact that it is one of the oldest sanatoria in Europe.

Situated about twenty miles north of Marseilles, and sixteen miles east of the main line of railway from Paris to the latter, on a branch line, which places it within thirty hours' journey from London, Aix is really as accessible as the Riviera, to which, in some respects, it seems to offer superior advantages. Formerly the capital of Provence, and closely associated with the memory of the good King Réné, Aix at the present time, with its population of about thirty thousand, is a quiet old-fashioned town, wrapt in the recollections of the past rather than the activity of the present. The history of Aix, its waters and baths, is itself of no slight interest. The foundation of the town is usually ascribed to the Consul Sextus Calvinus, 120 B.C.; but there seems good reason to believe that the springs were favourably known to the Salians, who had inhabited this part of the country for many years before the Roman conquest. At all events, it was under Sextus, himself a valetudinarian, and after whom the name Aquæ Sextiæ

was given; and Marius, by whom the Gauls were finally conquered; and, subsequently, under Julius Cæsar and Augustus, that the town was built and beautified with all the resources of Roman civilisation, and raised to the dignity of a metropolis. During the five hundred years previous to the invasion of the barbarians, the fame of Aix and its waters was universal. The baths and fountains that Sextus built are to-day only represented by some remains that are involved in the foundations of the quarter of the town near the old palace, on the site of which is now the Palais de Justice; whilst the establishment now known as the baths of Sextus appears to occupy the site of those built by Marius; they were far larger and grander than those of his predecessor. Aix is, of course, not peculiar in this respect; the Romans discovered most of the known waters of western and central Europe, and made of them military stations; and in localities, such as Nimes, where a sufficiency of water did not exist to supply their public baths, they brought it from long distances by aqueducts, such as the Pont du Gard, the ruins of which remain as a marvellous record of their skill.

From the day of their foundation, the baths of Aix have enjoyed a varied fortune. During the three hundred years that the country was overrun by the Goths, Franks, and Lombards, the town was pillaged on several occasions; but it was reserved for the Saracens, in the eighth century, to make a total wreck of the place. After the victories of Charlemagne, in 794 A.D., the inhabitants of Aix, who had fled to the neighbouring mountains, returned and rebuilt their city, henceforth shorn of the traces of its magnificence.

Under the independent Counts of Provence, up to 1482, when their country was annexed to the crown of France, the town of Aix was for the most part at peace, and flourished and prospered, whilst the fame of the baths was again widespread, especially for the cure of gravel, stone, goitre, scrofula, and rheumatism; people afflicted with these maladies flocking thither from the whole country between the Alps and the Pyrenees.

During this long period, the springs had many owners; at one time they were held by religious orders, to be subsequently sold to private individuals, to be by them worked for their own advantage. As might be expected, such a condition of affairs was likely to lead to legal difficulties, and a memorable law-suit was prosecuted in reference to them in the sixteenth century. Later, in the year 1600, a great dispute arose between the medical men of the town and one Castelmont, a stranger, and so-called "médecin spagyrique," as to the proper site for some new baths. After twenty-seven years, it was finally settled in favour of the situation now occupied, which was then covered by the convent of the Observants, rather than the springs nearer the palace, known as the Fontaine des Bagniers, which appear to have been the original baths of Sextus, and are now only represented by a fountain; this latter source being less abundant, and not quite so warm as the other. The outbreak of the pest, however, prevented the baths from being built. Nature also interfered in the flow of the waters, for the severe droughts in the middle of the seventeenth century dried up the Fontaine des Bagniers, and materially diminished the supply of the Observants. The sinking of fresh wells having doubtless in part contributed to the same result, it was found necessary to dig to lower levels to obtain a supply; but, in 1704, a fresh spring was accidentally tapped in excavating some foundations near the old convent of the Observants; and the present building, on the site of the baths of Marius, traces of which remain and can be seen, was completed in the following year. But it was four-and-twenty years before it was available to the public; this time the difficulty was occasioned by the proceedings of some millers who had their mills to the north of the town in the neighbourhood of the sources of the thermal springs, and diverted them to their own uses, with the result of practically drying up the baths. The institution at the present time is the property of the town, and is leased out to M. Brunel, who acts as director.

The Hôtel des Bains is a large oblong building, three stories high, of about the same character as the majority of hotels in French provincial towns, with the same out-of-repair aspect that most buildings, old or new, public or private, in the south of Europe, present. As a winter residence, however, it is excellently situated. Facing the south, it has all the benefit of the sun, which, in January, may be counted on for at least eight hours of the day. This position, coupled with the fact that the building is erected over hot springs, serves to maintain a warm and equable temperature in the apartments, without any dampness. I did not find a fire at all necessary in the evening, although I had been obliged to have one at a hotel in another quarter of the town. The northern side of the building, which overlooks a garden, is devoted to summer use, as the southern aspect is to the winter.

The mean daily temperature in the shade for the month of January is officially given as 5.56° C. (42° Fahr.), the highest recorded being 9° C.(48.2° Fahr.); whilst the hotel is maintained at a constant temperature of 17° to 18° C. (62.6° to 64.4° Fahr.)

The water supplied to the baths has a natural temperature of from 32° to 34° C., (89·6° to 92·2° Fahr.) and is so arranged as to maintain a running stream through each bath at will. The baths are of marble, and conveniently placed in clean and commodious chambers. In addition, there is a complete system of douches, shower, needle, vapour, and other appliances, as well as a large swimming-tank. The water is soft, and possesses a very slight and not unpleasant taste. Its composition, as determined by analysis at the Paris School of Mines in 1878, shows it to contain small quantities of carbonates of lime and magnesia, chlorides and sulphates of soda and magnesia. It is obvious, from the composition of the water, that no specific value can be claimed for it as a remedial agent; and no attempt seems to be made to do so. Its administration, whether internal or external, would appear to be only an adjunct to the other benefits to be derived from a residence in this climate; for it is rather as a resort for the hard-worked professional man in search of a holiday, the fancied invalid in want of a change, or the individual anxious to escape from our winter's cold and fogs, that Aix has impressed me most favourably. It is, of course, possible that some definite maladies of a dyspeptic character, or the vague ailments of the climacteric, may derive distinct benefit; but of this I have no personal experience. Situated on the southern slope of a hill, and well protected towards the north and east by mountain-ranges, it far surpasses in beauty and variety of the surrounding country, if not in climate, the much vaunted seacoast towns of the Riviera; and although, without doubt, the mistral occasionally blows, it is not with the same cutting coldness that I have felt at Nice In passing, too, may not a good word be said for the mistral, to which Augustus raised a temple, recognising the benefits that its bracing qualities conferred on man and beast, and even on the ground itself, despite the occasional damage it did in its violence? At any rate, I can personally testify to its beneficial effect during three days whilst it blew at Avignon, notwithstanding the coldness with which it was accompanied. There was nothing in it of the malevolent character of our north-east winds.

As a place for a temporary sojourn, Aix offers inducements that might gratify any taste that is not seeking the distractions of a fashionable resort. The archæologist will find abundant material at every turn; and the museum, which contains some unique Celtic remains, possesses, further, an excellent picture-gallery. The surrounding country would amply satisfy the geologist, the botanist, or the artist; and the public library, open both afternoon and evening, is not the least attraction that Aix offers.

ON AXIS-TRACTION AND OSCILLATION-MOVEMENT WITH THE OBSTETRIC FORCEPS.

By J. F. LE PAGE, L.R.C.P.E., etc., Durham.

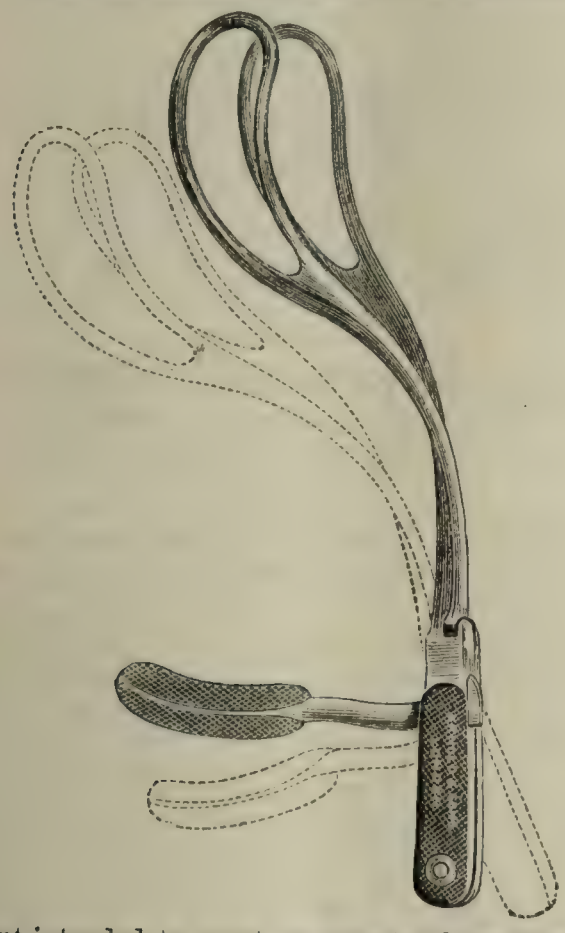
THE courteous observations made by Dr. Robert Barnes, in the BRITISH MEDICAL JOURNAL of the 3rd instant, on a paper on Axis-traction which I read at the Liverpool meeting, raise one or two points of practical interest to the accoucheur.

The study of the complex, the beautiful mecha nism of parturition, has engaged the attention of many careful and competent observers for centuries past. Nevertheless, even in our day, many "aphorisms" in obstetrics are as logically confuted by the propounders of opposing theories, as they are defended by their own progenitors. Matters which are laid down by one authority as accepted facts are, by another, rejected, as opposed to the evidence of reason and observation. Nowhere is this more exemplified than in the operation of delivery with forceps, an operation which is performed tens of thousands of times every year within our own shores. Whilst some authors contend that the obstetrist should make "side-to-side and up-and-down movements," others prefer what they designate "the lever-pendulum movement," or "pendulum-like sweep." Oscillation and swaying, and "circular" movements, add to the accoucheur's *embarras de richesses*. The inelasticity of the imagination of some men precludes the acceptance of the supposition that any of these measures are just and accurate imitations of nature's operations. The limitation Dr. Barnes gives to the proposition I quoted from his *Obstetric Operations*, to the effect that "traction is hardly called for at all," is not a little important, for his meaning was certainly

open to misconstruction; and it is very desirable that such an authority should be in no way misunderstood.

I must, however, take exception to one or two of the opinions which Dr. Barnes expresses. He writes that leverage-action is "in strict harmony with the forces of natural labour," and that the progress of the head is marked by "an oscillating movement of the head on its long axis, that is, a swaying from side to side." The careful observation and study of parturition in many hundreds of accouchements have afforded clear evidence to my mind that the head does occasionally sway from side to side; but not, as Dr. Barnes writes, "during the progress of the head." The swaying, which may readily be observed in many cases, does not take place during the uterine systole, but during its diastole, and is sometimes caused by, as it were, a sliding, during the absence of uterine propulsion, into a more natural position than that into which the pervertive force of a pendulous uterus (or other force) has temporarily driven (or dragged) it. Oscillatory movements are also caused by fœtal efforts, during the period of diminished compression, to relieve its head from restraint. When the fœtus is dead, and the abdomen well supported by a pillow, these oscillations are never observed. I therefore argue that if "these movements give the scientific motives or indications for the mode of using the forceps," and if we are to imitate nature, the slight swaying action to which we have recourse should be during the intervals of rest, and not during natural axis-propulsion, or artificial axis-traction. If it be necessary to supplement nature's forces, our action should be conducted strictly on nature's lines. The manual aid, both in kind and in extent, should be, as far as may be possible, proportioned to the inefficiency of the natural powers, and the deviation from normal conditions peculiar to each individual case.

Dr. Barnes deprecates my proposition, "that (by my forceps) flexion, rotation, and extension may be assisted, or altogether effected, by the accoucheur," on the ground that "these movements of the head take place naturally under the law of adaptation of the head to the part of the pelvis it successively enters." I grant that these movements do take place naturally in natural labour; but the forceps, of which the annexed woodcut is a fair representation, is



an instrument intended to meet an unnatural condition of things; where, for instance, the head is arrested at the brim; where considerable pressure is required to adapt the head to lessened diameters; or distortions of the pelvic cavity render it impossible for its movements to "take place naturally." Unlike any other forceps, it is capable of developing traction at any angle, up to a right angle, from the shafts of the forceps. This is impossible with Tarnier's, but it is nevertheless advantageous in some cases of arrest above the brim. When distortion renders natural flexion, rotation, or extension, difficult or impossible, these movements may be assisted or effected by the necessary manipulation of the handle and lever combined, whilst the line of traction by the lever is independent, and can be continued throughout, whatever the position of the handle may be, without any variation from the axis of the canal.

ON FATAL PYREXIA FOLLOWING THE USE OF THE CATHETER IN CERTAIN CASES OF CHRONIC RETENTION OF URINE.

By BENNETT MAY, F.R.C.S.,
Surgeon to the Queen's Hospital, Birmingham.

THE communication which Sir Andrew Clark made to the Clinical Society of London on the above subject, is one which will, no doubt, command general attention.

I think there are many to whom his statements will be far from a revelation, and who, whilst fully realising that the subject has not received the general recognition it merits, will be rather surprised to hear that the speaker had been unable to find any information about it in any work, English or foreign.

I certainly was under the belief that the phenomena he described were a matter of common knowledge amongst surgeons; that they had received a partial, though inadequate, description by various writers; and that their causes were pretty well understood.

Many years ago, I was impressed with the critical and dangerous train of symptoms which are frequently lighted up when the catheter-life is first embarked upon. The cases are just such as those Sir Andrew Clark depicts, viz., cases of chronic retention from enlarged prostate, with clear normal urine, and fair general health. Within twenty-four hours of emptying the bladder for the first time by catheter in such a case, the small beginnings of future great disaster may sometimes be seen in the turbidity of the urine and feverish illness of the patient. Day by day, the condition grows rapidly worse; each introduction of the catheter, now become an absolute necessity, appearing to aggravate the condition it is employed to relieve. As the urine becomes more fœtid and bloody, the patient falls into the "typhoid" state, with dry brown tongue and delirium, whilst the powers of life rapidly fail.

I never embark on the use of the catheter in such a patient without the knowledge of this possibility before me, without well weighing the alternatives, without adopting special prophylactic measures, and without a full explanation to the patient and his friends of the nature of the treatment to be adopted, with the possible contingencies its employment entails.

It is quite easy to understand that the patient dies because he is poisoned by the absorption of the products of decomposition of his urine, established by the acute cystitis which the use of the catheter has engendered; but why this should be of such a virulent type is not so evident, though probably the explanation is to be found in the condition of the walls of an old, overstretched, and incompetent bladder.

I have known some surgeons ascribe the cystitis to the accidental introduction of bubbles of air through the catheter into the bladder. The danger of a foul or soiled catheter is obvious and recognised; rough catheterism, especially with a metallic instrument, so as to cause hæmorrhage or injure the prostate, is responsible in a proportion of cases.

Sir Henry Thompson has a whole lecture in his work on *Diseases of the Urinary Organs*, relative to the employment of catheterism for habitual retention from hypertrophied prostate; and, in discussing this source of danger, he points out that judgment is required to decide when the change should be made from the usual mode of micturition to the artificial one. His instructions are to relieve the bladder of part only of its contents, so as to establish a state of tolerance by prolonging the probationary period; and he particularly cautions that, the longer the use of the catheter is postponed after the early stage of the malady is passed, the worse will be the symptoms when its employment becomes compulsory.

Even with every precaution of cleanliness, gentleness, gradual withdrawal of urine, and confinement to bed, the mechanical disturbance of the catheter is sufficient, in some cases, to establish a cystitis, which is quite uncontrollable. The nutrition of the vesical wall is such that it is powerless to check the progress of this inflammation, which may even become gangrenous in its character. If there exist old-standing degeneration of the kidneys, so much the worse; but I do not think that we have any evidence, *post mortem* or otherwise, to ascribe the sym-

ptoms to disease of these organs. Where a cystitis, with purulent urine, is already established before the catheter life is entered on, the use of the instrument may not appear to be followed by consequences quite so disastrous. At any rate, the change from life to death is not so tragic and dramatic, and there is so much more to be gained by the withdrawal of a residuum of already stinking urine; but the advantage is so slight, that to await the advent of cystitis or purulent urine, before embarking on the use of the catheter, is not to be thought of if the opportunity offer of resorting to it at an early stage of the malady. At any other epoch, and perhaps even at this, I am sure that the surgeon will do well to spare no effort to protect his patient and his own credit from the possible contingencies of the treatment he is driven to adopt.

A SACCULATED NEPHRITIC ABSCESS IN A PATIENT WITH ONLY ONE KIDNEY: ANURIA: DEATH.

By THOMAS WILMOT, L.R.C.P.Lond., M.R.C.S., Bradford.

Through the kindness of Dr. Tibbits, I am enabled to record the following case, which came under my observation whilst resident at the Bradford Infirmary.

J. H., aged 30, married, mechanic, was admitted into Rand's Ward on June 26th, 1880, with symptoms of obstructive suppression. He was a very temperate man, and the family history revealed nothing. Seven months previously, he had an attack of suppression of urine lasting thirty-six hours, from which he soon recovered. This was followed, three months later, by a second attack, lasting this time forty-eight hours. Occasionally he had been troubled with lumbar pains, passing gravel and very high-coloured urine. He worked as usual the day previous to the present illness, which began on June 24th, at 6 A.M., whilst in bed, with a sudden sharp shooting pain in the left lumbar region, striking down to the glans penis and the testes, and stoppage of the flow of urine, with a constant desire to void it, accompanied with great bearing down.

On admission, which was fifty hours after the onset of the present attack, he was a well-nourished man, strong and healthy-looking, lying in the dorsal position, which he found the easiest. He complained of a severe pain in the left lumbar region, and a frequent desire to micturate; but there was no distension of the bladder or dulness of the abdomen. I passed a catheter, and drew off about a tablespoonful of thick alkaline urine, which contained a trace of albumen, but no casts were to be found. On palpation, there was slight tenderness over the region of the kidney, but no swelling. The intellect was quite clear; no headache, drowsiness, or sickness. He appeared calm and composed. The pupils were natural. The skin acted well. Temperature 100° Fahr.; respirations 18; pulse 90, regular and of good volume. He had great thirst, and was very sleepless. The breath was very offensive, but not ammoniacal. The tongue was covered with a thick white fur. The bowels were freely open.

June 27th. Temperature, morning 101°, evening 104.6°; pulse 108; respirations 20. He had a very bad night; at 2 A.M., he had a severe rigor, followed by vomiting. The skin was acting freely; the bowels were open. He only passed one ounce of clear alkaline urine, non-albuminous. I catheterised him again, but found the bladder empty.

June 28th. Temperature, morning 101°, evening 104.6°. At 5 A.M., he had another rigor. He was still vomiting, and passed a tablespoonful of clear urine. From the 24th, at 6 A.M., up to the 28th, 10 A.M. (one hundred hours), he only voided two ounces. At 6 P.M. on the same day, he passed 12½ ounces; and from this period to the time of his death he had no more suppression.

June 29th. Temperature, morning 99°, evening 103°; pulse 104. He had a much better night, and felt easier. There was no vomiting. He passed 39½ ounces of clear alkaline urine, of specific gravity 1010; no albumen. The bowels were open.

June 30th. Temperature, morning 99°, evening 99.2°; pulse 90. He had a restless night, and complained of pain in the abdomen. The vomiting had returned. He passed 30 ounces of pale urine. The bowels were open.

July 1st. At 4 A.M., he had another rigor. There still was vomiting. He had more pain in the abdomen, and appeared weaker. He passed only 9 ounces of urine. The next two nights were restless, and the pain was severe; and the vomiting continued. On the 2nd, 11½ ounces, and on the 3rd, 12 ounces, of clear urine were passed. During the next three days, the pain was less, and he had more rest at night. The quantity of urine passed on each day was respectively 20, 25, and 50 ounces; it was pale, of specific gravity 1010. The vomiting continued. On July 7th, the pain returned again in the night. There was tenderness in the left lumbar region, and a slight fulness. Vomiting continued, and there was slight jaundice. He passed 41 ounces of clear urine; no albumen. On the 8th, he had had a bad night, and was much weaker. There were jaundice and bilious vomiting. He passed 55 ounces of clear urine. On the 9th, the pain was more severe. He was evidently much weaker. The jaundice was increasing, and he was very thirsty. The tongue was very dry, and there were sordes on the lips and teeth. There were no drowsiness or muscular twitchings. He passed 37 ounces of purulent and bloody urine. On the 10th, the pain in the left side was very severe. There was a resistance in the left lumbar region, and increased dulness; but he was too tender for careful examination. He passed 37 ounces of bloody urine. He rapidly sank, and died on the morning of the 11th, being quite sensible up to the time of his death.

A *post mortem* examination was made twenty-four hours after death. Rigor mortis was very slightly marked. The body was well nourished; the skin was yellow (jaundice). There was no urinous or ammoniacal odour about the body. All the organs were quite healthy, excepting the left kidney. There was no kidney on the right side, nor any signs of a rudimentary one. The left kidney weighed 28 ounces; and, on section, it was found to contain about 8 ounces of reddish purulent fluid. The abscess was situated in the cortical substance, and had a sacculated appearance. The pelvis did not appear to be much dilated; the ureter was normal. There was a stone, about the size and shape of an almond, blocking up the ureter just at its commencement. The structure of the kidney was much altered; the cortical and pyramidal substances could scarcely be distinguished.

Remarks.—The rarity of the congenital absence of one kidney, and the excessive hypertrophy of the other, alone render this case interesting. Although this man had suppression for four days, he never had any convulsions, twitchings, or drowsiness; and the urine passed was always of a low specific gravity, and only once contained albumen, and never casts. At one time, he appeared to make great progress, and it was thought he would recover. The immediate cause of death appears to have been the secondary formation of an abscess, and not uræmia, as is usual in similar cases. It is possible that, if this man had been aspirated, he might have derived some temporary benefit; but it is impossible to see how any permanent good could have resulted from it, with a stone impacted in the ureter. The usual treatment was adopted in this case.

TREATMENT OF FRACTURES OF THE PATELLA.

By ROBERT JONES, M.R.C.S.Eng.,
Senior Assistant Surgeon, Stanley Hospital, Liverpool.

Some articles have of late been published, by Mr. H. O. Thomas, upon "Fractures of the Patella and their Treatment;" and there has lately appeared in the Journal a case treated by Mr. Henry Parson, which illustrates a much older method of procedure. Mr. Thomas's method involves complete fixation of the knee, until the bond of union between the fractured portions of the patella is sound, and consequently unyielding. Mr. Parson's splint permits "slight movement of the knee while walking;" a very grave defect, and one that calls for a little attention. The essentials of Mr. Thomas's apparatus consist of two parallel iron rods, terminating at one end in the heel of the patient's boot, and at the other in a nicely fitting perineal ring surrounding the uppermost portion of the thigh. A blacksmith can make it in a day, with a saddler to help, and their combined labour would scarcely realise ten shillings. A roll of soaked cotton-wool above, and one below, the patella, and a strip of plaister to bring pressure, together with a bandage, complete the plan by which the broken bone can be admirably controlled. With the splint on, the patient has no power of flexion at the knee, but full freedom of the hip. Mr. Parson, in describing his splint, adduces five arguments on its behalf. They embody the propositions that long confinement to bed is avoided; that the fragments are kept in good position; that security (?) against ankylosis is provided by permitting, during treatment, slight movement of the joint; and that there is maintenance of "activity in the parts to complete union."

If movement be permitted to the knee-joint during treatment, it must of necessity be at the expense of immobility at the seat of fracture, the extent of harm being commensurate with the range of motion. In the particular case reported, movement was not attempted until the fifth week; but this I take to be accidental, as Mr. Parson lays down the rule that, "as soon as the primary inflammation has subsided.....the patient can begin to move about." The term "primary inflammation" is vague; but, if it mean the synovitis, with or without effusion, often present, a few days will generally suffice to overcome it. Should the patient, however, not commence to walk until imperfect union has occurred, Mr. Parson urges that movement of the fractured ends will produce "sufficient activity in the parts to complete the union." This is contrary to usage, and, I venture to say, to experience. We have only to inquire into the causes of non-union of other bones, to find that consolidation is often absent where motion has been summoned too early. Fracture of the patella demands rest no less than other fractures; and, as Mr. Thomas has pointed out, one of the pregnant causes of defective cure in this very injury is flexion of the knee before the uniting medium is quite sound. This is proved by every-day experience. How often we find cases discharged from hospital after two, three, and four months' sojourn, where patellar union seems all but perfect; and yet a very few weeks' use of the limb, with or without knee-cap, is sufficient to make both surgeon and patella gape! Previous treatment cannot be blamed for it; but the surgeon may be justly censured for permitting movement where its evil result is manifest. In Mr. Parson's case, the result does not wholly defend the means, for we have abundant proof of the good recovery of many patients from similar injuries, left to the tender mercies of even sea-captains. Isolated cases of good results will occur, whatever the treatment. The danger lies in the confusion of the *propter* with the *post hoc*. Mr. Parson adds: "Slight movement of the knee in walking about prevents a stiff joint." This I emphatically deny, and the proof is contained in two propositions: 1. Inflammation is an essential precursor of ankylosis; 2. Inflammation is increased in a knee when moved. In a given case, the worse the inflammation, the greater the danger of ankylosis.

The advantages claimed for Thomas's method are freedom from confinement and efficiency of cure. With the splint on, the patient is free to follow his outdoor habits in a couple of days after his accident, and that without the slightest risk. The apparatus forms a convenient perineal crutch, which withholds all flexion at the knee. A few days ago, at the Stanley Hospital, I removed a Thomas's splint from a corpulent old dame, who had worn it five months. Movement at the knee was very fair; it will soon be nearly well. The fragments, which were two inches apart, are now in perfect apposition; but the method I adopted saved me from all apprehension from the first. Lately I removed two splints which, for two years, had been correcting genu valgum, during the whole of which time no movement was permitted to the knee-joints. Movement is now nearly perfect. This is but one of several instances. I have seen upwards of twenty cases of fractured patellæ treated by Thomas's method, and never yet a stiff joint resulting. To ensure permanency of cure, it is often necessary to wear the splint six months; and patients rarely complain of discomfort.

THERAPEUTIC MEMORANDA.

IS DIGITALIS A CUMULATIVE POISON?

THE cumulative action of digitalis has been recognised by most of the older writers upon therapeutics since the time of Dr. Withering, whose observations were published about a hundred years ago. By more recent authors, however, this property of the drug has been either doubted or denied. In the third edition of his *Handbook of Therapeutics*, Dr. Sydney Ringer merely alludes to it as requiring proof, and, in a later edition, he makes no mention of it. Dr. Fothergill entirely rejects the theory without ceremony.

The following example of the action of digitalis may be worth recording. M. H., a woman, aged 67, was suffering faom anasarca, consequent upon dilatation of the left ventricle. The heart's action was rapid and very irregular, the urine scanty, and high coloured, and non-albuminous, and there was considerable dyspnœa and general distress. On October 8th, a draught, containing fifteen minims of tincture of digitalis, was ordered every four hours. The drug acted at first as a diuretic, and rapidly reduced the anasarca. But after five days' administration of these, perhaps, somewhat unnecessarily large doses, it was not well tolerated, and troublesome nausea and vomiting ensued. The pulse was still weak and irregular, though to a less extent. Effervescing salines were then substituted for the digitalis. This was on October 13th. By October 17th the pulse was becoming steadier and slower, and, on October 21st, it was beating regularly at a rate of forty-four in the minute; and on October 23rd, that is, ten days after the use of digitalis had been discontinued, the heart's action reached the low rate of forty, since which time it has gradually quickened.

This instance of the action of digitalis may, perhaps, show that not only may the effect of the remedy be remotely felt, but that sometimes the drug may truly accumulate in the system, and exert its greatest power some time after its administration has been stopped.

THOS. F. RAVEN, Broadstairs.

SURGICAL MEMORANDA.

INCISED WOUND OF PATELLA UNITED BY SILVER WIRE SUTURE.

HAVING read, with much interest, Professor Lister's address on the treatment of fracture of the patella, I send these short notes of a case I had under my care at the Bristol Royal Infirmary. A lad, aged 17, was admitted, February 15th, 1867, suffering from an incised wound, cutting through the patella transversely, and opening the knee-joint. The accident was caused by a fall from the hay-rick, upon a hay-knife, and when seen he was suffering from severe loss of blood. The patient was put under chloroform, the wound cleaned of all blood and clots, and the parts examined. The joint was freely exposed, the patella being cut through transversely. I bored a hole in each fragment, keeping clear of the articular surface, and introduced a strong silver wire, brought the fragments together and twisted the two ends, ligatured several bleeding vessels, and brought the soft parts together by sutures, leaving the extremities of the wound open for drainage. The limb was placed in a Macintyre's splint, with a long splint on the other side, and kept in an elevated position. On February 16th, the temperature was 102°. On the 17th the patient was jaundiced; but this soon passed off, and everything went smoothly on. On February 23rd all ligatures and the sutures on the soft part were removed. The wound was nearly healed. On March 25th, the wire suture was removed. The wound was healed, except the opening through which the wire passed. On April 2nd, all was healed. On May 10th he left for home, with a somewhat stiff knee.

THOS. EDWARD CLARK, M.D., M.R.C.S., late Surgeon Bristol Royal Infirmary, 3, Victoria Square, Clifton.

NÆVUS TREATED SUCCESSFULLY BY LOCAL APPLICATION OF LIQUOR ARSENICALIS.

THE ordinary treatment of nævus appears so severe, that mothers naturally object to it (the knife, for example, or even puncture or vaccination). I was, therefore, led to try what arsenic would do as a local remedy, and in my hands it has succeeded admirably, my last eight cases having been cured perfectly and painlessly by the local application of this remedy. The preparation I use is the ordinary liquor arsenicalis of the *Pharmacopœia*, with which the nævus is to be painted night and morning until ulceration takes place; and I find that the cure is effected in from three to five weeks.

This treatment may not be new, although I have not met with it in my reading; but I venture to put it before the profession, in the hope that it may be useful.

N.B.—In one case, ulceration was delayed until the ninth week.

W. J. BEATTY, L.R.C.P., etc., Stockton-on-Tees.

TOXICOLOGICAL MEMORANDA.

ABRUS PRECATORIUS AND "SUI" POISONING.

THE seeds of the Abrus precatorius have of late been used as a remedy for granular lids and other eye-affections. The plant from which they are obtained belongs to the natural order *Leguminoseæ*, and grows wild in almost all parts of India. It is mentioned by Susruta and other Sanskrit writers, and has long been in use as a medicine among the Hindoos. It is familiarly known as the Indian liquorice-plant; and the root, when dried, is often sold as a substitute for liquorice in the bazaars in Bengal. The seeds are of a bright red colour, with a black spot or eye. They are known as "Jequirity seeds," "prayer-beads," or "jumble-beads." They are used for ornamental purposes, and also by goldsmiths and druggists

on account of their uniform weight, the *ruttee* being about two grains. Mahomedan writers describe them under the name of Ain-ud-deek, or cock's-eye, and state that they are "hot and dry, tonic and aphrodisiac." They are said to be poisonous when swallowed, but this is probably a mistake, as they are eaten as an article of diet in Egypt. In India they are used illegitimately for killing cattle, especially by the Chamar or Skinner caste. These miscreants powder the seeds, moisten them with water, and roll them out into little pointed cylinders or needles called "suis." The "sui"—or "sutari," as it is sometimes termed from its resemblance to a cobbler's awl—is dried and fixed into a wooden handle. The animal is stabbed with one of these instruments, the point being left in the cellular tissue, and dies in a few hours. The abrus contains no alkaloid or active principle, but a kind of ferment which possibly acts in somewhat the same way as does papayotin, giving rise to the formation of enormous numbers of micrococci and bacteria in the blood. The mortality amongst cattle from the prevalence of this practice is very great in many parts of India. Fortunately, "sui" poisoning in man is not common, but there are several cases on record, and there is every reason to suppose that the numbers will increase. So little is known about the subject in this country, that a source of danger might be overlooked, and the cause of death remain unsuspected.

WILLIAM MURRELL, M.D., Weymouth Street, W.

CLINICAL MEMORANDA.

ACUTE INTUSSUSCEPTION SUCCESSFULLY TREATED BY INJECTION OF AIR AND INVERSION.

A LITTLE girl, between three and four years old, had been ill for about forty-eight hours with vomiting and diarrhœa. On visiting the patient, she was found to be very pale and prostrated. Her symptoms had come on suddenly, and consisted of constant vomiting, so that no nourishment could be kept on the stomach. She had tenesmus, accompanied by continuous discharge of bloody mucus; and no stool had been passed since the commencement of the illness. Examination of the abdomen revealed no tumour; but, on introducing the finger into the rectum, the usual sausage-shaped tumour was most distinctly felt.

Having nothing at hand but a Higginson's syringe, I attempted to inflate the bowel with this, but did not meet with much success, as the air kept escaping. I therefore suddenly raised the child by the heels, and kept her inverted for a moment. Examination *per rectum* immediately afterwards could detect nothing abnormal, the previous tumour having disappeared.

The next day, on calling, the mother informed me that the child had been quite well ever since I left; had eaten and retained the food; and that all the symptoms had been in abeyance ever since what she called "the operation." The child is now quite well, some months after the illness recorded above.

The diagnosis is made quite certain by the peculiar grouping of the symptoms. The sudden onset, tenesmus with bloody mucus, vomiting, no passage of stool, the general state of prostration, the discovery of a tumour *per rectum*, the sudden and entire disappearance of urgent symptoms and complete cure after insufflation and inversion, point conclusively to intussusception as the cause.

M. G. BIGGS, London.

OBSTETRIC MEMORANDA.

INJECTION OF HOT WATER IN DELIVERY.

ON July 10th. 1881, I was sent for by a midwife to see Mrs. B., a primipara. She had been in labour twenty-four hours. I found the patient with a quick and feeble pulse and exhaustive vomiting. An hour previously to my visit, she had had a severe rigor. The mucous membrane of the vagina was hot and dry; the presentation was normal; the os uteri was well dilated; the head at the brim of the pelvis. The pains were very feeble. I gave half an ounce of brandy, and waited an hour without improvement. I then applied Barnes's long forceps, and delivered the head without any unusual difficulty. Immediately after the expulsion of the child, the most severe flooding I have ever seen set in. I at once removed the placenta, and administered ergot freely. I introduced my hand, previously immersed in cold water, so as to be sure the uterus was free from clots; while I used firm pressure with my other hand over the abdomen. This was done without the slightest benefit; there was not the slightest attempt at contraction, and I could see my patient was rapidly sinking. I then determined to try the hot-water injection, which I did by means of a Higginson's syringe and uterine tube. I used the water as hot as I could comfortably bear my hand in without pain, and injected it right up to the fundus. From this time, I do not think she lost two ounces of blood, and in twenty minutes the uterus was firmly contracted. She made a good recovery from her confinement, but of course suffered from the consequent anæmia for some months. I have not since had a bad case of *post partum* hæmorrhage; but, the next one I get, I shall at once resort to the hot water, as I feel sure it saved my patient's life in this instance.

S. T. DARBEY WESTON,
Surgeon to the Cornwall Works, near Birmingham.

OVARIAN TUMOUR COMPLICATED WITH PREGNANCY: OVARIOTOMY AFTER ABORTION: RECOVERY.

ON July 6th, 1883, I was called to see Mrs. D., a lady aged 40, who had been married eighteen months. She had engaged me to attend her in her confinement, believing herself to be pregnant, as she had ceased to menstruate on March 18th. I found my patient suffering from sensations like labour-pains, which had lasted for two hours; the abdomen was as large as at nearly the full time, and, on making a careful examination, I formed the opinion that she was pregnant, but that there was a large ovarian cyst as well. The abdomen measured thirty-seven inches in circumference. For the next few days, she suffered from irregular pains, and I daily expected abortion; and, as I was anxious for further advice, Sir Spencer Wells kindly came down to see her on July 11th. On consultation with him and my partner, Dr. Russell, he supported my diagnosis, and advised that the tumour should be at once tapped. This was done, and eight pints of bloody fluid were drawn off. The irregular pains continued, and, on July 17th, she aborted, with a three to four months' fœtus. Beyond the retention of urine requiring the catheter, she did well, but the abdomen rapidly increased in size.

On August 13th, I performed ovariotomy, with full antiseptic precautions. I made the usual incision, about four and a half inches in length, and I found the tumour covered with adherent small intestine over the whole surface. The adhesions were evidently recent, and, although very vascular, did not give rise to much hæmorrhage on separating them, which I did with my fingers. These adhesions obliged me to extend my incision to the umbilicus. I tapped the tumour, and drew off sixty ounces of a very bloody fluid, and drew the mass through the wound. It was a tumour of the left ovary, with a very small pedicle, but the right side of the tumour was closely adherent to the right cornu of the uterus, and intestines were matted together with it. This gave me great trouble; with patience, I was able to separate the tumour, but was obliged to leave the intestine still adherent to the uterus. I used carbolised silk-ligature for the pedicle, carefully cleansed the abdominal cavity, and used fine carbolised silk for sutures passed through the peritoneum.

The tumour proved to be one cyst, with a smaller one enclosed, about the size of a pomegranate, full of putrid blood-clot; the whole weighing three pounds and a half.

The patient made rapid progress, and the wound was healed on August 22nd; and, beyond occasional griping pains and discomfort from a bed-sore (which I could not prevent, as the patient was very thin, and had been confined to her bed for some weeks), she had no bad symptoms.

On August 26th, a small abscess appeared at the lower end of the cicatrix; and, on the 27th, two ounces of pus discharged, followed, a few days later, by a catgut-ligature, with which I had tied a vessel in the abdominal wall, and which apparently was the cause of the suppuration. This gave me some trouble, as a sinus formed in the wall of the abdomen, and kept my patient confined to her bed; however, she was downstairs six weeks after the operation, and is now quite well, but has not yet menstruated.

This is my fourth case of ovariotomy, having operated in our hospital three times, and each time with successful result. In my first case, I did not use antiseptics, and tied the pedicle with whipcord, and returned it, and the patient made a rapid recovery. With the other two, I used antiseptics and catgut-ligature; both patients did well, neither having a bad symptom.

CHARLES J. SELLS, Honorary Medical Officer,
Royal Surrey County Hospital, Guildford.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

CHILDREN'S HOSPITAL, NOTTINGHAM.

SARCOMA OF SUPERIOR MAXILLA IN A CHILD EIGHT YEARS OLD: REMOVAL.

(Under the care of Dr. LEWIS W. MARSHALL.)

MARY J. G., aged 8 years, of Ripley, in Derbyshire, was admitted on April 12th, 1882, with a hard firm swelling, about the size of a walnut, in connection with the right superior maxilla. This had been noticed for more than a year, and was said to be slowly increasing in size. She complained of no pain, nor was the skin tender to the touch, altered in colour, or adherent to the swelling. In the mouth, on the right side, the hard palate was swollen, and the swelling presented the same general characters as that on the face. An attack of measles some years before was the only previous illness from which she had suffered. The case presented every symptom of a new growth inside the antrum; but in consultation it was deemed wiser to postpone interference, unless it might be the removal of a molar tooth to make clear the absence or otherwise of a fluid collection within the jaw. This course was not adopted, as Dr. Marshall believed the case to be sarcomatous in nature, and that increased activity in growth, with troublesome hæmorrhage, might have resulted. The patient was therefore sent home, with instructions to come down periodically for inspection. Very slowly and gradually the tumour increased up to November 15th, when the bicusped tooth had fallen out, and on November 20th the first molar also fell out. The swelling was larger in the upper part and in the mouth also; the eye was pushed forwards and upwards, and the lower lid drawn away from the globe. The right nostril was less free. The nature of the tumour being now unmistakable, it was agreed that removal was necessary.

The operation was performed on November 26th, 1882. The incision recommended by Heath was made; free hæmorrhage taking place from the facial vessels, the main branch was at once tied with catgut, and the remaining vessels twisted. The orbital plate and a portion of the posterior part of the maxilla were left, because, on removing the front and palatal portions, and examining the growth, it was believed to have its origin in the lining membrane of the antrum, the bone being thinned only by pressure from within, and not included in the substance of the tumour. The surface of the bone allowed to remain was freely scraped and washed with chloride of zinc solution, and afterwards stuffed with lint soaked in boro-glyceride, the skin-flap being brought over and secured by pins at the lip; attachment-wire and horse-hair sutures were used for the face. A dressing of boro-glyceride was applied to the surface-wounds. Immediately after the operation a morphia-suppository ($\frac{1}{12}$ grain) was given. Vomiting commenced soon after removal to bed, and lasted for some time, and the shock due to the operation increased alarmingly later in the day.

At 5 P.M., beef-tea and milk injections, containing aromatic spirits of ammonia, were ordered every half-hour, because the radial pulse could hardly be felt, and the surface was cold, and collapse almost complete. In addition to the other general measures adopted, such as warmth, and feeding *per rectum* with nutrient enemata containing ammonia, the legs were raised, and the femoral artery on each side compressed digitally for three hours. Her condition gradually improved, and at 10 P.M. a very marked improvement was noted. Vomiting ceased at 1 A.M., and iced milk was taken by the mouth in small quantities. During the rest of the night she slept at intervals, and the reaction was quite established in the morning.

November 27th. The temperature was 101.8° Fahr. The radial pulse was fairly good. The nutrient enemata were discontinued, and she was ordered to be fed frequently by the mouth in small quantities.

November 28th. The temperature was 99.4° Fahr. The bowels had acted. The stuffing was removed from the interior of the wound, and also the pins. The face-wound was partly healed.

The case went on well from this date; the whole of the hair and wire sutures had been removed by December 3rd, and boracic ointment was applied to the unhealed parts of the wound. Her general condition and appetite flagged a little at this time, and champagne was ordered for a few days with benefit.

On December 7th she was sitting in a chair, and on December 20th she was discharged.

REMARKS.—*Description of Growth.*—By the kindness of my friend, Mr. W. J. Walsham, of St. Bartholomew's Hospital, I am able to add to this accounnt of the case, an accurate description of the nature of the growth. Mr. Walsham writes as follows: "The specimen consists of nearly the whole of the superior maxilla, and a small portion of the adjoining palate-bone. The antrum appears filled and expanded by a new growth; the palate-process is depressed and in part absorbed; the anterior wall expanded and thinned, consisting in places of little more than the investing periosteum. The alveolar process is encroached upon, so that the teeth appear sunken in the gums. Three teeth remain in the specimen, and in front of them is the socket of the fourth. The growth consists of moderately firm greyish-white material, containing a small cyst lined with a smooth shining membrane. This cyst, which has no connection whatever with the teeth, is about the size of a marrow-fat pea, and presents several pit-like depressions on its anterior lower wall. It is situated in the upper and inner part of the growth, and presents a smooth rounded opening about one-eighth of an inch in diameter, at about the spot where the opening into the antrum from the middle meatus of the nose normally exists; but whether this is natural, or has been accidentally made on removal, it is impossible to say. Microscopically, the growth consists of spindle-shaped cells, mixed with a small amount of loose connective tissue and free nuclei. Ossification at some spots is taking place. The growth would appear to have begun in the lining membrane of the antrum, and, as it increased in size, to have gradually expanded and almost completely filled up that cavity, the small cyst probably representing what remained of it." I am able, at the expiration of a year, to report no return of the growth, the girl being in thoroughly good health, and but little disfigured by the operation. In the after-treatment of the case, I would direct attention to the means used for keeping up the blood-supply in the neighbourhood of the heart and great nervous centres, until the shock had passed away; a method not, I think, very generally adopted or heard of in surgical works. The practice pursued, and the opinion formed as to the nature and seat of origin of the growth, are both supported by Mr. Walsham's report.

THE SAMARITAN FREE HOSPITAL: DORSET HOUSE BRANCH.

A CASE OF EXTENSIVE SYPHILITIC DISEASE OF THE VULVA, WITH GUMMY HYPERPLASIA OF CLITORIS, PROLAPSUS UTERI, ETC.

(Under the care of Dr. PERCY BOULTON.)

A. W., aged 40, married, but never pregnant, was sent into the hospital on October 16th, on account of prolapsus uteri.

On examination, the uterus was completely prolapsed between the thighs, the vagina everted, and the bladder dragged down in front, a condition not uncommon in those who have borne children, though rare in the nulliparous. A bifurcated mass, of the size of the double fist, of hypertrophied clitoris and nymphæ, hung down in front. The cause of the prolapsus, in this case, was the destruction of continuity by disease of the soft parts at the pelvic outlet. The parts presented many of the characteristics of vulval cancer; but Dr. Percy Boulton thought that other symptoms, such as copper-coloured syphilitic lepra scattered over the body, and the scar of an extensive necrosis of the olecranon, pointed rather to specific disease, more especially as the conditions presented were of three years' standing.

When the uterus was returned into the pelvis, the sphincter ani was found to be destroyed, and a gaping cavity three inches in diameter was exposed. The bladder, which had not been emptied for three years, discharged, when thus replaced, a quantity of phosphatic sediment. Dr. Percy Boulton removed the hypertrophied clitoris with the cautery, and fixed up the uterus with a Schofield's stem-pessary, with elastic attachments to a belt round the waist. The parts being thoroughly cleansed, were daily dressed with an ointment containing one drachm each of iodoform and eucalyptus oil in an ounce of vaseline, and the patient was ordered iodide of potassium in increasing doses, commencing with ten grains.

The urine was drawn till the bladder regained power, which it did in a few days, with a very astonishing result to the patient. Wishing to pass urine early in the morning before the nurse was about, she got up, and accomplished what she wanted; but, in addition to this, she shot from the bladder nearly a score of phosphatic

calculi, about the size of peas; she was so alarmed by this that she nearly fainted, and was much astonished to find that this unusual event was for her good.

She left the hospital much relieved.

LIVERPOOL EYE AND EAR INFIRMARY.

A CASE OF CHRONIC OTORRHŒA, RESULTING IN THROMBOSIS OF THE LATERAL SINUS, SEPTICÆMIA, AND DEATH.

(Under the care of Mr. RICHARD WILLIAMS.)

ELIZABETH B., aged 16, came to the infirmary on April 14th, 1883, when the following notes were taken by Mr. Shears, the house-surgeon. She had scarlatina when she was nine months old, and ever since had had a discharge from both ears. There was a strong family predisposition to phthisis; and the patient herself had always been weakly, although she had never had any serious illness except the scarlet fever. Three or four days before she presented herself at the infirmary, the discharge ceased in the left ear, and great pain supervened on that side. On examination, the membrana tympani was found congested; but no perforation was visible. She was ordered a hot fomentation, which gave her great relief; and the purulent discharge was re-established on the next day. It then ceased, and the pain became very severe.

On April 18th, the patient was very pale, with a furred tongue and an anxious expression. On examination, the left tympanic membrane was seen to be bulging, and of a yellow colour. It was punctured by Mr. Shears at the posterior part, but no matter flowed from the incision. The patient was admitted as an in-patient, a purgative was administered, and leeches were applied behind the left ear. On the following day (April 19th), she seemed much better; the bowels had been well moved. She complained of stiffness down the left side of the neck. The discharge from the ear was free.

April 20th. She complained of acute pain in the left ear, which was still discharging. Stiffness of the neck continued, but there was no œdema or tenderness over the mastoid; nor vomiting. The temperature was 103.8° Fahr.; the pulse rapid and dicrotous. An ice-cap was applied to the head.

April 21st. She passed a restless night; the pain continued, and leeches and fomentation were again applied. The temperature was 103° Fahr., and the pulse had a better tone. At midday the patient had a severe rigor, with extreme cardiac depression, pallor and cold sweat. She was given nitrite of amyl to inhale, and rallied. At 7.30 P.M. the rigor recurred, the temperature rising to 106.8° Fahr. There was not the slightest redness nor tenderness over the mastoid. She was very restless, and an examination of the ear could only be made with difficulty. There appeared to be a polypus protruding from the middle ear. On examination with the ophthalmoscope, she was found to have double optic neuritis. There were no paralysis nor convulsions. She was ordered a dose of morphia subcutaneously.

April 22nd. She slept well after the morphia, but was in a good deal of pain in the morning. She was ordered five grains of iodide of potassium three times a day.

April 25th. She had had a bad night, and had not slept. She was continually moaning, and passed urine involuntarily. The temperature was 104° Fahr.; the pulse 160, and thready. She gradually became weaker, and died in the early morning.

The necropsy was made, thirty-six hours after death, by Mr. Shears, kindly assisted by Dr. Greves and Mr. J. Rose. On opening the skull, there was no evidence of inflammation, the meninges being quite smooth and shiny. The brain looked quite healthy to the naked eye. The left lobe of the cerebellum was slightly discoloured where it lay in contact with the lateral sinus. The left lateral sinus was almost filled with clot, and there was an exudation of semi-purulent fluid from the cut end of the jugular vein, the vessel itself being of a dark reddish-brown colour. The tissues around the vessel also for some distance partook of the same dark colour. The anterior portion of the petrous bone was inflamed, the small veins being particularly engorged. On removing the roof of the tympanum, the mucous membrane was found to be greatly thickened, and the cavity filled with thick fœtid pus. A polypus about the size of a pea was found projecting into the meatus from the inner wall of the tympanum. The membrana tympani appeared to be wholly destroyed. The mastoid cells were in a state of caries, and filled with fœtid pus. The bony wall of the lateral sinus was much discoloured. The lungs were deeply congested, and there were numerous small infarctions at their edges. The liver, spleen, and kidneys were soft and congested.

REMARKS.—During the progress of this case, the question of trephining the mastoid process was fully discussed by my colleagues, Mr. C. G. Lee and Mr. G. Stone, and myself. We came to the conclusion that it was not a suitable case for operation, and we were mainly brought to that decision by the two facts mentioned above, viz., the presence of well-marked optic neuritis, and the complete absence of symptoms externally over the mastoid process. In all the recorded cases which I have had an opportunity of perusing, there have been well-marked signs of mischief in the mastoid. In this case there were none. The ocular affection seemed to us to point to deep-seated disease in the brain, in which case the opening of the mastoid cells would probably only have hastened a fatal termination. The result of the *post mortem* examination, however, seems to throw a doubt upon the correctness of the decision arrived at; and I should be glad to have the opinion of members as to the propriety of trephining in cases of otorrhœa where there does not seem to be any obstacle to the exit of matter through the meatus, and there is a complete absence of symptoms referable to the mastoid. I cannot help thinking that an opening made sufficiently early into the mastoid cells might have saved the life of this patient. Seeing the absolutely healthy condition of the brain, it seems probable that the optic neuritis was due directly to the septic condition of the blood.

NEWCASTLE-UPON-TYNE INFIRMARY.

SARCOMA OF OVARY: OPERATION: RECOVERY.

(Under the care of Dr. OLIVER and Mr. PAGE.)

A YOUNG woman, aged 28, who had previously been seen by Dr. Oliver in consultation, was admitted into the Newcastle Infirmary, under Dr. Oliver's care, in the latter part of last year. She was florid, and, with the exception of repeated uterine hæmorrhage, was in the enjoyment of excellent health. For two years she had suffered from menorrhagia and metrorrhagia. Her only child was seven years old. A round hard tumour could be felt in the left side of the abdomen. It was not painful on pressure; it felt solid, and had rather an irregular outline. *Per vaginam*, the uterus was found lying to the front and to the left. The sound passed, with a little difficulty, to the length of five inches. Its point could be felt in the left side of the abdomen in the hard mass already mentioned. Behind the uterus a hard resisting body could be felt; upon this the uterus was scarcely movable. A distinct *souffle* was detected on ausculting the tumour on the abdomen.

Mr. Page performed the operation of abdominal section. As the tumour was found to be very solid, and had a few adhesions, the abdominal incision was carried upwards above the umbilicus. By this means a solid ovarian growth was removed which weighed nine pounds and a half. It was markedly adherent to the upper and posterior part of the uterus. Two very large arteries crossed through the medium of these adhesions from uterus to tumour. The tumour, on examination, proved to be a small-celled sarcoma of the right ovary. The patient made an excellent recovery. She has since menstruated, and at the present time, five or six months after the operation, is in the best of health.

PARKES MUSEUM.—A lecture was delivered at the Parkes Museum on Thursday, November 15th, by Dr. Robert J. Lee, on "The Disinfection of the Atmosphere." The chair was taken by Professor W. H. Corfield. Dr. Lee began by explaining what is the chief cause of Putrefaction, and showed how it could be prevented by removing from the air those minute bodies, bacteria and their germs, in which it originates. The mode in which so-called antiseptic agents produce effects was explained, and the products of coal tar distillation, especially carbolic acid, were mentioned as most powerful in antiseptic properties. The difference between the use of antiseptics in fluids and in the state of vapour was demonstrated, and the burning of a substance was proved to be unscientific; as the antiseptic properties were thus destroyed, instead of being converted into vapour or smoke, in which form it would act upon the organic particles floating in the atmosphere. The principal question discussed by Dr. Lee was, whether it were possible to disinfect the air, and thus prevent the spread of some of these diseases, the germs of which are conveyed in the atmosphere. He considered that it was most important to decide upon the principles first, and then put them into practice; and not delude ourselves with the idea that some particular plan, in which we had confidence, was really useful, when it was unscientific and quite valueless. Trying to disinfect a sick-room, for example, by keeping water mixed with Condy's fluid or carbolic acid, was shown to be of no practical use.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 20TH, 1883.

J. WHITAKER HULKE, F.R.S., F.R.C.S., President, in the Chair.

Two Cases of Ossific Masses in Tumours not Connected with Bone.—Mr. A. DURHAM showed specimens from two cases which he considered to be of great interest in their bearing on the pathology of new growths. The first case had been incorrectly announced as an epithelioma; it was, in reality, an ossifying chondro-sarcoma. The patient in whom it occurred was a strong, well-developed man, aged 73. When twelve years of age he had been severely burnt, and the cicatrix extended from the level of the crista ilii downwards over Poupart's ligament, and inwards almost to the middle line. About four months only, before he was admitted into Guy's Hospital he noticed a lump and sore place in the cicatrix, and, about three months after this, some pieces of material, which appeared to be bone, were discharged from the sore. When admitted, there was, in the middle of the old cicatrix, and at some distance from Poupart's ligament, and from the anterior superior iliac spine, a fungating sore, which had just the appearance of a fungating epithelioma of the cicatrix. This growth, which turned out to be larger than appeared from inspection, was freely removed. On section, the tumour was found to be generally soft, but contained hard portions, which could with difficulty be cut with the knife. Microscopical examination showed that these harder portions contained true bone. The tumour, in fact, was a sarcoma, a rare growth to occur in a cicatrix, at least at the patient's age, and contained fibrous tissue, myeloid cells, cartilage, and true bone developed up to a certain point. The second case was that of a woman, aged 27, who was admitted into Guy's Hospital with a tumour of the breast, which appeared to be adenoid, but had rather more surrounding induration than usual. The growth, when removed, was found to be indistinctly lobulated, and was enclosed in a distinct capsule. It was of varying consistence, hard, friable, or soft. The largest hard mass contained in its centre a plate of bony tissue; the microscope showed this to consist of close trabeculæ of comparatively well-developed osseous tissue, with lacunæ and canaliculi. The tumour, which was a sarcoma, contained scattered masses of cartilage, and, at the periphery, it consisted of an adenoid material, with intracystic growths.—The PRESIDENT observed that small osteomata of the skin, of the size of mustard-seed, would seem to be of not very unfrequent occurrence. He would further point to the small tumours of the muciparous buccal glands, which sometimes attained the size of a pea or horsebean, and contained, as a rule, fibro-cartilage, or bone. All the substances noted as occurring in these tumours, were genetically derived from connective tissue. He wished to ask Mr. Durham whether the ulceration, which preceded the development of the tumour of the first case, was of long standing.—Mr. BUTLIN said that he had always been under the impression that these tumours of the muciparous glands were calcareous. Bone and cartilage did not develope in carcinoma; it had, indeed, been said that cartilage was more often associated with carcinoma than sarcoma of the testicle; but, after a prolonged search, he had beeu unable to find even one case. So far as he knew, there was only one case on record in which a carcinomatous tumour became chondrified and ossified. With regard to Mr. Durham's first case, it seemed to him to be clear that the growth had originated, not from the skin, but in connection with the subcutaneous connective tissue.—Mr. ALBAN DORAN observed that, with regard to the question raised by Mr. Durham, it was worthy of note how frequently chondrification and ossification took place in the abundant connective tissue developed under the skin found in dermoid ovarian cysts. It did not necessarily follow that this formation of cartilage and bone was due to the same cause which made skin, hair, and allied structures to grow within these cysts, namely, what was obscurely termed the special formative energy of the ovary. The primary cause lay, possibly, in the connective tissue itself. In that tissue, as developed in dermoid cysts, sarcomatous patches were very frequent, and within these patches small fragments of solid bone were often found; the fragments were spherical, or many-sided, and differed from the flat plates of bone which grew in dermoid cysts where no sarcomatous tissue was developed.—Dr. GOODHART said that the reference made by the President to tumours of the muciparous glands, recalled to his mind a tumour of the median line of the lip, and about two-thirds of an inch in diameter, which he had shown at the Society some years before; it contained cartilage and bone. He would like to be told how such tumours came to be developed in connection with the lips, where tumonrs of the connective tissue type did not commonly occur.—Mr. EVE had seen three cases of calcareous tumour of the skin, but never a bony tumour.—Dr. COUPLAND observed that many writers reserved the term osteomata for bony tumours unconnected with bones. He had met with one remarkable case of a large osteoma occurring in the subcutaneous tissue of the buttock in a woman.—Mr. H. MORRIS said that there was now, at the Middlesex Hospital, a fatty tumour, nearly the whole of which appeared to have undergone ossification. With reference to the occurrence of bony tumours in connection with muciparous glands, he wished to refer to a case which had been under his care some time ago, where their presence apparently gave rise to nervous symptoms. The patient was a man who suffered from the most severe epileptiform neuralgia; for the relief of this the infra-orbital nerve was divided in the cheek, and subsequently the second division of the fifth was divided in the sphenomaxillary fossa, in both cases without benefit. Mr. Morris subsequently discovered that manipulation of some small tumours in the mucous membrane of the jaw caused at once a severe seizure. The removal of these little tumours was followed by the most marvellous relief; later there was a slight recurrence of the attacks, and two more tumours were discovered and removed; since then, he believed, no attacks had occurred. The tumours, on examination, proved to contain bone.—Mr. DURHAM said that he was unable to speak positively as to the length of time during which ulceration of the cicatrix, in his first case, had existed; but there seemed to be no doubt, from the history, that a "little uncomfortable lump" was first noticed, and that the ulceration occurred later.

Case of Charcot's Joint-disease.—Dr. HALE WHITE showed a pelvis taken from a subject which was brought into the dissecting-room of Guy's Hospital last winter, and which he thought was an example of Charcot's disease. The bones were extremely thin, the spaces in the cancellous tissue being unusually large. This change made the bones so light, that the whole pelvis only weighed seven ounces. The acetabula were much altered, the walls being as thin as paper in many parts. Owing to this tenuity of the bone, the heads of the femurs pressed the bottom of the acetabula into the pelvis, thus forming the very prominent bosses on its internal aspect, and reducing the transverse diameter of the brim to three inches and a quarter. All articular cartilage had disappeared. This deepening of the cavity made its margins very prominent, so that the anterior superior spine quite overhung the acetabulum on the right side; at the back part, the deepening was so extreme, that the thick part of the bone between the back of the acetabulum and posterior surface of the ischium was almost worn through. On both sides, but especially the right, it was seen that the deepened cavity was divided into two parts by a vertical ridge, placed opposite the most superior part of the ischial tuberosity; the anterior of these two parts was for the lesser trochanter to play in, as the absorption of the neck of the femur was so great that the lesser trochanter was brought up to the margin of the obturator foramen. The chief points about the specimen were the great atrophy of the bone without the formation of new bone, thus corresponding exactly to Professor Charcot's description of "considerable atrophy without the production of stalactites."—The PRESIDENT thought that the bone was in some respects like a specimen of rarefying osteitis. He had always felt a little doubtful about the specific value of the disease described by Professor Charcot. He had also seen cases of what he would call chronic arthritis spoken of as instances of Charcot's disease. This specimen, however, seemed to him to belong to neither category.—Mr. JONATHAN HUTCHINSON thought it would be very important to obtain some history; he also wished to ask whether any other joints were affected.—Dr WHITE, in reply, said that no other joints were affected. It had been impossible to obtain a fuller history.

Pedunculated Adeno-sarcoma of the Skin.—Mr. F. S. EVE showed microscopical sections of a pedunculated tumour which had been removed from the groin by Mr. Langton. The patient was a woman aged 46, and the tumour had been present for some years, but had rapidly enlarged during the last year, and attained the dimensions of five inches in the long diameter by three and a half in the shorter. The microscopical examination showed that it was in chief part a fibro-sarcoma, but contained some epithelial columns having the appearance of acini. He regarded the growth as a hyperplasia of the glands or gland-forming elements of the skin.

Necrosis of Upper Jaw in Typhoid Fever.—DR. ANGEL MONEY read notes of a case of typhoid fever which supervened on rheu-

matic fever in a boy aged 9 years. The typhoid fever set in about 6 weeks (Feb. 18th) after the patient's admission to the hospital, and there seemed to be no doubt that the primary illness was of a rheumatic nature. Five weeks (March 22nd) after the apparent onset of the fever, the signs of necrosis of the upper jaw on the left side were apparent, several teeth came away, and, after a protracted course, the sequestrum was removed, without any mishap, on May 30th. The sequestrum consisted of a large portion of the superior maxillary and palate bones, and was due to necrosis of something more than the mere alveolar border. The patient made an excellent recovery, and a note on June 4th recorded that no fluid has returned through the nose. Dr. Money remarked that, though the necrosis seemed to come on during the course of typhoid fever, it was much more likely that the specific fever had ended its course, and that the pyrexia observed was due to the local mischief about the jaw.—Mr. R. W. PARKER suggested that the case resembled in some respects a severe case of cancrum oris. The diseases of the bone described as occurring as sequelæ of typhoid fevers usually commenced from the bone or periosteum, and not at the mucous membrane. Moreover, cancrum oris was a not uncommon sequela of fevers. Dr. MAHOMED agreed with Dr. MONEY that this was not a case of cancrum oris; it did not bear any clinical resemblances to cancrum oris. The PRESIDENT would certainly not class this case with cancrum oris, if for no other reason, because it had got well spontaneously without topical remedies, whereas cancrum oris seldom or never recovered, even under the most vigorous topical treatment, and Dr. MONEY observed that, though the two conditions might resemble one another in their pathological anatomy, the clinical difference between them was great.

The so-called Tuberculosis of Birds.—Mr. SUTTON said that his attention was first attracted to this disease in the spring of 1879, by a farmer in the north of Middlesex, who sent him two dead fowls, stating that disease had broken out among his poultry, and that his stock of birds stood a great chance of destruction. By thoroughly destroying the bodies of the dead birds and killing the sickly ones, the disease seemed to be arrested for a time. In 1881 the disease again made its appearance, and nearly all the offspring of the stock of 1879 died. Ducks and geese were not affected in either epidemic. In the latter part of that year, Mr. Sutton commenced work at the Zoological Gardens, where, in the course of his dissections, he found the disease very prevalent. After spending more than two years in investigating this matter, examining, from all sources, more than a thousand birds of various species, he proposed to put the results of his observations before the Society, under three headings. (1.) The anatomy of the disease. The disease first manifested itself in the alimentary canal in the form of yellowish white nodules, varying in size from a small pin's head to a mass as large as a chestnut. They either projected into the interior of the bowel, thus causing death by obstruction, or on the serous surface, setting up peritonitis. The liver next became the seat of caseous nodules, equally disseminated throughout its substance, at first very minute, but soon attaining a considerable size. The spleen rarely escaped, frequently being so full of these nodules that the capsule ruptured. The lymphatic glands in the neck were affected in severe cases. The mesentery often contained nodules, due to collections of the morbid material in the ducts leading to the receptaculum chyli. The kidneys, heart, and other organs, were rarely the seat of gross lesions. Once he had met with a deposit in the lungs. Death was nearly always caused by the mechanical effects of the nodules in the intestines, producing obstruction or setting up peritonitis. (2.) The zoological distribution of the disease. The birds almost exclusively affected by this disease were those which lived on seed, grain, barley, maize, oats, etc., and fruit. Twice it had occurred in flesh-eaters, but no case bad been met with in those subsisting on fish. The Struthiones, particularly the Rhea (South American ostrich), were very liable to this affection. The birds liable were the common fowl, peacock, grouse, guinea-fowl, tragopan, pigeon, and partridge. Possibly, the two flesh-eating birds contracted the disease by eating birds affected with the disease. (3.) The histology of the affected organs. In July, 1883, Dr. Heneage Gibbes submitted specimens of the organs of rhea, peacock, tragopan, and golden pheasant, affected with tuberculosis, to microscopical examination, with the following result. Sections of the liver when stained with logwood showed circumscribed areas, surrounded by fibrous tissue, in which were numbers of cells, which appeared to be disintegrated; among them were numbers of small cells which stained deeply. Outside these areas, the liver appeared to be normal. On staining sections for bacilli, the whole of the circumscribed areas before mentioned were found to be made up of cells filled with bacilli. These bacilli were in cells varying in size, and were also arranged in tubular masses in what appeared to be vessels. They had the same reaction to staining agents as the bacilli found in tuberculosis; with a high magnifying power (× 4,000), they were undistinguishable from them; they also contained rounded bodies resembling spores. Bacilli were also found in the lungs and lymphatic glands of the peacock; in the lymphatic glands and liver of the tragopan; and in the lung, intestine, liver, and spleen of the golden pheasant. The next point for consideration was, whether there was any chance of the disease becoming transferred from birds to other animals. On the farm mentioned above, some of the pigs died from peritonitis, the coils of the intestine being matted together by small growths; these pigs were fed on refuse from the kitchen, including the offal from the poultry. From a paper in the *Veterinary Journal* (October 1883), it appeared that, in the Grand Duchy of Baden, the veterinary surgeons report on the frequency of tuberculosis in pigs fed on the residue of the distillery and kitchen-waste, the infection starting from the alimentary canal, and affecting the liver, spleen, and occasionally the kidney. At the Zoological Gardens, two carnivorous animals—an eyra from Brazil, and a paradoxure from India—died with their livers in the same condition as tuberculous birds. These creatures are fed on small birds and the offal of poultry. Their livers were examined by Dr. Gibbes, who found the nodules contained bacilli giving the same reaction to staining agents as those found in the nodules of the birds' viscera. Mr. Sutton wished to state, in his own name and in that of Dr. Gibbes, that this was only a preliminary paper; they were still working actively at the subject, hoping soon to bring further important matter before the Society.

Card Specimens.

Mr. J. R. LUNN: Fracture of Lumbar Spine. The first lumbar vertebra was driven forward, and the second backward; the corda equina was crushed at this point; none of the spinous processes were broken. The bladder contained three small calculi. The patient died seven months after the injury.

Mr. F. S. EVE: Sarcoma of Lower Jaw of Horse.

Dr. CARRINGTON: Ulcerative Endocarditis. Embolism of both Middle Cerebral Arteries; Cerebral Softening. Infarcts of Liver and Spleen.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 1ST, 1883.

E. SYMES THOMPSON, M.D., President, in the Chair.

Diabetes Insipidus from Syphilis.—Dr. SIDNEY PHILLIPS read the notes of a case of diabetes insipidus, due to syphilis. The patient, a man aged 33, had, ten years previously, been treated for a chancre, followed by secondary symptoms; and had since, at various times, suffered from the effects of syphilis. When first seen by Dr. Phillips, he stated that he was passing very large quantities of urine, as much as ten quarts in a night; he complained also of severe pain, increased at night, in the right fronto-parietal region, with localised tenderness; the right pupil was irregular from old iritic adhesions, and he had a gumma, of the size of a marble, in the substance of the tongue. He was treated by iodide of potassium, in large and increasing doses; and, in three weeks, he had made rapid progress towards recovery. The headache had ceased; he was passing a little over three pints of urine in the twenty-four hours, and the gumma of the tongue had much diminished in size. Dr. Phillips remarked that, in this case, the increased flow of urine was due to syphilis; but whether it was due to the lesion on the cortex of the brain was not so clear. In all the recorded cases, where a growth had been found as the cause of the polyuria, it had been situated at the base of the brain. Trousseau, however, recorded a case of polyuria, following an attack of ordinary hemiplegia, where the lesion was presumably elsewhere than at the base; and possibly, in the present case, it was due to the node on the surface of the brain, which softened and diminished in size under the influence of the iodide, as the gumma of the tongue was simultaneously observed to do.—Dr. BROADBENT, Dr. EWART, Dr. DAWSON, and Mr. LAMB joined in the discussion which ensued.

Anæmia.—Dr. STEPHEN MACKENZIE read a paper on this subject. He commenced by defining anæmia as a diminution in the quantity of the blood, of its red corpuscles, and of its colouring matter. He then proceeded to speak of the numeration of the corpuscles and quantity of the hæmoglobin, which ought to be estimated in all cases of anæmia and allied conditions of gravity and complexity, on account of the valuable information gained for diagnosis and prognosis, and as a means of testing the effects of treat-

ment. Anæmia might be: 1, primary and essential, or idiopathic; or 2, secondary and symptomatic. This division was important, as it was obvious that the causes, prospects, and treatment of the two divisions might be widely different, though the effects of each were closely approximated. The author then compared cases of slight anæmia with the grave and generally fatal form, to which Addison had originally drawn attention, and called idiopathic anæmia, and which many later writers had designated progressive pernicious anæmia. He read Addison's description, and remarked that, practically, all that had been added to it was, the frequent occurrence of retinal hæmorrhage, fluctuations of temperature, and the estimation of the number, colour, size, and shape of the red blood-corpuscles. He then asked, if it were justifiable to separate the grave and usually fatal form of anæmia, generally called idiopathic, from the lesser and recoverable degrees of primary or essential anæmia.....The diagnostic signs of idiopathic anæmia were: 1, absence of organic disease, and of any recognised and sufficient cause of anæmia; 2, absence of uterine and ovarian complications, amenorrhœa, menorrhagia, pregnancy, *post partum* hæmorrhage, etc.; 3, severe and ingravescent anæmia; 4, irregular and occasional pyrexia; this, whilst not constant in idiopathic anæmia, was present in other forms of the disease; but, as the anæmia was of a high grade in the cases usually called idiopathic, so, in these, was the pyrexia as a rule more pronounced; 5, retinal hæmorrhage. This was held by many as distinguishing idiopathic from other forms of anæmia. He believed retinal hæmorrhage was evidence of the degree, not of the kind, of anæmia. He narrated cases of cancer, ulcer of the stomach with hæmatemesis, and scurvy, in which hæmorrhages had been present in the retina. He believed that, when the corpuscular richness fell below 50 per cent., the tendency to hæmorrhage took place, no matter what the cause. As a test of this standard of 50 per cent., when the hæmocytometer was not available, he suggested noticing the tint of the matrix of the finger-nails; as long as there were 50 per cent. of red blood-corpuscles, a certain degree of colour would be seen; but, when all colour disappeared from the nail-matrix, it would be found that there were less than 50 per cent. of red-corpuscles. 6. The presence of small deeply coloured corpuscles. This was not constant in, nor peculiar to, idiopathic anæmia; and alteration of the shape of the discs was present in recoverable anæmia. . Conservation of fat; this, as Addison had pointed out, was usually een in fatal anæmia, but was not peculiar to it, and was equally r more frequently present in recoverable anæmia. He concluded hat, little as was known of the causes and pathology of idiopathic næmia, it was not wise to separate the fatal from the recoverable ases, as we knew nothing more of the former, and saw all grades of næmia. The effects of anæmia were proportionate to the degree; nd the danger was in proportion to the want of power of making ood the defects, however produced; he did not wish in any way to isestablish idiopathic anæmia, but to extend its territory so as to clude the milder and recoverable degrees. The author showed a ble giving the grades of anæmia, with the percentage of red lood-corpuscles in each grade. Anæmia commenced at 80 per cent.; as "moderate" at 65 per cent.; "grave" at 50 per cent.; "very ave" at 35 per cent.; and "fatal" below 20 per cent. or thereouts. In proportion as the blood-richness was below 50 per cent., ie tendency to hæmorrhages, pyrexia, and œdema, became manifest. Dr. C. THEODORE WILLIAMS said that all forms of anæmia were eated from one point of view, viz., that of loss of red blood-corscles and of hæmoglobin; but he thought that, by careful exaination, some of the other component parts might be found at ult. The bearing of the other constituents of the blood in this ass of disease should be known; in which cases, for instance, there as an increase of fibrin, and in which a decrease. Another point which attention should be paid was the different size and form the corpuscles; in many diseases, such as phthisis and other pulonary affections, blood-corpuscles of half the normal size were to seen. He had also found granular masses about one-tenth of the ze of red corpuscles, designated hæmatoblasts by foreign observers; ese were seen in the blood of menstruating women, and in that of e frog; he had noticed them, too, in children recovering from easles, in such large numbers that blocking of the capillaries by em seemed inevitable; and he further suggested that these might the cause of venous thrombosis often seen in acute diseases.— . PYE-SMITH doubted whether grave anæmia was to be considered a separate disease, but thought it very convenient to give the me idiopathic anæmia to the collection of symptoms described by dison, and referred to by the author; by the use of that term, a ry grave prognosis was inferred, and such cases were separated om those of ordinary anæmia, which were benefited by the administration of iron, arsenic being the drug upon which reliance was to be placed in the more serious form of disease.—Dr. BROADBENT thought the advantages of retaining the term idiopathic anæmia had been conclusively proved. He did not agree with the author in his opinion, that the gravity of the disease as to prognosis must depend upon the degree of the anæmia, nor did he think that the number of the corpuscles per cent. afforded a sufficient boundary-line between pernicious and ordinary cases of anæmia.—Dr. BUZZARD and Dr. EWART also spoke.—Dr. STEPHEN MACKENZIE, in reply, stated that there was little, if any, difference of view between those who had spoken and himself. In drawing attention to the fact that the effects of anæmia (as illustrated by secondary anæmia) were proportionate to the degree, he had been misunderstood to say that anæmia of all kinds was simply a question of degree. The object of his communication was to try and show that the fatal cases of primary or "idiopathic" anæmia differed from recoverable cases of primary anæmia only in being more severe; but he attached the greatest importance to separating primary and essential from secondary and symptomatic anæmia. He in no way wished to lessen the importance of recognising the class of cases described by Addison, but wished to include under the term "idiopathic" the less severe and recoverable degrees of primary anæmia.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, OCTOBER 5TH, 1883.

G. M. HUMPHRY, M.D., F.R.S., President, in the Chair.

Slow Compression of the Spinal Cord.—Mr. LAURENCE HUMPHRY narrated the case of a gentleman, 72 years old, active for his age, and engaged at his profession until his last illness. His family history showed a tendency to gout, and his sister died of cancer of the breast. In June he began to complain of pain in his back, and he stooped more than usual. The pain was not constant, and he was frequently troubled with gastric derangement and vomiting. In October he went to London and consulted a physician, and the opinion formed was that the liver was at fault. The pain became worse, and there was found to be an obtuse bend in the lower dorsal region of the spine, with projection of the spines of the five lower dorsal vertebræ; there was also some tenderness on pressure. The seat of the pain, which he constantly felt, was somewhat lower down in the lumbar region. In December, in addition to the constant aching, he was seized, usually at night, or in the early morning, with violent spasms, and pain in the stomach and loins. Up to this time there was no sign of paralysis, and sensation was normal, but the pain extended down the legs and across the abdomen, as if the nerve-trunks were in some way irritated. He was seen in consultation with Dr. Paget from time to time, and in December Dr. Bristowe was also called in, and the question was raised of a new growth involving the spine and nerves. At the end of December there was some improvement; he got up and walked about. In February, a moxa was made on each side of the spine, in the region of the obtuse bend, which was now very evident. There was some relief from the constant pain, but paralysis, which had begun to appear in the lower limbs at the end of December, became more complete, and the muscles soft and flabby. Sensation began now to be impaired, and reflex action was slightly exaggerated. There was also considerable retardation of sensation, so that as long as 25 to 40 seconds elapsed before a stimulus applied to the leg was acknowledged as felt. In other parts of the body sensation was natural. He was unable now to retain his motions if relaxed, and passed them under him. In March he was unable to pass his urine, and had to be relieved by the catheter. He was provided with a soft India-rubber instrument, which he used three times a day for nearly four months. A fortnight before his death the sphincter became paralysed, and the urine dribbled constantly away. There was no great tendency to bed-sores. Emaciation was considerable, but cancerous cachexia was not a marked feature. His mind was perfectly clear to the last, and he was able to transact legal business not long before his death. He died on July 1st. The *post mortem* examination revealed a sarcoma, occupying the middle and lower dorsal region of the spine, and extending in and amongst the muscles of the back. On section, the bodies and spines of the vertebræ were found softened and invaded by the new growth. The body of the tenth dorsal vertebra, being crushed in, had given way, so that the spinal canal at this part was much narrowed, and the cord tightly nipped just above the lumbar enlargement. The growth had not attacked the meninges or nervous structures. There was no evidence of malignant disease elsewhere. Mr. Laurence Humphry remarked on the difficulty of diagnosis in the case previously to the onset of the

spasms of the acute pain. Aneurysm was at first suspected, but as the symptoms became developed, the true nature of the disease appeared. He drew attention also to two facts of physiological interest, the retardation of sensation and the interference with micturition. Of the latter, there was, for the most part, inability to pass urine; as the disease advanced downwards, there was inability to retain it. The site of the compression of the spinal cord was attributed to be the determining cause as to which condition should be present. If the cord were affected above the lumbar enlargement, difficulty in micturition was usually noticed; if lower down, the sphincter became paralysed.

Suppression of Urine in a Boy: Recovery.—Mr. F. O'CONNOR (March) read the notes of a boy, aged 14, who for two days before seen (April 1st), had been unable to pass his urine; he also had pain in the course of both ureters, mostly on the right side. A catheter was passed, but no urine drawn off. On April 3rd, the respiration was hurried, the pulse 50, and his countenance distressed, but he had no other symptoms. He passed during the evening ten pints of urine, acid and no albumen, and at the bottom of the vessel there was a streak of blood. On April 5th, since the last visit he had passed another ten pints, acid, specific gravity 1005. There was no further difficulty.

Retention of Urine caused by Retained Menses and Imperforate Hymen.—Mr. WHERRY related this case. A weakly-looking girl, of sallow complexion, was admitted into Addenbrooke's Hospital suffering from retention of urine. She was seventeen years old, and had never menstruated. An imperforate hymen was found, which protruded between the labia minora; this was incised, and a large quantity of tarry fluid escaped, and continued discharging during a week. The pain and difficulty in passing urine disappeared. After ten days, the thick tough membrane, found to be the hymen, was freely divided, and the vaginal passage and os uteri were found to be normal. She had been under treatment for retention of urine for twenty-one weeks.

Paralysis of Two of the Leg-Muscles: Cured by Electricity.—Mr. WHERRY also related this case. An athletic undergraduate had complete paralysis of the extensor proprius pollicis and extensor longus digitorum of the right foot. In walking, the foot was swung forward and flapped on the ground at each step. There was some numbness in the toes. No cause could be ascertained. Liniments and shampooing did no good. There was a fair amount of electric contractility. Fifteen applications of a powerful electro-magnetic machine (Weiss) completely cured the patient. Mr. Wherry had seen a similar paralysis produced by an exostosis on the head of the fibula, pressing on the peroneal nerve.

ACADEMY OF MEDICINE IN IRELAND: PATHOLOGICAL SECTION.

FRIDAY, NOVEMBER 2ND.

A. H. CORLEY, M.D., President, in the Chair.

THE PRESIDENT of the Section, in taking the chair, acknowledged the honour conferred on him by his election as president, in succession to Professor Purser, and directed attention to some of the recent advances in pathological science, dwelling particularly on the phenomena of diapedesis of blood-corpuscles, and on the facts disclosed by the investigations of Pasteur and Koch.

Microphotography.—Dr. DICKENSON made a communication on the art of photographing microscopic objects, exhibiting a number of specimens produced by himself, and the apparatus used for the purpose. Having reviewed the history of microphotography, he demonstrated that the difficulties in its application were now, in a great measure, removed. His apparatus consisted of three parts; the first, an inexpensive magic lantern, illuminated by a triplex petroleum lamp, with the ordinary combination of lenses, and an extra tube with a small bullseye-condenser; the second, a microscope placed horizontally without the eye-piece; and the third, a frame to hold the glass screen for focussing the image, and to receive the sensitized plate when photographing.—Dr. HAYES had no doubt that, if the electric light could be applied to it, there would be nothing to compare with it. Its use with a light intense and strongly actinic would be a great advantage; for the illumination could be cut down by diaphragms, and the sharpness and depth of the image increased. Dr. Dickenson had not mentioned the length of exposure he usually employed.—Dr. DICKENSON: From fifteen seconds up to two hours.—Dr. HAYES said that, with the electric light, he had got pictures up to 300 diameters taken in four seconds, and with the oxyhydrogen lamp, pictures could be obtained in from ten to twenty seconds.—Dr. BENNETT remarked that, having taken special interest in the structure of urinary calculi, he had selected a number of specimens with a view, in part, of verifying Carter's observations. He had got a number of microscopic sections of these, but, heretofore, he had found it utterly hopeless by the usual means to represent them. Two of the specimens he placed in the hands of Dr. Dickenson, who had produced, almost without difficulty, representations most accurate in detail, and far more perfect than any artist could give.—Dr. DICKENSON, in reply, said he could have his pictures taken, printed, and mounted, between sunrise and sunset.

Incomplete Fractures of the Clavicle and Scapula.—Dr. E. H. BENNETT presented and explained a specimen of a fractured clavicle, which had been sent to him by Sir William Millar of Londonderry. The patient was a young man, aged 19, who was killed by a quantity of masonry falling on him. He sustained fractures of the top and base of the coracoid process, and also fractures of the scapula and clavicle, and died partly from the shock and other injuries which he had sustained, and largely from bleeding from either the subclavian or the innominate vein, one of which had been ruptured. The clavicle presented at its sternal end a complete dentate fracture, and at its middle an incomplete fracture, involving about half its thickness. The surfaces had been displaced by the bending of the bone without fracture of the remaining half, and remained unreduced and unreducible, unless by a completion of the fracture of the bone. The base of the coracoid process of the scapula presented also a fracture of the same character. Dr. Bennett briefly reviewed the literature of incomplete fractures, and particularly referred to the rarity of recorded pathological examinations of the lesion in the clavicle. He cited the opinions of Boyer as chargeable with originating the idea that such injuries were impossible, opinions which, however, were set aside in regard to most of the long bones, but were still maintained almost absolutely by some writers with regard to the clavicle. He directed attention to the two forms of green-stick fractures of the long bones, the complete and incomplete forms, and insisted on the importance in practice of recognising the existence of them, as, in the incomplete form, considerable force must be employed to effect the reduction. He condemned the doctrine of Jurine, that green-stick fractures might be left to straighten themselves, and also the teaching that such injuries were confined to childhood, pointing out that, in the specimen before the meeting, and in others published by Dr. R. W. Smith, and by himself, fractures of the incomplete form had been observed in individuals of 17, 19, and 21 years of age.—Dr. HAMILTON doubted the propriety of regarding the specimen as an ordinary green-stick fracture, a view from which Drs. Stokes, Corley, and Gunn dissented in concurring with the author of the paper.

Ichthyosis of the Tongue, with Malignant Degeneration.—Mr. C. COPPINGER brought forward a case of so-called ichthyosis or leucoma of the tongue, and exhibited the organ itself, which he had excised by the method adopted by Mr. Whitehead. He also showed microscopic sections of an old papillary growth which existed, and of a more recent and distinct patch of disease, which had undergone degeneration, and was the seat of a typical epithelial cancer. The patient from whom the tongue was removed was a man aged 63. The old disease was a simple papilloma, which had existed for five years, and had never ulcerated or caused pain; and there was no reason to look upon it as of a malignant nature. The sections of it nevertheless exhibited the globe-nests or pearls which were until recently described as characteristic of epithelial cancer. and the simple pressure of which had been much relied on by surgeons in doubtful ulcers of the tongue. These epithelial whorls or nests were evidences only of epithelial proliferation, and not of that heterologous growth of epithelial elements which was really pathognomonic of epithelioma. Their presence in a tumour was, therefore, no proof of its malignancy. The excision was performed ten days ago. The tongue was divided a short distance in front of the epiglottis, behind the range of circumvallate papillæ, and fully an inch behind the posterior margin of the epithelial ulcer. The lingual artery on the left side was very small, and did not require a ligature; but that on the right side was unusually large—a circumstance often noticeable even in the healthy organ, but which in this case was probably due to the increased vascularity of that side from the irritation of the ulcer. The operation was unattended with difficulty or serious bleeding. There was no subsequent hæmorrhage or constitutional disturbance. The patient could now swallow food well; so that this, the first trial in Ireland of Mr. Whitehead's method of excision, had proved satisfactory.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

NOVEMBER 8TH, 1883.

H. F. BANHAM, M.D., President, in the Chair.

Note-Taking.—Mr. BALDWIN exhibited Abbott's papers for note-taking.

Surgical Treatment of Renal Calculus.—Mr. W. A. GARRARD showed the kidneys from the second case referred to, in his paper on the "Surgical Treatment of Renal Calculus," on October 26th (see p. 924). On the side operated upon, the kidney-tissue was replaced by caseous tubercle, which was softened down, leaving little besides the capsule, filled with pus, and a small shell of recent phosphatic deposit.

Retained Placenta.—Mr. RECKLESS exhibited a portion of placenta which had been retained for five weeks.

Exophthalmos without Goître.—Dr. THOMAS introduced a male patient suffering from exophthalmos without goître. In this case, there was no family history which would lead one to expect such a disease, the causes of death being phthisis and organic cardiac disease. The patient had never had a shock, or suffered from severe mental excitement; but when at work he had regularly to lift, by means of a pair of tongs, heavy weights of red-hot steel to a weight, and concentrate his whole attention on his work for fear of injuring himself. Could this be regarded as a cause? On presenting himself at the hospital, the patient, by trade a spring-maker, complained of the following symptoms, and all these had been becoming worse for the last eighteen months. He often had palpitations and cardiac pains, and complained of breathlessness on exertion. There was no goître; the eyes were very prominent; and, on taking an ophthalmoscopic examination, the vessels were seen dilated, and there was a dilated state of the eyelids. Headache, irritability of temper and sleeplessness, were complained of, and the pulse was about 120. Dr. Thomas proposed certain questions for consideration. 1. Are the cardiac symptoms, dependent primarily upon disease of the middle and inferior cervical ganglia of the sympathetic, and the cerebral symptoms secondary, or does the presence of certain cerebral symptoms point to more central mischief as the primary cause? 2. Is the prominence of the eyeball due to hyperplasia of cellular tissue at the back of the eye; to the presence of fat there; to a dilated state of the blood-vessels; or to contraction of the muscular fibres found in the cellular tissue filling the sphenomaxillary fissure, pushing the eye out, assisted by contraction of the musculus palpebralis superior?

Congenital Dislocation backward of the Radius.—Mr. R. J. PYE-SMITH showed a woman with dislocation backwards of the head of the left radius. There could be little doubt that the malposition was congenital. She was one of a family of eleven children, eight of whom were said to have abnormal joints; five of these had been seen, and exhibited in varying degree abnormal prominences about the elbows and knees, with imperfect supination and pronation, and dislocation outwards of the patellæ during flexion, ill-developed hands and feet, and imperfectly formed nails, especially of the fingers. One brother had a dislocation of the right radius similar to the case exhibited. He had died in the Sheffield Public Hospital and Dispensary, and his elbow-joint had been sent to the Hunterian Museum. The father had similar deformities, and stated that they existed also in his father, his father's brother, and his father's brother's children. One of the four children of the patient exhibited club-foot and ill-developed nails.

Idiopathic Anæmia.—Mr. R. J. PYE-SMITH read notes of two cases of idiopathic anæmia. He quoted from Addison's original description of the disease, and also from an article by Dr. Pye-Smith in the *Guy's Hospital Reports* for 1882, tracing the additions made to our knowledge of the disease since Addison's time. The two cases both occurred in men; one ended fatally, the other recovered under the administration of arsenic. Mr. Pye-Smith dwelt on the differential diagnosis from other forms of anæmia.—A discussion followed, in which the President, Dr. Dyson, Dr. Thomas, Mr. Walker, and Mr. Harrison took part.

QUEEN'S COLLEGE, GALWAY.—The following scholarships have been awarded in the Faculty of Medicine:—*Fourth year:* Robert Macnamara, George A. Waters. *Third year:* John F. Eagleton. *Second year:* James Hamilton, Eaton W. Waters. Senior scholarships have been awarded to Thomas H. McCune, in chemistry, and Thomas S. Hogg, in natural history.

REVIEWS AND NOTICES.

ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1881, Vol. xxiii, pp. 373. London: Printed for Her Majesty's Stationery Office. 1883.

[FIRST NOTICE.]

THE annual Blue-book on the health of the Army has been recently issued by the Secretary of State for War. As stated on the title-page, and in the introductory letter by Director-General Crawford, the report refers to the health of the army during the year 1881; but we find in the appendix a series of other reports which have reference to the sanitary condition of the troops who formed the expeditionary force despatched to Egypt in the year 1882, as well as a complete medical history of the campaign in which they were engaged. The great bulk of the Blue-book comprises the sanitary history, as already mentioned, of the British troops who were serving in the United Kingdom and on foreign stations during the previous year, 1881. As the Blue-book has only just been issued, near the close of the year 1883, it is difficult to understand why the great bulk of it should only contain information regarding the state of health of the army up to a period nearly two years antecedent. The delay in the publication of the health-statistics is all the more noticeable because, at the same time that they have been reported for the year 1881, there has been published the General Annual Return of the Army for the year 1882, which furnishes very full information regarding the army in its military and administrative aspects for the later year mentioned, both as regards the part of it serving in Great Britain, and as regards the forces serving abroad in India and the colonies. As this General Annual Return not only contains information on the total strength of the army, and on the manner in which the 189,229 troops of all ranks of which it was composed in the year 1882 were distributed, but also furnishes a number of elaborate tables on the recruiting, foreign reliefs and reinforcements, crimes and punishments, services and rewards, of the army, together with others on such subjects as the ages, heights, chest-measurements, and state of education of the men, it is obvious that the publication side by side with it of the reports on the state of health of the troops during the same year is very desirable. Indeed, the advantages, on the one hand, that would attend the simultaneous publication of the general military returns and reports of the army for a given period with those of the medical department for the same period and the disadvantages, on the other hand, inseparable from the fact of the latter reports being published one year behind those of the former, appear to be so obvious, that we feel it to be quite unnecessary to enlarge on the subject. We can only express a hope that arrangements may be made, in a not very distant future, which will enable the army-returns and reports published by the different branches of the War Department to appear together for one and the same period of service.

The strength of the white troops, exclusive of commissioned officers, serving in the British army during the year 1881, is shown in the tabular summary on the first page of the statistical report to have been 173,331; being nearly 14,000 over the numbers in the preceding year, but nearly 14,000, according to the military returns, under the numbers in the succeeding year 1882. The strength of the army thus appears to have been increased in both the years 1881 and 1882, by comparison with its strength in the year 1880. The numbers above given only refer to the average strength of the troops, whether serving abroad or at home, who are recruited in Great Britain; they do not include the strength of the colonial corps who are not recruited at home, such as the 1st and 2nd West India regiments, the Malta Fencible Artillery, and the Gun Lascars of Ceylon and Hong Kong, nor do they refer to the native army of India. Out of the total 173,331 noncommissioned officers and men shown in the report, there were during the year 193,274 admissions into hospital, or a proportion of 1,115 per 1,000. Of the patients thus treated, 2,269 died, giving a ratio of 12.85 per 1,000 of the average annual number of troops; while 3,311 were discharged from the army as invalids, or 19.04 per 1,000 of the strength. Of the total number of 173,331 men, constituting the average annual strength of the troops, 9,300 were constantly non-effective from sickness, or about 54 per 1,000. The figures show that the health of the army was in all respects better in the year 1881 than during the previous year 1880. The admissions into hospital were 1,157 to every 1,000 troops in the year 1880; the deaths 13.34 per 1,000; the number of men discharged as invalids nearly 22 per 1,000; and the average number constantly sick in hospital nearly 57 per 1,000.

Looking at the averages of the last ten years, we find the proportions of admissions into hospital, however, considerably more in 1881, viz., 1,115, instead of 1,032; but the ratio of deaths was almost identically the same in 1881 as it was during the decennial period referred to. In 1881, as before mentioned, the deaths were 12.85 per 1,000, and the average number of deaths during the previous ten years was 12.59 per 1,000. The number of men constantly non-effective from sickness in 1881, and the duration of each case of sickness, were above the averages of the previous ten years; the former being 54.51 per 1,000 in 1881, contrasted with 46.91 during the decennial period; the latter, the duration of each case of sickness, averaging 17.78 days in 1881, contrasted with the average of 16.49 days during the ten years preceding.

The foregoing figures refer to the whole army, both the part of it serving abroad and the part serving at home being considered together. The average strength of the troops serving in the United Kingdom during 1881, exclusive of commissioned officers, was 84,742, being very nearly half the strength of the noncommissioned officers and men of the whole army. The admissions into hospital from this part of the forces were 75,391, or 815.5 per 1,000; the deaths 656, or 7.45 per 1,000; the number invalided out of the army 1,953, or 22.19 per 1,000. The average number constantly sick was 4,017, or 47.4 per 1,000, and the average duration of each case of sickness was 21.19 days. These proportions approximate very closely to the corresponding ratios during the year 1880, and do not differ very materially from the general averages of the preceding ten years.

Of the 75,391 cases admitted for treatment in the hospitals of the United Kingdom, the highest number appears under syphilis—viz., 11,196, of which 8,593 were primary, and 2,603 secondary syphilis, the latter form of the disease causing 3 deaths. The next cause of admission into hospital in numerical order is shown to be diseases of the urinary system, the total number of admissions under this heading being 10,689, of which 8,861 were for gonorrhœa, 948 for its sequelæ, and 1,080 for "other diseases" the specific natures of which are not stated. Next follow diseases of the digestive system, leading to 9,826 hospital admissions; diseases of the cutaneous system, 9,779; local injuries, 9,172; and diseases of the "respiratory system," 6,139 admissions. It is a matter greatly to be regretted that no attempt is made to specify or define the particular diseases included in these comprehensive groups or systems, as used to be done in the detailed tables which were printed in the army returns of former years. The heads of the medical departments of the three public services—the Army, Navy, and Indian—together with the Registrars-General of Great Britain, assisted in framing the nomenclature and definition of diseases which was adopted and published some years ago by the Royal College of Physicians of London, and it was then hoped that greater accuracy and precision would be found in the statistical records of diseases and injuries in the public services as well as in civil life. But of late years the army medical records have been confined to a tabulation of about thirty large classes of disease and injury, while no returns have been furnished of the particular morbid states which they have included. When an inquirer sees that nearly 10,000 cases of disease of the cutaneous system occurred, in the course of one year, among the soldiers serving in Great Britain, and led to the necessity of hospital treatment, he naturally seeks to learn something more as to what the nature of this large amount of disease was; but, whatever the particular affections of the skin may have been, neither the tables nor the remarks accompanying them throw any light on this part of the subject. All opportunities of comparison with the civil returns, which deal more specifically with the diseases which are registered in them, are thus prevented.

The largest number of deaths among the troops serving in the United Kingdom occurred under five classes of disease. Under "tubercular diseases", there were 197 deaths; under diseases of the respiratory system, 125; of the circulatory system, 64; nervous system, 53; and of the digestive system, 44. They thus led to 483 deaths out of the total 656 that occurred during the year. Eleven deaths are assigned to alcoholic poisoning and delirium tremens. Fifteen deaths were suicidal—a ratio of .17 per 1,000 men; the modes of self-destruction being varied, and not attributable to imitative impulse. One was caused by drowning, 1 by hanging, 3 by discharge of rifles, 1 by hydrocyanic acid, 2 by cyanide of potassium, 4 by cut-throat, and 3 by multiple injuries. There was one accidental death from the administration of chloroform during the reduction of a dislocation.

The usual statistical tables are furnished with regard to the prevalence of syphilis and gonorrhœa in the United Kingdom. They agree with the former returns, in showing that the Contagious Diseases Acts led to a material diminution in the prevalence of venereal disease in the stations where they were applied. The total number of admissions into hospital for primary and secondary syphilis have been before mentioned; they were, respectively, at the annual rate of 101.4 and 30.7 per 1,000 of the number of troops. The highest rate of admissions in the various military districts, for the primary disease, was in the home district, where it rose to 176 per 1,000, while in London itself it rose to 219 per 1,000. The home district, it may be mentioned, was not under the Acts. The lowest rate of admissions was in the south-eastern district, viz., 30.7 per 1,000; and in this district the principal military stations, Dover, Canterbury, and Maidstone, were all under the Acts. The returns are arranged to show, as in previous years, the numbers of admissions for venereal disease in the fourteen stations to which the Contagious Diseases Acts were applied, side by side with a similar number of stations where the Acts were not in force. From these we learn that in the fourteen stations under the Acts, where the total average annual strength of the troops was 39,558, the admissions into hospital for primary venereal sores numbered 2,920, or 74 per 1,000; while the admissions for gonorrhœa were 3,821, or 97 per 1,000. On the other hand, in the fourteen stations not under the Acts, where the average annual strength was only 19,643 men, the number admitted for primary venereal sores was 3,559, or 181 per 1,000; and for gonorrhœa, 2,403, or 122 per 1,000. During the year 1881, there was an increase in the proportion of admissions for primary venereal sores, as compared with the corresponding admissions during the previous year, 1880, in the contrasted group of fourteen stations not under the Acts, while there was no increase in those where the Acts were applied. In the stations not under the Acts there has been an increase of 14 admissions per 1,000 of the strength; in the stations under the Acts the number of admissions remains the same as in 1880. The potent influence of the Contagious Diseases Acts in mitigating the amount of primary venereal sores is still more forcibly manifested when we look at the prevalence of the disease as shown by the admissions into hospitals, ever since the Acts were applied, without interruption, at all the fourteen stations in the subjected group, and then contrast the number of admissions with those in all the other large military stations in the United Kingdom that is, all stations where the average number of troops has been 500 and upwards. These stations are twenty-eight in number. The Acts have been uninterruptedly in force at the fourteen subjected stations since 1870, so that an opportunity is afforded of comparing their influence for twelve years, up to the end of 1881. The hospital returns show that, taking the whole of this period together, the average rate of prevalence of primary disease in the subjected stations was 48 per 1,000 men; while in the group of twenty-eight unsubjected stations, during the same period, it was 113 per 1,000 men. Surely when these accumulated statistics are taken into account, there can not remain any ground for honest doubt as to the fact that the Contagious Diseases Acts have lessened the amount of primary venereal disease to a very important extent in the places where they were applied; or further, any doubt as to there being a reasonable probability that the diminution of the amount of disease would have been even far greater than it has been, if the frequent movement of men from places where the Acts were not in force into the stations where they were applied could have been avoided, and the many other difficulties in the way of the complete and thorough application of the Acts overcome. Even imperfectly enforced as the Acts have been, the figures show that there has resulted, so far as the military forces are concerned, a considerable saving in the most item of service; for in the stations under the Acts less than half the number of men have been daily under hospital treatment for primary venereal disease than there have been in the stations not subjected to the Acts, throughout the whole twelve years up to 1881, during which the Acts were in force. It will devolve on future reports to show the results of recent legislation on the subject.

The prejudiced outcry in certain quarters against the practice of vaccination, creates an interest in the reports of the army medical department on the subject. The testimony of the military returns as to its efficacy in warding off small-pox is valuable, because the men of the British army, in the course of their service abroad, are frequently brought into contact with people among whom the disease is prevalent. Looking at the returns for the total 173,... non-commissioned officers and men of the army serving at home and abroad, we find that the cases of small-pox amounted to 38 in number, and that from these three deaths resulted. Of the 38 cases 23 occurred in the United Kingdom. They were widely scattered; 7 taking place in Dublin, 5 at Woolwich, 1 in the northern distr...

and 2 in each of five other military districts. Two of the three deaths took place in England; 1 at Chatham, and 1 in the home district. The remaining 15 cases of small-pox, attended by one death, occurred in India.

The extent to which the practice of vaccination is still neglected among the civil population of the United Kingdom is shown, in a certain degree, by the observations made in the examination of men who come forward as recruits. Of 23,902 recruits examined by the army surgeons and found fit for the service, 21,937, or 917.8 per 1,000, had marks of vaccination; 840, or 35 per 1,000, had marks of small-pox; while 1,123, or 47 per 1,000, had neither marks of vaccination nor small-pox. The evidence on the subject would be more complete if the state, in respect to vaccination, of all the men seeking enlistment during the year 1881 had been recorded; for altogether there were 47,444 men examined; 41,400 by army medical officers, and 6,044 by civil medical practitioners. The information, however, is not published as regards the men found unfit for service by the army surgeons, nor as regards any of the men inspected by civil practitioners. It is curious to note that, among the recruits found fit for the service, whose condition as to vaccination has been put on record, while a decrease is shown of 6.5 per 1,000 of recruits bearing marks of vaccination, an increase appears of 7 per 1,000 of those bearing marks of small-pox, when the numbers are compared with the figures given in the corresponding table for the previous year, 1880. Primary vaccination was performed in 1,352 soldiers during the year; re-vaccination in 22,267. Among the 1,352 primary vaccinations, perfect vaccine-pustules resulted in 660 instances; modified vaccine-pustules in 373; failures occurred in 319. Among the 22,267 re-vaccinations, perfect vaccine-pustules resulted in 9,494 men; modified vaccine-pustules in 7,024; while failures took place in 749 instances. The tables show that a far larger proportion of successful results occurred in arm-to-arm vaccination, both in primary vaccination and re-vaccination, than when preserved lymph was used. Failures took place in only 50 per 1,000 of the primary vaccinations from arm to arm, while the proportion was 343 per 1,000 when preserved lymph was employed.

A large amount of interesting statistical information is supplied in the tables on the recruiting of the army; but this notice has already extended too far to allow an analysis of this part of the report in the present article. Neither can we now examine the statistical tables bearing on the sickness and mortality which took place, during the year 1881, among the troops serving on foreign stations.

The appendix to the annual report contains a series of special reports and papers, embracing various matters of much general interest. The leading paper is the medical history of the war in Egypt in 1882, by Sir J. A. Hanbury, K.C.B., the Principal Medical Officer with the Army. It occupies sixty pages of the volume. This is followed by reports on the sanitary arrangements of the expeditionary forces in Egypt, by Deputy Surgeon-General J. A. Marston, M.D.; on the invalids admitted at Netley for wounds received in the Egyptian campaign, by Surgeon-General T. Longmore, Professor of Military Surgery; and on the cases of enteric fever admitted into Netley from Egypt, by Inspector-General Dr. Maclean, Professor of Military Medicine in the Army Medical School. There are also papers on the pneumonia of the Punjab frontier, by Surgeon G. M. Giles, Indian Medical Service; on the epidemic of yellow fever at Barbadoes in 1881, by Surgeon-Major E. Hoile, A.M.D; on an outbreak of enteric fever among the troops in Natal in 1881-82, by Brigade-Surgeon W. Skeen, A.M.D.; on a case of congenital malformation of the rectum, by Surgeon S. A. Crick, A.M.D.; and, finally, a list of operations and cases at Netley, by Surgeon-Major R. F. Cowin, A.M.D., Assistant-Professor of Military Surgery. We must postpone further notice of these papers to a future occasion.

THE DISSECTOR'S MANUAL. By W. BRUCE CLARKE, M.A., M.B., F.R.C.S., Senior Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital, etc.; and CHARLES BARRETT LOCKWOOD, F.R.C.S., Demonstrator of Anatomy and Operative Surgery at St. Bartholomew's Hospital, and Surgeon to the Great Northern Hospital. London: Cassell and Co.

WORKS on the dissection of the human body have not hitherto shown much variety, excepting in degree of minuteness of description. In treatises of this kind, the student is shown how to dissect each anatomical region; then the relations of the structures in that region are demonstrated; lastly, each structure is described in full. It is in this third feature that the well-known handbooks still in use differ from one another. Although these familiar volumes give the origin, insertion, and appearance of every muscle, and the course of the vessels and nerves, the student prefers, as a rule, to study these matters of detail in the more systematic works on anatomy. Messrs. BRUCE CLARKE and LOCKWOOD, being experienced demonstrators, have apparently acted upon a knowledge of this fact, and have for the most part omitted descriptions in detail of particular structures. The demonstrations of which the *Dissector's Manual* is composed are almost entirely confined to relative and regional anatomy. Practical anatomy will ever be essentially relative rather than systematic; and it is certainly the kind of knowledge of the human body most necessary to the physician and surgeon. No doubt, it would be best if every student could trace the entire course of nerves and arteries, and dissect carefully the attachments of every muscle. The relatively short space of time, however, which he can afford to spend in the dissecting-room, and the difficulty which he will often find in procuring his "parts," are liable to prevent him from gaining so practical a knowledge of systematic anatomy, unless he be one of the favoured few who have gained the advantage of the appointment of prosector. Hence, the *Manual* of Messrs. Bruce Clarke and Lockwood is well adapted for the actual conditions under which students work at practical anatomy. The exclusion of systematic details causes the *Manual* to be compact and portable, a great advantage in a work of this class. It is adorned with some useful and well-drawn diagrams.

The authors have been careful to give as great a prominence to the relations of viscera as to the relative anatomy of the structures found on or in the neighbourhood of the extremities. This is very advisable; for many students of the present day will in future undertake operations on the abdominal, and perhaps on the thoracic, viscera; and those who have an early bias for medicine rather than for surgery have hitherto been apt to look upon dissecting as a process where the limbs are considered of more importance than the contents of the trunk, and therefore a matter of more interest to surgeons than to physicians. Besides studying relative anatomy from the *Manual*, the student should complete his anatomical education with the assistance of a good systematic work; but, if he have already explored the human frame carefully, according to the directions which are to be found in this hand-book, he will possess the advantage of a sound groundwork of practical anatomical knowledge.

CLINICAL CHEMISTRY: AN ACCOUNT OF THE ANALYSIS OF BLOOD, URINE, MORBID PRODUCTS, ETC., WITH AN EXPLANATION OF SOME OF THE CHEMICAL CHANGES THAT OCCUR IN THE BODY IN DISEASE. By CHARLES HENRY RALFE, M.A., M.D.Cantab. London: Cassell and Co. 1883.

THIS little text-book opens with a short and able sketch of the constituents of the animal body, and of the chemical reaction of its chief organic and inorganic components. Then follows a chapter on the blood, chyle, and lymph, in which the chemistry of these fluids is ably and succinctly dealt with; the subject of hæmaglobin, in particular, is treated most carefully, and its clinical determination and relations given in detail. The short epitome of the toxic conditions of the blood is also most instructive.

As was to be expected, the morbid conditions of the urine have received full justice at Dr. RALFE'S hands, and, in his opening paragraph on this subject, he very properly insists on the uselessness and indefiniteness of conclusions founded on the examination of a single sample of the urine passed in the twenty-four hours, a practice, we are sorry to say, that is far too common, although its fallacy has been demonstrated long ago. The scheme he proposes in noting the character and qualities of morbid urine may certainly be followed with advantage. Fully discussed is the varying reaction of this fluid, as well as its relations to different conditions of the system. Specially good, also, is the section dealing with the different albumins in morbid urine, and their distinguishing reactions; and the same may be said for sugar and its tests, qualitative and quantitative, Dr. George Johnson's ingenious approximative method for the determination being very clearly stated.

In the chapter upon the Morbid Conditions of the Digestive Secretions, the different juices are discussed with much discrimination, and many of the facts given have a most practical clinical bearing. The paragraphs bearing upon the disintegration of calculi are likewise full of interest, particularly the references to their disintegration by medical means.

Having said so much in praise of the book, we shall now offer a few criticisms and corrections. In the first place, in the sketch of which the first two chapters consist, there are several inaccuracies,

to a few only of which we shall here refer. The indican of urine cannot, for example, as stated on p. 53, be correctly regarded "as a glucoside of indigo." Baumann and others have shown this; and, accordingly, it is not identical with the indican of plants, as was supposed by Schunck. It is also indican itself, rather than indigogen, that appears to be identical with Heller's uroxanthin, although, probably, a true identity does not hold with either body.

Elasticin, again, is not so highly insoluble as stated in the text (p. 37). Elzinger and Horbaczewski have both succeeded in obtaining elastin-peptones; indeed, elastin, or elasticin, is not only capable of digestion in the stomach, but also of subsequent absorption.

To state that taurocholic acid never occurs in a crystalline form is going, we may say, too far, as it certainly crystallises, although with difficulty—"the oily resinous fluid," described on p. 44, resulting readily from the exposure of its needle-shaped crystals to the air.

It is surely reprehensible, when, for example, lead is correctly given as Pb, that we should find: sodium NaO, iron F_2O_3, silica S_1O_2, arsenic As_2O_5, HlC for hydrochloric acid, etc., faults that are not the printer's alone. Hæmatopopphyrin likewise repeatedly appears throughout the book, instead of hæmatoporphyrin. Formulæ also are surely educed, not adduced, from percentage compositions. In addition, such mispellings as Pflgüer, Thirry, etc., of well known names, are rather too frequent.

In the estimation of chlorides in urine, when the author states that the mercuric nitrate plan is the simplest and most reliable, he is certainly at variance with the best modern authorities on this subject; as, for accurate determinations, the method has been proved to be almost valueless.

The author, in the diagram on page 217, illustrating the digestion of albumin, would make it appear that among the normal tryptic digestive products formed are leucin, tyrosin, hypoxanthin, asparaginic (?) acid, and glycocoll—these resulting from the complete decomposition of the hemipeptone; but, taking into consideration the rapid absorption of the peptone when formed, it is very unlikely that much of it is thus disposed of in normal pancreatic digestion.

Failing to understand a reference on page 270, as to the amount of mucin in the skin in the condition named myxœdema, when compared with healthy skin, we looked it up in the original paper, and found the quotation incorrect; instead of "the amount of mucin obtained was more than a fiftieth of the quantity obtained from the skin of non-œdematous bodies," it should read: "the amount of mucin obtained was fifty times more than the quantity, etc."

On the whole, however, this little *Clinical Chemistry* will be very useful to students, as it contains much valuable information in a small compass. But what is very much wanted in the book is a series of tables giving methods for the examination of the different tissues or fluids, etc.; as it is, those given are incomplete. The drawings also are, as a rule, imperfect, and in some cases they are really bad and inaccurate.

DOCTORS AND THEIR PATIENTS. By DARWIN GISBORNE. London. 1883.

ALTHOUGH a superscription on the cover of this curious production of the press informs us that "this work concerns every one," we, for our part, cannot conceive what benefit it can confer on any one. And as the author gives no information respecting himself or his profession or occupation, we can form no judgment as to his qualifications to instruct the public at large on the subject of doctors and their patients.

The motive of his book seems to be to put the public on their guard against unworthy medical men, and against unqualified practitioners, and to exhibit the evils consequent whether on listening to meddling friends in case of sickness, or on the ill-judged attempts of parsons and their wives and others to assume the *rôle* of medical advisers among the poor. Subsidiary matters calling for his invective are: the sale and use of patent medicines; the paltry salaries of parochial medical officers; the employment of uninstructed women as midwives; and the abuses of medical charity.

From this enumeration of the subjects treated, it may be supposed that the book is written in the interests of the medical profession. Indeed, we would persuade ourselves that it is so, and that the chief object of the writer is to instruct the public in employing medical help. But if this be the case, the undertaking is marred by the manner in which it has been performed. The impression left on the mind after perusal of the book is unfavourable to the profession. The readers are warned against unworthy medical practitioners and meddlesome lay-folk by illustrative imaginary portraitures; but these are so clumsy and exaggerated as to be simply grotesque. This particularly applies to the fancy sketch of Dr. Diagnosis, representing a medical scamp such as we trust has never "adorned" the profession, and garnished by circumstances of a most improbable nature; as, for instance, the incarceration, under the charge of "keepers," of insane patients in a top story of a dwelling in the middle of a town, made conspicuous as well by the doctor's brazen advertisements as by the closely barred windows of the prison-house.

And elsewhere in the book the shortcomings of medical men, and their unprofessional conduct towards one another, are so prominently put forward, that if the writer's real object have been to elevate medical men in public estimation, it is frustrated, as before intimated, by the mode in which he has constructed and carried out his design.

Moreover, as critics, we cannot pass unnoticed the very ungrammatical composition of the volume; its clumsy and un-English sensentences; and the frequent misspelling of words. The book, altogether, is a blunder, and ought never to have been published.

NOTES ON BOOKS.

Calendar of the Royal University of Ireland for the year 1883. Pp. 600. (Dublin: Alex. Thom and Co.)—This Calendar gives the usual information contained in publications of this class, including the regulations and courses for the examinations in Arts, and for the University degrees in Medicine and Surgery, and for the diploma in Obstetrics and in Sanitary Science. Among the changes in the courses for the examination in the Faculty of Medicine, students are reminded that they will be examined in future in the laboratory in Practical Chemistry. Attendance upon proper experimental courses of Practical Histology and Physiology will be required from students presenting themselves for the degree of M.B. in 1884; and candidates for the same degree will be required to exhibit proficiency in the use of the ophthalmoscope and laryngoscope. All candidates for the degree of M.B. are also reminded that they must produce a certificate of having, during a period of three months (to be reckoned as a portion of the prescribed total hospital-attendance of twenty-four months), attended a fever-hospital of repute, or the fever-wards of a general hospital receiving fever-patients. They must further produce a certificate of having had personal charge of at least ten fever-cases. The Calendar also contains the University Act and Royal Charter under which the University was founded, as well as the examination-papers for 1881-83.

A Manual of the Operations of Surgery, for the Use of Senior Students, House-Surgeons, and Junior Practitioners. By JOSEPH BELL, F.R.C.S. (Edinburgh: Maclachlan and Stewart. London: Simpkin, Marshall, and Co.)—The fifth edition of this useful manual by the surgeon to the Edinburgh Royal Infirmary has successfully fulfilled the avowed object of its author, which has been to retain the small size of the work and to keep it up to date. The passages relating to some of the more complicated surgical operations that are frequently performed are exceedingly good.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ALLEN AND HANBURYS' "MALT JELLY."

EXTRACT of malt is of such inestimable value in the treatment of many chronic morbid conditions, that it is with much pleasure that we notice the introduction of Messrs. Allen and Hanburys' malt jelly. It contains half its weight of extract of malt, and is flavoured with malaga, raspberry, or vanilla. It is undoubtedly a powerful nutritive agent, and will be found especially useful in the treatment of the wasting diseases of children.

IMPROVED PORTABLE GALVANIC BATTERY.

SIR,—We notice in the JOURNAL of October 27th a description of an "Improved Portable Galvanic Battery," designed by Mr. A. T. Butler Smythe. Mr. Smythe is in error in supposing that he has made an improvement, inasmuch

as we have been making and selling a battery (Dr. Mackenzie's) for the past twelve years of precisely the same construction. Finding the size not so practical as could be desired, we slightly increased it, so as to admit of a larger cell being used; and the fluid did not so often require to be renewed.

Further, we have made the identical battery, for obstetric purposes, ten years ago, for Dr. Greenhalgh.—Your obedient servants,

71, Great Portland Street, W. MAYER AND MELTZER.

P.S.—We do not recommend that this battery be placed in a bag with instruments, as the fumes arising from the fluid might injure them.

A COMPACT OPHTHALMOSCOPE.

OPHTHALMOSCOPES are usually too bulky to be conveniently made constant companions; or, if made in a more portable form, are incomplete and unsatisfactory. There is, in fact, the want of a compact, and, at the same time, strong, accurate, and efficient instrument. The following is a short description of one which I have devised, in the hope of supplying this want to some extent. It is made by Mr. Steward of the West Strand, Charing Cross.

The outside measurements of the case which holds it are: length, 3 inches, breadth, $2\frac{3}{8}$ inches, and thickness, rather less than 1 inch. The corners are well rounded off, so that it will readily slip into the waistcoat-pocket. In addition to the instrument, it contains also a convex lens, $1\frac{3}{4}$ inch in diameter, and of $2\frac{1}{2}$ inches focal length, for "focal illumination," etc.; and a pocket is provided for holding two small glass tubes, containing, respectively, homatropine and eserine gelatine discs, such as are made by Savory and Moore for ophthalmic purposes.

There are 17 lenses, $\frac{1}{4}$ inch in diameter, and numbered on the "dioptric" or metrical system. They are fixed in two superimposed revolving discs, one of which contains 11 lenses and a vacant aperture (concave, 1, 2, 3, 4, 5, and 6; convex, 1, 2, 3, 4, and 5). In the other disc are 6 lenses, viz., −7, −14, and −21; + 0.5, + 6, and + 12. The strength of each lens is indicated immediately below it in clear figures; the concave being marked in white, and the convex in red. The rotation of each disc is controlled by a spring pressing on the notched circumference, in a direction towards the centre of the disc, and which checks its movement as each lens arrives opposite the aperture of the mirror. By rotating one or both of the discs with the finger, so as to bring each lens successively in front of the centre of the mirror, a continued series of 56 optical powers becomes available—viz., from + 0.5 D to + 6 D, and from − 0.5 to − 6 D, with intervals of half a dioptre; and, with intervals of one dioptre, from + 6D to + 17D, and from − 6D to − 27D.

There are two mirrors, each with an aperture of suitable diameter, and fixed in a sliding reversible frame on the front of the instrument. The focal length of the larger is 12 inches (300 millimètres), and the smaller, 3 inches (77 millimètres). Thus, the larger one is admirably adapted for the practice of "retinoscopy," so that there is no necessity to have a separate mirror (Galezowski's) for this purpose; and it is also suitable for use in examining an eye by the "indirect method." The small mirror is hinged on a revolving ring; and can, therefore, be placed at any suitable angle during an examination of either eye by the "direct method."

The handle is jointed to the rest of the instrument, and folds up into a small compass. When extended, it is nearly 4 inches long; and, by a simple arrangement, is made quite rigid.

I have had one in use now for some months, and can say that it is, not only theoretically, but also practically, very useful. To sum up, I may state some of its advantages to be as follows.

1. It is strong, very compact, and light. Its weight alone is only about $2\frac{1}{2}$ ounces; and with the case and lens, etc., is about $3\frac{3}{4}$ ounces.

2. One mirror can be substituted for the other, with ease and rapidity, by simply reversing the frame in which they are fixed.

3. The large mirror not only serves for the examination of the eye by the "indirect method," but also is equally well adapted for use in practising "retinoscopy."

4. Both surfaces of all the lenses can readily be cleansed from dust when necessary, without taking the instrument to pieces.

5. The large number and continuous series of available optical powers, viz., from + 17 to − 21, render it easy to examine by the "direct" method the details of the fundus of almost every eye, whether myopic or hypermetropic in a low or high degree.

6. The diameter of the lenses ($\frac{1}{4}$ inch) is greater than usual, and makes them available, if desired, for use as "trial lenses" in testing vision.

ARTHUR B. PROWSE, M.D., F.R.C.S., Clifton, Bristol.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 24th, 1883.

VOTING FOR MEMBERS OF COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

THE recent satisfactory decision of the Council of the Royal College of Surgeons, to take the necessary steps for obtaining such an alteration in the charter as will release the Fellows from the necessity of attending in person to vote at the election of members of Council, virtually puts an end to an agitation which has been carried on, with more or less vigour, for twenty years; that is to say, for just one-half of the time that has elapsed since the institution of the Fellowship by Royal Charter. A brief historical sketch of the proceedings that have taken place in reference to the matter, so far as they have come under our notice, may be of interest.

Early in August 1863, a Fellow of the College, writing under the signature of "R. W.," published in the BRITISH MEDICAL JOURNAL a letter, in which he pointed out the hardship inflicted by the present mode of election on gentlemen living beyond fifty miles from London; and suggested that means should be taken by the College authorities and the Fellows to enable votes to be taken by proxy, as in the election of members of Parliament for the Universities.

In the following week, at the annual meeting of the British Medical Association in Bristol, it was decided, on the recommendation of the Council, that "a memorial be addressed to the Council of the Royal College of Surgeons of England, requesting them to take into consideration the propriety of altering their by-laws, or, if necessary, obtaining the legal powers for enabling non-resident Fellows of the College to vote by proxy at the annual election of members of Council, in accordance with the principle which has already been advantageously adopted in the Universities of Oxford and Cambridge." A memorial to this effect was accordingly, in the following October, forwarded to the President and Council of the College of Surgeons. The document was laid before the Council; and the Secretary to the College was directed to reply that the voting at elections of members of Council was not regulated by by-laws, but was a provision of the charter under which the Fellowship was instituted; and that it was not thought expedient to apply for a new or supplementary charter to endeavour to effect the object of the memorialists.

In the following year (1864), at the annual meeting of the Association in Cambridge, reference was again made to the subject in the Report of Council; and it was recommended that a memorial to the same effect as the previous one be again presented to the Council of the College, and that the Committee of Council be empowered to take any other steps they might deem requisite to effect the desired alteration. This attempt met with no better success than the former, the Council of the College merely replying that "they saw no reason to alter their opinion upon the subject." In the same year, at a meeting of Fellows of the College, of which

the late Mr. Southam of Manchester was chairman, a committee was formed for the purpose of taking the necessary measures for obtaining a supplementary charter for the College of Surgeons, to enable votes to be taken by means of proxy-papers. This proceeding, however, appears not to have led to any result.

At the annual meeting of the Association at Leamington, in 1865, the subject was again formally brought before a general meeting by Mr. Southam, at whose suggestion a memorial to the same effect as those already presented was adopted. This also was duly presented to the Council of the College; and in the following December a reply was received from the Secretary, in which it was stated that

"The Council are fully aware of the great convenience which voting by proxy might afford to many of the country Fellows, yet cannot lose sight of the fact that a great number of Fellows of the College residing at a considerable distance in the country have regularly attended the annual elections of the members of Council; and the Council are of opinion that voting by proxy would tend seriously to diminish the active and thoughtful interest which personal attendance on the part of the Fellows is calculated to promote, and that such a mode of election would thereby be detrimental to the welfare of the College."

In support of the proposal, memorials, signed by 135 Fellows of the College, were presented by Mr. Paget of Leicester, then a member of Council.

The subject was again brought before the Association at the annual meeting at Chester, in 1866, where it was decided that, previous attempts to influence the Council of the College having failed, a deputation should be appointed to lay before the Home Secretary the injustice under which the majority of the Fellows of the College were placed. The Committee of Council was authorised to appoint a deputation, but it does not appear that anything was done.

During the period included in the preceding narrative, the desired change was, on many occasions, energetically advocated by the then editor of this JOURNAL, Dr. Markham, who was most zealous in calling attention to the points in which he considered reforms to be required in the management of the College of Surgeons.[1]

No further steps, beyond the occasional publication of letters, appear to have been taken in the matter until 1878. In that year, the subject of voting by proxy-papers was again brought forward by Mr. George Jackson, of Plymouth, by whom a form of petition was drawn up, to be signed by Fellows of the College, and presented at the meeting for the election of members of Council. As, however, the only business that could be considered was the election, the petition, which was numerously signed, could not be presented at the time.

In May 1879, the subjoined memorial was presented to the President and Council of the College by Mr. Jackson. It was signed by about three hundred Fellows resident in the country, and by many resident in the metropolis.

"We, the undersigned, Fellows of the Royal College of Surgeons, desire to bring under your notice the hardship and inconvenience which the Fellows who reside at a distance from the metropolis labour under in exercising the right they possess of voting at the election of members of the Council. As matters stand at present, they cannot exercise their right of voting, except at the expense and loss of time involved in a journey to London. Your petitioners pray that such an alteration in the by-laws be made as to permit Fellows who are prevented by any cause from attending the meeting to vote by voting-papers, properly attested or by proxy."

In reply, the Council decided, at a meeting on June 12th, that no alteration of the by-laws could alter the present mode of voting, that being settled by charter.

Notwithstanding this unfavourable reply, the supporters of the proposal embodied in the memorial continued their endeavours. It was intended to hold a meeting of Fellows on the day of election of Council; but, as very few provincial Fellows attended on the day of election, the project was abandoned.

In the meantime, the proposal of the memorialists was supported by editorial articles in the JOURNAL of May 17th and 24th; and also by letters published by Sir Henry Thompson, Mr. Jonathan Hutchinson, and Dr. Webb of Wirksworth. Mr. Spencer Wells, then a candidate for a seat in the Council, in a letter published on June 21st, expressed his willingness to endeavour to obtain some mode of meeting the wishes of those who desired to be enabled to vote in their absence, provided that undue canvassing could be obviated.

In the JOURNAL of June 26th, 1880, the necessity of the change was again pointed out in some editorial remarks; and, on December 11th (page 944), Mr. George Pollock published an able letter, in which he supported the view that Fellows of the College should be entitled to vote by proxy; but urged that, under the existing law, the adoption of this plan would lead to a very undesirable amount of canvassing for seats in the Council. To obviate the difficulty, he suggested that a "Committee of Election" should be appointed by the Fellows at large, voting by proxy or otherwise; and that this Committee should appoint the President, Vice-Presidents, and members of Council, who should hold office for a limited term of years. Mr. Pollock's proposal was supported by Mr. T. Holmes, in a letter published in the JOURNAL of December 25th, 1880.

During the meeting of the British Medical Association at Worcester in 1882, a meeting of Fellows of the College was held, at which it was decided to form an association, the object of which should be to consider all matters affecting the interests of the Fellows and the government of the College. Of this Association, Mr. Wheelhouse was appointed President, Mr. Husband Treasurer, and Mr. Pearce Gould and Mr. Bartleet Secretaries. In April of this year (1883), the Committee of the Association passed a series of resolutions, recommending its members not to vote for any candidate for the Council of the College, who would not support a movement in favour of such alteration in the charter as might be necessary to obtain the right of voting by proxy; and deciding that inquiry should be made of each candidate for a seat in the Council, as to his views on the subject. At a meeting of the Association held in Liverpool on August 1st, it was decided to forward to every Fellow of the College a form of petition in favour of enabling votes to be given without the necessity of personal attendance; and to present this petition to the Council of the College. A copy of the petition will be found at page 445 of the present volume of the JOURNAL. This petition was signed by over 380 Fellows, and was forwarded to Mr. Cadge, a provincial member of the Council, for presentation.

In the meantime, we discussed the subject anew on the occasion of the election at the College in July, and announced the conviction, which we had reasons for entertaining, that the most influential persons in the College were on the eve of yielding to the reiterated demands for an improvement in the method of voting, which could not, it was felt by the coolest and wisest heads, be much longer resisted. At a meeting held on June 14th, Mr. Cadge had proposed the following motion:

"That it is expedient that, at the election of the Council, the Fellows shall be allowed to vote either in person or by paper."

This motion was referred to a Committee, consisting of Sir James Paget (chairman), Dr. Humphry, Mr. Erichsen, Sir Spencer Wells, Mr. Lund, Mr. Cadge, and the President and Vice-Presidents. The Committee, after considering the subject, drew up the satisfactory report which was published at page 991 of last week's JOURNAL, and it was approved and adopted at the last meeting of the Council.

[1] See BRITISH MEDICAL JOURNAL, 1864, March 12th, p. 293; June 13th, p. 668; 1865, January 21st, p. 72; July 15th, p. 37; October 28th, p. 449; November 4th, p. 476; November 18th, p. 534; December 2nd, p. 588; December 23rd, p. 660; December 30th, p. 688; 1866 January 6th, p. 23; June 30th, p. 693.

QUARANTINE IN AUSTRALIA.

AT the instance of the New South Wales Branch of the British Medical Association, the colonial Premier has suggested to the Australasian Governments the introduction of a system of quarantine, based on federal principles. This federal quarantine is to be carried out by the unanimous consent and control, and at the expense, of the Australasian colonies, including New Zealand, and, we presume, Tasmania. There is to be "general quarantine" at the first port of entry, "local quarantines" at intermediate and ultimate ports, and the depôts are to be so situated as to ensure immunity from infection. It is not to be doubted that the various quarantine regulations of the different colonies ought to be consolidated. At present, each colony acts independently of the others. New South Wales has its impracticable Quarantine Act of 1853. At Port Jackson, a vessel arriving from a "proclaimed port," even though there may have been no disease on board, is detained in quarantine for seven days.

Queensland reserves to itself the power of landing passengers and crew from any foreign port at a sanitary station for a period of two or more days, for purposes of bathing and of washing, and airing bedding and linen. In South Australia, in the case of small-pox, ship and passengers are kept in quarantine for three weeks after the last case of convalescence. In Victoria, quarantine, varying from seven to forty days from the date of the convalescence of the last case of cholera, small-pox, and infectious fevers, is imposed; and, in Western Australia, a vessel has been detained in quarantine because some children had whooping-cough. In practice, however, not much difference will be found to exist; and a reasonable Act of consolidation, if drawn out by Mr. Stuart, the premier, would meet with little opposition.

In the United States all attempts to introduce the federal principles have signally failed. The States have opposing interests which are, as yet, absent from the Australian colonies. Commercial competition is so keen, and quarantine so important a factor in it, that each State is jealous of any control from without, and the National Board of Health no longer attempts to exercise control. But the health of the colonies is a common interest. Immigrants sail into every port in increasing numbers, and it is in the interest, both of sanitation and of commerce, that the infectious sick should be rigidly excluded from mixing with the population. The question is, how the sick may be excluded without unnecessary interference with the healthy. To introduce the red tape quarantine of the old school would, perhaps, tend to divert the stream of emigration, but would not otherwise promote the health of the Australian colonies. The Branch of the Association states that the geographical position of these colonies is highly favourable to the development of the best results of a fully and well organised quarantine. Probably, all that is meant is, that a system of inspection of immigrants, and isolation of the infectious sick, could easily be organised, and, if efficiently carried out, would be of sanitary advantage. Small-pox is the disease against which Australia especially wishes to guard its ports, and to allow a case of small-pox to be landed among the population would be the height of folly. But small-pox at sea is identical with small-pox on land. Not the ship nor the city, but the infected man, should be isolated; and if the colonial Branch propose anything more than this, it is acting in opposition to the opinions and experience of our most able sanitarians.

Quarantine has never yet kept an infectious disease out of a country. The epidemic of small-pox which broke out in Sydney in 1881 is an instance of how infectious disease may creep in. According to the *Brisbane Courier*, it arose from the inoculation of a Chinese child with the virus, in accordance with Chinese custom. It is only by the unceasing vigilance of health-authorities that epidemics can be prevented. Of all countries, probably Australia would be the least benefited by quarantine. All emigrant-ships carry surgeons who are competent to notify disease, and the voyage is so lengthy that there is ample time for its development. Even M. Fauvel admitted that it was unnecessary for England to quarantine vessels from Alexandria during the late cholera-epidemic, as the voyage lasted ten days, and probably no one is so infatuated with the fancied merits of quarantine as he. To perfect the system of medical inspection which has already been initiated, rather than to introduce blind measures of quarantine of suspected vessels, is the course which, we trust, the Branch will advise; and the Governments of the colonies will find that such advice is based on a long experience of the results of both causes.

POISONOUS PIGMENTS IN AUSTRIA.

FROM information which has been obtained, by the courtesy of the Foreign Office, at the request of Mr. Ernest Hart, on behalf of the National Health Society, we learn that, besides laws regulating the sale of poisons, as such, an Act was passed by the Reichsrath, in 1866, extending to all the provinces of the Austro-Hungarian empire, except the kingdom of Hungary and its dependencies of Transylvania and Croatia, which prohibited the use of colours (1) containing metals (except iron), gamboge, picric acid, or anilin, in all articles of food or drink, and in the ornamentation of the former; (2) also of preparations containing arsenic, antimony, lead, cadmium, copper, cobalt, nickel, quicksilver (except pure cinnabar), zinc, or gamboge, in toys; other metallic colours being allowed on condition of their being fixed or covered by some varnish, not affected by moisture, or easily rubbed off. (3) None of the colours mentioned in Section 2 may be employed in earthenware vessels used for holding any kind of food, unless firmly burnt in. (4.) Arsenical colours, on artificial flowers and on wall-papers, must be well protected by varnish. (5) They are forbidden in the painting of walls of dwelling-rooms or places of assembly. (6.) And, generally, such substances are prohibited in all articles of food and drink, in cooking utensils, and in toilet articles, in any form in which they may prove injurious to health.

This law has been in force in the above mentioned provinces since 1866, but within the last two years (1882 and 1883) two comprehensive Acts have been passed extending to the whole empire, and regulating the conduct of a large number of trades and manufactures. Though rather of the nature of Factory Acts, they contain a number of provisions bearing on the subject of poisonous colours. The manufacture of all articles or matters of a poisonous nature is, by Section 15 of the law of March 13th, 1883, declared to be a trade requiring, for its establishment or carrying on, a licence from the police, and various precautions are enjoined for the protection of the health of the operatives employed. The sale of poisons is regulated by the law of 1876, a Sale of Drugs and Poisons Act.

The law of 1866, the substance of which we have given above, is the only one at present controlling the employment of poisonous pigments; but we have official information that it is the intention of the legislature to render the prohibition of the use of arsenical colours absolute in the case of artificial flowers, wall-papers, coloured papers of all kinds, and all materials of clothing; and to forbid the importation of such from abroad.

By Section 16 of the Tariff Act of 1882, the importation of all those articles in which arsenic and other poisonous colours are conditionally permitted by the above-mentioned law of 1866, is subject to certain restrictions, and such articles may be claimed only at the principal custom-houses, and by special permission from the authorities.

The Government does not think it necessary to impose any legal restrictions on what may be called the casual use of arsenic in lampshades, fancy stationery, sealing-wax, tapers, etc., or in toilet articles of ephemeral popularity, but contents itself (*vide* decree of Ministry of Interior, December 25th, 1871) with cautioning persons, through

the public press and otherwise, as to the danger they incur thereby.

In view of the increasing employment of anilin colours in the confectionery trade, a Ministerial decree was issued Nov. 27th, 1876, bearing reference to Section 1 of the law of 1866, adding the whole of this class of colours to those the use of which is thereby absolutely prohibited in all articles of food and drink. A further decree of June 2nd, 1877, requires that these articles shall be packed in plain white paper, coloured papers being permitted only as a second or outer covering, and not then unless the article be perfectly dry, and thus free from any risk of contamination.

The provisions of the law of 1866 are incorporated into the Penal Code; and a decree of the Ministry of the Interior of April 29th, 1859, makes all sanitary and police laws and enactments prospective in character, so that any new article, stuff, or substance introduced into trade is at once brought under the existing law, though not specially named therein.

Lastly, with a view to ensure uniformity in the mode of procedure in the examination of suspected articles, fabrics, or substances, instructions were issued by the Minister of the Interior on December 6th, 1871, indicating the best methods to be employed in each case.

HER MAJESTY the Queen has returned to Windsor in much improved health, the Queen's general condition and power of locomotion being considerably ameliorated. It is satisfactory to know that the royal borough of Windsor shows, at the present moment, a health-record which is hardly to be equalled and certainly not surpassed. The death-rate for the last quarter was only 9.4 per thousand, and not one death was due to any infectious disease. The death-rate for all England, during the quarter, was 16.8, or, excluding large towns, 14.5.

THE residents at Bury, Lancashire, are agitating for a public park. There is a population of over fifty thousand. They will have the support of the medical profession in this wise movement.

THERE are sixty wells in Canterbury which are contaminated with sewage-matter, and swarm with living organisms. An outbreak of diphtheria has turned the attention of the Town Council to the fact.

THE Local Committee of the Haffenden Memorial Fund, recently appointed, announce the receipt of subscriptions to the amount of over £400.

A VERY interesting meeting of the Church of England Temperance Society was held in Oxford on Monday, at which Dr. Acland presided; and Dr. W. B. Carpenter, F.R.S., gave an able summary of the physiological and social arguments in favour of temperance.

THE Duke of Cambridge has expressed his highest commendation of the efforts of the officers composing the medical staff in Egypt during the late outbreak of cholera among the British forces serving in that country, in combating a disease which at one time threatened to reduce the battalions more than actual warfare.

A SERIOUS epidemic of diphtheria has broken out at Bodfordd, a little village in Anglesea, between Valley and Llangefni. Eighteen persons have been attacked, of whom six have already died. The ravages of the disease are creating great alarm. The sanitary condition of Bodfordd is said to be deplorable.

WE are requested to announce that the burial of the late Dr. Hilton Fagge will take place at Norwood Cemetery on Saturday, the 24th instant. The funeral *cortège* will leave the late physician's house in Grosvenor Street at 2 P.M., and is expected to arrive at the cemetery at three o'clock, or soon afterwards. The ceremony will be of a strictly private character.

THE *Gazette* of last week announces that Dr. Richard Quain, F.R.S., has been nominated by the Queen, in Council, as Crown representative on the General Medical Council. This is the fifth time that Dr. Quain has been thus nominated. During his long term of office he has rendered considerable service to the Council and to the profession, as treasurer of the Council and as member of its Executive Committee, and as editor of the Pharmacopœia Committee.

DEPUTATIONS from the committee of representative managers of the London board schools; from the Metropolitan Public Garden, Boulevard, and Playground Association; and from the National Health Society, attended the meeting last week of the London School Board, to ask that body to make arrangements for an extended use of the playgrounds of board-schools. Mr. Sydney C. Buxton, M.P., Lord Brabazon, and Mr. Ernest Hart respectively supported this request; and it was stated that the playgrounds belonging to the Board form a total area of 74 acres, that they had cost upwards of £300,000, and that they were now little used. The matter was referred to a committee.

FROM a report published in the *Official Gazette*, it appears that the total number of persons killed by wild animals and snakes in India last year was 22,125, against 21,427 in the previous year; and of cattle, 46,707, against 44,669. Of the human beings destroyed, 2,606 were killed by wild animals, and 19,519 by snakes. Of the deaths occasioned by the attacks of wild animals, 895 were caused by tigers, 278 by wolves, 207 by leopards, 359 by jackals, and 202 by alligators; 18,591 wild animals and 322,421 snakes were destroyed, for which the Government paid rewards amounting to 141,653 rupees.

THE HOWARD MEDAL.

AT the meeting of the Statistical Society on Tuesday last, the 20th instant, the Howard Medal of 1883, with £20, was presented to Mr. R. D. R. Sweeting, Medical Superintendent of the Western District Fever Hospital, Fulham, for "The best Exposition of the Experiences and Opinions of John Howard on the Preservation and Improvement of the Health of the Inmates of Schools, Prisons, Workhouses, Hospitals, and other Public Institutions, as far as Health is affected by Structural Arrangements relating to Supplies of Air and Water, Drainage, etc."

SCHRÖDER ON FIBROMA OF THE UTERUS.

ACCORDING to the *Charité Annalen* for 1881, recently published, 60 women were admitted into Professor Schröder's wards in the Charité, Berlin, suffering from fibro-myoma of the uterus, between January 1874 and June 1881. Out of these 60, 45 were married, including 10 sterile women, and 12 subject to abortion. In 58 cases, the new growth was seated in the uterine body, in 2 it grew in the cervix. In 22 cases the growth was subperitoneal, in 38 it was submucous. In 4 cases, advanced kidney-disease was discovered after death; in 1 only did the tumour prove to be sarcomatous. Ergotine injections were employed in 22 of the cases where the growth was submucous; the remaining 16 were operated upon, 4 by ligature, 11 by enucleation from the vagina, 1 by laparotomy. Three out of the 11 cases where enucleation had been performed died; the laparotomy case recovered. Schröder is a strenuous advocate of continuous

irrigation after enucleation. Of the 22 cases of subperitoneal fibroid growths, 4 proved fatal, 2 of these after operation.

MEDICAL CORONER.

THE election for coroner of the northern division of the county of Devon took place last week, and an arrangement was come to between the two candidates by which Mr. Bonham was elected coroner. We understand that Dr. Slade King will receive the appointment of deputy coroner. The arrangement thus come to, will avoid the turmoil and expense of a contest, and appears to be satisfactory to both parties. A very strong and general feeling was expressed in favour of the appointment of a medical coroner, and Dr. King would have secured a very large amount of support. As one voter writes to the local papers, "the coroner is a person who has to judge of the dead rather than of the living;" there can be no doubt of the much greater efficiency and economy resulting from the appointment of medical coroners. We hope that every occasion will be taken by members of the profession having suitable qualifications and local influence to secure these appointments as they become vacant.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE sixty-sixth volume of the *Medico-Chirurgical Transactions* is now ready, and copies are being distributed to the Fellows of the Royal Medical and Chirurgical Society. The binding and type are in no way altered from previous volumes. Its contents, in abstract, will be already familiar to our readers through the published reports of the meetings of the Society. Among the most remarkable contributions, we may recall Mr. Treves's paper on resection of the intestine; Messrs. Heath's, Marsh's, and Morris's cases of aneurysm; Dr. Samuel West's statistics of paracentesis of the pericardium; two cases bearing on the surgery of the kidney, by Sir Spencer Wells and Mr. Marshall; and Sir Henry Thompson's paper on twelve cases of operation for tumour of the bladder. Some of these contributions are illustrated. There are also some very good plates illustrating papers by Drs. Percy Kidd, Barlow, Money, Sharkey, and Thin, and Messrs. Willett, Walsham, and Barker.

SIR WILLIAM SIEMENS.

As an illustration of the well known liberality and desire to assist in every great and good scientific movement, of the late Sir William Siemens, whose loss will be felt to be irreparable in every branch of science and industry, we may mention that, at the meeting of the Association in Cambridge in 1880, the electric lighting of the Fitzwilliam Museum on the occasion of the *soirée* in that building was, gratuitously and unsolicited, carried out by him. Those who were present will remember how successful it was, and how good was the effect upon the pictures, statues, and other objects of that interesting collection, as well as upon the complexions and dresses of the visitors. Sir William, then Dr. Siemens, had received the honorary LL.D. degree of the University, and was delighted to take the opportunity of paying some tribute to the University and to the profession.

NEPHRECTOMY.

ON November 13th, after consultation with Dr. Sturges, Mr. Richard Davy removed, by postperitoneal incision, a large left fibro-cystic kidney from a man aged 53. The albuminous urine has ceased since the day of operation, and the patient is doing well. On November 14th Mr. Knowsley Thornton performed nephrectomy by abdominal section on a young woman at the Samaritan Free Hospital, a tuberculous kidney being removed. The abdominal incision was made external to the rectus muscle, as Langenbuch recommends, and, after a principle introduced by the operator, the cut surface of the distal part of the ureter was fixed outside the abdominal wound. The patient is progressing very favourably. This is the sixth case of nephrectomy performed by the same operator; all the patients have recovered, and in every case the strictest antiseptic precautions were employed. A very complete account of the history of surgical operations upon the kidney will be found in the contributions of Mr. Clement Lucas and Dr. W. Walter to the Surgical Section at the recent annual meeting of the Association, together with the subsequent discussion, published in the JOURNAL, September 29th, 1883.

CONSTANT SUPPLY OF WATER TO LONDON.

THERE can be no doubt that a constant water-supply is, under proper conditions, a great safeguard against all that large class of disease which is "water-borne." Without domestic fittings adapted to bear the extra strain, it is unfair to expect the companies to make such a supply; and it is, therefore, satisfactory to find that magistrates appear ready to enforce the provisions of the Water Act of 1871. Two cases have recently been decided: the one by Mr. Biron, Q.C., at Lambeth; the other by Mr. Bushby, at Worship Street, in favour of water-companies, the Southwark and Vauxhall, and the East London respectively, who had summoned owners and occupiers of houses who had neglected to put on proper fittings. Owing to this neglect, great waste of water had occurred, amounting, in one case, to 5,000 or 6,000 gallons a day. In one case, a penalty of £10 was imposed; in the other, in which it was alleged that the failure to put up the proper fittings was due to plumbers' delay, a small fine was imposed.

THE DISCUSSION ON THE TREATMENT OF FRACTURE OF THE PATELLA.

To the observations made by several surgeons during the discussion of Mr. Lister's paper at the Medical Society of London, we add the remarks of Mr. Rose, which were accidentally omitted from our recent report. Mr. Rose stated that he had done the operation advocated by Mr. Lister three times, in all three cases for recent fracture of the patella. The first two were successful, and were exhibited at the Medical Society in 1879. In the third and subsequent case, there was suppuration, possibly from insufficient drainage, though the wound never became septic, the discharge having been carefully examined by Mr. Watson Cheyne, who could find no bacteria. The result was not so good as in the first two cases, the movement of the knee being only partial when the patient left the hospital. In recent cases, he did not consider the operationat all difficult, as the broken fragments merely required scraping, drilling, and fitting together; on the other hand, in old cases of non-union, the surfaces had to be sliced with a saw. Mr. Rose strongly recommended the operation in recent cases of fracture, and believed it to be perfectly safe in the hands of those who scrupulously carried out the antiseptic principles laid down by Mr. Lister.

THE DETECTION OF ADULTERATION.

IN a report which the Minister of Commerce has addressed to the President of the French Republic, he dwells on the important services rendered by the Paris Municipal Laboratory for the purpose of detecting adulteration of articles of food. He also states that other cities (Lille, Rheims, Bordeaux, Brest, and Saint Etienne) have established similar laboratories. The Conseil Général of Bouches du Rhone has decided on organising a laboratory exactly similar to the one at Paris for the benefit of the entire country. A consulting Committee has also been appointed by ministerial decree to advise the municipal and provincial laboratories on the following subjects; first, the reports submitted to their notice either by the chefs of the laboratory or by the local authorities; secondly, the methods used for analysing the different articles of food; thirdly, the standard to be adopted with regard to adulteration; fourthly, all technical questions connected with the laboratory. The members of this Committee are MM. Wurtz, Pasteur, Brouardel, Grunaux and Armand Gautier.

HEALTH-LECTURES IN BIRMINGHAM.

WE have received from Birmingham the programme of an excellent set of lectures on health by some of the leading medical men of the town. The lectures are devised and carried out on the same scheme as those which have now for some years been extensively adopted in London under the auspices of the National Health Society, and in Edinburgh, Salford, and Manchester. We are informed that at each lecture the large theatre at the Midland Institute has been crowded long before the lectures began, and also the platform; the doors, on each occasion, having to be closed to prevent overcrowding. The lectures are exciting great interest in the town, and there is reason to hope that they will do much good. The first two, by Dr. Heslop and Dr. B. Foster, have been in every sense successful. Those who have had most experience in dealing with the poor, and who have, by their labours for many years, acquired a practical knowledge of the subject—and among them we venture to rank ourselves—have good reasons to know that one of the greatest obstacles to the improvement of the homes of the poor, and one of the greatest difficulties in dealing with the sources of physical degradation, and its inseparable sequels of moral degradation, enfeebled health, and high mortality, is the want of knowledge among the lower classes of the principles and practice of sanitation. They are alike indifferent to personal hygiene and to the conditions of health in the dwelling, and in diet. An active healthy propaganda is among the first necessities of the time. The National Health Society of London publishes cheap tracts and handbills which may, with great advantage, be utilised for this purpose, by extending their circulation among the working classes. Its system of popular lectures, especially by well-informed women as well as men, addressed to working men's clubs and mothers' meetings; its courses of instruction for men, women, and nurses; and its system of popular tracts and popular addresses, may all, with great advantage, be widely extended in every locality throughout Great Britain. Without knowledge, there can be little progress. Sanitary laws are of much less avail than they should be, so long as the great bulk of the population—educated and uneducated—are alike uninformed on the elementary rules of hygiene, on the most important facts concerning food and feeding, on the dangers of defective drainage, and the ways and means to health. It is most promising that the addresses, on subjects such as this, which are now being delivered at the Midland Institute, prove so attractive to large public audiences; but we earnestly hope that the energetic and enlightened inhabitants of Birmingham will not rest satisfied with sporadic lectures, but will institute a complete organisation such as that of which we speak, in order to carry on the work continuously and unremittingly.

MORTALITY AMONG POLYNESIAN LABOURERS IN QUEENSLAND.

THE twenty-third annual report of the Registrar-General of Queensland, which has recently reached this country, contains, among much interesting statistical information bearing upon the progress and sanitary condition of this prosperous colony, some figures relating to the rate of mortality among the imported Polynesian labourers, which should awaken all thoughtful Englishmen to one of the consequences of the labour-traffic which has grown up between the South-sea Islands and our Queensland colony. The evil arising from this system of imported labour has frequently been forced upon public attention in England in various ways, but it is doubtful whether condemnation of the system could be more eloquently or more powerfully urged than by quoting a few figures which appear, almost without comment, in the Registrar-General's annual report for Queensland just referred to. It appears that the death-rate in the colony of Queensland during last year was equal to 18.0 per 1,000 of the estimated population in the middle of the year. Excluding, however, the deaths of Chinese and Polynesians, the rate is brought down to 16.1 per 1,000. Now the mean number of the Polynesians, or South-sea Islanders, in Queensland during the year 1882, was 8,156, while it appears that 674 deaths occurred among these unfortunate labourers during the year. These facts give a death-rate of 82.6 per 1,000 living. This rate, it is true, shows a considerable further increase upon the high rates prevailing in the three preceding years; it is, however, far from being unprecedented, for the death-rate among the Polynesians in Queensland was 85.2 in 1878, and 85.1 in 1875, the first year for which these condemnatory statistics are given. The mean annual death-rate among these imported labourers, during the eight years 1875-82, was 69.7 per 1,000, which may well make Englishmen blush for what is occurring within the British Empire, and with Imperial sanction. The figures, moreover, become the more terrible the more they are examined. The report states that the bulk of the islanders are aged between fifteen and thirty-five years; indeed, the census of 1881 showed that 4,397 were aged between these years, whereas only 175 were aged under fifteen or over thirty-five years. Now, the death-rate of the general Queensland population, aged fifteen to thirty-five years, was only 5.6 per 1,000 in 1881, whereas the rate among the Polynesian residents in that year was 64.7, or just twelve times the rate among other residents of the same ages in Queensland. Surely such facts ask for investigation and further information, and should commend themselves to the earnest attention of Lord Derby, as Secretary of State for the Colonies. It should be the duty of the Queensland Government to furnish some information of this fearful mortality among these imported labourers, which might, under altered circumstances, justify the continuance of the present system.

THE BACILLUS OF YELLOW FEVER.

IN a recent report, of which copies have been transmitted to the Foreign Office, Dr. Domingos Freire, Commissioner of the Brazilian Government, reports further experiments, establishing the facile transmissibility of yellow fever by inoculation, etc., and proving also that the disease is due to a most rapid development and increase of a cryptococcus, to which he has given the name of c. xanthogenicus. In the experiments previously narrated, inoculation with a drop of blood from a person dead of yellow fever had caused the death of a rabbit in a short space of time; a drop of the rabbit's blood had brought about the death of an inoculated guinea-pig; and a second guinea-pig, inoculated from the first, died with fever and grave symptoms exactly like those of yellow fever in man, while the necropsy immediately after death revealed lessons completely in agreement with those observed in the preceding cases. In four days, the weight of the animal fell from 727 to 207 grammes, proving the great acceleration of the nutritive processes and the great losses, in consequence of the fever. To test the inoculability and transmissibility of the disease still further, five more guinea-pigs were injected subcutaneously with less than a gramme of the blood of the preceding guinea-pig, and they were numbered 3 to 7. No. 3 lasted eleven days, No. 4 four days, No. 5 eighteen days, No. 6. six days, No. 7 five days. The necropsies showed concordant results, and the lesions were completely comparable with those in man. On April 18th, a guinea-pig was enclosed in an atmosphere easily saturated with spores of the organism, and it died in seven days with the symptoms of yellow fever. The blood of this guinea-pig was passed to another, which died on May 1st, in six days. The blood of the latter was injected into another, but this last, though gravely sick, escaped, and is still alive, and now free from fever. A mixture of earth from the Jurujuba cemetery was made with pure water. Ten drops of the mixture were diluted with a gramme of water, and some drops of this dilution were vaccinated under the skin of a guinea-pig, which died next day. With its blood, another was inoculated, and died in three days. The advanced putrefaction of the latter prevented the use of its blood for a third inoculation. However, it is clear that the earth in question (taken from a cemetery of persons dead from yellow fever) is a vehicle for the perpetuation

of the disease. Microscopic examination was made of a little earth gathered in Rua de S. José, close to an excavation, in progress in May last, near Rua de Ajuda. It showed the presence of the characteristic organism of yellow fever, a matter not surprising, as the epidemic has spread all over the city, but the number was small in proportion to that found in the earth from the Jurujuba cemetery, and the culture was very slightly prolific. Admitting the relation of causality between yellow fever and the parasites, always found in cases of it, admitting the contagion and transmission of the disease, admitting the laws of that proliferation in a season of its own, obeyed by microscopic plants as well as by trees, how can we deny the danger to towns from cemeteries situated in their midst, and in which those noxious invisible plants grow, and whence their spores are unceasingly borne by the rains aud winds to the interior of the houses? Dr. Freire then goes on to say that the discovery of a preventive means is not impossible, and that some encouraging results in its direction have already been obtained by him, he having succeeded in attenuating the micro-organisms of yellow fever by a method of his own, having nothing in common with those of Toussaint and Pasteur. His method is founded on a principle he calls "anti-microbism," that is, the culture of organisms antagonistic to the micro-organisms of yellow fever, and injuring and impeding the development of the cryptococcus xanthogenicus. Two guinea-pigs were vaccinated with a culture of those organisms, and although their temperature rose, they resisted the inoculation. And, what is still more surprising and encouraging, a guinea-pig vaccinated with one of those cultures on May 2nd, was, on the 7th, injected subcutaneously with blood taken from a corpse, the injection of which caused, in a few days, the death of other animals not so vaccinated. But the vaccinated guinea-pig had merely, during two days, a slight increase of temperature, but had no fever on May 14th, and showed every sign of having resisted that highly virulent injection.

GUY'S HOSPITAL.

DR. P. H. PYE-SMITH, B.A. and M.D.Lond., F.R.C.P., who has for some years been assistant physician to the Hospital, was last week elected by the governors to the post of physician. Dr. Pye-Smith obtained the gold medal at the M.D. examination of his University in 1864, is Examiner in Physiology to the University, and Lecturer on Physiology at Guy's. He is also the author of several well-known articles on Physiology and Medicine. It is not yet quite certain that a vacancy will be made at once in the junior staff by the much-lamented death of Dr. Hilton Fagge, but if such occur, it is likely that Dr. R. E. Carrington, the present Medical Registrar to the Hospital, and Dr. W. Hale White, the Senior Demonstrator of Anatomy in the Medical School of the Hospital, would be candidates. Both are Doctors of Medicine of the University of London, and have already done good work.

TEMPERANCE AND MUSCULAR EXERTION.

THE well-known pedestrian, E. P. Weston, commenced his long-announced walking tour on Wednesday morning last, soon after midnight. The starting point was from Bridge Street, Westminster, and many friends of the temperance cause, including the Hon. and Rev. Canon Leigh, the Rev. Canon Duckworth, Dr. B. W. Richardson, and Dr. Norman Kerr, were present to give his undertaking their hearty support. Weston was in excellent health and spirits. His intention is to walk 50 miles a day for 100 days, excluding Christmas Day and Sundays, and to give lectures on temperance at the various towns through which he will pass in covering the 5,000 miles. Every endeavour has been made to guarantee the genuineness of the performance, and the feat, if accomplished, will surely test his power of endurance. The advocates of temperance regard the regularity of the strain which will be placed upon Weston as demonstrating the sustained staying powers conferred by total abstinence. Four month's exertion of this nature in the face of winter weather is indeed no slight task; and one reasonable concession has been made, viz., that if the record of distance accomplished should be shortened on one day only in each month, Weston may be allowed to overtake the arrears during the ten days following the unavoidable delay. He is to be accompanied by three competent and trustworthy judges throughout his walk.

SCOTLAND.

THE death of a girl, aged eleven years, while under the influence of chloroform, is reported from Camlachie, Glasgow. The drug was administered preparatory to the usual operation for hare-lip.

UNIVERSITY OF ST. ANDREW'S.

MR. RUSSELL LOWELL, the United States Minister in London, has been elected Lord Rector of the University of St. Andrew's. The votes were: Lowell, 100; Mallock, 82.

BURNETT LECTURES IN ABERDEEN.

PROFESSOR STOKES of Cambridge gave the last of the first series of four lectures on light on November 12th, the subject being "Polarisation of Light." The Professor intimated that the next series of lectures would be upon light as a means of investigation; and the third series, two years hence, on the eye. The lectures are to be published immediately.

HEALTH LECTURES, EDINBURGH.

ON Saturday, the first of a series of health lectures for 1883-84 was delivered by Professor Chiene to a numerous audience in the Free Assembly Hall. The Lord Provost presided. In his lecture, Professor Chiene directed attention to many points in which the sanitation of every-day life is deficient, especially with regard to milk and dairies. The chief part of the ecture, however, was directed to pointing out the value and importance of ambulance establishments and the benefits derived from their training.

THE BEN NEVIS OBSERVATORY.

THE final official visit to this observatory was paid on the 12th instant, when the new building was found satisfactory in every respect. It is not the intention of Mr. Omond and his assistants to descend the hill again until the spring. At the last meeting of the directors of the observatory, it was agreed that a scheme of hourly atmospheric observations should be carried on; and it was also resolved that, as the expenses of the building had now been defrayed, an appeal for another £5,000 to endow the institution should be made.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

AT the first meeting of the sixty-third session, on November 7th, the following gentlemen were unanimously elected as office-bearers for the ensuing year. *President:* Dr. Henry D. Littlejohn. *Vice-Presidents:* Dr. T. R. Fraser, Dr. David Wilson, Dr. J. Batty Tuke. *Councillors:* Dr. P. Heron Watson, Dr. Byrom Bramwell, Dr. Buist, Dr. Ronaldson, Dr. George Hunter, Dr. James Jamieson, Dr. Graham Brown, Dr. J. M. Cotterill. *Treasurer:* Mr. A. G. Miller. *Secretaries:* Dr. MacGillivray, Dr. James. *Editor of Transactions:* Dr William Craig.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General for the week ending November 10th show that the death-rate in the eight principal towns was 21.1 per thousand of estimated population. This rate is 0.9 below that for the corresponding week of last year, and 0.1 above that for

the previous week of the present year. The lowest mortality was recorded in Leith—viz., 11.2 per thousand; and the highest in Greenock—viz., 23.9 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3 5 per thousand, or 0.5 above the rate for the previous week. Acute diseases of the chest caused 91 deaths, being 31 less than the number recorded during the previous week. The mean temperature was 41.7°, being 6.0° below that of the week immediately preceding, and 1.1° above that of the corresponding week of last year.

SPECIALISATION IN EDUCATION.

PROFESSOR ALLEYNE NICHOLSON gave an address on this subject to the Aberdeen University Debating Society. Just as there was specialisation in nature, so, as civilisation advanced, there was specialisation in the industries, arts, and customs of mankind. It was also a necessity in education. The point raised by Dr. Nicholson had special reference to education, more particularly in the Scottish universities; and, while advocating specialisation after a certain course of study, he said that it ought not to commence too soon. He paid a high tribute to Cuvier and to Owen, as men who were striking instances of great breadth of knowledge with remarkable attainments in several departments. The chief fear, at the present moment, was that the pressure of specialisation, and the increasing need for intellectual concentration, might result in serious and permanent injury to that intellectual breadth which should form the primary aim of all educational effort. He also deprecated the re-arrangement of the Scottish universities, either on the English or on the much-lauded German type.

THE HEALTH OF GLASGOW.

DR. RUSSELL, in his report for the fortnight ending November 10th, states that there were 472 deaths registered, as compared with 469 in the fortnight preceding, representing the same death-rate, viz., 24 per 1,000 living, or, on his estimate of the population, 23. The number of fever cases registered during the fortnight was 62, and, from the report, it seems that typhus is still prevalent, and is distributed pretty uniformly through the various districts of the city. In connection with this disease, a very remarkable group of cases is alluded to. The group was composed of six persons, the only connection between whom was the fact that they worked in one department and in one room of a large umbrella-manufactory. The room was capacious, well ventilated, and not overcrowded. The residences of the different members of the group attacked lay in widely separated parts of the town, but those affected all sickened within the space of one week—four, indeed, on the same day. The authorities have been quite unsuccessful in tracing any individual by whom the infection was introduced in such virulence as to infect six out of the eleven workpeople in the room; but Dr. Russell seems to think that it is an illustration of a not uncommon state of matters, where the typhus-poison was transported by means of the clothing of some one who lived in a typhus-loaded atmosphere. During the past week, the dense fogs which have enveloped the city have tended to raise the death-rate, which has risen to 25.2 per 1,000.

GLASGOW UNIVERSITY RECTORIAL ELECTION.

THE voting for the election of a Lord Rector of Glasgow University in succession to Mr. Bright took place on the 15th instant, and resulted in the return of Mr. Fawcett. There were three candidates in the field, namely, the Marquis of Bute, nominated by the Conservative Club; Professor Fawcett, nominated by the Liberal Club; and Mr. Ruskin, who stood as the representative of the Independents. Every student whose name appeared on the matriculation-roll was entitled to vote, the poll being conducted, as usual, by the four nations into which the students are arranged. *Natio Glottiana* includes all students born in the county of Lanark; *Natio Transforthiana*, all students born north of the Forth; *Natio Rothesiana*, those born in the counties of Renfrew and Ayr; while *Natio Loudoniana* embraces all those who do not come under any of the other classes. The successful candidate required to have a majority in three out of the four nations. The official returns of the voting were—Fawcett, 798; Bute, 670; and Ruskin, 319; and an analysis of the figures showed that not only in the aggregate had Mr. Fawcett a majority over the Marquis of Bute, but he had also the necessary majority in three of the nations. Mr. Fawcett was accordingly declared Lord Rector. It is stated that a protest is to be lodged against Mr. Fawcett's election, owing to his at present occupying the Professorship of Political Economy in the University of Cambridge, it being provided by the Universities (Scotland) Act, 1858, that neither the rector nor any of the assessors of any university, with the exception of the assessor elected by the Senate, shall be the principal or a professor in a university. The question involved in this protest will be as to whether the clause does not refer to Scotch professors only, and upon this point no doubt proper legal opinion will be taken.

IRELAND.

A NEW professorship—that of Dental Surgery—is about to be made in the Royal College of Surgeons in Ireland. The election is fixed for Thursday next, the 29th instant.

THE following are the names of the medical officers of the Mater Infirmorum Hospital, recently opened in Belfast: *Consulting Physician*, A. Harkin, M.D.; *Consulting Surgeon*, John Fagan, F.R.C.S.I.; *Medical Officers on Staff*, M. R. O'Malley, M.D., A. Dempsey, M.D., J. O. Connell, M.D.

DR. ANDERSON, lately Demonstrator of Anatomy in the Queen's College, Belfast, has been appointed to the Chair of Natural History in the Queen's College, Galway, and has entered upon his duties. Dr. Sinclair, Surgeon to the Ulster Hospital for Sick Children, has succeeded him as Demonstrator of Anatomy.

VACCINATION IN IRELAND.

DURING the September quarter of the year, there were 28,862 persons successfully vaccinated; in 2,632, the operation was postponed; and 63 children were reported as insusceptible of vaccination. The deaths of 1,401 unvaccinated children under three months old were registered during the quarter, making a total of 32,958 children with regard to whom particulars as to vaccination were ascertained.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

AT a committee meeting of this Society, previous to the transaction of business, Dr. Whitaker referred to the loss they had sustained in the death of Dr. Moore, who was always a warm supporter of the Society; and he proposed a resolution of sympathy with his family, which was adopted, and directed to be transmitted to Mrs. Moore.

DUBLIN UNIVERSITY BIOLOGICAL ASSOCIATION.

THE opening meeting of this association will take place on Thursday next, the 29th instant, when the new President, Dr. Walter Smith, will deliver an address on "The Antagonism of Drugs." The following officers and council have been elected for the ensuing session. *President:* Walter George Smith, M.D., King's Professor of Materia Medica and Pharmacy. *Record Secretary:* Harloe Henry Fleming, B.A. *Corresponding Secretary:* Edgar Hogben, B.A. *Treasurer:* Henry Theodore Bewley, B.A. *Council:* H. Shackleton

B.A.; L. Werner, B.A.; C. R. Kilkelly, B.A.; N. M. Falkiner, B.A., F.C.S.; A. H. Middleton, B.A.; A. Findlater, B.A.; J. Wynne; R. K. Johnston, B.A.

SANITARY CONGRESS IN DUBLIN, 1884.

A DEPUTATION from the Sanitary Institute of Great Britain, consisting of Dr. Alfred Carpenter, Professor Corfield, Mr. Ernest Turner, and Mr. E. White Wallis, Secretary, attended the first general meeting of the local reception committee, held on Monday last at the King and Queen's College of Physicians. The members of the deputation explained the objects and aims of the Institute, and of its annual exhibition, to the meeting; and expressed a conviction, founded on their experience of former meetings of the Institute, and of meetings of other associations in Dublin, that the congress to be held in that city in 1884 would be a success. Honorary secretaries were appointed, as was also an executive committee, to carry out the necessary arrangements.

HEALTH OF CORK.

FROM the report of Dr. Wall, Medical Superintendent Officer of Health for Cork, it appears that, during the four weeks ending November 3rd, the following were the principal zymotic diseases reported by the medical officers of local dispensary districts; viz., typhus fever, 53 cases; enteric fever, 4; simple continued fever, 22; scarlet fever, 17; measles, 17; and diphtheria, 1. The total number of registered deaths amounted to 126 (including 28 who died in the workhouse, and therefore outside the borough); of these, 5 were due to infectious maladies; and 169 births took place. The annual death-rate per 1,000 inhabitants during the month gives a total ratio of mortality of 20.4; but, deducting those dying in the workhouse, the urban death-rate will stand at 15.0; from infectious diseases, 0.8; an infant-mortality of 0.8; and a birth-rate of 27.0. These returns point to a decided increase of febrile affections in the city, as contrasted with those for a corresponding period last year, in the proportion of 33 to 77; yet they also show that a diminution has taken place in the urban death-rate, as regards the mortality due to both general and infectious diseases, the ratio being then 18.7 and 1.8 respectively, now 18.0 and 0.8.

HEALTH OF IRELAND: QUARTERLY REPORT.

THE births registered during the quarter ended September 30th last amounted to 27,662, being equal to an annual ratio of 1 in every 45.3, or 22.1 per 1,000; and the deaths to 19,176, affording an annual ratio of 1 in every 65.4, or 15.3 per 1,000. The birth-rate was 1.9 under the average, and the death-rate 0.2 per 1,000 over the average rate for the corresponding quarter of the five years 1878-82. Although scarlet fever was very fatal in some localities, chiefly in Ulster, and whooping-cough continued prevalent in several parts of Connaught, and also caused many deaths in some districts outside that province, the general condition of the public health during the past quarter may be considered as satisfactory. The mortality from the principal zymotic diseases came to 1,989, being 73 under the number for the preceding three months, but 230 over the number for the September quarter of last year. The annual rate per 1,000 of the population, represented by the deaths from these causes, was 1.6. Small-pox caused but four deaths, all in the Belfast Union; measles 126, being the lowest quarterly number for the past ten years. Fever caused 448 deaths, viz.: typhus, 220; enteric fever, 151; and simple continued fever, 77. Scarlet fever was fatal in 441 instances, being an increase of 104 deaths as compared with the previous three months, and of 210 as contrasted with the third quarter of 1882. To whooping-cough, 469 deaths were attributed; to diphtheria, 51; diarrhœa, 442; and cholera, 8. One death from hydrophobia was recorded during the quarter.

BELFAST ROYAL HOSPITAL.

THE ninth annual meeting under the new charter was held recently, and was presided over by the Mayor of Belfast. During the year, 1,999 intern patients (an increase of 146 over last year) and 10,564 extern patients (or an increase of 2,443) received treatment at the hospital. During the past year, some of the wooden sheds were converted into isolation-wards and a kitchen, thus providing additional accommodation for twelve patients; and the apartments thus provided have been utilised for cases of erysipelas and other diseases of a similar nature, and found to be of great benefit. It was determined at the last annual meeting that special departments should be opened in the hospital for the diseases of women, and for diseases of the eye and ear; and, at a meeting held last December, Dr. Byers was appointed to the former, and Dr. J. Nelson to the latter departments respectively. The Board state that these have proved most satisfactory, while the additional expense has been only a few pounds. Collections in aid of the hospital were held last year in fifty-eight churches in Belfast, and a sum of £547 0s. 9d. obtained, as against £501 16s. 4d. the previous year. The subscription from the working classes has increased by £580, that of church collections by £45, general subscriptions by £218, and from pay-patients by £170, results which are most gratifying; but it must also be mentioned that the expenditure was unusually heavy, and that a deficit of over £700 remains on the year's accounts. Ninety-nine deaths took place; and 241 surgical operations were performed, with a mortality of 13, representing a death-rate of 5.39 per cent. Chloroform was administered in 211 instances. It may be added that clinical instruction was given to 224 students during the winter, and to 100 during the summer session.

REPORT OF THE FRENCH CHOLERA-MISSION IN EGYPT.

SPECIFIC ORGANISMS IN THE BLOOD.

DR. STRAUS has just reported to the Société de Biologie de Paris, in his own name and in the name of his colleagues, the result of the researches which they have made at Alexandria on the causation of cholera. This report, of which we publish the technical details in another column, is modest and interesting. The capital point of difference betwen this report and that of Koch is that these observers, Drs. Straus, Roux, and Nocard, in their own names and in that of the lamented Dr. Thuillier, describe the presence in the blood of small bodies, very pale, slightly elongated, and, as it were, strangulated towards the middle, which cannot be better compared than to the minute organisms which constitute the lactic ferments. It will be remembered that Koch discovered nothing in the blood, and spoke in this negative point of view with some confidence. According to the French Commission, these small bodies have a very feeble refraction, are unstable in their colouring, and are observed with difficulty. M. Straus, in spite of all his efforts, did not succeed in preserving satisfactory preparations; he was able, however, to ascertain that these bodies multiplied in blood, collected so as to ensure purity, and placed on a stove at a temperature of 38° Centigrade (100.4 Fahr.); and he further remarked that the proliferation was more abundant at the bottom of the tubes, where the layers of blood were completely removed from the action of the atmosphere. This is stated with much precaution and reserve, nevertheless, it is categorically affirmed; and such an affirmation has obvious importance and promise, in respect to further fruitful research. In the intestine, they found frequently a slender bacillus, resembling the now famous bacillus of tuberculosis. This bacillus, however, which is suggested, is probably rather a secondary invasion than one having any primary relation to the causation of cholera. It is not found in all cases.

The final result of the investigation is, however, at present, practically negative, inasmuch as inoculations of the pathological products completely failed, as well as the attempts at cultivating the bacillus of the blood. In view of the failure of this experimental part of the research, M. Straus rightly regards all his results, thus far, as doubtful, in respect to any etiological conclusions to be drawn from them; and expresses only the hope that he has been able to clear away some of the primary difficulties, and to lay the foundation for further more fruitful investigations.

VICTORIA UNIVERSITY, MANCHESTER.

THE following are the regulations of this University for degrees in the Faculty of Medicine.

DEGREES: ENTRANCE EXAMINATION.—The degrees in the Faculty of Medicine shall be Bachelor of Medicine (M.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.).

All candidates for Degrees in Medicine and Surgery are required (*a*) to have matriculated in the University; and (*b*) to have satisfied the Examiners in the several subjects of an Examination, to be called the Entrance Examination in Arts; or to have passed the Preliminary Examination of the University, provided that Latin shall have been one of the subjects in which they shall have passed the said Examination; or to have passed such other Examination as may from time to time be recognised for this purpose by Statute of the University. The subjects of the Entrance Examination in Arts shall be: 1. Latin; 2. Elementary Mathematics; 3. English, including History and Geography; 4-5. *Two* of the following: (*a*) French; (*b*) German; (*c*) Greek; (*d*) Mathematics (more advanced).[1] Names of candidates who have satisfied the Examiners in the Entrance Examination in Arts shall be published in two divisions, the names in each being in alphabetical order.

DEGREE OF BACHELOR OF MEDICINE.—Before admission to the degree of Bachelor of Medicine, a candidate is required to present certificates that he will have attained the age of twenty-one years on the day of graduation, and that he has pursued the courses of study required by the University regulations during a period of not less than four years subsequently to the date of his registration as a medical student by the General Council of Medical Education, two of such years having been passed in a College of the University, and one year at least having been passed in a College of the University subsequently to the date of passing the Preliminary Examination in Science.[2] All candidates for the degree of Bachelor of Medicine are required to have satisfied the Examiners in the several subjects of three examinations, to be entitled respectively: The Preliminary Examination in Science; the Intermediate Examination; the Final Examination.

PRELIMINARY EXAMINATION IN SCIENCE.—Candidates, on presenting themselves for the Preliminary Examination in Science, are required to furnish certificates of having attended, during at least one year, the following courses of instruction (lectures and laboratory work) either in a College of the University or in a College or Medical School recognised for this purpose by statute of the University; (1) Chemistry, Inorganic and Organic; (2) Elementary Biology (Zoology and Botany); (3) Elementary Mechanics and Physics; also to have passed the Entrance Examination in Arts, or such other examination as may have been recognised by statute of the University in that behalf. The subjects of the Preliminary Examination in Science shall be those enumerated above.[3] N.B. Candidates who have passed the Preliminary Examination of the University and the Intermediate or Final Examination in the Faculty of Science shall be regarded as having passed the Preliminary Examination in Science in the Faculty of Medicine, provided always that the subjects above named shall have been included in such examinations. Names of candidates who have satisfied the Examiners in the Preliminary Examination in Science shall be published in two divisions, the names in each being in alphabetical order.

INTERMEDIATE EXAMINATION.—Candidates, on presenting themselves for the Intermediate Examination, are required to furnish certificates of having attended courses of instruction approved by the University, either in a College of the University or in a College or Medical School recognised for this purpose by Statute of the University, in the following subjects:—(1) Anatomy, One Winter Session; (2) Physiology, Two Winter Sessions; (3) Materia Medica and Pharmacy, One Summer Session.[4] They must also have passed the Preliminary Examination in Science. The subjects of the Intermediate Examination shall be: (1) Anatomy; (2) Physiology (including Physiological Chemistry and Histology); (3) Materia Medica and Pharmacy. Names of candidates who have satisfied the Examiners shall be published in two divisions, the names in each being arranged in alphabetical order; names of candidates who have distinguished themselves in the several subjects shall be published in separate lists, the names in each case being arranged in order of merit.

FINAL EXAMINATION.—Candidates, on presenting themselves for the Final Examination for the Degree of Bachelor of Medicine, are required to furnish certificates—

(1) Of having attended the medical and surgical practice of a hospital or hospitals, approved by the University, during at least three years, of which years, except when exemption has been granted by the General Board of Studies, after report from the Departmental Board of Medical Studies, two at least must be subsequent to the date of passing the Intermediate Examination. (2) Of having attended, during at least twelve months, demonstrations in the *post mortem* theatre of a hospital. (3) Of having attended, under proper supervision, at least twenty cases of labour. (4) Of having, during at least three months, received in either a general or a special hospital, approved by the University, such clinical instruction in the diseases peculiar to women as shall be approved by the University. (5) Of having acquired proficiency in vaccination. (6) Of having attended courses of instruction, approved by the University, in a College of the University or in a College or Medical School recognised for this purpose by Statute of the University, in the following subjects:—(*a*) Systematic Medicine, Two Winter Sessions; (*b*) Clinical Medicine, Two Years; (*c*) Systematic Surgery, One Winter Session: (*d*) Practical Surgery, One Winter Session; (*e*) Clinical Surgery, Two Years; (*f*) Obstetrics and Diseases of Women and Children, Two Summer Sessions or One Winter Session; (*g*) Pharmacology and Therapeutics, One Winter or one Summer Session; (*h*) General Pathology and Morbid Anatomy, One Winter Session and One Summer Session; (*i*) Forensic Medicine, One Summer Session; (*j*) Hygiene, One Summer Session.[5]

They must also have passed the Intermediate Examination for the said Degree. The subjects of the Final Examination shall be:—(1) Systematic, Practical, and Clinical Surgery; (2) Systematic and Clinical Medicine, including Mental Diseases; (3) Obstetrics and Diseases of Women and Children; (4) Pharmacology and Therapeutics; (5) General Pathology and Morbid Anatomy; (6) Forensic Medicine; (7) Hygiene.

The Final Examination shall be divided into two parts, called the First Part and the Second Part respectively, which may be passed separately, as hereinafter provided, or on the same occasion. The First Part of the Final Examination shall consist of an examination in Systematic Surgery, Pharmacology and Therapeutics, and General Pathology. Candidates shall be permitted to offer themselves for examination in these subjects at any time not prior to the completion of their third year of medical study, provided that they fur-

[1] The subjects of examination are in detail as follows. 1. *Latin:* (1) One prose and one verse-book prescribed to be selected from the following: Virgil, Ovid, Horace (Odes), Cæsar, Sallust, Livy, Cicero (easier works); (2) Grammar; (3) Translation at sight of an easy Latin passage into English; (4) Translation of easy sentences from English into Latin. 2. *Elementary Mathematics:* (1) Arithmetic; (2) Plane Geometry: Euclid, Books i—iii (or the subjects thereof); (3) Algebra to Quadratic Equations (inclusive); 3. *English, including History and Geography:* (1) Dictation and English Composition; (2) Outlines of English History with Political Geography. 4—5. *Two* of the following: (*a*) French or German: (1) One prescribed work, with grammatical questions not involving more than Accidence and Elementary Syntax; (2) Translation at sight of easy French (or German) prose passages into English; (3) Translation of easy English sentences into French or German. (*b*) Greek: (1) One prose or one verse book selected from the following: Xenophon, Homer, Euripides, with grammatical questions not involving more than Accidence and Elementary Syntax; (2) Translation at sight of easy Greek sentences into English. (*c*) Mathematics (more advanced): (1) Plane Geometry; Euclid, Book vi (Prop. i-xix and xxxiii), or the subjects thereof; (2) Algebra to Binomial Theorem (inclusive); (3) Plane Trigonometry to solution of Triangles (inclusive).

[2] A year of medical study shall be understood to mean a winter session of six months and a summer session of three months. The four years of medical study shall be reckoned from the date at which the name of the candidate was placed on the register of the General Council of Medical Education.

[3] The subjects of examination are in detail as follows. 1, *Chemistry:* (1) Laws of Chemical Combination; non-metallic elements and their compounds; metals; introduction to Organic Chemistry; (2) Elementary Qualitative Analysis. 2. *Elementary Biology:* (1) Animal Morphology; (2) Vegetable Morphology, Physiology, and Elements of Classification; (3) Laboratory Work. 3. *Elementary Mechanics and Physics:* (1) Mechanics: Properties of Bodies, Statics, Kinetics, Hydrostatics, Geometrical Optics, treated so as to require only an elementary knowledge of Algebra and Geometry; (2) Physics: General Laws of Energy; the chief phenomena of Heat, Electricity, Magnetism, treated in an elementary manner; (3) Methods employed in the Physical Laboratory.

[4] The certificate in Anatomy shall in all cases testify that the candidate has dissected the human body twice at least. The certificate in Physiology shall in all cases testify that the candidate has attended a course of laboratory instruction, approved by the University. The certificate in Materia Medica and Pharmacy shall in all cases testify that the candidate has attended a course of practical instruction in these subjects, approved by the University.

[5] The certificate in Obstetrics and Diseases of Women and Children shall in all cases testify that the candidate has received practical instruction, approved by the University, in the use of obstetrical and gynæcological instruments. The certificate in General Pathology and Morbid Anatomy shall in all cases testify that the candidate has attended a course of laboratory instruction in these subjects, approved by the University.

nish certificates of having satisfied the University requirements as to attendance in the said subjects, and that they have passed the Intermediate Examination. No candidate shall be admitted to the Second Part of the Final Examination until he has completed his fourth year of medical study in accordance with the University Regulations. Names of candidates who have satisfied the Examiners shall be published in two divisions, the names of each being in alphabetical order; names of candidates who have distinguished themselves in the several subjects shall be published in separate lists, the names in each list being in order of merit.

DEGREE OF DOCTOR OF MEDICINE.—No candidate shall be admitted to the Degree of Doctor of Medicine unless he has previously received the Degree of Bachelor of Medicine, and at least one year has elapsed since he passed the Examination for that Degree.

Candidates for the Degree of Doctor of Medicine are required to present a printed dissertation embodying the results of personal observations or original research, either in some department of medicine or of some science directly relative to medicine. No candidate will be admitted to the Degree unless his dissertation, after report from the Departmental Board of Medical Studies, shall have been recommended by the General Board of Studies to the Council for acceptance in that behalf. Candidates may be examined on any subject connected with their dissertations.

Names of candidates who have been approved for the Degree of Doctor of Medicine shall be published in alphabetical order.

DEGREE OF MASTER OF SURGERY.—No candidate shall be admitted to the Degree of Master of Surgery unless he has previously received the Degree of Bachelor of Medicine, and at least one year has elapsed since he passed the Examination for that Degree. Candidates are required to furnish certificates which shall be deemed satisfactory by the University that they have been engaged, since taking the Degree of Bachelor of Medicine, in the study of Practical Surgery, and that they have held, for not less than six months, a Surgical appointment in a public hospital, or other public institution affording full opportunity for the study of Practical Surgery. Candidates for the Degree of Master of Surgery must also be required to furnish certificates: (1) Of having attended a special course of instruction in Operative Surgery, approved by the University, and of having personally practised the principal surgical operations on the dead body; (2) Of having attended a systematic course of instruction, including practical work, approved by the University, on Surgical Pathology, or a course of the same kind, of which Surgical Pathology forms part; (3) Of having attended a course of Ophthalmology, and of having received instruction in Ophthalmic Surgery, approved by the University. The subjects of Examination shall be: (1) Surgical Anatomy; (2) Surgical Pathology; (3) Practical Surgery, including the performance of operations on the dead body; (4) Clinical Surgery; (5) Ophthalmology. Names of candidates who have satisfied the Examiners shall be published in alphabetical order.

FEES.—No fee shall entitle to admittance to more than one Examination. *Fees for Matriculation and Examination.*—The fee for Matriculation shall be £2, and shall include the fee for the Entrance Examination in Arts. A fee of £1 shall be payable for any subsequent Entrance Examination. Preliminary Examination in Science, £1; Intermediate Examination for the Degree of M.B., £1; Final Examination for the Degree of M.B., £2; Examination for the Degree of Ch.M., £2. A fee of £2 shall be payable on sending in the Dissertation for the Degree of M.D. *Fees on Conferring Degrees.*—Degree of M.B., £5; Degree of M.D., £10; Degree of Ch.M., £10.

STUDENTS OF THE MEDICAL DEPARTMENT OF THE OWENS COLLEGE WHO SHALL HAVE MATRICULATED BEFORE JANUARY 31ST, 1884.—Students of the University who shall have matriculated before January 31st, 1884, shall be admitted (1) to pass the Preliminary Examination in Science in 1884 or 1885, provided that they shall have presented the requisite certificates of attendance, and shall have passed a Preliminary Examination in Arts deemed satisfactory by the Council; (2) to pass the First Examination for the Degree of M.B. in 1884, 1885, or 1886, provided that they shall have presented the requisite certificates of attendance and shall have passed a Preliminary Examination in Arts and a Preliminary Examination in Science deemed satisfactory by the Council; (3) to pass the Final Examination for the Degree of M.B. in 1884, 1885, or 1886, provided that they shall have presented the requisite certificates of attendance and shall have passed a Preliminary Examination in Arts and in Science, and a First or Intermediate Examination for the Degree of M.B. deemed satisfactory by the Council.

ST. JOHN'S HOUSE AND SISTERHOOD.

IN view of the troubles which have recently agitated St. John's House, the Council have put out a statement, in which they deal generally with the whole history of the institution from the time when it was first projected by Dr. Todd in 1847, and specifically with the recent difficulties between the Sisterhood and King's College Hospital, as well as with some of the charges which have arisen out of those difficulties.

The whole tone of this statement is studiously moderate and conciliatory. The Council of St. John's House sincerely regret that thirty-two sisters should have thought it necessary to secede; and they are evidently anxious to leave the way open for their return, if such a step be yet possible.

The statement, after mentioning the early history of the House, passes on to the difficulties which arose at King's College Hospital in 1874. At that time, it was agreed that, if a majority of the permanent medical staff signified in writing their request for the removal of any sister or nurse, this should be considered a sufficient reason for her removal, without any further cause shown. In December 1882, *the whole* Medical Board of King's College requested the Hospital Committee to remove the Sister-Matron, as she had assumed for herself and the nursing staff a position incompatible with the due authority of the governing body and medical staff. After various negociations, the Council of St. John's satisfied themselves that they must either consent to the proposed change or sacrifice their connection with King's College Hospital. Steps were accordingly taken to remove the Sister-Matron in the way least painful to her feelings; but the Superior and Sisters of St. John's House made common cause with her. They said an attempt was being made to lower the tone and character of their work, and that laxities were allowed which were inconsistent with the high standard they had endeavoured to maintain. In short, they preferred to resign and to set up a separate institution, rather than continue in relation with those who had not, in their opinion, supported the sisterhood as they ought to have done.

With regard to "The Sisters' Fund," about which much has been said, it appears from the statement before us that, so far from having been treated with any injustice, there are points connected with it which need explanation on the part of the seceding sisters, so much so that the Council of St. John's House have been obliged to instruct their solicitor to take steps to obtain the account books connected with the said fund.

The way in which the retiring sister-matron has tried to influence the nurses to leave, "and to get away from the rude bullying of the ungentlemanly men to whom St. John's House has been handed over," reflects very little credit upon herself or upon the sisters who seem to be under her influence. In another letter she offers "nicer clothes and better wages" to those who will forsake St. John's House for the new institution.

These difficulties have caused the Council of St. John's House great anxiety, and have put a heavy strain upon their resources. They have, however, weathered the storm, and one object of the present statement is, no doubt, to let the public know that the institution is still in full working order. The hospitals under its care have been supplied with experienced sisters-in-charge. The number of lady-pupils and nurses who are making application for training, is greater than can be received, and the private nurses are in full demand.

It may, of course, be said that this is an *ex parte* statement; and it is possible that the retiring sisters may have something to say in explanation of the steps they have taken.

We trust this painful controversy is now drawing to a close. But does not the whole matter show the difficulty of nursing large hospitals when the nursing staff is, in any degree, dependent upon an authority outside the walls of the hospital? We believe those hospitals have adopted the wisest course in which the nursing arrangements are entirely under the control of the Committee.

DR. HILTON FAGGE.

THE following resolution was passed at a meeting of over 300 students of Guy's Hospital, held in the Anatomy Theatre of the Hospital, on Wednesday, November 21st, with reference to the lamented death of Dr. Hilton Fagge:—"That this meeting of Guy's students do request the senior house surgeon and house physician to convey to Mrs. Fagge their heartfelt sympathy with her in her bereavement, and desire to express their sense of the great loss which they, as students, and the profession generally, have sustained in the death of one who was so eminent a physician and so kind a teacher."

ROYAL ALBERT HOSPITAL, DEVONPORT.

THE SUSPENSION OF THE CONTAGIOUS DISEASES ACTS.

THE annual meeting of the subscribers to the Royal Albert Hospital, Devonport, was held last week, under the presidency of Mr. J. D. Carpenter-Garnier, M.P. There was a large and influential attendance, amongst those also present being the Earl of Mount Edgcumbe, the Mayor of Plymouth (Mr. J. Shelly), the Mayor of Devonport (Mr. G. T. Rolston), Mr. E. St. Aubyn, Admiral Sir W. Houston Stewart, K.C.B., Admiral Napier, Admiral Wake, Admiral Curme, Admiral Hickley, the Ven. Archdeacon Earle, and many others.

The HONORARY SECRETARY read the annual report, in the course of which it appeared that, since the month of May, when the Government decided on no longer enforcing the compulsory clauses of the Contagious Diseases Acts, the number of female patients admitted to the lock side of the hospital had very much diminished, and the severity of the cases proportionately increased. The chaplain reported the following as the result of his work amongst the patients in the lock wards. Sent to Homes, 34; sent to friends, 27. Total, 61. Of these numbers there are still in Homes, 18; with friends, married, emigrated, or in service, 30; relapsed, 13. Total, 61. The report then went on to say that the committee deeply deplored the non-enforcement of the compulsory clauses of the Acts. "With regard to that part of the Acts which it is specially the province of the committee to administer, they deeply lament the now lost opportunities which might have been afforded to many a poor creature for the commencement of reformation within these walls, while they cannot, as] sensible men, be ignorant of the physical evils which will be handed down to posterity as its consequence."

Letters of apology for non-attendance were read from Sir Massey Lopes, Bart., M.P., the Rev. Prebendary Wilkinson, the Rev. W. H. Cave, and others. Sir Massey Lopes said: "I have no hesitation in saying that I think the Government made a grievous mistake in accepting and supporting Mr. Stansfeld's motion with reference to the Contagious Diseases Acts. My experience at the Admiralty convinced me that this Act had a most beneficial effect in diminishing disease, not only amongst the living, but those yet unborn." The Rev. Prebendary Wilkinson wrote, from the Vicarage, Plymouth, regretting the action of the Government in reference to the Acts.

The CHAIRMAN moved the adoption of the report, and in the course of his speech alluded, in strong terms, to the evils resulting from the withdrawal of the Contagious Diseases Acts. He believed the opinion of the three towns was very strongly in favour of the retention of the Acts.

The EARL OF MOUNT EDGCUMBE seconded the motion, and referred to the figures showing the diminution of admissions to the lock wards, and the increased severity of the cases, as giving an effectual answer to the opponents of the Contagious Diseases Acts. Such an answer, too, was furnished by the altered condition of the streets, respecting which a committee of the inhabitants waited upon the Mayor of Plymouth a short time since. The change for the worse, which had taken place in the condition of the streets, showed that they were again lapsing into that state of things which so horrified and disgusted foreigners who spoke or wrote about the large towns of this country. No one who lived in towns like Plymouth, Stonehouse, and Devonport, but must feel the responsibilty that had been incurred in removing the action of these Acts; and this would be even more conclusively proved when another quarter of the year had passed. He hoped that all who could throw any light on this subject, so as to cause arguments respecting it to be brought more fully before Her Majesty's Government, would feel a personal responsibility in the matter, and would put such evidence at the disposal of their representatives in Parliament; whilst he himself, if he could, would do all he could in the House of Lords to get what he considered a retrograde step changed before long.

The Rev. W. ST. AUBYN supported the motion.

The CHAIRMAN, before putting the motion, read a statement showing that the average number of admissions to the lock wards per quarter, for five years preceding the abolition of the compulsory clause of the Contagious Diseases Acts, was 158, and the average duration of treatment of each case was thirty days. The same calculation for the first complete quarter, under the present voluntary system, gave 51 admissions, and an average duration of treatment of 45.7 days—this, too, when it was notorious that prostitution had increased to an enormous extent in these towns. As a further proof of the efficacy of the working of the Acts, during the last year of their administration, the average number of quarterly admissions was as low as 139, and the average duration of treatment 27.6 days. With regard to the amount of disease presented in the naval and military forces, the annual average number of cases contracted in the district during the five years immediately preceding the suspension of the compulsory clause was, for syphilis, 30.87 per thousand; for gonorrhœa, 78.22 per thousand. Taking, as a contrast, the first complete quarter under the voluntary system, the same estimate gave, for syphilis, 102.5 per thousand of force; for gonorrhœa, 138.4 per thousand. This heavy increase was rendered still more serious by the higher ratio of the constitutional form of the disease.—The report was unanimously adopted.

Admiral Sir W. HOUSTON STEWART moved a vote of thanks to the ministers of religion who had pleaded the claims of the hospital, and at whose places of worship collections had been made during the year. Referring to the Contagious Diseases Acts, he said that in addition to statistics already given, he might add that, on September 1st, 1882, the total number of men under treatment was 261, of whom 45 were suffering from venereal disease; whilst, at the corresponding period this year, there were 426 under treatment, of whom 69 were suffering from this disease.

The MAYOR OF PLYMOUTH (Mr. Shelly) seconded the resolution, and referred to the great parade of vice, and the evident increase of juvenile vice, in the town of Plymouth.

The Ven. Archdeacon EARLE proposed votes of thanks to the Chairman, members of the managing committee, and members of the medical staff. Having quoted other statistics to support those given by Admiral Stewart, the Archdeacon mentioned that he had recently received a letter from a corporal in one of the regiments stationed in the town, stating that there were in his company eleven cases of venereal disease, which had been distinctly traced to one woman, and that one of the cases was that of a drummer-boy, a mere child.

A vote of thanks to the Chairman was then proposed by the MAYOR OF DEVONPORT, and seconded by the Rev. F. GURNEY. The vote having been acknowledged, the meeting separated.

REPORT OF A STUDY OF THE CHOLERA IN EGYPT BY MEMBERS OF THE FRENCH SCIENTIFIC MISSION.

AT the meeting of the Biological Society of Paris, on November 10th, under the presidency of M. Paul Bert, M. Straus, in his own name, and in the name of his colleagues, MM. Roux, Thuillier, and Nocard, gave an account of the researches carried out by the members of the French scientific mission on the nature of cholera.

Twenty-four *post mortem* examinations were made—seventeen of women and seven of men—immediately after death. The authors did not dwell upon the ordinary and well-known necroscopic results; they especially devoted their study to the intestinal fluid and to an examination of the walls of the intestine and blood.

The histological examination of the intestinal walls, coloured with methylene blue, showed a great number of micro-organisms (bacillus micrococcus), the bacilli being analagous to those of tuberculosis. This element was not constant; it was impossible, therefore, to start from this anatomical datum as a basis of pathogenic study There was nothing special in the mesenteric ganglia, the liver, the spleen, or the kidneys.

The really important specialty of this investigation was furnished by the study of the blood. On the first examination black colouration was observable, and deficiency of the ordinary coagulation of the blood; the corpuscles, inprecipitating, gave out clear serum; when coagulation occurred, it was slow, and in the form of a thin jelly. The histological examination furnished very interesting results, independently of the aspect of the red corpuscles, which were flattened, pale, and agglutinated, and of that of the white globules, which were numerous and very granular. The Commission was struck with the presence, in the clear interspaces between the corpuscles, of special elements, on which, therefore, they concentrated their attention. These were small elongated bodies, pale, and resembling those of acetic fermentation, but about three times as small, and resembling again the organisms found in pig-measles, but less elongated.

These elements were found constantly in the blood of the twenty-four bodies examined, and they were seen in greatest abundance in the mesenteric and abdominal veins. The efforts to colour them did not give satisfactory results; not only did these micro-organisms take and hold colour badly, but their extreme tenuity prevented the observers from distinguishing them from the *débris* of white corpuscles and from precipitated fragments of colouring substances.

In the stove at 38° Cent., and in tubes of blood, these elements multiplied in number, and became grouped, sometimes in small chains, especially at the bottom of the tube and where sheltered from the action of the air.

Thus far, there were strong grounds for regarding these micro-organisms, which were found in the blood in so constant a manner, as being the micro-organism of cholera. The authors, indeed, would not have hesitated to recognise in these forms a special organism, if they had succeeded in cultivating or inoculating it successfully. They attempted cultivation with all sorts of fluids, but without any result; inoculation, subcutaneous or intravenous injection, the introduction into the digestive tube of fluids containing the incriminated elements, gave no positive results whatever with the animals employed (not even with mice, which are said to be apt to contract human diseases).

The failure of these attempts need not, however, be considered as discouraging; it is possible that the proper medium of culture was not selected, neither in the broths nor in the animals employed; it is likewise possible that human cholera, whatever may be said, is not transmissible to animals, so that the mode of inoculation yet remains to be discovered. In brief, the first step has been made, and presumptions are in favour of the presence in the blood of an ascertained infective element. M. Straus observed, in the course of his communication, that the complete and definitive demonstration of the micro-organism of malignant pustule occupied long years of patient and learned research; the scientific study of the micro organisms of human cholera dates back much more recently.

A final point which may be of importance, but which the existing tendency of scientific research may perhaps relegate to a secondary place, is the acidity of the blood of cholera-patients. On this subject the authors remark, in their note to the Biological Society, "when the blood of cholera-patients is preserved in tubes, and the serum is separated from the corpuscles, it is noticeable in the majority of cases that the serum is slightly acid. We have even been able, in a *post mortem* examination performed half an hour after death, to note marked acidity in the pericardial fluid and the serum of the blood, whilst the blood of patients dying from other disease presented no acidity."

FEVER IN THE PUERPERAL STATE.

FEVER, in puerperal women, is a condition which every one recognises, but no one understands; and though it is the fashion now-a-days to profess ignorance on every subject, in none is such a profession more honest than in this. Yet there are more men interested to discover the cause and cure of this than of any other sickness, and the inquiry which the Collective Investigation Committee sends out in to-day's number of this JOURNAL will be both welcome and deserving of the best support than can be given it. The form is simple and easy to fill up, but embraces a wide field, for the committee, though desirous of obtaining the utmost possible amount of information, surely knows that men busy in general practice cannot make elaborate notes.

The first question is on the predisposing causes. Habits of drink and squalor; ill-health during pregnancy, either mental, as depression, or bodily, such as venereal disease or albuminuria; and local conditions, whether the result of old mischief in the pelvis, or severe injuries in the recent labour, are all said to render women liable to the attack, and it is to some men doubtful whether bad lacerations in unhealthy women may not of themselves take on malignant inflammation, and the poison of the fever be begotten in the patient's system, unconnected with contagion from without. There will be useful hints gained from the replies to this first question; but the second and third will, if well answered, be of the highest value. Puerperal fever differs from all other diseases in this, that its claim to be considered a separate disease at all is disputed by some of the best writers, who base their objections both on the causes which excite it, and the symptoms which it shows. It has been traced to at least three different families of infection—specific fevers, septic poison, and sewage matter. Instances are told of its arising from contact with typhus, scarlet-fever, measles, and small-pox; and while some believe that all the scarlatinal cases are really cases of septicæmia with a rash, others hold that many are called puerperal which are really specific fevers. Facts would be of the greatest importance which should bear on this point, either by showing that another person caught a specific fever from what seemed a case of puerperal pyrexia, or that the course of a specific fever was modified when occurring in the puerperal state.

Septic poison, again—the sort of poison, that is, which produces erysipelas, diffuse cellulitis, or pyæmia, in a surgical wound, for a more exact definition is yet impossible—is the favourite cause with some medical writers. Of this kind are those attacks which have been traced to overcrowding in hospitals, and to infection from a case of these diseases or from a dead body, especially where death was caused by any illness of the same character. Sore-throat or pneumonia, occurring in the same house, may again suggest endemic poison. Thirdly, sewage-poison, foul smells, bad drains, ashpits, and other sorts of filth, have been often held to blame, and, since a recent royal instance, have come still more prominently into notice. With this diversity of cause, varying symptoms would be but natural; and the leading points of difference are put in the *third* question of the form. Some say that a rash of peculiar position and character marks a distinct pyæmic variety; while others maintain that many of these cases are scarlatina—modified, perhaps, by the puerperal condition. Sore-throat raises the suspicion both of scarlatina and diphtheria; and the presence or absence of membrane will, in this connection, be of great importance. In certain cases, severe abdominal symptoms show the presence of general peritonitis; others, again, occur where the stress of the disease is confined within the pelvis; and it sometimes happens that several patients are thought to have mere local non-infecting peritonitis, until the series is closed by an unmistakable attack of puerperal fever, and the doctor learns too late the real character of the former cases. The local inflammations elsewhere include that of the breasts (whose condition is always important), phlebitis, and the scattered abscesses, pneumonia, pleurisy, pericarditis, and suppurating joints of pyæmia. The womb is often large and tender, and frequently appears, on *post mortem* examination, to have been the starting-point of infective inflammation. Lastly, the history of the symptoms will not only be itself of interest, but, since the disease is one in which treatments the most diverse have without doubt found a great success, should throw much light on that most pressing question, What plans are best adapted to the several types of the attack?

After looking through this form, it cannot but be felt that a better opportunity and a fitter subject for collecting the general opinion of medical men has seldom been offered. There is not a question which does not aim at points on which the ablest differ, nor one which is not in the power of the busiest to answer; and it is to be confidently hoped that the returns may make a turning-point in the history of the disease.

THE ROGERS TESTIMONIAL.

THE following additional subscriptions to the fund for a testimonial to Dr. Joseph Rogers have been received. It should be understood that the subscription to this fund is not confined to Poor-law medical officers. The Treasurer is Mr. J. Wickham Barnes, 3, Bolt Court, Fleet Street, E.C.; and subscriptions are received by the Editor of the BRITISH MEDICAL JOURNAL.

Fourth List.—Edwin H. Roe, Esq., Patricroft, Manchester, £1 1s. Dr. Edwards, 12, Orchard Street, Portman Square, £1 1s.; Dr. Welch, 377, Hackney Road, £1 1s.; Dr. Brett, Watford, £1 1s.; Dr. Bramwell, Tynemouth, £1 1s.; W. P. Mills, Esq., Ipswich, 10s. 6d.; Dr. F. Clarke, Southborough, £1 1s.

At a meeting of the South Wales and Monmouthshire Branch, held on November 18th, the following resolution was unanimously passed.

"That this Branch desires to offer to Dr. Joseph Rogers its sincere sympathy in the position in which he is placed by the action of the Westminster Roard of Guardians, and to express an earnest hope that the inquiry now pending before the Local Government Board will result in his speedy reinstatement in his office."

A similar resolution was passed at a conjoint meeting of the Worcestershire and the Gloucestershire and Herefordshire Branches, held on the 20th instant.

THE Sidmouth Local Board recently reappointed Dr. Pullin, medical officer of health, but reduced his salary from £35 to £20 *per annum*. The Local Government Board, however, put their veto against it, by stating that they would not, in that case, contribute a moiety as hitherto; the result being that the Local Board have made the reappointment at £35 *per annum*, for three years, as before.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
V. Syphilis, acquired.
Va. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed.*

Applications should be addressed to

The Secretary of the Collective Investigation Committee,

September, 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Station Hotel, Stoke-upon-Trent, on Thursday, November 29th, at 4 P.M.—VINCENT JACKSON, General Secretary, Wolverhampton.—October 30th, 1883.

THAMES VALLEY BRANCH.—The first meeting of the Thames Valley Branch will be held in Richmond, at the Richmond Hospital, on Wednesday, November 28th.—A. ROBERT LAW, Honorary Secretary.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The next meeting will be held at the Royal Naval School, Greenwich, on Wednesday evening, November 28th, at 8 P.M. Dr. A. L. Galabin will read a paper on Transfusion of Blood for Puerperal Hæmorrhage. Mr. Lloyd Jones will read a paper on a Case of Chyluria; and will exhibit living specimens of the Filaria Sanguinis Hominis.—ROBERT E. CARRINGTON, Honorary Secretary, 15, St. Thomas's Street, S.E.

BATH AND BRISTOL BRANCH.—The second ordinary meeting of the session will be held at the Museum and Library, Bristol, on Wednesday evening, November 28th, at half-past seven o'clock. E. Crossman, Esq., President. The following communications are expected. 1. Analysis of One Thousand Cases of Midwifery: T. Chalmers Norton. 2. Exhibition of a Horse-shoe Kidney: F. Stockwell, M.D. 3. Uterine Displacements, and what we can do for them: A. E. Aust Lawrence, M.D. 4. Exhibition of a New Form of Ophthalmoscope: A. B. Prowse, M.D. 5. Cases of Placenta Prævia: J. G. Swayne, M.D.—E. MARKHAM SKERRITT, R. J. H. SCOTT, Honorary Secretaries.—Clifton, November, 1883.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held at the Queen's Hotel, Eastbourne, on Wednesday, November 28th, at 3.30 P.M. Dr. Ellis will preside. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. The following papers are promised. 1. G. Abbott, Esq.: On the Treatment of Acute Nasal Catarrh. 2. H. A. Reeves, Esq.: Surgical and Orthopædic Cases (with drawings). 3. Dr. Crighton: On the Value of the Seton in Chronic Cerebral Disease. 4. Dr. Fussell: Notes of a Remarkable Outbreak of Enteric Fever —T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton.—November 20th, 1883.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

A MEETING of the South-east Hants District was held at the Grosvenor Hotel, Southsea, on October 31st. Surgeon-Major GRIBBON, M.B., A.M.D., occupied the chair, and fifty members were present.

Pathological Specimens.—The following were shown.

Dr. Ward Cousins exhibited (1) a specimen of papilloma of the ovary, removed from a patient who died from chronic peritonitis An exploratory incision was made, and the cavity washed out and drained. (2) Hydatids from a large abscess in the abdominal walls. A small tumour had existed for nine years, which had rapidly increased during the last few months. The patient was still under treatment in the Royal Portsmouth Hospital. (3) A specimen of soft calculus, two ounces in weight, removed by lateral lithotomy. At the time of the operation it formed a stinking mass, consisting of minute uric acid stones mixed with phosphatic matter, and cemented with blood and purulent secretion. (4) A small urethral calculus, subsequently removed from the same patient by median lithotomy.

2. Mr. G. H. Snowden exhibited (1) a fatty heart with extensive aortic disease; (2) a specimen of fibroids of the uterus taken from a patient who died from acute chest disease.

Living Specimens.—The following were shown:—Dr. C. Claremont exhibited (1) an infant with very large Hygroma of the Neck; (2) a patient labouring under Pharyngeal Stenosis.

Dr. Axford exhibited a case of Disseminated Sclerosis of the Brain and Spinal Cord. The case was a typical specimen of the disease.

Dr. Ward Cousins exhibited (1) a patient, aged 58, labouring under Scleroderma of the Nape of the Neck. It had been in existence for years, and bundles of hairs penetrated the thickened tissue, and were surrounded by suppurating channels. Many of these channels were dilated into sacs containing matted hair and purulent matter. (2) A patient twelve months after Excision of the Knee. (3) A case of Multiple Enchondromata. Part of the left hand had been amputated, leaving only the thumb, but the patient said "he found it very useful." (4) A patient, aged 30, who had recovered completely after Necrosis of portions of the Lower Jaw, Malar, and Palate-Bones, following destructive inflammation of a large cystic tumour in the left side of the face and neck. The scars are now scarcely visible, but the ramus of the inferior maxilla is much shortened. A large perforation of the soft palate exists, through which several pieces of dead bone have been removed. The sense of hearing on the affected side has been regained during the last few months. (5) Photographs of several tumours were also exhibited by Dr. Ward Cousins.

Microscopic Specimens were shown by Dr. F. J. Driver: (1.) Sections to illustrate the morbid anatomy of chronic interstitial nephritis and lympho-sarcoma. (2.) Stained and mounted specimens of urinary casts, and various micro-organisms found in sputum of phthisis: pus from syphilitic abscess, and pus from psoas abscess. (3.) Fluid containing leucin, tyrosin, and cholesterine from abdominal cyst.

Dr. G. H. Smith exhibited fœtal sections to illustrate ossification of epiphysis and head of femur; development of liver-cells and bile-ducts; teeth, and metatarsal bones at four months; also sections of uterus, heart-muscle, and atelectasis of lung in fœtus at full time.

Surgical Needle.—Dr. Ward Cousins exhibited a new surgical needle and thread.

Cholera in Egypt.—The President, Surgeon-Major Gribbon, read a paper on the epidemic of cholera in Egypt. He said that, when it extended to the troops there, he was sent out and stationed at Ramleh. The disease prevailed for some time at Alexandria before affecting our men; and then it was not those in barracks, either there or in Ramleh, but those in the station hospital who were attacked. The first case was a military clerk, who had come from Alexandria on July 28th, and took ill on August 3rd; then, from day to day, the other cases occurred. There was one thing common to all the cases: they were, or had been shortly before attack, inmates of the station hospital. This was the Mustapha Palace at Ramleh. In describing this, he said that the closet-system of this fair-looking structure was simplicity itself. In overhauling the basement, after its evacuation on account of the epidemic, the engineers had come on a large arched culvert, running diagonally underneath the building. Badly jointed pipes or flues in the walls led into this from the closets above. The flues in particular were simply so many channels of foul air, and the rooms they skirted could not but be fouled from emanations through the walls. The culvert was not a drain, for nothing was drained away. It was, in fact, a long cesspit. The tendency to localise itself which cholera manifests was displayed in this outbreak. Though the weakly or convalescents suffered most, both here and at Helwan others, especially men of the Army Hospital Corps, who were in good health, were attacked. The Duke of Cornwall's regiment, a sickly corps, quartered close to the Palace hospital, had no one attacked in barracks. At Ramleh, the dispersal of the affected party, *i.e.*, the patients—dispersal both as regards the tents and the numbers in them—was followed by cessation of the disease. In addition, all got every morning, quinine, with an excess of sulphuric acid. As to treat

ment, he said lead and opium were much thought of in the early stage. He himself then gave tinctures of opium and capsicum. In collapse, intravenous injections of a warm saline solution had been tried twice at Helwan. The first case rallied, and lived for five hours after; in the other case, the patient was almost moribund, and no effect was produced. He thought this measure was promising, but it should be done early, and combined with hypodermic injections of ether. He concluded by observing that he did not see how Egypt could be absolved from the charge of manufacturing her own cholera. There were like conditions present to those of the Gangetic delta, and the hardships of the previous year of war, the cattle-plague, epidemic of typhus, a low Nile, meteorological peculiarities, etc., all combined to favour, in June last, the transition of the disease into the epidemic form. A discussion ensued, in which Dr. Kealy, Surgeon-General Lamprey, Dr. Axford, Inspector-General Williams, etc., took part.

Dinner.—In the evening, thirty members dined together at the hotel, under the presidency of Surgeon-Major Gribbon.

EAST ANGLIAN BRANCH: AUTUMN MEETING.

THE autumn meeting of this Branch was held at the Odd Fellows' Hall, Bungay, on Thursday, October 25th; JOHN LOWE, M.D. (King's Lynn), President.

Papers.—The following papers were read.

1. The President: Two Cases of Perforating Ulcer of the Stomach.
2. A. C. Mayo, Esq. (Great Yarmouth): Pregnancy complicated with Carcinoma of Os Uteri.
3. L. H. Lyndeman, Esq. (Lynn): Dislocation of Head of Radius in Children.
4. W. M. Crowfoot, M.B. (Beccles): A Case of Tumour of the Brain; with Specimen.
5. T. J. Compton, M.D. (Norfolk County Asylum): A Case of Tumour of the Brain; with Specimen.
6. J. L. Currie, Esq. (Bungay): A Case of Primary Sarcoma of Kidney, with Secondary Deposit in its Fellow.
7. C. G. Havell, Esq. (Felixstowe): A Case of so-called Acetonæmia.
8. W. A. Elliston, M.D. (Ipswich): Lithotomy by Aston Key's Operation.

Breakfast and Dinner.—The Council and distant members were most hospitably received at breakfast by Mr. Currie, at his residence, Trinity Hall. The members and their friends afterwards dined at the King's Arms Hotel, under the presidency of Dr. Lowe.

NORTH OF IRELAND BRANCH: GENERAL MEETING.

A GENERAL meeting of this Branch was held, in the Belfast Royal Hospital, on Thursday, October 25th. Mr. FAGAN (Belfast), vice-President of the Branch, occupied the chair, and there were twenty-two other members present.

Family Registers.—The Honorary Secretary explained to the meeting the scheme of family registers proposed by Mr. Francis Galton, and requested the co-operation of anyone desirous of undertaking the work.

Papers.—The following were read:

1. Mr. Fagan read notes of a Case of Gastrostomy, and made some remarks on the operation.
2. Professor Cuming read notes of some Cases of Puerperal Fever.
3. Dr. John Moore read notes of a Case of Injury of the Urethra.
4. Dr. Vesey (Rosstrevor) gave the details of two Cases of Pneumonia with Hyperpyrexia, successfully treated.

An interesting discussion took place on the several papers which had been brought before the meeting.

YORKSHIRE BRANCH: AUTUMN MEETING.

THE autumn meeting of this Branch was held at the Crown Hotel, Harborough, on October 31st, Dr. KEELING, the President, in the chair.

Papers.—The following papers were read.

1. Mr. W. H. Brown: A Case of Neuralgia of the Inferior Dental Nerve, cured by Division of the Nerve through the Mouth.
2. Mr. McGill: A Case of Displaced Hernia, with remarks.
3. Mr. J. W. Teale: Blood-Poisoning from Bite of a Ferret.
4. Mr. Dale: Tumour in the Popliteal Space, probably a Sarcoma; Patient was exhibited.
5. Dr. Goyder: Home Lessons.

Dinner.—After the meeting, the members dined together at the Crown Hotel.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

A BRANCH meeting was held in the Medical Institute, New Edmund Street, on November 8th. The Chair was taken by the President, BALTHAZAR FOSTER, M.D.

Dr. SAUNDBY showed a patient suffering from Charcot's joint-disease.

Papers.—The following were read:—

1. Mr. Solomon: Inflammation of the Iris.
2. Dr. Windle: The Pathology of Primary Sarcoma of the Kidney.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING of the above district was held at the Infirmary, Gravesend, on November 13th; C. J. PINCHING, Esq., in the chair.

Next Meeting.—It was resolved unanimously that the next meeting be held at Woolwich, in March 1884, and that Surgeon-Major Evatt be requested to preside on the occasion.

A letter was read from Mr. F. B. Jessett, expressing his regret that, owing to illness, he was unable to read his paper.

Communications.—The following communications, specimens, etc., were brought before the meeting.

1. Dr. Firth exhibited a Child, the subject of Bronchial Fissure.
2. Mr. C. J. W. Pinching read the notes of, and exhibited, a patient on whom he had Enucleated the Head of the Femur, having previously amputated the thigh.
3. Mr. H. A. Reeves explained the mode of action of the following new instruments: An Osteoclast, by Mr. Schranne, a Female Urethral Speculum, and a Bivalve Rectum Speculum.
4. Mr. Reeves also read the notes of a case of Lacteal Cysto-sarcoma.
5. Dr. Firth read notes of a case of Partial Rupture of the Heart.
6. Mr. Bryden placed on the table a specimen of a Ruptured Liver.

Dinner.—Fifteen members and visitors afterwards dined at the New Falcon Hotel.

SOUTHERN BRANCH: ISLE OF WIGHT DISTRICT.

AN ordinary meeting was held at the Sandown Hotel, on Thursday, October 25th, JAMES NEAL, M.D., President, in the chair.

The President informed the meeting that Mr. Green would not be able to be present through indisposition; but that he (the President) had undertaken his duties for him. Expressions of regret were general at Mr. Green's absence and its cause.

Letters apologising for absence were read from Dr. Ward Cousins, Dr. Groves, Dr. Alfred Hollis, and Mr. Barrow.

New Member.—Mr. John Winthrop Woodruffe, of East Cowes, was admitted a member of the Branch.

Next Place of Meeting.—It was proposed by Dr. WILLIAMSON, seconded by Dr. WATERWORTH, and carried, that Ventnor be the next place of meeting.

Collective Investigation.—Cards of collective investigation work were asked for. One was received from Dr. Barker.

A letter was read from Dr. Mahomed, suggesting the appointment of a member in each district of the island to act as a subcommittee, and assist Mr. Green in furthering the work of collective investigation; and a letter was read from Dr. Williamson, in which he volunteered to undertake the duties in Ventnor. Dr. Williamson was appointed for Ventnor; Dr. Waterworth for Newport and neighbourhood; and Dr. Pletts for Ryde. The several gentlemen named expressed their willingness to undertake the duties, and to interest themselves in the work.

Cards of the Collective Investigation Committee, issued since last meeting were passed round, and the members told that little cards could be had on application to the local secretary. The cards were: On Acute Gout, with Temperature Chart, and memorandum; Puerperal Pyrexia, card and memorandum; Enteric Fever, card and memorandum; Paroxysmal Hæmoglobinuria, card and memorandum, and Cholera card.

SHROPSHIRE AND MID-WALES BRANCH: QUARTERLY MEETING.

THE first quarterly meeting of this Branch was held at the Wrekin Hotel, Wellington, on Tuesday, November 13th, at 3 p.m. The President, Dr. ANDREW, occupied the chair. Fifteen members were present.

New Members.—The following gentlemen were duly elected members of the Branch: Walter Douson, Esq., Salop Infirmary; John Francis Steedman, Esq., Salop Infirmary.

Communications.—The following papers were read:—

1. Dr. Packer read notes of an interesting case of Ulcer of the Stomach. He brought prominently forward the great value of peptonised as compared with plain enemata, which in the case recorded caused much pain.

2. Dr. Sankey spoke on Whooping-Cough. He gave it as his experience, that Carbonate of Iron had relieved all the cases coming under his care more quickly and more succesfully than any other drug. Dr. Sankey said he found gingerbread or chocolate a most convenient vehicle for administering this remedy.

3. Mr. W. Eddowes read notes on a case of Hydatid Cyst of the Liver which he had opened antiseptically; a case of Perityphlitis due to fæcal accumulation; two cases in which he had performed Perineal Section, with great relief to the symptoms in both cases.

4. Dr. Scott opened a discussion on Acute Pneumonia, basing his observations on the returns which had been published by the Collective Investigation Committee. An animated discussion followed, in which nearly every member present took part.

SPECIAL CORRESPONDENCE.

EGYPT.

[FROM OUR OWN CORRESPONDENT AT CAIRO.]

The Winter Session.—Dr. Hunter's Opinion on Cholera.—The Conseil de Santé.—The Prison and Lunatic Asylum.—The Victoria Hospital.

THE winter season at Cairo has commenced, and we are now enjoying the delightful sunny climate of Egypt without being oppressed by the summer heat. The cool weather was ushered in by two or three thunderstorms, one of them being accompanied by hailstones of an unusually large size.

Residents and visitors are arriving daily, undismayed by the stigma of endemic cholera which Surgeon-General Hunter has endeavoured, happily without success, to fix upon the land. It will be difficult to convince people that cholera is endemic against the evidence of their own senses. We in Cairo, at any rate, are happy in the knowledge that only one case of cholera has been recorded since the cessation of the epidemic in our town, about two months ago, and that case was not endemic, but a new arrival from a district where the disease was still epidemic. So let Dr. Hunter hunt out what cases he can of supposed endemic cholera in remote villages; he will not frighten us who live in the large towns, where diseases are more carefully registered, and where the vast majority of the medical practitioners have never met with a case of the disease supposed to be endemic.

The "Conseil de Santé" has lately passed through some trying experiences. Not long ago they were expecting every day to be dissolved the next; but now they seem to be more firmly established than ever, with Mr. Clifford Lloyd as their counsellor and administrative chief. Hitherto, their sole fault has been inability to carry out the reforms they proposed. Mr. Clifford Lloyd seems likely to supply this defect as far as it can be supplied in the present state of the Egyptian exchequer.

The Conseil has published in the local papers a disclaimer of Dr. Hunter's opinions on the endemicity of cholera, stating that he did not obtain, and had no opportunity of obtaining, reliable information which could justify the building up of a theory so novel and so serious. The disclaimer further states that Drs. Sonsino, Ambran, and Sierra repudiate the use of their names in support of Dr. Hunter's propositions.

I have lately visited, in company with Dr. Simpson, Medical Officer of Health for Aberdeen, the chief prison of Cairo, known as the Taptiyet, and the lunatic asylum at Abbaruyet. The former is in a shocking hygienic condition, and is said to be a hot-bed of typhus fever. Dr. Crookshank, well known in London as an instructor of ambulance classes, has recently been appointed Medical Inspector of Prisons, and it is to be hoped that, with the help of Mr. Clifford Lloyd, he will soon execute some much needed reforms. The asylum, on the other hand, leaves little to be desired. Thanks to Mr. Clare, of the *Egyptian Gazette*, and Drs. Acland and Gulliver, the filthy condition in which it was three months ago is changed for one of decided cleanliness. I believe Dr. Simpson intends to publish a fuller account of his visit to these important institutions.

The Victoria Hospital (Lady Strangford's) is in a critical condition for want of funds. It is doubtful whether the committee will be able to carry on their work beyond the close of the year. It is sincerely to be desired that money may be found to carry on this very valuable institution, which has been a model hospital for Cairo, and a friend in need to many of our countrymen, rich and poor. It has also done much towards reconciling the natives to institutions which they are accustomed to regard with extreme aversion.

CORRESPONDENCE.

NITRITE OF SODIUM.

SIR,—As a member of the British Medical Association, and the writer—as was known to many from the first—of the letter in the *Standard* of November 10th (signed "A Hospital Physician"), referring to the leading article in that paper on the recently reported cases of the administration of nitrite of sodium, I must request you to allow me to make a few words of comment on the notice of the subject which appeared last week in the JOURNAL of the Association.

While all may fully accept without reserve the statements of Dr. Murrell—(1) that he was "not aware" of the toxic properties of nitrite of sodium at the outset of his observations; and (2) that the patients to whom he gave it were all of them such as he was convinced would be benefited by the drug—it is none the less true that the wording of the original report, in the *Lancet* of November 3rd, conveyed a quite opposite impression on these two points to most, if not all, of its readers, both professional and lay. That report is now in the hands of the public, and a hostile party has announced its intention of taking advantage of it. It was clearly the duty of every member of the profession to promptly disavow all approval of the publication in question, as it at first appeared.

No sufficient explanation of the report was forthcoming till the appearance of Dr. Murrell's letters in the JOURNAL and the *Lancet* of last week. In the same number of the JOURNAL, the leading article on the subject ignores the original report entirely; and in its defence of Dr. Murrell (which adds nothing to his own statement of the case in his letter), creates a diversion by making a gratuitous charge of bitterness, cruelty, and hastiness, against those who have adversely commented on the case as it was at first stated. Now, it seems to me and many others, that, in the case of so grave an injury to the profession at large, arising from the false impression caused by the original report, it would have been a far more proper course for the Association JOURNAL to pursue, had it acknowledged the erroneous composition and rash publication of the former paper, while laying full stress, as all are willing to do, on the corrections published last week. Instead of this, the leading article in the JOURNAL, both in matter and style, has an unfortunate appearance of special pleading in defence of an individual, and of ignoring—what surely for such a journal as ours is of paramount importance—the interests and reputation of the profession. It is but a very bad case where it is supposed to be necessary to abuse the plaintiff's attorney. Here the cause, as it appears from Dr. Murrell's own letters, was good enough to rest untouched by such a stain.

I feel sure that I am expressing the views of a large majority, when I repeat my opinion that the first report of the cases alluded to should be as emphatically condemned as the amended statements of Dr. Murrell on the matter are to be frankly accepted. In such a way only is the good name of the profession to be vindicated, while our *esprit de corps*, in the best sense, suffers not the slightest injury.

—I am, sir, your obedient servant, H. B. DONKIN.

London, November 19th, 1883.

*** We should have been glad if Dr. Donkin had not obtruded his personality into the discussion of this matter in our pages, and if we had been spared the painful duty of publishing this unhappily conceived letter. It would require more patient analysis than we care to bestow upon its complicated composition, to determine how far it palliates, how far it excuses and justifies, and how far it aggravates the original offence of the writer. As a matter of fact, the anonymous letter of Dr. Donkin in the *Standard*, writing under the title of "A Hospital Physician," had not been seen by the writer of the article in the JOURNAL until after the article had been written and set in type, although the letter seems to have created no little sensation, and its authorship, as Dr. Donkin says, to have been known to many. Our comments were made upon leading articles in a lay and a medical contemporary. The text of the letter of "A Hospital Physician," in the *Standard*, has since been placed in our hands. We wish we could approve or excuse it. With the chivalry which rushes into print in a lay journal, under a pseudonym, to hand over a brother

practitioner to the tender mercies of "a hostile party," in the public press, and helps, "in the name of science and humanity," to brand his reputation with levity and flippancy in the discharge of his difficult and sacred duties, we have no sympathy. It could hardly have been difficult for Dr. Donkin to have asked and obtained from Dr. Ringer, or from his colleague, Dr. Murrell, a Fellow of the same college and a physician of the same hospital, the explanations which he is now good enough to find satisfactory. We are "not aware" of Dr. Donkin's commission to speak for "every physician." Still less do we think that he has any shadow of justification for the ironical assumption, that the interests and reputation of the profession are best defended by his hasty and public attack, in a daily newspaper, on a fellow-physician, for pursuing, in the practice of his profession, a course which now, too late, Dr. Donkin confesses to be stainless and fully justified. There is a homely proverb which might have served to guide him better—"It's an ill bird that fouls its own nest."

SIR,—From his letter in the JOURNAL last week, it is evident that Professor Matthew Hay is under the belief that the impurity commonly met with in sodium nitrite was first pointed out in his paper in the *Practitioner* a few months since. Reference, however, to the report of the meeting of the Royal Medical and Chirurgical Society, on November 28th, 1882, will show that he was anticipated by Dr. Dalfe, who called attention to this important matter, and stated that he had obtained numerous specimens of the drug, some of which he had set aside for analysis. The difficulty of procuring pure sodium nitrite is evidenced by the fact that Dr. Gowers and Dr. Saundby have recorded instances in which scruple, and even half-drachm, doses, were given three times daily, without marked toxic effects; so that it is clear that they, like myself, failed to obtain for their patients anything resembling the unadulterated drug.—I am, sir, your obedient servant, W. T. LAW, M.D., F.R.C.S.

St. Leonard's-on-Sea, November 20th, 1883.

ROYAL UNIVERSITY OF IRELAND.

SIR,—At the meeting of Convocation held in July last, when the senate attended, I brought forward three resolutions, which were deemed by the meeting to be of such importance that they unanimously resolved to postpone their consideration until the autumn meeting. I then ventured to suggest that there might possibly be no autumn meeting; and as this has proved to be the case, I propose to discuss the resolutions in your columns, and thus bring them before the senate and the public.

The first resolution is: "That the senate be requested to consider the advisability of holding the medical examinations in the months of May and November in each year."

The medical examinations are now held in the months of June and September; these follow one another too quickly, and are nothing but a pass and an honour examination, three months more being afforded to candidates who desire to compete for honours. That this is so, has lately been admitted by the senate, as shown by the fact they will only admit candidates who fail in June to the examination in September, when they are specially recommended by the examiners. It must be admitted that the time between the two examinations is far too short for a student to make up his business, especially his practical work, as the medical schools and hospitals are virtually closed during the interval. The examination in June interrupts the summer course of lectures, and students cannot present the certificates of lectures delivered at this time, as the session is not over until the end of June. The September examination is held when professors and students are seeking a change of scene after the nine months' prescribed course of study. At this time of the year, our schools and hospitals are closed, our professors are absent, and opportunities for acquiring practical knowledge, and for testing candidates in clinical work, are wanting. These disadvantages may be obviated, and the usefulness of the University increased, by selecting May and November as the months for holding the examinations. This arrangement gives an interval of six months between the two examinations. May is immediately after the winter session, when students are fresh from their work. Students are given four or five months between the examinations for practical instruction, if these months are selected; this is especially the case with anatomy. These months give time for some special preparation for the sessional, the examinations for which are held in February and August. It gives two *bonâ fide* examinations; at present, one is simply the continuation of the other, and the two are practically only one examination.—Very truly yours, CHARLES FREDERICK KNIGHT, M.D.

91, Harcourt Street, Dublin, November 19th, 1883.

PHYSIOLOGICAL TEACHING IN OXFORD.

SIR,—A paragraph appeared in the *Spectator* of the 10th instant, on the Oxford memorial concerning the University Physiological Laboratory. As that part of it which affects Magdalen College appeared to me to rest upon erroneous information, and was certainly calculated to spread an entirely false and misleading impression of the attitude of the College to the teaching of physiology, I wrote a letter in explanation to the editor, which he, with his usual fairness, inserted in his issue of the 17th instant. As, however, the erroneous statements referred to have been doubtless spread among other readers whom my explanation and refutation could not reach, I venture to ask you to publish the following account of the real facts of the case. The memorial, the *Spectator* appears to have been informed, drew its signatures from members in Oxford and "a circle of about fifteen miles round." The fact is, that the signatures are not drawn exclusively from either the smaller, or even the larger, area, one of the so-called Magdalen signatures being that of a member of the Hereford Cathedral choir, and that they represented neither the governing body of the College nor its resident members.

The governing body of the College consists of the President and twenty-four Fellows; of these twenty-five, three alone have signed the memorial.

The resident members, as shown by the published list of Congregation, number twenty-two; of these twenty-two, only six have signed. The paragraph goes on to say: "Now as Professor Burdon Sanderson is *ex officio* a Fellow of Magdalen, and as Magdalen has for years past had a physiological laboratory of its own, this popularity of the memorial among Magdalen men is highly significant." It is quite true that Magdalen College has for years past had a physiological laboratory of its own, and it is further true that the University teaching in physiology had been carried on there, previously to the advent of Dr. Burdon Sanderson, for years past, under a Government licence, with the full and express consent of the whole governing body of the College. These facts are significant, but hardly in the way in which the *Spectator* has been informed. As it is no part of my duty on this occasion to discuss or defend the value of physiological teaching in Oxford, but merely to correct misstatements from those who wish to hinder its fair development, I make no further comment, and remain—Yours, etc.,

EDWARD CHAPMAN, M.A.,
Fellow and Senior Tutor in Natural Science of Magdalen College.

Magdalen College,
November 17th, 1883.

THE COLLECTIVE INVESTIGATION OF DISEASE.

SIR,—In seeking to carry out the suggestion of Dr. Roberts of Manchester with regard to the collective investigation of disease, I wish to say a word of that form of dyspepsia which Dr. Roberts so happily described as the "dyspepsia of health," and to reply to his appeal to "medical dyspeptics to set to work on *their own* cases."

In the first place, my age is seventy years and four months; secondly, I am six feet high; thirdly, I am slightly built, and of a nervous temperament; fourthly, for the last ten years I have been toothless. For the last thirty years I have not used aperient medicine. I have always slept well; appetite fairly good; have taken moderate exercise on foot; have had meat at breakfast. Eggs never agreed with me; they felt in my stomach like bullets all day long. Tongue always clean; pulse normal as a rule, but when the heart's action is, as I take it, functionally disturbed by stomach-flatulence, intermittent. I never eat or drink anything between breakfast and dinner (dining at 4 or 5); take no wine, ale, or porter, at dinner; but I do take after dinner two tumblers of whisky-punch, and at bedtime a "night-cap." I leave you to define how much "absolute alcohol" is to be found in this, my ordinary allowance. Dr. Roberts speaks of degrees of temperance; and we "might choose a limit indicated by the experiments of Parkes, Anstie, and Count Wollowicz," who lay down "that a healthy man may consume daily from an ounce to an ounce and a half of absolute alcohol without appreciable injury." One thing is certain, I was never injured by my quantum. On the contrary, I found kidney-action maintained properly, and anything but narcotic action produced.

Now, what I have complained of, and still complain of, is flatulence both of stomach and bowels; and, if ever there was an immunity from it, it was only for one or two days' duration. Gastralgia I have had, sometimes, but very seldom. Other symptoms were of a threefold nature:—first, on awaking every morning a soreness was felt in the intercostal spaces on the left side of thorax; secondly, a substernal soreness I have felt occasionally; thirdly, at long intervals, I have felt a sharp pain sufficient to catch my breath, on the same side of the thorax; the spot of pain could be covered by the tip of a finger. This sharp pain occurred at midnight, after having at dinner partaken too freely of a variety of vegetables. I am disposed to call this attack rheumatic dyspepsia, because, so far back as 1833, I had had a bad attack of rheumatic fever, and no chronic form of it attacked me since then, unless in the shape of neuralgia of left or right temple.

Probably, some rheumatic diathesis has lain dormant from that time, and the disturbance from error of diet may so act on the circulation, and next on the nervous system, as to cause this intercostal annoyance. I found that to relieve the substernal soreness, a smart thump with my shut hand over the sternum, would at once cause an eructation of air (tasteless and odourless) and if I attempted to ascend the stairs or a hill I would feel very much oppressed, if I had not previously percussed my chest and kept on percussing during my ascent.

My explanation, rightly or wrongly, of this substernal soreness is, that there is a string of air-bubbles sent up from the cardiac orifice of the stomach to the œsophagus, each bubble impinging on the nervous tissue of that conduit. I have had several patients complaining of this substernal soreness occasionally, all of whom were in other respects quite healthy. I have found other patients complaining, at long intervals, however, of that sharp pain in the left thorax, alluded to above, but in no case have I found any patient complaining, like myself, of those morning intercostal sorenesses. I have now to state that relief always followed in my own case by a sort of finger-tip shampooing up and down the intercostal spaces for about four or five minutes at a time; and, after some rumblings of bowels (pedantically called "borborygmi"), a telegraphic message (as it were) was sent—through the agency, no doubt, of the pneumogastric and great sympathetic nerves—to the bowels, and an explosion of gas *per anum* was the result. For those three forms of flatulence, I have tried all the compounds of pepsine and maltine, all the usual carminatives and antispasmodics, in my own case without any beneficial result, and in the case of my patients similarly affected, with little or no relief.

Of two things I am almost certain; I believe I am one of those who "acquire (according to Dr. Wood, of Philadelphia) the faculty of swallowing air;" and that, according to the same author, mine is one of those cases where flatulence "obstinately resists all the means employed, and ceases only with life."—I am, etc.,

GARTMORE BANTNER.

Co. Cork, Ireland, November 15th, 1883.

FRACTURE OF THE PATELLA.

SIR,—In the record of cases of fractured patella, Mr. Johnson Smith is put as having had three old cases. One case was a recent fracture, another the breaking down of the union of an old fracture, and the third an ununited fracture; so, opposite his name, should have stood a record of one recent case, and two old cases. I explained at the Clinical Society that, under the head of "old cases," I included rupture of old uniting medium. This makes a total of: recent cases, twenty-two; old cases, twenty-eight.—Yours faithfully,

49, Green Street, Park Lane. G. R. TURNER.

CATHETER-LIFE.

SIR,—Being one of those unfortunate individuals who are undergoing initiation into what Sir A. Clark calls "catheter-life," I have anxiously looked, but in vain, for an answer to the very natural demand which you made on him, namely, that he should give a clinical statement of the cases on which he founded his remarks made at the Clinical Society. "The affection," he says, "is almost uniformly fatal." He himself—a physician—has, "since 1873, seen four or five such cases a year;" therefore, at least, forty fatal ones. What, then, must have been the mortality of such bladder-cases in the hands of surgeons, and particularly in the hands of surgeons specially practising in such diseases? Now, I confess that the lurid and, to me, mysterious account of the matter, as given by Sir A. Clark, was at first hand a very unpleasant study, and, no doubt, to others similarly burdened; but reperusal of Sir H. Thompson's works, which I had already carefully studied, gave me full relief; and it convinced me that Sir A. Clark's words cannot but tend to produce the very mischief which they were meant to guard against. He says, that he can "find no account of the affection he tells of in any English or foreign work." Now, as I read it, he will find a full and lucid account of this affection in Sir H. Thompson's lectures. I gather therefrom that the fever and dangerous symptoms in question result mainly from defective diagnosis, and neglect of early catheterism; that, although the immediate cause of death may be catheterism, the actual cause lies in the condition of the bladder, kidney, etc., which has resulted from neglected catheterism. The very case he mentions as occurring in 1870, justifies me in saying that the fatal results were mainly due to neglect of timely catheterism. Sir A. Clark says: "The only trouble of the gentleman was a slight incontinence of urine. He had no other sign of disease, and enjoyed life." Now, if Sir A. Clark had perused Sir H. Thompson's works, he would have learnt that a "slight incontinence" of urine may go a very long way; and that it may mean irreparable injury to bladder or kidneys—of distended bladder, with its frequent fatal accompaniments. He says: "The term incontinence was originally, and is still, employed by many to designate this phenomenon; although it is incontestable that the condition so described is, in reality, the very reverse of *incontinence*, since the bladder already contains too much, often much more even than its capacity.....Hence the misunderstandings, the difficulties, and the grave errors, which sometimes occur." "Retention of urine," he adds, "exerts an injurious influence upon the ureters and kidneys, ultimately leading to their disorganisation, atony of the bladder, chronic cystitis, etc., and impaired health."

Now, it seems to me that one natural result of Sir A. Clark's remarks will be to lead many patients and practitioners to dread the use of the catheter, and at a time when its use might be the salvation of the patient. The operation will be deferred until that condition of the organs has been produced, in which catheterism may cause fatal irritation. The condition, which Sir A. Clark cannot find described in any work, is thus given by Sir Henry Thompson: "If we are called to a case, in which, from neglect, the urine has long been allowed to accumulate.....the sudden change made by catheterism frequently acts prejudicially on the constitution.....The patient will become low, and even finally sink, if the injunction to empty the bladder two or three times a day be followed." He fully describes the great care required in the management of such cases. "All the symptoms referred to can," he tells us for our consolation, "under ordinary conditions, be avoided, and kept in abeyance, by the persevering use of the catheter." From which, we must conclude that the fatal cases spoken of by Sir A. Clark were the results, not of the use, but of the neglect of the *due* use, or of the unintelligent use, of the catheter. Happily, in the JOURNAL of November 3rd, Mr. Hutchinson, referring to Sir A. Clark's cases, gives us his much more comforting experience. He has "no doubt that the form of illness described is "simply acute cystitis.....I have not often myself seen such end fatally; but, in common with all surgeons, I am quite familar with them in minor degrees." I cannot conclude without expressing a hope, that some authoritative pen will remove the confusion which evidently exists in this matter in so many minds.

Yours obediently, F.R.C.P

London, November 17th, 1883.

MILITARY AND NAVAL MEDICAL SERVICES.

TOWER HAMLETS RIFLE BRIGADE: AMBULANCE INSPECTION.

THE annual inspection of the ambulance class of this regiment took place on Saturday evening, November 10th, at the head-quarters of the brigade, 112 Shaftesbury Street, Hoxton.

The class, composed of thirty non-commissioned officers and men, two being taken from each company of the regiment, was drawn up in "open order," under the command of Surgeon Platt, and Acting-Surgeon O. M. White, to receive the inspecting officer, Brigade-Surgeon Don, A.M.D., who arrived at 6 P.M.

After inspecting the lines, the company was formed into five stretcher detachments, and a variety of movements were creditably performed. Five men, labelled as wounded, were then instructed to lie down, and the various detachments took post to their left. The Nos. 2 and 4 of each detachment then examined the supposed wounds, and hastened to the "dressing-station" for the necessary appliances. The dressings applied, the "wounded" were lifted, lowered on to the stretchers, advanced and retired.

Subsequently, the inspecting officer examined each stretcher-detachment, questioning every member minutely as to the nature of the injuries, and reasons for applying the various tourniquets, splints, etc.

At the conclusion of the parade, Brigade-Surgeon Don, expressed his gratification at the drill and other details. This was the third time he had been present on a similar occasion, and he could say truthfully that the presen

inspection was the best. The men were, if anything, too quick in their movements (a fault common to all volunteers); but, on the whole, he had no hesitation in saying that they would, as a body of trained bearers, do credit even to the Army Hospital Corps.

Surgeon-Major Evatt, A.M.D., congratulated the officers and men upon their efficiency, and expressed the hope that, before long, a distinctive volunteer hospital corps would be formed.

The other officers present were Surgeons-Major Gray and Paul (T.H.R.B.), Surgeon Shepherd (Victorias), Surgeon Norton (Civil Service) and Captain Weston, Acting Adjutant (T.H.R.B.).

SUGGESTION FOR A NEW DECORATION.

SIR,—Much has lately been said respecting the proficiency of the Army Medical Department, and numerous have been the suggestions for increasing its efficacy. Allow me, therefore, to make one slight suggestion, which, if carried out, would, I feel sure, not only gratify all medical officers, but would also be received with feelings of approval by the combatant ranks.

Under the present regulations, doctors may be decorated with the Victoria Cross for deeds of gallantry in the field, if recommended for it by the Commander-in-Chief. This regulation has caused a considerable amount of jealousy amongst combatant officers and doctors, the former looking on medical recipients of the Victoria Cross as intruders upon what they consider their special privileges. They believe, and rightly, that this decoration was instituted solely as a reward for deeds of military daring, and that a medical officer cannot merit it without neglecting his own special duties to perform some that do not rightly come within his province.

To do away with this feeling, which is highly injurious to the interests of the service, and to increase the proficiency of the Medical Department by exciting healthy and beneficial feelings of emulation amongst its members, I would make the following suggestions.

1. That the decoration of medical officers with the Victoria Cross be discontinued, and that, in its stead, a new decoration be adopted.
2. That this should be a cross similar to the present badge of the Army Hospital Corps, and that it should be known as the "Geneva Cross."
3. That this decoration should not be open to any but members of the Army Medical Department, Indian Medical Department, and Army Hospital Corps.

—I am, etc.,
A.M.D.

*** The institution of a new order of distinction is not such an easy matter to accomplish as our correspondent appears to think it is; but, supposing it were less difficult than it is, would it be desirable in the case referred to? The Victoria Cross, so far as we are aware, has not been awarded to medical officers merely for deeds of bravery, but for deeds of bravery done in the interests of the sick and wounded troops placed under their medical charge. Was not the prolonged and desperate defence of the convoy of wounded under his charge by Sir A. D. Home, at Lucknow, as worthy of recognition by the Victoria Cross as the bravery of a combatant officer, however conspicuous? We fail to see a real basis for jealousy of medical officers on the part of combatants in any case where the Cross has been fairly earned under circumstances of a similar kind.

OBITUARY.

CHARLES HILTON FAGGE, M.D., F.R.C.P.

VERY wide circle of friends and acquaintances, both in and out of e profession, have, during the past few days, learnt with the deep- t sorrow that Dr. Hilton Fagge died suddenly, at about midnight, :tween Sunday and Monday last, at his residence in Grosvenor reet. He himself knew for more than a year past, as did several his professional colleagues, that he had an aneurysm of the tho- cic aorta. A sudden attack of dyspnœa supervened shortly after : had retired to bed last Sunday night, and rapidly proved fatal. e had been under the professional care of Sir William Gull, Dr. ilks, and Dr. Moxon, all of whom gave him devoted attention, and d their best to cheer and help. We are pleased to know that eir kindness and feeling was thoroughly appreciated both by Dr. d Mrs. Fagge. They last spring advised their patient to give up me of the many honorary but laborious appointments that he ld, and to restrict himself to purely private professional work. : acted in strict accordance with their counsels, and bore himself ınfully under his dire affliction; so much so, indeed, that no one ıld have guessed from his demeanour that he knew himself to be : subject of a mortal malady. Dr. Fagge had been, during last week, ıducting, in conjunction with Dr. Ord, the pass-examination in medi- e for the degree of Bachelor of Medicine in the University of ndon; and Dr. Ord was with him as late as ten o'clock on Sun- ' evening in reference to that matter. He seemed then to be in usual health, not complaining, at any rate, of pain or any par- ılar discomfort. Dr. Wilks was summoned shortly before mid- ht to find his colleague and friend just dying; and when Dr. l, who had been called at the same time, arrived at the house, Fagge had passed away. He had, for some few nights viously, been troubled with slight dyspnœa, which he called thma," but to which, in a patient, he would probably have assigned real cause and serious import. Thus has ended, at the compa- ively early age of forty-five, a career which apparently had in it ry promise of complete worldly success.

t is an incumbent duty to notice Dr. Fagge's private and public th, and to record particulars of the public work that he had already achieved. As he was an indefatigable worker, as well as most intelligent writer, the amount of his original articles alone is so great, that, collected together, they would fill several volumes of the ordinary size of the annual transactions of either of the larger medical societies of London. Thus the twenty years of his laborious professional life, that had seen such good work issue from his active brain, seemed to assure the world of a still richer future harvest from the same prolific source. These fair promises have now been cut short, but his published papers will long remain to testify to his amazing industry. Moreover, his many pupils at Guy's Hospital have carried to all habitable parts of the globe the solid scientific training which his deep and varied knowledge of medical subjects enabled him to impart; and a still wider circle of friends and admirers will not cease to cherish loving memories of his unsullied character and widespread professional attainments. He, "being dead, yet speaketh."

Charles Hilton Fagge came of a family that had already given members to the medical profession. His grandfather and father were for long years in practice at Hythe, Kent. Here the subject of this memoir was born, in 1838. His mother was the sister of the late Mr. John Hilton, F.R.S., formerly surgeon to Guy's Hospital, and died, after forty-six years of happy married life in August of this present year. Her husband, Mr. Charles Fagge, Dr. Fagge's father, still survives. Something of the sturdy sound common sense of the talented author of *Rest and Pain*, seems to have been always perceptible in the writings and teachings of his nephew, which were always marked by good practical observations, and thorough acquaintance with and reference to anatomical and physiological facts. Dr. Fagge was the oldest of three brothers, all of whom adopted the medical profession as their vocation in life. His brothers are both now in practice, one at Arcachon, France, and the other at Lutterworth.

At the close of his career at school, Charles Hilton Fagge entered at Guy's Hospital in 1856, and quickly distinguished himself in the class lists of the University of London. He matriculated in 1857, being placed first in the honours' list in botany, and second in chemistry. In the same year he obtained the botanical prize awarded by the Apothecaries' Society. At the first M.B. examination, which he passed in 1859, he obtained the exhibition and gold medal in anatomy and physiology, the same highest honours in chemistry, the same in materia medica and pharmaceutical chemistry, and the medal given for structural and physiological botany. He thus beat all his compeers in every subject, except that in chemistry he was bracketed equal with Dr. S. J. Gee, that exhibition being divided between them, and a gold medal awarded to each. In 1861 Dr. Fagge passed the second M.B. examination, and was again nearly equally successful in the honours' list. In physiology and comparative anatomy he obtained the exhibition and gold medal; in surgery he was second, gaining only the medal; in medicine he and Dr. S. J. Gee were again bracketed as equal, the exhibition being divided between them, and a medal awarded to each; and in midwifery Dr. Fagge obtained the second place. Curiously enough, at these two examinations, he was beaten in no subject by any student of any other school than his own; for, in surgery, the first place in honours was gained by Mr. James Bankart, and in midwifery, by Dr. John H. Galton, both of whom were Guy's Hospital men. Dr. Fagge became Doctor of Medicine of his university in 1862. Not long after his admission to Convocation, he was elected to serve on the annual committee, at the meetings of which, as well as those of Convocation itself, he was always, until within the last year, a most regular attendant and constant speaker. He had, for some years past, also filled the post of Examiner in Medicine in the University. He became a member of the Royal College of Physicians in 1864, and was elected to the Fellowship in 1870.

At Guy's Hospital, Dr. Fagge was appointed to the staff in 1862, when he became one of the Demonstrators of Anatomy. He passed successively through the posts of Medical Registrar, Demonstrator on Cutaneous Diseases, and Assistant-Physician, to which latter post he succeeded in 1867, on the death of Dr. Barlow. He was also joint-editor for some five or six years of the *Guy's Hospital Reports*. During four summers, he gave a course of lectures on hygiene; and, for the last ten years, he had been demonstrator of morbid anatomy, and lecturer on pathology. He was also for many years curator of the museum of Guy's Hospital. In 1880, upon the resignation of Dr. Habershon, Dr. Fagge became Physician to the Hospital. His opportunities of acquiring varied knowledge and extended experience were thus great, and he employed them to the best of purposes, viz., in constantly communicating to others the information that he had himself gained. Besides the posts which he held

at his own medical school, he also, for many years, filled that of Physician to the Evelina Hospital for Sick Children. He was, further, a Fellow of the Royal Medical and Chirurgical Society, and member of the Pathological and Clinical Societies; had been an office-holder in all, and was on the high road to fill the highest posts that they have to offer. At meetings of the two former Societies, he was a constant attendant, and frequent reader and debater. Last session, at the request of the Council of the Pathological Society, he opened the well-sustained debate on the pathology of rickets. His papers to the *Transactions* of these Societies, to the medical journals, and particularly to the *Guy's Hospital Reports*, were so numerous, that we can only particularise the principal. He translated and edited for the New Sydenham Society, Hebra's work on *Exanthemata and Diseases of the Skin*, and for some years edited the reports on toxicology and materia medica, on forensic medicine, and on public health, for the same Society.

Dr. Fagge's first paper in the *Guy's Hospital Reports* was published in 1864, in the tenth volume of the third series, and described a case of "Aneurysm seated on an Abnormal Main Artery of the Lower Limb, the gluteal. Since that date, he has constantly contributed papers to the yearly numbers of that publication. His chief articles have been, one in 1866, in conjunction with Dr. Thomas Stevenson, "On the Application of Physiological Tests for Digitaline and other Poisons" (published, also, in the *Proceedings of the Royal Society* for 1865); in 1867, on "Keloid, Scleriasis, Morphœa, and some Allied Affections;" in 1868, two excellent papers, one on Splenic Tumours, and another on Intestinal Obstruction. The latter has attracted much attention, as Dr. Fagge therein spoke of, and described, those cases of what he called intestinal contractions apart from stricture, which until then had not received much attention at the hands of practical writers. Two small papers appeared in the succeeding number of the reports; and in 1870 he published an important communication "on the murmurs attendant upon mitral contraction," illustrated by sphygmographic tracings, in which he suggested that the facts of disease were almost conclusively in favour of the view that the tension of the ventricular wall is at least as much concerned as the tension of the valve in the formation of the first sound. Papers relating to points in cases of disease of the œsophagus, stomach, and ductus arteriosus, to diabetes, spinal deformities, abscess within the abdomen, and to diseases of the liver, followed in rapid succession in the next four numbers of the reports. The paroxysmal neuroses, diphtheria, and croup (conjointly with Mr. W. H. Lamb), also published in the sixty-second volume of the *Transactions of the Royal Medical and Chirurgical Society*, the different modes of dying, purpura hæmorrhagica accompanying the growth of multiple sarcomata, and a case of phosphorus poisoning, which ended in recovery under the administration of oil of turpentine, have formed the headings of papers published within the last seven years, and have further indicated the versatility of Dr. Fagge's professional attainments. He was, too, the author of the "Catalogue of Models of Diseases of the Skin in the museum of Guy's Hospital," published in 1876. He delivered, and afterwards published, the introductory lecture at Guy's Hospital given on October 1st, 1869; and he contributed an exhaustive article on disease of the valves of the heart to the fourth volume of Reynolds's *System of Medicine*. His chief contributions to the *Transactions of the Royal Medical and Chirurgical Society* were one on a case of dissecting aneurism of the aorta, published in volume fifty-two; another on a case of molluscum fibrosum, in volume fifty-three; one on the electrolytic treatment of hydatid tumours of the liver (in conjunction with Mr. Durham); and another on sporadic cretinism occurring in England, both in volume fifty-four; a paper on the nature and mode of origin of the lead line in the gums; and a case of intussusception treated successfully by abdominal section (together with Mr. Howse), in volume fifty-nine; and lastly, a paper on a probable cause of lead colic in volume sixty-four. His contributions to the Pathological and Clinical Societies' *Transactions* were certainly not less numerous nor less important.

But, besides thus wielding his pen with persistent industry in the pages of some of the chief publications of the day, Dr. Fagge had, for the last five or six years, been busily engaged in the authorship of a system of medicine for practitioners and students, for the publication of which arrangements were actually in hand at the time of his death. It is greatly to be desired that one of his junior colleagues may be found to see the pages of this important work through the press, so that the profession may not lose these fruits of the lamented author's ripe experience.

Dr. Fagge was very successful as a teacher at Guy's, his clinical classes being highly popular amongst the students. His opinion, too, in medical cases of difficult diagnosis, had for years been highly valued amongst all classes of practitioners, as that of a very skilled consultant, and his reputation had received an important impetus amongst the highest class of patients and their professional attendants, more especially since his removal from Southwark about two years ago to his late well-appointed residence in Grosvenor Street. As proof, also, of the esteem in which he was held by Insurance Office Directors, who make it their business to appraise the value of their medical officers, it is worthy of note that he held the post of physician to two or three assurance companies. He was also examiner to the Bournemouth Sanatorium. His life was thus largely devoted to matters of a public nature; he was, however, fond of Alpine climbing, and, years ago, he was an ardent mountaineer during his autumn holidays.

This meagre sketch of the chief events and pursuits of Dr. Fagge's life will testify to his varied ability and intelligent laboriousness, and in a sense to the marked confidence and high position he was achieving. His loss will be severely felt at Guy's Hospital. A consideration of the character and, amount of his life's work, and of the suddenness of his death, impels one to recall to mind the very similar career of the late Dr. Murchison, whose sudden loss St. Thomas's men mourn unto this day. It is melancholy to register the great gaps that the deaths of these two physicians have produced, and the fair hopes entertained respecting each which death has ruthlessly destroyed. As we have already remarked, Dr. Fagge's prospects were such as were apparently opening to him a way to the very highest professional honours. For assuredly, if an unblemished character, good social standing, proneness to hospitality, troops of friends, a brilliant university career, high professional attainments, and an ardent love for the investigation of scientific problems, could combine to render a man useful to his fellow creatures and to conduct himself to wealth and fame, they seemed to have been so united in the case of Charles Hilton Fagge.

Sir William Gull kindly sends us the following notes, which we are privileged to publish.

"Guy's, the profession, and the public, have had a great loss in the death of Dr. Hilton Fagge, at so early an age. Until the unfortunate malady, which caused his death, made itself evident, it was the hope and expectation of his friends, that Dr. Fagge would make a very high position for himself in the practice of his profession. There were few men better acquainted than he was with the literature of medicine, and his knowledge in this respect was maintained and made useful by the large extent of his clinical experience. His practical work was carried on in a singularly careful, exact, and honest spirit. He is in this, and in many other respects, to be associated in memory with the late Dr. Murchison. Both died under nearly the same conditions of disease, and both in the continuance of their work. Both were examiners in medicine at the University of London, both physicians to large hospitals; and both died at near the same age.

"They who had the privilege of knowing Dr. Fagge intimately, will know how justly his memory deserves our deepest affection; and will feel that, by his death, we have been deprived of one of our truest workers.

"It has long been an open secret with his nearest friends, that he had an aneurysm of the arch of the aorta, and disease of the aortic valves with regurgitation. To these conditions he was fully alive; but he was desirous, and on the whole it was thought best, that he should continue his practice, observing such care as was compatible with its duties. This he did unswervingly until his last day, and, indeed, until within a few hours of his death.

"He was more especially under the medical guidance and care of his colleagues, Dr. Wilks and Dr. Moxon.

"It is to be hoped that his book on the *Practice of Medicine*, which occupied so much of his time for several years, will not be lost to the profession. It was on the eve of publication. It would be a double loss, if death destroyed both the worker and his work."

Dr. Fagge married, ten or eleven years since, Miss Briscoe, of Wanstead, and leaves his widow and two daughters to lament their irreparable loss. His only son died a few years ago.

The deepest condolence with the members of the family thus suddenly thrown into mourning will be felt by all classes in the profession; and the expression of this feeling has already been evinced by the members of the Council of the Metropolitan Counties Branch of our Association, who, at their meeting on Tuesday, unanimously requested their President, Dr. C. J. Hare, to communicate to Mrs. Fagge the very great sympathy entertained by them for her in her great affliction. The students of Guy's Hospital have, as our columns show, also passed a similar resolution.

LOUIS BORCHARDT, M.D., MANCHESTER.

THE death of Dr. Borchardt, which we had last week the painful duty of announcing as imminent, has cast a deep shadow of sorrow over the profession in Manchester, where he had spent thirty years of his working life, and was well-known, greatly beloved, and much respected by his professional brethren. Dr. Borchardt was born and educated in Prussia, and was a Doctor of Medicine of Berlin, taking his degree in 1838. Early in life he displayed great devotion to professional work, and distinguished himself as a Commissioner for the Prussian Government in Upper Silesia in 1845, when an epidemic of typhus fever was raging. His ardent liberal proclivities in politics induced him to take a part with the insurrectionary party of 1848, and, as a sequel, he was subjected to such oppression from the Government, as to compel him to seek practice elsewhere. He settled in Manchester in 1852, and soon made a mark on account of his knowledge, independence of character, high intelligence, and excellent professional information. In 1853 he became connected with the Children's Dispensary, which developed in time into the Children's Hospital at Pendlebury, a model institution, which was visited and much admired by a large number of the members of the British Medical Association on the occasion of the last meeting at Manchester. He was for twenty-five years honorary physician of the hospital and dispensary, and one of the new pavilions of the new building has been named after him the "Borchardt Ward." At the close of 1879, a marble bust of Dr. Borchardt was placed in the hospital, and a sum of £1,000 was presented to him by the friends of the institution, and he was at the same time appointed consulting physician. He devoted himself for a long series of years to the interest of the Children's Hospital, and must be ranked almost among its founders.

In the British Medical Association, he had been for some time a member of the Committee of Council, and, at the time of his death, occupied the position of president of the Lancashire and Cheshire Branch. He was also at one time president of the Manchester Medical Society.

Dr. Borchardt identified himself, throughout his career, with the liberal side of every public question. At the meeting of the Association at Bath in 1878, he was a convinced advocate of the claims of the admission of medical women to an equal footing with medical men in the profession and in the Association. He was an active and energetic friend of the organisation of provident medical dispensaries. He never feared to face unpopularity, and did not hesitate publicly to advocate opinions which he believed to be just and liberal, in the face of hostile majorities. At the last annual meeting at Liverpool, he was present, and manifested all his usual vigour of mind and body; his health, however, had somewhat failed him of late, and he succumbed on November 17th to an attack of obstruction of the bowel. He leaves behind him the reputation of a man of honour, honesty, courage, public spirit, and intelligence. Such characteristics are apt to lead a man through thorny paths, but they also lead him to the goal of duty and usefulness. Dr. Borchardt won the palm which he coveted; he lived honoured and respected, and in his death he leaves a name which his friends and family will long cherish.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

EXAMINATIONS IN ELEMENTARY BIOLOGY.—The special board for medicine publish, for the guidance of students proceeding to medical and surgical degrees, the following schedule defining the range of the examination in elementary biology under the regulations which come into effect on the first day of January, 1884. The examination in elementary biology will have reference to—1. The fundamental facts and laws of the morphology, histology, physiology, and life-history of plants as illustrated by the following types: *Saccharomyces*, *Protococcus*, *Mucor*, *Spirogyra*, *Chara* or *Nitella*, a fern, *Pinus*, and an angiospermous flowering plant. 2. The fundamental facts and laws of animal morphology, as illustrated by the following types: *Amœba*, *Paramœcium* or *Vorticella*, *Hydra*, *Lumbricus*, *Astacus*, *Anodon*, *Amphioxus*, *Scyllium*, *Rana*, *Lepus*. Under the head of vegetable physiology, the student will not be expected to deal with special questions relating to the more highly differentiated flowering plants. He will be expected to show a practical knowledge of the general structure of each of the animal types above specified, and an elementary knowledge of the chief biological laws which the structural phenomena illustrate. He will also be expected to show an elementary knowledge of the general developmental history of *Amphioxus* and of *Rana*. He will not be expected to deal with purely physiological details.

DEGREES IN MEDICINE AND SURGERY.—At a Congregation on Nov 15th, the report of the Special Board of Medicine recommending amended regulations for the degrees of Bachelor of Medicine, Bachelor of Surgery, and Master of Surgery was approved. It was opposed by some members of the Senate, but the Proctor declared it carried, and under the new regulations as to proceedings at Congregations, his decision not being challenged, the votes were not taken separately, as heretofore had been the custom.

A SUM of £300 was on November 15th granted to the Special Board for Biology and Geology, for the purpose of providing additional teaching for the classes in animal morphology.

PROFESSORSHIP OF PATHOLOGY.—It is intended to elect a Professor of Pathology in the University, at a stipend of £800 a year. The election, we understand, will not take place before May.

THE following is the text of the speeches made by the Public Orator (Mr. Sandys) in presenting Professors Foster and Macalister for the degree of M.A., in the Cambridge Senate House on the 8th November.

"Dignissime domine, domine Procancellarie et tota Academia: In hoc ipso loco, duodecim abhinc annos, unum e Collegii maximi Prælectoribus auspiciis optimis titulo vestro honorifico exornastis. Hodie eundem, tot annorum usu et experientiâ spectatum probatumque, et Academiæ totius Professoribus merito adscriptum, senatus nostri in ordinem honoris causâ adsciscimus. Quantum interim, hujus præsertim laboribus, inter alumnos nostros creverit vigueritque physiologiæ studium, vosmet ipsi omnes animo grato recordamini. Ut animantium in corporibus ex ipso corde, velut e fonte quodam, salutares illi sanguinis rivi per membra omnia fluunt refluuntque; non aliter corporis Academici in partes quam plurimas ex hoc fonte scientiæ flumina effluxisse atque inde rursus redundasse dixerim. Tali e fonte quot alumnis vires novæ redditæ sunt; quotiens ex alumnis rivuli fontem ipsum denuo auxerunt! E discipulis vero tam multis cum magistro tanto feliciter consociatis, plurimos adhuc superesse, nonnullos etiam adesse hodie gaudemus; unum illum non sine lacrimis desideramus qui, nascentis vitæ primordiis hujus auxilio sagacissime investigatis, nuper inter Alpium culmina, in ipso ætatis flore, morte immaturâ e nobis est abreptus. Talium filiorum progenies Matri Almæ indies nova succrescat: magistrorum talium accessionibus et Professorum et Senatorum ordo identidem nobis augeatur!

"Vobis præsento Collegii Sacrosantæ Trinitatis socium, Physiologiæ Professorem illustrem, MICHAELEM FOSTER."

"In Professoribus novis vestro omnium nomine salutandis. fato quodam iniquo successoris laudes decessoris desiderio nonnunquam aliquatenus imminui videntur. Hodie vero ornat adhuc Professorum ordinem eloquentissimus ille Anatomiæ Professor quem diu sumus admirati. Integro igitur sinceroque guadio Professorem illum salvere jubemus, quem Caledonia Hiberniæ quondam donavit, Hibernia Britanniæ nuper reddidit. Salutamus virum, qui corporis humani scientiam interiorem, antiquissimum illud atque regium (uti nuper audivimus) scribendi argumentum, quasi propriam provinciam penitus exploravit; qui, ne his quidem finibus contentus, sed etiam in alias rerum naturæ regiones egressus, non modo de zoologiâ et de comparativa quæ dicitur anatomiâ egregie meritus est, sed geologiæ quoque operam singularem impendit, petrographiæ præsertim recentiores progressus curiositate minutâ perscrutatus. Idem et litterarum amore et linguarum peritiâ insignis, inter rerum antiquarum monumenta ne hieroglyphica neglexit, neque historiam ecclesiasticam intactam reliquit Ergo non uni tantum Colleglo sed toti Academiæ gratum est, virum tot tantisque animi dotibus instructum, societati illi tam cito esse adscriptum, cui medicinæ studia commendavit olim vir et de litteris antiquis et de scientiis recentioribus præclare meritus, Thomas Linacre.

"Vobis præsento Collegii Divi Johannis socium, Anatomiæ Professorem insignem, ALEXANDRUM MACALISTER."

MEDICAL MAYORS.—Dr. Humble has been re-elected mayor of Corfe for the coming year. Mr. T. B. Keetley has been unanimously elected mayor of the town of Grimsby, of which he has been for many years town councillor, alderman, and magistrate.

MEDICO-LEGAL NOTES AND QUERIES.

ACTION FOR FEES FOR PROFESSIONAL SERVICES, BY THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

On Wednesday last, November 21st, the action brought against the Government by Mr. Wheeler, President of the College of Surgeons in Ireland, claiming £1,470 for professional services rendered to Mr. Thomas S. Carter, who was fired at and wounded on the 15th of March, 1882, near Belmullet, county Mayo, came on for trial before Mr. Justice Harrison and a special jury, in the Common Pleas Division. The action being against the Crown was in the form of a petition of right, which was traversed by the Attorney-General. The particulars of the bill of fees were:—Five professional visits to Belmullet in March and April, £656 5s.; operation, £52 10s.; detained five days in March, £105; detained three days in April and removing from Belmullet to Ballina £210; attendance in Dublin, £31 10s.; paid railway fare for two assistants, £5 3s.; paid conveyance from Ballina to Belmullet and Belmullet to Ballina, £8 3s. The Attorney-General stated in his answer that the late Thomas Henry Burke, Under-Secretary to the Lord Lieutenant, did not enter into the agreement with the petitioner, and that if he did enter into any agreement the same was an agreement to pay him in the event only of Mr. Carter being himself unable to pay the suppliant for his attendance.

Messrs. Monroe, Q.C., John G. Gibson, Q.C., and Stanhope Hemphill, were counsel for the petitioner; the Attorney-General, M.P., the Solicitor-General, and Mr. Dodd, appeared for the Queen.

The court was densely crowded, and a number of ladies occupied seats in one of the galleries.

Mr. Hemphill having opened the petition, Mr. Monroe, Q.C., stated that the claim in this case was brought by Mr. W. I. Wheeler, in reference to certain services which he had performed in consequence of being retained, as he alleged, by the Government. It was unnecessary to say anything of the reputation of his client, who now stood at the head of his profession as President of the Royal College of Surgeons. The circumstances under which the services of Mr. Wheeler were retained were these.

On the way home from Belmullet on March 15th, 1882, Mr. Carter, a landed proprietor, was dangerously wounded in one knee by a shot fired from behind a hedge. The resident magistrate put himself in communication with the Castle, in consequence of which Mr. T. Hamilton, by order of the late Mr. T. H. Burke, sent to Mr. Wheeler's house; that surgeon was not at home, but found a note begging him to proceed at once to the Castle. There Mr. Hamilton told him that the Government were desirous that the first surgical talent should be procured, and asked him to attend to the case. Mr. Wheeler replied, "If I undertake this duty on the retainer of the Government my professional fees will be 125 guineas a visit." Mr. Hamilton then said that before when they sent a gentleman to the country on the part of the Government his fee was only 100 guineas, to which Mr. Wheeler answered that his fee would be 125 guineas. Mr. Hamilton said he understood the difference was owing to the distance that had to be travelled. It was then arranged that Mr. Wheeler should go, and having arrived at Ballina he had at three o'clock in the morning to go a further distance of forty-two Irish miles on an outside car, guarded by constabulary, arriving at Belmullet at ten o'clock. Mr. Wheeler found Mr. Carter's knee shattered, but the patient was in so alarming a state of shock that no operation could be performed at once. Mr. Wheeler left on the following evening, and reached Dublin on March 18th. On the same day, Mr. Hamilton wrote out a memorandum to the effect that, if Mr. Carter should be unable to pay the fees—which proved to be the case, as that gentleman was in very reduced circumstances, through his tenants refusing to pay their rents—Mr Wheeler's claims would be favourably considered by the Government. Mr. Wheeler felt assured; and on March 19th he went once more to Belmullet, but found that Mr. Carter was still unfit for operation. On March 22nd, Mr. Wheeler returned to Belmullet with two assistants, Messrs. Middleton and Corry, and performed the amputation under very trying circumstances, remaining two days at Belmullet to watch the result, and leaving his assistants in attendance. On March 28th, Mr. Wheeler had to go again to see Mr. Carter, as symptoms of pyæmia had appeared. The patient got better; but on April 8th Mr. Wheeler personally superintended his removal to Ballina, for which service he charged only the ordinary fee, 100 guineas. On May 5th, Mr. Wheeler, after repeatedly visiting Mr. Carter, who had been ultimately brought to Dublin, sent in his account to Mr. Burke, who was assassinated on the following day. After a great deal of disputing and correspondence with the authorities at the castle, the matter was referred from Mr. Thomas Hamilton to the Under-Secretary, and from the Under-Secretary to the Chief Secretary, and then to the Lord Lieutenant, and then to the Treasury, the result being that Mr. Wheeler was not paid that which was honestly and legally due to him. He had been five times to Belmullet, between March 15th and April 8th, performed the amputation, remained eight days in attendance, superintended the removal of Mr. Carter to Ballina, visited him twice there, attended him for nearly three months at Dublin, and paid all his own expenses.

Mr. Wheeler corroborated, in his evidence, the statements made by his counsel; on being cross-examined by the Attorney-General, he admitted that he had been recommended to moderate his claim, but refused, as, had he consented to reduce them, it would look as though he had been acting unfairly at first.

Mr. Middleton was next examined, and gave evidence as to the attendance on Mr. Carter. The witness and Mr. Corry watched alternately night and day. They were boycotted, both in Belmullet and Ballina. The servants left the house, and they were compelled to cook for themselves. As he believed there was some tampering with the meat supplied to Mr. Carter, he had to go to the butcher's himself and buy the meat.

Mr. Carter was next examined, and detailed the circumstances of the attack made on him.

Surgeon Butcher deposed that in his opinion Surgeon Wheeler's claim was very small. His fee of 125 guineas for going to Belmullet was very moderate, and if he (witness) were called upon to perform the same duty he would charge double the fee. He always separated the fee for attendance and the fee for an operation.

Dr. Kidd also said that in his opinion Mr. Wheeler's claim was very moderate.

Surgeon Tufnell gave corroborative evidence.

The further hearing of the case was resumed on Thursday morning. The Attorney-General, addressing the Court, said there could be no doubt as to the great value of Mr. Wheeler's services in this instance, nor as to his great professional standing; these were matters which were beyond dispute. The learned attorney observed that those representing the Government had cast upon them, in reference to this claim, the duty of protecting the public in its pecuniary interests, and of deciding what was the right and proper course to take. Mr. Wheeler's attendance upon Mr. Carter originated in the telegram which has been mentioned in the court and read; that telegram intimated to the Government that Mr. Carter wished for his services. He was sent undoubtedly at the instance of the Government, and commenced the attendance which resulted so satisfactorily. Under the circumstances, it was necessary to make a prompt decision, and Mr. Wheeler was sent down immediately. His account of the interviews which he had with Mr. Hamilton was very clear and very specific. Though Mr. Hamilton was not himself actually one of the members of the Government, it was through him that the interviews with Mr. Wheeler were conducted. Mr. Wheeler's account of these interviews, given in court, did not tally with the recollection of Mr. Hamilton in important particulars of the case. The Attorney-General made this statement in the presence of Mr. Hamilton himself, upon official authority and information which could be proved; but, until Mr. Wheeler gave his evidence in court, no one connected with Government had an idea that he was going to depose to the state of facts which he mentioned in court, nor was the arrangement previously understood by which, under special circumstances, he was to be paid 125 guineas a visit. On the contrary, the only information they had before what was heard in court as to the nature of the attendance of Dr. Wheeler, was that contained in the memorandum which he himself kept, and which was substantially the same as the report of Mr. Hamilton to the Government at the time. Now, under the circumstances, the Attorney-General did not wish to raise any issue as to the accuracy of such a gentleman as Mr. Wheeler. It was therefore decided to accept his statement as an accurate narration of what had occurred.

Mr. Monroe, Q.C., said the case made by Surgeon Wheeler now was the case he had made all along, in the correspondence which took place with the Crown officials.

Judge Harrison expressed the pleasure with which he, and he was sure the public also, heard of the decision the law officials of the Crown had arrived at. He was sure it was a course that would be approved of by the Government, and even by Her Majesty if she were in court. He had himself passed through the hands of an

eminent surgeon; and, from his own experience, he would say that he visits charged by Dr. Wheeler were not only not too many, but were absolutely essential.

A verdict was then entered for the plantiff, with costs.

LIABILITIES OF MEDICAL MEN FOR NEGLECT.

CHARGES of neglect are easily brought against medical practitioners, and unless completely refuted, leave their sting behind them, even though dismissed as baseless. In the ordinary course of his practice a medical man is not obliged to undertake any case unless he choose, though if he do undertake it, he is of course bound to give it adequate attention and skill. He incurs no liability, civil or criminal, if he fails to attend a patient who sends for him at a time when it is inconvenient for him to go, or whom for pecuniary or other reasons he may prefer not to visit. True it is that if he stays away and anything serious happens to the person who sent for him, he will probably injure his reputation and his practice; and consequently a doctor is most unwilling as a rule to refuse to visit a patient who has sent for him, and will generally make considerable efforts to go even at the cost of inconvenience to himself. The public have got used to their doctor coming as soon as sent for, and no doubt many of them have unconsciously acquired the idea that he is bound to come when called. This idea, as we see, is unfounded in the case of the ordinary practitioner, but many doctors have entered into contracts which do oblige them to attend to people who require their services. The commonest case is that of Poor-law medical officers, who by contract with the guardians undertake to attend any person in their district to whom the relieving officer shall have given an order for medical relief. Such people are unpleasant patients, and attendance on them may oblige the postponement of a visit to paying patients. But the parish doctor has already undertaken the duty of attending to the pauper patient, and is liable criminally if any mischief should take place in consequence of his failure to attend. Not many years ago a medical man was convicted of manslaughter, and sentenced to six months' imprisonment, because he failed to attend a woman in her confinement after the relieving officer's order had been left at his surgery. The liability, in the case of a medical man who has undertaken to attend a particular class of patients, or, it might be any individual, is a serious one, and one which sometimes leads to serious penal consequences. Civil actions against medical men to recover damages for negligence, are occasionally brought into the courts. Such actions are more generally founded on alleged unwilfulness or carelessness in attending to a case, than on failure to attend at all. This follows naturally from the fact already pointed out, that the duty to attend is a duty arising from contract, and not merely from the fact of a medical man being sent for. Until he agrees to attend, he is not bound to do so; and when he once agrees, he is not likely to fail to attend, whatever his shortcomings may be in the matter of skill or care. Still, failure to attend, if the contract to attend has once been made, either with the individual patient or with the body to which he belongs, is a breach of contract, which may undoubtedly give rise to a good cause of action. Such an action was tried the other day in the Norwich County Court. Thomas Stringer, the plaintiff, was a member of a friendly society calling itself the Wenbury Court of Foresters, and the defendant, Mr. Wm. Thompson, was the medical officer of the society, and bound to attend its members. The plaintiff's case was that Mr. Thompson had several times neglected to attend him, though sent for, and that, in consequence, he had been obliged to put himself in the hands of another medical man, and he brought the action to recover, as damages, the amount of that doctor's charges. Mr. Thompson denied the charge of negligence, and showed that Stringer had already brought the case before the officials of the friendly society, who had decided against him. The Judge dismissed the case on the ground that by the rules of the society the dispute was one which was to be settled by the society, and not in a court of law; but at the same time said that there was no foundation for the charge of neglect brought against Mr. Thompson. He thus escapes from a claim which must have caused him considerable vexation and annoyance, but the action was one which undoubtedly was, in point of law, maintainable, though, fortunately it is not a very usual one. As it failed, it will probably not suggest to other people to bring forward similar claims; but the fact of its having been brought may, nevertheless, serve as a useful reminder, especially to young practitioners, that medical appointments involve responsibilities, which may turn out to be more serious than at first sight appears, and which are often quite out of proportion to the emoluments to be derived from them.

PARTNERSHIP AND VACCINATION GRANTS.

A CORRESPONDENT asks whether, in the case of an ordinary partnership, both partners should claim a share in the grant for efficient vaccination, and is such grant to be regarded as professional earning, or simply as a present to the one partner who fills the office of public vaccinator?

*** In the absence of any specific preliminary arrangements, it would appear to us that both partners should have a claim to share in the grant; and, even if only one partner take part in the vaccinations, it would seem equitable, as a general rule, that all professional earnings of every kind should be carried to the general partnership account.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

LOCAL GOVERNMENT BOARD INQUIRY.

AT the usual meeting of the St. George's-in-the-East Board of Guardians, on Friday, the Clerk (Mr. Browne) read a letter from the Local Government Board in reference to the official inquiry recently held by Dr. Bridges, Local Government Board Inspector, into the circumstances attending the death of an inmate named John Simmonds, respecting which a coroner's jury had returned a verdict to the effect that death had been accelerated by the man being kept at oakum-picking. The communication, after reviewing the evidence given on oath at the inquiry, proceeded as follows: "Under these circumstances, it appears to the Board that no sufficient evidence has been brought forward to connect John Simmonds's death with his employment at the very slight task of work allotted to him in the oakum-shed. The opinion expressed by the jury, in returning their verdict at the coroner's inquest, was, doubtless, based on the evidence given by Dr. Cooper, the late medical superintendent of the infirmary, to the effect that the man's death was accelerated by his remaining at oakum-picking, after it had been reported that he was in an unfit state to go through that labour. The Board, however, find that no special report was made by Dr. Cooper respecting the case of John Simmonds, but that his name was included in a list of thirty-eight persons, whom the medical superintendent, in July last, was of opinion should not be employed in oakum picking; that the guardians entertained a different view; and that, in the opinion of the Board's inspector, Dr. Bridges, the guardians were undoubtedly confirmed in their view by the result of his visit to the workhouse on July 11th last, when he fully inquired into the matter. While, however, the Board are strongly of opinion that the man's illness was not caused by his treatment in the workhouse, they cannot avoid the conclusion that the conduct of Dr. Deacon, the assistant medical officer, with reference to the case, was, in two important respects, extremely unsatisfactory." The letter proceeded to comment on delay in attending Simmonds, as shown by the evidence, and, in connection therewith, censured Dr. Deacon, the assistant medical officer.

POOR-LAW MEDICAL SERVICE.

SIR,—Your replies to "Alpha" and "M.R.C.P." in last week's JOURNAL are, to my mind, eminently unsatisfactory. "Alpha" sends his pupil to dress wounds and take temperatures at the union infirmary, of which he has charge, and you quote the law against him. I submit that the law is not against him, for it does not say that his pupil shall be employed under his own personal superintendence in the infirmary-wards. The nurses perform such duties under the superintendence and by the direction of the medical officer, but plainly this does not mean that he is to be present on such occasions. I believe the law does not support your opinion, and certainly common sense is against it. If a nurse can and does dress an ulcer, why should not a pupil? The law says that a medical officer shall attend the workhouse at certain stated times, and, provided the pupil does not act for him at any of these times, I do not see how he can be prevented from doing what "Alpha" directs him to do. It is not desirable to make a grievance of such a matter as this; but let "Alpha" avail himself of the first opportunity, and take the Local Government Board Inspector into his confidence.

Then, as to the medical officer's orders of extra nourishment—I beg pardon, not "orders," but recommendations. Call them by what name you like, they are certainly prescriptions in the treatment of the patient, and the relieving officer incurs a very heavy responsibility in refusing to carry them out; I question if he have the legal power to do so. I think I am right when I say that it is his duty to supply what extra nourishment the medical officer may recommend, and report the fact that he has done so at the next meeting of the board of guardians, and take their instructions. An order for medical attendance being given, the medical officer will prescribe what is necessary, whether in medicine or in food. It is just possible, in any given instance, that a pauper may be able to provide himself with the food prescribed, or that it should be granted him by way of loan, and the relieving officer is the proper person to advise the guardians on this point. That is a different thing. All I maintain is, that the board of guardians, and not the relieving officer, is the real authority in the case. In 1863, a relieving officer in London was fined by the magistrates forty shillings for neglecting to comply with a medical officer's recommendations as to extras for a sick pauper; and the Poor-law Board, in reply to a letter from the board of guardians on this case, says: "the

refusal to comply (on the part of the relieving officer) involves a serious responsibility, and would only be justified under special circumstances."

Here is a wrinkle for "M.R.C.P." Let him never call his recommendations "orders:" to boards of guardians and relieving officers it has much the same effect as a red rag in the face of a bull.—Yours etc.,

Cardiff, November 13th, 1883. ALFRED SHEEN, M.D.

*** Although we in the main agree with our correspondent, Dr. Alfred Sheen, in the views he expresses so forcibly in our present issue, still we must remind him that, in our answers to queries addressed to us, we are compelled to give, not our own interpretations on these matters, but those laid down in the various decisions of the Local Government Board. We gave, in our first reply, the decision of the department on the case in point, and our view was strengthened by a decision that was arrived at by the central department within the last twelvemonth, acting on the recommendation of their medical inspector, Dr. Bridges.

As regards the second point in Dr. Sheen's letter, we simply drew attention to the opinion laid down, and—what is more to the point—constantly acted on by the department, in their replies to medical officers who have at various times addressed them on the subject of the refusal of relieving officers to comply with their orders for extra nourishment. As we have before stated, the department has distinctly laid down the principle that such orders are only to be held as recommendations. It is true that they have expressed the opinion that, if ill-consequence should result from the relieving officer's refusal to comply with such orders or recommendations, he will be held responsible; yet, as penal consequences have seldom followed such refusal, we feel we are justified in giving the opinion (qualified though it may be), which, in the interests of our correspondents, we alone could give.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 15th instant, viz.:

Messrs. J. P. Martin, Doddington Grove, S.E., W. Fowler, M.A.Cantab., Old Burlington Street, F. A. A. Bush, L.R.C.P.Ed., Old Kent Road, and E. W. Simmons, L.S.A., Warrington, students of Guy's Hospital; H. Ley, L.S.A., Westbourne Terrace, D. N. Ruck, Devizes, and L. Robinson, L.S.A., Tyrwhitt Road, S.E., of St. Bartholomew's Hospital; W. J. Maurice, L.R.C.P, Lond., Renfrew Road, S.E., and T. G. Lyon, Peckham, S.E., of St. Thomas's Hospital; R. S. Bowker, L.R.C.P.Ed., Sydney, N.S.W., and L. E. A. Salmon, L.R.C.P.Ed., Portishead, of the Middlesex Hospital; G. Millhouse, Scarborough, of the Leeds School; A. Bowtray, L.S.A., Calstock, Cornwall, of the Charing Cross Hospital; C. B. Waller, L.S.A., Ipswich, of the Westminster Hospital; E. T. Greenhill, L.R.C.P.Ed., Chilmington, near Ashford, of University College; R. Holyoak, Droitwich, of the London Hospital; M. J. Doidge, Seaton, Devon, of St. Mary's Hospital; and W. E. Wilson, Oldham, of the Manchester School.

Eleven gentlemen passed in Surgery, and, when qualified in Medicine, will be admitted members of the College; and six candidates, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for six months, including one who had an additional three months.

The following gentlemen passed on the 16th instant, viz.:

Messrs. M. E. Dovaston, Camden Town, G. T. Lee, Upper Wimpole Street, R. W. Leeming, L.S.A., Kendal, and G. Herbert, L.R.C.P.Ed., Tonbridge, of University College; W. Spencer, L.R.C.P.Ed., Streatham, C. L. Josling, L.S.A., Gaudin Terrace, S.E., and J. F. Molyneux, L.R.C.P.Ed., West Battersea, of the Charing Cross Hospital; J. E. London, L.S.A., Berbice, British Guiana, and J. W. G. Kealy, L.S.A., Gosport, of King's College; W. J. A. Hadley, L.S.A., Clapham Common, and J. H. Williams, L.S.A., Llanidloes, Montgomeryshire, of the London Hospital; A. E. Larking, L.S.A., St. Thomas's Terrace, S.E., and E. R. S. Lipscomb, L.S.A., Woodside Park, Finchley, of Guy's Hospital; C. P. Mathew, L.S.A., Exeter, of St. Bartholomew's Hospital; P. B. Bentlif, L.S.A., Salisbury, of the Middlesex Hospital; G. A. Buckmaster, Wandsworth, of St. George's Hospital; B. M. Moorhouse, M.B.Edin., Canterbury, New Zealand, of the Edinburgh School; H. N. Oglesby, L.R.C.P.Ed., Melbourne, Derby, of the Leeds School; C. S. Chadwick, L.R.C.P.Edin., Manchester, of the Manchester School: J. H. Powell, L.R.C.P.Ed., Clifton, of the Bristol School; and L. P. Mumby, L.S.A., Gosport, of the Westminster Hospital.

Eight candidates were rejected.

The following gentlemen passed on the 19th instant, viz.:

Messrs. R. Lake and G. Pearce, of St. Thomas's Hospital; W. A. B. McCabe, of University College; J. Hutchinson, of the London Hospital; A. M. Sheild, of St. George's Hospital; and G. L. Johnson, of St. Bartholomew's Hospital.

Ten candidates were referred to their anatomical and physiological studies for six months.

At the recent pass-examinations for the diploma of membership of the Royal College of Surgeons, there were 129 candidates examined, as against ninety at the corresponding period last year. Of this number, seven were referred to their professional studies for three months, thirty-five for six months, and two for nine months, making a total of forty-four candidates rejected out of the 129 examined.

The following candidates passed the preliminary examination for the Fellowship on the 20th instant, viz.:

Messrs. F. H. Barendt, of the Liverpool School; J. McK. Ackland, of the Charing Cross Hospital; J. J. Lister, of the University of Cambridge; and F. G. C. Damian, of St. George's Hospital.

Twelve candidates were rejected.

The following gentlemen passed on the 21st instant, viz.:

Messrs. H. J. Stiles, of the Edinburgh University; P. S. Brito, of the Aberdeen University; C. D. Green, of St. Thomas's Hospital; C. Stonham, of University College.

Eight candidates were referred to their anatomical and physiological studies for six months. Forty-four candidates presented themselves for this examination, as compared with thirty-six at the corresponding period of last year. Of this number, thirty were referred, against eleven last year.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent M.B. Examination:

First Division.

C. F. Bailey, St. Bartholomew's Hospital.
J. M. Beverley, Owens College and Manchester Royal Infirmary.
R. Black, London Hospital.
E. H. Booth, Guy's Hospital.
F. F. Caiger, St. Thomas's Hospital.
J. H. Champ, Guy's Hospital.
J. Collier, Owens College and Manchester Royal Infirmary.
L. A. Dunn, Guy's Hospital.
C. R. Elgood, University College.
R. F. Fox, London Hospital.
W. D. Halliburton (*B.Sc.*), University College.
W. Hind, Guy's Hospital.
W. H. Horrocks (*B.Sc.*), Owens College.
W. Hull, St. Thomas's Hospital.
F. Knight, University College.
A. Martin, Guy's Hospital.
S. H. C. Martin (*B.Sc.*), University College.
P. F. Moline, University College.
F. J. Paley, St. Bartholomew's Hospital.
M. Parry-Jones, Guy's Hospital.
G. V. Perez, University College.
J. A. P. Price, Guy's Hospital.
S. Rabbeth, King's College.
J. T. Rogerson, Owens and University Colleges.
E. W. Roughton, St. Bartholomew's Hospital.
T. W. Shore (*B.Sc.*), St. Bartholomew's Hospital.
R. Sisley, St. George's Hospital.
R. H. S. Spicer (*B.Sc.*), St. Mary's Hospital.
St. Clair Thomson, King's College.
C. B. Voisey, Owens College, Manchester Royal Infirmary, and St. Mary's Hospital.
E. W. White, King's College.
S. Worthington, Guy's Hospital.

Second Division.

H. P. Berry, Guy's Hospital.
I. Blore, Owens College and Manchester Royal Infirmary.
W. T. Brooks, King's College.
R. Cuff, Guy's Hospital.
W. T. F. Davies, Guy's Hospital.
W. Dudley, Queen's College, Birmingham.
J. L. Hewer, St. Bartholomew's Hospital.
D. T. Hoskyn, University College.
C. M. H. Jones, St. Mary's Hospital.
N. P. Marsh, St. Bartholomew's Hospital.
C. H. L. Meyer, Guy's Hospital.
M. O'Kane, Guy's Hospital.
A. G. Salmon, St. Bartholomew's Hospital.
H. Shillito, Birmingham School of Medicine.
D. J. Slater, St. Bartholomew's Hospital.
J. H. Targett, Guy's Hospital.
E. Tomlinson, London School of Medicine for Women.
E. W. von Tunzelmann, University College.
H. D. Waugh (*B.A.*, *B.Sc.*), University College.
E. J. Wenyon (*B.A.*, *B.Sc.*), Guy's Hospital.
T. Wilson, University College.

APOTHECARIES' HALL.—The following gentlemen passed the Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 15th, 1883.

Barnett, Frank Septimus, Lancaster Road, Notting Hill.
Barry, Donald Moore, West Drayton, Middlesex.
Brickwell, Henry Taylor, Clapton Square, E.
Clegg, Joseph, Flixton, Manchester.
Higginson, Alfred, Vernon Street, Bolton.
Jenkins, Jenkin, Ancaster, Grantham.
Lipscomb, Edgar Richard Senhouse, Woodside Park, N.
Mumby, Langton Philip, Spring Gardens, Gosport.
Pratt, William Sutton, Torrington Square, W.C.
Williams, George Forbes Crawford, Burton Road, Brixton.
Wood, John William Atkinson, Grosvenor Street, Chorlton-on-Medlock, Manchester.

MEDICAL VACANCIES.

The following vacancies are announced:

BASFORD UNION RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary, £400 per annum Applications by November 28th.

BALLYSHANNON UNION.—Medical Officer, Belleek Dispensary. Salary, £120 per annum and fees, less £32 2s. 6d. deducted annually for dispensary residence. Apply, before 30th instant, to David Johnston, Honorary Secretary, Belleek.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Acting Physician. Applications by December 5th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Two Extra Acting Physicians. Salary, £60 per annum. Applications by December 5th.

CLIFDEN UNION.—Medical Officer, Renoyle Dispensary. Salary, £120 per annum, and fees. Applications, by December 6th, to Mr. J. O'Donnell, Honorary Secretary, Moyard, Clifden, Co. Galway.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant-Physician. Applications by December 17th.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications by December 3rd.

COTON HILL LUNATIC HOSPITAL, Stafford.—Resident Medical Superintendent. Salary, £400 per annum. Applications to the "Committee of Visitors," by December 8th.

COUNTIES ASYLUM, Ealands, Carlisle.—Second Medical Assistant. Salary, £80 per annum. Applications to Dr. Campbell by November 24th.

CUMBERLAND AND WESTMORLAND ASYLUM.—Second Medical Assistant. Salary, £80 per annum. Applications to Dr. Campbell, Garlands, Carlisle, by November 24th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by December 10th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Medical Officer for the Dispensary. Salary, £180 per annum. Applications to the Chairman of the Medical Board by November 27th.

GENERAL INFIRMARY, Leeds.—Resident Assistant House-Surgeon. Applications to the House-Surgeon by November 24th.

GENERAL INFIRMARY, Northampton.—Assistant House-Surgeon. Salary, £80 per annum.

GESTO HOSPITAL, Edinbane, Skye.—Resident Medical Officer. Salary, £275 per annum. Applications to J. McLennan, Solicitor, Portree, by December 1st.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, Bloomsbury.—Assistant-Surgeon. Applications by December 4th.

INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT, 26, Margaret Street, Cavendish Square.—Visiting Physician. Applications by November 27th.

KINGTON UNION.—Medical Officer. Salary, £30 per annum. Applications by December 3rd.

LEEDS AMALGAMATED FRIENDLY SOCIETIES.—Surgeon. Salary, £180 per annum. Applications to C. H. Wilson, 12, Rugby Terrace, Rugby Road, Leeds, by December 4th.

LIVERPOOL DISPENSARIES.—Assistant House-Surgeon. Salary, £108 per annum. Applications by November 26th, to R. R. Greene, Esq., Secretary, 34, Moorfields, Liverpool.

LONDON LOCK HOSPITAL AND ASYLUM, Female Department, Westbourne Green, Harrow Road.—House-Surgeon. Salary, £100 per annum. Applications by November 24th.

LONDON HOSPITAL.—Surgical Registrar. Salary, £100 per annum. Applications by December 17th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Resident Medical Officer and Registrar. Honorarium of 40 guineas per annum. Applications by December 10th.

NOTTINGHAM DISPENSARY.—Senior Resident Surgeon. Salary, £160 per annum. Applications by November 30th.

NOTTINGHAM DISPENSARY.—Two Junior Resident Surgeons. Salary, £140 per annum each. Applications by November 30th.

QUEEN'S HOSPITAL, Birmingham.—Honorary Physician. Applications by November 26th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Anatomy and Physiology. Applications by November 24th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant-Surgeon. Applications by December 5th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon. Salary, £50 per annum. Applications by December 10th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Assistant-Physician. Applications by December 10th.

WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer and Dispenser. Salary, £120 per annum. Applications by November 24th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon. Applications by December 1st.

YOUNG'S PARAFFIN LIGHT AND MINERAL OIL COMPANY, Limited.—Medical Practitioner. Salary, £300 per annum. Applications by December 1st.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

DEATHS.

BORCHARDT.—On the 15th instant, Dr. Louis Borchardt, of Swinton House, Hallowfield, Manchester, aged 67.

DAVIES.—On 18th November, at his residence, Penner House, near Newport, Monmouthshire, William Joseph Davies, J.P., and F.R.C.S., aged 66 years, deeply lamented.

MCINTYRE.—At Odiham, on the 18th inst., Anne, the beloved wife of John McIntyre, M.D., and daughter of the late Francis Tweddell, Esq., of Threepwood, Northumberland.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Francis Mason: A Case illustrating the Treatment of the Premaxillary Bone in Hare-lip (living specimen). Mr. Gay: Demonstration of Veins connected with the Hepatic System. Mr. Spencer Watson: Recent Improvements in Rhinoscopy and the Treatment of Polypus in the Nose. Mr. Startin will show a case of Elephantiasis of Traumatic Origin.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Sydney Ringer and Dr. H. Sainsbury: Investigation into the Action of the Digitalis Group. Mr. Cowell will exhibit four cases of Congenital Dislocation of both Femora (which will be on view half an hour before the meeting), and he will make some comments upon them before its close.

WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Bedford Fenwick: On Some Common Causes of Coughs.

THURSDAY.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr. Cresswell: Hydatids.—Parkes Museum, Margaret Street, 8 P.M. Lecture, by Dr. Charles Kelly, on Diseases caused by Sanitary Defects in Houses.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ARCACHON AS A HEALTH-RESORT.

MR. S. D. CLIPPINGDALE (Ladbroke Grove) asks for a few particulars of Arcachon, on the west coast of France, as a health-resort.

*** An eminent authority, to whom we have referred this query, writes: "Arcachon may be said to resemble Bournemouth, as it used to be, more nearly than any other English station. It lies on the south side of a little bay or inlet from the Atlantic, and therefore is exposed to the north wind. The houses usually taken by patients are scattered through the pine-wood, which was planted on the sandy Landes; the soil is, therefore, very dry. There are several hotels, which seemed quite good; that of which we have had personal experience was on the edge of the inlet, and was very cold in the end of January. Arcachon is only an hour and a quarter's distance by rail from Bordeaux, and the climates of the two are not dissimilar; only there is more shelter and the temperature is higher, if you live inside the pine-forest. Patients, therefore, strictly speaking, should confine themselves to the forest and its long walks and gentle undulations. But it is dull to remain always inside it, and amusements must be sought in the little town outside, on the margin of the bay. The climate of the forest is considered to be sedative to the system, in chronic chest-affections, phthisis, bronchitis, and asthma, and is contraindicated in languid lymphatic temperaments. The same class of patients are sent there as are sent to Paris, Pisa, and Venice. The mean annual temperature is about 59°. The mean winter temperature inside the forest is 50°; outside it, 46.5°. The prices used to be moderate, and, we believe, still are so, and living is by no means so expensive as in the Riviera, especially in the matter of carriages and horses.

THE ETHICS (?) OF TIPPING LIFE-INSURANCE AGENTS.

SIR,—A. and B., resident in the same town, have been appointed medical referees for some years to X. Assurance Company in the industrial and ordinary branches. Fees range from 2s. 6d to 21s. per case. There are many agents, each of whom is at liberty to refer their clients to A. or B., or to divide them. A. has adopted the more than questionable mode of tipping the agent at about 10 per cent. for all cases of 10s. 6d. and upwards. In this way, A. has nearly all the cases, except a few stray 2s. 6d. ones, which in some instances is due to the choice of the client. B. has refused to "tip" from principle, but it is at the loss of "coin." This has been going on for years. What ought B. to do? A. and B. are both in practice in the same town, on most friendly terms, and are members of the Association. B. belongs to the Branch, and A. would like to be proposed, and has suggested the same to B.; but B. considers that it is not to the honour of the Branch (nor, indeed, of the Association) that A. should be a member. It is high time that the Association should purge itself from members unworthy of its high and lofty aims, and that the Association be no longer a "Noah's Ark" for the reception of the clean and unclean. Your advice will oblige.—Yours, etc., BUNTHORNE.

November 19th, 1883.

*** The practice of paying concealed or irregular commissions is demoralising. No one should join in proposing a candidate for election into any professional body, unless he consider him to be a person worthy of membership and calculated to uphold the character and aims of that body.

MR. RUSKIN ON CHILDREN'S NURSERIES.

A CHARACTERISTIC letter of Mr. John Ruskin, on the subject of children's nurseries, written two years ago, has just been published for the first time in a little book on the teachings of the celebrated art-critic which has lately issued from the press. Mr. Ruskin says:—I have never written a pamphlet on nurseries; first, because I never write about anything except what I know more of than most other people; secondly, because nothing much matters in a nursery, except the mother, the nurse, and the air. So far as I have notions or guess in the matter myself, beyond the perfection of those three necessary elements, I should say the rougher and plainer everything the better. No lace to cradle-cap, hardest possible bed, and simplest possible food according to age, and floor and walls of the cleanliest. All education to beauty is, first, in the beauty of gentle human faces round a child; secondly, in the fields—fields meaning grass, water, beasts, flowers, and sky. Without these no man can be educated humanly. He may be made a calculating machine, a walking dictionary, a painter of dead bodies, a twangler or scratcher on keys or catgut, a discoverer of new forms of worms in mud; but a properly so-called human being, never. Pictures are, I believe, of no use whatever by themselves. If the child has other things right, round it, and given to it, its garden, its cat, and its window to the sky and stars; in time, pictures of flowers and beasts, and things in Heaven and heavenly earth, may be useful to it. But see, first, that its realities are heavenly.

THE HIND FUND.

THE following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank.

	£	s.	d.		£	s.	d.
A. B. C.	1	1	0	Harris, James, Esq.	1	1	0
A. D.	0	10	0	Hawkins, Cæsar, Esq.	5	5	0
Andrews, Dr. H. C.	1	1	0	Horton, Dr. H.,	0	10	6
Ayling, A. H. W., Esq.	1	1	0	How, Dr. G.	2	2	0
Baker, Wright, Esq.	1	1	0	Hutchinson, Jonathan, Esq.	5	5	0
Barker, A. E., Esq.	1	1	0	Kendall, S. May, Esq.	2	2	0
Bird, Wm., Esq, J.P.	5	0	0	Kirby, Dr.	3	3	0
Bowles, Dr. R. L.	2	2	0	Langmore, Dr. J. C.	1	1	0
Bowman, Wm., Esq.	5	0	0	Laver, H., Esq.	0	10	0
Budd, Mrs.	1	1	0	Little, Dr.	2	2	0
Childs, Major	1	1	0	Martin, J. B., Esq.	2	2	0
Cooke, G. R., Esq.	1	1	0	Mason, J. W., Esq.	1	1	0
Cronin, Mrs.	2	0	0	Merryweather, J., Esq.	3	3	0
Ellis, Edward, Esq.	0	10	0	Pettigrew, Professor	1	1	0
F. T.	1	1	0	Powles, L. D., Esq.	1	1	0
Fitzpatrick, Dr.	0	10	6	Renner, Dr.	0	10	6
Frampton, Trevethan, Esq.	0	10	6	Ringer, Dr.	2	2	0
Fuller, C. C., Esq.	2	2	0	Spencer, Surgeon-Major	5	0	0
Furber, Geo. H., Esq.	1	1	0	Tayler, Dr.	2	2	0
Gant, F. J., Esq.	1	1	0	Turner, Professor	5	0	0
Harley, Dr. John	1	1	0	Wiblin, John, Esq.	2	2	0

Subscriptions may be made to Dr. Richardson, F.R.S. (Chairman), 25, Manchester Square; John Tweedy, Esq., 24, Harley Street, Honorary Treasurer A. J. Pepper, Esq., 122, Gower Street; and T. Wakley, jun., Esq., 96, Redcliff Gardens, Honorary Secretaries; or to Messrs. Coutts and Co., Strand.

HOME FOR AN IDIOT.

DR. SHUTTLEWORTH (Lancaster) writes in reply to "A Ten Years' Subscriber," (JOURNAL, November 17th, p. 1004), that if the parents of the idiotic child reside within the limits of the metropolitan district, admission may be obtained into the Darenth Asylum for Imbeciles by arrangement as to payment with the parochial authorities; and that there are subscription-supported idiot asylums for the Eastern, Western, Midland, and Northern counties respectively at Colchester, Starcross, Knowle, and Lancaster, into which patients from the respective districts are received on easy terms. He remarks that frequent inquiries in the JOURNAL with regard to special accommodation for imbeciles lends force to the suggestion made in 1877 by the Charity Organisation Society that, private charity being unable to provide a remedy co-extensive with the evil (*i.e.*, to cover the whole ground), it is incumbent on the State to supplement voluntary effort by the establishment of pauper idiot institutions (on the model of those of the metropolitan district) throughout the country.

A PRECEDENT WANTED.

SIR,—May I crave space in your columns this week for a matter of interest, not only to myself, but to club-surgeons generally?

Three years ago, through the resignation of my predecessor from ill-health, a contested election took place for the appointment of surgeon to the most important lodge of Oddfellows in the district, and I was the successful candidate. Since that time, although the written law of the Order says that the surgeon shall remain in office "at the pleasure of the Lodge," a by-law has been passed that there shall be an annual "election." At the same time, the rule is that, in the event of dissatisfaction arising on either side, three months' notice shall be given by the dissatisfied party. In all my experience of clubs, during an apprenticeship to a club-surgeon, I never heard of such an unsatisfactory and unsettled arrangement as an annual "election" whilst a surgeon is in office; or of such an awkward possibility (for the club authorities) as that of having two surgeons in office, one of whom is "under notice." Will any club-surgeon kindly give his opinion (next week, if possible) upon this matter?—I am, etc., A DISSATISFIED ODDFELLOW.

November 20th, 1883.

THE MORNING BATH.

SIR,—Very few people are able to continue the use of the cold bath through the winter months, in this cold damp climate of ours, more especially when it is usually considered necessary to shock the system in a very shocking way by getting into it feet foremost and bodily. Surely this is entirely unnecessary in order to obtain the full benefits from the suitable application of cold water than which there is nothing more healthful and invigorating. All that is necessary is to take a large, not too large, sponge (Turkey), wet with cold water, and to rub the whole body from the top of the head to the sole of the foot with it, dipping it again and again in the water in order to get the full effects of cooling and cleansing of the skin; after which a rough towel, or the Turkish bath towel, should be used to dry the surface and to obtain the glow. A cold wet towel may be substituted for the wet sponge, as equally, if no more, useful for the purpose. If this operation be gone through day by day the use of the soap-lather is entirely unnecessary. My own opinion coincides with that of the late Dr. John Brown, that much soap is most injurious, more especially in the winter time, the cold winds taking greater effect on the skin, unprotected as it must be, when the secretion from the sebaceous follicles have been completely removed. This is no mere imaginary cause of disease. Soap, of course, can and should be used for the face and hands and other exposed parts. It appears also to me that this process may be repeated with the feet from day to day, or as often as may be deemed necessary. By the simple means I have advised, the shock is never more than can be borne by the most sensitive person, and yet it is altogether sufficient and efficient for all purposes. It should never be forgotten that the entire surface of the body and limbs should receive due attention, no part at any time being omitted from the refreshing and cleansing power of simple water.—Yours truly, WM. PROWSE.

Clifton, Bristol, November 6th, 1883.

THE OXYHYDROGEN MICROSCOPE.

MR. G. H. SMITH (Southsea) asks for the following information as to showing objects by the oxyhydrogen microscope. Can it be managed with an ordinary microscope attached to the lime-light, or does it require a special one? Is there any practical book published on the subject? And, for the purpose of demonstration to a mixed audience, is the microscope or are photographs in a magic lantern the most suitable?

The Boast Fund.

Sir,—Kindly acknowledge the following additional subscriptions to the above fund.

	£	s.	d.
C. E. Winckworth, Esq., Shefford	1	1	0
Bootle X L and L X	0	0	11
A. Potts, Esq., Attleborough	1	1	0
Dr. Bull, Hereford	1	1	0
Dr. C. Aldridge, Plympton ...	0	10	6
G.	1	0	0
J. Wilcocks, Esq., Sylch House, Burslem	0	10	6
L. Lewis, Esq., Plymouth ...	0	5	0

—Yours sincerely,
GEO. JACKSON.
1, St. George's Terrace, Plymouth, November 13th, 1883.

The Micro-organism of Cholera.

Sir,—In these days, there is danger lest foreigners run away with honours which we Britishers should be jealous to secure. In regard to the use of the microscope, or chemical investigations, to ascertain the mode of propagation of cholera, I think we can claim for British physicians the honour of having been first in the field. There is an excellent letter on the subject by the late John Snow, M.D., in the Association Medical Journal, February 16th, 1856, p. 135, which I beg leave to reproduce.

"Sir,—It appears from the interesting report in the Journal of to-day of the address of Sir James Kay Shuttleworth at Manchester, that he alludes in complimentary terms to my conclusions regarding the propagation of cholera, as modified by a suggestion of Drs. Thiersch and Pettenkofer, but he erroneously attributes these views, so modified, to Dr. W. Budd. Dr. Alison fell into a similar mistake, which was afterwards rectified in the journal in which it had appeared, the *Edinburgh Medical Journal*, and I suspect that it is Dr. Alison's mistake which has misled Sir J. K. Shuttleworth. A few weeks after the first edition of my essay on cholera appeared, in 1849, Dr. W. Budd published a pamphlet on the subject, in which he adopted my views, and made a full and handsome acknowledgment of my priority. In the latter part of 1854, he also published a series of papers in the Association Medical Journal containing some interesting facts in support of these views. These papers were published at first with the signature of 'Common Sense,' but Dr. W. Budd avowed the authorship before their conclusion. In the number of the Journal for December 22nd, he gave a qualified adhesion to the opinion of Drs. Thiersch and Pettenkofer, that some kind of change or fermentation is necessary in the peculiar excretions of cholera to enable them to propagate the disease. This is a modification of my original views, which I, however, see no reason to adopt. In one or two places in his papers in the Association Journal Dr. W. Budd advocates the propagation of cholera through the air, by means of the excretions, to a greater extent than I am inclined to admit; but with this and the before mentioned exception, his opinions respecting every point connected with the pathology and mode of communication of cholera are exactly those which I first published in 1849, and have since maintained. I have not made the above remarks by way of complaint, but as my researches respecting cholera were conducted with great labour, and very much to the detriment of my more immediate interests, I feel it a duty not to allow the credit of them to pass from me by a mere mistake.—I am, etc., John Snow, Sackville Street, February 8th, 1856."

More recently, Dr. Ballard noticed that, in a town intersected by a rivulet, the population who drank the water entering the town escaped typhoid fever to a much greater extent than the other half of the town who used the water emerging from it. Taking this as my cue, I had the honour to read a paper, when the late Mr. Carden was in the chair, before the Worcestershire Medical Society, showing how, in blight, the enteric germ should be suspected; just as moss, ferns, etc., grow on roofs and in wells, so, no doubt, we should suspect that blight seeks nitrogen, or some other product of decomposition, as in cheese-decay, or as blight attacks beans in one field while another escapes. Further, impure water or air may be taken for years till the germ settles in them, endangering human life, maybe, for the first time.

After this, during a very sultry summer, when milk became sour rapidly, the cheese made from it caused some poisoning cases with fearful vomiting. Herapath of Bristol analysed the cheese, and attributed the poisoning to some metamorphosis of the cheese-ingredients rather than to the presence of any lead, the quantity of which was too minute, if any, to cause serious illness. I am glad to see a letter by "D. Rhys Jones," in the British Medical Journal, October 20th, 1883, p. 804, relative to changes in milk, "organisms which," he says, "must also, by living in it, alter the character of some of the constituents of the milk."

This is a valuable and independent testimony of Herapath's views, inasmuch as Mr. Rhys Jones cannot, I suppose, have been aware of the opinion given by the eminent firm of chemists. The presence of vitalised and albuminous vapour, on the skins of dirty people, or in the air, concentratable in close confined rooms, would afford pabulum and a nidus for the germs in air or water.—I am, sir, yours obediently,
SAML. W. SMITH, M.D.
Pershore, October 20th, 1883.

.—The practice in question is, we believe, often adopted, and is not considered to be unprofessional.

Self-Help in Labour.

R,—On November 2nd, I was summoned to attend Mrs. G., aged 30, wife of a small farmer, in her ninth confinement. On arrival, I found the membranes ruptured and the head on the perinæum. I asked her a few questions, and learned that the waters had escaped an hour after the pains began. The questions being pressed, she confessed to having ruptured them herself. She stated that in previous labours this had been done by her medical attendants, and she had been so much helped by it, that she saw no harm in doing it for herself. She also made vaginal self-examinations, and, without any prompting, strongly supported the perinæum with one hand while the head was being expelled.

The case presents another point of interest. From conception to quickening, the woman had a daily sanguineous discharge from the vagina. The same had occurred in a former pregnancy.—I am, etc.,
ALBERT B. CLARKE, L.R.C.S.Ed., L.S.A.

The Vomiting of Pregnancy.

R. WALTER GRIPPER (6, Sumner Place, Onslow Square) asks if any member of the profession who has lately met with good cases of the above condition, especially if pointing to their pathology, or who may do so within the next few months, will be kind enough to communicate with him, and, if convenient, advise him by postcard whether he can see such case.

Contagion of Cholera.

Sir,—In answer to the letter in the Journal of November 3rd, signed "G. R. Turner," I beg to say that I believe I am the only surviving English surgeon who served with the Poles in 1830. I knew Dr. Andrew Buchanan very well, and I can verify the truth of the statements made by him. I do not think any of the medical men in Warsaw believed in the contagiousness of cholera, although a proclivity to that disease was undoubtedly given by timidity. A striking instance of this befell my own party. We left London five in number, viz., Howey, Thorburn, Quail, Jowett, and myself. Cholera was new to us all; and when we arrived in Berlin we found our Minister Plenipotentiary, Mr. Chad (to whom, thanks to Howey, we had a letter of introduction from Lord Palmerston), reading a letter from Warsaw, with the assistance of two pairs of tongs, which of course begged the question of contagion; and we were all duly impressed with the truth of that doctrine. In going through the forests of Posen, Jowett and myself wandered after plants while the horses stumbled through the bad roads. It was then that Jowett, generally a cheerful fellow, told me he was confident he should die of cholera. I reasoned with him, and cheered him as well as I could, but he never regained his former spirits. When we arrived in Warsaw, we were of course separated, and I saw very little of Jowett. At the end of a fortnight or three weeks, I had a hasty summons to the cholera-hospital, and there I found my poor friend; he was admitted at 9 A.M., and died the same evening. The other surgeons told me that he never recovered his spirits, and sank rapidly when the disease overtook him.

Many such instances came under my special observation, one of which made a deep impression upon my mind. Mr. Evans, one of the most respectable merchants in Warsaw, invited, on the Monday, the English surgeons to drink tea on the Wednesday following, tea-drinking being much in vogue. At the hour mentioned on Wednesday, our friend was dead and buried!

With regard to the treatment, but little can be said. The celebrated Dr. Searle was there from India, but his practice of ten-grain doses of calomel was of no use. I think smaller doses, given every half-hour (doses of one grain), and allowing the patient to drink as much cold water as he liked, was the most successful treatment. Dr. Searle used to forbid the use of water; and amidst the horrid memories I retain of the cholera-hospital was the constant but ineffectual cry for water. Excuse this gossip. I write from memory of fifty-three years, and remain, yours truly,
C. R. BREE, M.D.
Hill House, Long Melford, Suffolk, November 9th, 1883.

P.S.—Dr. Buchanan and his friend Mr. May joined our party for Warsaw in Paris. The cholera was of the very worst form of Indian type

Determination of Sex.

Sir,—The correspondence under this head in the British Medical Journal is most interesting; and, without entering into the discussion, I should like to offer a few remarks. Over twenty-five years ago, I took great pleasure in the breeding of poultry, pigeons, rabbits, and dogs, for show purposes; and colour, form, sex, etc., were important points. Mr. W. B. Tegetmeier and my brother Mr. W. W. Boulton of Beverley "manufactured," so to speak, several varieties, such as black-crested white Polands, brown red game bantams, cuckoo bantams, and coloured varieties of Himalayan rabbits, quite new to fanciers, by certain laws of selection. The rule was to look to the male for form and colour, and to the female for constitution and racial characteristics. Breeders of horses follow a similar law, looking for endurance, staying power, and constitution to the dam, and not forgetting the progeny of Chanticleer as proof of propagation of colour from the sire.

As to determination of sex: A setter and a terrier bitch were each put to the dog at the commencement of "heat" only, and the puppies were mostly bitches. The same two bitches were afterwards put to the same dogs at the end of "heat" only, and the puppies were mostly dogs. This was repeated three times, in each case with the same result.

The Levitical law is one thing, the continence of all Jews another; otherwise Dr. Campbell would "score" here.—Yours, etc.,
PERCY BOULTON, M.D.

Urinary Abscess.

The following case, I think, will answer in the affirmative the question that Mr. Jessett asks in relating one of his cases of urinary abscess (British Medical Journal, Oct. 20)—"Did the abscess commence from ulceration in the urethra?" In my case, the ulceration, and, consequently the extravasation, took place behind the deep fascia. Seven years ago, I was called to attend on a man whose family I was accustomed to attend. He himself had had no occasion for my services, and had removed to a neighbouring town. He was suffering from a severe attack of bronchitis, complicated by a strong rheumatic diathesis. The chest-disease was well on the decline, and no complaint had been made to me of the urinary passages beyond the burning irritation produced by his urine, which was highly charged with lithic acid; and my patient, I expected, would soon be convalescent. Upon the thirteenth day of my attendance, my attention was drawn to a swelling covering the external abdominal ring, and near to the right base of the penis. Upon first looking at it, it at once suggested hernia; but, upon more closely examining it, it had not the feel of hernia; it was more doughy, and presented no impetus upon coughing. It had come on during the night. The case was very obscure. There was no history of hernia; the bowels had been acting well daily; there was no complaint of difficulty in expelling the urine. The next day, there was no doubt that urinary extravasation had taken place; but how, I was at a loss to explain. He was then seen by a distinguished hospital surgeon, but rapidly sank, and died the next day. There was no *post mortem* examination.

Two or three days afterwards, it occurred to me that he had at one time applied to me for stricture of the urethra; and, upon referring to my day-book, I found that, nineteen years before, I had passed a bougie for him four times. He then ceased his attendance, and I had not seen him professionally from that time up to his fatal illness. During the whole time of my attendance upon him, he never drew my attention to his urethra, or mentioned a single symptom that would have led me to suspect any impediment to the flow of his urine; and the scalding spoken of was most easily accounted for by the state of the urine itself; but, although the urine had been discharged with at least the accustomed freedom, there is no doubt that this acrid condition, assisted by the retardation of its flow produced by the contracted state of the urethra, led to ulceration behind the stricture, and the consequent extravasation and death.—Faithfully yours,
Sandycroft, Shaw.
J. FIELDEN HOWARD.

Cerebro-Nervous Diseases Peculiar to Women.

SIR,—Dr. Petit's commentary in to-day's BRITISH MEDICAL JOURNAL on a paper of mine which you were good enough to publish last month, may be briefly answered. The objects of that paper were, *inter alia*, to show, 1, that certain nervous and mental disorders, traceable to uterine or ovarian causes, have recently become very prevalent; 2, that the medical superintendents of lunatic asylums, as a rule, are not likely either to recognise or to treat specially those local disorders, by the removal of which such patients may possibly be restored to mental as well as physical health; 3, that women who might be thus cured by proper treatment are now needlessly, and therefore improperly, confined as lunatics.

These propositions may not, perhaps, commend themselves to the proprietors of private asylums, or to the medical superintendents of public ones. Nevertheless, I still venture to think that the more the subject is discussed, the more evident will become the truth of the views now stated. Hence I trust that Dr. Petit will avail himself of his opportunities of investigating this question; and he will probably find that I have overestimated neither its importance nor the number of those affected by it. For, when to the 46,556 registered female lunatics in Great Britain be added those confined in Irish asylums, as well as the many non-registered women of deranged mind who are under restraint in private houses, hospitals, workhouses, prisons, etc., it will, I am sure, be found that my estimate of sixty thousand is a very low computation of the number of women actually secluded as insane in these countries.

It would be quite impossible, in the space devoted to your general correspondence in this JOURNAL, to discuss adequately all the points referred to by Dr. Petit. He must, therefore, excuse my not following him any further. I trust, however, to have another opportunity of doing so in some future communication on this subject.—I have the honour to be, sir, your very obedient servant.

THOS. MORE MADDEN.

55, Merrion Square, Dublin, November 17th, 1883.

Stoves and Grates.

J. M. is desirous of knowing the names of the best stoves and grates at the Smoke Abatement Exhibition. There are many excellent smoke-consuming stoves and grates. The following are a few of the firms whose grates were tested at the Smoke Abatement Exhibition, and to whom awards were made. For grates suitable for dwelling-rooms, Messrs. Clarke, Bunnett, and Co., 90, Queen Street, Cheapside for Ingram's Kaio Kapnos grate; the Coalbrookdale Company, 118, Cannon Street for the Kyrle grate; for kitcheners, T. J. Constantine, 61, Fleet Street; the Eagle Range Company, 15, Bloomsbury Street; the Radiator Range Company, 43, Cannon Street, E.C.; Messrs. Brown and Green (for their underfed kitchener), 72, Bishopsgate Street Within, E.C.

Oil-Cyst.

SIR,—E. W., aged 21, a married lady, sought, from me, relief for distressing daily headache, which she attributed to a small swelling in the temporal fossa, close upon the external angular process of the frontal bone. Fluctuation was palpable in the tumour, and, since the lady refused to permit its removal, a No. 2 exploring trocar was inserted, and from one to two drachms of fluid oil withdrawn through the cannula. Some of the fluid escaped on to a handkerchief, leaving a characteristic greasy stain, which had not evaporated after half an hour's exposure in a warm place, but which was completely removed by passing ether through the part. The greater portion of the fluid was received into a small earthenware utensil, and shortly became of the consistence and appearance of butter. Under the microscope, globules enclosed in a delicate envelope were visible, and a few blood-corpuscles, but no epithelial cells. No further examination was made of the fluid. The swelling, I was informed, had existed from birth, but had, perhaps, increased in size during the past four or five weeks. Three months after tapping no sign of the cyst was detectable, and there had been no recurrence of pain in the part since the tapping.—I am, etc., W. T. CLEGG, Liverpool.

COMMUNICATIONS, LETTERS, etc., have been received from:

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BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

MICRO-ORGANISMS IN THEIR RELATION TO DISEASE.

Introduction to a Discussion in the Section of Pathology.

BY JULIUS DRESCHFELD, M.D., F.R.C.P.,
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THE subject on which I have the honour to open the discussion is one which at present occupies a most prominent part in pathology, practical medicine and surgery, and hygiene; and it is one in which this Association has at all times shown great interest. At several of our annual meetings, we have had addresses on this subject; the volumes of the BRITISH MEDICAL JOURNAL abound with leading articles, reviews, and original investigations on micro-organisms; and some of the funds of this Association have been devoted to the prosecution of original research on this topic. The subject is at the same time so extensive, and presents still so many obscure and controverted points, that it is almost impossible, in the short space of time allotted to me, to do full justice to it, or to consider the many points at issue. In the remarks which I am about to make, I wish briefly to lay before you the present position of this great question, and to dwell more particularly on those points which have a practical bearing.

In the discussion of the subject, the following questions naturally suggest themselves.

I. Are the microscopic objects with which we have to deal really organisms of independent existence?

II. If they be organisms, in what relation do they stand to the disease? Are they the cause or the effect of disease? or do they form only a more or less important incidental factor in the progress of disease? or is their occurrence in a diseased part purely accidental?

III. If they be the cause of disease, whence are they derived? How do they enter the body, and how do they produce the changes and symptoms observed in the disease? In what relation does their life-history stand to the disease-process?

IV. What means have we of rendering them innocuous?

I. As to the first of these questions, I can be very brief. Few will at present doubt that the microscopic objects, of which numerous specimens are exhibited at this meeting, are really organisms. It may be difficult or even impossible to recognise one such minute body by itself, at least in its natural condition; but they usually occur in such masses that their recognition is no longer a matter of difficulty, especially as they readily stain with the basic aniline dyes. Some of them, again, possess definite forms, *e.g.*, the large bacilli and spirilla, which are unlike the form of any other morphological elements constituting diseased or healthy structures. Many of them, in their free state, show active and independent movements; and, lastly, many of them are capable of cultivation, and we can watch their growth and development.

By means of their specific morphological character we have not only been able to recognise these organisms, but also to classify them; and as, perhaps, some of my hearers may not have had time to follow up the subject so closely as those actively engaged in the study of micro-organisms, I may be excused if I just enumerate the chief forms of micro-organisms with which we are concerned. Drs. Mott and Baron have had the kindness to draw up a short table, with lithographic plates prepared from actual specimens in their possession, which, you will find, corresponds very much to the classification as depicted in the diagram.

The organisms with which we deal to-day all belong to the lowest class of plant-life, and, with one exception—the actinomyces—to the class of Schizomycetæ. According to their morphological appearances, we divide them into several groups; and in each group we distinguish, according to their physiological properties, the chromogenous (pigment-forming), the zymogenous (those which are concerned in fermentation and putrefaction), and the pathogenic (when they occur in disease) varieties.

I. Sphærobacteria (Micrococci), spherical or oval cells, less than 0.001 mm. in diameter, occurring singly or in pairs (diplococci), or in masses (zoogloœa).
- *a.* Chromogenous.
  - f. i. M. prodigiosus, found as a red covering on potatoes, gelatine, etc.
- *b.* Zymogenous.
  - f. i. M. ureæ.
- *c.* Pathogenic.

The diseases in which micrococci have been found are:
- Acute abscess.
- Pyæmia.
- Septicæmia.
- **Septicæmia in mice (Koch).
- **Erysipelas.
- Osteomyelitis.
- Endocarditis ulcerosa.
- *Diphtheria.
- **Gonorrhœa.
- *Pneumonia.
- Cerebro-spinal meningitis (Aufrecht).
- Cerebral meningitis (Leyden).
- Acute yellow atrophy of liver.
- Variola.
- Scarlatina.
- Measles.
- Typhus (Mott).
- Syphilis (Birch-Hirschfeld, Klebs).
- Dysentery (Prior).
- Whooping-cough (Burger).

II. Microbacteria, small cylindrical or elliptical rods, occurring in pairs or in zoogloœa-masses.
- *a.* Chromogenous.
  - f. i. B. xanthum (in yellow milk).
  - B. æruginosum (in blue pus).
- *b.* Zymogenous.
  - f. i. B. termo (putrefaction).
  - B. lineola (in stagnant waters).
  - Mycoderma aceti (acetic acid fermentation).
- *c.* Pathogenic, in
- **Septicæmia of rabbits (Koch).
- **Chicken-cholera (Pasteur).
- Typhus? (Klebs).

III. Desmobacteria.
1. Bacilli, larger rods, often showing the formation of spores.
   - *a.* Chromogenous.
     - f. i. B. ruber (on boiled rice).
     - B. syncyanum (blue milk).
   - *b.* Zymogenous.
     - f. i. B. subtilis (on hay-infusion).
     - B. butyricus (butyric acid fermentation).
   - *c.* Pathogenic, in
   - **Anthrax.
   - **Glanders.
   - **Septicæmia of mice (Koch).
   - Malignant œdema of animals and of man (Ehrlich).
   - Meat-poisoning in man (Klein).
   - Typhoid fever.
   - Malaria.
   - Diphtheria (Klebs).
   - Lepra.
   - **Tuberculosis (including tuberculosis, phthisis, scrofula, lupus, and pearl-disease of animals).
2. Leptothrix buccalis, longer rods and fibres, occurring often in bundles, and found in the saliva, etc.

IV and V. Spirobacteria and Spirilla (spiral fibres).
1. S. serpens (in stagnant fluids).
2. Spirochæta (in the tartar and caries of teeth).

Pathogenic:
- **Spirochæta Obermeieri (in relapsing fever)
- **Actinomyces, occurring in actinomyces of man and animals (not yet classified).

Note.—In the above list, those diseases in which it is fully established that the micro-organism is the causal agent are marked **; those in which this is less fully proved are marked *; whilst for the rest our evidence is but meagre.

It is impossible here to enter upon the biology of these micro-organisms; but some points of practical interest I must briefly touch upon.

1. As to the classification. Recent observations by some of the best mycologists (Schenk, Zapf, Naegeli, Ray Lankester) have shown that a micro-organism of one group may, by development, change into one of another group. Thus, a micrococcus has been developed into a bacterium; this into a bacillus; and this, again, into a spirillum. As yet, this has only been shown for a few organisms. How far it may apply to others remains to be seen.

2. It is doubted by some whether each particular organism presents its specific properties, even within the limits of a single group. I may here allude to the known researches of Buchner, who believed he was able, by altering the nutritive soil, to change the hay-bacillus into the anthrax-bacillus. Koch and Klein have, however, I think, conclusively shown that Buchner's results are erroneous, and that he worked with impure cultivations. Again, according to Wernich, an innocent bacillus may, under favourable circum-

stances, develop into the typhoid bacillus; for this statement, the necessary demonstrative proofs are as yet wanting. That the question is, however, one which is of the greatest importance in relation to the spontaneous origin of some fevers, will be seen at a glance.

3. The micro-organisms require for their growth a peculiar soil—the cultivating medium. With respect to artificial cultivating media, it has already been established that their composition, their chemical reaction, and their physical state, play an important part in the successful cultivation of organisms. About the exact conditions under which the human organism forms a favourable soil for the growth and development of the particular organisms, we know almost nothing. How is it, *e. g.*, that, in children, the broncho-pneumonia after measles or whooping-cough so often becomes caseous, which may be considered synonymous with tubercular disease, whilst croupous pneumonia rarely terminates in tuberculosis?

4. Under certain conditions, the micro-organisms show a marvellous power to develop. Sometimes this is due to the presence of other micro-organisms (Ehrlich, *Berl. Klin. Wochens.*, 1883); in many cases, however, the cause is not known; thus, Rossbach showed that the blood of a frog, which was perfectly free from organisms, was found to swarm with them a few minutes after the injection of papain, itself free from organisms.

II. We now come to the second question: How far are the micro-organisms the cause of disease? We have a right to consider micro-organisms the cause of disease when they fulfil the following conditions:

1. When they constantly occur in the particular disease which they are said to produce, and are present at the very commencement of the disease;

2. When they can be separated from the diseased part, and can be obtained pure and isolated; and when the introduction of these pure organisms, if possible in the same species of animal from which they were originally derived, produces the same disease.

It will be at once seen that many difficulties present themselves here, when we consider human pathology. It is not often possible to obtain the organisms at the very commencement of the disease; it is equally difficult to find the exact soil on which the organisms will grow, when removed from the body; and it is often also not feasible to inoculate a healthy human subject with the cultivated organisms. For some diseases, however, all these conditions have been completely fulfilled; for others, almost so. The diseases for which this has been done are: erysipelas, septicæmia of certain animals, gonorrhœa, glanders, chicken-cholera (Pasteur), splenic fever or anthrax, relapsing fever, tuberculosis. We will briefly consider these.

Erysipelas.—Fehleisen detected several cases of erysipelas-micrococci, especially in the parts at the periphery of the erysipelatous patch, at the very commencement of the process. He found them in the interstitial tissue, and also in the lymphatics; and in their neighbourhood he found accumulation of leucocytes. He was able to cultivate the organisms on a solid gelatine soil, and went on cultivating them to the twelfth and thirteenth generation. He noticed a different naked-eye appearance of the cultivated masses from that of cultivating masses of other septic micrococci. The cultivated organisms, when injected into a rabbit's ear, produced, after an incubation-period of twelve to eighteen hours, typical erysipelas, spreading to the head and neck. In the affected parts, the micrococci were again seen. Removing the rabbit's ear twelve hours after inoculation stopped the process.

Bearing in mind some well-known observations by Nélaton, Thiersch, and Volkmann, that patients suffering from malignant tumours improved, when contracting erysipelas, Fehleisen inoculated patients, some suffering from cancer of the breast, others from sarcomatous tumours, others from lupus, with the cultivated micrococci, and produced, in seven out of nine inoculations, typical, and in one case most severe, erysipelas.

In the pus from *Gonorrhœa*, Neisser detected a micro-organism—a micrococcus. This he was able to cultivate, and found its naked-eye appearance, as cultivated on gelatine, different from the septic micro-organism. Inoculations performed by him were not successful. Bockhardt, however, has recently repeated the experiment, cultivated the micrococci, and obtained positive results on inoculating the urethra of man with the pure and isolated gonococci. (I may just mention that, in the fluid in the joints affected with gonorrhœal rheumatism, no micrococci have ever yet been found.) (Bockhardt, *Sitz.-bericht. der Phys. Med. Gesell. Würzburg*, 1882.)

In *Glanders*, several independent observers—Struck, Loffler, Israel (*Berlin. Klin. Woch.*, 1883, p. 2), and Bouchard—have found a bacillus, and cultivated it. When inoculated into the nasal cavity of animals (horse and rabbit), it has produced typical glanders.

Koch's researches on the septicæmia of mice have already been alluded to some years ago by Mr. Lister. They are well known, and need no further reference.

Pasteur's researches on *Chicken-cholera* show that it is due to a bacterium which can be cultivated, and the pure cultivation successfully inoculated again in chickens.

The researches as to *Anthrax* are so well known, that I need only briefly refer to them here. It is an established and well-recognised fact that, in all the organs, and often also in the blood, of persons suffering from splenic fever, the typical bacillus is found. This bacillus, when put into a proper cultivating fluid, grows into longer fibres, and these break up into spores, which are very resistent and withstand heat; and, when inoculated into some animals (some, such as the field-mouse, are immune), develop again into bacilli, and produce again anthrax. Though inoculation of man with cultivated bacilli is not likely to be experimentally tried, yet the evidence is here so strong, that we may safely conclude that the bacilli are the cause of the anthrax.

Equally satisfactory is the evidence as to the causation of *Relapsing Fever*. The researches on this subject, notably the important ones of Vandyke Carter, are known to all of you. Soon after the commencement of the attack, the blood of persons suffering from relapsing fever contains the spirillum in active movement. During the intermission, they disappear, and reappear again during the relapse. Albrecht (*Petersb. Med. Wochenschrift*, No. 1, 1881) watched the development of the spirillum in the blood from actively moving little granules, no doubt the spores. He took the blood from a patient during the intermission-period of relapsing fever, placed it in a moist chamber, and found, after five or six days, when the relapse had already commenced in the patient from whom the blood was taken, the spirilla in active movement. Koch succeeded in cultivating them, and found them to grow out in long threads. Koch and Vandyke Carter successfully inoculated monkeys; and several Russian observers have successfully inoculated man with blood from a patient.

As for *Tuberculosis*, our evidence is again so strong, that few can now doubt that it is due to Koch's bacillus. The tubercle-bacillus is found in tuberculosis, phthisis, scrofula, pearl-disease, and lupus. The bacilli stain differently from other bacilli, with the exception of lepra-bacillus, and are therefore easily recognised. We find them in the sputum of phthisical patients, and phthisical patients only; in the secretion of the ulcers in laryngeal and pharyngeal phthisis; in the expired air of phthisical patients; in the fæces of persons suffering from tubercular enteritis; in the pus in cases of fistula in ano occurring in phthisical patients; in the urine where there is tuberculosis of the urinary tract; in the nasal cavity of children suffering from tubercular meningitis; in the discharge from the ear in scrofulous ear-disease; and they can be detected in the earliest stage of miliary tuberculosis; and, on the other hand, have been found in old and healed tubercles. They are found in scrofulous joints, and the pus from such joints; and they are found, though in sparing quantity, in lupus.

The bacilli can be cultivated, be they derived from tuberculosis, phthisis, scrofulosis, or pearl-disease, and can be successfully inoculated in rabbits, monkeys, dogs, birds, etc.; and yet many doubt that they are the cause of disease. The chief objections raised are 1. The fact that tubercle is hereditary; 2. That phthisis is not easily communicable from man to man; 3. That inoculation-experiments on animals do not allow conclusions to be drawn as to their causal agency in man.

All three objections, however, are capable of being dealt with.

1. If we only assume that we inherit a certain predisposition—a soil which favours the development of tubercle-bacilli—the first objection is overcome to a great extent. That an infectious or contagious disease may be hereditary is shown in the case of syphilis; there are certainly differences between hereditary syphilis and hereditary tubercle. Hereditary syphilis is often congenital, while hereditary tubercle, I believe, never is. Yet we know too little about the conditions which favour the development of the tubercle, and though several arguments have been put forward by Lichtheim, Baumgarten, etc., yet, as these are mere theories, I will not take up your time now; the discussion may enable me perhaps to say something more on this subject.

2. It is by no means absolutely true that phthisis is not communicable. The instances of infection from man to man are now, since attention has been drawn to them, becoming more numerous. Amongst many cases on record, I will only quote one. In a small town in Germany, where, in the course of nine years, only five children had died from acute tubercular meningitis, there happened, in the

course of nine months, eleven deaths from that disease in infants all under six months. All these children were assisted into the world by a midwife who was known to be phthisical and who died of phthisis, and who was in the habit, when attending a confinement, to breathe into the new-born child's lungs with the view of expanding the lungs (Reich, *Berl. Klin. Woch.*, 1878). Here, again, we must first learn more about the conditions which favour the growth of the bacilli.

The third objection I shall deal with when we consider the third proposition.

When we now come to the other diseases in which organisms are found, we find the evidence less strong. In many of the zymotic diseases, we have little positive evidence except the presence of micro-organisms. In scarlet fever, measles, and small-pox, micrococci have been found by some; while their presence has been denied by others. As regards *Typhoid* fever, peculiar bacilli have been found, with blunted borders, by Eberth, Friedländer, Coats, and many others, and they can be easily seen in the lymph-glands in and around the ulcers in the intestines and in the spleen.

More recently, Maragliano (*Centralblatt für Med. Wiss.*, 1882, No. 4) examined the blood of living patients from the general circulation and from spleen in the culmination-period of typhoid. The blood of general circulation contained masses of micrococci; the splenic blood contained besides the bacilli of Eberth. During convalescence, they disappear. Maragliano also states that he could cultivate the typical organism of Klebs from the blood both of general circulation and of spleen. These observations require confirmation. From a short notice just published, it appears that Gaffky succeeded in getting a pure cultivation of typhoid-bacilli.

As regards *Typhus*, Dr. Mott will read a paper in this Section, and I need not anticipate the results obtained by him.

As for *Malaria*, the researches of Klebs, Tommasi-Crudeli, Marchiafava, recently confirmed by Marchand and Ziehl, are sufficiently interesting to be further inquired into. Klebs and Tommasi-Crudeli found, in the soil of malarial countries, small, shining, and movable spores, which, on cultivation, as well as on injection into the blood of an animal, grew into peculiar dumb-bell-shaped bacilli. Cusoni and Marchiafava (*Arch. für Exp. Pathologie*, Band xiii, p. 265) found, in persons suffering from malaria, during the cold stage, this identical bacillus; and, during the hot stage, and during the intermissions, the highly shining, actively moving spores were seen. Quinine made these bodies disappear. These observations were, in some measure, confirmed by Ziehl (*Deutsche Med. Woch.*, 1882, No. 48) and Marchand (Virchow's *Arch.*, Band lxxxviii, p. 104). Ceci (*Arch. für Exp. Path.*, Band xv, p. 153) also found that the cultivation of these spores stopped at once by the addition of quinine to the cultivating fluid. Specimens of the *Bacillus malariæ* were shown at the Cambridge meeting of the Association by Dr. Aitken. Dr. McMunn of Wolverhampton (BRITISH MEDICAL JOURNAL, December 10th, 1881) also found them. Dr. Steinberg of the United States only partially confirms Tommasi-Crudeli's experiments on the malaria produced in animals. Burdel (*Gaz. Hebdom.*, 1881, p. 388) believes that the malarial fever, said to have been produced in animals by the previous observers, is simply septicæmia.

The question as to the causation of *Diphtheria* is still far from settled, as was evidenced by the recent discussion at the German Medical Congress. We know diphtheria to be highly contagious; and we constantly find, in the diphtheritic membranes, in the lymphatics and glands in the neighbourhood, and in the internal organs (chiefly kidney), numerous micrococci. Inoculations with the diphtheritic membrane into the anterior chamber of rabbits, or under the skin or muscle, gave, again, rise to typical diphtheritic membrane. Klebs recently expresses the opinion that there are at least two different forms of diphtheria—one due to micrococci, the other due to bacilli. The inoculation-experiments, however, in this case, are not quite conclusive, as the micrococci were not cultivated in the pure state. Again, it has been found that inoculation with septic organisms gave rise to similar diphtheritic deposits; moreover, typical diphtheritic membranes form on the application of ammonia or sulphuric acid to mucous membranes. From this it is evident that the diphtheritic process is not the same wherever found. The typical diphtheria, so prevalent on the Continent, and much rarer here, is most probably due to specific micro-organisms; the diphtheritic membranes seen in hospital-gangrene probably due to septic organisms; while other forms of diphtheritic sloughs are simply the result of inflammation and necrosis.

The pathogenesis of *Croupous Pneumonia* has lately yielded some interesting results. 1. In the lungs of persons who died from croupous pneumonia, diplococci were found at the peripheric part of the diseased lung, in the alveoli, and in the lymphatics and interalveolar tissue. 2. In the sputum of persons suffering from pneumonia, numerous masses of micrococci have been found, but these are not of any diagnostic value (Friedländer). 3. Giles (BRITISH MEDICAL JOURNAL, 1883, July 7th) saw an epidemic of pneumonia; he found, in the sputum, in the blood, and in the tissues of the patients who died from this disease, micrococci– nucleated (?) ones—and zoogloœa-masses. He could cultivate these; and injections into rabbits produced pneumonia. Injection with sputa from pneumonic patients produced pleuropneumonia. 4. The epidemic character which pneumonia sometimes assumes, speaks in favour of its being an infectious disease.

Acute Yellow Atrophy.—I may be permitted here to give a personal observation. In a case of acute yellow atrophy observed by Dr. Tomkins at the Manchester Fever Hospital, and where the *post mortem* examination was made within half an hour after death, I found the small vessels in the liver, and the capillaries round the liver-cells, distended with large micrococci. The disease was found to be an early stage of atrophy, and the micrococci were only found at the periphery of the diseased parts. Eppinger and Klebs have described micrococci; other observers (Coats, Klein) failed to see any; possibly because the disease in these cases was too far advanced.

As regards *Dysentery*, we have only the observations of Prior (*Centralblatt für Klin. Med.*, 1883, No. 17), who found micrococci in the stools, in the mucous membrane of large intestine, and urine.

In *Whooping-cough*, Burger (*Berl. Klin. Woch.*, 1883, No. 1) discovered in the sputum numerous micrococci, an observation of very little value.

As regards *Lepra*, we now know that in both forms, the tubercular and the anæsthetic, typical and well-characterised bacilli are found; we have, as yet, not succeeded in cultivating them, or in successfully inoculating animals. Transplantation into the anterior chamber of rabbits merely showed that the bacilli increased in number, but no leprous deposits were noticed.

Equally meagre is our knowledge about the *Syphilis* organism. Beyond the presence of micrococci (Birch-Hirschfeld, Aufrecht, Klebs), we only know of some experiments by Martineau and Hamonie, who cultivated the micrococci on meat-infusion, and inoculated a young pig, with positive results.

Time prevents my entering into the consideration of the relations of micro-organisms to the surgical diseases, such as acute abscess, pyæmia, septicæmia, and diseases allied to them, as osteo-myelitis and ulcerative endocarditis. Whilst it is now clearly made out that suppuration may take place without the intervention of micro-organisms, the part which these organisms play in the acute and chronic abscess have been studied by Ogston and Watson Cheyne, and the researches of these observers are well known. In considering septic disease, we have always to distinguish between septic intoxication, where the organisms play a secondary part, a non-organised poison being the chief cause; and septic infection, due, most probably, to specific organisms.

For animals, at least, Koch has proved, by pure cultivations and inoculations, that there are several specific septic organisms, as will be seen on reference to the table given above. Lastly, as regards pyæmia, we know its close relation to septicæmia, and that it is most probably due to a micrococcus, which, by forming irritating thrombi in the blood-vessels, gives rise to the pyæmic abscesses.

III. We now come to the third question. I think it will be admitted on all hands that these micro-organisms do not originate in our body, but come from without: From the air, soil, water, or food. As yet, our knowledge on this subject is very limited. For the anthrax virus, it has been proved that the spores are contained in the soil; according to Pasteur, the earth-worm plays an important part in bringing them up from the lower strata, a statement which has been disproved by Koch. For the malarial poison we have already seen that it is highly probable that the spores of the bacillus are contained in the malarial soil. About the habitat of most of the other pathogenic organisms, we know next to nothing; the attention of observers, however, should be directed now to this line of inquiry. This is, in fact, being done by Koch; and, at a recent meeting of medical men at Berlin, Koch demonstrated the method he now applies to detect and cultivate the organisms in the different external media. The method is simple, and yet reliable. The cultivating fluid is mixed with gelatine (gelatine 5-10 per cent.; 1 per cent. dry peptone; 0.5 chloride of sodium, a little carbonate of soda, and infusion of meat), so as to become solid at ordinary temperature. When air is examined, the gelatine is put in a tube closed, and the air allowed to pass through, and thus the micro-organisms are collected and cultivated. When water is examined, the water is

simply run on to the gelatine, and the micro-organism allowed to cultivate. The same with soil. The cultivated organism can then be easily examined.

The micro-organisms coming from outside enter our body either through the lungs or the digestive tract, or through the external skin, if there be an abrasion, and they become generalised either by the lymphatics or the blood-vessels. There is no disease which, perhaps, shows this better than tuberculosis, though naturally many points are as yet not cleared up. If tubercle-bacilli are inhaled, and find a suitable soil in the lungs, they will settle where the air-current is smallest, and where the movements are less extensive, and that is exactly the apex of the lung; here they will produce a local inflammation, and slow destruction of tissue. This will break eventually into a bronchus, and be aspirated into another bronchus lower down; and we get a second focus, and so on; and this readily explains the extension of the disease in the slowly advancing cases of phthisis; or the lung may be in a state particularly prone to the development of the bacilli, such as in acute broncho-pneumonia following the infectious diseases (measles, whooping-cough) when many points will be simultaneously attacked, and we get acute caseous broncho-pneumonia. The bacilli being near the lymphatics of the lung, easily get into these, and travel along them to the lymphatic glands at the root of the lung; and the frequency with which we have lymphatics and the glands affected with tubercle is a fact long ago established and known, long before the detection of Koch's bacilli. When once the tuberculous masses break into the bronchi, the sputum will contain bacilli, and this, when swallowed, affects the intestinal tract; and we should expect to find the lesions chiefly where the intestinal contents are not very compact, and movements are slow, chiefly, therefore, in the cæcum and lower part of small intestines.

The digestive tract itself, however, may form the portal through which the bacilli enter primarily; and here, if we think of milk, we should expect the mesenteric glands to be the chief recipients; so it is in tabes mesenterica.

When once either in the lungs or in the mesenteric glands, the tubercle-bacilli become generalised, either through the blood-vessels or through the lymphatics; and that this actually takes place, has been shown by the observations of Weigert, Ponfick, and others. Weigert found that, in several cases, when general tuberculosis supervened upon a local tubercular process, the pulmonary vein contained small masses of tubercles with bacilli; and Ponfick proved the same for the thoracic duct in similar cases.

The anthrax-bacillus may enter through an abrasion of the skin, and produce, at first, a local disease, which, by excision of the affected part, may be eradicated; or, as in woolsorter's disease, the organism enters by the lungs, and soon gets in the general circulation.

The organisms, when once in the body, exert their poisonous influences in various ways; some, like the anthrax-bacillus, absorb the oxygen from the blood and tissues, and produce death by asphyxia; others, like the bacillus of malignant œdema, do not thrive in oxygen, they cannot live in the healthy blood, and develop only where there are larger masses of necrotic tissue; many others, like the tubercle-bacillus, act as irritants, and produce inflammation of a low type, with a tendency to necrosis; the septic organisms act, most probably, as ferments; others act, also, by blocking-up numerous small vessels.

IV. I come now to the fourth and last question. As yet, our knowledge on this subject is very meagre, and much remains to be done. The points to be noticed here are: (1) the effects of temperature; (2) the effects of antiseptics; and (3) vaccination, with modified organisms.

As to effects of temperature, it is well established that the fully formed organisms, when exposed to a temperature of 50° to 70° C., soon die; such a temperature, however, will not kill the spores, which require for their destruction a much higher temperature; and it is a point to be borne in mind in directing the disinfection of the various articles, that air saturated with vapour is more efficacious than dry air. Koch found that, whilst the continuous stream of vapour of water at 100° Cent. destroys the spores of anthrax in two minutes, dry hot air at 140° only destroys them after an action of three hours.

There are many observations on the action of antiseptics on the micro-organisms; the most exact researches, however, are those made by Koch with the view of determining the effect of very small doses of different antiseptics on anthrax-spores. A small quantity of the antiseptic was added to a known quantity of the cultivation-gelatine, and into this mixture a silk thread having dried anthrax-spores attached to it was placed, and allowed to stand under bell jars kept moist. Examining the thread after a certain time microscopically, and comparing it with a contral thread placed into a cultivating gelatine mixture without the antiseptic, Koch (*Mittheil*, Band i, 1881) obtained the following number, representing the portion of the antiseptic to the quantity of cultivating material.

Disinfection Experiments with Anthrax Spores.

	Cessation of Growth.	Retardation of Growth.
Corrosive sublimate	1 : 300,000	1 : 1,600,000
Arseniate of sodium	1 : 10,000	1 : 100,000
Thymol		1 : 80,000
Boracic acid	1 : 800	1 : 1,250
Salicylic acid	1 : 1,500	1 : 3,300
Carbolic acid	1 : 850	1 : 1,250

In connection with his researches on erysipelas, Fehleisen found that corrosive sublimate acted much quicker in stopping the growth and cultivation of the micrococci than carbolic acid; and Koch found that, whilst 5 per cent. watery solution of carbolic acid destroyed the anthrax-spores in one or two days, the same quantity dissolved in oil or alcohol had no effect on them.

Quite recently, Fraentzel (*Verhandl. des Congr. für innere Med.*, 1883) found that tubercle-bacilli are easily destroyed by a number of bodies, such as camphor, naphthalin, creasot. (Inhalations with these substances, continued for months on phthisical patients, gave, however, only negative results.)

As to the vaccination with modified micro-organisms, and the immunity which this vaccination insures against the action of unmodified micro-organisms, I, indeed, need say little, as the researches of Pasteur on chicken-cholera and anthrax are too well-known. Though Koch and Klein have shown that Pasteur went too far in his generalisations, yet his researches have not only been of great practical value, but are also of the highest interest, inasmuch as there may be found other infectious diseases, just as in small-pox, which allow of a protective vaccination.

Several other points I should like to have alluded to in connection with this last question. I have, however, already detained you too long. The subject is so vast, that many questions I have had to omit altogether, and others I could only briefly touch upon; yet I hope I have shown that, however incomplete our knowledge of the pathogenic organisms is, they are destined to play a most important part in the pathology, treatment, and prevention of disease.

MICRO-ORGANISMS IN TYPHUS FEVER.

Read in the Section of Pathology.

By FREDK. W. MOTT, M.B., B.S.Lond., and J. BLORE, M.R.C.S.

In consequence of the epidemic of typhus fever which prevails in Liverpool, Mr. Blore and myself have had the opportunity of making some investigations in this disease. The immediate cause of typhus fever is unknown; but everything in the history of the disease points to a *contagium vivum*. This is supported indirectly by analogy with other infectious diseases, such as relapsing fever, in which the specific poison has been proved to be an organism of a spiral form.

The poison of typhus fever differs in many respects from that of other fevers—*e.g.*, measles or scarlet fever—inasmuch as it affects only certain sections of the community; its infectious nature is not so great; and the mortality, especially low among children, is very high in adults. It may be characterised as a filth-begotten disease, nourished by poverty and overcrowding; and, although there are strong arguments in favour of its arising *de novo*, still the fact, that one attack serves as a protection in the future, strongly favours the view of a specific contagion.

The only account which I can find of a micro-organism in typhus fever is by Klebs, in his address at the International Medical Congress, in 1881. He merely mentions the fact of bacilli occurring in typhus fever; but he has not published his investigations. Yet it is rather astonishing that micro-organisms have not been found by other observers in a disease which, from its contagious nature, the symptoms exhibited during its progress, and the naked-eye appearances of the organs after death, suggests strongly a fermentation-process.

We have examined the blood in twelve cases during the pyrexial stage, and in all moving organisms, like minute screws, have been seen. Occasionally their form may be made out; and we consider

them to be dumb-bell micrococci undergoing division. Often single cocci could be seen, and these were found to measure about a half millimètre. In one case, there were large numbers in the blood after the fever had subsided; but, as a rule, they disappeared on convalescence. We have examined the blood of other fever-patients, and not found them. Another fact noted about the blood was a great increase of the white corpuscles.

The organs examined were the heart, lungs, liver, and kidneys of six fatal cases; and, in one case, the brain, large bronchi, and rectus muscle. It is, however, to the condition of the heart that we wish more especially to call attention. This organ was, in all six cases, diseased, being generally flabby and of a dirty-brown colour. In two cases, there was fatty degeneration of the muscular substance; and, in two others, there were minute hæmorrhages into the substance, corresponding in size to the petechiæ seen on the skin.

Microscopically examined, the muscular fibres of the heart exhibited fatty degeneration in three cases; marked granular degeneration in all cases; and in the connective tissue, between the muscular fibres, a great increase of leucocytes. Among these leucocytes, in all six cases, were plugs of micrococci, generally pretty uniform in size—appearing, when stained with aniline violet, larger and much darker in colour than the nuclei of the muscle-fibres or the leucocytes. On an average, about twenty to forty were seen under a two-third inch objective. Examined with a one-sixteenth oil-immersion and Albi condenser, each colony of micrococci was found to consist of from twenty to one hundred and fifty organisms, and each organism measured rather more than half a millimètre. It appeared to us at first that these colonies of micrococci were all intercellular; possibly they may be, but in all probability they are contained in the laminæ forming the origin of the lymphatics of the heart. There is a striking resemblance in form and size of these colonies of organisms with those met with in erysipelas, which we know to be contained in lacunæ forming the commencement of the lymphatics of the skin. But the individual organisms are slightly larger than those of erysipelas and diphtheria.

We have examined also the lungs, kidneys, and liver, which presented briefly the following pathological conditions. The lungs in four cases were œdematous, and exhibited the appearances of hypostatic pneumonia. The kidneys and liver exhibited cloudy swelling and parenchymatous degeneration, and in three cases marked fatty degeneration. There was vascular engorgement in all the organs examined; and, in all cases, sections of vessels filled with blood showed a great increase of the white corpuscles. We cannot say that organisms were not present in these organs, but we failed to find them.

The *post mortem* examinations were made as soon after death as possible, in three cases very shortly after; and the organs were plunged in absolute alcohol, which was changed the next day.

The clinical notes (of which I have here an analysis) were briefly these. Death took place at dates varying from the ninth to the nineteenth day. All the cases exhibited, previously to death, a quick pulse and symptoms of cardiac failure, although more pronounced in some cases than others. In six cases the rash was profuse, becoming petechial. The temperature in all cases reached 104°; in two cases 107°. Cerebral coma was marked in four cases.

We wish to mention that, in two cases not previously referred to, in which sufficient precautions were not taken to prevent decomposition, bacilli developed in the tissues to an enormous extent. We attributed this to the fact that there was not enough alcohol used to preserve them; for, although the organs were examined microscopically within two days after death, yet the tissues swarmed with rod-shaped organisms. This led us to infer that, possibly, these micrococci found in the heart were merely the factors of incipient decomposition, and therefore the spore from the bacillus; especially when we take into consideration that there is a great tendency to necrosis and gangrene during life, also a foul putrid smell from the patient, so much so that it has been termed putrid fever. This hypothesis is, moreover, favoured by clinical facts, the mortality of typhus fever being in direct proportion to the age of the tissues. When I say the age, I mean the vitality, *age* being merely a relative term in disease.

If this view be accepted, the question arises: How do they enter the body? Organisms are continually entering the system by the alimentary and respiratory tracts, and they must in health be as continually destroyed. The white corpuscles probably destroy these germs; but, if an excess of organisms enter the system, or the protoplasm of the body be lowered in vitality, then organisms may develop in the tissues, and lead to their necrosis. We cannot discuss the possibility of these organisms being specific: first, on account of the limited number of observations we have made; and, secondly, because that can never be decided until artificial cultivation and inoculation has been practised successfully.

Mr. VICTOR HORSLEY (London) asked if other members could throw any light on the connection between the micrococci found in acute abscesses of simple nature, and the micrococci found in the centres of pyæmic suppurating foci. Having frequently confirmed Ogston's observations on the former condition, he wished to draw attention to the fact that, in the former state, the organisms occupied a different relation to the blood-vessels from that which they did in the latter of the two conditions. But a point on which further information was urgently required, was the relationship between the granular masses found in the blood of febrile patients and the micrococcal form of micro-organisms. While he was studying for a short time in Koch's laboratory at Berlin in 1881, it was pointed out to him that there were to be frequently seen in the blood of animals (the subjects of experimental septicæmia), small masses of granules which took the aniline-staining readily, but could be easily shown to be unorganised albuminous particles. As a means of distinguishing them, he would urge the invariable adoption of acids or alkalies in rendering the tissues semitransparent, and not trusting to alcohol to remove the excess of dye. Of the more important aspects of the question, there was none more interesting nor more important clinically than the question as to the possibility of altering micro-organisms by changing their food-supply. Such a change was said to be effected in two divisions, viz., (1) change of form, and (2) change of function. From the researches of Professor Lankester on bacterium rubescens, lately confirmed fully by Engelmann, it might be supposed that change of form was more than possible, and probably occurred. But the second possible change, viz., change of function, was a matter of the greatest uncertainty, and did not rest on unimpeachable experimental evidence. Buchner's experiments would scarcely be credited, when it was understood that he used blood in some cases as his cultivating soil—a fertile source of septic organisms. Mr. Horsley asked if it were not possible to form a theoretic classification of septic diseases. He would suggest the following (published in his report to the medical officer of the Local Government Board, 1881) for criticism. Granting the causative importance of micro-organisms in septic diseases, it would seem possible to divide all septic diseases into two great classes: 1, those due to a chemical poison—sapræmia; 2, those due to invasion of the animal system by a vegetable parasite—mycosis. The first class required no explanation, expressing merely the state of an animal poisoned by sepsin. In the present state of knowledge, the mycotic action of organisms might be conceived to kill the animal in one of three ways, viz.: (1) by mechanically plugging the vessels (mechanical mycosis); (2) by absorbing and destroying the tissues of the host; (3) by making a firm sepsin in the tissues as a result of the life of the parasite.

Dr. THIN (London) remarked that there were one or two fundamental points in connection with the subject which it was very desirable to further investigate. One was the presence or absence of organisms in the living healthy tissues. At the present time, authorities differed entirely on this point; but until it was settled, the question that had often been put to himself, in reference to the bacillus of leprosy, was always justified. How could it be said that these bacilli, which were present in large numbers, were not a development of organisms always present, and for which the leprous change afforded a good soil? He was one of those who thought that healthy living tissues did not contain germs of bacteria; but this was merely an opinion which was not yet supported by experiment. Able observers had come to an entirely different conclusion. Another subject that deserved further careful study was the action of the aniline dyes. He would deprecate too much importance being assigned to differences in the action of these dyes. For example, it had been maintained that the bacilli of leprosy and the bacilli of tubercle could be shown to be different by their being acted on differently by certain dyes; although they had the same reaction towards fuchsine and nitric acid. He had examined these bacilli in reference to this point, which was that, while a simple aqueous solution of methyl-violet stained the bacillus of leprosy, it did not, it had been alleged, stain the bacillus of tubercle; and he had had no difficulty in staining bacilli of tubercle with the aqueous solution. He did not for a moment mean that this showed the bacilli to be identical; but he instanced the fact to show that enough was not yet known of the circumstances that affect the action of dyes, to enable much importance to be attached to mere differences in staining. The same uncertain action of dyes could be shown by

experiments on tissues known to contain numbers of putrefactive bacilli. A method that at one time would easily show the bacilli, would, at another time, not show them, when their presence could be again demonstrated by a modification of the process.

Dr. SHINGLETON SMITH (Clifton) had examined the sputum of nearly one hundred distinct cases of lung-disease, and had found the tuberculous bacilli present in sixty cases. In one case no sputum could be obtained, and in thirty-six no bacilli could be found after repeated examination. In all the cases where the bacilli existed, there was other evidence indicating the existence of tuberculous disease. In those cases where none was found, the disease was of very varying character, but in no case did the subsequent history point to the existence of tubercle. The examination of sputum for bacilli as an aid to diagnosis seemed to be of the greatest service in distinguishing between chronic syphilitic disease and tuberculosis, and in this way the test would be of service as an aid to treatment; cases in which no bacilli were found being more likely to benefit by specific treatment than others. In diagnosing cases of chronic phthisis from chronic pleurisy, the sputum had been of service. Three cases had recently been under observation in which no bacilli could be found, whereas the general aspect of the patient might justify the diagnosis of phthisis, although the condition of lung, as indicated by physical examination, was believed to be a chronic form of pleuropneumonia. As regards the utility of antiseptic inhalations, although some relief to cough might arise, yet it seemed doubtful if a sufficient quantity of any potent antiseptic could be introduced to have any marked effect on the condition of the lung itself. There was, however, one method of treatment, that by iodoform, which at least required further investigation.

Mr. NIVEN (Manchester) read an account of five cases of tuberculosis, all fatal, occurring in one family since Christmas 1882, the incidence pointing much more to infection than to heredity. The infectiousness of tubercle was scarcely an open question since Koch's rigid investigations.

Dr. BARRON (Liverpool) said that the address of Dr. Dreschfeld had left nothing further to be said in favour of the existence of specific pathogenic organisms. With respect to phthisis, he had examined the sputa of forty-seven cases, and had found the bacilli of tubercle in all; and, in two cases, their presence along with a slight evening rise in temperature, and a troublesome cough, were the only means of diagnosis. He had examined the tissues, *post mortem*, of eight out of these, and had found the organisms in the tissues in each case. In two cases he examined the breath, and found the bacillus in one; and in the caseous tissue, a case of strumous kidney, he had also found the bacilli in the urine in another case of tubercular kidney. In connection with the possible infectiousness of phthisis, he had known for the last ten years a woman who was now dying of phthisis. She was at present 30 years of age. Her mother died of phthisis while she was still young. In June 1876 this girl married a husband of a perfectly healthy family, who was taken ill in November 1878, and died of phthisis in the following February. Some years ago a case was recorded in the *Veterinarian*, in which a cow whose calf had died suckled another calf, the offspring of perfectly healthy parents, which calf, a few months later, died of tuberculosis. In one case of typhoid fever dying on the tenth day, Dr. Barron found the bacilli of Eberth in the mesenteric glands, and also groups of micrococci. In examining some sections of tissues from a case of melanæmia, it had occurred to him that the so-called pigment-granules of this affection were, in reality, pigmented micrococci. Their arrangement along the walls of the blood-vessels rather bore out this notion; the pigment-scales of Frerichs would, on this view, be zoogloea-masses.

Dr. DRESCHFELD having replied to the various speakers, the Section adjourned.

MULTIPLE NEUROMATA.—A case of multiple neuromata on the peripheral nerves, and in the spinal cord, was related at a meeting at Freiburg, in September (*Berliner Klin. Wochensch.*, October 29th). These tumours were found in great numbers both in the white and grey matter of the cord, at the exit of the posterior roots of the nerves, on several cerebral nerves, and upon almost every spinal nerve. Microscopical examination found them to be fibro-neuromata. These growths had produced no special symptoms corresponding to them, with the exception of local anæsthesia, and a degree of muscular atrophy of the lower extremities. During life the case had seemed to be one of chronic myelitis, or of lateral sclerosis.

ON THE EXCRETION OF UROHÆMATIN IN ACUTE RHEUMATISM AND IN SO-CALLED "IDIOPATHIC" PERICARDITIS.

BY C. A. MCMUNN, B.A., M.D.Dub., F.C.S., Wolverhampton.

IN spite of the ready means which it affords for the detection of blood, bile, and various abnormal colouring matters in urine, the spectroscope is as yet an instrument which is much less used than it deserves to be in the examination of morbid urine.

Some people seem to think that such investigation is accompanied with great difficulty, and that the results obtained are not of sufficient importance to justify an outlay of the requisite time and trouble. Certainly, the detection of bile- and blood-colouring matters can be accomplished in other ways, but by no other method can such facts as those I am about to record be brought to light—facts which doubtless in time will seem of much greater importance than they at present appear.

The various colouring matters which I have met with in urine, and which give well-marked bands in the spectrum, have been described in my papers published in the *Proceedings of the Royal Society*, for 1880 and 1883.[1] These colouring matters are normal and febrile—urobilin, urohæmatin, urolutein, uroerythrin, indigo-blue, urohodin, and others without names. The last few are of uncertain origin, and I shall therefore say nothing about them at present. Another colouring matter also accompanies indigo-blue when indican is acted on by boiling mineral acids, but, as it is of little importance, and also of doubtful origin, it may be left out of consideration for the present.

Normal Urobilin I have found in normal urine, in which very often its band—which occurs at F—can be seen without any treatment whatever; but, in other cases, the addition of an oxidising agent to the urine may be necessary to bring it out. The reason of this is, that the colouring matter is present in the form of a chromogen or colourless body which, on exposure to air or to various oxidising agents, becomes converted into the colouring matter itself, and then shows the above-mentioned band. Since, now, normal urine contains urobilin, the term "urobilinuria"[2] is a misnomer as applied to pathological urines, as everyone suffers from "urobilinuria." I have separated this colouring matter from urine, and studied its chemical and spectroscopic characters sufficiently accurately to enable me to say that it is a distinct chemical individual,[3] and I hope in time to obtain enough for a few combustions, so as to determine its exact composition as regards the amount of carbon, hydrogen, oxygen, and nitrogen, which it contains.

I found that I could produce this pigment artificially by the action of peroxide of hydrogen on acid hæmatin, and that it was indistinguishable from the end product of the oxidation of bilirubin and biliverdin, which is known as choletilin.

Febrile Urobilin occurs in urine under pathological conditions, and I have found it abundantly present in pneumonia, bronchitis, peritonitis, and various dyspeptic conditions; it is especially abundant in the urine after the patient has taken opium. Since it occurs in cases where there is no febrile disturbance, the name "febrile" urobilin is hardly correct, and perhaps pathological or intermediate urobilin would be a better name for it. I have isolated this pigment, and find that its spectrum is composed of three bands, two feeble near D, and a third black band at F. Other observers have failed to notice the former bands, but I am satisfied that they are as much part of the spectrum as that at F. They are certainly not due to impurities.

I produced this body artificially from the former by reduction with sodium amalgam, and I converted it into normal urobilin by means of permanganate of potassium. Therefore we may accept the conclusion that it is a less oxidised body than normal urobilin. Hitherto, its identity with the colouring matter of fæces has been assumed; but, from its behaviour with caustic soda in its alcoholic solutions, I have been led to infer that some trifling differences do exist between the respective pigments.

[1] "Researches on the Colouring Matters of Human Urine," *Proceedings of the Royal Society*, No. 206, 1880, and No. 208, 1880; also on "Some Unusual Urine-Pigments," etc., No. 226, 1883. In these papers, full directions for procuring, and the chemical and spectroscopic characters of, the above pigments are given.

[2] *See* Ziegler's *Pathological Anatomy*, 1883.

[3] *Proceedings of the Royal Society, loc. cit.*

The third colouring matter—*urohæmatin*[4]—is a totally different body from either of the former, and it is to this that I wish to direct special attention. I found it in the urine of four consecutive cases of acute rheumatism, and in that of a case of so-called idiopathic pericarditis. Before describing its spectroscopic characters, I may make a few remarks which will prevent misconception.

It may be remembered that Dr. G. Harley applied this name many years ago to the normal urinary pigment; but, as Hoppe-Seyler[5] says, his results are now only of historical value; still, as Dr. Harley has done me the honour of devoting a few lines of a foot-note to me in his recently published book on *Diseases of the Liver*, I think it necessary to add a few lines to the German professor's comment. Fearing that I had rediscovered Dr. Harley's pigment, I repeated that gentleman's experiments, and found that, on carefully following out his directions, I obtained a residue which was evidently a mixture of several pigments, none of which was identical with the body which I have named "urohæmatin." I called my pigment by that name simply because I could obtain it from hæmatin, and could not obtain it from bile-pigment, but it has no connection whatever with the impure mixture which has hitherto been called by that name. Hence, although Dr. Harley anticipated the spectroscope, the inference that the colouring matter of urine is derived from that of blood (hæmatin in those days was supposed to be the true colouring matter of blood, not hæmoglobin), he could not prove his assertion, nor had he a spectroscope to tell him with what he was dealing, simply because it was not until long after that the spectroscope was used in such investigations.

The spectrum of urohæmatin[6] is marked by the presence of a very characteristic series of bands, when examined in its various solutions. In a chloroformic solution there are two feeble narrow bands between C and D; two others between D and E, and a black band between b and F, with one edge overlapping the latter line. This is the spectrum of neutral urohæmatin, and it differs slightly in the position of the bands in different solutions. If an alcoholic solution be treated with caustic soda, hardly any change takes place in the position of the first four bands, but that at F is narrowed and moved nearer the red. In the case of febrile urobilin, such narrowing and displacement of the band at F also takes place with caustic soda and caustic potash, and this is the reason of the present pigment having been mistaken for urobilin. When an acid such as hydrochloric, or nitric, or sulphuric, is added, even in small quantity, to an alcoholic solution, the above series of bands is replaced by three others, a narrow band before D, a second nearly midway between D and E, and a broad black band at F. On again making the liquid alkaline, the original series of bands appears.

I have prepared a pigment identical with this pathological one, by the action of zinc and sulphuric acid on acid hæmatin, and also by the action of sodium amalgam on the same body. Hence we may conclude that in the human organism this urohæmatin is formed by *reduction* from a decomposition-product of hæmoglobin, and that it is derived entirely from that substance without having to undergo an intermediate change into any of the bile-pigments. As I have already said, I have met this pigment in four cases of rheumatic fever.[7] In that disease its excretion appeared to depend upon the severity of the joint-mischief and on the height of the temperature, increasing as they increased, and diminishing when they diminished. I need not further refer to the presence of urohæmatin in the urine of rheumatic fever, except that I may say its presence was not inferred from mere spectroscopic examination of the urine, but it was isolated by means of lead, acidulated alcohol, and chloroform, used in the method described in the paper above referred to.

In October 1882, I was hastily summoned to see a man, 31 years of age, who was seized with pain in his abdomen, and faintness, while walking in the park here. He said, on my arrival, that he now felt better, but a few minutes before felt that he was dying. I examined him carefully, but found nothing abnormal except that the heart's action was hurried, the temperature increased to 102°, and some slight tenderness over the abdomen. I prescribed liquor ammoniæ acetatis, hot fomentations and poultices to the abdomen.

Next morning he had a short cough, the face was slightly flushed, and a well-marked to-and-fro rub was audible over the heart's apex. There was no joint-mischief whatever, no sour-smelling sweat; temperature 102°. There was no pleuritic stitch nor friction, nor anything else abnormal except some hepatic tenderness. The urine was free from albumen, and of normal specific gravity, but orange-red in colour; no sugar. On placing some of it before the slit of the chemical spectroscope, I at once recognised the spectrum of neutral urohæmatin, which is slightly different in the urine itself from that seen in alcohol, chloroform, or ether-solutions of the isolated pigment. There was a narrow band between C and D, two between D and E, and a black one between b and F. On taking their wave-lengths one was found to extend from λ 620—608, a second λ 580—561, a third λ 542—530, and a fourth λ 507—486. On treating with nitric acid, the three bands of acid urohæmatin appeared, one just before D, one between D and E, and a third at F. The first λ 594—587.5, second λ 556.5—542, and third λ 509—484. I then separated out the pigment by the method to which I have referred, and found that it corresponded to the urohæmatin obtained from rheumatic fever urine, and to that which I had previously artificially prepared by the action of zinc and sulphuric acid on acid hæmatin.

Two days after the appearance of the pericardial friction-sound, a pleuritic friction became developed over the left base, and was followed by slight effusion. By this time, the pericardial friction had become less audible, and it disappeared in a short time, and, so far as I could make out, was not followed by effusion into the pericardium. The treatment adopted was suggested by the spectroscopic evidence, and consisted in the administration of bicarbonate of potassium and salicylate of sodium; poultices, smeared with extract of belladonna, having been applied to the left base and over the præcordium. In about a fortnight, the patient was able to leave his bed, and in another week he resumed his duties (clerk in a brewery).

About a fortnight later, he presented himself for examination, and I then found that he had œdema of the face and legs, no ascites nor dropsy elsewhere. The pulse was rapid, and slightly irregular; the heart's action was rapid, and slightly irregular; no albumen in the urine. The gums were rather pale; there was no increase in the number of white blood-corpuscles. Cardiac dulness was not increased; the lungs were apparently healthy. The urine, however, contained a considerable amount of the same pigment as before, and was loaded with amorphous urates, slightly tinged with uroerythrin. The œdema of the legs now rapidly increased, and ascites followed, while the face remained puffy, but the hands were free from œdema. There was no increase in hepatic or splenic dulness, nor any other abnormal condition except those mentioned.

He had iron, strychnine, digitalis, acetate of potash, squills, broom, iodide of potassium; mercury, squills, and digitalis, combined in the form of pills, and several other drugs, without the slightest benefit. The dropsy remained *in statu quo* for a month or more, until, at last, I made incisions into his legs, which relieved the œdema there, but not the ascites. I then performed paracentesis abdominis, with marked relief for about a week, at the end of which time the dropsy was as great as before, although he daily took large doses of compound jalap-powder, with elaterium. At this time, his urine contained large quantities of urohæmatin, and its amount in twenty-four hours never exceeded a pint. No fresh physical signs were developed, except that, as the dropsy increased, a faint cloudiness, with heat and acetic acid, was found in the urine.

An analysis of the serum obtained from the peritoneal cavity by tapping was made. It gave no indication of urohæmatin, and showed a faint lutein band. It had a slightly greenish tinge; reaction feebly acid. Specific gravity, obtained by specific gravity bottle, 1018. The quantitative analysis gave the following results: Albumen, 42.788; extractive, 5.582; soluble salts, 8.238; insoluble salts, 0.0433; water, 941.7540; total, 998.4053.

At the end of three weeks, tapping was again performed, and, at the end of nine days, there was very little dropsy. The daily urinary secretion, which had slightly increased, fell again to less than a pint; the urine being loaded with urates, and containing urohæmatin, six months having at this time elapsed since its first appearance. Specific gravity, 1017; reaction acid.

As the dropsy showed signs of increasing again, and as nearly all the diuretics in the *Pharmacopœia* had been previously tried without effect, I determined to give him a drug which, at all events, could not do him any harm, if it did him no good. I came to the conclusion that bicarbonate of potash, in large doses, might be useful, since it would promote metabolism, and might serve as an oxidiser, seeing that reduction-products were passing in his urine in such quantity, as indicated by the presence of urohæmatin. He accordingly took thirty grains of that salt every four hours for two months, and he daily improved while taking it.

Nine months after the commencement of the case, the urine, for the first time, was the colour of pale sherry, free from urohæmatin at last; no urates specific gravity 1012. It contained only normal

[4] *Proceedings of the Royal Society*, 208, 1880.
[5] *Handbuch Physiol. Chem. Anal.*, 4th Edition.
[6] All the spectra here referred to are figured in the papers referred to above.
[7] *Proc. Roy. Soc.*, No. 226, 1883.

urobilin. The dropsy was then almost gone, and soon afterwards disappeared altogether.

The patient is now quite well, and following his employment. During the whole course of the case, no symptoms nor physical signs, besides those mentioned already, were noticed, and he was seen by two physicians whose opinion coincided with mine—Dr. Heslop, and Dr. Saundby.

If a reduction-product of hæmatin is excreted in the urine in acute rheumatism, as is undoubtedly the case, we may infer that this reduction-product has been produced under abnormal circumstances. All proteid and other metabolites are mostly oxidation-products, so also is the normal urinary pigment; therefore, we are safe in saying that urohæmatin is a consequence of some chemical process which does not follow the course which it ought to follow in health. Knowing how this pigment can be artificially prepared, we are in a position to know how it is formed in the body. It is formed in the laboratory by the action of nascent hydrogen on a decomposition-product of hæmoglobin, so also must it be formed in the body. If so, then a fermentation, attended by an energetic reduction-process, must be taking place somewhere in the organism in acute rheumatism. The answer to the question where? is not so easy. Physiologists say that the effete hæmoglobin is broken down in the spleen, and sent thence to the liver; and we know, from Dr. Roy's observations, that the rhythmical contraction of the former organ helps its journey to the latter. We also know that, in the liver, it comes under the influence of something which has the power of changing it into a colouring matter of the bile, but, perhaps, not directly.[8] It appears that it is first changed into hæmochromogen, as I have proved in former papers;[9] for the presence of that body, familiarly known as reduced hæmatin, can be proved in the bile of man, the pig, the ox, etc., which is interesting when we compare this fact with the curious fact observed by Dr. Sorby, that the same body is present in the bile of snails and slugs, and with that observed by myself in the case of the bile of the cray-fish.[10] Having once been changed into hæmochomogen, it is in a condition to be readily changed into the colouring matters of the bile, and into those of the urine. If now, before it is converted into a biliary pigment, it comes under the influence of a more energetic fermentation than normally exists, it would follow the same course as it does out of the body, and hence change into urohæmatin. That body having been once formed, is pretty stable; for even permanganate of potassium, which changes febrile into normal urobilin, has no apparent effect upon it, so that it would not become changed in the round of the circulation, but would be excreted as such, just as we find is the case.

If the effete blood-pigment undergoes an energetic reduction, so also must the other metabolites with which it is associated, and thus probably is formed the *materies morbi* of acute rheumatism. Whether it be lactic acid or not, there is, at all events, an acid of some sort produced as a consequence of the abnormal fermentation. And when we remember that lactic acid has part of its origin in the hepatic glycogen, we cannot fail to notice how all these facts tend to support one another, and suggest in what direction future inquiries ought to be directed.

The relatively great quantity of urohæmatin which appears in the urine in acute rheumatism explains the profound anæmia of that disease, and shows that, whatever may be the starting-point of the faulty chemistry of that disease, it is certainly a disease upon which the further development of pathological chemistry ought to throw much light.

We can also understand how such a fermentation is arrested by salicylic acid, and how such oxidisers as the alkalies have come to be so useful in the treatment of acute rheumatism.

It is unnecessary to remark that a careful spectroscopic examination of the urine in cases of "idiopathic" pericarditis ought to help us in understanding the true pathogenesis of some of them; for by it alone can we, in the absence of other symptoms, say whether a given case is of rheumatic origin or not; and I believe that, in the case detailed above, I am justified in assuming that the cause of the pericarditis and the pleuritis, with the subsequent extraordinary train of symptoms, was due to the presence in the blood of products of abnormal fermentation, akin to, if not identical with, those which are the cause of acute rheumatism.

I may state that, in a case of paroxysmal hæmoglobinuria, I found, subsequently to the disappearance of hæmaglobin from the urine, traces of urohæmatin. Now, it is a well-known fact that this disease is connected in some cases with the "rheumatic diathesis."

As I am not attached to any hospital, and have to rely on private practice for supplies of pathological liquids, I shall esteem it a great favour if any professional brother will send me the urine of rheumatic fever patients, or that of any patient whom he may chance to have suffering from "idiopathic" pericarditis. Eight ounces of urine will suffice for my purpose; it can be sent by parcels post, or otherwise, and addressed Oakleigh, Wolverhampton. The urine of paroxysmal hæmoglobinuria will also be acceptable, or, indeed, any high-coloured pathological liquid.

CASE OF GASTRIC ULCER WITH UNUSUALLY SEVERE HÆMORRHAGE.

Read before the Shropshire and Mid-Wales Branch.

By W. HERBERT PACKER, M.D., L.R.C.P.,
Senior Assistant Medical Officer, Salop County Asylum.

M. A., a nurse at the Salop and Montgomery Counties Asylum, aged 23, tall and well grown, has, with the exception of a severe attack of scarlatina in her youth, been fairly healthy up to twelve months ago, when she began to complain of dyspeptic symptoms. In June of this year, these became more pronounced, the pain immediately after food being particularly distressing, and a gastric ulcer was diagnosed. Under some weeks' treatment by diet, and a bismuth mixture, she was considered cured; but, as she was of a somewhat hysterical temperament, one moment declaring she was quite well and was never any different, and the next complaining to a fellow-nurse of great pain, and of that stubborn disposition that revolts against all restrictions of diet and the taking of unpleasant medicines, possibly she wilfully concealed her sufferings. In any case, she ate and drank as she pleased, and had no special treatment until the afternoon of September 13th, when it was reported that she had spat up blood. When seen, she was looking pale and anæmic, and complained of much pain in the left side, and tenderness in the gastric region. She was sent to bed, ordered to take only small quantities of cold liquids, and to have a mixture of bismuth suspended in glycerine. At about 11.30 the same night, she suddenly brought up about three-fourths of a pint of partly clotted bright coloured blood. A nurse sleeping in the same room was awoke, and fetched my colleague Dr. Denning, who found her blanched and almost pulseless, the bed being more or less covered in blood. He administered thirty minims of turpentine at once, and ordered ten grains of gallic acid and fifteen minims of sulphuric acid every quarter of an hour, cold wet compresses to the abdomen, and strict quiet in the recumbent position. No further hæmorrhage ensued, and about 3 A.M. she seemed much revived, and one grain of solid opium was ordered every three hours.

Next morning she was feeling sick, but there had been no vomiting. Her pulse was small and soft, her extremities cold, and she was generally suffering from true anæmia. Enemata of beef-tea and milk, in four-ounce doses, were ordered every four hours. This she so disliked, and complained of such great subsequent pain on the administration of the first, that a second was not given. Two tablespoonsful of milk and two of good beef-tea, cold, were ordered alternately every hour. The opium pill was given three times during the day. Pain was complained of over the scrobiculus cordis, and a burning sensation in the stomach, but there was no further sickness, and the day and following night were comfortably passed. Next day, the 15th, she seemed to be slowly recovering, and her case was considered very hopeful, when, at 10 P.M. a liquid tarry motion was passed with much pain, quickly followed by vomiting of blood. About a couple of ounces were first thrown up, and in half an hour afterwards three quarters of a pint or a pint of partly clotted blood was ejected. Gallic and sulphuric acid were given as before, and a grain of solid opium. No food was to be taken for three or four hours, and she was given lumps of ice to suck.

No further vomiting occurred till the evening of the 17th, when, as before, a like hæmorrhage followed an action of the bowels. Opium, sulphuric and gallic acids, and turpentine were administered, and the patient, now unable to move from extreme prostration, still struggled on.

On the 18th there was no hæmorrhage. A blister was applied to the pit of the stomach, and she was ordered to take two tablespoonfuls of milk and one of soda-water every hour, and to have small lumps of ice to suck occasionally. Three grains of solid opium were taken during the day, and the patient, except for a most distressing thirst, was fairly comfortable.

On the morning of the 19th the sanguinary vomiting again occurred. Enemata were now insisted upon, and she was told she must

[8] *Proceedings of the Royal Society*, 208, 1880; [9] *Ibid.*, 208, 1880; [10] *Ibid.*, 226, 1883.

submit to this treatment, notwithstanding pain and annoyance, and the following preparation, slightly warmed, was injected into the rectum every four hours, namely, three tablespoonfuls of milk, the same quantity of specially strong beef-tea, twenty minims of laudanum, and one teaspoonful of Benger's pancreatic solution. All food was interdicted, the mouth was ordered to be moistened with water occasionally, and she was given a small piece of ice to suck at rare intervals.

The same treatment was continued on the 20th, with poultices to the abdomen and a mixture of bismuth, morphia, and extract of ergot. Thirst was very distressing, and was unrelieved by ice or small quantities of soda water.

On the 21st, bleeding recurred in the morning. Turpentine in mucilage, in ten-minim doses, was given every hour. Cold compresses were applied to the abdomen; and the nutrient enemata were continued, this being the only nourishment allowed. A simple enema of warm water was given in the evening, and the bowels acted painlessly. The rectal injections caused no discomfort.

On the 22nd, she was vomiting blood at 7.30 A.M. Turpentine was given every hour, and hot water-bottles applied to the feet, the circulation being languid. Enemata were given as yesterday. At 8 P.M., more blood was vomited. Sulphuric and gallic acids were given every half-hour for two hours; and then a mixture consisting of tincture of digitalis, extract of ergot, and glycerine, in half an ounce of water, was given every four hours.

On the 23rd, there was no more bleeding, but the patient lay unobservant in bed, and had been suffering from anæmic delirium during the night. She appeared startled and frightened when the door was opened or she was spoken to, but immediately relapsed into semi-consciousness. Pulse small, soft, and quick, 120 per minute. An ounce of brandy was now added to each enema, and no opium. In the evening, the pulse was slower and fuller, and she seemed generally brighter and more hopeful.

The same treatment was continued on the 24th, and till the evening of the 25th, when, as she had had no further vomiting or pain, two ounces of carefully prepared peptonised food were ordered to be given by the mouth every four hours. She had now been a week subsisting on enemata only, and had much improved. There was now no delirium; and the pulse was fuller and slower, although she still complained at times of headache and a feeling of sickness. Two nutrient enemata were also given, and a grain of opium at night, the ergot and digitalis mixture being continued.

On the 27th, peptonised beef-tea was alternated with the milk-gruel.

On the 28th, blanc mange, treated in the same way, was added to the diet. No more enemata were given, except of warm water to wash out the bowel every other day.

On October 2nd, undigested food was given for the first time; rice-pudding and bread and milk being the ingredients.

From this date, she made an uninterruptedly good and quick recovery, climbing up the various grades of diet slowly, from beef-tea and milk through fish and fowl to the time-honoured chop.

On October 24th, she left on three months' leave of absence to recruit her health.

REMARKS.—This case is recorded simply to add another item to the proof, if it be needed, of the efficacy of enemata (especially peptonised) in the treatment of ulcer of the stomach. From the fact that for five days small quantities of cold liquids only were swallowed, thus giving the stomach a rest as complete as possible, the patient, nevertheless, continuously becoming worse, and the ulcer apparently spreading, it is clear that treatment by enemata was the only reliable one, and it proved successful. Again, although brandy may accelerate the circulation, and perhaps by that means break down a weakly healing ulcer, there are times, as on a certain morning in this case, when life seems to be saved by it. On the occasion to which I refer, the patient was considered by my colleagues and myself to be *in articulo mortis*, but after the administration of the stimulant by the rectum, the change was sudden and astonishing. At the same time, the digitalis and ergot were no doubt beginning to affect the system. Probably, in most cases our difficulty was to overcome the patient's repugnance to the rectal alimentation and prevent her drinking too freely, the suffering from thirst being so great that only a strong-minded attendant prevented her drinking every fluid in her vicinity.

BEQUESTS TO SCOTTISH MEDICAL CHARITIES.—The late Mr. James Bain, of Helensburgh, has bequeathed to the Glasgow Royal Infirmary and Glasgow Western Infirmary £500 each, and to the Glasgow and West of Scotland Association for the relief of Incurables £100.

CHOLERA EPIDEMICS IN MALTA.

BY FRANCIS H. WELCH, F.R.C.S., Surgeon-Major, A.M.D.

THE leading article of November 10th, "Pettenkofer on Cholera and Quarantine," noting observations by him on the 1865 epidemic of Malta (some of which are not consistent with the facts), leads me to ask for space to recall a few details of cholera-experience in the Maltese islands, touching as they do especially on one point now prominently brought forward in medical periodicals, the question of its communicability or diffusion by human intercourse.

The first epidemic was that of 1837, and followed, in point of time, the existence of the disease in Sicily. Early in June vessels in quarantine had cases on board, and, on the 9th, cholera commenced among the island-population, first appearing in sites adjacent the quarantine-harbour (poor-house for aged, Floriana Barracks, Upper St. Elmo), then, in the next fortnight, attacking the villages within five miles of Valetta, yet only reaching the most remote (barely twelve miles off) eighty one days after its commencement. There was an interval of twenty-seven days also between Malta and Gozo, separated by a channel three miles wide from each other.

The epidemic of 1848 followed the Egyptian epidemic in August, the first case occurring in Malta on September 22nd among the military quartered in lower St. Elmo (at the mouth of the quarantine-harbour). The removal of the corps to a camping-ground less than a mile off, and of the artillery in the upper part of the fort, who also suffered, to a corn-store within one hundred yards, sufficed to stop the disease, though a return of the corps to Lower St. Elmo, after a process of cleansing, etc., temporarily reproduced it. The military were the only sufferers, no authentic case occurring among the civil population.

The epidemic of 1850 was in sequence to the disease in Tunis early in June, and the first case in Malta occurred on the 9th, in the person of a master of a Maltese boat, four days after arrival from Susa. "The next were two men who had been employed in disembarking cattle from Tunis; and a soldier of the Malta regiment, residing in the same house with these men, also died of the disease, which now spread rapidly throughout the island." To the island of Gozo an infected company of the 44th regiment was removed, conveying the disease with it to its new site, and giving twenty-six cases within ten days; and its subsidence in this company was followed by its appearance at a little village at the foot of the fort, and between which there was constant intercourse. "From this it spread rapidly throughout Gozo, which, prior to the advent of the 44th, was intact."

The years 1854-5-6, each had its cholera-visitation in sequence to cholera in England and in the east, and during the military overcrowding of the Crimean war. In these years the disease was all but limited to the military, and to the town of Valetta. The transport *Medway*, with artillery for the Crimea, suffered severely from cholera on the voyage from England; the troops were disembarked at the lazzaretto, and gave forty-nine cases; "health returned as soon as plenty of space and ventilation were given."

The epidemic in 1865 followed that in Egypt (which followed that in Arabia) early in June. "After the establishment of quarantine (June 14th), scarcely a vessel arrived up to the appearance of the first authentic case among the residents that had not had either a casualty from the disease during the voyage, or landed cholera-cases. The steamer *Grecian* suffered in both these respects, and is remarkable in this particular, that, on arrival, she was coaled by seven healthy Maltese from a healthy country village; within three days, whilst these men were in quarantine, every one was seized either with cholera or choleraic diarrhœa." The first inspection of the lazzaretto-occupants, on the 23rd, also showed severe choleraic diarrhœa. The first cases among the residents occurred June 20th, among military married families quartered in a building close to the lazzaretto, and to the beach contiguous to the anchorage of vessels in quarantine; and it was limited to them to July 1st. On this date, the detachment was removed across the harbour to St. Salvatore, and at once, on its new site, gave five cases; evidence of the disease among the occupants of the adjacent poorhouse for aged, also showed itself at the same time. On the 3rd, a woman (brought from outside the infected community), a nurse of the cholera-cases in the detachment, died of it in five hours; and, on the 6th, her child was affected; while, on the 7th, a man who had been brought in for fatigue-duties from a healthy fort was also affected. On July 10th, an infant, whose mother had died at St. Salvatore of cholera, was given in charge to a woman of a healthy detachment in another

small fort; this child had cholera on the 16th, the woman was affected on the 26th, and her husband, who nursed her, was attacked on the 30th. No other case before or after occurred in this detachment, except one man who was attacked the day the child died. These were some of the early cases amongst the military, and most of them occurred before the disease was diffused among the native population. In this epidemic, also, mere removal of troops from their barracks to camping grounds, sometimes a few hundred yards only distant, sufficed to check the disease. The first undoubted case among the natives occurred July 1st, in a village three miles off; the man had been employed two days previously at the lazzaretto (where the disease already existed), as a whitewasher, and died at his residence; on the 3rd, it proved fatal to a woman at Valetta; she had received, four days prior to her decease, old clothes as patterns (being a tailoress), from a merchant's family, fourteen days arrived from Alexandria, in a vessel with cholera on board; on the 10th, it appeared in a lodging-house, and from this date it diffused itself over the capital, yet it took fifty-nine days between its appearance in the first and last of the villages in such a circumscribed space as the habitable portion of Malta. In Burmola (one of the three sections of the capital), the first case was on July 10th, in a person out of the lazzaretto; and, in the adjacent town of Senglea, "the outbreak of the disease in the localities chosen by refugees from Alexandria was as apparent as elsewhere, and its too frequent occurrence clearly demonstrated that it was something more than a mere coincidence." In the adjacent island of Gozo, the first case occurred thirty-one days after that of Malta, in the person of a sailor who had been serving in a small vessel in the harbour of Valetta; he came home, ill with the disease, to his native village, Xeuchia, on the 21st, and was nursed by two sisters and two women in adjoining houses, and these were all attacked on the 24th. The chief town was infected on August 3rd, after reception of cases from Xeuchia in hospital; but the last village gave no case until forty days subsequent to the introduction of the disease into this small island.

"Among the military medical officers, there were few, prior to the epidemic, who had the least belief in the communicability of cholera, yet the evidence in favour of such a conclusion, under certain circumstances, soon became so strong and overwhelming as not to be withstood." These and other instances (fully detailed in *Army Medical Blue Book*, 1864, page 310) were carefully sifted at the time, and on the spot, by Dr. Leith Adams and myself; and it seems impossible, with the European and American experience of 1865-6, to resist the conclusion (in opposition to much, but not all, Indian opinion) that human intercourse, by persons or things, ships or clothing, is one mode of diffusion of cholera, be the explanation what it may.

In spite of local unsanitary conditions, perhaps unparalleled elsewhere, spasmodic cholera has only appeared in the Maltese islands in sequence to its previously recognised presence in surrounding countries, of ships from these countries, and cases on board, or in the lazzaretto, or among fugitives; and the course of events leads to the inference that, had it been possible to exclude these agents, no cholera would have arisen. Quarantine is defined as an interdiction of communication for a definite period to exclude infectious disease; and, without posing as an advocate for it in view of the enormous difficulties in effectively carrying it out, the conflicting interests involved, and of the greater advantages through exclusion by sanitation; yet, on the hypothesis that cholera can be disseminated by persons or things, it must be allowed that its advocates are right in principle, though not choosing the best method of attaining the end in view. To adduce the experience of Malta in 1865 against "the efficacy of any practicable quarantine" is hardly to the point, considering that the system adopted, while embracing a host of small absurd minutiæ, allowed the entrance and enforced stay of ships from infected ports with cases on board in a land-locked harbour, abutted on, on one side at least, by a thick population—allowed the crowding of fugitives into an unsanitary lazzaretto, on an island separated from the town by an arm only of the harbour—allowed the escape of the discharges from cases on board, or in the lazzaretto, into this tideless basin; in fact, it was not "practicable quarantine" at all, but a system calculated to form a focus or centre for diffusion of disease; and it unquestionably acted as such.

PRESENTATION.—Dr. Smiles, on his retirement from the position of medical officer of the Clerkenwell House of Correction, a post which he has held for forty years, has been presented by the officers of the prison with a handsome goblet, as a mark of their appreciation of his professional services covering so long a period.

THE DISTRIBUTION OF TYPHUS FEVER IN LIVERPOOL.

Abstract of a paper read at the Liverpool Medical Institution.

BY E. W. HOPE, M.D.,
Assistant Medical Officer of Health.

THE records of the progress and distribution of typhus in Liverpool show that for many years the chief prevalence of the disease has been in the same districts; and, off and on, for a long series of years, it has reappeared in the same streets. In view of this circumstance, it is not unnatural that its presence should be abscribed to the operation of some local cause, and the commonly assumed cause is the structure of the dwelling.

The area in which the disease is now most rife contains houses and streets of the most varied type; drainage and scavenging are excellent throughout, and, while many of the courts and streets are ill-constructed and even dilapidated, the great majority are fairly wide and open. The variety in street-houses is too apparent to need comment; many of them have a lower room or rooms not communicating with the rest of the house, and having the ceiling three feet above the level of the street. These cellar-dwellings are 8 to 10,000 in number, and are structurally the most unsanitary dwellings in Liverpool, the court-houses being second in this respect, whilst street-houses in the affected localities are in every way greatly superior to these latter.

The population of the affected districts may be estimated as follows:—in court-houses, 90,000; in cellars, 25,000; in common lodging and tramp-houses, 15,000; in other street-houses, 100,000. In former years, the common lodging-houses and cellars furnished four-fifths of the total cases of typhus; but of late years, owing to the sanitary inspection of these places, the disease has almost disappeared from them. In like manner, and under like agencies, it is fast disappearing from the courts. Mortality-statistics, and reports of former years, prove conclusively that, when the dwellings of the poor are placed under sanitary supervision, typhus fever is effectually eradicated. During the four months from July to October, I have carefully investigated the surroundings of the cases of typhus coming to the knowledge of the health-authorities. They are 831 in number, and the table shows the important points in connection with their incidence and mortality. The cellars, with their 25,000 poor inhabitants, are practically free from typhus. So also are the emigration-, common lodging-, and tramp-houses, some of these latter being the most disreputable rookeries conceivable. The courts, with their back-to-back houses and other sanitary defects, contribute 360 of the total cases; so that the street-houses, after eliminating their worst features, not only contribute 420 of the total cases, but these present the anomalous feature of a death-rate double that of the courts and cellars.

The explanation of this is apparent. Cellars, lodging-houses, and the like, are under sanitary supervision. Hence, the sick are discovered early, and promptly removed to hospital. Court-houses admit of a readier inspection than street-houses; and hence, by early removal of the sick, the amount and fatality of fever in them is less. The privacy of the street-houses is an obstacle to their inspection. Fever exists in them for many days ere the health-officials discover it; in the meantime, friends visit the sick, and carry the disease from house to house; the relatives of the patient are totally unable to carry out the injunctions of the medical attendant; and when at last, by reason of the spread of the disease and unmanageableness of the patient, removal becomes imperative, the long previous neglect of the patient is reflected in a death-rate double that of the courts. Evidence is only too abundant that this visiting of neighbours is the common means of disseminating typhus; in many instances, to my knowledge, as many as twelve or fifteen persons have become infected from one centre, and in one case as many as forty-three owed their sickness to intervisiting.

There are numerous instances in former years in which fever-infected streets have been all but demolished and rebuilt; but, as the habits and social condition of the people remained the same, and no additional police or sanitary supervision was imposed, these structural alterations had no appreciable effect in reducing the relative amount of typhus. Moreover, it has happened that people who have been ejected from one set of dwellings, have taken up their abode in others even more injurious to health than those which they were compelled to quit.

The past history of the Liverpool poor shows that every improvement in their social condition is the direct result, not of their own industry, but of police and sanitary supervision. It is of importance

to note that during the past year 10,275 persons were proceeded against for offences in regard to the Elementary Education Acts, and 7,163 for offences against the Public Health Act. These facts, slight though they be in comparison with other evidence, suggest strongly that guardians and householders such as these can never be looked to to furnish notification of the existence of typhus in their households; and indeed, any legislation which should tend to render such a duty incumbent upon them must be void of effect.

Since sanitary inspection, by day and night, has almost completely beaten out typhus from those dwellings which formerly contributed four-fifths of the total cases, it is reasonable to suppose that the same measures applied to houses which now contribute so much would be attended with similar results. But the position of the medical attendant must he considered. A legal obligation to notify forthwith to the Medical Officer of Health every case of typhus fever coming to his notice, would relieve him from any supposed necessity for maintaining a confidence which must inevitably bring ruin, misery and death to the unhappy victims who form the other party to that confidence, and would enable him to use the opportunities which present themselves for the prevention of the spread of typhus, without in any way violating the sanctity of the sick chamber.

Analysis of 831 *Cases of Typhus Fever occurring during July, August, September, and October.*

—	Total Cases.	Occurring in Street-Houses.			Occurring in Court-Houses.			Occurring in Cellars.			Occurring in Tramp-, Lodging-, and Emigration-Houses.		
		420			360			34			17		
		Recovered.	Died.	Mortality Per Cent.	Recovered.	Died.	Mortality Per Cent.	Recovered.	Died.	Mortality Per Cent.	Recovered.	Died.	Mortality Per Cent.
Removed to hospital ...	752	277	88	24.3	293	45	13.3	29	3	9.3	12	5	29
Treated at home	79	31	24	—	13	9	—	—	2	—	—	—	—

Of cases treated at home, only 79 came to the knowledge of the Health Committee. Most of these were in private street-houses. Their great mortality suggests that many other cases, unreported, must also have been treated at home.

The above table does not include hospital attendants and nurses.

DIPHTHERIA: MODE OF TRANSMISSION, AND PERIOD OF INCUBATION.

By J. H. SALTER, M.R.C.S.Eng., Tolleshunt D'Arcy, Essex.

So seldom does one get an opportunity of tracing an infectious case pretty clearly to its fountain-head, that I have been asked by the medical officer of health (Dr. Downes) to publish the following, where the origin of the disease, mode of transmission, and period of incubation, were all demonstrated with some accuracy.

The site was a farm-house, healthily situated and isolated. The nearest cottage was several hundred yards distant, and the nearest village a mile or thereabouts. The inmates were all healthy, and consisted of the father and mother; two sons (Frank, aged eleven years, and Sidney, aged nine years); a daughter, aged seven years; an infant; and three female servants, who, previous to the outbreak, had had no communication with any house containing sickness. The locality is high, dry, and healthy, and there was no epidemic in the surrounding neighbourhood.

I was called in on Wednesday, October 24th, to see the eldest boy, Frank, who had been ailing since Monday, and found diphtheria well-marked; the fauces being covered with membrane, and the constitutional symptoms threatening to be severe.

On the following day (Thursday, October 25th), the second son (Sidney), who had also been ailing slightly for a day or two, was seized with the disease, aad the father complained of sore-throat, though there was no trace of membrane. The latter was treated with a brisk purge, and did not get worse.

On Friday (26th), the housemaid (Ann C.) was attacked; on Saturday (27th) the cook (Sharp); and on Tuesday (30th) the housemaid (Nellie C.). All had well-marked diphtheria, locally and constitutionally; they were treated energetically, and soon recovered. No laryngeal complications supervened in any instance.

I discovered that on Friday, in the preceding week, just five days before I saw the first case, but barely three before the eldest boy showed signs of indisposition, a woman from a neighbouring village had brought back some needlework from her cottage, which contained at the time two sick children; one of these died somewhat suddenly from what was thought to be bronchitis, but what was doubtless diphtheria; the other I myself attended, with well-marked diphtheria, concurrently with the cases above described. There was no other case in my district, which extends for several miles in each direction. The child who died had recently been on a visit to a distant town, where the disease was rife.

It would, therefore, appear that the infection was carried by the woman who had been in close attendance on these children, or by the needlework on which she had been engaged while in the sick-room, she herself not being ill. Her residence was two miles distant from the farmhouse to which she took it; and no fewer than five, if not six, persons contracted the disease from this source. The cases were by no means slight, but were all strongly marked, except in the father.

The mother, who nursed the others, her little girl, a delicate-looking child, and the infant, escaped. The two latter spent a good deal of time in the open air, and disinfectants were freely used.

I recollect a similar instance during an epidemic of diphtheria in 1875, and I made special note of it at the time. The disease had broken out very severely in a farmhouse, isolated, as in the preceding case, and situated in a thinly populated country district. A servant-girl, who had done the lion's share of the nursing, went home to her mother's house, three miles distant, to rest and spend the Sunday. Soon after this, several children in the house went down with the disease, which was of a very fatal type; and three of their number died. It also spread to the adjacent cottages, and formed a nucleus for a severe continuance of the epidemic. There was no doubt in my mind that the infection was propagated by this girl, though she herself had not the disease at the time. She did, however, fall with it about a month after these events took place.

It will be observed that I have confined myself to recording, as briefly as possible, those facts which appear to bear upon the mode of transmission of the infection, hoping that they may prove of some value to those who are actively engaged in the investigation of this and allied diseases.

CLINICAL MEMORANDA.

INFANTILE ERYSIPELAS.

The etiology of infantile erysipelas is interesting, and it is important to recognise the frequency with which new-born infants develop or contract erysipelas. Cases of idiopathic erysipelas not unfrequently owe their origin to the coexistence of puerperal fever, or of some epidemic influence being in force about the time of birth of infants thus affected. Infantile erysipelas may also occur as an idiopathic expression of a blood-infection, probably pyæmic in character. Each of these forms of infantile erysipelas has a special tendency to exhibit a migratory development.

Traumatic origin, however, is more frequently a primary factor in the etiology of infantile erysipelas. Most authors refer to the umbilicus as the almost invariable starting-point of this form; but it is well to recognise the fact that any abraded cutaneous surface on an infant renders its susceptibility to contract erysipelas not only possible, but highly probable, in weak constitutions. Eczema, intertrigo, impetigo, simple wounds, injuries to the scalp in forceps-deliveries, cicatrising vaccine-pustules, are also sources through which erysipelas may attack an infant, as well as by a denuded surface exposed by an imperfect separation of the funis, or by an imperfect cicatrisation at the umbilicus.

On May 12th, 1882, I vaccinated an infant with calf-lymph unsuccessfully; and, on May 20th, with calf-lymph successfully. The vaccination progressed normally until June 15th, when the scabs were separating. An aunt of the infant arrived on this day from the country, when herself recovering from an attack of erysipelas. She handled the infant that afternoon. Next day, this infant was restless, refused food, and, the day after (June 17th), erysipelas commenced in the region of the cicatrices, and spread along the arm and forearm.

On October 5th, 1882, another infant was vaccinated by me with calf-lymph successfully, with normal progress till October 12th; but, on October 16th, well-developed erysipelas developed around the pustules, and spread rapidly over the arm and forearm. The origin in this case is uncertain.

In both cases, severe constitutional disturbance, anorexia, and vital depression, were concomitants; the erysipelas was local, not migratory, as in the idiopathic forms.

Most of the text-books take a pessimist view of the value of treatment, whether internal or local; but, on these points, authors differ greatly. Personally, I would advocate internal treatment, by means of chlorate of potass with perchloride of iron; and, externally, the employment of cotton-wool or the lotio sodæ chloratæ. It is of paramount importance to direct that the infant be fed, by breast or hand, in small quantities frequently; that, weather permitting, fresh air be obtained in-doors or out-of-doors daily; and that scrupulous attention be paid to body-cleanliness, and to the hygiene of the lying-in room and nursery, both as regards prevention and cure.

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OBSTETRIC MEMORANDA.

AN ANOMALOUS LABOUR.

Mrs. Ann N., aged 38, mother of twelve children, was attended by a midwife in her thirteenth labour, which began at 10 A.M. on October 12th. About 6.45 A.M. on the 13th, there was a good deal of coloured discharge. The midwife arrived at 7, and, recognising placenta prævia, ruptured the membranes. The liquor amnii had to be "scooped from the bed." Owing to further hæmorrhage, she sent for assistance at 9.30 A.M. I found the patient on her left side; practically, there was no perinæum; multiparous laxity was present; there was prolapsus of the funis; the os uteri barely admitted the hand, but was dilatable. The placenta, with the insertion of the cord, was felt in the posterior segment of the cervical zone, partially presenting and detached. I replaced the funis, and touched the vertebral border of a bone, which I believed to be the right scapula. I pushed the shoulder downwards to the left, when a knee-flexure came within reach; then I pulled the breech into the os by the left leg. The pains were feeble. I then gave a drachm and a half of fluid extract of ergot. Soon, a powerful pain expelled the body as far as the neck. Delivering the arms, and putting the left fore and middle fingers into the child's mouth in the usual way, I asked the midwife to draw back the perineal remains. The child was born at 10.15, with the heart acting. After much exertion, it cried. It was premature (eighth month); it weighed 6 lbs. The suboccipito-frontal circumference was $12\frac{3}{8}$ inches; the occipito-frontal, $13\frac{1}{4}$ inches. The placenta was expressed, and the rent in the membranes ran to its border. When last seen, both were doing well.

Remarks.—This case well exemplifies the almost pathognomonic sign of transverse presentation; the total evacuation of liquor amnii; the facility of multiparous version; the convenient absence of the perineal body and skin; the advantage of admitting air to the fœtal tract, when the face enters the sacral hollow—antiseptic ideas notwithstanding. My hands and right arm were washed with a solution of iodine, and lubricated with fresh benzoated lard, under the fixed impression that that method is the best prophylactic of puerperal sepsis.

Liverpool. A. Drummond Macdonald, M.B.Ed.

THE PLACENTA IN BREECH-PRESENTATION.

From a work before me, I quote breech-presentations as occurring 1 in $72\frac{1}{2}$, death of the child 1 in $3\frac{2}{3}$; in the same work, the only explanation of this mortality is put down to pressure on the umbilical cord, acting after the birth of the lower extremities and trunk, nor have I been able to find a more conclusive reason in any work on the subject. My experience leads me to believe that, up to the birth of the lower extremities, and most of the trunks, the less interference the better; at this point, it may be necessary to bring down the arms, and now comes the danger to the child. That pressure on the cord may operate dangerously at this stage, in some cases, I allow; but I have generally found this danger a little earlier in the delivery, before the complete expulsion of the trunk, when it is quite possible for a considerable part of the placenta to have become detached; but, with complete extrusion of the body, and the head bearing upon the perinæum, I am of opinion that the placenta is nearly, if not wholly, separated, pressure on the cord being no longer of importance; in fact, with the head in this latter position, pressure is much less likely to act injuriously than with the head at the pelvic brim, supposing the placenta still adherent. The practical points in the management are to let matters alone until the birth of the lower extremities and the abdomen; from this point, to complete the labour with the utmost despatch, drawing down a loop of cord, bringing down the arms, if necessary; taking the body in the right hand, placing the fore- and middle-fingers of the left hand upon the upper maxillæ, using combined pressure and traction in a direction forwards and downwards (the lower jaw had better be avoided, as more liable to injury, and, from its great mobility, affording so little purchase); at the same time, some one present being directed to make pressure through the maternal abdominal wall; this failing, to apply the forceps. My object is to advocate rather earlier active interference than is usually recommended, viz., when the lower half is protruded, as, I believe, this is when pressure on the cord is greatest; that at and after this point, separation of the placenta takes place rapidly, the stoppage of the circulation through the cord materially assisting this separation.

John E. Looker, Brookfield House, Levenshulme.

PLACENTA PRÆVIA COMPLICATED WITH ARM-PRESENTATION AT THE SIXTH MONTH OF PREGNANCY.

On Monday afternoon, October 29th, I was called to Mrs. H., multipara, who was said to be in labour. On vaginal examination, I found the os of the size of a sixpence, the cervix rigid, and the "bag of waters" just distinguishable, but the presentation could not be made out. I gave her an opiate, and left her, and she remained quiet till about 4.30 next morning, when the nurse discovered that the placenta was born. I was immediately called in, and found the placenta entirely delivered; flooding, however, was going on in great gushes of blood. The child was still engaged in the pelvis, and I found a shoulder-presentation. I immediately proceeded to turn; and, after great difficulty, owing to a tetanically contracted uterus, delivered the patient at about 6 A.M. The fœtus was, of course, dead. The patient had once triplets at six months, besides other premature births.

J. A. Erskine Stuart, L.R.C.S.Ed.,
Staincliffe, Dewsbury.

SURGICAL MEMORANDA.

OPENING THE KNEE-JOINT.

The report of the discussion on Mr. Lister's paper at the London Medical Society in the Journal of November 17th, induces me to mention a case I had under my care last summer. It is that of a young gentleman, aged 19, who was thrown off his horse, and sustained a severe sprain of the knee-joint. In spite of all I could do to prevent it, suppuration took place, and the abscess burst thirteen days after the accident. I would have opened the abscess, but for another unexpected demand which came on my somewhat small stock of dressings. Anticipating, however, that it would burst in the night, I put on a large dressing, having previously well washed the surrounding parts with 1 in 20 carbolic lotion; it did burst in the night, and by the morning my fresh stock of dressings had arrived. I introduced my finger well into the joint to feel if there was any roughness of the cartilages. Strict Listerism was observed throughout. Previously to the opening of the joint, the pain was very severe, pulse 120, temperature 102°, with slight delirium; after it opened, the pain was somewhat severe for four or five days, but the pulse fell to 80, the temperature to under 100°, and in a few days to normal, and the delirium disappeared. The abscess burst on May 17th; the joint was dressed for the last time on June 28th; and on July 5th, when that dressing was removed, the wound had completely healed. For the last three months or more, he knows no difference in the use of his knee-joints.

I do not forget that the case above sketched differs in one important point from the subject under discussion, in that the joint is opened in the one case by the surgeon, and in the other in spite of him. Still, an open knee-joint is the result in both cases; and I write this to show that disciples of Lister, who can lay claim to no special "surgical skill," can nevertheless, with great satisfaction to themselves, and, as far as my personal experience goes, invariably with good result, give to their patients the benefit of his method of dressing—a method, in my opinion, that deserves to be "exalted to a position of overwhelming importance." In this case, however, the surgeon possessed one qualification which is very important and

well-nigh essential to uniform success, namely, absolute faith in the principles of antiseptic surgery, and—as a logical sequence—all that is claimed for it by Professor Lister.

A. GARROD THOMAS, M.D., Newport, Monmouthshire.

TOXICOLOGICAL MEMORANDA.

POISONING BY ACONITE.

ONE or two points in a case of poisoning by aconite may be of general interest. I saw the case for a neighbouring practitioner, on November 11th, about an hour after the poison had been taken. The patient was an hysterical woman, aged about 40. She had taken about three drachms of the linimentum aconiti *B.P.* When I first saw her, she was much prostrated; she did not answer questions, but was able to tell me that she had taken the poison herself, and to utter some short prayers. There were frequent general convulsions, rather violent. The face was much congested; the lips were red; the pupils much dilated; the sclerotic injected; the iris somewhat irregular in the external outline. The pulse was full, and somewhat irregurar. Respiration was blowing, and rather rapid. A slimy tenacious mucus was expelled from the lips with almost every expiration. I gave her an emetic; but I believe there was no power of swallowing. The convulsions were easily repressed by a wet towel over the face and head; but this seemed to cause much depression. There was entire loss of sensibility of the skin. About a quarter of an hour after I saw her, the surface of the body became suddenly cold; the respiration and pulse ceased; but she was revived by a hot poultice on the epigastrium. The convulsions became less frequent as the poison gained ground; and she was speechless for about twenty minutes before her death, which occurred about an hour and three-quarters after the poison had been taken. At no time was the face blanched, or the lips bloodless; on the contrary, the lips became dark blue after death. A slight tremor of the lower lip was noticeable some moments after pulse and respiration ceased. Artificial respiration was ineffectual.

The points to which I wish to call attention are: the convulsions; the inability to swallow; the dilatation of the pupils; the congestion of the face; the insensibility of the skin; and the reviving effect of the poultice over the epigastrium.

I am indebted to Mr. H. Holberton for permission to publish these details. HERBERT W. SEAGER, M.B., Hampton Court.

POISONING BY BRYONIA DIOICA.

ABOUT six weeks ago, I was hastily summoned two miles into the country to see a child, aged 4 years, supposed to be suffering from eating some red berries given by children while at play. From the description given by one of the children, I came to the conclusion that the child had eaten berries of the red bryony. On examination, I found the child apparently in great pain in the abdomen, very thirsty, hot, and excited. With some difficulty I administered one scruple of powdered ipecacuanha, with ten grains of sulphate of zinc, in warm water. In due course this produced copious vomiting, together with a free action on the bowels. I waited about twenty minutes, and as no further vomiting occurred, and the pain in the abdomen continued, I repeated the emetic. This excited the vomiting again. The first vomit contained portions of about a dozen berries, the second about half that number; and one or two ejections in the course of the night simply contained fluid coloured with the juice of the berry. The child was put to bed with a warm poultice over the abdomen, and some senna-tea administered, which operated freely, bringing away several skins of the berries. On the following day the pain had ceased, but the temperature in the axilla was 103°. A saline mixture was given, and for the next three days the temperature kept up, but, after that time, gradually subsided, and the little fellow recovered his normal state of health. On first seeing this case the pulse was very feeble, but, after the vomiting, it increased in power wonderfully.

S. B. MASON, M.R.C.P.E., etc.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—There has been an entry of twenty-five full students, and of forty-four students who have entered in order to fulfil the regulation which requires a year to be spent here by candidates for the degrees of the University of Durham.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LIVERPOOL ROYAL INFIRMARY, AND STANLEY HOSPITAL.

THREE CASES, SHOWING THAT STRICTURE OF THE RECTUM DOES NOT NECESSARILY IMPLY "INTESTINAL OBSTRUCTION."

(Under the care of Mr. RUSHTON PARKER.)

'Remarks on the "Obstruction" Question, in relation to these Cases, collectively. By RUSHTON PARKER, B.Sc., F.R.C.S.—In opening a discussion on intestinal obstruction, reported in the JOURNAL of October 6th, 1883, I had occasion, towards the end of my address, to allude to a criticism in the *Lancet* of July 21st, 1883, wherein cancer of the rectum was erroneously spoken of as if it were "obstruction of the bowels." And now, in the *London Medical Record* of November 15th, 1883, the same fallacy is reproduced in a review of some brief writings of mine. I hope that the three cases here given may suffice to inform my critical friends, that stricture of the rectum is not "intestinal obstruction," is not even "a form of intestinal obstruction," though it may truly be, and very often is, "a cause of intestinal obstruction"—that is, a source of the symptoms that are called "intestinal obstruction." In my pamphlet on hernia, and in my introduction to the above discussion, it was, no doubt briefly, but I thought clearly, maintained that "intestinal obstruction" is not the hernia, invagination, volvulus, functional laming, etc., which are so often improperly called "obstruction;" but that it is the "collection of symptoms" to which those various pathological conditions may give rise. Among those pathological conditions are stricture of the rectum, from whatever cause. It never occurred to me to even mention the advisability of colotomy in the event of utter obstruction resulting from stricture of the rectum, such advisability being so self-evident that one may expect it to be taken for granted.

But utter obstruction is by no means an inevitable result of stricture of the rectum, which may not even set up the symptoms of any degree of obstruction, as proved by the history, before colotomy, in the two malignant cases here cited. In such cases, which are instances of partial occlusion, the prevention of obstructive symptoms is easily accomplished, by reducing the quantity and selecting the quality of the ingesta, as the patients actually did of their own accord. Even after their onset, such symptoms, if not too far advanced, can be always relieved by the same means. These are the means that also relieve cases of purely "functional obstruction," cases of local laming, circumscribed peristaltic paralysis, or whatever the actual conditions may be, that, from their eminently curable nature, are but little susceptible of anatomical explanation.

It therefore ought to appear quite plain that cases of stricture of rectum require the same preventive and curative treatment against the existence of intestinal obstruction, as other causes of obstruction, that is, their functional symptoms require functional treatment. If they have been allowed to progress so far unrelieved as to threaten the collapse of the patient from over-distension of the abdomen, they naturally are amenable to relief by colotomy; as other obstructions higher up are amenable, when so unrelieved, to relief by gastro-enterotomy. But, for all that, stricture of the rectum is not "intestinal obstruction," nor a form of intestinal obstruction. It may, if neglected, be one of its "causes."

CASE I. *Malignant Stricture of Rectum; Vesico-Intestinal Fistula; Colotomy; Death from Septic Pleuro-Peritonitis, chiefly Diaphragmatic, due to bursting of a Putrid Secondary Infection of the Liver, simulating Pneumonia.*—John T., aged 44, was admitted on May 20th, 1879. Three years before, he began to pass blood from the rectum, since which he had been troubled much with constipation and diarrhœa. Five weeks before admission, he began to pass fæces by the urethra. Though this feature now caused much pain and restlessness, resulting in much emaciation, a single washing out of the bladder, with warm water, gave a great relief, that lasted two days, after which the distress returned. This fact, and a complete diagnosis of the case, had already been made out by Mr. O. Bowen, of Liverpool, who introduced the patient to Mr. Parker. The bladder was thus washed out on May 21st, 22nd, 24th, and 26th (or 27th). On May 22nd the rectum also was washed out.

An exploration was made on May 24th, and a stricture, admitting the tip of the finger, was felt high up, but no tumour, nor was a vesical sound detected anywhere in the rectum, except as felt through the bladder-wall.

On May 27th, under ether, colotomy was done in the left loin, through an oblique incision, and the bowel opened and stitched to the skin. After about twenty-four hours, the patient was found very ill, the pulse being about 150, the temperature 105° Fahr., and the skin dry. Urine and fæces both issued by the wound in the loin. One-eighth of a grain of morphia was given under the skin, and a few hours later, in the evening, he was much better. His temperature was now 102° Fahr., and pulse, 110. One quarter of a grain of morphia was given by the mouth, but he had a disturbed night.

On the third day his respirations were 40 or 50 per minute, and it was concluded that he had acute pneumonia; an observation also by a colleague of dulness at the lower back of the chest, seemed to only confirm this idea. A painful cough had come on, but on the fourth day he felt better, after a good night and some opium. On the fifth day he refused food, had passed a delirious night, and was barely alive; on the sixth evening he died.

At the necropsy, made after eighteen hours, there was found in the peritoneum a little puriform lymph scattered about the folds of intestine, least of all near the site of operation, which was only indicated inside by a dimple of the colon at the spot, but most about the liver, which was almost diffluent at the site of two large broken-down, cheesy, putrid collections of malignant looking material. There were also several unsoftened masses, irregularly spheroidal, yellow, injected pink, and of a granular consistence. There was no visible infection of lymph-vessels, nor of glands along the aorta, but some swelling of the mesenteric glands. The peritoneum was not injected. The diaphragmatic pleura and the peritoneum on the loin were coated with puriform lymph, and slightly adherent in each case to the adjacent viscus. The lungs were sodden, but showed no signs of pneumonia or of other interstitial inflammation. In the pelvis there were adhesions around the disease of the rectum to a coil of small intestine, and to the bladder, which latter and the adjacent rectum were indurated. A hole, of the size of the tip of a little finger was found leading from the bladder to the rectum, above the stricture. The latter was not narrow, but an indurated mass occupied the submucous region, and showing on section cheesy-looking points and streaks. The mucous membrane was excavated, and ended nearly all round for a length of one and a half to two inches behind and below the bladder. At the edge of the sore, where not ended, a velvety villous condition of the mucous membrane was found, and a short distance off a large polypoid villus hung from the otherwise healthy mucous membrane. There were no secondary infarcts except in the liver, nor were any thrombi noticed in the hæmorrhoidal veins. Subsequent microscopic investigation by Mr. Paul showed an adeno-carcinoma of the cylindrical type, both in the primary growth, and in the secondary infection.

REMARKS.—It is presumed that two of the nodules in the liver had become additionally infected with putrid agents conveyed from the interior of the bowel, and that a small bursting had probably been brought about, during the operation of colotomy in manipulating the patient. The consequent intraperitoneal and diaphragmatic spread of the poisonous material probably killed the patient by the method of sapræmia, which, as it lasted five days, probably indicates but a small bursting and comparatively gradual intoxication; thus differing from the symptoms of immediate collapse and more speedy death that would probably have resulted from a more extensive escape of the putrid material from the loin, of which there were indeed no more positive traces than were afforded by the effusion of lymph on the diaphragmatic surfaces. The symptoms thus locally set up, also, are explained in their fallacious resemblance to pneumonia, a point the settlement of which by more exact examination was not attempted in the extremely helpless state of the patient.

CASE 2. *Malignant Stricture of the Rectum without Symptoms of Intestinal Obstruction; Colotomy on the undistended Bowel to Divert Irritating Fæces; temporary Relief and eventual Death.*—James H., aged 66, a warehouseman, was admitted into hospital, July 6th, 1881, suffering from a hard, tender, irregular, tumour, obstructing considerably the lower end of the rectum. Up to almost that time his health had been good, though eighteen months previously he began to notice a little blood with his stools. For a year the amount of bleeding gradually increased, while, during the six months preceding his admission, the act of defæcation was performed painfully and with general difficulty. At the time of admission, he thought rather less blood was being passed, but the pain, which formerly came on only after a stool, had become habitual. Although constipation had been a frequent, if not persistent feature, he had managed to counteract it by a judicious selection of his diet, acting according to the dictates of his own experience and empirical judgment. He had six months before consulted medical men, who had prescribed various remedies, but he got no better, and had latterly both slept and eaten badly. His food consisted largely of milk, with bread and broths, with which he had not only maintained life, but succeeded in keeping himself free from abdominal distension, whether by wind or fæces. On July 16th, 1881, colotomy was performed, under the influence of ether, in the left loin, through an oblique incision, the bowel being found with difficulty, owing to its collapsed state and retired position, and to the abundant presence of surrounding fat. It was stitched to the skin without being opened or even punctured, the wound having previously been washed with a strong solution of chloride of zinc. Two days later the bowel was opened, but neither wind nor fæces escaped at first. Spasmodic pain came to be felt all over the abdomen, and some distension. Opium was given, and the uneasiness became much less in a couple of days more, though even then nothing had passed.

Ten days after operation, he felt pretty well, and said that the pain had gone from his rectum. By that time, he was taking his food fairly, and sleeping with the aid of morphia. The wound healed without retention of fluids, and with little or no suppuration; it was freely treated with weak eucalyptus petroleum-ointment smeared on the surface, and covered with a small piece of gutta-percha tissue, separating it from a mass of oakum that was kept applied by a draw-sheet pinned round the patient's body. Much pain was experienced in the wound throughout, and, at last, small quantities of fæces, and occasionally a little wind, passed out.

He went home three weeks after operation, decidedly relieved so far as the sensations of the rectum were concerned.

About six months later, he was visited by Mr. Parker, in company with Dr. Riding, who was then looking after him. The patient had by this time taken to his bed, suffering, in the rectum and adjacent parts, great and constant pain, for which he was very glad of the regular administration of subcutaneous doses of morphia.

He died on May 1st, 1882, nine months after operation.

REMARKS.—The notion of postponing the opening of the bowel, and so the admission of fæces into the wound previously to the adhesion or granulation of the latter, was here suggested by the entire absence of distension and previous symptoms of obstruction. The attachment of the unopened bowel, however, appears to have newly set up a degree of obstruction, mechanical, functional, or both, as evinced by the distension and other abdominal uneasiness that came on. These symptoms were sensibly allayed before the bowel was opened, and, during the two or three days of their continuance, were the only obstructive symptoms that arose in the course of the case. Though the object of postponing the opening of the bowel, namely, the protection of the wound from fæcal admixture during the first two days, was successfully attained; and though the fresh source of obstruction thereby probably set up was not only tolerated, but relieved by functional means before its source was removed, it is obvious that in the majority of analogous cases no such idea could be reasonably entertained. In relating this incident, it may as well be plainly added that a repetition of the procedure is not thereby recommended.

CASE III.—*Simple Stricture of the Rectum: Colicky and Dyspeptic Symptoms: Regulation of the Diet: Disappearance of all Symptoms, and, apparently, of the Stricture.*—M. R., an unmarried woman, aged 20, came under notice on September 20th, 1876. Her account of herself was that she had had inconvenience in defæcation for the previous twelve or eighteen months, during which period she had been in Alexandria, living with, or under the close observation of, her married sister, by whom she was on this occasion accompanied. She had, previous to the above symptom, been subject to distension of the abdomen, and faintings, though, with all inconveniences, her bowels had never ceased to be regularly open. In Alexandria she had consulted Dr. Mackie, who found a stricture of the rectum, and recommended her to the care of Dr. Grimsdale, at Liverpool. The latter gentleman sent her to Mr. Parker, at the Stanley Hospital, where she attended as an out-patient twice weekly. On examination, the rectum was found, about two inches from the anus, to be narrowed, furrowed, and puckered longitudinally, presenting, in the middle of this hardened folding, a firm annular constriction, through which the forefinger could be forced into the wider part of the bowel above. The constriction before this dilation, however, felt as if nothing wider than an ordinary cedar pencil would pass.

A rectal bougie of flexible gum-elastic, Parisian make, tapering

from half to three-quarters of an inch in diameter, was passed at each visit, and left in about an hour, the patient lying on a bed in the hospital for the purpose. The bougie, being hollow and open at both ends, let off flatus and dark grey-brown fæculent liquid with offensive odour.

Later in the same year, she complained of the faints and abdominal swelling above alluded to, and it was noticed that she was nervous, sensitive, or, as some might say, hysterical. Her tongue was furred, and she said her stools were lumpy; but that she had a good appetite and yielded fairly heartily to it. She was then ordered a diet of bread and butter and tea and coffee, exclusively, the bread to be at least three days old. In consequence of the feelings of faintness, etc., her attendance at hospital had sometimes been unpunctual; and she said she was obliged to take brandy and water, which her sister gave her on such occasions to enable her to attend. This habit was countermanded, and she was given a little morphia instead, to take by the mouth, and recommended to keep her bed for a week or two, except for the sole purpose of coming to the hospital. The passage of the bougie was soon put off to once a week, and afterwards once a fortnight. No effect, except the pain or uneasiness produced by it, was perceived as the result of its use, the bougie always passing easily when once its tip got beyond the stricture, but the latter always feeling equally small when re-examined.

At the end of the year, the bougie was abruptly discontinued, and the following *régime* substituted: 1. Defæcation not to be attempted except after the use of a copious enema of hot water; 2. The diet to consist of bread and butter, and tea or coffee, morning and evening; at mid-day, a little gruel of pea-flour, butter, and water, or both thickened with pea-flour (pea-soup); occasionally, fat bacon and bread for dinner instead, or potatoes and gravy. Meat, milk, fruit, and all vegetables (ordinarily so-called) except potatoes, were to be avoided. The bread was to be three days old or more, the liquid element to be curtailed, and the entire quantity of food to be confined within small limits.

January 27th, 1877. She reported that her bowels were occasionally moved comfortably without an enema, which, however, she still used every second day; that she had felt benefit from the course of diet ever since it was first adopted, having also lost the distension, faintness, fatigue, and weakness; that she was active and well, fit for all household duties, though not for very much walking out-door exercise, which last she was encouraged not to take for the present, except for shopping and visiting the hospital.

February 7th. She reported herself continuing well, and the bowels daily moved without an enema; she was still taking the same diet.

May 9th. The patient was very well, having occasionally slight abdominal distension that at once subsided after the use of an enema.

Nothing more having been seen of the patient, Mr. Parker wrote, in 1879, to Dr. Mackie at Alexandria, for information as to her address or further progress, with the effect that, in May of that year, there arrived from Malta a letter, from which the following is extracted.

"Miss R. has been married two years, is the mother of one child, and, quite recently, had a miscarriage in Alexandria, where she is visiting her sister; but, unfortately, her old complaint has not reappeared, nor does she feel as if it existed."

REMARKS.—The treatment adopted in this case was suggested by the perusal of one recorded by John Abernethy, in which similar symptoms, attending a simple stricture of the rectum, disappeared entirely under the use, apparently, of clysters alone, consisting of gruel and castor-oil. In the present instance, however, purgative drugs were entirely avoided, the plain enemata of hot water being used for the purpose of getting rid of all scybala as long as they existed; while the diet selected was such as to render their reformation unlikely or impossible; its digestible nature tending to but little waste, and its small bulk favouring the contraction, rather than the distension, of the intestine.

ST. BARTHOLOMEW'S HOSPITAL.

CONSULTATIONS.

Two Cases of Obscure, probably Congenital, Tumours in Young Children.—On November 15th, Mr. MORRANT BAKER showed a little girl, aged 5 years, who presented a swelling, which was situated in the middle third of the outer side of the left thigh, and was apparently under some of the fibres of the vastus externus muscle. It was freely movable over the bone, and gave a semifluctuating sensation. It had been first noticed by the mother, when the child was eight months old. Mr. Baker said that he had at first supposed it to be a fatty tumour; but a later examination showed him that it was not so definite in outline as he had supposed, and, on pressure, it appeared to fade away, so that the fingers could be got through it down to the bone. He thought it was probably either a nævoid condition of the muscular tissue, of which he had seen a few cases, or a cyst, or some rare form of tumour, such as was occasionally seen beginning, as this one had done, in infancy.—Mr. THOMAS SMITH thought it was most probably a tumour developing from some fœtal residue; but Mr. WILLETT said that he was led, by the ill-defined nature of the swelling, to think that it was probably a nævoid condition of the muscle, and not a cystic tumour; and Mr. HOWARD MARSH further observed that cystic hygromata were very rare, except in connection with the trunk.

On the same day, Mr. WILLETT showed another well-grown little girl, three years old, who also was the subject of a small tumour of somewhat obscure nature. The mother stated that a lump had been noticed at birth in the right inguinal region; it had slowly increased up to about ten days before admission, when it had attained about the size of a walnut; since then, it was said to have rapidly enlarged to its present size—about that of a hen's egg; as, however, the child had not been living with its mother, this history was not to be implicitly trusted. The tumour occupied the inner part of the right inguinal region, and projected into the upper part of the labium; its upper part was solid, and over this part the skin had been somewhat red and inflamed when the child was first admitted, owing, probably, to the pressure of a truss which it had always worn; the lower part was plainly a fluid, contained within rather lax and thin walls. The increase in the size of the swelling began after an attack of sudden severe pain in the foot, of which the child came home complaining on November 5th. There was no vomiting or intestinal obstruction. When admitted (after a long journey), the temperature was 101.2° Fahr. Mr. Willett observed that, at first sight, the case seemed to be one of congenital hernia, but this was negatived by general considerations; he did not think it was a cystic hygroma, because of the large amount of solid in the upper part. On the whole, he was inclined to think that it was either a tumour formed around a misplaced ovary, or a growth around the round ligament, combined with accumulation of fluid in the canal of Nuck.—Mr. HARRISON CRIPPS concurred in the view that the swelling was primarily a misplaced ovary; but Messrs. SMITH, BAKER, and MARSH thought that it was more probably a congenital hygroma, with an unusual amount of solid.

The child being under the influence of chloroform, the tumour was tapped, and nearly an ounce of clear orange-yellow odourless fluid was drawn off; a large bulk of solid tumour remained.

Mr. WILLETT then observed that the question arose whether it would be necessary to interfere further; he proposed to keep the child under observation, and, if he found that the tumour was increasing, he would endeavour to excise it, since it lay so superficially.—Mr. THOMAS SMITH said that he would be very loth to operate on it, but that, if it began to grow, he would think it necessary to undertake an operation, however disagreeable or difficult it might be.—Mr. HOWARD MARSH observed that, if the tumour were a cystic hygroma, it would not improbably be very difficult to deal with. These hygromata had often very deep and unforseen connections; in one case recorded by Mr. Cæsar Hawkins, a cystic hygroma, situated in the neck, and apparently superficial, was discovered to have two prolongations, which projected deeply inwards, and passed, the one between the œsophagus and the trachea, and the other behind the œsophagus. In another case on which he had himself operated, the tumour presented on the cheek, but had a lobe behind the jaw, and another in the pharynx; in removing the latter lobe, he had been compelled to remove, also, half the soft palate. He had also seen another case where the removal of a cystic hygroma involved an extensive dissection in the pelvis, which laid bare three inches of the rectum. He would, therefore, advise against an operation, unless rapid growth rendered it absolutely necessary.

Syphilitic Sore followed by Rodent Ulcer.—Mr. HARRISON CRIPPS showed a woman, aged 50, who presented a small rodent ulcer just below the lower eyelid on the left side. The point of interest in the case was that the patient had at first presented a syphilitic ulceration in this situation, and that this had rapidly healed under the use of black wash locally, and iodide of potassium internally. Some months later, the ulceration recurred, but had again healed under the same treatment. It had now for a third time recurred, but this time with the unmistakable characters of rodent ulcer. All the surgeons present concurred in the view that the disease was now rodent ulcer.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 27TH, 1883.

JOHN MARSHALL, F.R.S., President, in the Chair.

Investigations into the Action of the Digitalis-Group.—Dr. SYDNEY RINGER read a paper on this subject. Digitalis was taken as the type of a group of drugs whose influence was exerted mainly on the circulatory system. The facts of chief importance in this action were: 1, the arrest of the heart in systole (if the dose were sufficiently large); 2, the raised blood-pressure which obtained throughout till close upon the final systolic arrest. Whilst the spasm of the heart was universally recognised as the result of the digitalis-action, and as caused by direct action of the drug on the cardiac tissue, there was doubt both as to the condition of the arterioles under the influence of the drug, and as to whether the influence were direct or indirect. The action of digitalis upon the heart might be thus defined: as the production of continuous spasm of the heart-muscle by direct action of the drug on this tissue. It was pointed out that this spasm could not be of the nature of a tetanus, *i.e.*, of a fusion of adjacent beats, and, further, that it might affect either the whole heart or a limited portion of the same, according as the drug was applied to the whole heart or to a limited portion. Thus defined, the already very large group of bodies classed by Schmiedeberg under the heading digitalis became yet larger, and would include, amongst others, the caustic alkalies and barium-salts. Experiments were recorded in which an artificial saline solution was circulated through the vessels of the hinder extremities of a tortoise whose brain and spinal cord had been completely destroyed. The experiments were so arranged that the rate of flow could be measured; and so soon as a uniform rate of flow had been established, the drug was added to the circulating fluid. The results obtained with digitalis were both uniform and striking; invariably, on the addition of the drug, the circulation became slower, even to the extent of almost complete stasis. Similar experiments were made with the following members of the digitalis-group: strophanthus, dyak poison, convallamarin, and scillitine. In the case of each of these drugs, evidence of constriction of the vessels was obtained, in the shape of a slowed circulation-rate. Digitaline, however, ranked as by far the most active of the above. Similar experiments were made with hydrate of potassium, and with the carbonates of potassium, and sodium bicarbonate, which, with the exception of the last, gave like evidence of constriction of the arterioles. Experiments carried on simultaneously with the above, on the excised heart of a frog, showed, in the case of each of the above drugs, the production of more or less persistent spasm, with the notable exception, however, of sodium bicarbonate, which gave none. Experiments then followed which sought to determine whether the calibre of the vessels, in addition to being directly influenced by these drugs, could be affected by them through the nerves. Digitaline was alone experimented with. The results were purely negative. Finally, to meet the suggestion as to the action of the drugs on the skeletal muscles, experiments were made with frogs, given quantities of solutions of digitaline, strophanthus, dyak, scillitine, barium chloride, and caustic potash and soda being injected. The results showed the first five to be notable muscle-poisons, the muscles rapidly dying and losing their excitability; indeed, even before the death of the animal, a very marked diminution of muscular irritability was in several cases observed. Comparing the actions among each other, it was noted that strophanthus and dyak poisons acted much more powerfully on the skeletal muscles than did digitaline. To sum up, the argument, briefly stated, was as follows. Starting from the systolic digitalis-heart, which was admittedly a result of direct action of the drug on the cardiac muscle, the following conclusions were arrived at. 1. For the other members of the digitalis-group here examined a like action obtained. 2. It was suggested that the local action on the heart might serve as the definition of the action of digitalis; this accepted, Schmiedeberg's already large group must be still further enlarged. 3. Arguing from this action on the muscular tissue of the heart, it was inferred that the action on the muscular tissue of the arterioles would be similar—an inference verified by actual experiment. 4. So far as the experiments went, it was not found that these drugs influenced the calibre of the vessels indirectly through the nervous system. 5. It was pointed out that many of the digitalis-group were notable muscle-poisons, and that the tissue of the heart, standing functionally midway between the striped and unstriped muscular tissues, might permit of the inference that a marked action of the drug on the tone of the heart would indicate a similar effect on the tone of the vessels, whereas a marked action on the cardiac beat would indicate like action on the skeletal muscles.—The PRESIDENT commented on the value of this comparatively new method of experimental research. Such courses of experiments might safely be left in the hands of the authors of the paper just read. He invited discussion on the effect of digitalis on the heart, the vessels, and the muscles.—Dr. LAUDER BRUNTON said he should feel that he was showing best his high value of the paper by pointing out first in what points he was in disagreement with its results. The definition of the digitalis-group was, he thought, too wide. It was a group so large, as to remind him of the two chemical groups of substances which were and were not precipitated by sulphuretted hydrogen. He had himself been engaged in some experiments on the group of substances which stopped the circulation by contracting the arterioles, and found that there were to be included in it many substances, such as cobalt, strontium, nickel, magnesium, and platinum, which were not generally recognised as having this effect. Their influence, however, he admitted, was much less than that of digitalis. His experiments had been carried out on frogs, in which the nerves had been destroyed. The amount of flow through the vessels was estimated by the drops, as they issued from the circulation, falling upon a delicately adjusted lever, and registering their fall by breaking an electric circuit, a method which he had found to work very satisfactorily. In the consideration of digitalis, he thought it important to consider it as a whole in its effects on the heart, the nervous system, the vessels; and, when considered in this way, a smaller group of analogues could be formed, as Schmiedeberg had shown, from which even veratria must be excluded, in spite of its similar action in many points. In their action on voluntary muscle-fibre, the members of this group showed very different results, varying not only with different species of animals, but also with different individuals of the same species. One frog differed from another in susceptibility, and one cat from another. The causes of this difference he was at present endeavouring to ascertain. That digitalis was not a masked muscular poison, he considered as fairly well established, though even here the results obtained on *rana esculenta* differed entirely from those on *rana temporaria*, as he had had an opportunity of showing about fourteen years ago. The effects of caffeine also differed remarkably in these two species of frogs. The most interesting point in the paper had been the inference, from the action of digitalis on the heart-muscle, that it would have the same effect on the muscles of the vessels, and the confirmation of this, to some extent experimentally, which Dr. Ringer and Dr. Sainsbury had brought forward. It was probable, *a priori*, that the action on the two should be similar, since both heart and vessels were developed originally from a single tube, but it was an inference to be used with caution. That digitalis does contract the arterioles he considered as proved, though it was not universally accepted; some experiments of his own, along with Meyer, in 1867, had shown it, and fresh proof had now been brought forward by Dr. Ringer.—Dr. JOHN HARLEY suggested that a fallacy underlay all the discussion, and that was that in the experiments the brain and spinal cord had been removed, and it was argued that the effects under these conditions were the same as if they had been present; but it seemed to him that the chemical laboratory of the body had been annihilated, and the sympathetic system destroyed, and the inferences to be drawn from such a state were very doubtfully applicable to a normal system. And, moreover, the author of the paper assumed that the poisons acted on muscular fibre by itself, whereas he could not think it possible to dissociate entirely nerve- and muscle-tissue. On the whole he was very sorry that so much time and ingenuity of excellent observers should have been wasted upon experiments which led to such comparatively slow progress in knowledge.—Dr. BROADBENT remarked that he was sufficiently unsophisticated, or perhaps he should say sophisticated, as to look upon these experiments as of great value, for they led, by a continuous chain, to knowledge of the results in human physiology, and might in time, with patient observation, serve as a basis for the great generalisations which, he hoped, might some time replace the common systems of therapeutics. He agreed with Dr. Lauder Brunton in thinking the digitalis-group, as Dr. Ringer had represented it, too large. The great difference in the effects of carbonate of soda and bicarbonate of soda was sufficient to show that the drugs did not act entirely in virtue of their basic element; and he thought it probable that the action of the group of

salts was by an essentially different method from that of the complex organic molecules, as was partly exemplified by the œdema produced by the salts; so that the impossibility of practically using the alkalies for the same purposes as the digitalis-group was due more to a specific difference of action than to the difficulty of getting sufficient alkali into the blood.—Dr. BERNARD O'CONNOR said it would be interesting to know the effects produced when different parts of the heart were tested, as he had been led to believe that the fibres of the base were much more active in contraction, and were acted upon differently from those of the apex.—The PRESIDENT asked Dr. Ringer whether he thought that the paralysed condition of the muscles of the lower half of the body, in his experiments, had had any influence on the blood-flow.—Dr. RINGER admitted that the definition of the digitalis-group was too large, as Dr. Brunton and Dr. Broadbent had suggested. The common belief as to the action of digitalis was that it strengthened the action of the ventricles of the heart. If that were so, the best cases for its use would be cases of aortic regurgitation; and, though Dr. Balfour recommended its free use in such cases, yet most physicians did not; and, for himself, he could hardly agree that this strengthening of the action of the ventricles was its chief action. A case of aortic obstruction, in which there was not compensating hypertrophy, was the best test-case; and, in such cases, he had found it did little good. In regulation of an irregular heart, it was pre-eminently the drug to be used; and he did not at all expect any of the other drugs he had discussed to be able at all to take its place. He agreed with Dr. Lauder Brunton that its action as a muscle-poison was not strong. He must differ from Dr. John Harley as to its necessary action through nerves, for he found it act just as readily on pieces of the heart-tissue that were without nerves as in others where nerves were present. In answer to the President, he had only to say that the muscles reacted to galvanism after the experiments, and he had no reason to think that their condition influenced his results.

Four Cases of Congenital Dislocation of Both Femora.—Mr. G. COWELL showed the cases early in the evening; and, on the invitation of the President, made some remarks on them. In all, the characteristic symptoms were present; the flattened nates, the high trochanters, the lordosis with prominent abdomen, and the peculiar waddling gait. It was interesting to notice how well children were able to accommodate themselves to altered conditions, and to continue locomotion fairly, comfortably even, with such serious malformation. How far a new joint might have been formed, it was impossible for him to say. The number of such cases was much larger in girls than boys, in the ratio of about 28 to 8; of that, he thought no satisfactory explanation had been given. It was at one time supposed that it was because the dislocation occurred during labour, and was due to the greater breadth of the female pelvis as compared with the male. But, in the first place, he regarded these as dislocations *in utero* before birth; and, in the second place, he believed it had been shown that the female pelvis was rather smaller at birth than the male. They were sometimes ascribed to breech-presentations; but of these four cases, only one had been born in this way. He considered it, not as an arrest in the growth of the femur, but as the result of an acetabulum, abnormally shallow from malformation, as had been shown in some dissections.—Mr. WILLIAM ADAMS expressed great interest in the cases which had been shown, and pointed out that these congenital dislocations had never been noticed by Brodie or Astley Cooper; and, in fact, the only work on the subject was by Mr. J. Murray Carnochan, of New York, published in New York in 1850. Mr. Carnochan, when on a visit to England, recognised a boy on Westminster Bridge with the characteristic waddling gait, and brought him into St. Thomas's Hospital. He believed that it was the first case seen there, and little attention was paid to it except by Mr. South, who had had a statue of the boy put up in the museum. Of the boy himself, there was no other record left, for he unfortunately was burnt. In his own practice he had observed about forty or fifty cases, and had noticed nearly as many in boys as in girls, and about as many congenital dislocations of one hip as of both. When one hip only was affected, it was often set down merely to "hip-joint disease;" and when both were affected, it was merely "a waddle, which the child would grow out of;" but that unfortunately was not the case. To call it dislocation was not quite accurate; it was due to a malformation of the acetabulum, which allowed the head of the femur to move where it liked. As to the cause of the malformation, he had nothing to suggest. In treatment, he considered it his duty to devote his attention to preventing any connective deformity, as far as possible, and that was best attained by insisting on as much lying down as possible, with gymnastic exercises in the recumbent posture. No operation was of any avail.—Mr. A. E. BARKER said that an examination of specimens in the Musée Dupuytren had shown him the arrest of development of the acetabulum; and, in answer to a question from the President, he stated that in some specimens the ligamentum teres was completely absent, and, in others, it was stretched to the length of two and a half inches.—The PRESIDENT, in closing the discussion, remarked that it was quite possible that the congenital absence of the ligamentum teres might be the original malformation, and the flattening of the acetabulum the consequence.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 23RD, 1883.

SIR ANDREW CLARK, Bart., M.D., LL.D., F.R.C.P., President, in the Chair.

Living Specimens.—The following were shown. Mr. BARWELL: Hypertrophy of the Right Lower Limb; Mr. P. GOULD: Progressive Arteritis; Mr. MANSELL-MOULLIN: Thrombosis of the Inferior Vena Cava; Dr. DAWTREY DREWITT: Myxœdema; Mr. BARKER: Deficient Development of the Right Half of the Body, with Facial Paralysis on the same side.

Cases of Thickened Epidermis treated by Salicylic Plaster.—Dr. THIN gave an account of cases of thickened epidermis treated by salicylic gutta-percha plaster. The plaster which he used was manufactured by Herr Beiersdorf, of Hamburg, at the suggestion of Dr. Unna, who had introduced it into practice. The first case which he related was that of an adult man, in whom a tendency to extreme tylosis of the soles and palms was hereditary. The palms and soles in this man's case were covered with an extremely thick and hard epidermis, and had been for many years in this condition, the affection having resisted very various methods of treatment. The treatment by the plaster was, in the first instance, recommended by Dr. Unna, and the author simply continued Dr. Unna's treatment. Under the use of the salicylic plaster, which was kept constantly applied by means of bandages, and changed every third or fourth day, the hard layer of epidermis came off in one mass, leaving a delicate rose-coloured epidermis behind it. There was neither pain nor inconvenience connected with the use of the plaster, and the patient, a business-man actively employed, was able to follow his usual avocation without interruption. Case II. A gentleman, aged 72, who had always been healthy, was unable to walk for a period of six or seven months on account of an attack of sciatica. When the sciatica was relieved, he somewhat suddenly resumed his professional employment in the city, which at the time involved a good deal of walking on the hard pavement. The result was that the soles of both feet became hot and tender, and, after a few weeks, the skin of the ball of each foot became hard and horny. When he consulted the author, this condition had lasted for about seven years, and gave rise to much pain and discomfort. The whole of the surface of the ball of one foot and part of the surface of the other was covered with a layer of epidermis of extreme hardness. In this hard layer, there were small isolated horny formations of the nature of corns, which produced the same sensation as if the patient were walking on shot, or small hard stones. The first treatment recommended was the application of strong solutions of potash, scraping with a sharp spoon, and wearing a horse-hair pad in a large boot. This alleviated the condition, but the application required to be frequently repeated. The salicylic plaster relieved the condition for several months at a time. Case III. In a gentleman, aged 43, the palmar surface of the right forefinger had been covered for years by a thick hard fissured epidermis. After this morbid formation had been removed by the salicylic plaster, the skin of the finger had remained normal when the patient was seen by the author nine months afterwards. Case IV: A gentleman, aged 40, had suffered from the condition of his heels for about twenty years. It had begun by the skin being red, tender, and scaly, and the hardness had gone on progressively increasing. The condition had been on several occasions mistaken for syphilis, and amongst other methods of treatment which had been employed in vain, several antisyphilitic courses were to be reckoned. When seen by the author, the skin of both heels was covered by thick hard horny uneven masses, which rendered walking very painful. Solutions of potash and a scraper, which were first recommended, had been used faithfully for a year almost daily, but with only temporary alleviation. When the author became

acquainted with the specific action of the salicylic plaster it was recommended to the patient. Although by its use the tendency to horny formation was not removed, yet the hard masses had been completely got rid of, the patient could walk with comfort, and with the occasional use of the plaster the fresh formation of hard masses was avoided. The author regarded the condition of which these cases were examples as being essentially allied to eczema. The formative power of the epithelium was injured mechanically or otherwise, and an imperfectly formed epidermis resulted. By its solvent power on horny epidermis, salicylic acid incorporated with gutta-percha, as in Beiersdorf's plaster, freed the skin from an adherent irritating mass, and the deeper layers of the rete mucosum were placed in more favourable conditions for regaining their physiological properties.—Mr. BUTLIN said that Mr. Thomas Smith had employed salicylic acid to remove a wart on his own person, the unhealthy appearance assumed by the growth having caused him much uneasiness from its resemblance to an epithelioma. Since this experience the remedy had been used with some success in cases of ulcerating carcinoma, rodent ulcer, etc. In a case of epithelioma of his own, however, he (Mr. Butlin) had not employed the salicylic acid, having agreed with Mr. Smith that, though it might prove of service, yet his duty to the patient demanded more positive and reliable immediate treatment. Hitherto he had known of no real example of epithelioma so cured, and was disappointed at not hearing from Dr. Thin that such results had been obtained.—Mr. M. BAKER described a case occurring in the syphilitic female ward at St. Bartholomew's Hospital, in which a number of warts were reduced by application of a cream of salicylic acid and vaseline. He thought the preparation used by Mr. Smith resembled the "cornsolvine" sold in shops, which consisted of a saturated solution of the acid in collodion.—Dr. THIN explained that he had not employed the agent as a remedy in epithelioma.

A Typical Case of Myxœdema.—Dr. DREWITT exhibited a case, and described it. The patient was a woman, aged 45, who had been an out-patient at the West London Hospital during the last year. The disease was of twelve years' standing, dating from a time when the poor woman lost her husband and one of her children. At that time, she was slightly built and active; but since then she had gradually become stout and heavy, slow and languid and feeble in moving, slow and deliberate and indistinct in her speech. She was afraid of going about alone, lest she should be run over; and she could hardly lift her feet high enough to get upstairs. She was always cold, even in summer, and never perspired. Her bowels were obstinately confined. There was dyspepsia, and she had partly lost the senses of taste and hearing. All the characteristics of the disease were present—the generally swollen look; the round and fat face; the sallow, translucent, wax-like skin; broad nose; thick, coarse, purple lips. On the cheeks was the same peculiar dusky reddish purple colour, caused by dilated capillaries and veins. The eyelids were pendulous and transparent; the tongue, which was pale, swollen, smooth, and tooth-marked, was too large for the mouth, and more "cretinoid" than the intellect; the soft palate was also swollen and pale. The abdomen was greatly enlarged, as if from growth of fat; the swelling, in fact, was universal, but there was nowhere pitting on pressure. The skin of the hands and arms was rough and scaly, as in xeroderma. The hands were thick and swollen, and could no longer be clasped. The wedding-ring became embedded in the swollen finger, and had been cut out by a jeweller. Pulse 76, feeble. The heart-souuds were distant, feeble; there was no murmur. Temperature in axilla only 95°. Urine, specific gravity 1011; it contained no albumen nor sugar. Dr. Drewitt remarked that the spade-like clumsy hand had been especially noticed by Sir William Gull in his paper read before this Society, describing the disease for the first time, just ten years ago; but he thought that the most striking physical peculiarities were the pendulous eyelids, like alabaster in translucency, and the purple pouting lips. Tranquillity was also, in those few cases he had seen, a most marked characteristic. Though painfully conscious of their state, these patients were not irritable. As to the pathology, Dr. Ord had described the *post mortem* appearance. The whole connective tissue of the body had been found swollen and jelly-like, and œdematous, with mucin. The swelling seemed sufficient to account for all the symptoms. The heart and arteries were obstructed by it, and hence the feeble blood-current, the deficient aëration of the blood, and the purple of the cheeks and lips. The tongue and palate were swollen with it, the intestine choked by it, the senses dulled, the functions of organs interfered with, and the patients died with all their tissues smothered by their own padding. In treatment of this patient he had found strychnia of the most value, and both muscular movement and speech had increased in briskness under it. In the appearance of the patient, however, there had been no improvement. As to the origin of the disease, it had been, perhaps, rightly ascribed to nerve-influence. Great anxiety or mental shock had occurred at the beginning of many cases. In Dr. Ord's first case, as in the one now before the Society, it followed upon the fatal illness of a husband. In Dr. Cavafy's first case it followed a shock; in his second, a bad time at childbirth. Dr. Duckworth's second patient mentioned that it came on after her husband had kicked and ill-treated her. Dr. Semon's patient had fourteen children and some miscarriages in a "comparatively short time." Great mental anxiety or distress profoundly depressed man's vitality. The secretions of gastric juice, saliva, bile, were all influenced by emotion; mental shock was given as a cause of atrophy of the liver, and syncope might follow bad news; therefore, it would not be wonderful if it should be shown that the nutrition of the connective tissue of the body were altered in this way. Sir William Gull in his paper had alluded to the changes in the thyroid in true cretins. It would be interesting to know whether instances, either of atrophy or hypertrophy of the thyroid, had been observed in any of these cretinoid cases.—Dr. FELIX SEMON called attention to a most important contribution towards the etiology of myxœdema. At the twelfth Congress of German Surgeons, held at Berlin in April of this year, Professor Kocher, of Berne, read a paper on "Extirpation of Goître and its Consequences." His personal experience was based upon no fewer than 101 total, or partial, extirpations of goître, and was secondary to no living surgeon's, except that of Professor Billroth. His attention was drawn to the after-state by the report of the general medical adviser of one of his patients. Professor Kocher, having seen the patient in question himself, was so much surprised, that he immediately requested all his patients, upon whom he had performed that operation—except those only very recently operated upon—to present themselves for the purpose of a re-examination. By many circumstances (death, loss from view, cancerous nature of the goître, inability of attending personally, etc.) the number of those attending was reduced to thirty-four. In sixteen of these cases a partial extirpation only had been made; *i.e.*, one lobe, with or without the isthmus, had been removed. In all the cases belonging to this category, the result of the operation had been an excellent one; the dyspnœa, for which the partial extirpation had been performed, had disappeared, and the general health had suffered in no respect. Matters, however, were different with regard to the eighteen patients on whom total extirpation of the thyroid body had been performed. Of these, two only showed an undeteriorated, or even improved, state of health; but it was remarkable that, in one of these two cases, a small accessory thyroid gland had undergone a hypertrophic change, and that, in the other, a recurrence of the goître had taken place. All the remaining sixteen patients showed more or less considerable derangements of their general health, which derangements, though all of the same kind, were different in degree, the changes being much more developed in the oldest cases than in those more recently operated upon. These changes were, therefore, of a distinctly progressive character. As to the nature of the changes themselves, they were, in the order as related by Professor Kocher, the following. A few months after the operation, early fatigue, weakness, and sensation of heaviness in the limbs, were complained of. In many cases, these were preceded by actual pains in different parts of the body. Soon afterwards, a sensation of coldness, especially in the extremities, was superadded. In winter time, the hands and legs swelled, became bluish-red and cold, and the patients suffered from chilblains. The mental activity decreased. Thought, speech, and movements became slower. At the same time, the patients were themselves painfully aware of these facts. About simultaneously with the above-enumerated symptoms, swellings of the face and body made their appearance. They were sometimes at first only transitory, but generally soon became lasting features. The parts most and earliest affected were as a rule the infra-ocular region and the eyelids, which showed a somewhat transparent swelling; later on, the nose became thick, the lips coarse, the hands and feet swollen, the waist stouter. The skin became dry, desquamated a little, was infiltrated, its elasticity lost; it could only be lifted in thick folds. The hair fell out. A most marked symptom in the more advanced cases was anæmia. Examination of the blood showed a relative richness of leucocytes, inasmuch as the number of the red blood-corpuscles was greatly diminished. In those cases in which the patients at the time of the operation were still growing, their development became most markedly arrested after the operation. Rarer symptoms were: slight dysphagia, giddiness, headache.

Ophthalmoscopic examination, made in a number of cases by Professor Pflüger, did not reveal anything abnormal, beyond remarkable narrowness of the arteries. Professor Kocher concluded his description by the remark, that the relationship of the above combination of symptoms to those of idiotism and cretinism was unmistakable. Being himself unaware of the existence of myxœdema, he proposed for the affection he described, the name of *cachexia strumipriva* (struma-goître). Similar observations had been made by Professor Reverdin, of Geneva. Having given this report, Dr. Semon said that, in a case of his own, in which Professor Lister had kindly removed the thyroid body *in toto* three years ago, great pallor and occasional swellings under the eyelids had since made their appearance, as he had ascertained by making inquiries. The patient also suffered frequently from general malaise. He was, however, far from attributing too great a value to written reports, and communicated this for the sake of completeness only. Returning to Professor Kocher's paper, he regretted that time did not permit him to enter upon the highly interesting and ingenious hypothesis, by which this author tried to explain the nature of the changes described by him. He (Dr. Semon) thought, however, that the identity of these changes with those met with in myxœdema, which he had found when reading through Professor Kocher's paper, was very evident. Not one symptom was present in myxœdema which was not met with in these cases of total extirpation; on the other hand, one symptom only had been observed in a certain number of these cases which was not present in myxœdema, viz., the arrest of the growth of the body after total removal of the gland in children. But the explanation of this difference was obvious: myxœdema was essentially a disease of adult life. Looking upon the whole question from a broad point of view, there appeared to be three conditions closely allied to each other, and having in common either absence or probably complete degeneration of the thyroid body: namely, cretinism, myxœdema, and the state after total removal of the thyroid body. In all three states, certain conditions of arrested development of mind and body were met with, which, looked upon in the new light thrown upon the subject by Professor Kocher's observations, could hardly be attributed to anything else but to the loss of the thyroid body, common to them all. Speculations as to how these changes were brought about, and what was the exact influence of the thyroid body upon the composition of the blood and other tissues, seemed at present to be premature; but it was perhaps not too bold a hypothesis to assume that, if the absence of the thyroid gland would lead to arrested development of mind and body, it might also lead to arrested development of higher forms of organised tissue, and that under such conditions the lowest type of organised tissue, the fœtal tissue, mucin, could mainly be formed, and was formed, in excessive quantities. Thus the excess of mucin in the tissues, which had been supposed to be the essential feature of myxœdema, might possibly find its explanation.—The PRESIDENT remarked that he had observed a curious variation in the quantities of urea passed in myxœdema; as a rule it was less than 2 per cent., but at times it rose to more than 4 per cent.—Sir W. GULL said that he had no new contribution to make with regard to the supervention of the cretinoid state in adults. Dr. Ord's investigation of the condition of the connective tissue of the skin in one of his cases, made a very important addition to our knowledge. It might, however, be questioned whether the disease had a peripheral origin; whether, in fact, the mucoid state of the connective tissue of the skin was the essential disease; or whether this state of myxœdema was secondary, and due to primary change in nerve-centres. Many facts in the clinical history of such cases pointed to the latter view; and such view received substantial support from the cases of Professor Kocher, now reported to the Society by Dr. Semon. These cases would appear to prove that the thyroid body had some general influence on nutrition, but whether directly, or through the nervous system, could not at present be asserted. There were, however, other facts which made it probable that such influence was indirect through the nerve-centre, and not directly through the blood passing through the thyroid; as, for instance, the changes in the organism by the removal of the testes or ovaries, and Charcot's observations on arthritic changes, due to spinal lesion. At present, he (Sir William) was disposed to refer the cretinoid state to the class of so-called tropho-neuroses, but whether produced by primary changes in the areolar tissue of the skin, including the nerve-expansions in it, or through wasting or morbid changes in the thyroid, or independently of either of these conditions, could not yet be maintained.—Dr. ORD remarked that, when Professor Kocher's paper was published, his (Dr. Ord's) friend Dr. Semon at once drew his attention to it. By his advice, the speaker wrote to Professor Kocher, comparing his cases with myxœdema, and sending him some photographs. He wrote in return a letter, from which Dr. Ord now ventured to read an extract, indicating the way in which the coincidence had been regarded by him. "There cannot be the slightest doubt of the analogy of myxœdema and cachexia strumipriva. I was not aware of it before, having never seen a case of the affection. I think you will agree with me that, by my observations, the atrophy of the thyroid body, which you have found in your cases, gets much greater importance. According to what I have seen, the extirpation of the thyroid gland is the direct and sufficient cause of the whole affection. I thought that it was especially in young people that the symptoms were severe, and so it is certainly; but I have seen two cases in adults since the publication of my paper, and I grow more and more convinced that the excision of the whole organ, when nothing of it is left behind, has, as a necessary consequence, the cachexia. If that is the case, it seems not very probable that the lesions of fibres of the sympathetic nerve occasion an accidental neuritis of the same, because we do not see anything like that in excision of other organs. It would be necessary to state a peculiar relation of the thyroid body to the sympathetic nerve, to explain the constant affection of the latter. I hope to be able to have a necropsy, sooner or later, of one of my cases; and then it will be possible to compare it with the result of your most interesting *post mortem* examination. If I am not mistaken, you do not speak of affection of the pupils or unilateral congestion of the face, or alteration of the function of the heart. I admit that the combination of affection of the thyroid gland, with irritation of the sympathetic nerve, in Basedow's disease, much induces one to think of an analogy in the opposite way. At any rate, the functions of the cerebrum seem to be impaired very soon. People lose memory, do not hear and see as well as before, cannot speak as they did before, complain of pain and excessive fatigue in all members." These observations certainly pointed strongly to the probability that atrophy of the thyroid body was, in some way or other, the cause of the condition, myxœdema. The very title of Sir William Gull's original paper; the cases of Mr. Curling; the paper of his lamented friend, Dr. Fagge, on Sporadic Cretinism; the very complete atrophy of the thyroid found at the *post mortem* examination of his first case, all tended in the same direction. So, also, did Dr. Fagge's suggestion as to the sort of inverse ratio between goître and cretinism, to which the report of the Sardinian Commission lent some support. But before he (Dr. Ord) could allow himself to express a decided opinion, there was still much to be observed and thought out. He handed round a photograph sent by Dr. Kocher, showing the after-condition in one of his cases. It showed, with characters of myxœdema, marks of a cretinoid arrest of development, which did not, of course, exist in the cases where the disease had begun in adult life.—Dr. BURNEY YEO had presented to the Society, some years ago, a case of disease of the thyroid gland, in which one of the phenomena observed in cases of myxœdema was very well marked; he alluded to the entire loss of the hairs of the eyelids and eyebrows, a phenomenon seen in the patient exhibited by Dr. Drewitt, though he had not included it in his description of the case. With reference to the President's remark on the fluctuations in the daily excretion of urea noticed by him in these cases, he thought that this observation had a far wider application than to these cases alone. He believed that great fluctuation in the excretion of urea would be found, especially in women, in those conditions of disturbed health, too little studied hitherto, which preceded the development of organic disease. He had certainly noticed it in several cases.—Dr. CAVAFY thought the natural history of the disease deserved much attention; so far as he had seen, the course was not one of uniform deterioration, but there were distinct periods of quiescence, or even improvement. The younger of the two cases he communicated to the Society two years ago, was a good illustration of this; after leaving the hospital, she became pregnant, and, during gestation, suffered much from swollen legs and other discomfort; labour was protracted and difficult, owing chiefly to great œdema of the genitals, but the child was quite healthy. Soon afterwards, she came to the hospital to say she was much better, and all who saw her were struck with the marked improvement in her condition; the swelling of the face and hands was greatly diminished, her expression brighter, and speech nearly normal; but she gradually relapsed into her previous condition. He thought the improvement might be accounted for by the stimulus to general nutrition caused by the puerperal state. In another case, of a gentleman with marked myxœdema, whom he had seen once, he had been told that ascites supervened, and necessitated tapping on several occasions; ultimately

the fluid ceased to reaccumulate, and it was then found that the characteristic signs of myxœdema had nearly disappeared, and he was better than he had been for many years. In this case, it seemed as if a deviation had taken place—the general œdema, which was probably to a great extent serous, having, so to speak, drained into the peritoneal cavity. These were the most striking instances which had come under his notice; but in every case he had seen, there had been longer or shorter intervals of more or less marked improvement, which he was unable to associate with treatment, or with any alteration in the general surroundings of the patient.—Dr. R. CROCKER said, in reference to the elimination of urea which had been observed to fluctuate in myxœdema, that too much stress must not be laid upon this. Some years ago, in making some experiments upon the influence of alcohol upon the excretions of a dog, he made a long series of preliminary determinations of urea, in order to ascertain the normal elimination of the animal, which was kept in exactly the same conditions as regards diet, etc. He found very wide fluctuations in the amount of daily elimination, and that without any apparent cause. In several cases of universal dermatitis, where the urea had been estimated, there had also been considerable fluctuations; it was obvious, therefore, that it would be necessary to carry on the observations for long periods before any reliable results would be obtained.—Dr. HADDEN said that he had made some observations on the quantity of urea excreted by the urine in myxœdema, and he had always found it subnormal. In a woman who was living on a mixed diet, the quantity was once as low as 90 grains in the day, and her daily average for several weeks was only 180 grains. Some time ago he had ventured to put forward a theory with respect to myxœdema. He thought it probable that the sympathetic nervous system, peripheral, central, or both, was involved. He had recently had the opportunity of examining the cervical sympathetic in myxœdema as well as in exophthalmic goître, and he could not satisfy himself that there was any morbid change.—Dr. ORD said that, in answer to Dr. Cavafy's question, he might say that the first patient in whom he had studied myxœdema—as far back now as twenty years—bore two children after the condition was well-established; and that there was no change in the symptoms during or after either pregnancy. No doubt, there were to be noticed in most cases such periods of seeming amelioration as Dr. Cavafy had mentioned; but, until within the last three years, he had witnessed in all cases a distinct tendency to progress from bad to worse. He was led by the desire to give one of his patients relief by diaphoresis to try the use of jaborandi. The effect of the drug after several weeks' use was so beneficial, that he had since used it in all cases. He might report that in all the cases it had given relief; that in some its use had been followed by a change for the better far exceeding what was observed in the ordinary changes of the disease; and that, in one or two cases, something like a cure had been effected. One patient certainly had lost all her œdema, had recovered her activity of body and of mind, and declared herself to be quite well. This was more than he (Dr. Ord) dared to say till after some longer lapse of time. The jaborandi was given in the form of the tincture; thirty drops in a teacupful of hot water, with a little sugar, three times a day; the dose was gradually increased to sixty, ninety, or even one hundred drops three times a day; and the drug was given for months together.—Dr. WHIPHAM had heard with satisfaction the results of Dr. Ord's treatment of myxœdematous patients with jaborandi. It had occurred to him some time since that diaphoresis might relieve many of the symptoms. He began by trying hot air-baths in a woman recently under his care, but at first no sweating took place; on repeating the bath once or twice, fair diaphoresis was produced. Pilocarpin, subcutaneously injected, was then tried with the same patient, in doses of one-twelfth of a grain. It was found, however, necessary to increase the amount to one-fourth of a grain in order to produce the desired effect. The patient suffered more or less from headache on the day following the injection, but expressed herself as feeling greatly relieved, and "much lighter" in consequence of it. She was eventually sent to the Morley Hospital, much improved. A few days ago, however, she again presented herself for advice, all the good effects of the former treatment having passed off. Hot air-baths having produced but little sweating, the tincture of jaborandi was tried in drachm-doses, but caused severe headache and sickness. The dose was probably too large. Dr. Whipham further stated that he had two cases of myxœdema at present under his care in St. George's Hospital, and in neither of the patients could the thyroid gland be detected by palpation.—Dr. DOUGLAS POWELL asked if the jaborandi affected any other organ than the skin in these cases.—Dr. ORD said he had made no inquiry on this point.—The PRESIDENT said that, two days ago, he saw a clergyman, who was dying of myxœdema four years since, but who was now, by his own account, quite well; and he (Sir Andrew Clark) had seen several cases improve under merely rational treatment.—Dr. DYCE DUCKWORTH thought it would be well if the attention of those surgeons in this country who had removed the thyroid gland were called to the facts disclosed by Dr. Kocher. They could surely follow up the patients upon whom they had operated; and it was very desirable that they should report upon their condition with reference to any subsequent symptoms of myxœdema. He had observed that the operation of removal of the gland had been recently strongly advocated in cases of bronchocele.—The PRESIDENT said he thought the Society should, ere long, appoint a committee to investigate and report on the whole subject; he would not urge it immediately, however.—Sir WILLIAM GULL hoped Dr. Drewitt would, after what had been said of jaborandi, treat his patient for a month by that drug. He still insisted that myxœdema was always a progressive disease, and ultimately fatal.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 26th, 1883.

Sir JOSEPH FAYRER, K.C.S.I., F.R.S., F.R.C.S., President, in the Chair.

A Case illustrating the Treatment of the Premaxillary Bone in Hare-Lip (Living Specimen).—Mr. FRANCIS MASON exhibited a boy, aged 17, who had undergone an operation for double hare-lip when 3 months old. The intermaxillary bone had been pushed back at the time by the surgeon who operated. Mr. Mason had for some years held that the best plan was to remove the projecting intermaxillary bone, and this case, he thought, confirmed the justness of that opinion, for the bone was movable, and wedged diagonally in the cleft of the palate, and thus prevented the gradual apposition of the superior maxilla. Another point of interest about the case was that two teeth only, namely, the central incisors, projected from the bony mass. This tended to support the observation which he and others had made that, in extensive hare-lip and cleft palate, the lateral incisors were very frequently absent, the fissure apparently occupying their site on one or both sides, or, if not absent, to be very ill-developed, as in the case shown. He thought it would be necessary to remove the intermaxillary bone in this lad before attempting to close the fissured palate. Mr. Mason concluded by showing a specimen from Sir William Fergusson's collection, in which the intermaxillary bone had been pushed back, and, during life, lay horizontally at the roof of the patient's mouth. The specimen showed that only two teeth, the central incisors, had developed.—The PRESIDENT ventured to question the propriety of removing the intermaxillary bones. It was true that the result of leaving them in this case was unsatisfactory, but he thought that, if the bone had not been left, a much more contracted jaw must have resulted; as it was, the two incisors, teeth which were now inconveniently placed, might be easily removed.—Mr. PICKERING PICK observed that this case was an unfortunate instance, as the intermaxillary bone had become twisted on itself. He thought that it was most desirable to retain the bone, in order to maintain the width and curve of the jaw. He was in the habit of leaving a tongue of skin attached to the bone, and depressing the two together to avoid the flattening of the tip of the nose, which often resulted in these cases.—Mr. ROYES BELL said that Sir William Fergusson introduced the depression of the intermaxillary bone as an improvement on its removal, and used to scoop out the teeth.—Mr. MASON said that the ease with which, in time, the two parts of the superior maxilla, separated by a palate-fissure, came together, in cases in which the hare-lip was first treated, was very surprising. He would like to ask Mr. Pick whether, in cases where the premaxillary bone was pushed back, the teeth, when they appeared, were of any use. For himself, he would prefer to fill the gap with false teeth.—Mr. PICK thought that, by retaining the intermaxillary bone, and getting it to unite to the two parts of the superior maxilla, a firmer arch was obtained, and that, even granted a failure in the development of teeth, such an arch formed a better basis on which to adjust a false set.

Demonstration of certain Points connected with the Anatomy of the Venous System.—Mr. JOHN GAY read a paper dealing with the anatomy of the venous system. He had made a series of experiments by injection, which pointed to an anastomosis between the various veins of the viscera and of the trunk, much more free than was usually supposed. After a short historical review of the steps by which the present knowledge of the subject had been attained,

Mr. Gay proceeded to observe that fluid injected into any one collateral branch, such as a branch of the internal mammary vein, could find its way into every part of the venous system. Mr. Gay exhibited the body of a monkey, which well demonstrated this point; every vein, large and small, both of the viscera and of the limbs, with the exception of the portal vein, having been injected from a small branch of the internal mammary. The liver itself, he pointed out, was completely injected, and it followed from this that the liver was accessible to the venous blood equally from all parts of the system.—The PRESIDENT congratulated Mr. Gay on the interesting and learned paper which he had read. The subject was not only interesting in its anatomical and physiological bearings, but had an important relation to treatment.—Mr. BLACK referred to the course by which the injection might have reached the trunk through the azygos.—Mr. PEARCE GOULD observed that it was not safe to deduce from Mr. Gay's injections, which were under considerable pressure, the condition of the venous system where the pressure might be negative.—After some remarks from Mr. PERKINS CASE, Dr. THUDICHUM, Mr. T. COOKE, and the PRESIDENT, Mr. GAY briefly replied.

Rhinoscopy and the Treatment of Nasal Polypi.—Mr. SPENCER WATSON exhibited a short focus (6 inch) mirror, for anterior rhinoscopy. It had a central aperture, behind which was a convex lens, and afforded a well illuminated magnified image. He also exhibited an improved pharyngeal mirror for posterior rhinoscopy. In using the mirror he found it advantageous to divert the patient's attention, by inducing him to take short shallow respirations, as though "panting for breath." For the removal of polypi deeply seated, or in the pharynx, he recommended a ring-knife set on a long handle, which could be passed through the anterior nares, and guided by the forefinger of the left hand passed through the mouth. The patient thus operated on ought to be under an anæsthetic, and a gag ought to be applied. After the operations for polypi, the application of strong nitric acid, or some similar liquid caustic, to the part, seemed to delay or prevent their recurrence; the caustic was applied by means of a platinum tube, along which a stylet, carrying the caustic, could be passed; or the galvanic cautery could be used.

Elephantiasis.—Mr. STARTIN showed a living specimen of elephantiasis of the left leg; he considered the disease to be the result of an injury.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 7TH, 1883.

H. GERVIS, M.D., President, in the Chair.

Fibroids removed by Abdominal Section.—Dr. MEADOWS exhibited two specimens of subperitoneal fibroids—one weighing half a pound, the other five pounds—successfully removed by abdominal section.

Ventral Pregnancy treated by Abdominal Section.—Dr. MEADOWS also exhibited a fœtus successfully removed, by abdominal section, from a suppurating extrauterine cyst. The pregnancy had occurred about fifteen months previously. The cyst was stitched to the abdominal wall, and its cavity washed out.

Deformed Pelvis.—Mr. W. S. A. GRIFFITH showed an oblique rachitic pelvis, occurring without spinal curvature, and due, he believed, to unequal length of the legs.—The PRESIDENT called attention to the fact that the half of the sacrum corresponding to the shorter leg was smaller than the other, although no synostosis of the sacro-iliac joint existed.—Dr. ROBERT BARNES had figured, in an early volume of the *Transactions*, a similar case.

Cæsarean Section.—Dr. GODSON presented, for Dr. R. P. HARRIS, a table of cases in which Cæsarean section had been performed twice on the same patient, and exhibited photographs of a patient and her children.

Dysmenorrhœal Membrane.—Dr. WYNN WILLIAMS exhibited a fibrinous cast of the uterus (dysmenorrhœal membrane), passed without pain by a patient.

Reports of Committees.—The reports of Committees appointed to examine specimens shown at former meetings were read.

Three Cases of Pyosalpinx.—This paper, by Mr. LAWSON TAIT, was read. The author related three cases of acute peritonitis due to pyosalpinx, cured by abdominal section, removal of the diseased appendages, and cleansing and draining of the peritoneum. The first case was one of chronic pyosalpinx, made acute by a stem-pessary. The tube burst, and acute peritonitis followed. Abdominal section was promptly performed, and the patient saved. Mr. Tait quoted the remarks of the gentleman who sent the case to him, as to the effect of the mechanical treatment in causing the disease, the difficulty in discriminating the cases suitable for treatment by stem-pessaries, and the dangers of these instruments. The second case had already been published in the BRITISH MEDICAL JOURNAL of February 17th, 1882, and was brought forward here for the purpose of recording the subsequent history, which was that all the symptoms had vanished, and the patient was now perfectly well. The third case was one of purulent peritonitis, arising from rupture of a suppurating Fallopian tube. The pyosalpinx was due to gonorrhœal infection. The left tube only was removed. The patient recovered completely. Mr. Tait had now operated on 65 cases of occlusion and distension of the Fallopian tube without a death. In only one had there been failure to completely relieve the patient's sufferings. Six cases had been lost sight of, and two had died since the operation from causes independent of it. Cases such as these could not be relieved by anything short of removal of the diseased organs, and they existed in large numbers, forming a large proportion of the cases which wandered about from one practitioner to another, seeking relief.—Dr. WYNN WILLIAMS protested against the use of a stem-pessary in such a case as the one related. If harm followed the use of a stem in such a case, the blame should be laid on the practitioner, not on the instrument. He presumed the pyosalpinx was not attributed to the stem, as it must have been there previously to the insertion of the instrument.—Mr. DORAN believed that suppuration of the Fallopian tube was sometimes caused by the introduction of a dirty sound into the uterine cavity, conveying septic matter therein, and setting up a low form of inflammation.—Dr. ROBERT BARNES said that Mr. Lawson Tait had opened out a new field in abdominal surgery. Everyone must have seen cases like those described by Mr. Tait, and his statistics proved that they were amenable to surgical treatment.—Dr. W. A. DUNCAN asked Mr. Tait whether, in many of his cases, the tubes were fixed by adhesions; and, if so, whether the operation was made much more difficult. He had recently seen two cases of pyosalpinx; in one, the left tube ruptured into the vagina; in the other, a very characteristic left pyosalpinx entirely disappeared.—The PRESIDENT thought Mr. Tait took somewhat too gloomy a view of the prognosis in cases of tubal distension. Some cases, possibly of hydrosalpinx, certainly got better without operation. He thought that whatever induced endometritis might lead to tubal inflammation. He asked for further information as to the diagnosis of these cases. He thought that this operation, though the latest, was not the least important of recent advances in abdominal surgery.—Dr. HORROCKS asked how it was that these cases were not more often seen on the *post mortem* tables of large hospitals. If they were as common as Mr. Tait thought, was it not probable that most of them recovered without operative interference?—Dr. FANCOURT BARNES congratulated Mr. Tait. He now recognised, by the light thrown by Mr. Tait, several cases of pyosalpinx. He believed he had such a case now under care.—Dr. GRAILY HEWITT thought the affection described by Mr. Tait was not a common one. Another cause not mentioned was occlusion of the canal of the cervix uteri. He mentioned a case in illustration.—Mr. KNOWSLEY THORNTON asked for the respective numbers of the cases of hydrosalpinx and pyosalpinx. He could not admit that hydrosalpinx was a grave condition; he had met with it often in performing ovariotomy, and believed that its bursting caused little or no disturbance, and was a common mode of its natural cure. Pyosalpinx was more serious, but he believed it was often cured by discharging into the uterus. The distinction between these two conditions was, therefore, of much importance; and he asked for information as to the diagnosis between them. He had twice operated for pyosalpinx, and in neither case were there more than slight adhesions.—Mr. MATTHEWS OWENS had seen fifteen of these operations, and could vouch for the good done by them. He believed that many cases of so-called hysteria would now prove to be due to disease of the Fallopian tube. He mentioned a case in illustration. Such cases were not recorded in *post mortem* records, because they were put down as peritonitis. The difficulty of diagnosis of these cases was a drawback; but there was no risk in an exploratory incision; and the result, if pyosalpinx were found, was brilliant.—Dr. GALABIN inquired as to the tube and the fluid used for drainage and washing out the abdomen.—Dr. MURRAY remarked on the importance of diagnosis, and congratulated Mr. Tait. He thought the Lock Hospital might afford opportunity for verifying the supposed influence of gonorrhœa.—Dr. HEYWOOD SMITH asked whether, in cases of hydrosalpinx, aspiration should not be preferred to the major operation.—Mr. LAWSON TAIT said the words condemning the stem-pessary were not his own. He had known gonorrhœa given by a dirty speculum, and

thought it might be given by a dirty sound. If he were called to a case of puerperal peritonitis sufficiently early to promise a good result, he would open the abdomen, wash out and drain the cavity; but as yet he had not had a chance of doing this. He had no doubt that many cases of hydrosalpinx, and some of pyosalpinx, were cured by natural processes. In diagnosis, he depended largely on the history, which started from an inflammatory attack. There was more or less constant pain, aggravated by movement and by intercourse, and menorrhagia; and there were physical signs of pelvic changes. Errors in diagnosis occurred in his practice about once in ten times, and were always instructive. He mentioned cases in which he had taken for pyosalpinx a small dermoid cyst. In these, the initial point in the history was the only thing wanting. Cases of pyosalpinx were not seen in hospital *post mortem* rooms, because they commonly died from peritonitis too quickly to come into hospital. They were, however, exceptionally seen in hospitals. Hydrosalpinx and pyosalpinx occurred in his practice, he thought, in the proportion of about three to two. Hydrosalpinx was not dangerous to life, but often caused intense suffering; and therefore he did not hesitate to remove it. He did not think its rupture ever likely to prove fatal. The differential diagnosis between the two could not be made. He used a glass drainage-tube, and washed out the abdomen with plain water.

A Case of Idiopathic Gangrene of the Uterus.—This paper, by Mr. LAWSON TAIT, was read. The patient, aged 34, was admitted into the hospital on account of vague pelvic pain and offensive watery discharge. The uterus felt soft and flabby, the abdomen was swollen, and there were feverish symptoms. The patient died forty days afterwards; and, on *post mortem* examination, the uterus was found a black, sloughing, shrinking mass, having only about a square inch of normal tissue. No reason could be discovered for the gangrene. No operative treatment was permitted, or else it would probably have been quite easy to remove the dead uterus by abdominal section.

An Undescribed Disease of the Fallopian Tubes.—This paper, by Mr. LAWSON TAIT, was read. The patient, aged 36, suffered from constant pelvic pain, aggravated during menstruation and after marital intercourse, and was much emaciated and haggard. She had had much fruitless medical treatment. There were no physical signs of pelvic disease, except great tenderness. Mr. Tait made an exploratory incision, and found the fimbriæ of the tubes adherent by curious little nodules, like millet-seeds. He therefore removed the uterine appendages, with the result of completely restoring the patient to health. The nodules had been examined by Mr. F. S. Eve, who reported that he could offer no opinion as to their origin or nature, but that they were neither cartilage nor bone.

REVIEWS AND NOTICES.

SURGICAL APPLIED ANATOMY. By FREDERICK TREVES, F.R.C.S., Assistant-Surgeon to, and Senior Demonstrator of Anatomy at, the London Hospital; Examiner in Anatomy at the University of Aberdeen; Wilson Professor of Pathology, Royal College of Surgeons of England, 1881. Illustrated with Sixty-one Engravings. London: Cassell and Co. 1883.

THIS work has been prepared with great care. As might naturally be supposed, its object is the teaching of the surgical bearings of human anatomy. Under these conditions, it is hard to see how anatomy could be anything otherwise than "applied." Although, however, the second word in the title appears to be a misleading pleonasm, still it cannot be doubted that Mr. TREVES thoroughly understands how the science of anatomy should be "applied" to surgical art.

"The book," as the author informs us, "is intended mainly for the use of students preparing for their final examination in surgery." In continuation, a hope is expressed that it may prove useful to practitioners anxious to refresh their anatomical knowledge. It will not fail to be of service to both; and we may add that it is quite suitable for the study of the second year's student, who has dissected all his parts, but still has some time to spare for work in the dissecting-room. We may further add that if still junior students avail themselves of certain passages in Mr. Treves's work, referring to any one part that they have just dissected with the aid of one of the usual manuals, such a step will be to their advantage; for it is pure pedantry to believe that the medical student dissects for any other purpose than the acquisition of knowledge required for practice and for gaining degrees and diplomas necessary for the practitioner; indeed, were purely scientific anatomy required, the modern method of teaching, as carried on at medical schools, would be highly unsatisfactory. Mr. Treves's work is written upon the principle which a student can comprehend, and which will be of benefit to him in practice.

Surgical Applied Anatomy is not a manual of operative surgery, but a treatise of the opposite type, where anatomy is placed before surgery, but the application of the former to the latter constantly kept in sight. Anatomical "regions," lines of amputation and the structures divided, sites of important major operations, and other matters familiar to the readers of works of this description, are described with great lucidity, and Mr. Berjeau's wood-cuts are of a high type of excellence, well adapted to assist the student in understanding the text. Among the more original features we may select the chaper on the cranial contents, where a brief notice will be found of a subject which may shortly become of highly practical interest to the surgeon, namely the motor centres of the cortex; some useful diagrams representing the position of the abdominal viscera; and a good chapter on the spine, which only lacks a few wood-cuts. In conclusion, we must congratulate Mr. Treves upon having produced a very useful little work.

DES ORIGINES DE LA MÉTALLOTHÉRAPIE. Par le Docteur BURQ. Paris: A. Delahaye et Lecrossnier. 1883.

DR. V. BURQ has been well known for upwards of the last thirty years as an enthusiast on mesmerism, animal magnetism, and other kindred subjects. More especially, however, is his name associated with the ardent promotion of two would-be sciences, which have been respectively termed metalloscopy and metallotherapy. The first of these professes to discover a metal which influences the human system, and when this is ascertained, the second constitutes the art by which disease is cured through its agency. From the earliest ages attempts have been made to act upon the constitution, and to heal all maladies, by means of metals applied externally or administered internally. Not only was the happy possessor of an anointed amulet to be endowed with luck and fortune, not only came he to be blessed with faultless health and eternal life, but, should disease have supervened, this charm, it was confidently anticipated, would make a clean sweep of every ailment, and restore the body to its original vigour and bloom. In the dark ages, and, indeed, even now, in some places not very far removed from civilisation, the wearing of such preservatives was extensively practised and most earnestly believed in, and the numerous cures they effected were not only astonishing, but were undoubtedly genuine, as testified by the highest authority, and innumerable witnesses. In those days it was not supposed that the charm, whether animal, vegetable, or mineral, possessed of necessity any inherent property in itself, upon which depended the virtues attributed to it, but it was believed that, owing to accidental circumstances, it had acquired advantages which substances of a similar nature did not possess. For example, the blessing of a priest, the touch of a saint, might give to otherwise innocent articles virtues of the most potent character, and which, when carried by an individual, might perform prodigies of wonder.

As time and education advanced, this explanation could no longer be maintained. Certain facts, however, remained; charms were still believed in, and sometimes produced the desired effects. How were such to be accounted for? The majority of people explained the phenomena to be the result of faith acting upon a sensitive and excitable imagination, and certainly the circumstances seemed to favour such a supposition. A school, however, sprang up, which declared that the physiological and psychical effects for the most part ensued when the charms were of a metallic character; and that the results were not due to efforts of imagination, but to special influences emanating from the metals when applied to the person of the patient. Of these views, the author of the work before us, M. Burq, is the greatest exponent and supporter. Since the year 1848, he has, by innumerable experiments, by indefatigable exertions, and by voluminous writings, endeavoured to persuade the profession of the importance of this subject. He has attempted, he says, to withdraw the entire question from the realms of mystery and superstition, and to place it on an experimental and scientific basis.

To enter into a description of the whole subject would be here impossible; those who are interested in the matter cannot do better than peruse the work before us, which consists of a summary of the question up to the present time. The book contains nothing new, and is simply a repetition and collection of the views already frequently put forward by the author and his followers during the past quarter of a century. As before stated, the general object of the inquiry is to show that certain individuals have an affinity for cer-

tain metals. These, when applied externally to the skin, induce special physiological results, due, it is supposed, to the magnetic or electric properties they possess. The effects of such metals being established, their prolonged external application or internal administration is said to cure the nervous disease from which the patient may be suffering. Throughout the work, the reader is never for a moment permitted to forget the alleged importance to medical science of Burqism, the term which has recently been given to this inquiry; nor the conspicuous part which the original of this name has so long played in promoting its success.

Without entering further into the details of this so-called science, we may be permitted to make a few general observations on the principles it proposes to treat. The earnest labour and indefatigable industry of M. Burq must be fully admitted and commended; and if his conclusions remain yet to be proved, the elaborate research he has instituted, and the attention it has attracted, if not directly, must indirectly be of benefit to neurological knowledge, as no branch of inquiry can be honestly followed without at least some collateral advance and improvement being made. If we hesitate to say of M. Burq, with Velpeau, "qu'il passait sa vie a poursuivre une chimère," we cannot help thinking that he is the victim of one of those epidemic beliefs which has attracted not only the medical profession, but has affected mankind generally, from the earliest ages—namely, a faith in the mysterious, and a desire to explain definite phenomena by mystical and fanciful hypotheses. From the beginning of the world, marvellous cures have been wrought by a variety of occult means, and have been believed in by the multitude, which, on rigorous inquiry and an advance of general education, have proved to be of simple explanation. When we consider the class of persons upon whom such experiments are successful, we are strengthened in the view, that the greatest caution should be exercised not to form too positive conclusions regarding the explanation of such phenomena.

The subjects, for the most part, are women, and those admittedly of a nervous and hysterical character. Owing to the peculiar nature of their temperaments, they are proverbially prone to exaggeration, and even to simulation, without apparent motive. In the absence of wilful deception, these persons are notoriously of such an emotional and impressive disposition that the slightest suggestion often effects responses quite incompatible with health; and this is further increased in the so-called hypnotic condition, a state peculiarly favourable to the production of these psychical and physical phenomena. Such circumstances render accurate experiment and observation of extreme difficulty; and, owing to the marvellous nature of the results, and the apparent plausibility of the explanation, the credulous fall easy victims to any fascinating doctrine. It is, therefore, not surprising that many who have sifted the matter in a more sceptical spirit should have declined to accept M. Burq's theory; and, while admitting many of his facts, prefer to believe that the results of the external application of metals are rather due to the influence the procedure produces on the mind of the patient, than to any specific or magnetic effects of the substances in question. The profession in England have especially favoured this view, and hence has arisen the term "expectant attention," which has excited the ridicule and contempt of the followers and believers in Burqism. It is true that, in this country, cases of extreme hysteria are rare as compared with France, and more especially that class of individual in which metallotherapy seems to be so successful. In those instances we do meet with, this procedure does not produce the same potent effects which it does on the other side of the Channel, which might be taken as an additional argument against its special properties. Cases, however, have occurred in which all the experiments have been carried out successfully, but for which a different explanation has been adopted. For example, Dr. Hughes Bennett, in this JOURNAL, some years ago, described a woman with hemianæsthesia, in whom sensibility was restored, and loss of feeling transferred into various other phenomena, by the external application of various metals. But he subsequently found that precisely the same results ensued by a similar treatment with wood and bone, and even simply tying a handkerchief round the limb of the patient.

Not wishing to lay ourselves open to the accusation of ignorant scepticism, we are willing to admit many of the facts connected with metalloscopy, and metallotherapy. We consider, however, that the explanation of those by M. Burq is untenable, and that neither experiment nor observation has demonstrated the soundness of his doctrine. While granting that the theory of "expectant attention" may not be complete, and that it may be modified or displaced by extended knowledge, we maintain that, in our opinion, it offers the most plausible hypothesis to account for the conditions observed, and accords most reasonably with all known facts. The phenomena connected with the nervous system are for the most part bathed in the profoundest mystery, and while, in our endeavours to fathom it, we gladly welcome as an aid careful experiment and research, we must, at the same time, refrain from accepting too readily any explanation of the results which remains unverified.

ANIMAL PLAGUES: THEIR HISTORY, NATURE, AND PREVENTION. By GEORGE FLEMING, F.R.C.V.S., F.R.G.S., etc. Vol. II (from A.D. 1800 to 1844). London: Baillière, Tindall, and Cox. 1882.

THIS book, we are told in the preface, is a sequel to one which the author published under the same title in 1871, and which contained a record of the animal plagues from B.C. 1490-A.D. 1800.

Of Volume I we are not in a position to speak, not having seen the book; but if the record therein contained be similar in completeness and interest to that in Volume II, the entire work must be indeed valuable. Of course, it cannot be expected that, in remote periods, such as were included in Volume I, anything like accurate records could be found; and the author, we presume, must have depended largely on tradition. But, in Volume II, he is dealing with a period within the reach of accurate history, and his work becomes the more valuable the nearer it approaches present time. The facts collected form, therefore, a highly interesting and a decidedly readable work; and it is very remarkable to note the curious facts which such a collection brings to light. As a few instances, we may note the following.

In 1801, swarms of mice and locusts caused devastation in Germany and Greece; in the preceding year, these countries had been visited by epizootic eczema and anthrax, causing great damage to the live stock; and there can be little doubt that the mortality among the cattle had a causal connection with the increase in the lower form of animal life in the following year. Then, again, the curious fact is recorded of diseases being in many cases confined to black cattle.

The influence of telluric disturbances in causing disease among animals, and Humboldt's reasonings thereon, are also recorded. Hydrophobia, which, by the way, seems first to have arisen as a disease among wild animals, particularly foxes, is here fully treated, and its outbreaks and their origins recorded. Among other curious facts connected with this disease, there are mentioned cases of men having the genuine attacks of hydrophobia without having been bitten, or inoculated with the poison in any way. We suspect that the majority of the cases of hydrophobia in men, if they were strictly analysed, would be found to resemble these, particularly those cases in which the disease is said to remain latent for months or weeks; the true explanation of these cases being that the mental impression or dread of the disease is sufficiently powerful to produce the symptoms, all of which are, strictly speaking, nervous, and undistinguishable from tetanus, which is known to be idiopathic, that is, arising from no external injury.

We also find here the curious fact noted that vaccination is useless as a protection from variola in all animals, man only excepted. Illustrations of the interest of this work could be multiplied almost to copying out the whole work, but enough has been said to show the value of such a record. Undoubtedly the first two objects stated on the title-page—viz., the history and nature of animal plagues—are very fully gone into. But we look in vain for any specification of the means of prevention, the third object given; unless, indeed, by pointing out the nature and the origin of these diseases, the author would imply that the means of prevention are so plainly deducible therefrom as not to need special indication. If this be the case, we cannot agree with him. It is not every one who is endowed with practical reasoning faculties, or is capable of using them, and when such a man as GEORGE FLEMING writes a book professing to indicate the means of prevention of certain diseases, whose nature and origin he fully gives, we naturally expect something more than to find these means of prevention left to implication.

As regards the style of writing we have little to say; it is terse, explicit, and to the point, without padding. There is a slight tendency to pedantry, which peeps out in the word "epidemy" for the noun "epidemic," and in the word "epizooty." But the prevailing sensation is certainly one of satisfaction with this compendious and comprehensive record of animal plagues; and there is no doubt that much light is by its means thrown into dark places, light of which it will be in the power of those most interested to make good use, if they choose.

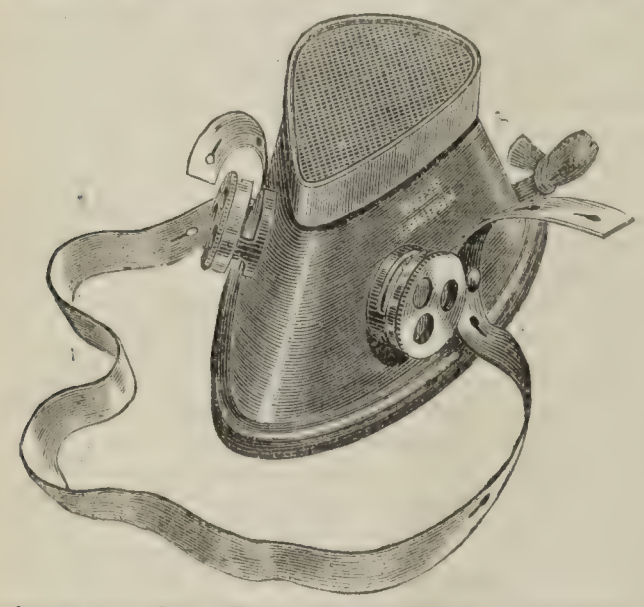
NOTES ON BOOKS.

Remarks on Hydrophobia. By CHARLES W. DULLES, M.D. (Pp. 12, 1883).—This little pamphlet may prove interesting to those who like historical summaries but to the true student of hydrophobia it will be a little disappointing. Dr. Dulles has certainly managed to condense within a small compass a considerable amount of information about what has been written on hydrophobia. He tells us that this pamphlet is the outcome of fifteen months' study of its literature; so that it is evident he has taken considerable pains before writing on the subject. We were astonished to find no reference in its pages to the pathological investigations of Clifford Allbutt, Gowers, Coats, Hammond, and Benedikt. The personal equation of the writer may be learnt from the closing lines of the paper. He suggests to us Tuke and Lauder Lindsay as our guides in our search after the nature of hydrophobia. In the face of the painful facts we have so frequently to record, we had hoped that the fright and imagination theory would have long since been buried.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ORO-NASAL RESPIRATOR FOR MEDICATED VAPOURS.

THIS new respirator is intended to prevent the sense of dyspnœa, complained of by many who have used various respirators of other patterns; Dr. William H. Brace believing that this sense of dyspnœa was due, in part, to the opening for the admission of air being too small, and in part to the wire gauze being too fine, and in part to the introduction of certain unnecessary valves. Dr. Brace further observes: "I also found that most of the drugs in general use for inhalation, namely, creasote, carbolic acid, etc., acted upon the India-rubber valves, and made them useless. In my apparatus, therefore, I have substituted talc lateral valves, for the free exit of air, have enlarged the opening for its admission, and have used a



coarser wire gauze, thus effectually providing for the free admission of air. I find that a thin layer of absorbent cotton-wool, fitted accurately into the wire chamber, not only acts as an excellent filterer, but is the best material for receiving the medicament, and prevents any spluttering of it over the face of the patient during inhalation; I have, therefore, done away with the valve in front, and find that the feeling of dyspnœa is thus avoided, and my apparatus can be worn for any time by a patient, without inconvenience. It can thus be used for the administration of medicated vapours, or as an ordinary respirator for the protection of irritable throats, or while travelling through tunnels; for this purpose I have, in my own person, thoroughly tested it."

The respirator has been made by Messrs. Weiss and Son, of the Strand, and it appears to us, upon trial, to fully attain the purpose aimed at by Dr. Brace in its construction.

BRITISH MEDICAL ASSOCIATION.
SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 1st, 1883.

THE USE OF THE TITLE "DOCTOR."

THE working of the Newspaper Libel Act has lately been brought a good deal under the notice of the public, and some cases tried before magistrates in London have been very fully reported. A case heard recently before the magistrates of Skipton in Yorkshire, apart from its interest to newspaper-proprietors, has a special interest for our readers, as the point in issue was whether or not it was a libel to say that the complainant was not entitled to practise as a doctor in this country. It appears that Mr. Charles Empy was educated in Canada, and obtained from the Royal College of Physicians and Surgeons at Kingston, Ontario, the degree of M.D. He was for some time assistant to Dr. Macnab of Crosshills, and entered into the usual agreement not to practise on his own account in that neighbourhood. Some time after he had left Dr. Macnab, an arrangement was come to by which this hindrance to practise was got rid of; and, thereupon, a friend of Mr. Empy's sent a letter to a local newspaper, stating that "the public would be glad to know that an agreement had been come to between Dr. Macnab and Dr. Empy, which would enable Dr. Empy to carry on *the* practice as physician and surgeon entirely on his own account." In answer to this, a letter appeared in the *Skipton Pioneer*, signed "Veritas," which pointed out that "Mr. Empy's name is not, and never was, upon the *Medical Register;* and that he had, therefore, no right to assume the title of doctor, nor to practise as a physician and surgeon." Mr. Empy complained of this letter; and, as the proprietors of the newspaper refused to give the name of the writer, instituted criminal proceedings against them for libel. After a good deal of argument, the Bench dismissed the charge, and refused to commit the case for trial.

The newspaper-proprietors thus escape from further annoyance on this charge of libel, though, of course, they were put to some expense in defending themselves. But the case is worthy of special notice on other grounds. The basis for a defence on a criminal charge of libel is that the statements complained of are substantially true, and that it is for the public benefit that the facts should be known. The letter in the *Pioneer*, no doubt, was calculated to injure Mr. Empy; and, if the statements in it were untrue, they were no doubt libellous. To say of a medical man, that he is unqualified, and has no right to practise his profession, is certainly a statement calculated to do him harm, and one which, if made maliciously and without foundation, would rightly expose the persons who wrote and published it to criminal punishment, or to be mulcted in substantial damages. But Mr. Empy himself admitted that his name never was on the *Medical Register*, and yet that his name was written over his door as "Dr." Empy, and that he made the usual professional charges to his patients. The statements in the alleged libel were, therefore, true; and the only question remaining for a court of law to consider was whether their publication was beneficial to the public, or was merely dictated by private malice.

No one can doubt that it is of great importance to the public that only duly qualified persons should practise medicine. All the learned professions enjoy exclusive privileges, because their members are presumed to be specially qualified, by training and education, for the work of their profession, and for all of them it is necessary to pass special examinations in order to be admitted. In the case of the medical profession, the necessity for passing such examinations before beginning to practise has only been established within recent years. Formerly, though degrees of medicine were given in this country by proper authorities, still, people who had not obtained degrees might, and did, practise as doctors. This was altered by the Medical Act of 1858, since which time no person is entitled to recover any charge for medical or surgical advice or attendance, or for the performing any operation, or for any medicine which he has prescribed and supplied, unless he be registered under the Act. The qualification for being registered is, that the person applying for registration must have satisfactorily passed the examitions held by some one or other of the examining bodies who are authorised to confer medical degrees in this country. The Act made provision for allowing persons already in practice at the time of its passing to be registered without passing these examinations, and, among others, gave this right to doctors of medicine of any foreign or colonial university who were already practising in the United Kingdom before October 1st, 1858. But it made no provision entitling graduates of foreign or colonial universities to become registered after that date; and no one can now become entitled to practise medicine in the United Kingdom except by obtaining the requisite degrees here. As far as regards knowledge, men educated abroad may no doubt be as competent as those who pass their examinations here; still, as the law at present stands, the mere fact of having obtained a foreign degree gives its holder no claim to be registered, and no right to practise in this country. Something is to be said for our examining bodies conferring degrees in medicine on distinguished foreigners without requiring them to undergo the usual course of study, or to pass the usual examinations, just as the heads of the other learned professions have done. The Inns of Court have such power, which was notably exercised in favour of Mr. Benjamin, Q.C., of admitting gentlemen to practise at the English Bar without requiring them to follow the usual routine. On this analogy, distinguished foreigners who were anxious to practise medicine in this country are from time to time admitted to a special form of examination, and receive registerable diplomas on a basis which does not leave out of view their admitted standing in their own countries.

But we fail to see any hardship or injustice in refusing to allow the mere fact of having obtained a foreign or colonial degree to be sufficient to entitle its holder to practise in this country. Some universities and colleges abroad—among them, possibly, the College of Physicians and Surgeons at Kingston—have a standard as high as that which is observed here; and men who have obtained a degree from them are as well qualified to practise as the majority of those who are licensed among us. But this is not always the case. The standard at some so-called universities is beneath contempt. Ugly stories sometimes obtain currency of the way in which degrees, and especially degrees in medicine, are offered for sale to anyone who is willing to expend a few dollars, or it may be shillings, in their purchase. Free trade in administering drugs which are dangerous in the hands of unskilful persons, is not to be encouraged; nor is it desirable to give to everyone the right of professionally signing death-certificates.

The status of a man who is entitled to practise as a physician or surgeon in this country is deservedly a high one; and most of those who are on the *Register* are competent and honourable men. As with the other learned professions, medical men occupy an exclusive position and enjoy exclusive rights. In their case, these rights have in recent years been expressly confirmed by Parliament; and we think it is for the public advantage that they should be. The public have some guarantee that the men who enjoy these privileges shall be fit for them, and accordingly repose in the medical profession the confidence which it deserves. If this should be altered, and the fact that a man practises medicine, and signs himself M.D., should no longer signify that he is properly registered and qualified in the manner prescribed by law, the status of the profession would be lowered, and public confidence in it would be shaken. It is, we believe, for the public benefit that the facts should be known, whenever a man, however gifted, presents himself to the public in a character to which he has no claim. Mr. Empy, though possibly well-skilled in medicine, had to admit, when in the witness-box, that he was not on the *Medical Register*; and yet that he did, and charged for, things which in this country no unregistered person is entitled to do or charge for. The exposure consequent on the publication of the letter of which he complained, and still more on the legal investigation which he himself provoked, will no doubt injure him, and will interfere with his continuing to practise medicine in the neighbourhood of Skipton. Some people in that district seem to think him skilful; and, if he be so, the inability to practise may seem, in his case, to work hardship. Even if it do, it is better so than that men of no qualifications should be free to do as they like, and so destroy all confidence in the medical profession.

The proceedings consequent on the appearance of the letter of Veritas have been the means of directing attention to a question of importance, not only to the parties immediately concerned, but to the whole community; and we are glad to find that the magistrates in this instance have come to a decision which was not only legally right, but also in accordance with natural justice.

THE DISCUSSION ON MYXŒDEMA.

THERE will be found, in another part of our columns, an accurate account of the interesting debate on myxœdema, which was raised on the case brought forward by Dr. Drewitt, at the last meeting of the Clinical Society.

At the request of the President, Dr. Semon communicated the interesting observations made by Professor Kocher, of Berne, on the consequences of removal of the thyroid gland. It seems that Professor Kocher has attempted total extirpation of the thyroid, in cases of goître, as many as eighteen times. He was led to inquire into the after-condition of his patients, in consequence of a report made by a general practitioner. In the patient in question, who had been operated on some nine years previously, undoubted symptoms of cretinism had made their appearance. Subsequent investigation showed that sixteen out of the eighteen patients, on whom total removal of the thyroid had been performed, had undergone marked deterioration of health. In the two remaining cases no change was apparent, but, curiously enough, in one a small accessory thyroid gland had become hypertrophied, and in the other a recurrence of the goître had taken place.

The symptoms which supervened when the thyroid was completely removed were distinctly progressive, but their grouping was such that Kocher believed he was justified in giving the name of *cachexia strumipriva* to what he considered, at that time, an entirely new disease. The early changes, noticed by Kocher, were fatigue, weakness, heaviness of limbs, coldness, diminished mental and bodily activity, and swellings of the face and body. The features generally became broad and coarse, the eyelids swollen and transparent, the skin dry and scurfy. In addition, marked anæmia was observable in the older cases. Professor Kocher did not fail to remark that the above-mentioned symptoms bore a remarkable resemblance to cretinism, but he was quite unaware that they were practically identical with the interesting condition described by Sir William Gull.

Reverdin and Julliard have, quite independently, corroborated Kocher's important observations, and they also refer to the remarkable arrest of development which follows in removal of the thyroid in children. Dr. Semon stated that he had made inquiries with reference to a patient, in whom Professor Lister had removed the thyroid gland three years ago. Pallor and occasional swelling of the eyelids had been noticed, but he was not inclined to lay much stress on the written report of the patient. Dr. Semon believed it possible that the thyroid gland, which had hitherto been an "opprobrium medicinæ," exercised some influence over the composition of the blood and general nutrition. It was possible that, when the thyroid was removed, the higher forms of organised tissue were not formed, but that the fœtal tissue, mucin, was developed in its place. Such, briefly, are the facts brought forward by Dr. Semon.

There can be little doubt that the condition of Kocher's patients bears a striking resemblance to myxœdema; but the actual correspondence between them cannot as yet be positively affirmed. It is to be hoped that the President's suggestion of a commission of inquiry will ere long be acted upon. *A priori*, it is quite conceivable, as Sir William Gull observed, that the thyroid gland may exert some general influence on nutrition, but whether directly or through the sympathetic nervous system, as Kocher himself thinks probable, is, at present, difficult to say. The remarkable changes in the organism which ensue on removal of the testicles or ovaries, are particularly instructive in relation to this point. Dr. Ord, to whom we are indebted for his able and accurate account of the pathological anatomy of myxœdema, read a communication from Dr. Kocher, the main facts of which have already been alluded to. The latter suggests a relation between the thyroid and the sympathetic nervous system, and considers it not improbable that an accidental neuritis is occasioned by the removal of the thyroid gland.

Dr. Hadden observed that some time ago he had put forward the sympathetic theory with regard to myxœdema. He had recently examined the cervical sympathetic in this disease, as well as in exophthalmic goître, but he could not assert that there was any decided change. Apart from theory, it is very probable that there exists some pathological relationship between cretinism, myxœdema, and cachexia strumipriva.

In his original paper, Sir William Gull called attention to the late Dr. Hilton Fagge's important observations on sporadic cretinism. The symptoms in this affection closely resemble those of myxœdema. Indeed, M. Bourneville, of Paris, has described two cases of sporadic cretinism, which he believes are practically identical with myxœdema. In all the recorded instances of the sporadic variety, the thyroid gland has been found remarkably atrophied. The Sardinian Commission pointed out that, even in endemic cretinism, only one person in three has a goître. It is important to remember in this connection that in a fatal case of myxœdema alluded to by Dr. Ord the thyroid gland had not undergone atrophy.

These facts seem to point to one conclusion: that the *ultima causa* of myxœdema, as well as of sporadic cretinism, is not the atrophy of the thyroid gland. It is different, however, in the case of cachexia strumipriva, in which the constant factor is absence of the thyroid. The idea seems to be gaining ground that myxœdema is in all probability a tropho-neurosis. Professor Kocher's observations by no means tend to disprove this hypothesis. As a matter of fact, he believes that a neuritis of the sympathetic nervous system is the underlying cause of the symptoms which follow on removal of the thyroid. M. Ballet, and more recently Seppilli, have described morbid changes of the sympathetic system in myxœdema. The pathology of the disease must, however, be considered for the present a vexed question.

In the course of the debate, the President alluded to the fluctuations which he had observed in the daily elimination of urea in myxœdema. Dr. Crocker remarked that even in healthy dogs he had found considerable variations in the excretion of urea, and hence was not inclined to lay too much stress on the observations which had been made in myxœdema. Dr. Hadden observed that, in his experience, the urea eliminated by the urine was invariably subnormal. The point is one of considerable importance. If the quantity of urea excreted be really so markedly diminished, as some writers maintain, it would seem to indicate that the healthy waste of body-tissue is more or less interfered with. Dr. Cavafy's interesting remarks relative to the natural history of the disease are extremely instructive. In the case of one patient, the supervention of ascites was followed by marked improvement. It is curious that a decided amelioration has been occasionally noticed when ordinary serous dropsy, the result of renal complications, takes place in myxœdema. The explanation which Dr. Cavafy offers is probably correct.

It is satisfactory to note that the discussion has brought forward some practical result in the way of treatment. Sir William Gull spoke despondingly of therapeutics, stating that, in his experience, the disease progressed from bad to worse. Dr. Ord, however, (and Dr. Whipham was able to corroborate the statement), has found remarkable benefit from the use of jaborandi. It is pleasing to observe the able and thoughtful manner in which the debate was conducted. From beginning to end, there was exhibited a spirit of true inquiry, which cannot fail to enhance the value of the proceedings in the judgment of all unprejudiced persons.

ACUTE PNEUMONIA.

THE report of the Collective Investigation Committee on pneumonia, although only provisional, contains a great deal of interesting matter, and is based on an analysis of 350 cases. The general result of the pathological inquiry is thus summarised: "We think the evidence before us is insufficient to support the doctrine that pneumonia is a specific fever, whose chief local manifestation is in the lung. Like other respiratory diseases, we find it prevailing in certain states of the weather; and, apart from all else, the great regulator of its frequency is season. It may be taken for certain that it confers no protection upon the individual, but rather an increased liability to future attacks. It appears to have no direct association with any specific or conveyable disease, and its near alliance with tonsillitis is in striking contrast with its unfrequency in connection with diphtheria. Instances of pneumonia undoubtedly occur, which are apparently 'pythogenic;' but those which have this origin are not otherwise separable, so far as we see at present, from others which are obviously due to exposure. Epidemic pneumonia, as judged of by the cases we are now reporting on, is in part explained by atmospheric conditions, and in part by other agencies generally prejudicial to health."

With the moderate and cautious tone of this report most persons will cordially concur; but the prevalence of erysipelas in connection with 66 out of the 350 cases is almost lost sight of. It may be well to recall the classification of infectious pneumonia given by M. Germain Sée; 1, malarial pneumonia; 2, erysipelatous pneumonia; 3, typhoid pneumonia. The first of these factors finds no mention in the report; the second has the striking reference already given; while typhoid fever prevailed in the same district in only 29 cases. The typhoid pneumonia of Professor Sée is, in his opinion, typhoid fever finding its chief expression in inflammation of the lungs. The evidence of contagion is confined to twelve cases; in one case, Dr. Lane, of Bishop's Castle, writes of a wife who was believed to have taken pneumonia from her husband: "I have no doubt that the patient's attack was due to direct infection, she never having left her husband's room, except for a few moments, from the time of his seizure to his death." On this point, additional evidence is much wanted, and, it is to be hoped, will be forthcoming.

One of the most striking facts in the report is the immunity from

fatal pneumonia enjoyed by total abstainers. Among this class the deaths were 11.12 per cent.; among temperate persons, 18.4 and among the intemperate, 40.5; while, in those suffering from insufficient food, the rate was 26.6. The total mortality in the whole series of cases was 19.4, which strikes us as being very much higher than we can regard as satisfactory.

There is, at the present, too much complacency with our treatment of pneumonia; and there is a very ill-founded, but widely spread impression, that, since the abandonment of venesection, and the employment of expectant treatment, there has been a very great diminution in the mortality from this disease.

That this belief is a mistaken one, is proved by reference to the old statistics, which show that, with excessive venesection, the mortality was from 1 in 3.5 (Louis), 1 in 5 (Dietl), to 1 in 6.3 (Grisolle). With large doses of tartar emetic, out of 648 cases treated by Rasori, 143 died, or 1 in 4.5; with the same drug, Dietl lost only 1 in 5.2; and Laennec, only 1 in 10. It is therefore obvious that, if the death-rate in these cases represents fairly the results of modern practice in this country, we have no cause to congratulate ourselves.

In considering the mortality from pneumonia, the age of the patients is of such importance, that no conclusions are of any value which do not take it into account; but the analysis under this heading does not explain the mortality. Grisolle laid it down as a rule that under 30 the deaths were 1 in 14; in this table there were 185 cases under 30, with 16 deaths, or 1 in 11.5 Bennett found the average death-rate in the army and navy, under the old plans of treatment, to be 1 in 13. We many assume these to have been healthy men in the prime of life. In the present table there are 125 cases between 20 and 40, with 18 deaths, or 1 in 7.

Our object in calling attention to these figures is to awaken practitioners to a sense of the fatality of pneumonia. We believe there is a too general impression that it is a benign disease, and the gravity of cases is only recognised when the serious effects of fatal lesions manifest themselves. Jürgensen has pointed out that the tendency is to death by cardiac failure, and we are now quite well aware of the influence of high temperature on the muscular wall of the heart. Jürgensen's teaching has hitherto found few followers in this country, but, with a mortality of one in five, we are bound to reconsider the bases of our practice.

We cannot escape the responsibility for the lives of our patients, if we permit our prejudices to stand in the way of the application of reasonable principles of treatment, and we trust to see the danger of the pneumonic fever more widely realised, and made a vital principle of practice. This idea once grasped, the means used will be efficient, and the thermometer will be made the test of this efficiency.

The committee is anxious to obtain 1,000 cases by the end of the year on which to base a complete report. A number of fresh cards have been issued, and it is hoped that every member will aid in the work. If each member of the Association would fill up one card annually, the success of the collective investigation organisation would be certain.

HISTOLOGY OF NERVES.

ALL anatomists agree that nerves are observed at a very early stage of embryonic life, and that they develop from the centre to the periphery. The development of the nerve-tubes has been especially studied in the membranous plate of the tail of the tadpole.

M. Vignal, formerly assistant in the Physiological Laboratory of the University of Edinburgh, and now of the Collège de France, in a memoir (*Archives de Physiologie Normale et Pathologique*, March 15th, 1883, No. 4) on the formation of nerve-tubes in the embryo of mammals, states that his researches lead him to the following conclusions. 1. Nerves develop from the centre to the periphery. They present the aspect of fine fibres and granules placed in succession one after the other, and are immersed in a homogeneous substance. These bundles are covered at their periphery by connective embryonic cells which later proliferate and penetrate into the nerve-bundles; there they multiply, split up the fibrils into small bundles, and are applied to their surface. These connective tissue-cells are, at this stage of nerve-evolution, distinguished from ordinary connective tissue-cells by the length of their longitudinal diameter compared to the transverse diameter. The most important constitutional parts of the nerve-fibres are now formed because the bundles of fibrils, surrounded by protoplasm enclosed in an envelope, constitute the axis-cylinder.

2. Later, towards the fourth month of gestation, that is to say, the epoch that corresponds in the embryos of cows and sheep to the fourth month of the human embryo, myeline appears in the protoplasm which surrounds the axis-cylinder, and at the beginning is but slightly differentiated from it. Myeline presents the appearance of a thin lamina, which extends throughout the whole length of the interannular segments; more rarely that of balls, or of isolated granules, distributed along the nerve-fibres. The medullated fibres now present all the characteristics of adult fibres. Simultaneously with the development of myeline in the medullated fibres, the protoplasm develops, and often occupies more space than does the myeline; but it is always present in a larger quantity than in adult medullated fibres.

In another memoir, M. Vignal states that nerve-tubes not only increase in length by the lengthening of the axis-cylinder of the interannular segment, as in the larger tubes, which, in adult rabbits and dogs, as Ranvier has shown, are three times longer than in the new-born animal, but he has observed them lengthen by the development of new segments. The process of this formation is very curious. The periphery of the tube is the only part newly formed.

In an advanced embryo, or in a young animal, the nerve-fibres between two segments sometimes present cells containing an oval nucleus surrounded by protoplasm enclosed in an envelope; other cells, generally longer and larger, contain drops of myeline; finally, small interannular segments appear; these are very short, at least a hundred times shorter than the majority of the segments, and are limited by two well-marked annular constrictions. This length of segment and the ordinary length may be regarded as the two extremes. An entire intermediate series varying in length may be observed. The formative process of these intercalated segments is more especially observed in the last stage of embryonic life and during childhood. Towards the adult age, it gradually disappears.

M. Vignal proposes calling these segments intercalated segments. He holds that the supposition that they are due to the proliferation of the cells constituting the pre-existing interannular segments cannot be admitted; there is not the slightest evidence that such a process takes place, nor is there that the connective cells which surround the axis-cylinder towards the third month of embryonic life, and which develop more slowly, form the intercalated segments; though the intercalated segments more or less developed are numerous, the cells which constitute them are scarce; it must therefore be admitted that their formative process is the same as that of ordinary segments; connective cells are applied to the surface of the axis-cylinder at the point of junction of two interannular segments, and loosen the cement that reunites the two segments of the sheath of Schwann which limit an annular construction. The axis-cylinder submitted to the influence of these cells increases more rapidly at this point than at others; the cells undergo the transformation already described.

M. Renaut had previously observed, in the nerves of adult solipeds, interannular segments, measuring only the third, fourth, or half the usual length. He believed them to be due to the proliferation of former segments, and destined to replace those which have reached

the limit of their vitality. M. Vignal does not accept this interpretation, but believes the interannular segments observed by M. Renaut to be ordinary segments invested in their development.

THE past and present students of St. Bartholomew's Hospital intend erecting a monument to the late Mr. James Shuter.

ABOUT fifty persons in the town of Thorn (Prussia) have been attacked by trichinosis.

THE Sherardian Professorship of Botany, in the University of Oxford, is now vacant.

THE death of Mr. John Eliot Howard, the scientific chemist and quinine manufacturer, is announced.

MICROSCOPISTS will hear with regret of the death, in his 85th year, of Mr. Hugh Powell, of the firm of Powell and Lealand, opticians.

THE prohibition of the importation of American hams and bacon into France, which had been prohibited from fear of trichinosis, has been rescinded.

THE Duke of Connaught on Thursday of last week laid the foundation stone of the Cama Hospital for Women and Children at Bombay, for which the Parsee Pestonjee Hormusjee, Cama, has given £10,000.

A BRISTOL publican, whose brandy was adulterated with lead to the extent of 1¼ grains per gallon, has been fined £5 by the city magistrates.

DONATIONS towards the Jaffray Suburban Hospital Endowment Fund, at Birmingham, continue to be received. The most recent is one of £1,000 from the William Dudley Trustees.

M. CHARCOT has been elected Member of the Académie des Sciences, in the Surgical and Medical Section, by 416 votes, against 46 given to M. Sappey.

As the winter is approaching the Assistance Publique of Paris has drawn up a list of beds available in the twenty-one hospitals of the city. The total number amounts to 11,292.

THE Sanitary Council of Marseilles has revoked the decree that obliged vessels from the south coast of Africa, Brazil, and La Plata, to undergo three days' quarantine. After sanitary inspection, and a general washing of linen, they are presented with a clean bill.

THE Metropolitan death-rate last week rose to 22.2 per thousand annually—a higher rate than in any week since the middle of July. In the twenty-eight great towns of England and Wales, the death-rate averaged 23.0 per thousand of their aggregate population.

AT a recent meeting of the managing committee of the Hospital for Sick Children, Great Ormond Street, Mr. Edmund Owen, F.R.C.S., was appointed surgeon to the in-patients, to fill the vacancy which was caused by the resignation of Mr. Thomas Smith.

MADAME BROCA offers a prize of 1,500 francs (£60), to be given by the Anthropological Society of Paris for the best memoir on a question concerning human anatomy, comparative anatomy, or physiology, bearing on anthropology. The first prize will be awarded in April 1884.

A GREAT difference of opinion exists among the Kimberley South African diamond-fields as to the nature of a disease which has recently broken out there, and which has been supposed to be small-pox. It appears, however, tolerably certain now that the disease is not small-pox, but an aggravated form of varicella, which has before given rise to needless alarms.

THE Bradshaw Lecture will be delivered by Professor John Marshall, F.R.S., President of the Royal College of Surgeons of England, in the Theatre of the College, on Thursday, December 6th, at 4 o'clock P.M. The subject will be "Nerve-stretching for the Relief or Cure of Pain." Fellows and Members of the College will be admitted on presentation of their cards.

M. Lacaze-Duthiers recently presented to the Académie Dessaenes a note from M. Jolyet, which stated that in certain molluscs the renal collecting tubes open into the pericardium; suggesting the supposition that urine mixes with the blood. M. Jolyet's researches, however, demonstrate that this is not so. Why this mixture does not take place, M. Jolyet cannot at present explain.

IN a report to the Paris Academy of Sciences, the French physiologists, MM. Chambrelen and Malassez, announce that they have at length succeeded in discovering, in the milk of cows affected with inflammation of the spleen, the bacillus of that disease. They have been successful in their experiments in the reproduction of this micro-organism, and in inoculating animals with it.

M. WALDECK-ROUSSEAU, Minister of the Interior, paid this week a long visit to the hospital for British subjects, founded by Sir Richard Wallace, at Levallois-Perret, near Paris. Drs. Herbert and Hogg received the Minister, who made a thorough inspection of the establishment, and specially expressed his admiration at the way in which space, ventilation, and light had been provided for the inmates.

A HORSE ambulance carriage has just been presented to the St John Ambulance Association by a member of the committee. This vehicle was designed by Mr. John Furley, deputy chairman. It will carry three patients on stretchers and two persons seated, as well as two on the box. The mode of putting the stretchers into the carriage is entirely novel. The carriage is constructed of English and American ash, with a roof of the best pine, the wheels being of English oak and ash. It has sliding plate-glass windows, framed in mahogany, and set in borders of walnut-wood. The fittings are very complete, and include a small chest for hospital-comforts. This carriage is intended for use in the streets of London.

A PUBLIC meeting, summoned under the auspices of the London Anti-vivisectionist Society, to adopt a petition to Parliament for the prohibition of vivisection, was held at Bournemouth on Wednesday afternoon last; the Bishop of Winchester taking the chair. A deputation attended from the London society, and various influential persons figured as speakers. The audience was very large, and included many prominent townsmen. A counter-proposition was submitted by Dr. Robert Thomson, and seconded by Mr. W. D. Husband, in a very able manner; and it is highly satisfactory to be able to record that the meeting adopted it by a very large majority. It is sufficiently encouraging that, when the anti-vivisectionist party have been fairly faced by local medical men who have previously taken care to acquaint themselves with the facts and arguments, they have been thoroughly defeated, even in their own meetings.

ALDERSHOT MILITARY MEDICAL SOCIETY.

AT the monthly meeting of this Society, on November 1st, it was announced that the following resolutions had been adopted by the Committee. 1. That officers of the Army Medical Department, not serving in the Aldershot command, be considered honorary members of the Society, and be entitled to take part in and contribute to its proceedings. 2. That an effort be made to collect and preserve pathological specimens at Aldershot. 3. That steps be taken to co-operate with the Collective Investigation Committee of the British Medical Association.

THE BROWN INSTITUTION.

THE annual course of five lectures in connection with the Brown Animal Sanitary Institution will be delivered by the Professor-superintendent of the Institution, Dr. Charles S. Roy, in the Theatre of the University of London, Burlington Gardens, W., on the afternoons of the 5th, 7th, 10th, 12th, and 14th of December, at half-past five; subject, "Inoculation for the purpose of Preventing Zymotic Diseases." We are requested to state that the lectures will not be confined to this subject, but some account will be given of the history and objects of the Brown Institution, with a short account of the work that has been done there since its foundation.

THE HOSPITAL-SHIPS ON THE THAMES.

THERE was a disposition, on Saturday, at the Asylums Board, to object to the proposed expenditure necessary for making the *Castalia* a well-ventilated hospital-ship, such as is necessary for a ship which is to take acute cases of small-pox. Mr. Galway pointed out that, when the purchase of the *Castalia* was agreed upon, it was stated that an expenditure of £20,000 would be necessary to fit her for a hospital-ship, and that she would be cheap at that, in the accommodation she would offer. Sir Edmund Currie added that now the days of purchasing sites for small-pox hospitals had gone, and the managers were bound to make efficient provision elsewhere. Every sovereign of this expenditure, he said, would save twenty and thirty times the amount when the time of epidemic came. The report of the Committee was adopted. Dr. Felce expressed the hope that a westward wharf would be obtained; and the chairman said that the managers were open to offers of a cheap wharf at the West End.

DRAINAGE AND DIPHTHERIA.

THERE has been an outbreak of diphtheria in Canterbury, which has had the effect of drawing the attention of the local authorities to a number of wells existing in the part of the city affected; they were found, on investigation, to be largely contaminated with sewage and other matter. In all the cases—eight in number—the cause was local, and there is no evidence of an epidemic. Six of the children attacked with diphtheria resided in a house which was in a most unsanitary condition; the water used for drinking purposes was found to be polluted with sewage, and a hole was discovered in a drain which ran under the parlour, allowing the sewer-gas to enter the living-room of the family. Inquiry into another case in the same neighbourhood revealed a like contamination of the water and defective drainage. There was one other case, in a different part of the city, where the water was good, but the drainage at the school which the child attended was found to be very defective. An investigation, instituted by the sanitary authorities into the character of the water-supply of this district, has shown that there are sixty wells in this neighbourhood, and eleven samples of water taken from them have disclosed the fact that they were all largely contaminated with sewage, in one case living organisms being found. The eleven contaminated wells were ordered to be closed, and samples were directed to be taken from the other wells.

THE POLICE AND AID TO THE INJURED.

AT Scotland Yard, last week, Colonel F. Duncan, R.A., who is in command of the native artillery of the Khedive of Egypt, presented certificates to a number of inspectors, sergeants, and constables, who had become proficient in rendering first aid to the injured in connection with the St. John Ambulance Association. Among those present were Captain R. C. Dallas, Captain H. C. Perrott, Dr. S. Osborn, Dr. Simmonds, Dr. Ward, etc. Certificates were handed to the successful candidates from the following classes: Scotland Yard, 17; Leman Street, 7; Carter Street, 11; Albany Street, 17; Blackheath Road, 20; and Twickenham, 14; total, 86. The total number of members of the metropolitan police now holding certificates is 1,224; and City police, 152. Colonel Duncan said that during the past few months he had seen the effect of the cholera-epidemic in Egypt, and the value of being able to render first aid. He came back with a feeling of distinct pride in the work done there by Anglo-Saxons. Going into details of which he was an eye-witness, he said he never saw anything more smartly done than the way the armed police threw a cordon round an infected village to prevent contagion. A vote of thanks to Colonel Duncan closed the meeting.

FEVER AND SMALL-POX IN LONDON.

AT the Metropolitan Asylums Board, on Saturday, the returns from the fever and small-pox asylums showed a slight reduction on the number of fever-patients left under treatment; but a great increase upon the number of small-pox patients received during the fortnight, as compared with the previous period. In regard to fever-cases, 163 cases had been received during the fortnight in the Board's five asylums in different parts of London. In the same period, 22 had died, and 156 had been discharged, leaving 628 under treatment, as compared with 649 a fortnight ago. Of the whole number under treatment, 449 were scarlet fever cases, 5 were cases of typhus (in the west and south-west asylums), 172 were cases of enteric fever, and 2 are of "other diseases." The numbers under treatment were 21 less than a fortnight ago, though the numbers received were only 11 less than in the other period. In respect to small-pox, whereas only 5 were received in the previous fourteen days, in the period ending on last Saturday 33 had been received, 1 had died, and 18 had been discharged (against 14 the previous fortnight); but there were now left 49 under treatment, against 35 a fortnight before.

STRANGE MEDICAL EVIDENCE.

AN inquest has recently been concluded at Leigh, in Cheshire, relative to the death of a young woman, Mary Ann Davies, who, a few days before her death, made a statement to her medical attendant that a noxious drug had been administered to her for an unlawful purpose. The first witness called at the adjourned inquest was Mr. Davies, an analytical chemist, who made an analysis of the viscera, and found no poison in them. He also analysed certain drugs and medicines, and deposed as to their reputed effects. This witness, moreover, gave quasi medical evidence, and in the newspaper-report before us is reported to have deposed that there were no signs of inflammatory or other action on the viscera from which he could come to any conclusion. There is, perhaps, some excuse for Mr. Davies in giving this testimony, which was, as we think, clearly beyond his province, in the fact that he was drawn into it in cross-examination; but it would have been wiser of him to have declined to give medical testimony. His evidence was followed by that of Dr. Benjamin Jones, who attended the deceased in her last illness, whose views as to sickness during pregnancy, and the uses of aloes, are certainly peculiar. We quote the evidence as given in the *Manchester Courier*:—"The cause of death was exhaustion from excessive and continuous vomiting, which he did not think could have been caused by her pregnancy. . . . . There was apparent in the *post mortem* examination inflammation of the brain, which

might have been due to a severe cold, and this inflammation might have something to do with the vomiting and constipation from which the deceased suffered. . . . . A preparation of aloes was taken as a violent purgative, but it was not a common thing to take aloes combined with iron for that purpose. He never knew it done. . . It would be unwise for a chemist to make up a prescription of which the sole components were aloes and iron without making an inquiry as to the purpose to which it was to be applied. A prudent chemist would not do otherwise, and if he was told it was wanted as a purgative he would not be likely to make it up." We may remark that the deceased vomited constantly for three weeks before her death. But probably Dr. Jones has been misrepresented, and did not say that with which he is here credited. We doubt whether pharmaceutical chemists are so critical as they are here depicted. The case is a grave one; two persons are out on bail on a charge of causing the death of the woman. We trust that the evidence will be thoroughly sifted, and will be reported more satisfactorily than appears to have been hitherto done.

ERYSIPELAS AFTER VACCINATION.

DR. AIRY, Medical Inspector of the Local Government Board, has been recently engaged in an inquiry, at Great Cornard, into the death of three children, who, it is alleged, died from erysipelas following vaccination. An inquest has been held on the body of one of the children; and, from the evidence published in a local newspaper, we learn that two children, vaccinated on October 16th, were subsequently attacked with erysipelas, and died; that, at any rate, one of them did not suffer from any untoward symptom until after it had attended, for purposes of inspection, at the vaccination station, and had supplied lymph for the vaccination of two other children, both of whom were attacked with erysipelas, and one of whom died. The evidence is not sufficiently clearly stated for any definite opinion to be formed as to the manner in which erysipelas was introduced into the station; but, so far as it goes, it appears to indicate that both vaccinifer and vaccinee contracted this affection on October 23rd. The profession will await Dr. Airy's report with much interest; for, in some respects, the Great Cornard cases seem to resemble those which occurred some time ago at Norwich.

PHOTOGRAPHY IN HOSPITALS.

MOST of the French hospitals, according to our contemporary *Engineering*, have now a photographic studio attached, for photographing the sick persons at different times. The rapid dry plate process is employed, and Professor Charcot, of the Salpêtrière, has devised an electrically worked camera, which is very useful in taking a series of views in rapid succession. Certain classes of patients are photographed on their entry into the hospital, and at regular intervals afterwards. In cases of hysteria, for example, it is interesting to note the original contractions, and compare them with succeeding ones. The photographs are placed in an album for study of the disease, and comparison with others taken from other patients. In this way the leading features of the disease will be recognised. The new printing processes also enable these photographs to be copied, and distributed to other hospitals and medical men. Micro-photography, or the photographing of microscopic objects, is also a valuable branch of hospital-work which is becoming better recognised every day. The apparatus of Professor Charcot consists of a camera with a movable aluminium shutter, controlled by an electro-magnet and clockwork. A key and battery send an electric current through the magnet at the will of the operator, and working the shutter exposes an objective to the object. The photographer controls the apparatus by his hand, and, with his finger on the key, watches his patient until the desired moment arrives, then presses his finger, and exposes the plate for the instant required to take the likeness. When a regular series of views in rapid succession are required, the hand-key is replaced by an insulating barrel, set round with metal contact-pieces like a commutator, and these pieces make contact with a contact-spring as the barrel revolves by clockwork. These metallic pieces are made of a triangular form, so that, when a short exposure is required, the spring is placed so as to rub over them towards the apices of the pieces; and, when a longer exposure is required, it is caused to rub over them near the bases. The metronome, or automatic mercury current-interruptor, of M. Gaiffe is also applicable to this camera as an automatic key.

HOSPITAL SATURDAY FUND.

A MEETING of the board of delegates of the above fund took place last week at the offices in Fleet Street, to consider the correspondence relating to the scheme of life-governorships, to receive reports from life-governors appointed last year, and to determine the amounts to be distributed amongst the hospitals and dispensaries as the result of the street and shop collection in September last. Mr. H. N. Hoare, the treasurer, presided. Mr. Dickinson moved the following resolution: "That this board concur in the steps taken by the president and vice-presidents in respect of life-governorships, and desire to express their gratification at the general approval by the press of the proposal to secure for the working-classes a fair representation upon the board of management of the various hospitals and dispensaries of London." He stated that it was satisfactory to note that about thirty hospitals had assented to their board appointing representatives. An equitable and just representation would, in his opinion, vastly increase the means at the disposal of hospitals. Mr. Farquhar, the treasurer of the Chelsea Victoria Hospital for Children, seconded the motion, which was discussed at some length, and eventually agreed to.

THE MINERAL WATERS OF FRANCE.

AT the request of the Academy of Medicine of Paris, the Ministry of Public Works in France has made out a correct list of all the mineral springs now being used in that country; and it appears that there are no fewer than 1,027 actually in working order. Of these, 641 are hot springs, having a temperature over 15 degrees Réaumur, and the remaining 386 may be called cold, as not attaining to that degree. They are divided into four classes: the alkaline, numbering 357; the sulphurous, numbering 318; the saline, 215; and the ferruginous, 136. The quantity of water emitted by them all is estimated at no less than 46,412 litres a minute, which would give an average of 45 litres a minute to each spring—enough to provide a good many dozens of bottles in the course of even a week. The springs have been very equally distributed by the beneficent hand of Nature over most parts of the country; and there are only 23 departments in all which are destitute of such a convenience. These, however, include many of the departments nearest to our shores, and most frequented by the holiday-seeking Briton. One of the departments, Puy de Dome, has alone as many as 94 springs. Of the others, those which boast the most are in the mountainous districts, such as the Vosges and the Pyrenees, which, though only 64 in number, attracted as many as 44,476 invalids last year.

THE MEDICAL PROFESSION AND ALCOHOL.

A DISTINGUISHED medical man, a total abstainer, writes to us:—"An ardent clerical advocate of total abstinence is reported to have brought a sweeping charge against the medical profession at a recent conference, denouncing in wholesale fashion the mischief and the intemperance caused by medical men prescribing intoxicating liquors to their patients. No accusation could be more unfair. It is easy to make such assertions, but it is exceedingly difficult to disprove them. Whatever basis of truth there might have been in

such a statement in time past, there can be little doubt that it is not well founded as regards the present. There have always been men in the profession who were not in the habit of prescribing alcoholic stimulants, and there are about three hundred members of the Medical Temperance Association, with at least as many more outside its ranks, who are personal abstainers. For many years, no louder voice has been heard denouncing the indiscriminate prescription of alcohol, than that which has proceeded from the members of the profession themselves. The present cautious and guarded manner in which alcohol is very generally ordered therapeutically, is a proof that the sympathy of medical practitioners is with the temperance reform. This improved and creditable state of things has been in a large measure brought about by the impetus given to the cause of temperance by the aid of the well-known medical declaration, originated in a proposal made by the Editor in the JOURNAL, and which emanated from Mr. Ernest Hart and Mr. Robert Rae—a declaration which was signed by most of the hospital-physicians and surgeons in the metropolis. Such reckless charges can only retard the progress of the beneficent temperance movement, and it may be hoped that they will be avoided for the future."

THERAPEUTIC EXPERIMENTS.

AT the monthly meeting of the Board of Directors of the Manchester Royal Infirmary, Mr. J. W. Maclure in the chair, the minutes of the Infirmary House Committee contained a report from the Medical Board with regard to a letter containing an offer of £1,000 for experiments as to the use of alcohol. The offer came through the Rev. Dr. Dawson Burns and Mr. T. Cash, both of London. The medical staff had unanimously disapproved of the scheme laid before the Infirmary Committee for the investigation of the effects of alcohol in the treatment of disease, for the following reasons. "First, the conditions necessary for arriving at a trustworthy conclusion as to the value of alcohol by the proposed scheme cannot possibly be realised; and, therefore, any conclusion arrived at, whether in favour of or against alcohol, must lead to a disastrous practice, either by an undue extension or curtailment of the use of any drug. Secondly, alcohol, in its various forms, is given in this hospital as a medicine, and not as an article of diet. As a medicine, it is of great value in the treatment of disease, and at times essential for the saving of life. This being so, they can only consider the course suggested in the letter submitted to them as an experiment which involves the lives of their fellow-creatures, and cannot, therefore, be countenanced." The Committee resolved that the resolution of the Medical Board be adopted, and the Board confirmed this resolution. This is turning the tables in rather an amusing manner.

HABITUAL DRUNKARDS' ACT.

AT a meeting of the Board of Guardians, held recently at Newcastle-upon-Tyne, this subject was brought forward by Mr. E. A. Hedley, and the following resolution was passed: "That this Board, being deeply impressed with the necessity of provision being made for the more stringent dealing with habitual drunkards, do memorialise the Local Government Board to take such steps as will lead to the law being so amended as to give power to local authorities, or boards of guardians, to establish and maintain inebriate retreats, either in connection with existing workhouses or asylums, or in separate establishments, as may be thought most desirable; and, further, that power be given to magistrates to commit habitual drunkards to such retreats, with or without their consent, provision being made for the recovery of the cost of their maintenance, when it is ascertained that persons restrained have means for their own support, or that there are relatives or guardians who, under existing laws, are liable and able, wholly or partially, to maintain them. And it should also be pointed out to the Local Government Board that to prevent the Habitual Drunkards' Act from becoming inoperative, the restriction as to its time of duration should be removed." On November 26th, before the Darlington Board of Guardians, Dr. Eastwood, J.P., a member of the Committee of the British Medical Association on Legislation for Habitual Drunkards, proposed, and Mr. Wooler, J.P., seconded, that the above resolution be carried, and it was passed almost unanimously.

WESTON'S WALK.

WESTON, whose starting on a temperance walking tour of 50 miles a day for 100 days we recorded last week, has successfully accomplished 350 miles of his task under unusual difficulties. When he set out shortly after midnight on November 28th, he was suffering from a severe cold and was quite hoarse. His weight was 10 stone 6 lbs., pulse 84, and temperature 99.2°. The roads have been heavy and the rain literally soaking, for more than one half of the distance at present covered. Indeed, 120 of the first 200 miles were on the worst roads he has ever walked on in any country. A large part of his first 50 miles was over rough stones newly laid; and, to add to his discomfort, on the third day (Friday) the pedestrian, early in the morning, developed a large blister on the left heel, which rendered his march exceedingly painful and difficult, and did not improve till after a good rest and careful treatment on Sunday. The first stage of 50 miles was from London, *viâ* Hammersmith Wimbledon, Dorking, etc., to Croydon; the second, from Croydon, over the country, and back to Croydon; the third, from Croydon to Reading; the fourth, from Reading to Banbury; the fifth, from Banbury to Oxford; the sixth, from Oxford to Rugby; and the seventh, in a cricket-field at the last named town. At the close of each day's walk Weston delivered a lecture. At Chipping Norton Dr. G. W. Hutchison, on Monday, reported favourably on the pedestrian's condition. We are glad to note that the walker is now starting early in the morning, before four o'clock, and thus finishing each day's task in good time. Only by punctuality and regularity can an undertaking of such magnitude have a reasonable chance of success.

NARCOSIS BY CHLOROFORM, BY ETHER, AND BY NITROUS OXIDE

NEUDÖRFER (in the *Deutschr Zeitschrifte für Chir.*, Band XVIII.,) investigates the above, and comes to some highly important conclusions, which may be thus summarised. 1. Air cannot hold more than 20 per cent. of its bulk of chloroform-vapours at the ordinary temperature and pressure. 2. Chloroform acts as a poison upon the red blood corpuscles, but only slowly, even upon corpuscles at rest, whilst those circulating through the lungs are not long enough under its influence to be destroyed. 3. It has been found by Bernard Gréhaut, Hoppe-Seyler, and Hermann, that hæmoglobin has a greater affinity for carbon monoxide than for oxygen, and for nitrous oxide than for carbon monoxide. In other words, in presence of an excess of carbonic oxide the blood cannot absorb oxygen, and in presence of an excess of nitrous oxide the blood cannot take up either carbonic oxide or oxygen. Hoppe-Seyler and Gréhaut think that if the weakest of these gases (in their affinity for hæmoglobin) be previously present in excess, it hinders absorption of the gases of stronger affinity. As to this, the authors think that it does not hinder this absorption, but that the latter are thus rendered innocuous, and also that the affinity of hæmoglobin for oxygen is not constant, but varies within certain limits. 4. If to an individual, whose hæmoglobin has a relatively weak affinity for oxygen, we give to narcosis a mixture of 20 volumes of chloroform-vapour to every 80 volumes of air, he breathes a mixture holding 16 per cent. of oxygen instead of the usual 20 per cent. in the air, and it may happen that he may take up little or no oxygen, and the chloroform may exert its fatal effect. This is a simple and sustained method of explaining death by chloroform. 5. Now, arguing by analogy, since the very poisonous carbonic oxide can be rendered innocuous by the previous

presence of other gases in excess, it is to be presumed that in a mixture of chloroform-vapour *and oxygen*, the chloroform could not exert its evil effects upon the blood-corpuscles. 6. There would be no danger of oxygen-poisoning, for the quantity given would be within the limits of the variations of oxygen taken up in nasal respiration. 7. The bad after-effects of chloroform would be done away with. 8. Twenty per cent. of choloform-vapour would be unnecessary, since three to five per cent. are quite enough. 9. As to ether, it can be mixed up with oxygen up to 43 per cent., but it cannot compete with chloroform, because it possesses no constant chemical constitution, and its behaviour to human tissues is more prejudicial than that of chloroform. 10. The mixture of nitrous oxide and oxygen acts equally as well as the chloroform and oxygen mixture. 11. Oxygen is easily administered by Limousin's apparatus. 12. Narcosis thus caused is absolutely devoid of danger.

WESTMINSTER HOSPITAL.

THE extensive alterations and improvements in the wards of Westminster Hospital which the governors decided in 1877 to effect, and which were successfully carried out at a cost of upwards of £16,000, are to be followed by equally important improvements in the out-patient department. The committee, which have had this matter under consideration for the last seven years, have determined that the time for carrying these improvements into effect should be no longer delayed. Four years ago, when presiding at a festival of the hospital, the Prince of Wales called attention to the improvements which were necessary in the out-patients' department. He said:—"Besides other drawbacks, the rooms were too small, and, being in the basement, too dark. The medical school-buildings were too small, and a larger surgery for the treatment of street-accidents and more accommodation for resident officers and nurses was required. The utmost had been made of the space belonging to the hospital, and there was only one way in which the improvements in question could be carried out—namely, by buying a small site near the hospital." The site, the acquisition of which his Royal Highness spoke of as a necessity, has now been obtained for the moderate sum of £4,500, the lecturers of the medical school having very generously contributed £1,000 towards the amount. The governors are of opinion that a site being thus secured a medical school should be built upon it at the earliest possible period, and as soon as this is accomplished the ground belonging to the hospital, which is at present occupied by the medical school, will be available for the urgently needed improvements in the out-patients' department. It is estimated that the cost of the site and the building will not be less than £12,500. An influential committee has been appointed, including the Right Hon. the Lord Mayor, M.P., His Grace the Duke of Buccleuch, K.G., the Very Rev. the Dean of Westminster, the Right Hon. the Earl of Derby, the Right Hon. the Speaker of the House of Commons, the Right Hon. W. H. Smith, M.P., Mr. Baron Pollock, etc., with His Grace the Duke of Westminster, K.G., as treasurer; and hope is expressed that this amount for so important an object will speedily be forthcoming. The Westminster Hospital Medical School was founded in 1834, and the present is looked upon as a favourable time for making this new effort, as next year will be the jubilee, not only of the school, but of the removal of the hospital (founded in 1719) to its present site in the Broad Sanctuary.

EXPLOSIVE OIL-LAMPS.

ACCIDENTS by fire may be classified in two principal groups—those of which the causes are preventable, and those of which they are not. The former section will be generally admitted to be the larger, and it is capable of minute subdivision by its numerous varieties of causation. A volume would be required to detail them all; but some, from their common-place character, are especially noteworthy, and readily suggest their own remedy. Among these is one which deserves comment, not only from its frequent and close connection with loss of property, but because it even more nearly and more naturally affects our personal safety. This is the habit of using explosive oil in lamps. The oil hitherto particularly accountable is that known as benzoline. It is a good deal used by the poorer classes, on account of its cheapness, thriftiness, and the ease with which it can be applied to lighting purposes; and is designed merely to saturate the wick, and not to act as a reserve supply within the body of the lamp, like paraffin. Its great disadvantage is its explosiveness; and the danger arising from this quality is increased by the temptation, too often yielded to, to partly fill the lamp-cavity with it, so as to obviate the trouble of frequently anointing the wick. Such a substance clearly should not be used but by careful hands, yet it is precisely among those who are driven with housework, who are much about fire-places, as cooks and housecleaners, that one finds it. Add to this, that the ordinary small benzoline lamp is, from its great lightness and its conical shape, very apt to be upset, and it does not require much reasoning to show that we have here all the requisites for an accident, except the final trifle of carelessness or forgetfulness which shall act as the spark to the magazine. We have observed that care is necessary in handling such materials, and, in so saying, we have only uttered an evident fact. But it is very doubtful if they need be used at all. The light of such small lamps is little, if at all, better than an ordinary candle; both are alike economical; in point of cleanliness, there is little to choose; and the dangers of the benzoline method manifestly overbalance its apparent advantages. If a lamp be used, let it be stable; have its flame protected in every possible instance with a shade, and be fed with some non-volatile and non-explosive oil, such as paraffin.

THE PROPOSED WHARF AT ROTHERHITHE.

SINCE last April, the Asylums Board has been endeavouring to obtain a wharf at Rotherhithe; and this is necessary for the landing of patients from the hospital-ships, and taking them to the ships from the ambulances. The local authorities raised the objection that the proposed purchase was dear, and that it would intensify the trouble the district had from the existence of the Deptford Asylum for Small-pox. The people had sent their complaints to the Local Government Board, who had sent them to the Asylums Board, with a request for the observation of the managers. Sir Edmund Currie showed that the proposed alternative site at Greenwich was valued by the proposed seller at nearly £12,000 an acre, without any buildings—a price about double that to be given for the original site, which has admirable buildings upon it, to be included in the purchase; and that, while the Rotherhithe site leads to thoroughfares almost entirely devoid of houses, that at Greenwich, besides being near a factory, and farther for the patients to be carried, was reached only by traversing miles of comparatively narrow streets, filled with houses containing a vast population. Sir Edmund said that it was a "little wearing" to have these constant references back from the Local Government Board, and hoped that the inspector would show that there was no reason for further delay, if the Asylums Board was to discharge its important duties. He also showed the deputation that the managers proposed to lessen the numbers in the Deptford Asylum, which, he said, had been a "godsend" to South London.

THE LATE DR. HILTON FAGGE.

THE funeral of the late Dr. Hilton Fagge took place on Saturday last. The relatives, and a large number of friends of the deceased physician, followed the body from the residence in Grosvenor Street in twenty carriages to the cemetery at Norwood, where many other friends, and most of the present students of Guy's Hospital, were assembled. Probably 300 or 400 were present at the interment. The hearse was completely covered with wreaths of beautiful white

flowers, sent as tokens of esteem from Dr. Fagge's wide circle of friends. The service was impressively conducted by the officiating minister. Amongst those present at the cemetery, besides Dr. Fagge's relatives, were Sir W. Gull, Dr. Wilks, Dr. Pavy, Dr. Moxon, Dr. Pye-Smith, Mr. Birkett, Mr. Durham, Mr. Howse, Mr. Davies-Colley, Mr. Bader, Mr. Higgens, Dr. T. Stevenson, Dr. Ord, Dr. F. Semon, and many other well-known teachers of other Metropolitan schools than Guy's Hospital. We omitted to mention last week that Dr. Fagge, at the beginning of his illness, some months ago, first consulted his friend, Dr. Hermann Weber, from whom he received the kindest professional advice. The week which has elapsed since publication of our obituary notice of Dr. Fagge, has only served to bring into stronger relief the knowledge which is entertained by the profession generally of the very great loss which it has sustained from his too early death.

SCOTLAND.

THE weather in Scotland during the past week has been of a very wintry nature, its chief features being snow and sleet, with wind and heavy rain. In many districts the hills are covered with snow.

FOOT-and-mouth-disease has again made its appearance in several parts of Scotland. This fresh outbreak is thought to be due to laxity of supervision at the Irish ports, the disease being still very prevalent in Ireland.

THE hospital and dispensary in Cambridge Street, Edinburgh, formerly devoted to the eye and ear, has been extended by the addition of a throat department. The medical staff is as follows: *Consulting-Surgeon:* Mr. Joseph Bell. *Surgeons:* Drs. Kirk-Duncanson and Hunter-Mackenzie, and Mr. Maxwell Ross. The hospital is open for clinical instruction to practitioners and students.

DEATH FROM PHOSPHORUS-POISONING.

THE death of a girl, aged 2½ years, is reported from Lenzie, and everything points to its being a case of poisoning from sucking the phosphorus off matches. Some days previously she had been playing with a box of matches, and it was observed that the phosphorus had been sucked off several of them. Symptoms of poisoning showed themselves a few days afterwards, and she died in considerable suffering, after a short illness.

UNIVERSITY OF ST. ANDREW'S.

IT is reported that some time ago Lord Selborne wrote to a student in the University of St. Andrew's, that there was no law under which Mr. Russell Lowell could act as Lord Rector; and that that letter has only recently been made public; and that Mr. Lowell, who was last week elected Lord Rector, has been asked to withdraw. Mr. Mallock has been invited to again stand; and Bishop Wordsworth is mentioned as a probable candidate.

HEALTH-STATISTICS OF SCOTCH TOWNS.

AMONG the recent reports of the medical officers of health for the various towns, we observe some very low death-rates. Thus, Kirkintilloch has a death-rate of only 4.8 per thousand, *per annum*, and Helensburgh 13 per thousand, which is nearly, if not absolutely, the lowest of any watering-place in the kingdom. Such statistics seem to prove the salubrious character of Helensburgh as a watering-place, and its value as a health-resort.

LEITH SOCIETY FOR RELIEVING THE DESTITUTE SICK.

THE annual meeting of the Leith Institute Sick Society was held last Tuesday. The report was submitted by the Secretary, who stated that, in consequence of the severe weather last winter, the demands upon the charity were heavier and more numerous than in the previous year. The number of families relieved represented 530 adults, and 437 children; while £93 5s. 6d. had been disbursed in weekly payments, and £33 1s. for meal and groceries. The expenditure for the year was slightly in excess of the income.

GLASGOW RECTORIAL ELECTION.

AS regards the protest against the return of Mr. Fawcett, on the ground of his holding a professorship in an English University, it has been definitely decided by the Conservatives to test the case in the Court of Session. Should it be declared that Mr. Fawcett cannot assume the office, it is not improbable that Lord Bute's claim will also be disputed, under the Emancipation Act of 1829, which prohibits Roman Catholics from holding any position in a university. We think it a matter of regret that, with the election, all differences were not laid aside, and the result of the polling cordially acquiesced in. Mr. Fawcett has already written a letter of thanks to the students of the University, thanking them for electing him Lord Rector, and he has promised to address them ere many months have passed.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General for the week ending November 17th show that the death-rate in the eight principal towns during the week was 23.7 per 1,000 of estimated population. This rate is 2.1 below that for the corresponding week of last year, and 2.6 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 14.3 per 1,000; and the highest in Glasgow—viz., 29.3 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.6 per 1,000, or 0.1 above the rate for the previous week. Acute diseases of the chest caused 148 deaths, being an increase of 57 on the number recorded during the previous week. The mean temperature was 37.4°, being 4.3° below that for the week immediately preceding, but 1.3° above that for the corresponding week of last year.

UNIVERSITY OF GLASGOW.

EVER since the removal of Glasgow University to its present site on Gilmorehill, careful watch has been kept over the old premises of the College in the High Street, as it was resolved to have some memento of the former structure incorporated, if possible, with the new buildings. Now that the work of demolition is almost complete, it has been resolved to remove and reconstruct the old college-gateway, under which so many generations of students have come and gone; and the site selected for its erection is the very appropriate one of the University Avenue on Gilmorehill. The whole expense connected with the undertaking has been very generously promised by Mr. W. Pearce; and thus there will be preserved one of the few objects of antiquarian interest in Glasgow, and a structure intimately associated with the past history of the University.

WATER-SUPPLY OF GLASGOW.

ABUNDANTLY supplied as Glasgow is with a pure and excellent water, the authorities have decided to increase the present water-store by erecting a new extra service reservoir, so that with the present reservoir, there would be nearly thirty days' supply available

days, so that should any interruption take place in the piping leading the water from the loch, no inconvenience would be felt in the city, and there would be ample time for carrying out repairs.

FISHERY BOARD SCIENTIFIC INVESTIGATION.

As already mentioned in the JOURNAL, the Scotch Fishery Board, with the sanction and assistance of the Government, determined some time since to make an effort to obtain, by methodical scientific research, some definite knowledge of the life and habits of our food-fishes. The Scientific Investigation Committee, of which Professor J. Cossar Ewart is convener, has just issued a short preliminary report, which is to be followed later on by a more exhaustive one. The present report is full of interest, and deals chiefly with the life-history of the herring, its growth during the early stages of its development, its food, its migrations, and the conditions under which its spawn are deposited. The researches of the committee indicate clearly our lack of knowledge on all these points; and the herring seems not to be a solitary instance of this condition of things, for the committee tell us that, as their work proceeded, they became more impressed with the fact that "almost everything has still to be learned regarding the habits and life-history of our food-fishes." This being so, the value of the present line of inquiry should be at once recognised by Government, and every assistance rendered to the Committee, especially in the way of supplying them with the needful funds. We shall await with interest the fuller report which the committee promise, giving a more detailed account of the autumn's work and the results obtained.

HEALTH OF THE PRINCIPAL SCOTTISH TOWNS.

DURING the month of October, there were registered in the eight principal Scottish towns the deaths of 2,185 individuals, of whom 1,069 were males, and 1,116 females. After making due allowance for proportional increase of population, this number is 111 below the average for the same months during the preceding ten years. The respective mortality of each town was, per 1,000 of its population, at the annual rate of 15 in Perth, 17 in Aberdeen, 18 in Edinburgh, 19 in Leith, 21 in Dundee and Greenock, and 23 in Glasgow and Paisley. Of children under five years of age the deaths of 887 were recorded, or 46 per cent. of the entire mortality; and the percentage of the individual towns was 23 in Perth, 34 in Aberdeen, 35 in Edinburgh, 37 in Leith, 41 in Paisley, 42 in Glasgow, 46 in Dundee, and 50 in Greenock. Zymotic diseases caused the deaths of 353 persons, or 16.2 per cent. of the entire mortality. In Glasgow and Edinburgh, however, this rate was exceeded, the rate in those towns being 18.1 per cent. Diarrhœa caused 81 deaths, or 3 per cent. of the whole. Fever caused 46 deaths, and of these 6 were registered as due to typhus, 36 as due to enteric, and 4 as simple continued fever; 4 of the deaths from typhus occurred in Glasgow, 1 in Edinburgh, and 1 in Aberdeen. Scarlet fever caused 59 deaths, diphtheria 48, whooping-cough 44, croup 28, measles 18, metria 6, and choleraic disease 1. To apoplexy were attributed 41 deaths, to paralysis 60, cardiac diseases 127, hydrocephalus 48, and premature birth debility 67 deaths. Phthisis pulmonalis alone caused 253 deaths, or 11.6 per cent. of the entire mortality, while inflammatory affections of the respiratory organs, other than those already mentioned, caused no less than 454 deaths, or 20.8 per cent. of the whole number of deaths. Of 95 deaths due to violent causes, 5 were of suicidal origin. One male and 5 females died over 90 years of age, the 2 eldest being females, each 98 years of age. During the month the births of 3,722 children were registered, 1,906 being males, and 1,816 being females. As to meteorological conditions, there was nothing specially noticeable. The mean barometric pressure was greater by 0.001 inch, and its monthly range greater by 0.093 inch. The mean daily temperature was greater by 0.2°, and its mean daily range greater by 1.1°; the mean humidity was less by 3; the rain in number of days less by 3, and in depth less by 0.62 inch, while the wind pressure was greater by 0.09 lb. than the average for the same month during the preceding twenty-six years. The highest mean temperature was at Leith, the lowest at Dundee.

EDINBURGH MEDICAL MISSIONARY SOCIETY.

THE annual meeting of the Edinburgh Medical Missionary Society was held last week. The chairman, at the opening, paid a warm tribute to the memory of Mr. Benjamin Bell, who had been a zealous supporter of the Society for forty years. Mr. Craigie Bell submitted the abstract of the accounts, which were as follows: Charge. Balance from last year: 1. Balance in bank, etc. £45 3s. 10½d.; 2. Investment at close of account (principal for special objects), £3,045 6s. 8d., £3,090 10s. 6d.; subscriptions, etc., received during the year, £3,637 10s. 9½d; legacies received, £5,250; total, £11,978 1s. 3½d. Discharge: Expenses of Training Institution and Dispensary, £2,590 11s. 11d.; diffusion of medical missionary information, £211 13s. 3d.; expenditure on foreign missions in connection with Society, £1,437 13s. 3d.; repayment of bond over Cowgate premises, and interest and expenses, £553 12s., etc., leaving a balance in the bank of £56 14s. 11¼d. The superintendent of the mission, Mr. Lowe, presented the directors' report, which began by referring to the death of the late lamented secretary, Mr. Benjamin Bell, and of Dr. Alex. Smith, who was elected a director in 1877. The Training Institution and dispensary work had been carried on from day to day with increasing encouragement and success, the patients registered on their first visit being 5,656; visited at their own homes, 2,950; midwifery cases, 290; vaccination cases, 269; total, 8,165. During the year four of their students received medical missionary appointments.

ABERDEEN UNIVERSITY COURT.

THE University Court of the University of Aberdeen met on the 20th of November to consider an appeal by the medical students of the third and fourth years against a decision by the Senatus regarding examination in pathological anatomy. Up to this time all candidates for degrees in medicine were required to undergo examination in general pathology as one of the subjects, but as there was no chair of pathology until Sir Erasmus Wilson recently founded one, the students had to obtain a knowledge of general pathology as best they could, from the Lectures of the Professor of Practice of Medicine and those of the Professor of Institutes of Medicine, from the extramural lecturer (Dr. Rodger), and from the results of *post mortem* examination in the infirmary. The students asked the opinion of or petitioned the Senatus that there should be no separate examination in pathology, or pathological examination, and that it should be examined upon along with practice and medicine. The Senatus gave it as their opinion that there should be a separate examination on pathological anatomy—*i.e.*, that the greater includes the less, viz., that general pathology includes pathological anatomy. The University Court found that the students were entitled to be examined under the system in force at the time they began their medical studies. In February, 1883, a new ordinance was obtained whereby examination and attendance upon pathological anatomy were rendered compulsory. It is quite clear that the students are under the old ordinance, and that the decision of the University Court has settled nothing. The body which has the arrangement and conduct of the examinations is the Board of Examiners; and, in our opinion, any petition on the subject, or arrangement of the examinations, ought to be laid before the medical examiners. The decision of the Court was arrived at by the casting vote of the chairman, Dr. Bain, the Lord Rector. The Senatus was not represented as there seemed to be some misunderstanding; and, in fact, it would seem that the Senatus officially knew nothing of the appeal. In spite of this, the Lord Rector also, by his casting vote, determined

that the appeal should be heard. It cannot be said that the University Court has cleared up the matter, although it has brought it to where it started more than a year ago. The result will be, we think, that it will be found that the Board of Examiners is the responsible body, and that any petition from the students ought to be directed to that body. However, the Court meets on the 30th of November, when doubtless the Senatus will state its case.

IRELAND.

It has been determined to erect a disinfecting-chamber at Kingstown, seven miles distant from Dublin; but the site selected—viz., close to the town-hall—has created a good deal of dissatisfaction, as it is generally thought that it is unsuitable for the required purpose.

MEDICAL OFFICER TARNE DISPENSARY.

At the second election for medical officer to this dispensary, Dr. Killen was elected by a majority of three votes over Dr. Wheeler. The voting was equal at the previous election.

BELFAST HOSPITAL SUNDAY.

On last Sunday, collections were held in sixteen churches in Belfast, in aid of the funds of the Belfast Royal Hospital. Collections for the same purpose will be held on subsequent Sundays in other churches belonging to the Belfast district. The amount received last year came to £547.

BELFAST DISTRICT ASYLUM.

At a Meeting of the Board of the Belfast District Asylum, on November 12th, it was unanimously resolved to appoint an Assistant Resident Medical Officer, and to discontinue the office of Visiting Surgeon, which was held by the late Dr. James Moore. The salary to be attached to the appointment will be £150 a year, with apartments, coal, gas, attendance, &c., but not including board.

HOSPITAL FOR PHTHISIS IN BELFAST: MR. FORSTER GREEN'S GIFT.

At a meeting of the General Committee of the Belfast Royal Hospital, held last Monday, the question of utilising the handsome donation of £5,000 promised by Mr. Green towards the erection of an hospital for consumptive patients came under consideration. It appears that a special committee was appointed to confer as to the best way in which the gift could be used, and the result they came to was that at the Throne Hospital—in that portion which had been set aside for convalescent patients—there was ample accommodation for about forty or fifty consumptive patients; and although it perhaps was not the best site that could be selected in Belfast, yet it was well adapted for the purpose, and could be made as perfect for the reception of those patients as any building would be. As regarded the question of expense, it was found that to maintain forty patients in the convalescent home it would require at least the interest on a capital sum of £25,000. The majority of the Committee and the Board of Management of the Belfast Royal Hospital are of opinion that it would be proper to utilise as much of the money as possible, not going beyond the capital sum raised. The honorary secretary of the hospital has offered £500, and some others £350, so that a sum of nearly £6,000 may be said to be available for the necessary purpose, which it is absolutely certain will be increased very considerably.

MARRIAGES IN IRELAND IN 1882.

In the vital statistics of a civilised country, the proportion of marriages to population is a very important factor. With certain well understood qualifications, the marriage-rate and the birth-rate of a people go together. From the annual report of the Registrar-General for 1882, it appears that the past year in Ireland was no exception to its recent predecessors, in regard to the decline of population. While the Irish abroad are proverbially a fertile race, they are relatively unprolific on their native soil. We learn from a contemporary that the most recent statistics show that, in Ireland, marriages are few in proportion to the population; they take place late in life, and the number of children born is fewer than, on general considerations, would be expected. A good many marriages in Ireland escape registration, owing to the laxity which prevails in carrying out the regulations of the law. The Registrar again complains, as in former years, that while the Roman Catholic clergy do their best to carry out the law, their good intentions are, in great degree, frustrated by the neglect of husbands (upon whom the duty devolves) to take the priest's certificate to the registration office. Even allowing, however, for a good many probable omissions from this cause, it still remains true that the Irish in Ireland are not a marrying people. The marriages registered were 22,029, which gives a proportion of 4.32 to every thousand of the population. This is very much lower than the marriage-rate of any other country whose statistics are available. It is due, no doubt, in some degree, to the great emigration which takes place every year of young people, who, it is natural to suppose, would have married if they had stayed at home. The number of emigrants from Ireland in 1882, so far as could be ascertained, was 89,136, the sexes being pretty equally proportioned, and of these 74.8 per cent. were between 15 and 35 years of age. The departure of this large number of young people does, no doubt, affect the marriage-rate very considerably. It is not possible to tabulate Irish marriages strictly according to age, the requirements of the law in regard to statement of this particular being inadequately enforced, but the experience of former years seems to be confirmed, that the average marrying age in Ireland is considerably later than in England and Scotland.

THE DENTAL HOSPITAL OF IRELAND.

The opening meeting for the current session was held in this Hospital last week. Sir John Lentaigne, C.B., presided. Mr. Arthur Baker, M.B., dental surgeon to the hospital, gave an interesting address on the antiquity of the art of dentistry, and the progress it had made. To the French surgeons, according to Mr. Baker, was due the credit of having, by their writings, placed the treatment of diseases of the teeth upon a scientific basis. After them came John Hunter. The Dublin School of Medicine had also performed its share of the work, for one of its members, Dr. Robert Blake, towards the end of the last century, published an excellent treatise upon the structure and treatment of teeth. From the report, which was then read, we learn that the total number of operations performed for the year 1882 was 5,205, an increase of nearly fifteen per cent. over the total number for 1881. The balance-sheet showed a larger deficit than it did at the close of the year 1881, but this is accounted for by the cost of appliances necessary for use in the hospital. The total amount of annual subscriptions has increased, and the working expenses of the institution are less than those of the previous year. The adoption of the report was moved by Dr. Barton, and seconded by the Rev. Dr. Haughton in a characteristic speech. The Right Hon. Lord Justice Fitzgibbon proposed, "That the Dental Hospital of Ireland is worthy of the confidence and support of the public." His lordship pointed out that a large number of children, who would never have been able to obtain the assistance which they required, received at the institution all the treatment and consideration that would be given to the richest person in the land, who would pay a high fee. It was a privilege to the employers of labour to be able to subscribe to a place where those in their employment could obtain skilful and proper treatment. It was not much to ask the heads of large establishments, and the heads of households, to give their support to the institution. Five thousand two hundred and five patients had been treated there during the year, and the ex-

penses for the same period amounted to only £170. Thus, for about 8d. each, the gratuitously given services of some of the most distinguished dentists had been extended to the poor of the city. Professor Bennett seconded the resolution. He directed the attention of those present to the function of the institution as a school of dentistry. They had ample proof of this in the fact that pressure had been brought upon the leading surgical body in the city to found a dental chair in connection with it. A cordial vote of thanks having been passed to the staff of the hospital, the proceedings then terminated.

THE DUBLIN MEDICAL STUDENTS' CLUB.

THE first annual general meeting of this Club was held in the Club Rooms, 113, Stephen's Green, on Saturday evening last, the chair being taken by the President of the Club, John K. Barton, Esq., M.D., ex-President Royal College of Surgeons. The committee presented their report, which showed the Club to be in a most satisfactory condition, being clear of debt, and having acquired a considerable amount of valuable furniture. That the Club was a necessity, and that it has been very largely availed of, may be inferred from the fact that upwards of £400 have passed through the treasurer's hands during the nine months it has been open. The report was unanimously adopted, and the election of officers and committee was next proceeded with. Surgeon Wheeler, President of the Royal College of Surgeons, was unanimously elected President of the Club, and took the chair, which was vacated by his predecessor in office, who received a most cordial vote of thanks, to which he gracefully responded. The following gentlemen were elected. Vice-Presidents: D. J. Cunningham, M.D., F.R.C.S.I.; William Thornley Stoker, M.D., F.R.C.S.I.; John Kellock Barton, M.D., F.R.C.S.I.; William Stoker, M.D., F.R.C.S.I.; and F. B. Quinlan, M.B., F.K. and Q.P.I. The committee for the ensuing year was then selected from the candidates sent in by the various schools, and Messrs. O'Brien, Ledlie, Greig, Donnellan, Drake, Hamilton, Ternan, H. Stoker, Dowling, and J. Whelan, were chosen. A vote of thanks to the Chairman, to which Surgeon Wheeler replied in the happiest manner, concluded the proceedings.

THE ROGERS TESTIMONIAL.

THE following additional subscriptions to the fund for a testimonial to Dr. Joseph Rogers have been received. It should be understood that the subscription to this fund is not confined to Poor-law medical officers. The Treasurer is Mr. J. Wickham Barnes, 3, Bolt Court, Fleet Street, E.C.; and subscriptions are received by the Editor of the BRITISH MEDICAL JOURNAL.

Fifth List.—Dr. Gramshaw, Gravesend, £1 1s.; James Crocker, Esq., Bingley, 5s.; J. B. Bromley, Esq., Castle Headington, £1 1s.; J. Sadd, Esq., Rugby, £1 1s.; Dr. Woodhouse, Hertford, 10s. 6d.; Dr. Young, Aldershot, £1 1s.; B. D. Taplin, Esq., Market-Rasen, £1 1s.; T. Taylor, Esq., Bocking, £1 1s.; Dr. Matcham, Southwark, £1 1s.; G. Evans, Esq., Bridport, 10s. 6d.; W. Martin, Esq., Walkden, 10s.; R. Fothergill, Esq., Bedale, Yorkshire, 10s. 6d.; G. T. Willan, Esq., Melton Mowbray, 10s. 6d.; A. B. Simpson, Esq., Birmingham, £1 1s.; James Crisp, Esq., Lacock, 10s. 6d.; J. Odell, Esq., Hertford, £1 1s.; Dr. Collyer, Enfield, 10s. 6d.; R. Davison, Esq., Newburn-on-Tyne, £1 1s.; J. H. Steele, Esq., Abergavenny, 10s.: J. Vallance, Esq., Stratford, Essex, £1 1s.; E. Marshall, Esq., Mitcham, £1 1s.; C. Macnamara, Esq., Grosvenor Street, £1 1s.; Dr. Grove, St. Ives, 10s.; M. Balding, Esq., St. Albans, 10s. 6d.; A. Roper, Esq., Croydon, £1 1s.; Dr. Woodward, Worcester, £1 1s.; Dr. Pitt, St. George's-in-East, £1 1s.; Dr. Pearse, Botesdale, 5s.; Dr. Walford, Reading, 5s.; E. Young, Esq., Steyning, Sussex, £1 1s.; Dr. Fairlie Clarke, Southborough, £1 1s.; H. E. Norris, Esq., Sidmouth, £1 1s.; Dr. Orton. Crouch End, £1 1s.; W. G. Marshall, Esq., Colney Hatch, £1; Dr. J. Watson Ardwick, 10s. 6d.; H. Stear, Esq., Saffron Walden, 10s. 6d.; Dr. John Thompson, Bideford, £1 1s.; Francis Vacher, Esq., Birkenhead, £1 1s.; Dr. W. Wyke Smith, Wimborne, 10s.; Lancelot Newton, Esq., Alconbury Hill, £1 1s.

PROPOSED MEDICAL PROVIDENT ASSOCIATION.

THE Draft rules and tables for the proposed Medical Provident Association have been drawn up after careful consultation with experienced authorities, and are now under revision by an eminent actuary. The gentlemen who, at Liverpool and subsequently, consented to act as members of a Provisional Committee are requested to meet at the office of the Association, 161A, Strand, at 5 o'clock, on Tuesday next, December 4th, when the draft documents will be submitted for preliminary consideration.

HOUSING OF THE POOR.

THE important suggestions which Lord Grey has recently made for remedial legislation concerning the habitations of the poor, require to be supplemented in the first instance by the observation that he appears to be unaware of the extent to which the existing powers anticipate his proposals. He proposes that the principle of the law relating to common lodging-houses should be extended to houses of the kind usually occupied by working men. I am not sure whether he is aware that every local authority in the country may, on application to the Local Government Board, be clothed with power to fix the number of persons who may occupy a house or part of a house, which is let in lodgings or occupied by members of more than one family, and to enforce the cleanliness and wholesomeness of such houses. More than one conference was held, last season, in the metropolis, on this question of tenement-houses, and the practical outcome of them was a recommendation that the powers thus conferred by the legislature should be more generally availed of. The model by-laws prepared by the Local Government Board with regard to this matter, practically anticipate in this respect Lord Grey's proposals, though they do not, of course, solve the whole question of the housing of the poor.

The main proposal in Lord Grey's letter seems to be to make the owner (*i.e.*, immediate lessor) of property let in tenements responsible that that property shall not be used by the tenants in a manner prejudicial to public health or decency. The second proposal is, that it should be a duty of the local authorities to see that the law for the time being in force as to such dwellings is carried out.

The second proposal, to substitute duty for power in these matters, would alone effect a great change. Local authorities are now practically left to decide for themselves whether they will do anything, and if so what, for the amelioration of the dwellings of the working classes. In the metropolis, the Metropolitan Board of Works can interfere to put the Artisans' and Labourers' Dwellings Improvement Acts in force, if the vestries or district boards neglect to do so. This power has been exercised, but not often. Outside London, there is no body entrusted with such powers, and the Local Government Board rather checks than encourages local authorities in proposing improvement schemes. The duties now imposed on local authorities by law are few, and relate chiefly to drainage and water-supply; the Acts which give them powers are nearly all permissive.

1. The main proposal would effect a great change. The only power of dealing criminally or quasi-criminally with unhealthy dwellings at present existing, is that which enables them in extreme cases to be dealt with as nuisances. The Public Health Act enables justices to impose a fine in case of a dwelling so overcrowded as to be dangerous to health. The person liable to the fine is generally the occupier, though the owner may be. He can be reached, however, by the power which a local authority possesses of closing premises which are persistently overcrowded.

2. The proposed change would extend this liability (1) by punishing overcrowding where it merely offended against decency, without being so bad as to be dangerous to health; and (2) by punishing the occupation of an unhealthy dwelling, although the inmates were not so numerous as to produce overcrowding. It would also impose the responsibility, at any rate in the first instance, on the owner instead of as at present on the occupier. This change, if carried out, would probably be very effective, as the class of persons made responsible would be reached by fines, he would not like to incur them, while the lower class of tenants do not care much for them. If the change be made, it might be desirable to consider whether, in the case of non-resident owners, the agent who collects the rents might not also be made liable to a fine if the premises remain in an improper condition Besides the power to fine the owner, which if

not carried too far, seems unobjectionable in principle, local authorities might well have their existing power of closing overcrowded houses extended, so as to enable them, without paying compensation, to close houses which remain unhealthy after the owner has been convicted for their being so.

3. There is a subsidiary proposal to entrust to the police the power of seeing that local authorities do their duty. This seems a mistake; and, though delay might be caused, still the proper authority seems to be a Government department, such as the Local Government Board, which at present supervises local authorities. The police might, perhaps, be instructed to report direct to the Board, and so put its inspectors in motion.

The letter omits to deal with the question of what is to be done with the people who are displaced when overcrowded or unhealthy dwellings are improved or cleared.

ERNEST HART, Chairman of the National Health Society.

UNIVERSITY OF CAMBRIDGE.

FROM and after the first day of January, 1884, the following will be the Regulations for the degrees of Bachelor of Medicine, Bachelor of Surgery, and Master of Surgery, respectively.

Degree of Bachelor of Medicine.—1. Students who have not graduated in Arts proceeding to the degree of Bachelor of Medicine, shall be required to pass the Previous Examination, or some other examination accepted by the University as conferring exemption from the Previous Examination. 2 Five years of Medical Study[1] shall be required of Candidates for the degree of Bachelor of Medicine, with the exception of Students who have obtained honours in any Tripos, in whose case four years of Medical Study shall be deemed sufficient. 3. As evidence of Medical Study in the University, the student shall produce certificates of diligent attendance in each term on courses of lectures, or Practical Instruction, in two of the subjects of the Examinations for Medical or Surgical degrees, or of diligent attendance in each term on a course of Lectures, or Practical Instruction, in one of those subjects, and also on the Practice of Addenbrooke's Hospital. 4. Medical Study out of the University shall, in all cases, be understood to mean study at some well known School of Medicine which shall have been recognised by the Special Board for Medicine. It shall be the duty of the Board to define, from time to time, what shall be sufficient evidence of such Medical Study. 5. There shall be three Examinations for the degree of Bachelor of Medicine. No Student shall be admitted to either part of the First of these Examinations until he has passed or obtained exemption from the Previous Examination; or, to either part of the Second Examination, until he has passed both parts of the First Examination; or, to either part of the Third Examination, until he has passed both parts of the Second Examination. 6. The Examinations for the degree shall be held twice in the year. The First and Second Examinations shall begin in the Michaelmas Term within the first fourteen days of December, and, in the Easter Term, within the first fourteen days of June, the date of beginning, in each case, being fixed and duly announced beforehand by the Special Board for Medicine. The Third Examination shall begin in the Michaelmas Term on the second Tuesday in December, and, in the Easter Term, on the second Tuesday in May. 7. The names of the Students who intend to present themselves for any of the Examinations for the degree of Bachelor of Medicine, shall be sent to the Secretary of Honours Examinations, by the Prælectors of their several Colleges (or, in the case of non-collegiate Students, by the Censor), not less than seven days before the beginning of the Examination: and no Student, whose name has not been so sent in, shall be admitted to the Examination, except by the special permission of the Regius Professor of Physic. The Certificates required to be produced before admission to any of the Examinations, shall be sent by the Candidates to the Secretary of Honours Examinations not less than two days before the beginning of the Examination; and it shall be his duty to examine the Certificates, and to ascertain that no one is improperly admitted to the Examinations, and to furnish the Examiners and the Registrary with a correct list of Candidates. 8. The Examinations shall be partly in writing, partly oral, and partly practical. 9. The names of the successful Candidates, in the several Examinations, shall be arranged in alphabetical order. 10. The Special Board for Medicine shall, from time to time, draw up and publish Schedules defining the range of the Examinations in Chemistry and other branches of Physics, in Elementary Biology, and in Pharmacy and Pharmaceutical Chemistry. 11. Every Candidate for the degree of Bachelor of Medicine shall be required to keep an Act in the Public Schools at some time after he has passed the Third Examination. 12. The day of inauguration of Bachelors of Medicine shall be the Tuesday immediately preceding the last day of the Easter Term. At the inauguration, the names shall be arranged in order of seniority as follows: (*a*) Those who have been Bachelors of Arts, arranged alphabetically; (*b*) other Bachelors Designate in Medicine, arranged alphabetically. 13. The Subjects of the First Examination shall be Chemistry and other branches of Physics, and Elementary Biology. The Examination shall be divided into two parts, one including Chemistry and other branches of Physics, and the other including Elementary Biology. The Student shall be allowed to take the two parts either together or separately. 14. The Student, before admission to the Examination in Chemistry and other branches of Physics, shall produce Certificates of diligent attendance on one course of Lectures in Chemistry, and on Practical Instruction in Chemical manipulations. 15. The Student, before admission or re-admission to either part of the First Examination, shall pay to the Registrary a fee of £1 11s. 6d. 16. The Subjects of the Second Examination shall be Pharmacy and Pharmaceutical Chemistry; Human Anatomy and Physiology. The Examination shall be divided into two parts, one including Pharmacy and Pharmaceutical Chemistry, and the other including Human Anatomy and Physiology. The Student shall be allowed to take the two parts either together or separately. 17. The Student, before admission to the Examination in Pharmacy and Pharmaceutical Chemistry, shall produce a Certificate of diligent attendance on one course of Lectures or Demonstrations in Pharmacy and Pharmaceutical Chemistry. The Student, before admission to the Examination in Human Anatomy and Physiology, shall produce Certificates of diligent attendance on one course of Lectures in Human Anatomy, and on one course of Lectures in Physiology; also a Certificate of having practised Dissection during six months at least, and a Certificate of having attended Hospital Practice during six months at least. 18. The Student, before admission or re-admission to either part of the Second Examination, shall pay to the Registrary a fee of £1 11s. 6d. 19. The Subjects of the Third Examination shall be, Principles of Surgery, Midwifery and Diseases peculiar to Women, Pathology, Principles and Practice of Physic, Elements of Hygiene, Medical Jurisprudence. The Third Examination shall be divided into two parts, called the First Part and the Second Part respectively. The First Part shall include Principles of Surgery, Midwifery and Diseases peculiar to Women. The Second Part shall include Pathology, Principles and Practice of Physic, Elements of Hygiene, Medical Jurisprudence. The Student shall be allowed to take the two parts either together or separately. 20. The Student, before admission to the First Part of the Third Examination, shall produce Certificates of diligent attendance on one course of Lectures in each of the following subjects: Pathological Anatomy, Principles of Surgery, Midwifery; also a Certificate of having attended ten cases of Midwifery; a Certificate of having attended the Surgical Practice of a recognised Hospital (with Lectures in Clinical Surgery) during one year at least; and a Certificate of Proficiency in Vaccination from one of the authorised Vaccinators appointed by the Local Government Board. The Student, before admission to the Second Part of the Third Examination, shall produce evidence that he has completed the course of Medical Study (Regulation 2), and Certificates of diligent attendance on one course of Lectures in each of the following subjects: Principles and Practice of Physic, Physiological actions and Therapeutic uses of Remedies, Medical Jurisprudence; also a Certificate of having attended the Medical Practice of a recognised Hospital (with Lectures in Clinical Medicine) during three years at least; and a Certificate of having been Clinical Clerk at a recognised Hospital for six months at least, or of having, subsequently to the completion of his attendance on Hospital Practice, attended to Practical Medicine or Surgery with special charge of Patients in a Hospital, Dispensary, or Parochial Union, under superintendence of a qualified Practitioner, unless he himself be duly qualified. 21. Every Candidate for the degree of Bachelor of Medicine shall compose a Thesis on some subject approved by the Regius Professor of Physic. The Candidate shall send his Thesis to the Regius Professor, who, on approving it, shall assign a day and hour for the Act to be kept in the Public Schools. The Candidate shall then cause public notice of the Act to be given, by fixing on the door of the Public Schools, eight days at least before

[1] Students, before commencing their course of medical study, are required to be registered by the Registrar of the Branch Council for England of Medical Education and Registration. Before they can be registered they must have passed the Previous Examination, or some like examination recognised by the General Medical Council. Forms to be filled up are kept at the Anatomical Schools.

the day assigned for the Act, a paper specifying (1) the name and College of the Candidate, (2) the day and hour assigned for the Act, and (3) the subject of his Thesis; he shall also cause copies of the notice to be delivered at the same time to the Vice-Chancellor, to the Regius Professor, and to the Registrary. The Regius Professor or some Graduate in Medicine who is a Member of the Senate deputed by him shall preside over the Act. The Act shall be kept in the following manner. The Candidate shall read his Thesis; the Regius Professor or Graduate presiding shall then bring forward arguments or objections for the Candidate to answer, and shall examine him orally as well on questions connected with the Thesis as on other subjects connected with Medicine of a more general nature; the whole exercise being made to continue at least one hour. If the Regius Professor or Graduate presiding shall consider the exercise to have been satisfactory, he shall certify to the Registrary that the Candidate has kept the Act as required for the degree of Bachelor of Medicine. 22. The Examiners for the First Examination shall be three persons nominated annually by the Special Board for Medicine and elected by the Senate. 23. The Examiners for the Second Examination shall be the Regius Professor of Physic and three other persons nominated annually by the Special Board for Medicine and elected by the Senate. 24. The Examiners for the Third Examination shall be the Regius Professor of Physic, the two examiners in Surgery, and three other persons (one of whom at least shall be skilled in Midwifery) nominated annually by the Special Board for Medicine, and elected by the Senate. 25. In case the Regius Professor of Physic be prevented, by illness or other reasonable cause, from taking part as Examiner *ex officio* in the Examinations for the degree of Bachelor of Medicine, it shall be competent for him to appoint a Doctor of Medicine who is a Member of the Senate to examine in his stead, subject to the approval of the Vice-Chancellor. 26. The Examiners for the degree of Bachelor of Medicine (other than the Examiner *ex officio*) shall be elected at the first Congregation in June of the academical year preceding that for which they are to hold office. 27. Each of the Examiners for the degree of Bachelor of Medicine (other than the Examiner *ex officio*) shall receive £30 from the University Chest.

Degree of Bachelor of Surgery.—1. Students who have not graduated in Medicine proceeding to the degree of Bachelor of Surgery shall be required to do all that is required of Candidates for the degree of Bachelor of Medicine, excepting only that they shall not be required to keep an Act. 2. There shall be one Examination for the degree of Bachelor of Surgery. No Student shall be admitted to the Examination until he has passed the First Part of the Third Examination for the degree of Bachelor of Medicine. 3. No Candidate shall be admitted to the degree of Bachelor of Surgery until he has passed the Second Part of the Third Examination for the degree of Bachelor of Medicine. 4. The day of inauguration of Bachelors of Medicine shall be the Tuesday immediately preceding the last day of the Easter Term. At the inauguration, the names shall be arranged in order of seniority as follows: (*a*) those who have been Bachelors of Arts, arranged alphabetically; (*b*) other Bachelors Designate in Surgery, arranged alphabetically. 5. The Examination for the degree of Bachelor of Surgery shall be held twice in the year, namely, in the Michaelmas Term and in the Easter Term. It shall begin in each case within three days after the conclusion of the First Part of the Third Examination for the degree of Bachelor of Medicine. 6. The Student, before admission to the Examination, shall produce a Certificate of diligent attendance on a course of instruction in Practical Surgery; also a Certificate of having attended the Surgical Practice of a recognised Hospital during two years at least, and a Certificate of having acted as Dresser or House-Surgeon at a recognised Hospital for six months at least. 7. The Student, before admission or re-admission to the Examination, shall pay to the Registrary a fee of £2 2s. 8. The names of the Students who intend to present themselves for the Examination for the degree of Bachelor of Surgery shall be sent to the Secretary of Honours Examinations by the Prælectors of their several Colleges (or, in the case of non-collegiate Students, by the Censor) not less than seven days before the beginning of the Examination; and no Student whose name has not been so sent in shall be admitted to the Examination, except by the special permission of the Professor of Surgery. The certificates required to be produced before admission to the Examination shall be sent by the Candidates to the Secretary of Honours Examinations not less than two days before the beginning of the Examination; and it shall be his duty to examine the Certificates, and to ascertain that no one is improperly admitted to the Examination, and to furnish the Examiners and the Registrary with a correct list of Candidates. 9. The Subjects of the Examination for the degree of Bachelor of Surgery shall be: Surgical Operations; the application of Surgical Apparatus; the examination of Surgical Patients. 10. The Examination shall be partly in writing, partly oral, and partly practical. 11. The names of the successful Candidates in the Examination shall be arranged in alphabetical order. 12. The Examiners for the Examination for the degree of Bachelor of Surgery shall be the Professor of Surgery and two other presons nominated annually as Examiners in Surgery by the Special Board for Medicine, and elected by the Senate. 13. In case the Professor of Surgery be prevented by illness or other reasonable cause from taking part as Examiner *ex officio* in the Examination, it shall be competent for him to appoint a Graduate in Surgery who is a Member of the Senate to examine in his stead, subject to the approval of the Vice-Chancellor. 14. The Examiners in Surgery (other than the Examiner *ex officio*) shall be elected at the first Congregation in June of the academical year preceding that for which they are to hold office. 15. Each of the Examiners in Surgery (other than the Examiner *ex officio*) shall receive £30 from the University Chest.

Degree of Master of Surgery.—1. Candidates for the degree of Master of Surgery shall be required to have done all that is required of Candidates for the degree of Bachelor of Surgery. 2. There shall be one Examination for the degree of Master of Surgery. No Candidate shall be admitted to the Examination until two years at least have elapsed from the time at which he completed all that is required of Candidates for the degree of Bachelor of Surgery. 3. The day of creation of Masters of Surgery shall be the Tuesday immediately preceding the last day of the Easter Term. At the creation, the names shall be arranged in order of seniority as follows: (*a*) those who have been Masters of Arts, arranged according to their seniority as Masters of Arts, (*b*) those who have been Bachelors of Surgery, arranged according to their seniority as Bachelors of Surgery. 4. The Examination for the degree of Master of Surgery shall be held twice in the year, namely, in the Michaelmas Term and in the Easter Term. It shall begin in each case as soon as conveniently may be after the conclusion of the First Part of the Third Examination for the degree of Bachelor of Medicine. 5. The Candidate, before admission or re-admission to the Examination, shall pay to the Registrary a fee of £3 3s. 6. Those persons who intend to present themselves for the Examination shall send their names to the Secretary of Honours Examinations not less than seven days before the beginning of the Examination; and no person whose name has not been so sent in shall be admitted to the Examination, except by the special permission of the Professor of Surgery. It shall be the duty of the Secretary of Honours Examinations to ascertain that no one is improperly admitted to the Examination, and to furnish the Examiners and the Registrary with a correct list of Candidates. 7. The Subjects of the Examination shall be: Pathology; Principles and Practice of Surgery; Surgical Anatomy; Surgical Operations; a Surgical case and a topic relating to Surgery to be submitted in writing to the Candidate, on one or both of which, at his option, he shall be required to write extempore a short essay. 8. The Examination shall be partly in writing, partly oral, and partly practical. 9. The names of the successful Candidates in the Examination shall be arranged in alphabetical order. 10. The Examiners for the Examination for the degree of Master of Surgery shall be the Professor of Surgery and the two Examiners in Surgery for the year. 11. In case the Professor of Surgery be prevented by illness or other reasonable cause from taking part as Examiner *ex officio* in the Examination, it shall be competent for him to appoint a Master of Surgery who is a Member of the Senate to examine in his stead, subject to the approval of the Vice-Chancellor.

INTERNATIONAL HEALTH EXHIBITION, 1884.

THE preliminary arrangements for holding an International Health Exhibition, in London, next year, are now completed. The Queen has consented to be the Patron, and the Prince of Wales is President and Chairman of the General Committee. The Executive Council, who have been appointed directly by the Prince, are as follows:—Chairman, the Duke of Buckingham and Chandos; Vice-Chairman, Sir J. Paget; Mr. E. Birkbeck, M.P., Dr. G. Buchanan, Sir P. Cunliffe-Owen, Sir J. Fayrer, the Marquis of Hamilton, Mr. Ernest Hart, Sir John Lubbock, M.P., Mr. S. Morley, M.P., Dr. G. V. Poore, and Sir John Rose, Bart. The Secretary is Mr. Edward Cunliffe-Owen, B.A. The prospectus sets forth as the object of the Exhibition the illustration, in as vivid and practical a manner as possible, of food, dress, the dwelling, the school, and the workshop, as affect-

ing the conditions of healthful life, and also the bringing into public notice the most recent appliances for elementary school teaching and instruction in applied science, art, and handicrafts. All information may be obtained on written application to the Secretary, International Health Exhibition Offices, South Kensington, S.W.

THE ATTACK ON DR. MURRELL.

AT the last meeting of the College of Physicians, Sir William Jenner, the president, referred to recent documents and publications in this matter, and invited observation; whereupon Professor Sydney Ringer moved, and Dr. Priestley seconded, that the whole matter be referred to the Board of Censors for investigation and report. We publish on the next column a report on the subject from a Subcommittee of the Westminster Hospital. It will be seen that this report, although bearing evidence of strong lay prepossessions, entirely acquits Dr. Murrell, on the facts. We are also informed that, at the other hospital referred to, at which some of the patients in question were treated with the nitrite of sodium, the inquiry which has been held has resulted most satisfactorily, and in the entire exoneration of Dr. Murrell. We have received communications sympathising with this distinguished young physician in the persecution, to which he has been subjected, by articles and letters in the daily Press. A deep feeling of professional sympathy exists, and we believe there is a strong sentiment in the profession that this feeling should in some way have a marked public expression. In Ireland and Scotland this opinion appears at least as strong as it is in England.

The Westminster Hospital committee have passed a resolution expressing their disapproval of the employment for patients in hospitals, "of any remedial agents, the properties and effects of which have not been fully ascertained." It would be very satisfactory if this committee could make a list of what it considers to be the drugs which satisfy the conditions of this rigid formula, and especially also of well-established doses for such drugs, in various conditions of disease, different ages, and constitutions. When medicine arrives at the position of being a fully equipped, complete, and exact science, such a resolution will have some definite meaning, and will be capable of exact interpretation. Are the properties, for example, of digitalis well established, and in what cases, and in what doses? On this subject the proceedings of the Royal Medical and Chirurgical Society of this week may be well consulted. Is jaborandi a drug of which the properties and effects are fully ascertained? Is its use as a matter of tentative therapeutics to be prohibited, for example, in myxœdema? Compare with such a conclusion the discussion at the Clinical Society of London. Are the properties of convallaria majalis well established, and is this to be prohibited, or nitrite of amyl? Is mercury a well-establishe ddrug, or venesection a well established mode of treatment, and in what cases, and with what symptoms? So long as medicine remains as it is, and has been now for some centuries, an inexact science, and an experimental art, it is utterly unreasonable to pass any such resolution, which has, in fact, no definite meaning, and which, under such circumstances, becomes merely an instrument of possible oppression and persecution. Let us compare, for example, the practice of the Temperance Hospital, which carries on the great experiment with all its patients of refusing them alcohol, with the existing decision, which we chronicle in another column, of the physicians of the Manchester Infirmary, who decline to submit a great body of patients to any such wholesale and mechanical experiment; and put to this the denunciation by the Rev. Mr. Horsley, who insists that it is the duty of all medical men to subject their patients to the experiment of refusing to prescribe alcohol under any circumstances, and let them recover from exhausting diseases as best they can without it. Is the mint-water treatment of rheumatism a well-established treatment? or of which of the numerous drugs in the *Pharmacopœia* can the properties, mode of action, and effects be considered to be well established in disease? When was the salicylate of soda well established, and how was it introduced except by employing it in the first instance precisely on the same basis on which Dr. Murrell used the nitrite of sodium? How did Dr. Lauder Brunton first establish the immense value of nitrite of amyl in angina pectoris? and, in fact, how is medicine to be advanced, or medical practice carried out, except by employing in the treatment of disease such drugs as there are scientific experimental grounds for believing to be suited to the particular features of the case, and by adding day by day accumulating clinical facts? The whole basis of medicine and medical practice is, and has been for the last twenty-five years, undergoing a complete recasting, and it would be extremely difficult to say of most drugs that they are well established in particular diseases, in particular cases, or in a given set of symptoms. Medicine is essentially an experimental science and art, and the most accomplished and sagacious clinical teachers have long taught that the treatment of every case is, in fact, a clinical experiment; for no two cases agree in their combination of elemental symptoms. Every case stands by itself, and the administration of a dose of blue pill is as much an experiment as the administration of three grains of euonymin; a drug of which the experimental basis of therapeutic use was recently established by Professor Rutherford, and of which the precise clinical uses yet remain to be settled by a wide basis of clinical experience. This resolution largely adds to the dangers which beset the practice of the most accomplished and eminent therapeutists, and indicates the peculiar need in which they stand of the united sympathy and support of their professional brethren in their efforts, at the same time, to promote the welfare of their patients, and to advance the scientific knowledge and use of the oldest drugs, as well as most recent additions to the armoury of therapeutics. If such a resolution as this were to become general, it would, unless applied with a very different spirit to that which has marked the treatment of Dr. Murrell, be completely obstructive of the progress of medicine, and add largely to the dangers and pains which attend the course of the practitioner.

NITRITE OF SODIUM.

WE have received the following report from the authorities of Westminster Hospital, with a request for publication.

The House-Committee having appointed a Subcommittee to consider a paper "On Nitrite of Sodium as a Toxic Agent," by S. Ringer, M.D., and W. Murrell, M.D., which was published in the *Lancet* of November 3rd, together with the correspondence and the articles which have subsequently appeared in the newspapers in relation thereto, the Subcommittee beg to report as follows.

1. They have carefully considered the paper, the correspondence, and the articles in question, and have received such further information from Dr. Murrell as they required.

2. They are of opinion that the paper, which it is only fair to say had not received Dr. Murrell's final revision, is open to serious objections, on the grounds of want of chronological order, precision, and gravity of style. In the last particular, they cannot at all excuse its deficiencies, deficiencies of which Dr. Murrell himself is now sufficiently aware; but they think their effect is lessened when the history of the experiments with the drug is clearly given, in proper order and connection.

3. They find, on examination, that Dr. Murrell's attention was first called to the use of nitrite of sodium in epilepsy, and certain diseases of the chest, by a statement made by Dr. Law, in the *Practitioner*, that he had successfully employed it in twenty-grain doses. The whole of the cases treated by Dr. Murrell, more than twelve months ago, and prior to his appointment, in April last, as Assistant-Physician to Westminster Hospital, were expressly selected by him from a very large number of out-patients at another hospital with which he is connected, and were all of them suffering from diseases for which this drug, and other allied drugs, would be suitable.

There is no ground, whatever, for supposing that any patient was treated by way of simple experiment, without reference to the presence of specific disease, and without *bonâ fide* belief that the treatment would be beneficial to the individual patient.

With commendable caution, Dr. Murrell began by giving his patients only half the dose prescribed by Dr. Law, and had he then known, what Dr. Law seems to have discovered afterwards, that the drug used by him was not of a pure quality, no doubt he would have still further diminished the dose, as indeed the symptoms which he observed in the first series of patients for whom he prescribed, immediately led him to do.

The experiments on lower animals, which conclusively revealed the toxic properties of the drug, followed, and did not precede, as one would gather from the paper, its administration to human subjects, and were made in order to elucidate the unexpected symptoms.

The Subcommittee have been assured that none of the patients suffered any ill-effects from the doses actually taken, while many of them received ultimate benefit, and willingly continued under Dr. Murrell's care, until they ceased to be out-patients. This it is important to notice, as a proof that the alarm expressed by the patients in describing the effects of the medicine upon them was not so serious as the terms employed by them, and quoted by Dr. Murrell, would seem to indicate.

It is further to be observed that "the literature on the subject,"

to which reference is made in the paper, is either contemporary with Dr. Murrell's investigations, or of a later date.

4. The Subcommittee, after careful consideration of these facts, see no reason why the House Committee should withdraw from Dr. Murrell their confidence in his ability and humanity, and they trust that the unfortunate manner in which the paper was put together will be forgotten, while the value of his experiences will remain. In this connection the Subcommittee would call attention to the fact that, in consequence of this experience, the "official" dose of nitrite of sodium, hitherto appearing in the standard text-books of therapeutics as twenty grains, has since been reduced to two grains, and a permanent source of danger has thus been averted.

5. The Subcommittee, while arriving at the foregoing conclusion, are far from agreeing with the view of those who would ascribe to ignorance or prejudice the public attention directed towards Dr. Murrell's paper, and the adverse comments which it excited. They think, on the contrary, that it was a natural result of its publication in the *Lancet*, and was due to the terms employed in describing the experiences and the conditions under which they were obtained. Nor do they think the medical profession, and still less the governing body of a hospital depending upon the good opinion of the public at large for its snpport, would be disposed lightly to disregard such opinion, or otherwise alienate the goodwill and confidence at present reposed in them.

6. The Subcommittee recommend that a copy of this report be sent to the *Lancet* and other medical journals for publication, so that the public may be aware of the strict investigation instituted by the House Committee. They also recommend that regulations be strictly enforced that, in respect to the treatment of out-patients, who of necessity cannot be under constant clinical observation, no remedial agent, the properties and effects of which are not fully ascertained, shall be administered by the medical officers in charge.

RUTHERFORD ALCOCK, Chairman; OCTAVIUS STURGES, M.D.; GEORGE COWELL, F.R.C.S.; A. DUPRÉ, Ph.D., F.R.S.; G. HELMORE; C. ALFRED JONES; J. TROUTBECK, D.D.; FRA. WHITAKER; LEWIS WINCKWORTH.

Westminster Hospital, November 24th, 1883.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary meeting of the College of Physicians was held on November 22nd, 1883.

On the proposition of the President, the Census Board was requested to investigate the circumstances attending the treatment of certain patients, as related in the *Lancet* of November 3rd, and to take such steps as they may think needful.

A letter was read from the Vicar of Hempstead Church, soliciting assistance towards its restoration.

A letter was read from the Vicar of St. John's, East Dulwich, asking a contribution for the Defence Fund of Messrs. Bower and Keates.

The resolution of which Dr. Moxon had given notice, was agreed to, namely:

"Considering the peculiar liability of medical practitioners to false criminal accusations, and the grave addition which the Public Prosecutor's position lends to the weight of a possibly false charge, it is desirable, in the interests of the public and the profession, that some means should be devised of correctly informing the Public Prosecutor on points of which a medically trained person alone can judge."

On the proposition of the treasurer, the sum of £5 was voted for the repair of the wall of Ongar Churchyard. A report was received from Messrs. Driver, on the condition of Ashlyn's farm.

A report of the Council was read and adopted.

Dr. Andrew Whyte Barclay was elected treasurer, *vice* Dr. F. J. Farre, who had resigned.

Dr. Sieveking, Dr. Wood, and Dr. Duckworth, were elected a Finance Committee.

On the proposition of the President, an honorarium of 200 guineas was voted unanimously to Dr. F. J. Farre, on his resignation of the office of treasurer.

The report of the Committee on Hygiene was adopted.

IN the current number of the *Archivio di Patologia Infantile*, published in Naples under the direction of Professor L. Somma, appears the concluding part of an original paper, begun in the July number, by Dr. W. H. Barlow of Manchester, "Sulla paralysi cerebrale (o spastica) dei bambini," rendered into Italian by Dr. V. Meyer, and communicated by desire of the editor.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
V. Syphilis, acquired.
Va. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed.*

Applications should be addressed to

The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETING TO BE HELD.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—A meeting will be held on Friday, November 30th, at 8.30 P.M., at the house of Dr. Henty, 308, Camden Road. 1. There will be a discussion on Collective Investigation. 2. The Secretary will tender his resignation. 3. A new Secretary will be appointed.

SOUTH-WESTERN BRANCH: QUARTERLY MEETING.

THE autumnal meeting was held at the Royal Cornwall Infirmary, Truro, on Tuesday, November 20th; Mr. C. BULTEEL, President, in the chair.

New Members.—The following gentlemen were elected:—Mr. T. B. Carlyon, Redruth; Mr. Edward G. Barron, Plymouth: Mr. J. M. Quicke, Truro; Mr. F. G. H. Whitley, St. Agnes; Mr. A. L. Salmon, Truro; Mr. A. C. Roper, Exeter.

Death of Dr. Hudson.—After remarks by the President, Dr. Harris, Messrs. Sharp, Butlin, and others, it was resolved unanimously that a vote of condolence be sent to Mrs. Hudson.

Collective Investigation.—Mr. E. Scudamore Angore of Camborne was appointed Local Secretary for West Cornwall, in the vacancy caused by the death of Dr. Hudson.

Communications.—The following papers were read.

Mr. Bulteel: 1. Dwellings for the Labouring Classes; 2. Wards for Paying Patients in the Royal Albert Hospital.

Mr. Whitworth: Cyanosis.

Mr. Leverton: Syphilitic Cases.

Mr. Bass: Thoracic Aneurysm.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

SECOND M.B. EXAMINATIONS IN 1884.—The following circular has been issued by the Senate. By grace of the Senate (November 15th, 1883), students who have passed the First M.B. Examination, under the regulations in force up to the end of the present year, will be required to pass an examination in Elementary Biology before admission to either part of the Second M.B. Examination, under the regulations which come into force on the first day of January 1884. The date of the examination in Elementary Biology will be so fixed that it may be taken in the same term as the Second M.B. Examination. A schedule defining the range of the examination has been published, and may be obtained at the Anatomical Schools.

CORRESPONDENCE.

MEDICAL BULLETINS.

SIR,—The numerous communications which have reached me upon the subject of medical bulletins, and the erroneous opinions which are held by some of my correspondents, impel me to inform the members of the Association that I propose to submit the following resolution for the approval of the Journal and Finance Committee, at their next meeting.

"That it be an instruction to the editor not to insert details of the cases of illustrious individuals who happen to be suffering from the effects of serious illness, and that the publication of bulletins be discouraged."—I am, sir, your obedient servant,

ALFRED CARPENTER.

Duppas House, Croydon, November 28th, 1883.

NEPHRECTOMY FOR SUPPRESSION OF URINE.

SIR,—The case published by Mr. T. Wilmot in the JOURNAL of November 24th, is eminently suggestive of operative interference in cases of suppression of urine. The necropsy revealed an absence of one kidney, and a small calculus blocking-up the commencement of the ureter on the other side. A preparation of a precisely similar case is to be seen in the Museum of Guy's Hospital; and I have recently heard of a case of suppression of urine where this diagnosis was made, and it was subsequently verified by the passage of a small calculus and the relief of the symptoms.

The symptoms in Mr. Wilmot's cases were remarkably characteristic, for they commenced with "a sudden sharp shooting pain in the left lumbar region, striking down to the glans penis and the testes, and stoppage of the flow of urine, with a constant desire to void it, accompanied with great bearing-down." When seen two days later, these symptoms continued, and, in addition, tenderness was discovered over the region of the kidney. Subsequently, a fulness was also noticed in this region. During four days, he is said to have passed only two ounces of urine, and then the flow recommenced; but, meanwhile, the damage had been done; rigors, vomiting, with a temperature of 104.6° had occurred; and the patient sank, apparently in a septicæmic condition, seventeen days after the commencement of the attack.

It is interesting to note that this patient had had two previous attacks of suppression of urine, one lasting thirty-six hours, the other forty-eight. It became, then, a matter of some difficulty to determine when is the proper time to operate, seeing that in some cases the calculus may pass out, and in others recede so as to again allow of the escape of urine. But it must not be lost sight of that if the symptoms disappear without the passage of a calculus, the patient is still left in a dangerous state, and his kidney is probably undergoing gradual dilation and destruction. With a previous history of suppression unaccompanied by the passage of a stone, I think the surgeon would be justified in operating without delay, and in any case I should not be inclined to let the case pass over the second day without attempting to give him relief by an incision through the loin. When it is fully understood how simple a matter an antiseptic exploration of the kidney through the loin may be, medical men under whom these cases may fall will have less hesitation in resorting to operation, and many lives will, I trust, be thus saved in the future.

In my address on Renal Surgery before the annual meeting of the Association I omitted to speak of nephrectomy for suppression of urine, but my friend Mr. Bennett May drew attention to the omission, and related a case in which he had relieved the symptoms by aspiration. I feel sure he would support me in the foregoing remarks.—I am, sir, your obedient servant,

R. CLEMENT LUCAS, B.S., F.R.C.S.

Finsbury-square, November 24th, 1883.

UNFOUNDED CHARGES AGAINST MEDICAL MEN.

SIR,—I think the letter of Dr. Dutton, in the JOURNAL of November 17th, most opportune, and I heartily agree with every word he says, and sympathise with his proposal. There is nothing easier than to bring charges against medical men, and nothing, perhaps, more difficult, owing often to the peculiarity of circumstances, than effectually to refute them. For instance, in uterine examinations, it may, as a rule, be extremely proper that another female be present; but how often is this safeguard not available, or sometimes even demurred to by the patient? Everyone knows how difficult it is to diagnose early pregnancy, and how delicate the questions are that may depend thereon—questions of reputation, premature marriage, etc. A designing female may easily impose on a medical man, and lead him to examinations that might easily bring him into serious trouble. I am not quite certain that I did not once commit a mistake of this kind myself, and ever since I have had, perhaps, a morbid abhorrence of all uterine examinations, especially intra-uterine ones. Seeing how easily the reputation of a lifetime may be blasted, Dr. Dutton's suggestion is an admirable one, and I hope it will be cordially taken up by members of the British Medical Association, and I also will have pleasure in contributing my guinea.—I am, faithfully yours,

D. CAMPBELL BLACK, M.D.

Glasgow, November 20th, 1883.

NITRITE OF SODIUM.

SIR,—I observe, in last week's JOURNAL, that Dr. Law has been good enough to correct me as to my impression that I had been the first to draw attention to the great impurity of nitrite of sodium, as commonly met with. It so happens that I had not read the report of the meeting of the Royal Medical and Chirurgical Society to which he alludes. I have now referred to it, and I find that Dr. Ralfe mentions the impurity of the nitrite. But priority in so trifling a matter is of very little consequence; and my sole reason for introducing, into my previous letter, a remark as to my supposed priority, was in order to emphasise the fact that I was perfectly aware of this impurity when I published my paper on "Nitrite of Sodium in the Treatment of Angina Pectoris," in the *Practitioner* of March, of which, to judge from the tone of his remarks, the writer of the review of Professor Ringer's book seems to have been ignorant. I wished also to make clear that I used small doses of the salt, even smaller than those which Ringer and Murrell were compelled to adopt as the result of their recent experiments.

Since questions of priority have been raised, it may be as well to point out in your columns an error into which Dr. Ralfe has fallen in the report referred to. He gives to Dr. Law the credit of being the first to employ the nitrite of sodium in the treatment of epilepsy. As I have already had occasion to mention, in my own paper in the *Practitioner*, the nitrite had been employed in America for the same purpose, several years previously, by Dr. Weir Mitchell.

As you have given a place to Dr. Ralfe's note, perhaps you will also kindly find space for this.—Yours faithfully,

MATTHEW HAY, M.D.

230, Union Street, Aberdeen, Nov. 26th, 1883.

PHOTOGRAPHY OF THE LARYNX AND SOFT PALATE.

SIR,—Mr. Lunn's comment in the JOURNAL of November 10th on Mr. Lennox Browne's paper "On Photography of the Larynx and Soft Palate" calls for a short rejoinder from me, as one of the secretaries of the Section of Anatomy and Physiology, in connection with which Mr. Browne's paper was given.

Mr. Lunn says: "The photograph is that of a 'distorted larynx,' with the vocal cords twisted from the median line." With this assertion, he leaves your readers to infer that Mr. Behnke is the possessor of an abnormal vocal apparatus. I can assure Mr. Lunn that the larynx of Mr. Behnke is not "distorted," and any supposed imperfection which he notices is in the photograph, and not in the larynx. The photograph is an excellent representation of the appearance that I saw in the laryngeal mirror as he sang falsetto; and the deviation in the photograph from the mesial line can be readily understood by anyone who knows anything about "perspective," without imagining the peculiar or impossible condition of "the vocal cords being twisted from the median line."—Yours very truly,

JAMES BARR, M.D.

Liverpool, November 1883.

FALSETTO AND NASAL NOTES.

SIR,—I was surprised to hear Mr. Lennox Browne, at the Liverpool meeting, use the terms "nasal" and "falsetto" as interchangeable in reference to a musical (?) sound emitted by Mr. Behnke. The sound referred to, though it might certainly be characterised as nasal, did not possess those qualifications which would allow it to rank as falsetto.

I thought, at the time, it might have been a slip on the part of the speaker to have used the latter term, but I see, from his published article, that he used it designedly. My present object, there-

fore, is to point out that these two terms cannot be used as equivalents. The term "falsetto" is applied to an *additional artificial* register, which can be cultivated by most male singers. It differs from the ordinary singing voice in pitch, *timbre*, and method of production; since, (1) as regards pitch, it commences near where the ordinary voice ceases; (2) it has a tone-colour distinct (it is, of course, impossible to convey this difference verbally); and (3) it is produced with a sensation of much greater strain about the larynx, and without that vibration (vocal fremitus) of the chest-wall so easily distinguished in the natural voice.

The term "nasal" is applied to that modification of the voice, adequately illustrated by Mr. Behnke at the Liverpool demonstration, which is popularly called "speaking (or singing) through the nose." It is chiefly cultivated, I believe, by Punch and Judy exhibitors, and those who would represent the typical American of fiction, It is entirely dependent on the position of the soft palate and tongue, which are so approximated that they close, as by a septum, the back of the mouth, and thus literally drive the voice through the nose.

The truth of the preceding statement may be tested by holding the flame of a candle in front of the nostrils while standing opposite a looking-glass. It will then be seen, first, how completely the back of the mouth is curtained-in while singing in this manner; and, secondly, that the air passing out of the nostril causes the flame to flicker, which, if the note be sung in the ordinary way, it does not do; and, thirdly, that, in singing falsetto, the soft palate is not, as Mr. Browne maintains, relaxed (see column 3, 17 lines from bottom), but, if possible, more tightly contracted than in the higher head-notes.—I am, etc., GEORGE MAHOMED, M.R.C.S.

18, Branksome Terrace, Bournemouth.

THE CONTAGIOUS DISEASES ACTS.

SIR,—In common with other members of the British Medical Association, I received a copy of a paper entitled "On the Sanitary Results of Regulated Prostitution in Great Britain and Her Dependencies." I am not in a position to be able to form an opinion on the sanitary results of the Contagious Diseases Acts, but I can say a few words on their moral aspect.

I have resided for eighteen years, off and on, in a large naval port and garrison-town—that is to say, before the passing of the Acts, whilst they were in operation, and after their suspension; and, had I been ignorant of the respective dates of the initiation and suspension of these laws, I could have guessed them pretty closely by what I saw and heard in the public streets. Streets which were unfit for a lady to walk in before their institution, became comparatively respectable when they were in full operation. Now, alas! the same objectionable sights and sounds again offend the respectable portion of the community.—I am, sir, your obedient servant, R. E. POWER.

Portsmouth, November 1883.

THE ROYAL UNIVERSITY OF IRELAND.

SIR,—The second resolution which I intended to move if there had been a meeting of Convocation this autumn is even of greater importance than the first. It is: "That the Senate be requested to admit undergraduates of the University in the Faculty of Medicine to two examinations in the year." This University was created to afford increased facilities for obtaining an university education; it should, therefore, hold out every inducement that is possible to students to enter its portals, and avail themselves of its benefits; but is it likely that an university which only affords one opportunity of obtaining its degree in the year will for any length of time be in favour? Rather, will not this circumstance drive men from its doors, and send them to the licensing corporations, many of whom hold monthly examinations, and nearly all four examinations in the year? In the Dublin University, there are four examinations for the first half in Medicine, and three for degree-examinations, degrees being conferred three times in each year. Are we, then, in the Royal to have but one examination in the year, so as to resemble the London University, which was the guiding-star of the late Queen's?

In consequence of unsuccessful candidates being rejected for twelve months, numbers give up the idea of obtaining an university degree in despair, and go to the licensing bodies. I understand that the principal objection to admit students to two examinations in the year comes from the examiners in anatomy, who very properly say that, under existing regulations, unsuccessful candidates in June cannot before September obtain instruction in practical anatomy. If May and November be the months selected for the examinations, this objection is removed, as instruction may be had in June, July, October, and part of November. The experiment of rejecting men for twelve months was tried some years ago in the Royal College of Surgeons of England, and failed. The Royal was intended to be the Queen's, and something more; but the present regulation makes it the Queen's, and something less, and is certainly not calculated to promote university education in Ireland.—Very truly yours, CHARLES FREDERICK KNIGHT, M.D.

91, Harcourt Street, Dublin, November 26th, 1883.

FRACTURE OF THE PATELLA.

SIR,—In the JOURNAL of November 17th, a letter of Brigade-Surgeon Tomlinson raises some points with regard to the treatment of fracture of the patella upon Professor Lister's method, about which I should like to be allowed to make a few remarks. It is premised that, in fracture of the patella, a communication is established between the broken ends of the bone and the joint. It is asked whether it would not be wiser to postpone the operation until, "by sufficient rest, the communication between the fracture and the joint had probably closed.....and then a careful operation without opening the joint at all." The suggestion is somewhat vague. 1. How long are we to wait before operating? 2. If we wait long enough for the fibrous rupture to close, a month or more, I suppose, of perfect rest in as perfect position as possible, would not the operation resolve itself rather into one for ununited fracture of the patella than for immediate osseous union?

But, putting aside altogether the utility of waiting, I think Professor Lister has proved time upon time, by his teaching and in his practice, that, with thorough antiseptics, there is no danger in opening into a joint. I cannot recall having seen any case in which the antiseptic system properly applied has failed *per se*. On the other hand, I have seen cases successfully treated, when, without antiseptics, one would not feel justified in interfering.

With regard to joint-injuries, I beg to bring forward the following, which I think is interesting. Ivo B., aged 28, a labourer, was admitted into the Chester General Infirmary on July 18th, 1882, suffering from the bite of a dog. Upon inquiry, patient stated that, while at a farmyard about four miles from Chester, he was suddenly attacked by a large mastiff, which knocked him down, and bit him in the knee. When examined, about an hour after the accident, the right knee was found to be swollen and slightly inflamed. There were three irregularly punctured wounds and an abrasion in front of the knee. Two of the deeper wounds were below the patella, and one above it. A probe passed easily into them. The patient went to bed at once, and the wounds were syringed out with strong carbolic lotion. The lotion injected into any one of the wounds passed out at the other two, thus showing that the joint had been opened into. Soft pads of salicylic wool were applied, so as to insure equable pressure over the knee. The leg was placed comfortably upon a splint. Later in the afternoon, the patient complained of feeling a good deal of pain in his knee; it felt very hot. He was ordered an opiate. That evening his temperature was 100.2°, and pulse 94. The following day's report states that the patient slept fairly well. The patient made uninterrupted progress towards recovery. The dressings were not removed until the sixth day, when the wounds were found to be nearly healed. Passive movement was commenced on the fifteenth day; the patient was allowed to get up on the seventeenth day, and to leave the hospital on the twentieth day after the receipt of the injury. Hardly any stiffness resulted.

The above case rather points to the beneficial effects of the antiseptic treatment than to the length of time which the capsule takes to unite. The punctured wounds would cause only linear loss of continuity; there would be no tension, and perfect rest existed.—I am, sir, your obedient servant,

HENRY W. KING, M.D.Edin., M.R.C.S.Eng.

3, Abbey Street, Chester, November 20th, 1883.

QUARANTINE IN AUSTRALIA.

SIR,—In connection with your article in the JOURNAL of November 24th, on "Quarantine in Australia," will you allow me to mention a fact which proves the necessity of a thorough revision of the present law.

Last year, while I was acting as medical officer to the steam-ship *Sorata* (one of the Orient line), measles broke out on board, and seven children were attacked, all of them being second-class pas-

sengers. I enforced strict isolation, had two hospitals fitted up on deck, and set apart a steward and two nurses, who devoted themselves exclusively to the cases of sickness.

The first and third classes were entirely cut off from all chance of infection, which, indeed, was proved by the fact that, though they contained about fifty children, not one was attacked. The cases of fever were all of a mild type; and, by the time we reached Adelaide, they were convalescent. When, however, the health-officer came to the side of the ship and heard of the measles, the following extraordinary decision was arrived at.

Any first-class passengers wishing to land were allowed to do so, but the unfortunate second and third, of whom there were nearly a hundred, were sent to the wretched quarantine-station to undergo a fortnight's vexatious isolation. In vain did I urge that the third class were as healthy as the first; in vain did I invite the health-officer to come on board and inspect the sanitary precautions that had been taken. It was of no avail.

If measles were unknown in Australia, extreme precautions would be justifiable—though, even then, the first-class passengers should have been sent into quarantine as much as the third. But measles are as common in the colonies as in England; and that in this enlightened nineteenth century, and in such an enlightened part of the world as South Australia, such unscientific and arbitrary measures should be allowed, indicates great necessity for reform.—I am, sir, your obedient servant,

JAMIESON B. HURRY, M.B., B.A.Camb.,
Resident-Accoucheur, St. Bartholomew's Hospital.

A FEW WORDS ABOUT PHARMACY.

SIR,—The public have much reason to be thankful to the various licensing universities and colleges in medicine in these countries, for the zeal they have shown, during the last few years, in making as perfect as possible every branch of medical education, and to fit the student for a responsibility which he must one day bear alone, when the letters which stand after his name cut him off from those small, but useful sources of information, that would now endanger his fame if he were even supposed to stand in need of them.

It is of the highest moment, no doubt, that medical students (apart from all technical knowledge) should possess a sound education; and this necessity has been so well provided for by the recent additions to the arts courses, and the strictness with which these examinations are conducted, that the basis upon which the deepest principles of medicine have always been founded, is of the most liberal nature; and, taken in conjunction with the other sciences which are embraced in the curriculum of the student, there is little fear of his enjoying that unenviable bliss which is said to be the reward of ignorance.

If the comparatively abstract teaching to be gathered from each of the exhaustive works on medicine, anatomy, histology, physiology, chemistry, etc., be the only exponents of these subjects respectively, then indeed a physician's usefulness may be measured by the amount of theoretical information he has stored up; but, unfortunately for this line of thought, theory, unsupported by practical knowledge, never did pay, and is not at all likely to even now; and this leads me to the subject of this paper, namely:—the great importance of Practical Pharmacy.

Perhaps the wisest and best methods of gaining a thorough acquaintance with the appearance and properties of the different articles of materia medica, contained in the *Pharmacopœia*, and their behaviour when treated pharmaceutically, cannot be over-rated. Having this fact in view, the Irish colleges now make such a course of instruction imperative, with a result which is sure to end very satisfactory, both for the young medical man of the future and for his patient. Most students, therefore, take advantage of the hospitals to which they are attached to learn to dispense the various combinations of drugs, to be conversant with the language of prescriptions, and in many cases to be practically engaged in the manufacture of some of the officinal preparations that do not require chemical manipulations.

This particular kind of work, while it educates the eye to be competent to state (with some degree of accuracy) whether medicines are compounded properly or not, also makes the art of correct prescribing much more easy, and assists the practitioner hereafter in selecting for himself many varieties of combinations without fear of incompatibility; neither is his dignity lessened by the consciousness that his mistakes are likely to damage his fair name in the criticising mind of the chemist, and gives him that opportunity of choosing for himself the drugs which, in his opinion, seem most useful, independently of rules or formulæ.

In conclusion, let me add, that many good effects are almost certain to arise from even a superficial knowledge of practical pharmacy, since, whatever remains to be discovered regarding what are termed the elegancies, either in taste, smell, appearance, or mode of application, of the different medicines in general use, must be the work of the physician or surgeon under whose observation these peculiarities take place, and for whose benefit such improvements would, in many instances, establish a reputation. Thus, the subject which was most required, and least understood, will now, under the new system of medical training, be considered as a means to the greater proficiency of the student.—Yours, etc.,

C. W. BROOKS, L.P.S.I., Apothecary to the
Adelaide Hospital, Dublin.

MILITARY AND NAVAL MEDICAL SERVICES.

SUGGESTION FOR A NEW DECORATION.

SIR,—If any men in Her Majesty's Service have good reason to join in the supplication, "save us from our friends!" they are the members of the Army Medical Department. The truth of this is painfully illustrated by a communication in a recent number of the BRITISH MEDICAL JOURNAL, headed, "Suggestion for a New Decoration."

Only that it is impossible to resist the suspicion that the communication in question, originally intended for a comic contemporary, found its way, by some mistake, into your columns, it would certainly add another to the many causes of irritation and humiliation which the officers of this long suffering department have had, from time to time, to bear.

There is, however, some intrinsic evidence in the letter itself that it was not meant to be taken in a serious light. On no other supposition is it easy to account (presuming the writer, who signs himself "A. M. D.," to be a person of decent education) for the distortion of the English language—savouring somewhat of the style affected by Negro humourists—manifest in such expressions as the "proficiency" of the department, and "suggestions for improving its efficiency." But though one may wish to put the most favourable interpretation on this letter (and it is not likely, alas, that the outside public will do so), it may be asked, is it right to burden the pages of a journal devoted to serious science, with a communication whose humorous tendency is at best only apparent to those who have some slight acquaintance with the subject of which it treats?

But suppose one reluctantly recognises the fact that the writer of the letter is in earnest in his "suggestion," there are some things to be said by those who hold different views. It is not, in my experience, a fact that doctors who have received the Victoria Cross are looked upon with jealousy by "combatant" officers, or regarded as "intruders upon what they consider their special privileges." Not very long ago a most distinguished "combatant" officer said to me: "I have been reading this little book" (a record of the deeds for which the Victoria Cross had been conferred), "and I certainly think that your fellows" (meaning my brother officers) "deserved the V. C. better than anybody." I have heard the same generous testimony repeated at the mess-table and in the field. Nay, more, I have heard combatant officers declare that many of the acts of medical officers in cholera-camp which had fallen under their notice, deserved the V. C. as well as any that could be performed in action.

It is matter for congratulation that the days of generous and chivalrous feeling among British officers have not passed away; and I am sure they are as ready to extend this liberal recognition to chaplains, or even to "pure civilians," who have gained the distinction, as to medical officers.

It would be indeed a sad day for the Army Medical Department if the memories of its deeds in front of the enemy were swept away. I hardly think that any number of "Geneva Crosses" (the proposed decorations) would exercise the same inspiriting influence on the junior members of the department, as the records which recall the fact that, in moments of supreme difficulty and peril, medical officers were found in abundance to compete with their "combatant" brethren for the highest reward of valour and self-devotion which our Sovereign can bestow.

For these reasons I (in common, I think, with the vast majority of my brother officers) must demur to the "suggestion" intended to promote the "proficiency" of the department by "improving its efficiency."—I am, sir, yours, etc.,

AN ARMY SURGEON.

FLEET-SURGEON GERALD MOLLOY, who has been in medical charge of the Plymouth Division of Royal Marines since June, 1881, succeeds the late Mr Lawrenson in medical charge of the Malta Dockyard, and is succeeded at Plymouth by Fleet-Surgeon Maxwell Rodgers, M.D., from the *Monarch*, Fleet-Surgeon Sweetman, from the *Defence*, joining the turret-ship as successor to Dr. Rodgers.

IT has been decided that in view of the reserved power vested in Her Majesty's Government to appoint an officer in the Indian Medical Department to the office of Surgeon-General to Her Majesty's Forces, when British officers are permitted to exchange in these appointments, the officer exchanging to India shall occupy the same position precisely, as respects the tenure of the post, as the

officer with whom he exchanges—that is to say, the new incumbent shall retain the post until the expiration of five years from the date on which his predecessor was appointed thereto, and for no longer period.

MEDICO-LEGAL NOTES AND QUERIES.

AN INQUEST IN LONDONDERRY.

FROM recent reports in the *Derry Journal*, and also in the *Derry Sentinel*, we have an account of what appears to be a very unsatisfactory inquiry into the cause of the death of a young woman named Mary Friel. The inquest was held in Londonderry by the coroner for that city. It appears that the deceased was twenty-eight years of age, a prostitute, and addicted to habits of intemperance; and that, on the night of her death, she was discovered lying on the city wall in an insensible condition, having, a short time previously, partaken of some food and whisky supplied by her companion, Cassie M'Daid, and had been followed by four men, amongst whom was a "blue-jacket." When discovered, the police were sent for, and the woman removed to the infirmary, where the house-surgeon pronounced her dead, finding, at the same time, that there were superficial marks of injury about her; but there was nothing in her appearance which would lead him to assign a cause of death.

At the inquest many witnesses were called, amongst whom one, Cassie M'Daid, stated that she had supplied the deceased that evening with a pound of meat and two and a half glasses of whisky shortly before ten o'clock, and that afterwards they walked together along the city wall. Some men came up, and she (Cassie M'Daid) walked a little ahead of the deceased with a "blue-jacket." On returning to look for deceased, she found her lying on the wall in a helpless condition. She screamed for the police, who came and removed the deceased to the infirmary. The deceased had been sleeping out for a week, and was barefooted. Other witnesses gave evidence to show that the deceased had been dragged in the dirt, and that she had appeared well an hour or two before her death. Mr. William Bennett, the house-surgeon of the infirmary, stated that when he saw the deceased she was dead. He found an abrasion on the right cheek, and a mark on the nose, with bleeding. He could not assign any cause for the death, and he had made no *post mortem* examination, and had not been directed to do so. At this point of the proceeding, head-constable Moffatt appears to have taken upon himself the duties of coroner, and to have questioned the doctor as follows.

"From the evidence you have heard about the deceased taking whisky, and her being exposed all last week, in your opinion was this exposure sufficient to cause death?" To which Mr. Bennett very properly replied: "It may have been the cause. I cannot say how death occurred."

Hereupon several of the jury remarked that a *post mortem* examination should be made in order that they might be enabled to say what was the true cause of death, as they not only had to satisfy themselves, but the public at large, as to how the deceased came by her death. This proposition was, however—most unwisely, we think—overruled by a majority of the jury, notwithstanding that the house-surgeon, after repeated questions, still maintained that he was quite unable to assign the cause of death. After further discussion between the coroner and the jury, and the jurors with each other, the following verdict was arrived at:—

"We find that the deceased, Mary Friel, was found dead on the city wall; and we have no evidence to show the direct or immediate cause of death; but, from the evidence produced, we believe the death was from exposure."

No more unsatisfactory verdict could have been returned, more especially as the coroner and jury had the means entirely at their command of producing such evidence as would have placed the cause of death clearly before them and beyond dispute, namely, by ordering a *post mortem* examination of the body.

Such verdicts as that returned by the Londonderry jury tend to bring the Coroner's Court into contempt, and to suggest that the coroner himself could hardly be alive to the serious nature of the responsibilities of the important office he holds. For the sum of one guinea—a sum little enough—a *post mortem* examination could have been made, and the question of the cause of death set at rest for ever.

The verdict of a coroner's jury should be decisive and complete. Many verdicts are returned leaving the cause of death unascertained, or so vaguely stated that the friends of the deceased and the public are left in mystery and doubt, and this because medical and scientific evidence has either been set aside or ignored altogether.

A letter from the house-surgeon of the infirmary on the subject mentions that a strong feeling as to the manner in which this inquiry was conducted has been manifested by the medical practitioners of the city, and he himself complains that even the fee of one guinea to which he is entitled is not procurable from the coroner till March in the ensuing year. He also complains of want of courtesy on the part of the coroner in not replying to a communication made to him on the subject. The Act of Parliament relating to the payment of all witnesses giving evidence in the Coroner's Court enacts that the coroner shall advance and pay all fees immediately after the termination of the inquest, he being recouped by the magistrates of the county or the borough authorities.

IMPORTANT DECISION IN LIFE-ASSURANCE.

DECISION has just been given, in one of the superior courts of Scotland, in a disputed case of life-assurance, upon a point which is of no small moment to the public, and also to life-assurance companies themselves. The action at law arose out of the refusal of an insurance-company to meet the claims upon it, on the ground that the policy had been rendered void by the intemperate habits of the deceased, he having stated at the time the insurance was effected that he was of temperate habits, whereas the contrary was the case. The real question at issue was the meaning to be put on the expression "temperate habits." Much evidence was given upon this point, but it is to the ruling of the judge that we desire to draw attention. He decided against the company, as he did not regard the evidence brought forward sufficient to absolve it from its obligation; for, though several witnesses spoke to occasional excesses on the part of the deceased, the judge would not admit that these implied of necessity intemperance of habit. He even went further than this, and laid it down that an attack of delirium tremens was not proof absolute of habitual intemperance. In proof of this view of the law, a recent case in the Supreme Court of America was quoted. In the present instance, we think that the judge's decision was an eminently fair one, no evidence having been forthcoming that, at the time the policy was entered on, the deceased was not, in the ordinary acceptation of the term, of temperate habits. At the same time, the ruling of the judge gives a latitude to the term temperate, which we think the present views of the effects of alcohol on the bodily tissues will scarcely allow us to endorse. We do not hold with the total abstainers, that intemperance consists in the mere drinking of alcoholic beverages to the slightest extent; but we would certainly regard the occurrence of such an illness as an attack of delirium tremens as very strong proof of the indulgence in alcohol to an extent likely to seriously damage the tissues of the body, and scarcely in keeping with a temperate life.

RIGHTS OF QUALIFIED PRACTITIONERS.

MR. J. W. WOOD.—Section 31 of the Act of 1858 provides that every person registered under this Act shall be entitled, according to his qualification or qualifications, "to practise medicine or surgery, or medicine and surgery, as the case may be, in any part of Her Majesty's dominions; and to demand and recover, in any court of law, with full costs of suit, reasonable charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients."

We believe that the licence of the London College of Physicians authorises the holder to practise medicine, surgery, and midwifery, and to dispense medicines to his own patients. According to this qualification, we think the licentiates are entitled to charge for the cost of medicines supplied.

CONFIDENTIAL INFORMATION.

M.A., M.B.—The information obtained in the course of negotiations for employment or partnership must obviously be regarded and treated as confidential, and the inquirer or the locum tenens (as the case may be) should consider himself bound in honour not to make any use of it that would be injurious to the vendor. A locum tenens is generally bound by an agreement not to oppose the practitioner whose place he is occupying; and this consideration must govern all preliminary proceedings and the information acquired in connection with them. Otherwise, very confidential information might be acquired and abused. Our correspondent is obviously not entitled to any advantage from having commenced a negotiation which he did not complete.

CORONERS AND DEATH-CERTIFICATES.

SIR,—Will you kindly give me your opinion on the following case? I am sent for to see an elderly man, whom I have not attended for twelve months. I am unable to go at the moment, but send my assistant (unqualified), who finds the man moribund from bronchitis, failure of heart, etc.; and he dies before any steps can be taken for his relief. I see him shortly after death.

I decline to give a certificate. The coroner states he sees no reason for an inquest, there being no suspicion of foul play, etc. I write to the registrar of deaths, enclosing the coroner's letter and my own explanation. He writes to me simply, "You can certify you *believe* he died of bronchitis." Can I give any certificate legally receivable by the registrar? Can the registrar register the death without any certificate? Cannot the coroner issue a certificate to the registrar, or is there no choice between a doctor's certificate of attendance and an inquest?—Yours truly, QUERIST.

*** As no registered medical practitioner was in attendance during the deceased's last illness, it is clear that no one can give a legal certificate of the cause of death; and, as the coroner deems an inquest to be unnecessary, it becomes the duty of the registrar to register the death, and to insert in the register the best information he can obtain as to the cause of death, which will remain uncertified.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

VESTRIES AS SANITARY AUTHORITIES.

THE Vestry of St. Saviour's, Southwark, has petitioned the Asylums Board to allow the Vestry of that parish to contract with the Board to make use of the accommodation erected and provided for patients with infectious diseases of the pauper class, for whom the Board has to provide, for the non-pauper patients for whom the Vestry is bound to provide, but for whom it has not got a bed. Formerly, the guardians used to provide ambulances, so it is complained, which that vestry could borrow, and could then send the non-pauper to the paying hospitals, that in the Liverpool Road for fever, and that at Highgate Hill for small-pox; but now the Board provides patients' ambulances, and this "Sanitary Authority" has not the means of moving the patients with whose welfare they are charged. The reason the Board took over the ambulances is, that the parish authorities did the work of conveying the sick very badly. The "ambulances" of this parish were old coaches, which, when they had discharged the duty of conveying the small-pox or fever patients to the hospitals, were placed under railway arches, where children used to play at hide and seek in and out of them, a game which ended in many of the children and other persons being hidden for ever from mortal eyes.

The parish, however, "saved" the provision of a proper ambulance, and the Asylums Board had to take this duty off the parish hands.

The Asylums Board could not assent to giving the Vestry the accommodation provided for the pauper poor, and it was stated that many of the non-pauper poor had been sent to the asylums as paupers, because the local authority had failed to obtain other provision in non-epidemic periods.

MEDICAL OFFICERS AND RELIEVING OFFICERS.

SIR,—In reply to the complaint of "M.R.C.P.," in the JOURNAL of November 10th, who states that the relieving officer of his union district "acts as his master," etc., I should like to point out to him that he has a powerful remedy always at hand, which will force most relieving officers and boards of guardians to consider very carefully the recommendations of their medical officer with regard to the requirements of the sick poor. This remedy is public opinion. I once made short work of a relieving officer of the kind which worries your correspondent. I was taking charge of a practice in Sussex for three months, and, during this period, attended the sick of three union districts. In one of these districts, the incumbent of the practice had been annoyed by the high-handed proceedings of the relieving officer. He began to treat my recommendations in an unsatisfactory manner. The very first case which presented a plain issue, I selected for challenge; it was that of a man who had not been a very temperate or careful person, but who was far advanced in phthisis; and it was in the month of March. He lived with his wife, whose whole time nearly was occupied in attending upon him. They had but little food, and that was purchased by the sale of a few posies of wild violets, which the woman collected in the woods. I prescribed suitable medicine, saw him frequently, and ordered a pint of milk daily. I need not say my order was disregarded. I wrote a private note to the relieving officer, requesting him at once to supply the man with nourishment, as his strength was fast ebbing from want of food. No reply came to me, and no relief was given to the patient. I then wrote a note to the clerk of the guardians, briefly stating that this person was dying of consumption; and that, as his death was being plainly accelerated by the neglect of the board to supply him with the modest amount of food I had ordered, it was my intention to refuse a certificate of death from natural causes; and an inquest would be held. The required food was given early on the following day. The relieving officer came to me in a very angry mood, and informed me that I did not know as much about these cases as he did. I refused to discuss the matter, and stated that, if a similar occasion required it, I should act in a precisely similar manner. I had no more trouble. If "M.R.C.P." will wait for a plain straightforward case, and act firmly, he will probably save himself future annoyance. In the event of a coroner declining to hold an inquest, there are few villages without a sufficiently benevolent person to take up the matter in the interests of the poor, and make public the scandal. The conviction once established in the minds of the board of guardians and their subordinates, that their medical officer is not to be trifled with, except at too great a risk to themselves, will be the best guarantee of circumspection, when respect for his office, or the defects of their own education and manners, fail to ensure his considerate and gentlemanlike treatment.—Yours truly, F. J. DRIVER, M.D., M.A.

1, Victoria Gardens, Southsea, November 10th.

IRISH POOR-LAW MEDICAL SERVICE.

SIR,—The letter of Surgeon-Major Evatt of August 11th, and those of Irish dispensary medical officers since published, induce me to place before your readers a scheme which seems to me likely to meet the requirements of the Irish Poor-law Medical Service.

I would make the Poor-law Service a Civil Service, and amalgamate with it the Sanitary and Lunacy, as well as Registration and Jail Services, making length of service and competency sure of recognition; the salaries of all officers to be fixed by the State, and allowing retirement on full pension after thirty years' service.

The area of taxation for the service should be as large as possible, embracing the whole country, as the cloaking of epidemics of famine or disease in a locality would then be likely to lose its hold on the avaricious or needy, by removing the dread of increased local taxation; and those things could be dealt with at the most effective time, namely, soon after their invasion, and necessary reforms be at once inaugurated, a thing at present barred by divisional or townland rating.

The workhouse medical officers should be made resident medical superintendents, as at present in lunatic asylums, all other officers to be subordinate to them. The staff might consist of a steward, clerk, schoolmaster (who might also be storekeeper), porter, shoemaker, and tailor and ward-men; the females being matron, schoolmistress, nurse, and ward-maids. The duties of each should be fixed, the medical superintendent taking care they were performed in a proper manner.

Sufficient land might be taken around each workhouse to allow all applying for admission to be taken in without entailing any loss, making a law that those obtaining admission to the workhouse could not leave without permission of the board, treating pauperism as a disease proper, and making an able-bodied pauper seeking admission to the workhouse feel that he must earn his support. All special and rarely used instruments, and stocks of medicines, should be kept at the workhouse for the use of dispensary, as well as workhouse, medical officers.

I would provide each dispensary medical officer with a residence at his dispensary, having, in connection with the dispensary, nurses' apartments, also a ward with a few beds, in case emergency required speedy action, and removal to workhouse was not possible. The salary of the medical officer should be sufficient to allow his keeping male and female servants, also a horse and trap, and devote his whole time, if necessary, to his dispensary duties.

The duty of dispensary medical officer should include, beside the present duty, the certifying for dangerous lunatics, attendance at coroners' inquests, consultations with one another and with the workhouse superintendent, attendance to registration and vaccination, and sanitary matters. The post of workhouse superintendent should, when vacant, be filled by election from the senior dispensary medical officers, vacancies in the lower branches of the service to be filled by competition as they arose.—Your obedient servant,

LAURENCE KERIGAN, L.R.C.S.I.

Mullingar, Ireland, October 25th, 1883.

CENSURE OF MEDICAL OFFICERS.

SIR,—Attentive perusal of the ominous heading "Censure of a Medical Officer," in the *Standard* of November 21st, so fully vindicates the unfortunate victim of a self-exculpatory board, that common fairness may claim attention to the facts narrated.

Mr. Deacon, summoned at 9 A.M., attends soon after 10; a promptitude entailing censure. A second visit at 2 P.M. brings but censure for lack of entry, or report to his superior, when apoplectic unconsciousness precluded possible recovery. One would naturally ask, could more prompt attention have been rendered? Could more have been effected than was done for this pauper, whose shade might reverse a verdict ignoring service while defaming character. *Fiat justitia!*—Yours obediently, H. VEASEY, F.R.C.S.

Aspley-Guise, Woburn, November 21st, 1883.

PAYMENT BY CASE.

MR. R. N. INGLE (Cambridge) asks: Are there any unions which pay the parochial medical officers "per case?" and what unions?

*** We would refer our correspondent to the Local Government Poor-law Medical Service in the Appendix of the *Medical Directory* for England and Wales. A careful perusal would probably afford him all the information he desires. In order to simplify his examination thereof, we would point out that, in the Royston Union, Herts., such a system exists, as may be found on reference.

E. T.—A churchwarden is *ex officio* an overseer of the poor, and, in virtue thereof, can give an order for the attendance of a district medical officer on a parish patient. He cannot, however, do so except under urgent circumstances; therefore, if our correspondent feels himself aggrieved, and can show that there was no necessity for his immediate attendance, he has his remedy in making formal complaint thereof to the board of guardians.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return of Nov. 17th, that the annual death-rate was recently equal to 22.8 in Bombay, and 46.4 in Madras; small-pox caused 45 deaths in Madras, and cholera 4 in Bombay, while "fever" fatality was nearly twice as great in Madras as in Bombay. In twenty-two of the large European cities, the mean annual rate, according to the most recent weekly returns, was equal to 23.4 per 1000, which but slightly exceeded the mean rate last week in the twenty-eight large English towns dealt with in the

Registrar-General's return. The rate in St. Petersburg was equal to 23.7, and showed a further decline from the rates in recent weeks; the 423 deaths included 16 from diphtheria and 9 from scarlet fever. In three other northern cities — Copenhagen, Stockholm, and Christiania — the mean death-rate was but 18.8, the lowest being 14.5 in Christiania; typhoid fever and diphtheria both caused 2 deaths in Copenhagen, and scarlet fever 4 in Stockholm. The rate in Paris was 22.3, the 762 deaths including 30 from typhoid fever, and 5 from small-pox. The 177 deaths in Brussels, of which 5 resulted from small-pox, were equal to a rate of 22.2. In Geneva, the rate was exceptionally high, and equal to 29.0. The mean rate in three of the principal Dutch cities — Amsterdam, Rotterdam, and the Hague—was 28.3; the rate ranging from 30.5 in Amsterdam to 23.2 in the Hague; in Amsterdam 7 more deaths were referred to diphtheria, besides 28 to croup. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 24.0, and ranged from 21.4 and 21.8 in Hamburg and Vienna, to 25.4 and 31.7 in Dresden and Prague. Diphtheria showed fatal prevalence in most of these German cities, especially in Dresden; small-pox caused 19 more deaths in Prague. In three of the principal Italian cities, the rate averaged 20.5, and was 21.1 in Rome, 19.2 in Turin, and 21.5 in Venice; in Rome 6 deaths were referred to malarial fever and 3 to typhoid fever, and 5 fatal cases of typhoid fever were reported in Turin. The 120 deaths in Lisbon, including 3 from typhoid fever, were equal to a rate of 30.2. In American cities, the rate was 19.6 in Philadelphia, and 21.8 in Baltimore; typhoid fever caused 18 deaths in Philadelphia, and 4 in Baltimore.—From the weekly return of the 24th ult., it appears that the annual death-rate was recently equal to 21.8 in Bombay and 26.0 in Calcutta. Cholera caused 35 deaths in Calcutta, in which city "fever" fatality was nearly twice as great as in Bombay. According to the most recent weekly returns, the average annual death-rate in twenty-three large European cities was equal to 23.6 per 1000 of their aggregate population. This rate was 0.9 above the mean rate last week in twenty-eight of the largest English towns. In St. Petersburg, the rate was equal to 25.3, and the 450 deaths included 22 from diphtheria and 12 from scarlet fever. In three other northern cities —Copenhagen, Stockholm, and Christiania—the mean death-rate did not exceed 18.1, the highest rate being 18.3 in Stockholm, where the deaths included 4 fatal cases of scarlet fever. In Paris, the death-rate was 22.4, 38 deaths resulting from typhoid fever and 3 from small-pox. The 281 deaths in Brussels were equal to a rate of 24.7, and included 9 from small-pox. In Geneva, the 24 deaths were equal to a rate of 17.9. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 25.5; the highest rate was 28.7 in Amsterdam, where 13 more fatal cases of diphtheria were reported. The Registrar-General's table includes nine German and Austrian cities, in which the death-rate averaged 24.7; it ranged from 18.3 and 21.4 in Hamburg and Buda-Pesth, to 28.1 and 29.8 in Dresden and Prague. Small-pox caused 26 deaths in Prague and 4 in Buda-Pesth; diphtheria showed fatal prevalence in Berlin, Dresden, and Trieste. In three of the principal Italian cities, the mean rate was 20.9, the highest rate being 22.6 in Venice; the 128 deaths in Rome included 10 from malarial fever. In Lisbon, the 118 deaths were equal to a rate of 30.8. The mean death-rate in four of the principal American cities was 20.1, the highest rate being 20.9 in New York. Typhoid fever caused 15 deaths in Philadelphia, and diphtheria showed more or less fatal prevalence in each of these American cities.

OBITUARY.

JOHN MACNAUGHT, M.D., F.R.C.P.Ed.

We have to record the recent death of a venerable and highly esteemed member of the medical profession and of the British Medical Association, Dr. John Macnaught, of Liverpool, who expired on the 3rd ultimo, at the residence of his son, Warwick Gardens, Kensington, London, whither he had moved in June of the present year. Dr. Macnaught was born in 1793; he took the degree of M.D. King's College, Aberdeen, and became Licentiate of the Royal College of Surgeons of Edinburgh in 1815. In the same year he sailed for Jamaica, landing on that island on the very day on which the battle of Waterloo was fought. Dr. Macnaught practised in Jamaica for twenty-five years, where by his high personal character and medical skill, he earned for himself a distinguished social and professional position. On his return to England, Dr. Macnaught, ever desirous of keeping in the van of the most recent scientific knowledge, recommenced, as it were, his student life, and attended numerous courses of lectures in the medical schools of London. He then settled down to practise as a physician in Liverpool, where, coming at his time of life as a stranger among strangers, he experienced unusual success. He rapidly acquired a good professional status in the city of his adoption, upholding always the honour and dignity of his art, and winning no less by his kindly disposition and courteous manners, than by his shrewdness and ability, the confidence of his patients and the esteem and respect of his medical brethren. The latter fact is demonstrated by his election in 1865 to the office of Vice-President of the Liverpool Medical Institution, and subsequently to that of President for a period of two years. Dr. Macnaught took a deep and affectionate interest in the School for the Indigent Blind in Liverpool, and for twenty-five years gave his assiduous and valuable services as honorary physician to that institution, in recognition of which he was presented by the members of the committee with a very handsome piece of plate on his retirement from office in 1874.

Dr. Macnaught was in many respects a remarkable man. To few members of the medical profession has been given the power, as well as the energy, to continue in actual practice as he did—though possessed of very ample private means—for the long period of sixty-five years. The fact is significant of his physical and intellectual activity, and of his ardent devotion to his calling. He retained his mental faculties clear and vigorous to the day of his death; and when, a few years ago, the impairment of his sight by cataract disabled him for the active duties of his profession, he continued to maintain a keen and lively interest in all matters relating to medicine, nothing affording him greater pleasure than to learn what was going on in the medical world, or to discuss scientific topics with some of his younger brethren, for whom his long experience, varied knowledge, and retentive memory rendered his company and conversation alike entertaining and instructive.

John Macnaught has passed away at the ripe age of ninety years, leaving behind him the long record of an honourable and active lifetime, and a rare example of the oft-quoted words of Horace—"*Mens sana in corpore sano.*"

MEDICAL NEWS.

Apothecaries' Hall.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 22nd, 1883.

Foley, Charles Nicholas, Denbigh Place, S.W.
Hehir, Patrick, London Street, Paddington.
Smith, Edward John, Charing Cross Hospital.

The following gentleman also on the same day passed the Primary Professional Examination.

Loftus, Arthur Smith, Charing Cross Hospital.

King and Queen's College of Physicians in Ireland.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, November 5th, 6th, 7th, and 8th, the undermentioned candidates were successful:

For the Licence to practise Medicine and Midwifery.—J. J. Buggey, Kilkenny; A. Cole, Dublin; C. S. Cronin, Cork; R. J. D'Arcy, Kingstown, co. Dublin; C. H. P. D. Graves, Cookstown, co. Tyrone; M. J. McCartan, Rostrevor.

For the Licence to practise Midwifery only.—J. MacMahon, M.D.R.U.I., Cork; J. Meek, M.D.R.U.I., Belfast; J. Mitchell, M.D.R.U.I., Desertmartin, co. Derry; W. L. Symes, L.K.Q.C.P., Dublin.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, pursuant to the Supplemental Charter of 1878, have been duly enrolled Members of the College, viz.:

T. G. Kerans, Lic. Med. 1869, Northwich, Cheshire; C. W. M'Carthy, Lic. Med. 1872, Clonmel; J. W. Kennedy, Lic. Med. 1875, Lisburn; W. H. Owen, Lic. Med. 1877, Liverpool.

MEDICAL VACANCIES.

The following vacancies are announced:

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House-Surgeon. Salary, £65 per annum. Applications by December 11th.

BALLYMAHON UNION, ABBEYSHRULE DISPENSARY.—Medical Officer. Salary, £120 per annum, and Fees. Applications by 18th instant to G. H. Miller, Honorary Secretary, Lenamore, Edgeworthstown.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Acting Physician. Applications by December 5th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN.—Two Extra Acting Physicians. Salary, £60 per annum. Applications by December 5th.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon. Salary, £80 per annum. Applications by December 6th.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Honorary Surgeon. Applications to Mr. Adam Fox, Honorary Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant Physician. Applications by December 17th.

CLAYTON HOSPITAL AND WAKEFIELD GENERAL DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications by December 3rd.

CLIFDEN UNION.—Medical Officer, Renoyle Dispensary. Salary, £120 per annum, and fees. Applications, by December 6th, to Mr. J. O'Donnell, Honorary Secretary, Moyard, Clifden, Co. Galway.

COTON HILL LUNATIC HOSPITAL, Stafford.—Resident Medical Superintendent. Salary, £400 per annum. Applications to the "Committee of Visitors," by December 8th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by December 10th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by December 12th.

GESTO HOSPITAL, Edinbane, Skye.—Resident Medical Officer. Salary, £275 per annum. Applications to J. McLennan, Solicitor, Portree, by December 1st.

HOSPITAL FOR SICK CHILDREN, 49, Great Ormond Street, Bloomsbury.—Assistant-Surgeon. Applications by December 5th.

KINGTON UNION.—Medical Officer. Salary, £30 per annum. Applications by December 3rd.

LEEDS AMALGAMATED FRIENDLY SOCIETIES.—Surgeon. Salary, £180 per annum. Applications to C. H. Wilson, 12, Rugby Terrace, Rugby Road, Leeds, by December 4th.

LIVERPOOL NORTHERN HOSPITAL.—House-Physician. Salary, £80 per annum. Applications to the Chairman of the Committee by December 14th.

LODDON AND CLAVERING UNION.—Medical Officer. Salary, £55 4s. per annum. Applications to J. C. Copeman, Clerk to the Guardians, Loddon, Norwich, by December 8th.

LONDON HOSPITAL.—Surgical Registrar. Salary, £100 per annum. Applications by December 17th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Resident Medical Officer and Registrar. Honorarium of 40 guineas per annum. Applications by December 10th.

PAROCHIAL BOARD OF INVERARY AND GLENARY AND LOCAL AUTHORITY OF THE BURGH OF INVERARY.—Medical Officer. Joint Salary, £90 per annum. Applications to the Town Clerk, Inverary, by December 14th.

ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £120 per annum. Applications by December 10th.

ROYAL FREE HOSPITAL, Gray's Inn Road, W.C.—Assistant-Surgeon. Applications by December 5th.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace Road.—Attending Medical Officer. Applications by December 3rd.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by December 5th.

ST. BARTHOLOMEW'S HOSPITAL.—Assistant-Surgeon. Applications by December 4th.

SHERBURN HOSPITAL AND DISPENSARY.—Dispenser. Salary, £70 per annum. Applications to Dr. Booth by December 1st.

SOUTH CHARITABLE INFIRMARY AND COUNTY HOSPITAL, Cork.—House-Surgeon, Apothecary, and Secretary. Salary, £100 per annum. Applications by December 7th.

UNIVERSITY OF EDINBURGH.—Additional Examiner in Medicine in the Department of Medical Jurisprudence. Applications to J. Christian by January 14th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon. Salary, £50 per annum. Applications by December 10th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Assistant-Physician. Applications by December 10th.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W. Honorary Surgeon. Applications by December 10th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road, W.—Surgeon. Applications by December 1st.

YOUNG'S PARAFFIN LIGHT AND MINERAL OIL COMPANY, Limited.—Medical Practitioner. Salary, £300 per annum. Applications by December 1st.

MEDICAL APPOINTMENTS.

ANDERSON, W. M., M.B., appointed House-Surgeon to the West London Hospital, *vice* H. Hendley, M.R.C.S., resigned.

BENSON, A. H., M.B., appointed Ophthalmic Surgeon to the City of Dublin Hospital, *vice* J. H. L. Stoney, M.D., deceased.

BRICKNELL, E. S., L.R.C.P.Ed., appointed Honorary Medical Officer to the Fever Hospital, Queenstown, Cork.

BROWN, J., L.R.C.P.Lond., re-appointed Medical Officer of Health to the Bacup Urban Sanitary Authority.

BURKE, Hubert W., L.R.C.S., L.R.C.P.Ed., appointed Resident Medical Officer of St. George's Retreat, Burgess Hill, Sussex.

CAIGER, F. F., M.B., M.R.C.S., appointed Assistant House-Surgeon to St. Thomas's Hospital.

COOPER, G. F., M.R.C.S., L.R.C.P., reappointed House-Surgeon to St. Thomas's Hospital.

FOXWELL, A., M.B., L.R.C.P., reappointed House-Physician to St. Thomas's Hospital.

GREEN, C. D., M.R.C.S., L.R.C.P., appointed Assistant House-Physician to St. Thomas's Hospital.

HODGES, R. W., L.R.C.P.Ed., appointed Honorary Medical Officer to the Fever Hospital, Queenstown, Cork.

HOWARD, W., M.R.C.S., appointed District Medical Officer to the Downham Union.

JOHNSTON, F., M.B., appointed House-Surgeon's Assistant to the Liverpool Northern Hospital, *vice* W. Horrocks, M.R.C.S.

JONES, W. Wansbrough, M.B., M.R.C.S., reappointed House-Surgeon to St. Thomas's Hospital.

LIGHTFOOT, C. L., M.B., appointed House-Surgeon to the North Riding Infirmary, Middlesbrough-on-Tees, *vice* S. Bateman, M.D., resigned.

LONGBOTTOM, W., L.R.C.P., appointed Resident Assistant Medical Office the Workhouse at Fir Vale, Pitsmoor, to the Sheffield Union.

MAHON, Greenwood Henry, L.R.C.S.I., appointed House-Surgeon and Resident Medical Officer to the Monkstown Hospital, Co. Dublin.

MARLOW, F. W., M.R.C.S., L.S.A., reappointed Ophthalmic Assistant to St. Thomas's Hospital.

MARSH, P. M.B., appointed Resident Clinical Assistant to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

MILLIGAN, R. A., M.R.C.S., appointed Registrar and Chloroformist to the Evelina Hospital for Sick Children, Southwark Bridge Road, S.E., *vice* J. B. Lawford, M.D., resigned.

MILTON, H., M.R.C.S., L.S.A., reappointed House-Physician to St. Thomas's Hospital.

OLIVER, J., M.B., appointed Medical Officer and Registrar to the National Hospital for the Paralysed and Epileptic, Bloomsbury, *vice* N. Rushworth, M.R.C.S., resigned.

ORFORD, John, M.R.C.S., L.R.C.P., appointed Non-resident House-Physician to St. Thomas's Hospital.

OWEN, H., M.R.C.S., appointed House-Surgeon to the Royal Pimlico Dispensary, *vice* H. G. Orlebar, M.D., deceased.

PARRY-JONES, M., M.B., appointed Resident Clinical Assistant to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

REID, D., M.B., appointed Medical Officer to the Wiggenhall District of the Downham Union.

ROBERTS, R., L.R.C.P., appointed Medical Officer to the St. Asaph Union.

RUDGE, H. T., M.R.C.S., appointed Physician's Assistant to the Bristol General Hospital, *vice* J. B. Woolby, M.B., resigned.

RYGATE, B. R., M.B., appointed Medical Officer of Health to St. George-in-the-East, *vice* J. J. Rygate, M.B., resigned.

SAVILL, T. D., M.D.Lond., M.R.C.P., appointed Registrar and Pathologist to the West London Hospital.

SHEPPARD, W. J., M.B., M.S., L.R.C.P., appointed Resident Accoucheur to St. Thomas's Hospital.

SMITH, C. Swaby, M.R.C.P.Ed., M.R.C.S., appointed Medical Officer to the Copland-Sudbury Cottage Hospital; also Medical Officer to the Warehousemen, Travellers', and Clerks' Provident Association.

TAYLOR, G. H., L.R.C.S., appointed Junior Assistant Medical Officer to the Durham County Asylum, *vice* C. M. Campbell, M.D., resigned.

TENNANT, G., M.B., appointed Assistant-Physician to the Smedley's Hydropathic Establishment, Matlock Bridge, Derby, *vice* H. G. Wilson, M.B., resigned.

TOULMIN, W. C., L.R.C.P., appointed Honorary Surgeon to the Stamford Hill, Stoke Newington, etc., Dispensary, *vice* E. D. Hacon, F.R.C.S., resigned.

TURNER, Nathaniel Henry, M.R.C.S.E., appointed Ophthalmic Clinical Assistant to King's College Hospital.

UNDERWOOD, A. S., M.R.C.S., appointed Lecturer on Dental Anatomy and Physiology to the Dental Hospital of London, *vice* C. S. Tomes, M.R.C.S., resigned.

WILLIAMS, J. F., M.R.C.S., appointed Assistant Medical Officer and Dispenser to the St. Saviour's Union, Surrey, *vice* W. C. Steele, M.R.C.P., resigned.

YOUNG, W. C., F.I.C., appointed Public Analyst to St. George-in-the-East, *vice* J. J. Rygate, M.B., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

SYKES.—On November 25th, the wife of John F. J. Sykes, M.B., B.Sc., of a daughter.

TONGE-SMITH.—On November 27th, at 122, Ladbroke Grove, W., the wife of Winckworth Tonge-Smith, M.D., of a son. Irish and West Indian papers please copy.

DEATH.

CROMBIE.—On November 26th, at his residence, 1, Oakley Square, N.W., John M. Crombie, M.A., M.D., aged 39 years.

A NOVEL STRIKE.—It is rumoured that the wet-nurses (*nourrices*) in the pay of the Assistance Publique, intend to strike. They receive from 15 to 18 francs a month, but consider it insufficient, as private families pay at a higher rate. The director of the Assistance Publique has enumerated in this year's budget a sum of 150,000 francs for the benefit of wet-nurses It is unknown whether this is a coincidence or a result.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY......King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. W., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., Tu. F., 2; Eye, Tu. F. 9.15; Ear, M. Th., 2; Skin, Tu. Th., 1.30; Throat, M. Th., 1.45; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Clutton: On a Case of Fistulæ in the Penile Portion of the Urethra, successfully treated by a Plastic Operation after opening the Urethra in the Perinæum. Mr. Rose: A Case of Recurrent Femoral Aneurysm after Ligature of the External Iliac Artery: Excision of the Entire Sac: Recovery (living specimen). Mr. Royes Bell: On a New Method for Exposing the Knee-joint in order to remove Pulpy Degeneration of the Synovial Membrane.—Odontological Society of Great Britain, 40, Leicester Square, 8 P.M. Ordinary meeting; Dr. Joseph Walker (President) in the chair. Casual communications by Messrs. H. Weiss, Bland Sutton, Morton Smale, Dr. Elliott. Discussion on Mr. Henry Power's paper on the Relations between Diseases of the Eye and Diseases of the Teeth.

TUESDAY.—Pathological Society, 8.30 P.M. Dr. Norman Moore: Three Cases of Pancreatic Disease. Dr S. West: Purulent Pericarditis. Mr. Symonds: Aneurysmal Dilatation of Radial Artery following Suppurative Arteritis. Dr. Mahomed: Cystic Disease of the Kidney and Hydronephrosis. Dr. Dawson Williams: On the Etiology of Tuberculosis. Mr. A. Barker: Tubercular Ulceration of Tongue. Dr. Charlewood Turner: Encysted Central Sequestrum of Tibia. Mr. Jessett: Medullary Sarcoma of the Skull in a Child. Dr. Lediard: Caries of the Vertebræ in a Dog (card).

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown. Dr. Barnes: The Mechanism of Labour, especially with reference to Naegele's Obliquity and the Lumbo-sacral Curve. Dr. E. S. Tait: Observations on Puerperal Temperature.—Epidemiological Society of London, 7.45 P.M. Special general meeting. 8 P.M. Ordinary meeting. Sir W. R. E. Smart: Scurvy in its Bearings on Explorations by Sea.

THURSDAY.—Harveian Society, 8.30 P.M. Dr. Broadbent: On Prognosis in Heart-disease.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr. Montagu Smith: The Ethics of Vivisection.—Parkes Museum, Margaret Street, 8 P.M. Lecture, by Dr. G. V. Poore, on Coffee and Tea. The chair will be taken by Sir Henry Thompson, F.R.C.S.

FRIDAY.—Medical Society of Charing Cross Hospital, 8 P.M. Mr. A. G. Dodson: Cremation.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

WATER-CLOSETS IN CONTINENTAL HOTELS.

SIR,—Would any sanitarian, having practical experience of the working of different forms of trapped and trapless closet-basins, say which form of basin they would recommend for a large Continental hotel, where there are many closets in series, one above the other, and where the soil-pipes, though properly ventilated, are unnecessarily wide, and the house-drains large and built of bricks, not made of glazed earthenware or cast-iron tubes, and thus difficult to flush, though there is plenty of water? As there are nearly sixty closets, the cost is of consequence.—I am, etc., M.D.

*** We are of opinion that trapless closets are not suitable for Continental cities, and that all closets should have a trap in connection with the basin. It was due to the institution of a French trapless closet, with corresponding drains of large sectional area, that typhoid fever arose in a large villa near Hyères, on the Mediterranean. Mr. Eassie, who visited it, substituted some Doulton's valve-closets from their manufactory in Paris, and proper traps were interposed. He considers that the best kind of closet for use in a large Continental city, where so many closets would be used, would be those of O. D. Ward, of London, called the Household Water-closet, which obtained a medal at the Newcastle Sanitary Exhibition, 1882. At the Bristol General Hospital, where he has used a number, he had the syphons made in iron, with a ventilating-pipe for some, and cannot conceive anything better suited for the uses mentioned in the query. The soil-pipes in connection with all closets should be ventilated the full diameter, without cowls. Most closets, especially those of the valve order, are scarcely suitable for the south Continental cities, because, when they perforce get out of order, the working parts require renewal, and the foreign plumbers are not accustomed to them. To work the Ward's Household Closet, if an ample flush be required, they should be used in connection with the direct-acting valveless waste-preventer, manufactured by A. T. Bean, of Westminster. He thinks that the closets should be provided with these flushing appliances, and then the unnecessarily large brick-drains, which are so frequent through the Continent, would be efficiently flushed. If there be plenty of water, it would be wise to fix at the head of each ramification of the drain a Bowes, Scott, and Read's (of Westminster) flushing tank, with Field's siphon.

AN ADVERTISEMENT.

SEVERAL correspondents have called our attention to the advertisement of a new company called "Sutherland's Rheumaticon Manufacturing Company, Limited," of which the prospectus is now being advertised, the announced object being as follows: "To acquire and provide for a greater extension of the established business of Sutherland's 'Rheumaticon,' a patent medicine of special importance and repute. 'Rheumaticon,' which is an internal remedy of perfectly innocuous character, has proved in innumerable cases—satisfactorily attested by the medical profession, by the clergy of all denominations, and by the general public—to be an infallible cure for sciatica, neuralgia, lumbago, rheumatism, rheumatic gout, etc." The whole of the prospectus appears to be couched in the same style. Two of the directors are announced as follows: "F. Robertson Haward, Esq., M.R.C.S.Eng., Ealing, W.; Byron Blewett, Esq., M.R.C.S.Eng., 120, Leadenhall Street, E.C." It is obviously contradictory to professional rule for medical men of regular standing to connect themselves with a company formed for the sale of a secret and patent medicine.

PERPLEXED attaches too much importance to the remedies of the Italian Court. Ladies are fond of amusing themselves with such things. When they are persistently put forward, it may, no doubt, be rather annoying; but it is best to pass the matter by with a smile.

SMOKE-CONSUMING GRATES.

WE are asked to add to the list of effective smoke-consuming grates the Nautilus grate, which gave very good results, as will be seen by the report of the Smoke Abatement Committee, and it is certainly a very pretty and effective grate. It is the invention of Mr. James B. Petter, Yeovil, Somerset.

STEWART OF CANISBAY FUND.

SIR,—To the above fund I beg to acknowledge the following subscriptions.

	£	s.	d.
Per Rev. James McPherson	1	1	0
J. W. P.	1	1	0

Further subscriptions are earnestly solicited, and will be received by the Rev. James McPherson, Canisbay, Caithness, and by the Editor of the BRITISH MEDICAL JOURNAL.—Yours faithfully, ALEXANDER MITCHELL, M.D.
Burton House, Great Yarmouth, November 17th, 1883.

MR. RICHARD JEFFREYS (Chesterfield) asks for the exact formula for "Alkaram," used for hay-asthma and influenza. He believes it was originally made from a prescription of Mr. Cooper Forster, consisting of a mixture of carbolic acid, iodine, carbonate of ammonia, and powdered acacia.

HOME FOR AN IDIOT.

SIR,—Can any of your readers inform me whether any institution exists into which a lad about seventeen years old could be received? He is not "dangerous," but is a cause of great annoyance to his parents, who are willing to pay a little towards his keep. His father is a railway-guard. I am, sir, faithfully yours, R. B.

P.S.—Being imbecile only, he will not be received by county asylums, nor certified "insane" by parish officers.

DR. LANGDON DOWN (81, Harley Street) writes that, if a "Ten Years' Subscriber" (BRITISH MEDICAL JOURNAL, November 17th, page 1001) will communicate direct with him, giving him the name of the district to which the poor girl belongs, he will be happy to indicate to him the possibilities as to her location, and the plan of procedure.

D. T. LANE asks whether there is any institution in London or elsewhere where children affected with stammering are cured; or, if there is no such institution, whether there is any medical man who is a specialist at stammering.

IMPROVED PORTABLE GALVANIC BATTERY.

SIR,—With reference to a letter in your JOURNAL of November 24th, at the suggestion of Mr. Butler Smythe, we made an improvement in the battery originally constructed. The improvement consists of a simple mechanical arrangement which prevents the possibility of either fluid or fumes escaping; therefore our battery *can* be carried in the obstetric bag without the slightest fear of injuring the contents. Furthermore, we are informed that the battery supplied to Dr. Greenhalgh is *not* identical with that designed for Mr. Butler Smythe.—Your obedient servants, ARNOLD AND SONS.
35 and 36, West Smithfield, November 24th, 1883.

A. T. (India).—Probably because water infected with typhoid pollution was not used as an adulterant.

DEFUNCT GERMS.

SIR,—Your able leading article on Koch's cholera-organism must have been read by all with great interest. Every week brings with it some indication of the development of the germ-theory of disease. Its importance cannot be overestimated. It is, therefore, necessary that every member of the profession should be thoroughly well versed in all that is known respecting germs, bacilli, etc.

At the close of your article, I notice the following passage: "It is a hindrance rather than a help to the true progress of medical science that bogey-germs should, from time to time, be set up, only to be knocked down again, and forgotten." May I ask to what bogey-germs you particularly refer? As there are now, according to various authorities, numerous well-recognised organisms, it is advisable that we should all know the "true" from the "false" ones, so that, if we have been harbouring any favourite bogey-germs in our inmost hearts, we may forthwith knock them down and forget them.—I am, sir, yours obediently, EDWARD T. TIBBITS, M.D.Lond.
Bradford.

*** If our correspondent will consult the index of any of the medical journals of the last ten or fifteen years, he will have but little difficulty in recognising a few of the defunct germs to which we referred. History repeats itself, and we sometimes wonder whether a few of even the most popular germs of to-day may not, ten years hence, be distinguished by an epitaph only.

SYRINGE FOR SUBCUTANEOUS INJECTION OF ETHER.

SIR,—I was very pleased to get the information on this subject contained in the letter of Dr. Shelley, and published in the JOURNAL of November 17th. I have been looking out for a suitable case in which to use it; and, knowing that the ordinary syringes would be spoiled by the ether, I applied to Messrs. Maw, of Aldersgate Street, and they have made me a syringe which appears to be in every way suitable. The glass barrel is not cemented, but is loose in a metal frame, and the piston is of vulcanite, without any packing whatever. —I am, sir, yours truly, D. BRADLEY, L.R.C.P.Edin.
Dudley.

"IRONCLAD" asks where he can obtain specimen papers for the examination of the Medical Department of the Royal Navy.

A CASE FOR INQUIRY.

SIR,—With reference to your annotation of November 10th, with the above heading, allow me to say that no such a name as John Scully is borne on the roll of men who have passed through this establishment within a reasonable number of years, and he would have passed through here had he been "under treatment for mental disease in Netley Hospital," and "discharged from the army on account of insanity." Of course, his statement may be correct, provided he now be under an assumed name, but it is needless to say that this would throw a suspicion on his character and motives.—I am, etc.,
FRANCIS H. WELCH, Surgeon-Major, Army Medical Department.
Lunatic Asylum, Netley.

X-PARTNER.—Our opinion remains the same.

CHILD-BEARING LATE IN LIFE.

SIR,—The late Mr. Joseph Warren, a talented musician and composer, told me that his wife was delivered of her last child (the fifteenth) at the age of fifty-two,—Yours truly, V. POULAIN, M.D., M.R.C.S.
124, Fulham Road, November 21st, 1883.

REMARKABLE ACCIDENT.

SIR,—On October 30th, an accident occurred in this village which came under my notice, and may be worth recording.

Two men were digging to reach the sewage-pipes in a grip, twenty feet long and three feet wide. One half was thirteen feet deep, the other about seven feet. The man who was deepest had just struck one of the pipes with his spade, when suddenly a great part of one side gave way and completely buried him, the other man being surrounded up to his waist. There was only a very old man at hand, who took some time to give the alarm, there being no house near. As he went off, another lot fell in over the deep part, making about five feet of earth over the buried man. I arrived just as some men came to the rescue with shovels, and it took, from that time, nine minutes before they reached his head. It was then a matter of great difficulty to extricate him, owing to the narrow width of the grip. He was greatly exhausted, and restoratives had to be administered. He was standing at the time obliquely, with his head resting on the right forearm, which was pressed against the side opposite to that which fell in, the fingers of the right hand grasping the handle of his spade, his body being bent almost to a right angle. He was conscious the whole time. From his description, and what I could see myself, he can only have had from three-fourths to one cubic foot of space afforded by the position in which he was. He must have been fully fifteen minutes buried; his mate says over twenty. I was greatly surprised to find no signs of asphyxia. Beyond numbness, general stiffness, and great pain in occipital region, there has been nothing serious the matter with him.

It is interesting to note that a man could exist for such a long time with so small an amount of air, aud under such enormous pressure. Under ordinary circumstances, would not a man require at least four cubic feet of air for fifteen minutes? In this case, the space must have been highly charged with sewage-gases, as well as being impregnated with his own breath, for he tells me that at first he shouted loudly for help. The poor sufferer, who had such a narrow escape from digging his own grave, happens to be our respected beadle and gravedigger.—I am, sir, yours faithfully,
Bardney, near Lincoln, November 6th, 1883. W. HAMILTON ALLEN, M.B.

PORTRAIT OF DR. EDWARD JENNER.

SIR,—The portrait of Dr. Jenner to which "Medicus" refers (BRITISH MEDICAL JOURNAL, page 1004, November 17th) is seldom met with, but it would not be worth more than about a guinea in a clean and fine state. The best portrait of the Doctor is considered to be a large folio mezzotint, engraved and published by J. R. Smith. There are also a portrait after Sir Thomas Lawrence, a circular one by Drayton, a lithograph by Engelmann, and two small octavo prints by Smith and Read respectively. There may be others, but I do not recollect having seen them.—I am, etc., HUGH W. DIAMOND.

DR. A. H. BAMPTON, Honorary Secretary to the Plymouth Medical Society, writes that the Society has still in its possession, hanging in their library, the portrait of Jenner, by Northcott.

TYRO.—The appointment of Certifying Surgeon is in the hands of Her Majesty's Chief Inspector of Factories, Alexander Redgrave, Esq., C.B., Home Office.

AN OLD DEFINITION OF THE MEANING OF "DOCTOR."

SIR,—The following epigram appears at the end of the preface to *The Practice of Physick*, "by Lazarus Riverius. From my study at Montpelier, July 1st, 1653. Printed by Peter Cole, Leadenhall, June 2nd, 1655." It is signed "W. R." I am unable to find out for whom these initials stand.

"*Doctors*, or *Teachers*, they of *Physick* are
(Whether by Pen they do it, or in Chair,
With lively Voyce), that teach the way to know
Man's Nature, *Health*, and *Sickness*, and do show
Diseases, *Cause*, and *Cure*. But they who spend
Their Life in *Visits*, and whose Labors end
In taking *Fees*, and giving *Paper-scrowls*,
FACTORS of *Physick* are; and none but *Owls*
Do count such *Doctors*, that *no Latin* know,
From whence that *Name* did to our Language flow.
W. R., Doctor, and Factor of Physick."

—I am, etc., A. CRESWELL RICH.
Liverpool, November 18th, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

DR. HORACE DOBELL writes to us:

In the address of Dr. William Roberts in the JOURNAL of November 3rd, he is reported to have said: "To our friend and neighbour Dr. Arthur Ransome is due the first inception of the plan of collective investigation. In the year 1864, he read a paper," etc.....But if priority in this matter is to be recorded, I believe I must claim it for myself. In the year 1852 (see date on printed paper), notwithstanding the very short purse of a young beginner, I printed and circulated among medical men, at my own expense, the papers and autograph letter, of which I enclose specimens, occupying twenty-two pages of large note-paper, for each person, the subject being the etiology of phthisis.

I have before me the forty reports which resulted from this voluminous circular, one of which possesses especial interest from being in the handwriting of Sir James (then Mr.) Paget, fully reporting the case of one of his own relatives. This report was marked "private," and this word, and the over-elaboration of my schedule, easily explain the early death of my scheme, and also the non-publication of what reports I received. The questions as to family history were so detailed, that reporters naturally feared the individuality of the cases might be recognised, and hence, like Sir James, cautioned me against publication.

Dr. Roberts also says: "One of the most promising fields of labour for combined observation is the self-study of disease by medical men." It will be seen that my scheme anticipated this idea—at least as regards etiology—for it proposed to "collect from medical men only the reports of their own families and immediate circle."

Of course, I cannot help smiling, now, to think that a young man of twenty-three should have hoped single-handed to get the profession, to any large extent, to join in such an elaborate and unremunerative undertaking; and it gives me sincere pleasure to see my idea of collective investigation resuscitated in the present day under auspices calculated to ensure success.

SPRAIN AT TENNIS.

DR. D. W. PEARSON (Kensington) recommends "A Member" (JOURNAL, November 10th, p. 954) to try a succession of fly-blisters, one inch by three inches, along the forearm behind the seat of pain, and to take a scruple-dose of salicylate of soda on going to bed, or on waking during the night. Attention should, of course, be paid to the digestive organs.

TREATMENT OF RECENT TRANSVERSE FRACTURE OF PATELLA BY WIRE SUTURE, WITHOUT OPENING THE JOINT.

SIR,—In your JOURNAL of November 17th, page 998, Brigade-Surgeon E. D. Tomlinson suggests that, before performing the metallic suture of the transverse broken patella, sufficient time should elapse for the communication between the joint and the fracture to have an opportunity to close. He adds: "I mentioned this to two distinguished surgeons; one thought the operation not practicable, the other seemed to think it feasible." Now the practicability of this method was urged some years ago by Dr. J. E. Van der Meulen, and was demonstrated by him in a case reported in an able article on the subject, page 30 of the *Lancet*, January 3rd, 1880. This fact is worthy of all publicity.
—I am, sir, yours faithfully, W. T. CLEGG.
Liverpool, November 26th, 1883.

THE *North Cheshire Herald*, November 17th, 1883, has the following objectionable advertisement. "[A Card.] Dr. J. Nield Cooper, M.K.Q.C.P., L.K.Q.C.P., M.R.C.S.E., and L.S.A., London, late Medical Officer of St. George's Infirmary, London, and late of Hyde, has succeeded to the practice of Dr. Anderton, Great Norbury Street, near Hyde Railway Station."

CHLOROFORM-ADMINISTRATION: A CAUTION.

SIR,—While administering chloroform recently for a friend, the patient began to retch, and, in doing so, detached a small set of teeth which, through carelessness, I was not aware she was wearing. Fortunately, I was able to remove them before any mishap occurred, but the "shock" I got will be of service in the future. I have looked into two or three books under the above heading, but do not find any caution about this very obvious danger.—I am, yours, etc., R. HANSON WOLSTENHOLME.
Eccles New Road, Manchester.

MEDICAL PRACTICE IN THE UNITED STATES.

SIR,—If your correspondent "X," in the issue of October 13th, 1883, will send his address to "Medicus," Ontano, San Bernardino County, California, U.S.A., he will endeavour to give him the information he desires regarding practice in California.—I am, etc., MEDICUS.
Ontano, San Bernardino County, California, U.S.A.

MEMBER BRIT. MED. ASSOCIATION.—1. Powell and Lealand, 170, Euston Road, N.W.; Zeiss—agent for England, C. Barker, 244, High Holborn, W.C. 2. Dr. Beale's work on *Urinary Deposits* (J. and A. Churchill).

WATER-ANALYSIS.

IN addition to the books recommended last week, R. W. J. advises a perusal of Dr. Tidy's paper in the *Journal of the Chemical Society*, No. 194, January 1879. If Dr. Tidy would reprint this, with such additions as his great experience might suggest, he would confer a boon on many, especially if he would convert septems into cubic centimètres, as burettes divided into septems are not always easily obtained. Some who use Wanklyn's process would be glad to see a trustworthy colorimeter published, to avoid a fresh ammonia-experiment for each analysis.

A SPLINT.

SIR,—Will any of your numerous readers kindly tell me where I can obtain a splint which was exhibited at Bath when the British Medical Association met there a few years ago? It was a model showing a fractured tibia and fibula *in situ*. At the time of my visit, there was no one in charge, but the exhibitor next to it thought that it was the invention of a Dr. Thompson.—I am, etc., D. CAMPBELL.
Caene, November 26th, 1883.

C. J. W. asks if there is any private lunatic asylum in the neighbourhood of London where patients are received at terms as low as twenty or thirty shillings.

BOARDING-SCHOOLS FOR GIRLS.

SIR,—Can any of my medical brethren residing on the south coast inform me of a good middle-class boarding-school for a girl ten years old to spend the winter months. I shall be much obliged for any replies, addressed either privately or through the JOURNAL.—Yours, etc., COLIN G. CAMPBELL.
Uppermill, Saddleworth, November 21st, 1883.

MRS. ISABEL THORNE (Lewes) writes, in answer to "A Ten Years' Subscriber," (JOURNAL, November 17th, page 1004), that the Western Counties Idiot Asylum at Starcross, near Exeter, receives children of persons in narrow circumstances on reduced terms. The patient must belong to one of the western counties.

COMMUNICATIONS, LETTERS, etc., have been received from:
Mr. James G. Macaskie, Bamburgh; Mr. John Brown, Bacup; Mr. T. M. Stone, London; Dr. E. Cresswell Baber, Brighton; Mr. Shirley F. Murphy, London; Mr. Alfred Teevan, London; The Secretary of the Society of Arts; Dr. Hunter Mackenzie, Edinburgh; Mr. S. M. Quennell, London; Sir E. Lechmere, London; Mr. T. H. Bagshaw, Salford; Mr. G. Wherry, Cambridge; Our Birmingham Correspondent; Messrs. G. Street and Co, London; Mr. Arthur Kempe, Exeter; Mr. James Startin, London; The Honorary Secretaries of the Odontological Society; Dr. J. S. Bury, Pendleton, Manchester; Mr. W. S. Staples, Bath; Mr. S. H. Lindeman, King's Lynn; Mr. W. E. Green, Sandford; Our Aberdeen Correspondent; Messrs. Allen and Hanburys, London; Mr. W. T. Ramsden, Dewsbury; Mr. Joseph Bradley, Salford; The House Committee of the London Hospital; Dr. W. Bain, Manchester; Dr. C. F. Knight, Dublin; Dr. A. Tucker Wise, Maloja, Engadine, Switzerland; Dr. Fairlie Clarke, Southborough; Dr. T. J. 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CLINICAL LECTURE
ON
VARIOUS MODES OF TESTING FOR ALBUMEN IN THE URINE.

By GEORGE JOHNSON, M.D., F.R.S.,
Professor of Clinical Medicine, and Senior Physician to King's College Hospital.

I PROPOSE to describe, demonstrate, and critically review the various modes of testing for albumen in the urine in the light of recent knowledge and research.

The two tests for albumen which have hitherto been most generally used are heat and nitric acid. I pour into a test-tube a column of urine about two inches in height, and place it over a spirit-lamp. Before the liquid reaches the boiling point, the albumen begins to coagulate; and the more abundant the albumen, the lower is the temperature at which coagulation commences. When the urine is highly albuminous, as the heating proceeds and coagulation commences, the tube must be continually and briskly shaken, to prevent the sudden expulsion of the partially coagulated liquid by the steam generated beneath a dense film on the surface. Now observe that, when albuminous urine is alkaline, heat alone will not show the presence of albumen. I take some of this albuminous urine, and before applying heat, I add a drop or two of liquor potassæ. You see that, when boiled, it remains clear; the potash has combined with the albumen, and the resulting albuminate of potash is not coagulable by heat; but if now I add a few drops of strong nitric acid, coagulation at once takes place.

Again, some specimens of urine, when boiled, give a precipitate which has the appearance of albumen, though none is present. The non-albuminous urines which are thus acted on by heat are usually neutral or alkaline, and the turbidity is due to the precipitation of phosphates. To a specimen of normal urine I add a drop or two of liquor potassæ, and, when heated over the lamp, you see that it becomes turbid.

This phosphatic turbidity is easily distinguished from an albuminous coagulum by the addition of a drop or two of nitric acid, or even of acetic acid, or citric acid solution, which dissolves the phosphates while coagulated albumen remains undissolved.

You see, then, that if heat alone were relied upon as a test for albumen, it might mislead in two opposite directions: (1) by not detecting albumen in alkaline urines, and (2) by giving a delusive phosphatic precipitate in non-albuminous urine.

Nitric acid has long been known and employed as a valuable test for albumen. To this clear specimen of urine, I add a few drops of strong nitric acid, and an abundant coagulum of albumen is immediately formed. In most cases, nitric acid alone is a sufficient test for the presence of albumen in the urine, but there are some exceptional conditions, and some sources of fallacy, which I now proceed to point out.

Here is a specimen of albuminous urine which, as you see, is highly turbid with urates. As I warm it over the lamp, it first becomes clear by the solution of the urates, and then, by the further application of heat, the albumen coagulates, and renders the urine milky. Such a specimen requires to be cleared by heat before nitric acid can be satisfactorily used as a test; although, as you see, a slight excess of nitric acid added to the turbid urine decomposes and dissolves the urates, and precipitates the albumen.

It sometimes happens that, when nitric acid is added to highly acid urine, it causes a turbid deposit of urates, which might be mistaken for an albuminous coagulum. The distinction is readily made by the application of heat, which dissolves the urates, but not the albuminous precipitate.

In the urine of patients who are taking copaiba, nitric acid, acting on the resin, causes a slight milkiness, which has sometimes been mistaken for albumen. Such urines have a peculiar resinous odour; although acid, they are not coagulated by heat, nor, as I shall presently show you, by picric acid, which is a most delicate test for albumen.

When an excess of nitric acid is added to a highly concentrated urine, it sometimes happens that a copious crystallisation of nitrate of urea gradually occurs. This slowly formed crystalline deposit could scarcely be mistaken for an amorphous coagulum of albumen.

With regard to nitric acid as a test for albumen, I have yet to show you certain facts which require attention. To this specimen of highly albuminous urine I add a single drop of strong nitric acid. You see that it forms a white coagulum, which, on shaking the tube, is redissolved; a second drop may be added with the same result, while the further addition of acid causes a permanent precipitate. Now, note this fact, that, when a drop or two of nitric acid has caused a coagulum which has been redissolved, the subsequent application of heat will not precipitate the albumen. The explanation is, that a nitrate of albumen has been formed which is not coagulable by heat, but readily by an excess of the acid. Albumen is a neutral substance, which is capable of combining, on the one hand, with alkalies as we have before seen; and, on the other, with acids; and, in both instances, to form compounds not coagulable by heat.

As a drop or two of nitric acid will prevent the coagulation of albumen by heat, so a great excess of nitric acid added to cold urine will either redissolve the coagulum which first forms, or, if rapidly poured in, entirely prevent coagulation, the mixture remaining quite clear.

Nitric acid, carefully added to cold urine, is one of the most delicate tests for a slight trace of albumen in the urine. For this purpose, a few drops of the acid may be placed at the bottom of a test-tube, and the urine slowly poured into the sloping tube, so as to rest on the surface of the acid; or, the urine being first placed in the tube, a few drops of the heavy acid are allowed to fall through the urine to the bottom. The opalescent albuminous coagulum appears at the junction of the two liquids.

In picric acid, we have a more delicate test for minute traces of albumen than either heat or nitric acid, or than both these tests combined. Picric acid may be used in the form of a saturated aqueous solution, or in the form of crystals or powder. An ounce of water at 60° retains in solution 5.3 grains of the dry acid. A saturated aqueous solution may, therefore, be made by dissolving the powder in boiling distilled or rain water, in the proportion of six or seven grains to the ounce. A portion of the acid will crystallise out on cooling, leaving a transparent yellow supernatant liquid.

I now show you that this solution, being added to an equal volume of urine, in a test-tube, immediately coagulates the albumen. The coagulum is made more dense by the subsequent application of heat. The coagulated picrate of albumen is soluble in strong alkalies. If, therefore, the albuminous urine were highly alkaline, it might be necessary to acidulate it with a vegetable or a mineral acid, before adding the picric solution; but, in my very numerous testings with picric acid, I have not once found it necessary to add another acid. The picric acid solution is itself sufficiently acid to dissolve the phosphatic sediment which results from boiling a neutral or alkaline specimen of urine.

When the albumen is very copious, a few drops of picric acid cause cloudiness, which disappears on shaking, like the cloudiness caused by a drop or two of nitric acid. A further addition of the solution causes a permanent coagulation. A small amount of picric acid solution does not prevent the subsequent coagulation of the albumen by heat, and an albuminous precipitate by picric acid is not soluble by an excess of the acid. In these two respects, picric acid differs advantageously from nitric acid.

To detect a very minute trace of albumen, I adopt the method which I will now show you. Into a test-tube six inches long I pour a four-inch column of urine; then, holding the tube in a slanting position, I gently pour an inch of the picric acid solution on the surface of the urine, where, in consequence of its low specific gravity (1003), it mixes only with the upper layer of the urine; and, as far as the yellow colour of the picric solution extends, the coagulated albumen renders the liquid turbid, thus contrasting with the transparent unstained urine below. Bear in mind that, for the action of the test, there must be an actual *mixture*, and not a mere surface-contact, of the two liquids. When, in consequence of the scantiness of the albumen, the turbidity is very slight, the application of heat to the upper part of the turbid column is found to increase the turbidity. If, then, the tube be placed in a stand, the coagulated albumen will gradually subside, and, in the course of an hour or so, forms a delicate horizontal film at the junction of the coloured and the unstained stratum of urine; the yellow liquid above, and the unstained urine below, being quite free from turbidity. Any previous turbidity in the urine interferes with the detection of a minute trace of albumen. The turbidity which is due to lithates may be removed by heat, and that caused by mucus by a previous filtration of the urine to be tested. I have proved, by numerous observations, that picric acid, applied in this way, is a more delicate and trustworthy test than nitric acid added to cold urine.

The simplest method of comparing the two tests, as regards their relative delicacy, is to dilute a specimen of albuminous urine until one or the other test fails to act; and it will be found that the picric acid solution shows the presence of albumen in a specimen diluted much beyond the point at which the nitric acid fails to give any indication of its presence. The picric acid often gives an immediate albuminous opalescence in urine, when nitric acid only slowly, after an interval of some minutes, gives a similar, but perhaps a doubtful, indication. I shall presently have something to say on the practical value of a test for minute traces of albumen.

Here let me remark that the albuminous opalescence with picric acid, which always occurs immediately, if at all, and which is increased by heat, may readily be distinguished from the coarse granular particles of urate of soda which, after a delay of some minutes, sometimes result from the acidity of the picric solution. The granular masses of urates, often mixed with crystals of free uric acid, quickly fall to the bottom of the test-tube, and carry with them so much of the picric colouring matter that, when placed under the microscope, they are so opaque as to appear almost black.

It very rarely happens that the picric solution causes an immediate turbidity in non-albuminous urine caused by the precipitation of urates. I have met with this result in only three or four specimens out of some hundreds. This turbidity, like the similar turbidity sometimes caused by nitric acid, is readily distinguished from albumen by its speedy and complete disappearance when heat is applied.

It has been objected to picric acid as a test that it gives with peptones a precipitate not distinguishable from albumen. To this statement, I reply, first, that the precipitate with peptones is most easily distinguished from that with albumen by its ready solubility when heated. I have here a peptonised solution of mutton-fibre; the addition of picric acid solution causes a copious yellow precipitate, which, as you see, is entirely dissolved over the spirit-lamp before the liquid reaches the boiling point. The distinction, then, between picrate of albumen and picrate of peptone is sufficiently easy. In fact, there is no known substance, occurring in either normal or abnormal urine, except albumen, which gives a precipitate with picric acid insoluble by the subsequent application of heat.

Precipitated peptones resemble a sediment of urates in the fact that both are dissolved by heat, but they are readily distinguished by the microscope, which shows the urates to be composed of large granules of urate of soda and uric acid crystals. Freshly precipitated peptones appear under the microscope quite homogeneous and free from solid particles; but when, after being dissolved by heat, they are reprecipitated on cooling, they contain exceedingly minute granules, which are incessantly dancing about with the so-called "Brownian movement."

The question arises, Do peptones occur in the urine? It has been asserted that they do under certain rare conditions, and that they may be detected by the rose-red colour produced at the junction of the two liquids, when the urine is gently poured on the surface of Fehling's solution previously introduced into the test-tube. I have met with some few specimens of highly albuminous urine which have given a rose-red colour with Fehling's solution; but after the coagulation of the albumen by heat, and its separation by filtration, the filtrate either gave no precipitate with picric acid or a slight cloudiness not dissolved by heat; the cloudiness, therefore, was due to previously uncoagulated albumen and not to peptones. I conclude that Fehling's solution is not a trustworthy test for peptones; and since, in some hundreds of specimens of urine, picric acid has afforded no indication of peptones by giving a precipitate soluble by heat, I infer that their occurrence in the urine must be very rare. That picric acid is a much more delicate test for peptones than Fehling's is shown by the fact that the addition of artificially prepared peptones to normal urine, in amount sufficient to give a copious precipitate with picric acid, affords only a slight colour-indication with Fehling's solution.

Dr. J. Frank Nicholson, writing to the *Lancet* (November 10th, 1883, p. 835, mentions the fact that, in the urine of patients taking large doses of quinine, he got with picric acid copious opalescence, which was cleared by heat. Most of the vegetable alkaloids, such as morphia, atropine, etc., are precipitated by picric acid and by the potassio-mercuric iodide; but quinine is the only one which is likely to be taken in sufficient doses to render the urine opalescent with either of these tests, and then the complete clearance by heat at once distinguishes it from an albuminous precipitate.

I have shown you that picric acid is a most delicate and trustworthy test for albumen in the urine; and if you ask whether there is any practical advantage to be gained by the employment of so sensitive a test, I reply that, unquestionably, there is. For instance, during the convalescence from acute nephritis with albuminuria, whether the result of scarlet fever, of exposure to cold, or of the other well-known exciting causes, it is of vital importance to be assured that the urine is entirely free from albumen before the patient is allowed to pass from medical supervision and to return to his usual habits. For the want of such exact and careful observation, it too often happens that, in these essentially curable cases, the recovery is incomplete; a trace of albumen remains, but unattended by any signs of functional disorder, until, it may be many years afterwards, the patient presents himself with some of the many distressing symptoms and unequivocal physical signs in the urine, the heart, the arteries, the eyes, and various other tissues, of advanced and incurable degeneration of the kidneys.

And here let me warn you to avoid the not uncommon mistake of testing for albumen only a specimen of urine passed before breakfast. It frequently happens that, while the urine which is passed after resting in bed and before breakfast is quite free from albumen, that which is secreted after food and exercise contains albumen in abundance. It is, therefore, obvious that, if a morning specimen alone were tested, a patient might be considered and pronounced convalescent while disease of a dangerous tendency was still present. It is always desirable to have for testing both a night and a morning sample of urine; the former showing the effect of food, exercise, and low temperature, the latter of abstinence, rest, and warmth.

It will very commonly be found that the amount of albumen in the urine secreted after food and exercise is twice as great as that passed after some hours of abstinence and rest in bed.

The erect posture alone has sometimes a remarkable influence. In one of my patients lately, a youth recovering from acute albuminuria, it was found at one period that, although no albumen appeared after his breakfast, so long as he remained in bed, soon after he assumed the erect posture, whether before or after breakfast, although he remained in the same warm room, a trace of albumen was found in the urine. The only probable explanation of this is that the erect posture caused some congestion of the kidneys, and consequent escape of albumen by the gravitation of blood into their weakened and relaxed vessels.

There is yet another class of cases in the investigation of which it is of practical importance to employ a delicate and trustworthy test for albumen. I refer to that common form of Bright's disease in which the small red granular, or so-called cirrhotic, kidney is found after death. In this class of cases, the amount of albumen is often small, and is no index or measure of the gravity of the disease; indeed, more than one recent observer has asserted that an entire absence of albumen is of common occurrence in this form of disease. This statement, however, is not in accordance with my experience. The cases of this disease that have come under my observation have been very numerous, and I am constantly meeting with fresh examples; and, when the existence of the disease has been unequivocally established by other signs and symptoms, I have very rarely found that a careful testing of the urine at different periods of the day has failed to detect albumen. The idea that the urine is often free from albumen in these cases must, I think, have resulted from carelessness or want of skill in testing.

One method of testing which is in common use is very likely to mislead; I refer to the practice of adding acetic acid to the urine before boiling. The result often is that, albumen not being coagulable by an excess of the acid, an acetate of albumen is formed, which, like the nitrate of albumen before mentioned, is not coagulable by heat; the albumen, therefore, remains in solution, and is not detected.

I cannot too emphatically insist upon the fact that the smallest trace of albumen in the urine, whether with or without the appearance of renal tube-casts, is always abnormal and pathological. Not long since, during a discussion at the Clinical Society, it was suggested by one speaker that an amount of albumen so minute as to require for its detection any test more delicate than heat and nitric acid should be looked upon as physiological. I scarcely need say that such a distinction would be purely artificial, and not in accordance with facts.

I said just now that picric acid, as a test for albumen, may be used in the form of powder or crystals. In this form, it may conveniently be carried in the pocket for bed-side use. In my pocket urinary test-case, which was made for me by Hawksley, 357, Oxford Street, the powdered acid is contained in a small bottle. It may be carried in paper, or in a small box in the waistcoat-pocket. Unlike

nitric acid, which I now never carry about with me, it is perfectly harmless, even if it escape from the bottle.

In testing with the powder, about one third of a grain, equal in bulk to a peppercorn, may be shaken up in a test-tube, with a column of urine about one inch in height. As the powder dissolves, the urine becomes turbid with coagulated albumen. The object is to add as much of the powder as the urine will dissolve, and no more. In the absence of a test-tube, the powder may be stirred up with the urine in a wine-glass. The solution of the picric acid in the urine, and the coagulation of the albumen, are quickened by heating the tube over a spirit-lamp or candle, or by immersing the tube or glass in hot water.

The dry picric acid should be used in the form of fine powder, not in crystals. One of my correspondents was perplexed by finding that crystals of the acid dropped into a highly albuminous urine became surrounded by a film of coagulated albumen, and, becoming caked together, formed a dense precipitate. This can never occur if the fine powder be shaken up with the urine.

Another convenient mode of using the powder at the bedside is to add twenty or thirty minims of water to the peppercorn bulk of the acid in a tube, and quicken the solution by the application of heat; an equal bulk of urine is then gradually added to the hot saturated solution, when albumen, if present, is at once detected. It has been objected to the picric acid solution that it stains the fingers; but this stain, unlike the yellow stain caused by nitric acid, which penetrates into the skin, and remains for several days, is merely a surface-stain, and is immediately and completely removed by washing with soap and water.

Dr. George Oliver has devoted much time and labour to a comparison of the various tests for albumen, and also to the preparation of test-papers for bedside use. His observations agree with my own, that the three most delicate liquid tests for albumen are solutions of potassio-mercuric iodide, picric acid, and tungstate of soda. He finds "these three albumen-precipitants of equal keenness;" but I have found the tungstate of soda decidedly inferior to the other two. In the form of paper-test, Dr. Oliver states that picric acid is "the weakest of the series" (*Lancet*, Jan. 27th and Feb. 8th, 1883). The explanation of this result is that, in consequence of the comparative insolubility of picric acid, the small slips of paper dried after immersion in a saturated solution do not retain sufficient of the acid to render them a satisfactory means of testing. But there is no need for picric acid papers. The main advantage of the test-papers consists in their ready portability; but this advantage is shared equally by the picric acid powder, which, moreover, possesses these advantages over any forms of test-papers, that it requires no elaborate preparation or the addition of any other agent, that it is therefore cheaper and more simple, that it affords a more ready and trustworthy indication of the amount of albumen, and, lastly, as I shall show you in a future lecture, that, in combination with caustic potash, it forms an admirable qualitative and quantitative test for sugar.

INSANITY IN FRANCE.—One of the most striking features of modern French life is the rapid increase of insanity; the number of cases of which, and especially those induced by alcoholism, is becoming larger each year. During 1882 there were 13,434 admissions into the asylums, of which 10,184 were new cases, the total number under treatment in the year being 58,760, of which about 27,000 were men and 31,000 women, showing that females are the most liable to the disease. That they are less influenced by treatment is shown by the fact that the average duration of treatment for men is 276 days, while for women it is 295 days. The following statistics represent the character of the brain-diseases, and the average time that each class requires for supervision in the asylums:—Simple insanity, 33,629 patients, average time 287 days; softening of brain and paralysis, 8,665, average time 250 days; senile dementia, 4,495, average time 289 days; idiots and *crétins*, 5,377, average time 298 days. The latter, therefore, appears to be the most intractable form. In all France there are only 61 public and 42 private asylums, of which nine are for men only, and 14 for women only, the remainder being for both sexes. No fewer than 34 departments have no establishment whatever for the care and treatment of the insane.

PUBLIC BATHS AT SMETHWICK.—At the meeting of the Local Board on Friday, November 9th, a letter from Mr. Tangye was read, stating that, if the Board would establish public baths, the firm of which he is a member would contribute £1,000. The offer was accepted, and a committee appointed to have plans prepared without delay.

A LECTURE
ON NETTLE-RASH.

BY McCALL ANDERSON, M.D.,
Professor of Clinical Medicine in the University of Glasgow; Physician to the Western Infirmary, etc.

URTICARIA (URTICA—A NETTLE) NETTLE-RASH—URTICAIRE—NESSELAUSSCHLAG.

THE *symptoms* of this disorder are very familiar to most persons, seeing that the rash is identical with that resulting from the sting of the common nettle (urtica urens); hence the term nettle-rash. It makes its appearance in the shape of circumscribed elevations, rarely larger than the finger-nail, which are rounded or oval, or which assume the form of segments of circles (pomphi or wheals); and, when the patches are present in their most typical form, the centre of each is pale, while the periphery is red. This eruption is accompanied by itching, burning, or stinging sensations, which are increased by scratching, and are often very distressing; but its most remarkable character—that by means of which it can be distinguished from most other eruptions, and which often enables us to say that a rash is a member of the nettle-rash group, although it does not assume the typical characters of that disease—is the wonderful rapidity with which it appears, and its transient character; for, in a few minutes, it may be fully developed over the greater portion of the body, and within an hour it may all have vanished, although sometimes two or three days elapse before it disappears; it is never followed by desquamation. Its tendency to resolution is indicated by the wheals feeling softer, by the fading of the peripheral redness, and by the subsidence of the irritation. Occasionally, vesicles or bullæ make their appearance upon the patches if the inflammatory action run high, so that the careless observer might mistake the eruption for herpes or pemphigus. And not unfrequently the rash is accompanied by œdema, especially where there is much loose cellular tissue; or œdema may take the place of the eruption—oftenest on the hands and face (*urticaria ædematosa*). The extent of the rash is very various; sometimes it is partial, being limited to the hands or face, while at other times the whole surface is more or less involved. Sometimes the patches are distinct from one another, sometimes they are confluent (*U. conferta*). It presents, too, certain peculiarities, according to the region affected. "When it occurs on the face, it generally produces an œdematous swelling, especially of the eyelids and lips; the wheals, however, are less distinct than usual, and the rash for the most part assumes the character of an urticaria rubra, and consists of red lines and striæ. The neck is comparatively rarely the seat of this eruption, which is, however, more commonly seen on the chest and back, where, as on the face, it often takes the form of striæ, and sometimes of peculiar wavy lines. On the limbs, it is observed less frequently than on the trunk. When nettle-rash affects the neighbourhood of a joint, the skin over the articulation becomes swollen and œdematous. If the hands and feet are attacked by it, the patient often complains merely that they feel as if covered by some woollen substance..... and no particular change in the appearance of the skin of these parts is to be detected. In some cases, however, the fingers and toes become so swollen, that their movements are interfered with." (*On Diseases of the Skin*, by Ferdinand Hebra, M.D., Sydenham Society's translation, vol. i, p. 304.)

The rapidity with which nettle-rash comes out, and its evanescence, have led to much speculation as to its cause. There are some who hold that spasm of the muscular fibres of the skin leads to the development of pomphi; while Liveing is of opinion that they are the result of a spasmodic contraction of the muscular coat of the vessels. The most generally received opinion, however, is, that they are due to an acute inflammatory œdema, having its seat in the papillary layer of the corium; and the reason why the rash is so fleeting is, apparently, that the exudation is thinner and more serous than in the case of most other inflammatory affections, and that the vessels soon recover their tonicity, and absorb the exudation.

Urticaria is usually an acute affection which disappears in a few hours (*U. ephemera*), or at most within a very few days (*U. evanida*), and sometimes it is preceded and accompanied by fever (*U. febrilis*). The presence of febrile disturbance is rather a favourable feature

than otherwise, for then there is a reasonable hope that the attack is an isolated one, and will be of short duration, disappearing with the transient cause which has produced it.

It may seem strange to speak of chronic urticaria, seeing that the grand characteristic of the rash is its evanescence; but what is meant is that, although each individual rash is of short duration, the disease is kept up by constant relapses, and thus may continue even for years (*U. perstans; Nesselsucht; Urticatio*). In this form, errors of diagnosis are apt to arise, for the eruption is, in the majority of cases, nearly or completely absent when the patient presents himself for examination, and then all that we can see upon the skin is the eruption produced by the nails of the patient in scratching (elsewhere designated a pruriginoid eruption); but an inquiry into the history of the case will prevent errors, and generally we are told that the eruption comes out when the patient is undressing at night or after he gets warm in bed, or under the influence of nervous excitement. In these cases, too, we may be helped in our diagnosis by writing letters upon the skin with a pencil, which is generally followed almost immediately by a nettle-rash tracing.

There is a variety of nettle-rash to which the term *U. nodosa seu tuberosa* has been given. It is a rare affection; it appears in the shape of pretty hard nodosities about the size of a split marble, and of a reddish colour, which involve the skin and subcutaneous cellular tissue, which occur oftenest at night, and disappear in a few hours, frequently to recur. They may involve any part of the body, but the extremities and loins are specially liable to attack. In very rare cases, owing to excessive congestion of the nodosities, rupture of the capillary blood-vessels ensues, so that, after their subsidence, round ecchymoses are left, which gradually disappear. Generally, the nodosities are multiple; but, occasionally, only a single one makes its appearance. A case of this kind came under my observation some years ago. A gentleman, about fifty years of age, and otherwise apparently in good health, came to show me a swelling upon the left side of the neck, just below the ear. When I saw it, it was beginning to subside, but it was still three inches in diameter, and raised about an inch and a half above the level of the surface. He told me that he had been subject to this for ten years, the swelling coming on about once in two months, or oftener in damp weather. From its commencement to the time of its attaining its full size, no more than five minutes ever elapsed, and sometimes its growth was so rapid that its increase in size could actually be seen. As it grew larger, it became hard, and was the seat of a slight tickling sensation, and, when very large, it interfered with mastication. It always disappeared within a few hours, generally within two or three. It never developed upon any other part of the body, and no neighbouring irritation—caries of teeth, etc.—or other cause was apparent.

Only one other variety of urticaria is worthy of mention, and is less fleeting than those previously alluded to. In it, the inflammatory exudation occurs around the cutaneous follicles, and is accompanied by the deposit of lymph, leading to the formation of large red papules. These are exceedingly itchy; and as the patient does not spare himself, the summits of many of the papules are torn off by the nails, and the blood which exudes dries up into little blackish crusts, thus somewhat resembling prurigo. Mingled with the papules are generally found some of the typical nettle-rash wheals. This is the variety of urticaria most frequently met with in young children; it is most commonly seen upon the hips and extremities, and often lasts for months. It corresponds with the *Lichen urticatus* of Willan.

Etiology.—This is one of the few diseases of the skin to which the term neurotic may, not inappropriately, be applied, seeing that the vaso-motor nerves are principally at fault. This vaso-motor disturbance may result from direct irritation of the skin, or may be reflex, arising from the irritation of distant organs and tissues; but whatever the cause may be, the first consequence is contraction, which is succeeded by dilatation and paralysis of the capillary vessels of the affected parts.

The most familiar illustration of local irritation, resulting in nettle-rash, is to be found in the sting of the common nettle (*Urtica urens* or *dioica*), the sting resulting from the irritation of the fluid in the glands on the under surface of the leaves connected with the prickly hairs, which contains sulpho-cyanogen. It is also often called forth, in those who are predisposed, by scratching the skin, or by the bite or sting of insects, such as the flea, the bug, the mosquito, and the wasp; in which case, in the centre of each wheal, the seat of puncture, in the shape of a dark point, is to be seen (*Urticaria traumatica*). Some years ago, I received a telegram asking me to visit immediately a well-known gentleman in the West of Scotland, under the following circumstances. While picking strawberries in his garden, he put one into his mouth containing a live wasp, which stung him on the right side of the tongue near its root. In about five minutes, his tongue was so much swollen that he could scarcely move it; and within ten minutes the whole surface was covered with nettle-rash, which, commencing on the head and neck, rapidly spread over the whole body. The affected parts were of a deep red colour, were very much swollen, and intensely itchy. The first medicine at hand was citrate of magnesia, of which he had half an ounce; and about an hour afterwards he vomited, putting up with the vomited matter some strawberries and gooseberries of which he had partaken. When he was sick, the itching almost disappeared, but returned again afterwards, though not with the same severity. Three mild antibilious pills were then administered, which acted in about two hours; and within four hours after the commencement of the nettle-rash, it had entirely disappeared. The other day I saw, in consultation with Dr. Miller of Dundee, a single lady who had been troubled with nettle-rash for eighteen months, in whose case the washing of the face with warm water brings it out at once, so much so, that for half an hour thereafter she is unable to go down to breakfast on account of the disfigurement.

Amongst other internal causes which may produce nettle-rash by reflex action may be mentioned the following.

a. Irritation of the uterine nerves in connection with uterine disorders of various kinds. Hebra mentions the case of a patient who had flexion of the uterus, and in whom nettle-rash was induced fifteen times in succession as the result of the introduction of the uterine sound; and cases have been recorded in which the rash appeared in connection with each pregnancy.

b. In some persons, mental emotion is sufficient to call it forth, such as an excess of joy or grief; and, once it has appeared, it is very apt to return from the slightest causes, and even from speaking of it. Some remarkable cases of this kind have been reported by Alibert. He once saw a young woman who could not enter a drawing-room without having the whole skin covered with nettle-rash, so much so that she could not dance or enjoy any other recreation; an ecclesiastic who could not celebrate divine service because the eruption immediately came out, and caused him to scratch himself with the greatest violence; and a poor woman who for sixteen years was the victim of this complaint, and who could not speak without the whole body being covered with the rash.

c. Derangements of the digestive organs are very apt to produce it, or partaking of certain articles of food, or even food to which patients are unaccustomed (Dr. Thomson). The kind of food which produces it varies in different persons, but they soon get to know what they cannot take with impunity. Shell-fish, such as muscles, oysters, crabs, and lobsters; fruits, such as nuts and almonds; vegetables, such as onions and garlic—especially if underdone; meat, such as pork and sausages; and medicines, such as valerian, copaiba, cubebs, turpentine, and quinine, are, perhaps, most apt to induce it. In a letter which I received some time ago from a medical friend on the subject of nettle-rash, he mentions the following substances as being apt to disagree with him; "*In primis*, nuts of all kinds; haws from the hawthorn, especially if very ripe; raisins, figs, prunes, and dried fruit of all kinds, especially if containing sugar. Dates do so very rapidly; sometimes grapes, if I eat the skins. Almonds, wheat, new oats, peas (green and dried); beans of all kinds, unless cooked; most pastries if they contain a good deal of oil, and are what are called heavy or rich; infusion of senna; and common tea, if strong, and without cream and sugar. Neither coffee nor chocolate injures me, but cocoa does; and common scones and rolls, if the loose flour be left on them, especially if they be taken hot, and spread with butter. Opium and Dover's powder sometimes produce a like effect. The attack begins in this wise. One day, at a dinner-party, I thoughtlessly began to eat a few nuts, when, almost instantly, even when they were on the tongue, I began to feel a tingling sensation, with heat, and a sense of fulness in the throat, and swelling of the fauces. In a few minutes, itching and tingling began in the palms of my hands and soles of my feet, and within twenty minutes the whole body was covered with rash, as if I had been thrashed all over with nettles.....My usual remedy is brandy or whiskey; indeed, I can eat most of the above-mentioned articles if I am drinking whiskey-toddy at the time."

The following case is also worthy of being put upon record. I quote from a letter of a relative of my own. "My experience of nettle-rash is anything but recent, as it is now nearly thirty years since I discovered that I could not eat butcher's meat in any form without causing it, upon which I finally gave up the indulgence of

that taste. Since then, I have once or twice had slight attacks of nettle-rash from partaking of very strong soup, but none of those violent symptoms which the solid meat used to occasion. I first made the discovery after a long fever I had in 1830-31. I had previously suffered occasionally from nettle-rash, but not violently, nor uniformly, on eating meat. After my fever, however, it was a clear case. It was long before I found that everything in the shape of butcher's meat was inadmissible. Many trials were made with meats, and portions apparently as tender as, or more so, than fowl, as for instance, rabbits, ox or sheep's tongue, sweetbreads, etc.; but all with the same inflexible result, and that whether I knew what I was eating, or expected to suffer from it, which satisfied me and the most incredulous around me, that imagination had nothing to do with it. The symptoms did not begin for an hour or two. The first was the feeling of a lump in my stomach, perceptible even to the touch; then appeared nettle-rash on my wrists, my arms, my groins, and other tender parts of the skin; at first, in separate white blisters (as if an army of fleas and bugs had attacked me), which shortly agglomerated into large masses of white blisters. Along with this the inside of my throat and nose became swelled, my voice hoarse, and a feeling as if I had a violent stuffy cold in the head. If the attack were less severe, I used to go to bed, and was well by morning. If more violent, I used to take magnesia, which acted strongly on my bowels, causing first faintishness, and then severe purging, after which I became well. Various members of my wife's (she is a blood-relation of his own) family have been subject to nettle-rash, but not from the same cause. My mother-in-law could not eat barley-meal, nor my brother-in-law oatmeal, without suffering from it, though not, I believe, so severely as myself. My wife cannot let figs or wall-flowers touch her face without producing a rash.....If you will make it worth my while, I will come down at the Whitsuntide holidays and be exhibited. I will also eat the Ornithorhynchus paradoxus, if you can catch one unstuffed, and finally determine whether it be bird or beast."

This case illustrates the occasional hereditary nature of the disease—a point which has also been brought out by other writers; amongst others, by Trousseau, in his work on *Clinical Medicine*, Sydenham Society's translation, vol. ii, p. 285.

In many cases, specially in chronic urticaria, no cause can be made out. In the latter, the reason may be that the cause which originally produced the attacks has passed off, and the disease has been kept up owing, so to speak, to the skin having contracted a bad habit; or it may be the result of some peculiar idiosyncrasy, which is a convenient term to hide our ignorance.

Diagnosis.—When the eruption appears in its typical form—in the shape of wheals which are pale in the centre and red at the edges—it cannot be mistaken for any other; and when it is due to the sting of an insect, the dark point in the centre of each wheal is characteristic; but when it assumes one of the less usual forms, the lesion being erythematous or papular (*Lichen urticatus*), or tubercular (*U. nodosa*), mistakes may sometimes arise, if due care be not taken. Such errors may, however, be generally avoided by noting the presence of the four following points, which almost invariably characterise the members of the urticaria group: 1, the rapidity with which the eruption makes its appearance; 2, the itching, burning, or stinging sensation to which it gives rise; 3, its short duration, although the disease may be kept up indefinitely, owing to the occurrence of successive crops; 4, its not being followed by desquamation.

Treatment.—The first point in the management of any case of urticaria is to endeavour to find out, and, if possible, to remove, the cause or causes, the nature of which has already been sufficiently considered in a former section.

In acute cases, the eruption generally subsides within two or three days, when no treatment is adopted; but generally a sharp purge is of use, especially when, as in the majority of instances, the eating of some indigestible food, or digestive derangement, is at the root of the mischief; and, if we have reason to believe that such food is still in the stomach, as indicated by nausea, etc., an emetic of mustard, ipecacuan, or sulphate of zinc, may be administered at the outset. In all such cases, stimulating food and drink should be avoided, and the diet should be of the simplest kind.

In chronic cases, a similar line of treatment should be pursued under similar circumstances, and, where we have reason to suspect that it results from the digestion being disturbed by some particular kind of food, the nature of which varies in different persons, owing to their peculiar idiosyncrasy, we may with advantage follow the advice of Willan, who wrote, "I have desired several persons, affected with chronic urticaria, to omit first one, and then another article of food or drink, and have thus been frequently able to trace the cause of the symptoms. This appeared to be different in different persons. In some it was malt liquor, in others, spirit, or spirit and water; in some, white wine; in others, vinegar; in some, fruit; in others, sugar; in some, fish; in others, unprepared vegetables."[1] Like most other observers, however, he found that, in some cases, a complete alteration of the diet was not of the least avail. It would be quite out of place to refer to the means to be taken for the removal of the many other causes of this affection, as these must be treated upon general principles, and in the same way as we should do if they were independent of urticaria.

When no cause can be made out, or where the supposed cause has been removed, and the eruption continues to crop up, we must treat it empirically. We may, for example, try the effect, as Trousseau suggested, of the administration of sulphuric ether in doses of twenty to forty drops in water, or of quinine in full doses, or of arsenic, which is only exceptionally useful. But the medicines from which, perhaps, most is to be expected are atropia and bromide of potassium; the former may be administered subcutaneously at night, or night and morning, the initial dose for an adult being $\frac{1}{100}$ of a grain (*e.g.* 5 minims of a solution of one grain of sulphate of atropia in 500 of water); the latter in doses of ten grains dissolved in water three times a day. In either case the dose should be gradually increased, *either until the disease begins to yield, or until the supervention of the usual physiological effects* renders it unsafe to push the experiment further. Occasionally, good results are obtained from the continuous current of electricity for ten minutes night and morning, one sponge (the positive pole) being applied to the top, and the other to the bottom of the spine.

In obstinate cases, a complete change of air and scene and occupation is desirable, and sometimes advantage is obtained from visiting one of the alkaline spas, as Vichy, or from a course for three or four weeks of the baths of Leuk, in Switzerland.

Local treatment is generally resorted to, more with the view of alleviating the distress of the patient than in the hope that it will cut short the disease. The parts, for example, may be sponged with vinegar and water, or with eau de Cologne, or with a lotion of carbolic acid.[2] An ointment containing chloroform or a mixture of chloral and camphor[3] may sometimes be of service, and in exceptional cases not only temporary relief, but permanent benefit may result from the use of the tarry preparations, such as a lotion composed of equal parts of tar, soft soap, and rectified spirit.

[1] *A Practical Synopsis of Cutaneous Diseases, According to the Arrangement of Dr. Willan*, by Thomas Bateman, M.D., F.L.S. Seventh edition, edited by A. T. Thomson, M.D., F.L.S. London: Longmans. 1829.

[2] ℞ Acidi carbolici cryst. ʒii; glycerini (Price) ʒvi; eau de Cologne ʒi; aquæ distillatæ ʒiv.

[3] ℞ Chloralis hydratis, camphoræ āā ʒss; misce et adde glycerini (Price) ʒi, unguenti simplicis ad ʒi.

How Fever is Spread.—At the Manchester Police-court last week, Elizabeth Leigh was charged with stealing wearing apparel. Prisoner, who was a nurse, was called in to nurse a lady suffering from scarlet fever. She was so engaged for a fortnight, and during that time she stole a quantity of the underclothing which the patient had worn during her illness, and this she forthwith pawned. The magistrate described the prisoner's conduct as outrageous, and sentenced her to nine months' imprisonment.

Cantor Lectures.—The first course of Cantor Lectures, at the Society of Arts, was commenced last Monday, and the subject was "The Scientific Basis of Cookery," by W. Mattieu Williams, F.C.S. The introductory lecture treated of modes of applying heat; radiation, conduction, and convection; roasting, grilling, baking, boiling, and stewing. The second lecture will deal with the constituents of flesh; the action of heat on albumen, gelatine, fibrin, &c.; exosmosis and endosmosis as operating in the kitchen; maceration; caseine; the cookery of cheese and its nutritive value; milk, butter, and "Bosch." In the third and concluding lecture will be considered the nutritive constituents of vegetables; the change effected by cookery on vegetable substances, &c. The lectures will be illustrated by a selected exhibition of cooking apparatus and appliances.

The Thorne Rural Sanitary Authority, Yorkshire, have received a letter from the Local Government Board, intimating that they are not prepared to assent to the continued employment of the poor-law district medical officers as medical officers of health; and trusting to receive a proposition to appoint one independent medical officer of health for the whole district. It was decided to consider the matter at the next meeting, and to give special notice to all the members, so as to ensure a good attendance and full discussion.

CLINICAL LECTURE

NEW OPERATION FOR THE RADICAL CURE OF HERNIA.

By T. N. FITZGERALD, L.R.C.S.I.,
Senior Surgeon to the Melbourne Hospital, and Examiner in Surgery at the Melbourne University.

GENTLEMEN,—In the course of your studies amongst the out-patients that daily attend this institution, many cases of abdominal herniæ have doubtless come under your observation.

Noticing the inconvenience that such abnormalities must necessarily occasion, requiring as they do the habitual wearing of a truss, and the element of danger that always exists in the event of the bowel becoming accidentally strangulated, it may have, perhaps, seemed singular to you that, whilst many operations have been devised, and are ever being successfully practised, for other congenital deficiencies and deformities, so few should be in vogue (and these comparatively so seldom performed) for the permanent cure of abdominal herniæ. There are, however, several reasons why surgeons are more reluctant than usual to resort to operative measures, if palliative treatment will suffice. There is the danger to life from peritonitis entailed by all surgical procedures hitherto proposed. Again, none of the measures as yet suggested have proved so adequately successful as to warrant their general adoption. According to the reports obtainable, some would appear to answer for a time, but, as soon as the support is put aside, the temporary adhesions either stretch or give way, and a fresh protrusion of the bowel inevitably takes place. Other operations apparently succeed in the practice of the surgeons who have been the means of introducing them; but, when they come to be tried in other hands, and the results published, their success appears to be very equivocal.

Herniæ, too, are usually seen at their worst amongst old or middle-aged men of feeble and relaxed habits, who are certainly not the subjects one would select for the scalpel or the needle. When met with in the young and vigorous, they are generally small, and easily restrained by well made trusses; so that, on the whole, the majority of those inconvenienced by a rupture prefer to bear the ills they have, rather than incur the risk of an operative failure. There are many cases, however, where it is of great importance that a rupture should be permanently cured by some operation, especially if this can be done without much danger to life. Take, for instance, the case of a man with hernia, dwelling far from populous centres; his life may be said to be at the mercy of his truss, and the accidental breaking of a truss-spring must, at all times, be to him most hazardous. This was shown in the case of the poor fellow who was recently admitted into No. 8 ward, with ruptured intestine caused by falling on an ill-made truss. Again, the existence of a rupture, however small, proves a most serious bar to those who are desirous of entering or retaining their position in the Government employment. In cases such as these, an attempt at cure by operation is undoubtedly justifiable; and the operation which I have introduced, and have practised for a length of time, is so devoid of real danger, that I think it ought to be carried out with very few exceptions.

I shall now briefly explain the principal operations that have, from time to time, been brought before the profession. I shall endeavour to point out where, in my opinion, their design is weak; and shall then describe the procedure you have very often seen me practise. (The lecturer here described Wutzer's, Wood's, Marcey's, Chisholm's, and Spanton's operations for the radical cure of hernia.) I have often seen Wutzer's operation performed in years gone by, but can confidently affirm that I never witnessed one case that ultimately terminated successfully; and I remember one case, followed by peritonitis and death, though in the hands of an excellent surgeon.

The plan answers very well for a time, but the pressure from above again separates the two sides of the canal, and the bowel, pushing forwards the invaginated tissue, descends into the scrotal bag as before; in fact, I think the effects of the operation are generally to make matters worse than they would have been if the parts had been left alone. For it would seem that this artificial stopping of the external ring and anterior portion of the canal causes the intestine to dilate the internal ring, and that portion of the canal behind the plug, in the same manner as the urethra becomes distended behind the seat of a stricture; and, when this plug comes away, as it invariably does, the opening is larger than ever.

Wood's operation is still occasionally performed in the majority of recognised hospitals. Its results are more favourable than Wutzer's, but not sufficiently so as to create any enthusiasm in its behalf. It is an operation that has been altered and modified in several ways, but without very much improvement being effected in its results. In my opinion, its great demerit lies in the early disturbance of the sutures, which must be removed before the parts can possibly have become consolidated and firmly united. This is one defect; another consists, as in Wutzer's, in the unnecessary invagination of the soft structures. Closure of the anterior inferior portion of the canal and external ring is procured for a while, no doubt; but, unless the entire canal be occluded, and the arch of the abdominal walls rendered complete, infundibuliform dilatation at the internal ring must, I apprehend, occur in course of time. In cases where the operation has been a success—and this, I know, has repeatedly happened—the happy result has been obtained in consequence of the whole of the canal having been plugged right up to the fascia transversalis. But this was not the intention of the originator of the operation; nor, by following Mr. Wood's description, can such an event be assured. The procedures of Marcey and Spanton both entail artificial plugging at the seat of the hernia, which, as I have said, is, in my opinion, not only unnecessary, but even hurtful, as it prevents the walls of the canal from coming into such apposition to one another, that union can be procured along its whole course. Mr. Mitchell Banks separates the sac, but cuts it off after passing a catgut-ligature securely round its neck; the pillars are then stitched together with catgut, which are allowed to remain permanently *in situ*. This plan is to me certainly an improvement on the preceding methods, but it involves rather dangerous handling of what is really a process of the peritoneum. Nor do I conceive that so soft, elastic, and absorbable a material as catgut can be sufficient to permanently restrain a hernia. Still, the statistics published show excellent results, better than those that have followed any other procedure.

Impressed with the manifest failure of Wutzer's, and the limited success of Wood's, plans, some years ago I schemed out an operation, of which the following is a modification, and which I have performed a large number of times.

The only instrument employed is a long stout needle, similar to those used in perineal operations, but the hank is longer and the point less curved. Sometimes I suggest, though I do not use it myself, a long needle without a handle, with an eyed point at each end; the employment of which, at one stage of the operation, avoids what appears to be an awkward movement of the hands, and enables the operator to pass his stitches more easily than perhaps he otherwise would do.

The patient having had his bowels cleared by a purgative the evening before, and an enema in the morning, is placed on his back, with his hips raised on a pillow. An anæsthetic is administered, and as soon as complete muscular relaxation is effected, the hernia, external ring, and neighbouring parts, should be carefully examined; notice being taken as to the size of the ring, and whether the rupture is oblique or direct. The hernia, if descended, should be reduced, and the index finger of the left hand, pulp uppermost, carrying the scrotal integument in front of it, pushed through the external ring into the inguinal canal. If the opening be large, two fingers must be introduced; but above all, care should be taken that the hernia, once reduced, be prevented from slipping down. It may be necessary to obtain the aid of a skilled assistant to effect this, by pressing on the abdominal wall over the internal ring. The needle is then inserted about two inches from the inner column of the external abdominal ring (A), and about half an inch above the pubes, pushed downwards and outwards, keeping the point of the needle deep and quite close to the abdominal muscles, till it meets the internal pillar fully a quarter of an inch from its free edge; this it pierces, and also picking up the conjoined tendon, is carried over the forefinger, lying in the canal, and guarding the spermatic cords and vessels, till it reaches the external pillar; under this boundary of the ring it passes for a quarter of an inch, when it is thrust through Poupart's ligament, till, travelling under the skin and superficial fascia, it comes to the surface at the same distance from the external pillar as its point of entrance was from the inner column (B).

By this means a substantial hold is taken of both pillars, which, before they are pierced, are tilted forwards, by the point of the forefinger from underneath, so as to avoid wounding the structures beneath. When once the digit is in the canal, and the operation

commenced, it should not be removed till the stitches are finally pulled together.

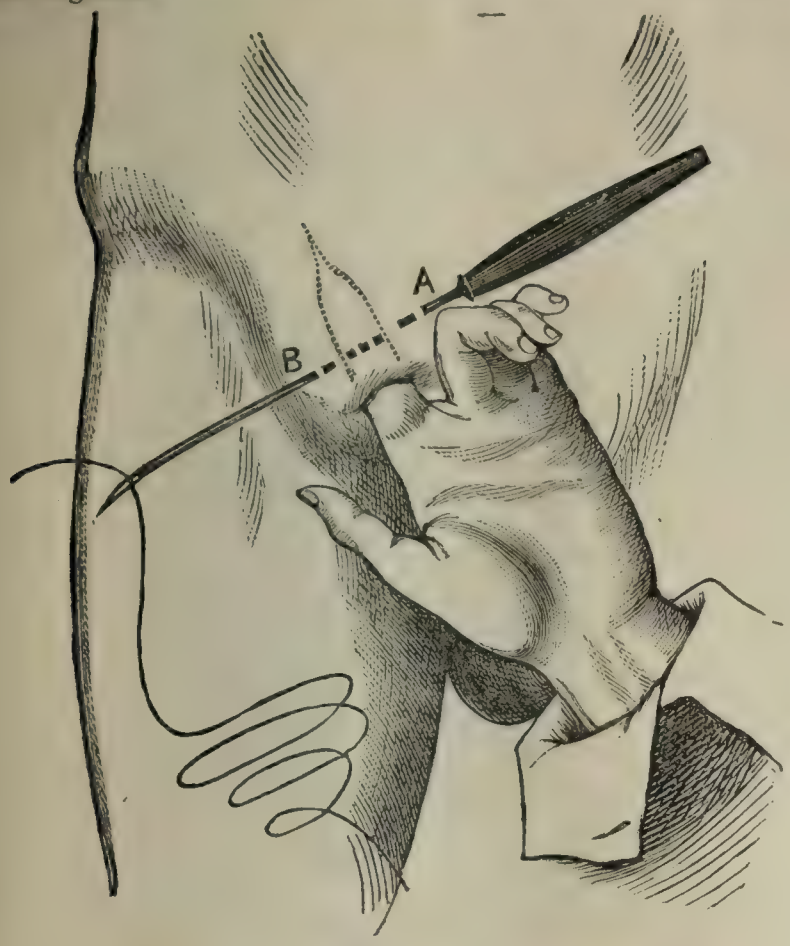


Fig. 1.

Figs. 1, 2, 3, and 4 show the four positions in which the needle is inserted in the course of the operation. Throughout, A represents the spot where the needle is first inserted; B, the point where the first stitch comes out; C, point where the second suture is inserted; D, spot where needle first enters for third stitch.

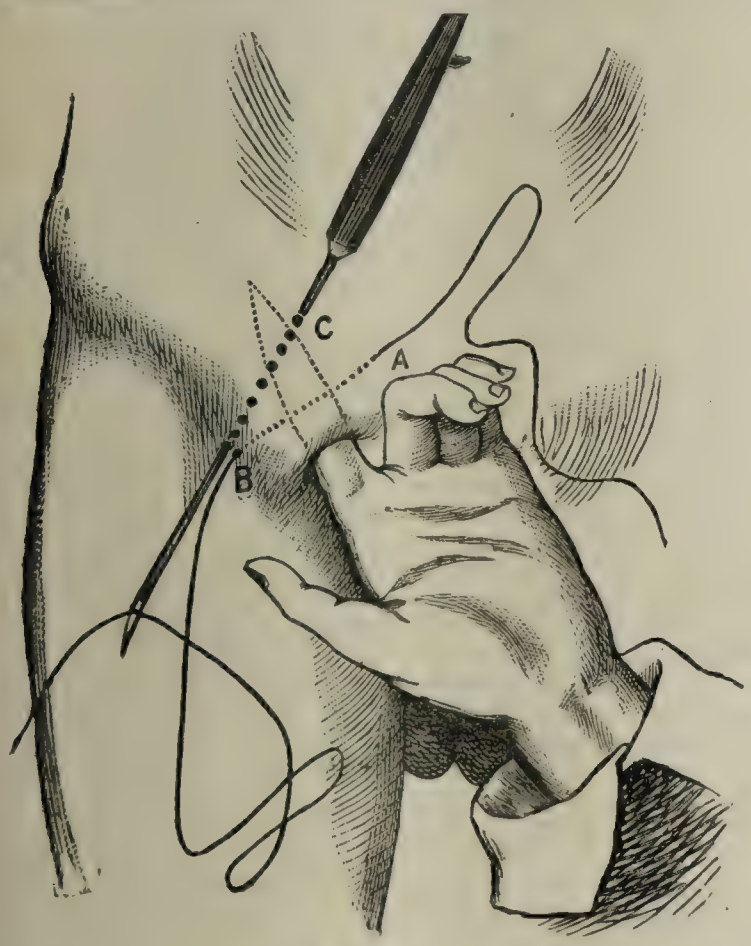


Fig. 2.

The next step is to thread the needle (at B) with a piece of pure gold wire from fifteen to eighteen inches in length, and sufficiently stout to withstand a tolerable strain; the needle is then withdrawn, and the wire left in its track. The second stitch is made by inserting the needle (at C) about two inches from the inner pillar of the

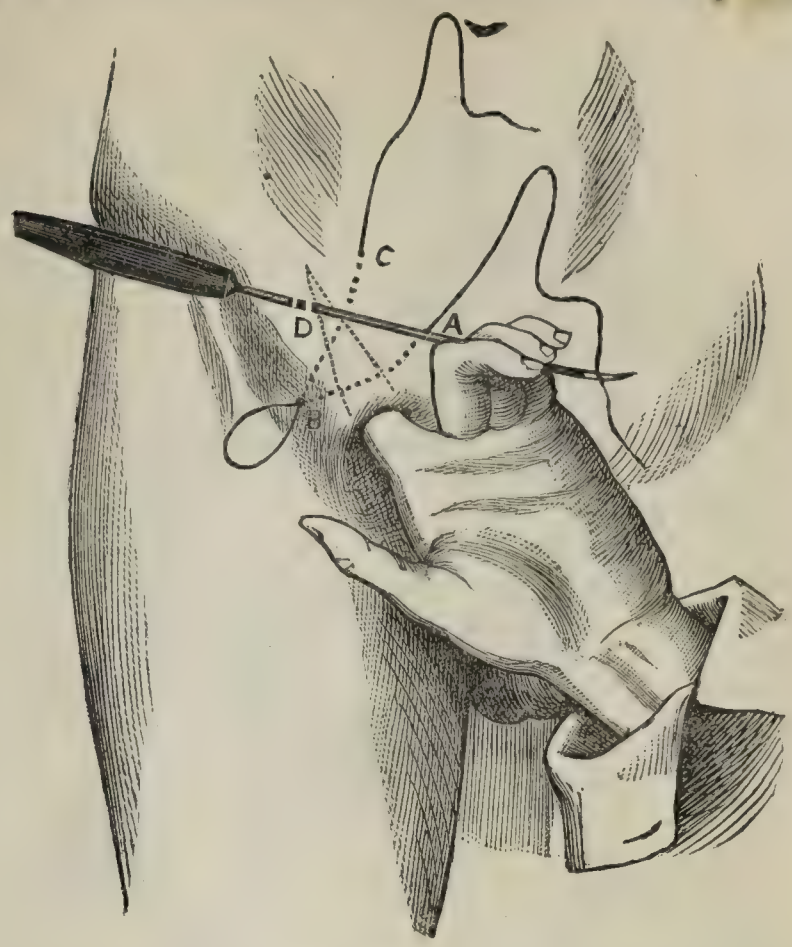


Fig. 3.

external abdominal ring, and an inch higher up than the first stitch. This time it is made to pierce the integument, subcutaneous tissue, and conjoined tendon; then it is passed on over the forefinger and Poupart's ligament (or the external pillar) to emerge at (B), the point where it came to the surface, in passing the first stitch; the needle is then wired, with the end hanging out there, and withdrawn

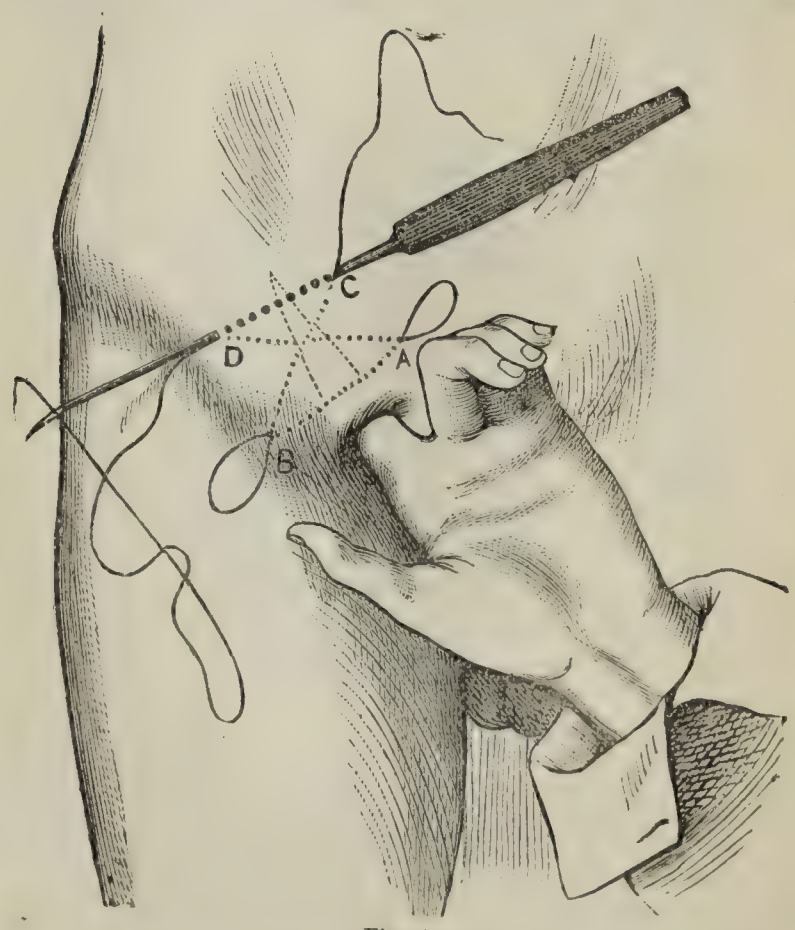


Fig. 4.

as before. In passing the third stitch, a little more difficulty is occasionally experienced, and to do it neatly requires a certain

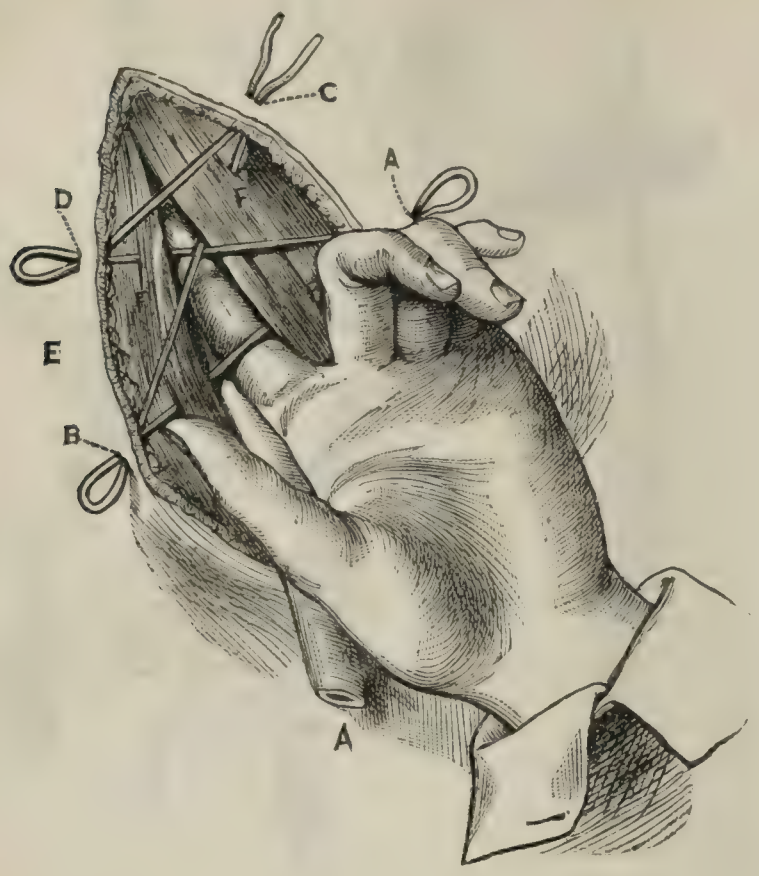


Fig. 5.

amount of dexterity and some manipulatory skill. The long needle, sharp at either end as described, would render the operation less troublesome. If the same needle be used by the surgeon all through, the right hand and arm must be swept round the lower part of the

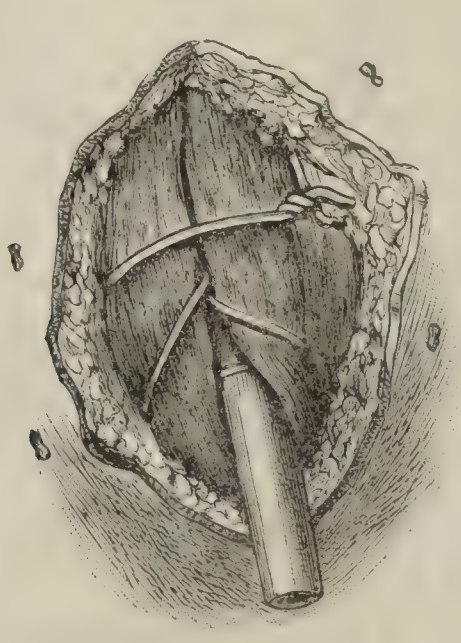


Fig. 6.

Fig. 5 shows the position in which the wire should appear, after the last stitch, and previous to bringing the walls together; E, outer skin; F F, coats of abdomen. Fig. 6 shows how the parts should appear when the loops are tightened. Fig. 7, the same, showing the puckering of subcutaneous fasciæ and tissues.

abdomen, and the point of the instrument introduced through the skin and external pillar at a spot (D) about an inch from (B), and allowing for the obliquity of the canal, opposite the puncture where the needle entered in commencing the second suture (C). Having perforated Poupart's ligament, it now passes over the fore-finger across the ring, over the internal pillar, and through the skin at (A). If the long needle be used, its course is naturally reversed; entering at (A), it is thrust under the external pillar at the opening (D); the needle, whichever description is employed, is then threaded (at A), and the gold wire drawn through as before. A loop of wire is thus left projecting at (A) and (B), and the ends stand out at (C) and (D); by now passing the needle subcutaneously from (C) to (D) over the pillars and upper portion of the ring, the end of the wire

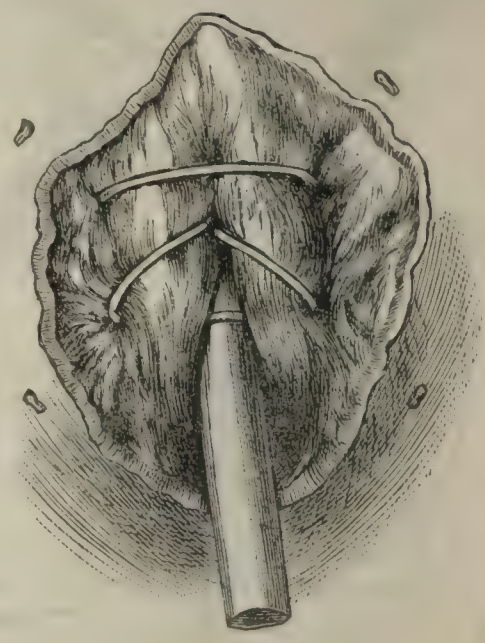


Fig. 7.

protruding at the puncture (D) can be drawn out (at C), so that the two extremities are left projecting from the same orifice. Traction is next carefully made on the wire, sufficient to draw the pillars of the ring together, without cutting or so squeezing them as to strangulate the tendinous structures, care being also taken not to kink the loops. The ends are then securely twisted, and cut off close to the skin, and allowed to fall back under the integument. A piece of lint as a protective pad is placed over the groin, and held in position by a spica-bandage, and the patient is put to bed. In a few days, the little tenderness occasioned by the punctures will have passed off, and a light easy-fitting truss may be applied and worn for a month or so.

I have depicted the operation as it is performed on the right side, the needle being worked by the right hand; the same description will suffice for stitching the other side—only, of course, substituting outer for inner, and so forth.

When the size of the external abdominal ring, in an oblique hernia, or the split in the tendinous structures in a direct hernia, is unusually large, it may occasionally be necessary to apply a second crucial stitch, above the first—making, as it were, a "double gate." This is performed in exactly the same manner, except that the stitches are made deeper, and not so far apart from one another as when only a single suture is used.

Sometimes, as the loops are withdrawn, they pucker the skin, or cause a certain amount of invagination, especially when the needle does not make its entrance and exit through exactly the same opening. This can be remedied by picking up the skin between the finger and thumb, and giving it a kind of shake or tremulous motion. If this be not sufficient, a tenotome may be introduced to disengage the wire. The sutures being of pure gold, and perfectly unirritating, are left in permanently, and form a perpetual barrier to the descent of the hernia, stimulating, to some extent, the natural intercolumnar bands.

Such is the operation; and I may now make mention of some points that are essential to its success. The left forefinger must be very carefully kept in the canal the whole time, so as to avoid injury to the intestine and peritoneum on the one hand, and the spermatic cord and its vessels on the other. Again, in introducing the sutures, it is of the utmost importance to include as much as possible of the subcutaneous structures, so that these may form a pad, which, while it assists in closing the canal from the outside (not by a plug within, as in the other operations), also prevents the sutures from cutting through the tendinous structures.

To do this, the needle must be entered well away from the pillars of the ring, and the first time should be passed deeply, close to the abdominal muscles, until the edge of the ring is picked up. The second time, the needle should be passed superficially, and close to the skin. When the ring is large, it is necessary to be sure and put in enough sutures, whilst care must also be taken not to close the ring too much, or the circulation in the spermatic cord may be interfered with, and atrophy of the testicle or varicocele may result.

I may mention that a former surgeon to our institution witnessed many of my early operations, and was so impressed with their success that he (having a large direct hernia) wanted me to operate on himself; however, I declined, as a truss kept it up easily without inconvenience, and also as he was a man advanced in years.

Of course, I, like most others, lose sight of my patients after a time; but I have never occasioned a death through the operation. In fact, it gives rise to so little local irritation or constitutional disturbance, that it is perfectly possible, though perhaps not advisable, for the patient to leave his bed two or three days after the operation.

[Here several cases, illustrative of the beneficial results of the operation, were brought forward.]

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING

PROCEEDINGS OF SECTIONS.

AN ADDRESS ON CHRONIC INFLAMMATION OF BONE.

Read in the Section of Pathology.

By CHARTERS J. SYMONDS, M.S.Lond., F.R.C.S.E.,

Assistant-Surgeon to Guy's Hospital, and Demonstrator of Morbid Histology in the Medical School; Surgeon for Out-patients to the Evelina Hospital for Sick Children.

I MUST offer some apology for the title of the subject, the discussion upon which, I am about to open. "Chronic Inflammation of Bone" sounds somewhat vague, and suggests a dissertation upon almost every osseous affection. That it is not my intention to weary you, or the members gathered here, with a ramble over so wide a field, I will first say that it is rather my object to inquire into the causes which produce enlargement and hypertrophy of bone. It was this notion I wished to convey when asked, some time ago, by our Secretary, Dr. Goodhart, to suggest a subject; but the slight confusion which often attends such arrangements, particularly amongst people otherwise busily engaged, must be my apology. I trust, however, that the subsequent note, inviting communications upon the various diseases in which bones are enlarged, has been sufficient to give a general outline of the drift of my paper.

The conclusions at which I have arrived are drawn chiefly from the study of museum specimens, especially those in our own collection at Guy's Hospital, which is particularly rich in examples of thickened bones. I have also examined the specimens in the Museum of the Royal College of Surgeons, and those at St. Bartholomew's Hospital, where many of Mr. Stanley's preparations are to be found. From these, as well as from other sources, I have been led to certain conclusions, some of which differ considerably from those generally received. These I will put forward in a tentative way, desiring to suggest that the ground is still open to inquiry, rather than to make any dogmatic statement

Another object I have in view is to single out from these numerous forms of thickened bone—variously described as hyperostosis, osteoporosis, hypertrophy, etc.—such as can be unmistakably referred to recognised causes, and to use the information thus derived for the elucidation of the more obscure affections.

In pursuing these objects, though I shall be found sometimes standing in opposition to long-established explanations, some of which bear the weight of our greatest authorities, I trust that my views may serve the purpose at least of reopening an old subject, and that, as an outcome of our discussion, we may find ourselves nearer the truth.

I must anticipate, however, the disappointment that many, who may hope that this obscure subject will be cleared up will feel; for it will appear that still I leave a considerable amount of ground uncleared. This, I admit, will be found to be the case; but, after all, if one be successful in lifting but one morbid process into its proper position, or in removing another from a position falsely attained, it will, I imagine, be allowed that some advance has been made. This much, at least, I hope to advance.

Our inability at present, in referring many of these thickened bones to their correct position in pathology, is the result of our ignorance of the lesions that have been associated with them. It will be another of my objects to indicate the direction in which we ought to work, with the greatest probability of attaining the truth.

For illustrating this subject, I have, through the kindness of our curator, Dr. Goodhart, been able to show a series of specimens from our museum.

In examining the various bones that undergo enlargement, it is convenient at first to separate them into two groups, and to consider first the long bones, for in these the processes are fewer and the explanations simpler; next, to take the cranial bones, placing these aside for separate consideration, since the whole subject is more obscure, and a greater number of morbid processes are in force.

Now, amongst the causes known to produce enlargement in long bones, there is no doubt that chronic inflammation is the most frequent. I will first, therefore, ask you to consider the manner in which this process effects the change in bone, and next inquire into the various causes upon which the process depends; and afterwards to consider what other processes than inflammation may produce this enlargement in bone. In this way, I hope to obtain information, which may be applied to the elucidation of the more obscure class of thickened skulls.

It is, I think, at the present day generally admitted, that inflammatory enlargement of bone may be due either to "expansion" of its tissue, or to a periosteal deposit upon its surface. As the proportion which each of these processes takes in producing enlargement is a debatable point, I may premise that I hope to show that the first, viz., "expansion," so-called, arising from osteitis, does not of itself lead to an increase in diameter in a bone, but that all such



Fig. 1.—Normal humerus.

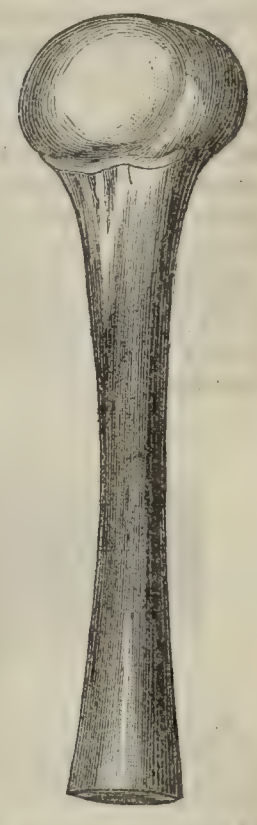


Fig. 2.—Humerus enlarged.

enlargement, so far as simple uncomplicated inflammation is concerned, is due to the second cause, viz., periostitis; and that chronic osteitis never increases the diameter of a bone until the periosteum is reached, when the latter lays down, where healthy, a variable amount of new bone.

It is unnecessary for me to dwell upon the effects of simple periostitis in producing thickening of bones; the specimens are numerous, and admit of no cavil. But the effect of chronic osteitis, in producing enlargements by expansion of the bone, seems quite open to objection.

The specimens upon which this effect is founded are those in which, on section, an enlarged bone is found uniformly porous to its outer compact layer, no trace of the original compact tissue being visible. Such a bone is said to be "expanded" by an enlargement of its spaces, or to be "swollen."

The historic specimen upon which this observation is largely

founded was one communicated by Mr. Arnott to Mr. Stanley, and published by the latter in his work on *Diseases and Injuries of the Bones.* (Plate I, Figs. 4, 5, 6.) These drawings I have had copied from Mr. Stanley's work. The bones were re-



Fig. 3.—Transverse section of Fig. 2, showing "Expansion from Separation of Lamellæ."

moved from a boy, aged 14, who died four months after excision of the elbow for old joint-disease. The humerus is much larger and lighter than its fellow, and, by the transverse section, it is seen to be porous. This effect is said to be produced by expansion of the natural cavities of the bone, due to a separation of the lamellæ by inflammatory products.

Stanley (page 19) writes: "Simple swelling of a bone, from expansion of its tissue, is one of the most frequent alterations to which it is liable. The lamellæ are separated, the vascular walls are widened, and the bone is softened; not that its lamellæ and the walls of its cells are thinner, but that, by the separation and the widening of their interspaces, the bone loses so much of its compactness and power of resistance, that it readily yields to compression." He further says: "I have seen many instances of expansion of articular ends of bones, especially of the inner condyle of the femur, and of the head of the tibia, ensuing from a blow or other slight injury." Again, he observes, that "a bone, once enlarged by expansion of its tissues, will permanently remain so."

That I may quote no antiquated opinion, I may read the views of Sir James Paget, also quoting Stanley, in the latest as well as in the first edition of his *Lectures on Surgical Pathology*. After describing the softening effects of inflammation in bone, he proceeds to show the subsequent changes that are permitted, especially the "swelling and expansion." Referring to this humerus of Mr. Arnott's, he says "the lower end was red and swollen, with expansion or separation of the layers of its walls, and the case showed well the coincidence of absorption and of enlargement by expansion"—a remark indicating his adoption of Stanley's explanation.

Sir James also refers to another specimen, his illustration to which I have cut from his "Lectures," and pass round with the description appended.



Fig. 4.

It is a section through the shaft of a femur exhibiting an increase in diameter due to the presence of regular laminæ outside a compact layer. "The most striking change," he says, "is a more or less extensive and wide separation of the concentric laminæ of the walls of the bone, so that, as in the section of this femur, the longitudinal section of the enlarged wall appears composed of two or more layers of compact tissue with a widely cancellous tissue between them."

I have not succeeded in finding this specimen in the St. Bartholomew's Hospital museum, but there exist amongst the excellent collection of bones many similar examples; and in the new catalogue such bones—I mean those exhibiting a new periosteal deposit with a porous interior—are described as showing thickening from "expansion and deposit."

A later authority, Mr. Lister, says, in describing a case of disease of the knee-joint, that "sympathetically the bones also had become affected, and the ends of both the tibia and the femur were greatly enlarged." It is, therefore, fair to assume that both a temporary, as well as a permanent enlargement of bone, due to expansion of its texture, is admitted at the present day.

In attempting to refute such an interpretation, I may first say, that a temporary swelling of a bone will, I imagine, from the nature of things, be allowed by the majority to be impossible. If such occur in the articular ends, as is asserted, I would ask what becomes of the articular cartilage, itself a brittle and non-vascular structure. Though bone does resemble in its behaviour under inflammation in many respects the soft parts, in this it seems different, that no swelling of its tissues is permitted, except of the periosteum.

Both Stanley and Lister have referred to the enlargement of the end of the femur and tibia, the former writer after injury, the latter in association with pulpy disease of the knee-joint. On this point I do not hesitate to say, that caries and necrosis of articular surfaces do not lead to enlargement by expansion of the articular extremity, but that such appearances, clinically, are fallacious, and that, when examined after excision or amputation, the bones will be found of normal size, however advanced the disease. These specimens, the one from the bones forming the knee, and the other from those forming the elbow-joint, afford a good illustration of this statement.

So often have I examined such bones, more than one of which has been put down clinically as expanded, that I feel upon tolerably safe ground in saying that there is no increase in size from such a cause, but that, in the case of the knee, the greater prominence of the bones is due (1) to the wasting of the thigh; (2) to the thickening of the synovial membrane, and (3) to the backward displacement and outward rotation of the tibia, the last points throwing the inner condyle particularly into prominence.

I must here except those cases occurring in the middle-aged, where irregular spicula and masses of bone are formed round diseased joints, as may be seen in the elbow sent round. Such are evidently surface-formations, as is the slight superficial deposit upon the condyle of the femur, in the other specimens. For introducing such clinical details, I ought, perhaps, to apologise to those to whom such points are well known; but the prevalence of the impression of the existence of enlargement, under such circumstances, must be my excuse.

Having objected to the generally received interpretation of such specimens as Mr. Arnott's, I now propose to offer a different reading, to account for these enlarged and uniformly porous bones. Adhering to my statement that all enlargement is a superficial or periosteal addition, the uniformity in structure may be explained in two ways.

In some, as in the humerus referred to, I would suggest that an organising periostitis has occurred at the same time as the osteitis, that the former process leads to a deposit of new bone, and increases the diameter, while the latter renders the compact tissue porous by absorption of the bony framework; so that, the new bone being itself porous, and the old bone having become so, there is an unbroken area of cancellous tissue from the medullary canal to the thin compact layer bounding the new periosteal bone. Thus the appearance of expansion is explained. When the periosteal new bone has become sclerosed it resembles the compact, and again an uniform section of dense bone results. But in such specimens a white dense line may sometimes be seen, indicating the original limits of the compact layer, as in this femur (No. 1153 Guy's Hospital Museum). Again, in other specimens, as in the figure just handed round from Paget's work (Fig. 4), the osteitis has affected the superficial layer of the compact bone only, much of the original remaining compact, the outer part having become cancellous, and blended with the new porous bone.

The other way which I would suggest, in which uniformity in structure is produced, is more physiological than pathological, and is this:—If the periosteal deposits become permanent, and the compact layer have not been rendered cancellous by osteitis, it seems that, being now in the interior of a bone, it must assimilate itself in structure and function with the parts around it. The process by which this is effected seems to be atrophy, brought about by a loss of function, and must be very slow. This may be seen occurring in this specimen, where the sclerosed periosteal bone is blended with the original compact layer (No. 1152, 85 Guy's Hospital Museum). At one point the cancellating process has removed all distinction between the two parts, while, at another, the line of the old compact layer can be made out still.

The same cancellation of embedded compact tissue is seen in fractures, as in this humerus, where the new bone has formed around the displaced and partly impacted fragment. The compact tissue of the latter is becoming cancellated, while a well-marked compact layer limits the new bone. A specimen of a fractured femur in the College of Surgeons shows this well.

Again, when the fragments override, as in this femur, the uniting material has a thick compact layer externally, is porous internally, and the compact tissue of the shaft, where embedded, is seen, to be much thinner than elsewhere, in fact, is undergoing cancellation.

Smith, in his work on *Fractures*, calls attention to this point in endeavouring to disprove the existence of impaction in "Colles' fracture." He says (p. 161): "At a still more remote period, the enveloped portion of compact structure is frequently removed by absorption; it becomes, as it were, resolved into cancellated structure, the appearance of penetration is effaced, and the whole interior of the bone presents a cellular aspect."

It seems, indeed, to follow from the functions of the several parts of a bone, that all within the outer compact layer must be cancellous; so that, given a permanent periosteal increase, the surface of that deposit will become compact, and blend above and below with the original outer surface of the bone, while the now embedded compact layer will become cancellous; a result which again will give the appearance of expansion.

It seems, at first, that the explanation will scarcely explain some of the specimens of enlarged bones, such, for instance, as one figured in Stanley's work, where the cancellation is extreme, and strongly suggests expansion. It was, therefore, necessary to procure a specimen showing an earlier stage, and, curiously enough, no better could be found than one figured by Stanley himself in the sixteenth plate of his *Atlas*. A copy of this I have placed on the same sheet with the illustration before referred to. It shows a

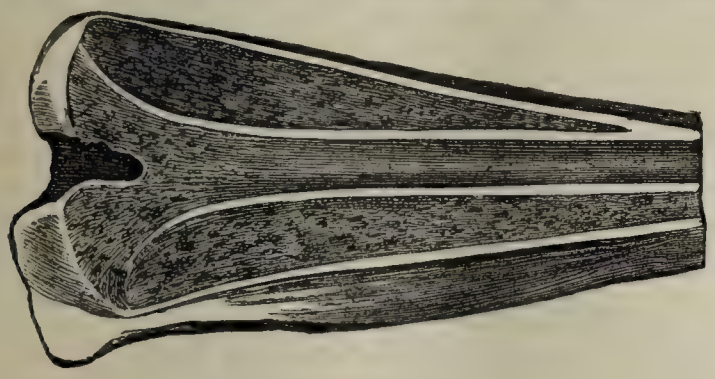


Fig. 5.

thick and smooth-surfaced periosteal deposit upon the old compact layer of the humerus. A new dense layer limits this new bone. The radius and ulna showed the same change. This specimen was obtained from a boy aged 10, long suffering from disease in the elbow. It is thus commented upon by Mr. Stanley: "Inflammation extending to the adjacent bones has occasioned the formation of a perfect wall of new bone around the adjacent portions of the humerus and ulna. The wall of new bone consists of an outer compact and an inner cancellous texture, and is, in each instance, formed between the periosteum and the walls of the original bone, to both of which it is united."

The outer surface of the specimen is fairly uniform; and had the



Fig. 6.

case lasted long enough, I believe that the included compact tissue would have become cancellous, and the whole bone presented the uniform appearance seen in the first specimen.

I may also refer to abscess in bone as showing the absence of enlargement with central osteitis; for I believe I am correct in saying that no increase in the size of the affected part takes place until the periosteum is reached, when this structure, on irritation, deposits a variable amount of new bone.

The authors I have quoted attribute the narrowing of the medullary canal to the reaching inwards of the laminæ surrounding it, owing to expansion of the spaces; but I imagine that, for the reasons given above, the obliteration of this canal is to be attributed rather to an endosteal formation.

Besides the evidence derived from the examination of specimens in support of the view I have brought before you, it seems to me that the physical nature of a bone, negatives the possibility of expansion. Even if a previous softening be admitted, so as to meet the objection of rigidity, there ought to be evidence of a crowding together or compaction of the lamellæ, for example, round an abscess. But such an appearance I have never myself met with, and, so far as I know, has not been described.

The effect of inflammation is to produce absorption of the bony laminæ until the periosteum is reached; and, if flakes of bone be found in the wall of an abscess projecting from the bone, or, as is common enough, in the capsule of a myeloid tumour, I would prefer to say that such flakes have either been carried out with the periosteum, or, as is more probable, that new bone has been formed by the stretched and irritated periosteum.

Before passing to inquire into the cause of thickened crania, I will, for the purposes of discussion, formulate in a few words so much ground as has been already covered.

1. All enlargement from simple inflammation is due to periosteal formations, and the uniformly cancellous appearance is due to (*a*) the widening of the canals in the compact tissue through absorption of their bony walls, or (*b*) the atrophy or remodelling of embedded compact bone.

2. The term "expansion," as applied to bone, is misleading, as the widening of the spaces is due to absorption.

3. In central and superficial osteitis, no enlargement is produced till the periosteum is reached.

4. In simple articular caries and necrosis, there is no enlargement of the extremities of the bones from "expansion," this appearance being fallacious.

The causes producing enlargement in long bones are, so far as I can find, the following.

1. *Hypertrophy.*—Sir James Paget gives several examples of this, chiefly in the skull. So far as regards long bones, with which we are now concerned, few examples appear to exist, except those of *elongation* of bone recorded by Stanley and Paget. The latter suggests that inflammatory changes in bone produce this effect; but I would suggest that, as the elongation generally occurs in bones when there is a cause of congestion near the epiphysis, as, for example, in the femur, the increase is due to rapid growth of the epiphysal cartilage from the attendant congestion. Besides these cases, which appear to be examples of true hypertrophy, one of two parallel bones—*e. g.*, the fibula—is said to become hypertrophied when the other, having been broken, has remained ununited. This term hypertrophy ought, I think, to be distinctly limited to these rare cases, so far as long bones are concerned; and that, rather than speak of thickened and sclerosed bones as hypertrophied, it would be better to speak of the process which has induced the change.

2. *Inflammation.*—In a very large number, as Paget says, enlargement is the consequence of inflammation in bone. Taking the explanation offered above as to the mode in which this change is brought about, and which differs from Sir James Paget's, the following may be taken as the causes under this head: syphilis never, so far as I can find, producing an uniform enlargement of an entire bone. *a.* Scrofula. *b.* Simple inflammation due to the irritation of a long-retained sequestrum. It may be noted that very small sequestra may lead to extensive enlargement. A specimen handed round illustrates this. *c.* Chronic congestion, and subsequently chronic inflammation secondary to, and extending from, an ulcer. The best example of this is seen in the tibia, a preparation of which is before you. The inflammatory process may extend deeply, changing entirely the appearance of the compact layers, obliterating all distinction between it and the new periosteal bone. Coming under the same heading is the enlargement occurring where chronic œdema exists, an increased supply of blood or lymph being furnished to the bone. In Dr. Day's case of obstructed lymphatics, in one lower extremity the bones were much larger than those in the sound limb. One other example of this I have seen in a patient who had chronic suppuration in the foot for many years, associated with an elephantoid condition of the leg; but the tibia and fibula were here much increased by periosteal deposit; while the bones of the foot, though in the very focus of inflammation, were unaltered. The fibula in the jar, and the tibia, illustrate this to some extent.

3. *Osteitis Deformans.*—It is unnecessary to dwell upon this malady, so fully and so recently described by Sir J. Paget, unless to remark that in it alone (so far as our present knowledge goes) is a long bone, ever enlarged uniformly and throughout. An example is before you in this tibia. The increase in diameter of this tibia is not difficult

to explain in the way I have suggested, but it is much more difficult to account for the increase in length of the bones in this disease. That elongation undoubtedly takes place, this illustration of a much curved and elongated radius will be sufficient proof. That the morbid process affects the articular lamellæ, as well as the rest of the bone, is scarcely sufficient to account for the great increase that occurs. Hence, I am at a loss, for the present, to account for the change; unless, indeed, the whole process displayed in this affection be different from that of simple inflammation, and own a method of increase peculiarly its own.

4. *Rickets.*—It seems doubtful if rickets ever produces permanent enlargement of a long bone, except the greater development seen at the point of curvature, which I imagine may be looked upon more as a result of repair than of disease. This fibula well illustrates the condition to which I refer. Paget, in speaking of this disease as it affects bones, says they are "too short, not too long; too small, not too large."

5. *Osteomalacia* does not lead to increase in the size of the long bones; and I hope presently to show that neither does it do so, as has been alleged, in the skull.

[*To be continued.*]

ON SUPRAVAGINAL HYSTERECTOMY, WITH REMARKS ON THE PRINCIPLE OF THE EXTRAPERITONEAL METHOD OF TREATING THE PEDICLE.

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THE natural history of the ordinary uterine fibroid is different from that of other tumours. It has a limited life. Other morbid growths go on, and vex or kill according to their nature or place in the body. A stone in the bladder, if it be not taken away, is there for ever, and as it grows, it torments the more; but, to the woman with a fibroid uterus, who has passed many a weary year in weakness and suffering, middle age brings relief, and old age may be spent in peace. Hence the difficulty in knowing how far we are justified in advising interference for a disease that troubles for a time, though it rarely kills. Till of late years, uterine tumours were let lie undisturbed, unless when they were mistaken for ovarian cysts; but the restless surgery of to-day lets nothing alone; it has no patience for the menopause, and would attack all and sundry in some way or other, till one almost begins to think that old-fashioned responsibility has gone out of date. So far as operations for the cure of this disease have yet gone, the mortality is out of all proportion to the benefit received by the few. In the last edition of his book, Sir Spencer Wells gives his results after hysterectomy as follows: 20 deaths in 39 completed operations, or one in every two operated on. In 31 exploratory incisions for fibroid, partial operations or attempts at removal, one out of every six died; while of those who survived the abdominal section, brief notes are given of other eleven cases, fatal mostly within two years, some within one. Mr. Thornton's results, as given at Liverpool in August last, show a mortality from supravaginal hysterectomy almost as high; and, of all operations of "one kind or another" for uterine fibroid, one out of every three died. Professor Schroeder lost 20 out of 66; but, of the last 40, the mortality had diminished to less than one out of every four patients operated on. These are the latest published results with which I am acquainted, and they are of value, because they represent the whole number of operations performed by these surgeons. I believe Dr. Bantock's results are even better for supravaginal hysterectomy, and those of Dr. Hegar are still more favourable. It must not be forgotten, however, that, in many of these operations, the tumours removed were of no great size. Indeed, I know of some that gave no trouble at all. The best of these results shows an excessive mortality, even if the disease for which the operation was performed were invariably, in time, a fatal one. I cannot accept such a death-rate. Surely surgery can do something better, else hysterectomy should be laid aside.

It was well remarked by Dr. Wallace of Liverpool, at the meeting of the British Medical Association last August, that our opinions on almost everything connected with uterine fibroids and their treatment, are in a chaotic state. We should learn much, if the members of the British Medical Association would record their experience in well-marked cases on the following points. What is the natural history of the various forms of uterine tumour when menstruation has passed away? What proportion of cases have been seen to die directly from them, and what are the causes of death? How often do simple fibrous tumours kill from hæmorrhage? On this point there is no exactness. Some maintain that life is almost never in danger from them, and that it is better to let well alone. Then Mr. Thornton tells us that he has removed a large number of ovaries to check the growths of bleeding fibroids, and that he only operates when life is theatened. Some assert that these tumours are rarely fatal from simple hæmorrhage, while Mr. Tait tells us that he has seen many die from this cause alone. Then, details of a large number of operation-cases are much wanted, especially of the failures, for successful cases tell little. A hundred honestly reported cases, such as that given by Dr. Walter of Manchester, in the number of this JOURNAL for October 13th, would be of great value. I am often asked what are the best books to read on ovariotomy, and I name first the volume of cases published many years ago by Sir Spencer Wells. It is a record of experience without expression of opinion, and you are left to draw your own conclusions. Such a series of cases of hysterectomy would be as valuable now, as these cases of ovariotomy were when given nearly twenty years ago.

For myself, I was slow to begin this operation. Many uterine tumours had passed through my hands. The greater number gave no trouble whatever; a few even disappeared; and many—I may say, hundreds—got over the menopause with little disturbance. But some—not a large proportion certainly, and, if I were to make a guess, I would put it at about 5 per cent.—suffered horribly, year after year, and, at the time, death would often have been welcome. Now I sometimes see certain of these old bad cases enjoying a fair amount of health, and able, in every way, to live like other people. Wishing to have the patient's view of the situation, I tell them that nowadays their tumour would be removed, and that, had they lived a little later, much of their former sufferings would have been spared them. The reply has invariably been, "I am so thankful that I had no operation." I never had one, in my own practice, die from simple hæmorrhage, though many have, at some time or other, seemed to be very near it.

The first operation for the removal of a fibroid tumour done by me was ten years ago. It was a case of rapidly growing fibrous cystic tumour with much solid, and it was mistaken for an ovarian tumour. I had for long expected that this mistake would some day happen to me. It had come to others, and I knew I could not always escape, for the diagnosis is difficult. I was thus not quite unprepared for it. A very thick stump was kept outside, as near as was possible, by Kœberlé's instrument; but, from the distension that came on a few days afterwards, part of the large sloughing mass passed inside the abdomen, fortunately without doing any harm. The second, done a year later, was almost forced upon me by the patient herself. Her sufferings were great, and long protracted, for suppuration was going on in part of the tumour. She almost died on the table from hæmorrhage a few minutes after the operation was begun. The next one operated on was a nurse, on account of a bleeding fibroid. She could no longer earn her bread, and she had no friends to fall back upon. There was alarming secondary hæmorrhage a week after operation, nearly proving fatal. This accident gave me such a fright, that no more were operated on for three years, when a young woman, twenty-three years of age, was done. She was under observation for two or three years before. The tumour weighed 27 lbs. Menstruation had long ceased, and rapid growth was going on. The left broad ligament enveloped one half of the tumour, and much enucleation was necessary. Pulse and temperature were high from the first, and the presence of some blood in the urine on the second day was attributed to absorption of carbolic acid. On the fourth night, when all danger seemed to be over, she passed into a state of acute mania; for days, she raved without ceasing about her glorified body, till she died nine days after. Under the upper part of the incision, where some of the sutures had given way in her restlessness, was a little matter. In the pelvis, all was well, and there was nothing to be seen but the healthy repair of a great injury. The next sixteen cases were successful, and there was a second mistake of a fibrous cystic tumour for an ovarian cyst. Then came the second fatal case, seven days after operation. The local conditions seemed favourable, but the patient was naturally a delicate, feeble woman. She had worked on till she could hardly go on any longer, and the œdematous abdominal wall formed of itself a tumour of the size of an adult head, reaching to the knees. There was no adhesion in front; the tumour moved with the respiration; the condition in the pelvis was satisfactory, and posterior adhesions were never thought of. After a very free incision was made, the tumour would not for some time move forwards. All around appeared a red fringe of very vascular adhesion. One half

Twenty-five Cases of Supravaginal Hysterectomy.

No.	Medical Attendant.	Date of Operation.	Age.	Weight of Tumour.	Description of Tumour, Adhesions, etc.	Result.
1	Dr. Perry	Nov. 1873	52	11 lb.	Fibrous cystic tumour. Supposed to be an ovarian tumour	Recovered.
2	Dr. Low	Dec. 1874	44	12 ,,	Solid fibroid, with suppurating cavity. Extremely firm and extensive adhesions	,,
3	Dr. Miller	Feb. 1875	40	8¼ ,,	Soft fibroid; hæmorrhages. Both broad ligaments opened up to fundus	,,
4	Dr. Dobie, Ayr	Jan. 1878	23	27 ,,	Solid fibroid. Left broad ligament opened up to fundus	Died 9 days.
5	Dr. Hunter	April ,,	33	12 ,,	Fibrous cystic tumour	Recovered.
6	Dr. Kidd, Alyth	July 1879	32	19 ,,	Bleeding fibroid. Both broad ligaments opened up to fundus. Much enucleation	,,
7	Hospital	April 1880	28	42 ,,	Solid fibroid. Left broad ligament opened up to fundus. Much enucleation	,,
8	Hospital	Nov. ,,	39	21 ,,	Solid fibroid; pelvic adhesions. Cystocele and rectocele. Cervix projecting from vagina ...	,,
9	Hospital	May 1881	29	15 ,,	Both broad ligaments opened up to fundus. Enucleation	,,
10	Hospital	Oct. ,,	37	12 ,,	Uterus entirely removed. Broad ligaments opened up. Omental adhesions	,,
11	Dr. Campbell	March 1882	34	10 ,,	Bleeding fibroid. Anæmia excessive	,,
12	Hospital	April ,,	19	9½ ,,	Bleeding fibroid	,,
13	Dr. Baird	August ,,	38	9 ,,	Both ovaries enlarged and adherent. Adhesions in pelvis. Bleeding fibroid	,,
14	Hospital	August ,,	46	34 ,,	Soft fibroid. Very extensive adhesions and great enucleation	,,
15	Hospital	Sept. ,,	40	25 ,,	Solid fibroid. Very firm parietal, omental, and intestinal adhesions	,,
16	From Australia	Nov. ,,	38	12½ ,,	Solid bleeding fibroid. Broad ligaments largely opened up	,,
17	Hospital	Dec. ,,	50	20 ,,	Solid fibroid. Ovarian tumour, 15 lb., also removed	,,
18	Hospital	March 1883	30	7 ,,	Omental adhesion. Attempt to remove ovaries failed	,,
19	Hospital	May ,,	38	5 ,,	Broad ligaments opened up to fundus	,,
20	Dr. Maclaren	Feb. ,,	50	27 ,,	Solid fibroid	,,
21	Hospital	June ,,	38	30 ,,	Solid bleeding fibroid. Adhesions very extensive, and firm to intestine, mesentery, and omentum	Died 7 days.
22	Dr. Bell	Aug. ,,	40	6 ,,	Solid tumour filling pelvis, causing cystocele and rectocele	Recovered.
23	Hospital	Oct. ,,	40	7½ ,,	Solid bleeding fibroid. Extensive enucleation. Attempt to remove ovaries failed	,,
24	Hospital	Oct. ,,	44	10 ,,	Solid bleeding fibroid. Ovaries could not be removed	,,
25	Hospital	Nov. ,,	27	5 ,,	Soft bleeding fibroid	,,

of the tumour was embedded in omental intestinal and mesenteric adhesions of such firmness and tenacity, that every portion had to be cut. The raw surface on the tumour, which weighed 30lb. measured 30 by 31 inches. In addition to all this, there was a curious cystic condition of the mesentery, such as I had never met with before. There were hundreds of small serous cysts, and to get all bleeding stopped amongst these was no easy matter. The adhesions were very bad, but much worse had existed in some of the other cases, and a fatal result, when the patient was placed in bed, was never anticipated. The pulse was rapid from the beginning, yet she took food and stimulants well, never had pain or sickness, and there was no distention. I regretted much that she was not drained, but the case did not seem bad enough for drainage. On the fifth day, two days before she died, I removed three or four ounces of thick syrupy blood from the pelvis. This contained no organism. The cause of death was, however, some form of blood-poison.

With the exception of the cases in which the ovaries were removed to check the growth of bleeding fibroids—and all of these yet operated on have recovered—this list contains every case of uterine tumour with which I have ever interfered by abdominal section. Every operation was completed—some with great difficulty. In two cases, there was a mistake of diagnosis between a fibrous cystic tumour and an ovarian tumour. All the rest were carefully and correctly diagnosed. All were cases of supravaginal hysterectomy. Nearly all were under observation for some years—some for many years. A gradual deterioration of health had been watched, till the stage of uselessness and utter wretchedness was reached, when death seemed preferable to life. I have never seen such pronounced anæmia as existed in some of these patients; and this of itself certainly does not forbid an operation. The average weight of the tumours—nearly seventeen pounds—shows at least that there was no hurry in interference. All but three of the twenty-four were, from their condition in life, hospital-patients. Their position was laid plainly before them, and they were allowed to decide much for themselves. Some preferred to let bad alone, and these are still working on in more or less discomfort and misery, waiting for the menopause. The argument that life was threatened was never used. I do think that Cases III, XIII, and XV, had nearly seen the last of their days. Were I anxious for operations, I might ere now have done two or three hundred during the last ten years. Eighteen operations were performed without carbolic acid spray, with one death. In six done under spray, there was one fatal result. He is insane who does not now accept, *toto animo*, the antiseptic principle in surgery; but in the surgery of the abdomen, I draw the line at the carbolic spray. Some of the operations were extremely trying and difficult to complete in a satisfactory surgical way, or in a way to satisfy one—more especially a few that were half extra- and half intra-peritoneal operations.

Most of them were extraperitoneal, and one was entirely intraperitoneal. Kœberlé's instrument was at first used, and in the half extra- and half intra-peritoneal cases, it is very useful. The broad ligaments were almost always separated off the tumour and tied separately—sometimes left in, sometimes secured outside, according to the circumstances of the case. Great enucleation was often necessary, especially in the large tumours, in order to get the wire placed as low as possible when there was no cervix. The bladder was half a dozen times dissected down. It sometimes rose as high as the umbilicus, and its size was often remarkable. It is not an easy matter to distinguish its edges sometimes, if the ordinary stupid direction be followed, that the bladder be emptied before the operation is begun. Leave it full, and bladder-difficulties are wonderfully modified. One case—XII—was so simple, that the operation lasted barely half an hour; three times, the time of the operation was two hours; the average time a little over one hour. When practicable, there is no more convenient plan of extraperitoneal method than that of the good old clamp, made of a very large size, and, if the parts below be first constricted by one or more wires, there is no difficulty in closing the wound properly round it. The ovaries were more or less enlarged, and diseased, in every case. In one there was an enormous pyosalpinx, the Fallopian tube resembling a piece of dilated intestine seven or eight inches in length.

In five of the twenty-five cases, and these were the cases of small tumours, operation was commenced in the hope that removal of the ovaries would be practicable. It was found impossible to remove them, and even sometimes to get near them; or when got at, one, or both, were so adherent, that it was safer to go on and remove the whole tumour. This must happen sometimes to others, if it has so often happened to me. The tumours on which I operated, were, perhaps, too large, and this drawback may not occur in cases of smaller tumours. I shall not soon forget a scene that happened one afternoon in the hospital. The operation was one for removal of the ovaries for great pain, and to check the growth of a small bleeding fibroid; by that, I mean a tumour not extending much above the umbilicus. It was late when we began, and both ovaries were felt enlarged on the tumour, about the level of the iliac crests. The right, with an enormously dilated Fallopian tube, and enlarged fimbriated end, was close on the tumour. It was ligatured, with barely room to hold the ligatures. The left ovary felt a little larger; only a small part could be got at. A fine long trocar was put into it, and some thick tarry-like fluid came away; but, instead of a small amount, several ounces filled the aspirator. The incision was enlarged, and the hand got in, but, to do this, some adhesion was separated, and there was surface-bleeding. An elongated cyst, closely fixed to the tumour, was now felt extending beyond the reach of the hand, and dipping down into the pelvis. At last, by separating more adhesion, and causing more bleeding, I was able to feel the distal end of the elongated ovarian cyst. It was pulled upon, and gave way, and, with some force, the whole was stripped off the tumour. It was seven or eight inches in length, along with a dilated tube. The wound filled with blood in the most alarming way. Sponges were packed in, and, after waiting for a time, were withdrawn, when the hæmorrhage went on as much as ever. This process was repeated over and over again. I would now fain have removed the uterus, but this was not practicable, from the way the tumour was fixed in the pelvis, and, indeed, almost everywhere. The wound was more enlarged, and part of the bleeding surface was, with difficulty, brought into

view. Some points were stopped by the thermo-cautery, but, on removing the sponges, blood came as fast as ever. The patient was now quite faint, and it was getting dark. A sponge, soaked in perchloride of iron solution, was pushed down, left for ten minutes, and then slowly withdrawn. A large glass tube was left in, and a few stitches introduced, leaving nearly half the wound open in the centre. As the patient was lifted into bed, blood was again filling the opening. Pressure of cotton-wool and a bandage was then trusted to, as she was now quite pulseless, and more dead than alive. Some hours afterwards, on removing the dressing, there was a flat coagulum under the cotton-wool, extending up to the neck, but the bleeding had ceased. It did not recur. Convalescence was painful and very slow. She is now being trained for a nurse. She is free of pain; menstruation continues regular, and is now quite normal. The tumour is a little smaller.

The health of all these patients since the operation continues to be perfect, and in no case has any harm come from the long cicatrix. In none have I seen any hernia, or anything like an approach to it. The after-comfort of the patient is, therefore, in no way affected by the length of the incision, if proper care be used at the time to close the wound very accurately, and not to allow the patient to be going about too soon. The long convalescence is certainly a drawback to the extraperitoneal treatment in hysterectomy, and my impression is that we must perfect the intraperitoneal method if we are to make progress and improvement. This brings me to say a few words about the extraperitoneal treatment of the stump by the clamp, which, at one time, served us so well, but at which some are now throwing stones. The principle of the extraperitoneal treatment is a sound one. The mortality attending this method was certainly high in the early days of ovariotomy, but much of this was owing to the late stage in which patients were then brought to us. Thus my results in ovariotomy with the clamp give a mortality of 14.8 per cent. in nearly 200 cases. In the first 100, from the 45th to the 85th case, there were only three deaths in 40 cases; and, in the notes published at the time, it is stated that the fatal results were not caused by the way the pedicle was treated. This cannot be called a murderous mortality. The mortality of the silk ligature was much higher, and for the simple reason that we had no Lister to tell us to boil or disinfect our ligatures. We boiled our sponges, put the points of all our forceps through the flame of the spirit-lamp, but we trusted to *pure* silk. The principle of the clamp was not at fault, only we carried it out in an imperfect way. The antiseptic principle was, to a certain extent, clearly understood by Kœberlé, Sir Spencer Wells, and others. Wells' dressing—the chalk and tar bags—was an excellent antiseptic dressing, only the antiseptic element in it was not strong enough. At that time I used iron wire instead of silk, and later on the cautery, and, consequently, did not suffer so much in my results as others who used ordinary silk. I am convinced that, if we were to go back to the clamp in ovariotomy, the results now would be very different, simply because the antiseptic dressing would be different. The extraperitoneal method seems to be at present the favourite one with British surgeons, and is certainly with us the more successful. I do not see, however, that a fixing of the tenth part of the tissue in the wound in ovariotomy should be condemned, when in a hysterectomy ten times the amount is generally treated in the same way.

Truer words were never uttered than those with which Professor Schroeder began his paper, read at the last meeting of the British Medical Association in Liverpool, in August last. "The prognosis of the removal of large solid tumours of the uterus depends altogether on the development of the technical methods of operating." The removal of a simple pediculated fibroid—an operation rarely, if ever, necessary—must be a simple enough matter, and requires no more surgical skill than is necessary in the removal of a simple serous cyst of the broad ligament—also, as a rule, an unnecessary surgical proceeding. But to take away a large adherent solid fibroid filling the pelvis, and to get the patient well after it, is by no means an easy matter. I do not think that the mortality after supravaginal hysterectomy should be greater than it now is in bad cases of ovariotomy. I fear we cannot look for a mortality of only two or three per cent., as we now do in the removal of ovarian tumours. The results here given show a death-rate of eight per cent., or one death in every twelve operated upon, and I am mistaken if this cannot be reduced.

After all, the great difficulty is not in doing these things, but in knowing what are the cases in which we are justified in advising those who trust themselves to us to run the risk of a dangerous operation, with all its attendant miseries. Could we get the mortality down to five per cent. in the bad cases, and these only are the fit subjects, we might then advise interference with a more easy mind. I am not sure if we can so advise, if the mortality cannot be kept down under ten per cent.

ON THE RADICAL CURE OF EXOMPHALOS.[1]

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A HERNIAL protrusion at or near the umbilicus, is an exceedingly troublesome condition in the adult. In children, it can be cured by the careful use of a well fitting truss in the great majority of cases; indeed, I have never seen an umbilical hernia in an adult which dated from childhood. It must be by far more common in women than in men, for I cannot find amongst my surgical friends, who see men as patients, that it is common in males; whilst those of us who deal with the abdominal viscera of women, see it very often. It occurs chiefly in very fat women, or in those whose abdominal walls have been greatly stretched by many labours, or by large tumours, and we all know that it is peculiarly liable to strangulation. It is never cured in the adult by the use of a truss; in fact, in my experience, it generally gets worse in spite of every or any kind of truss, and the employment of such means of retention is always irksome and sometimes quite impossible.

I have not made anything like an exhaustive research into the literature of the radical cure of umbilical hernia, but what search I have made has been singularly barren of results. In most of the text-books it is not even mentioned; and, even, in the special books, very little is said about it. I have found record of a few cases, as in Professor John Wood's book, where stitching operations have been done subcutaneously, but they have been mostly in children, and no definite statements are made as to the subsequent results.

The peculiarities of exomphalos, that the omentum is inevitably present in the sac, that it is almost always adherent to the inner surface of the sac, and generally irreducible, have stood very much, indeed completely, in the way of the means of the subcutaneous operations; and the extreme difficulty of being sure that all the intestine is returned before the wires are tightened, forms a serious danger in their performance. Still another difficulty exists—one much less known—that it is almost exceptional to find a single hernial aperture; they are generally multiple.

Concerning the adhesion of omentum to the sac, Mr. Wood says that it would not constitute a serious objection to the operation, since the presence of an omental plug would contribute to the closure of the aperture, and strangulation of this structure by the ligature might be avoided in its application. A very extensive acquaintance with the omentum leads me to differ entirely from these two statements, and to conclude that the retention in the ring of a piece of omentum, would be a complete bar to any permanence of its closure. Mr. Wood further says that the presence of much permanent distension of the abdominal cavity by fat or other causes, would preclude any attempt at a radical cure by operation, and this, of course, removes the great bulk of the sufferers from any hope of relief. A final objection to all subcutaneous operations is, that the utmost that is gained by them is the union of opposing surfaces of peritoneum, such an union as is not at all likely to resist a stretching force for any length of time. I have seen only one such operation done, very many years ago. It was perfectly successful for a few months, but, after that, the patient slowly relapsed to her former state.

The operation I am now about to describe I was led to first by being obliged, occasionally, to operate in cases of strangulated exomphalos. In such cases, I have never done what is recommended as the extraperitoneal operation, as I am sure it cannot be so safe as the operation by opening the sac; and it leaves the patient, after her recovery, with a larger hernia than she had before it. In such cases, as far as I can find (for in my earlier practice, and before my present method of record was in fashion, such abdominal sections were not thought worthy of specific record), eleven in number, I have opened the sac, freed all adhesions, removed redundant and irreducible omentum, pared the edges of the ring, and stitched them together. Every one of the eleven recovered; and I cannot discover that I have had a death in such a case—certainly it would be an incident not likely to be forgotten. I know three of these patients now, and the cure of the protrusion is permanent, after

[1] Read before the Clinical and Pathological Section of the Birmingham and Midland Counties Branch.

eleven, eight, and five years, respectively. What has come to the others, I do not know.

But since the time when I began to discard the superstitions of the peritoneum, between five and six years ago—that is, after the clamp was given up in ovariotomy, for all true progress in abdominal surgery dates from that—I have turned my attention to the radical cure of exomphalos, as one of the legitimate advances of my department. I have deliberately opened a number of hernial sacs, at or near the umbilicus; have reduced the intestine; cut off adherent omentum; pared the edges of the ring or rings; stitched them together by a continuous silk thread (which I leave permanently there); and have thus secured complete occlusion of the sac. The cases are included in the various series of abdominal sections I have published, and several have been performed since my last series was published. As might be expected, such an operation has had no mortality—I should be immensely surprised if I lost a case—and the results, so far, are all quite permanent. All the patients have been fat, some very fat, and the last one was pregnant.

This short paper I purpose to be a mere preliminary note of my practice on this subject; and, therefore, I have given no details. I shall take the matter up at length in a coming annual series of cases.

Let me conclude by saying, that I have an impression that the radical cure of hernia, of other kinds than umbilical, will, by-and-by, be undertaken by abdominal section. I am not sure but that it will be extended to operations for strangulated hernia. A few weeks ago, I removed an ovarian tumour from a woman with a femoral hernia, in which intestine was adherent. It was a very easy matter to undo the adhesions, and, by means of a handled needle and a silk thread, to obliterate the ring in a manner which, I am sure, no operation from the outside could have effected. So much can be done through a two-inch incision, that, if I should be ever called upon again (as I very rarely am) to operate on a strangulated femoral hernia, I believe I shall proceed by abdominal section, and complete the radical cure of the protrusion at the same time that I relieve the obstruction.

TUBERCULOUS DISEASE OF BONE.

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I.

BEFORE referring to the pathological changes which occur in scrofulous or tubercular disease of bone, it is necessary to make some remarks on the histology of the parts chiefly implicated in this process.

At the extremities of the long bones, ossification advances from the central part of the temporary cartilage outwards, leaving a layer of unossified cartilage between the diaphysis and the epiphysis, and also a layer covering the ossifying area; the former becomes the epiphysal, the latter the articular cartilage. It follows, therefore, that the epiphysal and the articular are one and the same piece of cartilage until ossification is completed, when the epiphysal layer disappears; the epiphysal cartilage also extends into the deep layer of the periosteum, the osteoblasts of this layer thus being the immediate descendants of temporary cartilage-cells.

The spaces in the cancellous tissue of bone are filled with medulla, which is the seat of the most important nutritive and pathological phenomena. The medulla of bone consists of a reticulum of adenoid tissue, its interspaces being occupied largely by fat-cells, the amount of fat depending on the condition of the nutritive changes going on in the part at the time when the specimen was procured. Enclosed among the fibres of this adencid tissue there are numerous large nucleated cells; these may be designated brood-cells, for we frequently see one or more non-nucleated round cells protruding out of the walls of these large nucleated cells. The round cells thus produced are of the size and form of ordinary red blood-corpuscules; they are formed in vast numbers by the brood-cells. Numerous channels may be seen in the adenoid tissue, crowded with these round cells. These channels do not appear to have well defined walls, but are spaces in the adenoid tissue, into which the round cells pass, and by which they are conveyed into the circulation, there becoming elaborated into fully formed red blood-corpuscules. Besides these channels, blood-vessels permeate the medulla. The adenoid tissue of the medulla, in addition to the brood-cells and round cells above referred to, contains isolated portions of protoplasm, and, whenever active prolification in the brood-cells is marked, there the quantity of protoplasm is found in abundance. It has often occurred to me, that these bare portions of protoplasm in the adenoid tissue might be considered as elements necessary for the fertilisation and active proliferation which occurs in the brood-cells.

Lining the walls of the calcified trabeculæ of bone, we see a number of multinucleated cells, which are the descendants of the temporary cartilage-cells, and it is from these cells that the bone grows and is repaired. We not unfrequently, under the effect of disease, find these cells much increased in size and protruding into the medulla; the portion of bone against which they rest, not being repaired as in health, through the action of these cells, perishes, and is not renewed, and so presents a rough worm-eaten appearance.

The pathological changes which occur in bones affected by tubercle may be studied to the greatest advantage in specimens procured from patients suffering from the early stages of hip-joint disease, who die from other causes, before suppuration or extensive mischief has taken place in the affected bone. The diseased and healthy portions of such a bone will either be deeply stained, or remain uncoloured, according to the nature of the pigment in which they have been immersed. Let us suppose that a fine section of the bone has been coloured with Dr. Heneage Gibbes's double staining fluid; certain well defined areas remain unaffected by the colouring matter. On examining the coloured part of the section we shall probably find that the reticulum of the adenoid tissue, together with the vessels and other component parts, all appear to be perfectly healthy. If we move the section from the coloured towards the unstained area, there is first a zone of tissue in which the brood-cells of the adenoid tissue are giving off innumerable round cells. Within this zone the adenoid tissue is crowded with round cells, and still nearer the centre of the unstained area the round cells are so numerous that they entirely prevent our seeing the reticulum of the adenoid tissue. The spaces between the reticulum, which in the outer zone are clearly defined and full of fat-cells, as we approach the centre, become crowded with round cells, to the exclusion of the fat-cells; blood-vessels and channels full of round cells may still be distinctly seen among the round cells. The centre of the uncoloured portion of the section is formed of an agglomeration of ill-defined round cells; and if these be teased out, compound cells are found among the round cells. This cloudy agglomeration of cells is often enclosed by fine connective fibres; no blood-vessels penetrate into this central accumulation of cells, or, more correctly, the pressure exercised by the cells is probably such as to occlude the smaller blood-vessels and other channels naturally existing in the medulla; for we must bear in mind the fact that the cell-hyperplasia has taken place among tissues largely surrounded by the non-extensible calcified trabeculæ of bone. The circulation being thus cut off from the centre of the diseased area, its cells undergo, in many cases, fatty degeneration; they become disintegrated, and a small cavity is formed in the medulla containing fatty molecules. We may reasonably suppose, however, that under favourable conditions elements of this description might be removed, because, as I have already remarked, in the early stage of the affection the cell-growths are surrounded by perfectly healthy structures. On the other hand. if a considerable number of contiguous medullary spaces become occupied by agglomerations of cells such as I have described, large areas of the medulla, and with them the osteoblasts they contain, are destroyed. In consequence of such changes, the osseous trabeculæ of the part also perish, and a cavity is formed in the bone. Cavities of this kind are to be found in every specimen of scrofulous disease of the bone which I have examined; they vary in size from that of a grain of sago to a walnut. In using the word scrofulous, I employ it as synonymous with tuberculous, believing as I thoroughly do in the views admirably expounded on this subject by Mr. Treves in the last edition of Holmes's *Surgery*. But, in most of these specimens, we have evidence to show that agglomerations of cells in the medulla are liable to become calcified. If this process be carried on to any considerable extent the result is the formation of a small extremely hard calcareous nodule in the bone, which acts on the surrounding parts in the same way as any other foreign body would do. Inflammation and necrosis of the contiguous bone is not unfrequently the result of this condition; a result which, I think, is to be feared even more than the fatty degeneration and disintegration of the cells.

The changes of the medulla which I have described differ in no respect from that of tubercle in other parts of the body; and there is no question, in my mind, as to the nature of this form of disease, and that it exists in those numerous instances of scrofulous affections of bone which occupy so much of our attention. In the upper extremity of the femur, in the early stage of the disease, the best marked specimens of tubercle will be found near the centre of the

bone, on the diaphesial side of the epiphysal cartilage, and beneath the articular cartilage.

My object in referring to specimens of bone coloured by means of Dr. Gibbes's staining fluid is in order that the tissue, in the early stage of tubercular disease of bone, might be carefully examined for the "tubercle-bacillus." So far as my experience extends, I have never been able to demonstrate the existence of this or any other bacillus, either in specimens of tubercular disease of the medulla or of cartilage before suppuration has occurred in the part.

FOUR CASES OF ADVANCED FIBROUS STRICTURE OF THE RECTUM TREATED BY PROCTOTOMY.

By W. HARRISON CRIPPS, F.R.C.S.,
Assistant-Surgeon to the St. Bartholomew's Hospital.

Case I.—L. C., aged 20, unmarried, was admitted into St. Bartholomew's in October, 1882. Ever since she could remember, she had had some trouble and difficulty in passing her motions. About a year ago the difficulty greatly increased, and she could only obtain relief after much straining. At first the pain was slight, but, in a few months, it became so severe, that she dreaded an action. Six months before admission, the fæces began to pass by the vagina, and, lately, she had scarcely passed anything by the natural passage. A motion was only obtained after purgative medicine.

She was in a very miserable condition when admitted, being thin and anæmic. The labia were œdematous and excoriated, while, round the margin of the anus, were some red shining folds of skin, the parts being continually kept moist with fœtid secretions.

Upon examination, a tight annular stricture could be felt two and a quarter inches from the anus, which would only admit the tip of the finger. Owing to a narrow vagina and well-marked hymen, the opening between the vagina and rectum could not be seen, though a probe passed from the one to the other.

The treatment was commenced by the passage of No. 2 bougie, and, at the end of three weeks, a No. 6 could be passed. Beyond this, no progress could be made. No. 6 bougie caused much pain, and its passage usually brought on vomiting, which was also the case even when smaller sized bougies were used.

At the end of some weeks, owing to this vomiting and the inflamed and painful condition of the parts, the treatment was discontinued. With the exception that less fæces passed by the vagina, there was but little improvement in her condition.

On December 2nd, the patient being in the lithotomy-position, I operated by first incising the stricture in the middle line behind, sufficiently to enable the finger to pass through, and then, with a strong sharp-pointed bistoury, transfixed the bowel above the stricture, the point of the knife emerging through the skin by the side of the coccyx. The knife was then made to cut its way out by dividing the whole of the intervening parts in the middle line to the posterior margin of the anus. A few small vessels required ligature, and a strip of dry lint put between the sides of the incision, with a pad and a T-bandage, arrested the oozing.

December 3rd. Temperature 103.5°. The T-bandage was removed; she had a fair night; no bleeding.

December 4th. Temperature 101°. The plug of lint was removed, and the part dressed with oiled lint.

December 5th. Temperature 100°. She had little or no pain.

December 7th. Temperature 99.5°. She was much troubled with cough.

December 8th. Temperature normal. She passed a loose motion unconsciously. There was a very free discharge from the wound.

December 11th. From the third day after the operation, the wound had been carefully syringed three times daily with boroglyceride lotion.

December 15th. The wound looked very healthy, and there was much less discharge. To-day, for the first time, she called for a bed-pan, and felt she was going to have a motion, but with no power to restrain it.

December 19th. The wound was very healthy. Upon examination, the finger passed readily into the bowel; nevertheless, some slight narrowing was already commencing in the bowel towards the upper angle of the wound.

December 20th. A No. 8 bougie was passed.

December 28th. A No. 12 bougie now passed easily, and the contraction noticed by the finger on the 19th had entirely disappeared.

January 18th. She passed a full-sized bougie for herself daily without pain. She had almost complete control over her motions. The bowels were opened daily without difficulty.

February 5th. She was discharged from the hospital. The wound had entirely healed, with the exception of a small portion of the extreme edge of the anal margin. There was also a slight discharge from the part. She, however, had no pain, and passed her motions without the slightest difficulty. Nothing had come through the vagina since the operation. Her general health had greatly improved. She was supplied with a full-sized bougie, and told to use it daily, and report herself at the hospital in two months' time. This, however, she failed to do.

October 1st, 1883. Having obtained her address, I asked the patient to call at the hospital. She stated that she had given up using the bougie after a few weeks, and had had no trouble in passing her motions. For the last month, however, there had been some slight discharge. Upon examination, the finger passed readily into the bowel; nevertheless, a slight but distinct ring-like contraction could be felt at the site of the old stricture. I then passed No. 12 bougie, telling the patient to pass it herself on alternate days.

Case II.—M. G., aged 33, came under my care in May 1883; she was married, but had no children or miscarriages. Nine years ago, she for the first time noticed a difficulty in passing her motions. For this, she took much purgative medicine, with some temporary relief. She gradually became worse; and, for the last three months, she has been in the habit of trying to pass her motions a dozen times or more in the course of the day, only passing small quantities after great straining efforts, with but temporary relief. For the last two years, she had noticed a discharge from the bowel. Although in daily pain and distress, she had not lost much flesh, and was a fairly nourished woman. On admission, at a distance of one and a half to two inches from the anus, was a tight annular stricture, through which it was impossible to pass more than the point of the finger; No. 2 bougie was passed with difficulty, and caused considerable pain. During the next fortnight, Mr. Hewer, our house-surgeon, daily passed a bougie, but no material advance was made in dilating the stricture. Being unable to pass my finger through the stricture, I was in doubt as to the extent of the disease; but I found a small olive-headed bougie of great use in ascertaining the limited extent of the stricture. On May 22nd, I completely divided the stricture and the last two inches of the rectum, as far back as the coccyx, in a similar manner as described in Case I. With the exception of a slight rise of temperature, on the third day, she had no constitutional disturbance. On the fourth day after the operation, she passed a full-sized motion without the least trouble or pain.

After the tenth day, a full-sized bougie was passed on alternate days, and kept in for an hour.

The following notes, for which I am indebted to Mr. Featherstonhaugh, her dresser, complete the case.

June 2nd. She could now hold her motions, but not for long.

June 14th. She sat up to-day for the first time. The bowels were opened, without medicine and without difficulty.

June 24th. The posterior incision was not yet completely healed, but caused no trouble; no sign of stricture could be detected by the finger.

June 28th. She felt quite well and strong, and was up all day; had perfect control over her motions, and passed for herself daily a bougie an inch and a quarter in diameter.

July 9th. Still a small amount of the granulating surface of the wound remained unhealed. She had no difficulty either in passing or in retaining her motions, and no stricture could be detected by the finger. She was discharged from the hospital, with directions to pass the bougie for herself daily.

Case III.—E. P., aged 30, kindly transferred to my care by Mr. Willett, was admitted in April, 1883.

The following history was obtained. Seven years ago the patient, for the first time, felt pain on passing her motions; and she occasionally passed blood at stool. This pain continued, more or less, until a year ago, when she noticed a difficulty in passing her motions, having to strain a good deal. The difficulty gradually increased. Seven months ago she commenced to pass fæces by the vagina, at first in small quantities, but latterly in larger amount.

She had little pain, except on going to stool. She had been lately becoming very thin and weak.

On admission she looked ill, with a sallow anæmic appearance, and was very weak. On examining the urine, it was found to have a specific gravity of 1008, and was loaded with albumen.

On examination, the parts were found to be tender, and bathed with a fœtid discharge. At a distance of one and a half inches from the anus was a tight annular stricture. Treatment was commenced

on May 1st, with No. 3 bougie. After a fortnight, No. 6 could be passed, and she was able to pass her motions more easily, but no further progress could be made with the bougie on account of the inflammation of the part. She appeared to be steadily losing ground, the night-temperature being raised, and the rectum tender, with a very profuse discharge. The albuminuria was persistent, the urine containing from a sixth to a third of albumen.

I hesitated at first to perform any operation, on account of her constitutional condition, but, after watching the case for five weeks, and seeing how much of her trouble was owing to a local condition, decided to divide the stricture and bowel freely. This I did on June 9th, by a similar operation to that already described.

For the first few days the patient did fairly well, but suffered from retention of urine. She then commenced to improve rapidly. For the following notes, I am indebted to Mr. Smith, her dresser.

June 20th. The wound was doing well. The urine was of specific gravity 1015, containing one quarter albumen.

June 23rd. A full-sized bougie was passed into the rectum.

June 29th. She could now pass a full-sized bougie for herself, without difficulty. She had almost complete control of her motions.

July 4th. She had no pain, except after medicine. The urine still ocntained a large quantity of albumen.

July 13th. The motions were now well formed, but the bowels did not act properly without medicine. A careful examination by the finger showed no sign of a return of the stricture.

July 17th. There was less albumen in the urine. The patient felt very well, and enjoyed her food. She passed for herself a full-sized bougie on alternate days. For the last week the bowels had acted regularly without medicine. She had no pain, and had perfect control over the motions. There had been no fæces or discharge from the vagina for the last month.

July 20th. She was discharged from the hospital, with instructions to be sure to pass the bougie for herself on alternate mornings.

September 22nd. She stated that she had had no trouble with her bowels since leaving the hospital, and she had felt fairly well, with the exception of swelling of the legs. The urine still contained a large amount of albumen. She had, contrary to advice, only passed the bougie on two or three occasions since leaving the hospital.

A full-sized bougie was passed into the bowel, but a slight obstruction could be felt as it passed through the old strictured portion. Upon examination with the finger, a slight annular constriction could be felt, which certainly was not there when she left the hospital.

[To be continued.]

THE TREATMENT OF CARIES OF THE SPINE: WITH CASES.

By NOBLE SMITH, F.R.C.S.Ed.,

Surgeon to the All Saints Children's Hospital, and Surgeon to the Orthopædic Department of the Farringdon Dispensary.

I.

ALTHOUGH it is a well-established principle in surgery that the most important part of the treatment of caries of the spine is rest of the diseased parts, yet there is no universally recognised means by which such rest should be secured. I have, therefore, thought that, as the treatment I have adopted has proved remarkably successful, the description of the principles which I have followed, and the records of the cases, may be of some interest to the members of this Association.

In recognising the very serious nature of the disease, and the fact that, according to usual experience, even when great care has been bestowed upon patients, many of them have died, it has seemed to me desirable, when the disease is in an active stage, to use every available means to keep the spine at rest, both by mechanical apparatus and by recumbency, and to sacrifice any possible benefits which might accrue to the general health from exercise, in order to secure the utmost repose of the vertebræ. In some subacute cases, however, and in all cases when the patients have sufficiently improved, I have allowed gentle exercise to be indulged in, while the spines of the patients have been thoroughly fixed mechanically. Good food, appropriate medicine, and, as far as practicable, fresh air, have also formed part of the treatment. Many of these patients had been suffering considerably in their general health before they were treated in the manner I am advocating; and the effect has been most favourable, not only in arresting the disease, but also in greatly benefiting their general condition, and in gradually restoring them to perfect health.

Whatever mechanical apparatus is used to fix the spine, it should, I would urge, be made to act upon the following principles.

1. To support the upper part of the body and relieve the diseased (anterior) parts of the vertebræ from undue pressure, without interfering with free thoracic respiration.

2. To control incurvation of the spine below the seat of disease; because, if it does not do so, the diseased surfaces will still be pressed and rubbed together, notwithstanding the fixing of the upper part of the spine.

3. To be so constructed that the surgeon can himself alter it in accordance with the progress of the case.

The instrument should form a back-splint, which will act as an immovable artificial spine, and the real spine is to be fixed by fastening the shoulders (drawn backwards), and the abdomen, and the pelvis, to the splint.

Thus the spine is fixed while the thorax remains free for respiration (a very important point).

Plaster-of-Paris jackets do not thoroughly fix the spine; they interfere with thoracic respiration; they allow the accumulation of dirt; they interfere with perspiration; they often cause constant discomfort; they obscure the region of the disease, and hide ulcers and abscesses when these form; and cannot, practically, be altered sufficiently often.

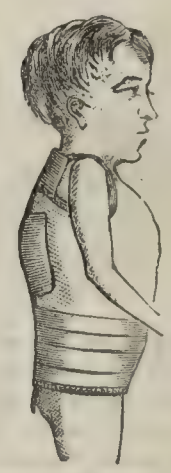


Fig. 1.—Diagrammatic Representation of the above Principles of Support.

We all know that many cases have been cured by plaster-of-Paris jackets; but, for the reasons now given, I discard the use of this mode of attempting to fix the spine, in favour of the use of an apparatus made upon the principles above described. The action of an instrument upon those principles may be, to a certain extent, attained with Dr. Taylor's antero-posterior support, and with Dr. Shaffer's modification of it; but an apparatus which I have found far better for the purpose, is that devised by Mr. Chance, and used by him at the City Orthopædic Hospital. This instrument I have used in preference to all others for nearly three years.

Whatever form of splint or instrument is used, it should, I consider, be made upon the principles above advocated; but no instrument will be of much use unless the surgeon devote his attention to its adjustment and readjustment.

No class of cases require more patience, on the part of the medical man, than those under consideration. The surgeon must never cease in his endeavours to fix the spine in a suitable position, until he has succeeded in relieving the patient from all pain and discomfort; and, at the first arrangement of the instrument, this result may not be easily obtained. Then the position effected, which may be correct to-day, may be wrong in a few days' time; for, even under the most favourable circumstances, the relation of the diseased bones to one another may alter from day to day until ankylosis commences. For these reasons, I prefer using an apparatus which will allow alterations to be made by the surgeon himself; and the comfort of the patient is the best indication he can have of the result of his adjustment.

Great attention should also be bestowed on providing for the comfort of the patient during recumbency; in many cases, the prone position, upon a properly constructed Verral's couch, will be found the most suitable.

Of the cases I have treated, one was that of a child whose lungs were gangrenous when I first saw her. I could only ameliorate the patient's sufferings until death took place soon afterwards. All the other cases have done well.

CASE I.—J. H., aged 19, had caries, centred in the eighth dorsal vertebra. The first symptoms appeared at three years of age. The treatment during early life consisted in recumbency only. Of late

years, the angle had been increasing, and the thoracic walls collapsing, accompanied by aching of the back. An instrument with crutches had been made for him, which produced so much discomfort that it soon had to be discarded. I first saw this patient in September 1880; and I had an instrument made for him upon the principles already described, which almost immediately relieved him from his sufferings. His chest soon began to develop in capacity, his height increased three-fourths of an inch, and he has continued to derive benefit from the treatment up to the present time.

There was no appearance or history of scrofula in the patient, or in his relations.

CASE II.—July, 1881. Mr. C., aged 21, was sent to me by Dr. Heath Strange. He had caries, centred in the fourth and fifth lumbar vertebræ, of eight years' duration from the time of the first symptoms. The disease was gradually increasing; there was very little pain, but lumbar abscess existed. I fixed the spine, and immediate relief was experienced. The treatment was continued for eight months, when the spine seemed to be ankylosed.

CASE III.—January, 1882. A. W., aged 8, had caries of all the dorsal vertebræ, and apparently also of the lower cervical and upper lumbar vertebræ. It was of five years' duration, and was attributed



Fig. 2 Represents the Appearance of the Patient (Case III), in January, 1882, almost lifeless and with the lower extremities paralysed.

to a fall, when the child undoubtedly hurt his back. Protrusion of vertebræ was noticed four months after the accident, and was then the size of a walnut. The child was at once taken to a general hospital, where a plaster-of-Paris jacket was applied. The jacket was never comfortable to the patient. Six plaster-jackets were

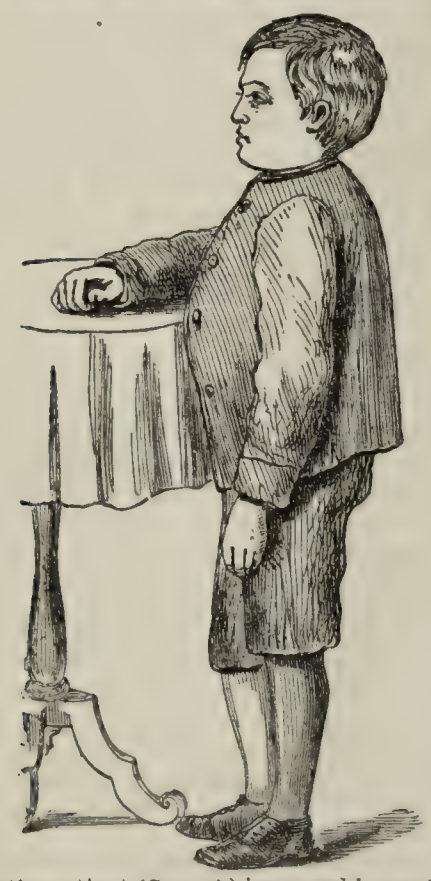


Fig. 3 Represents the patient (Case III) improved in condition, and walking about; September, 1883.

applied, each being kept on for one month. The child was never free from pain, and the deformity was increasing all the time. The boy was then kept at home for a few months, and remained recumbent. He was next taken to a special hospital, where a leather splint was moulded to his back. About this time, abscesses appeared; lumbar and then psoas. There were two openings in the back, one at the back of each thigh, and one in each groin, from all of which a large quantity of pus was discharged. The splint was less uncomfortable to the patient than the plaster-of-Paris jacket; but still it hurt him, and the deformity and general condition got rapidly worse.

In January, 1882, I first saw him. It was twelve months since he could walk; he had been supporting himself day and night for six months upon his arms and knees in the prone position, his mother not being able to persuade him to rest in any other way. He was in an extremely emaciated condition; and neither Mr. Curgenven nor I thought that he could live many days. Upon January 11th, I fixed his spine with an instrument. On January 13th, I found him very comfortable, and able to turn in bed for the first time for a long period. I then had a prone couch made for him, which he highly approved of. Many complications arose, which required considerable attention and frequent alteration in the adjustment of the splint. He gradually rallied. He can now walk about comfortably; two of the abscesses have healed, and his health is gradually improving in every respect. The destruction of bone seems to have ceased from the time of commencing this treatment. There was no history of scrofula in the patient or in his relatives.

ON A CASE OF ENCYSTED VESICAL CALCULUS.

BY THOMAS ANNANDALE, F.R.C.S.Ed., F.R.S.Ed.

Senior Surgeon to the Royal Infirmary, and Professor of Clinical Surgery in the University of Edinburgh.

J. B., aged 73, was admitted into my wards in the Royal Infirmary on May 8th, 1883. With the exception of a slight attack of hemiplegia, the symptoms of which had now almost disappeared, the patient had enjoyed good health; but, about four years before his admission, he commenced to suffer from bladder-irritation, and other signs of stone. He was treated by various medicines, and was several times sounded for stone, but without relief or the detection of any calculus in the bladder. His symptoms increased in severity, and he was advised to come to me.

When admitted, he had all the symptoms of stone in the bladder well marked, and the bladder was so irritable that he required to pass urine almost every half-hour, and, in consequence, he could get little rest at night. I carefully searched the bladder with both sound and lithotrite, and with the patient in different positions, but I could never detect a stone. There was a moderate enlargement of the prostate.

As his sufferings were aggravated, I determined to explore the bladder by external incision; and, on May 14th, I opened into the membranous portion of the urethra by a median perineal incision, and introduced, first my finger, and then a pair of straight lithotomy-forceps, into the bladder. I was still unable to feel any stone, but, on introducing a pair of curved lithotomy-forceps, and turning them round towards the base of the bladder, I struck against a stone. Only a small portion of the stone could be struck directly, the remainder of it feeling as if covered by some soft membrane. Having enlarged the wound by incising the prostate, I attempted to extract the stone; but, when it was held in the forceps, it felt fixed, and could not be removed from the bladder. I could not reach the stone with my finger, but I passed a probe-pointed knife along the forceps, and endeavoured to divide the membrane surrounding the stone. Notwithstanding this proceeding, the stone still remained fixed to the wall of the bladder, but, after a little traction and rotation of the forceps and contained stone, the fixing cause gave way, and the stone was removed from the bladder. Free bleeding followed the removal of the stone, and it was found that, along with the stone and partially surrounding it, there was a piece of mucous membrane which had been torn from the wall of the bladder. The insertion of a tube and plugging the wound stayed the bleeding, and on the following day the patient was progressing most favourably; the plugs were removed, and the urine, with some blood-clots, was passing freely through the tube. On the 16th and 17th, the patient was making excellent progress, and the urine was passing clear and free of blood.

On the 18th, the patient was suddenly seized with an attack of hemiplegia; he became unconscious, and, on the 20th, he died from the results of the attack.

The stone removed was an oxalate of lime one, with a slight coating of phosphates; it was rounded in shape, nodular, and had a diameter of one inch.

The *post mortem* examination revealed that the cause of death was an inflammatory softening in the left side of the pons Varolii. The arteries at the base of the brain were markedly atheromatous, and the changes in the nerve-substance appeared to follow the course of one of these vessels. The prostate was of the size of a small apple; the coats of the bladder were thickened, and the mucous membrane showed signs of chronic cystitis. There were no appearances of peritonitis or other acute inflammatory condition. In the posterior wall of the bladder, at a point corresponding to the upper part of the centre of the trigone, there was a well-marked sac, the posterior wall of which was a dilatation of the posterior wall of the bladder; the anterior and lateral walls had a free margin, and were composed of mucous membrane and submucous tissue. The margin of these latter walls had a torn appearance, and it was from them that the mucous membrane had been torn away by the forceps in the removal of the stone. When the stone was placed in the sac, the greater portion of it was buried in its cavity; and it was evident that, before the mucous membrane was torn away by the forceps, only a small portion of the stone must have been uncovered.

REMARKS.—I record this case, not only as an example of encysted calculus, but also as an illustration of the value of an exploratory median perineal incision in determining doubtful affections of the bladder.

Cases of well-authenticated examples of encysted calculi are sufficiently uncommon to warrant a special notice of any case in which the condition has been verified, as in the present instance, by *post mortem* examination. The enlargement of the prostate made the detection of the stone more difficult in my case; but, from a consideration of other recorded cases, it would appear that the presence of an encysted stone cannot always be certainly determined by ordinary searching, and that therefore an exploratory incision is advisable when the symptoms of stone are well-marked, and sounding fails to discover a stone, or treatment is unsuccessful in relieving the symptoms.

The true nature of the case just recorded would not have been determined unless the exploratory incision had been made; and the death of the patient from another cause does not detract from the fact that in consequence of the incision the stone was detected, and the patient was successfully relieved from the cause of his suffering.

CLINICAL MEMORANDA.

THE SPREAD OF SCARLATINA.

IN a short article on the above subject in a recent issue of the JOURNAL, the writer asserts that "practical facts about scarlatina, which should never be forgotten, are, that its contagium is mainly propagated by the material particles of epidermis which are shed from the surface of the body.....Scarlatina is a zymotic fever which especially affects children; and the malady is, undoubtedly, mainly spread by allowing children who have recently acquired the disease, but who to the non-professional eye have quite recovered from it, to mix with other children in schools and other places while their skins are still desquamating and scattering abroad their infective epidermic particles." And then the writer proceeds, very properly, to insist upon the importance of inspection, isolation, and disinfection.

Now, valuable as this latter advice is, I venture to think that it is founded upon a preamble which is not only open to some question, but positively calculated to lead, as it stands, to most mischievous results in practice. The writer founds his conclusions wholly upon the assumption that the infection of scarlatina is mainly conveyed by the desquamated epithelium; at least, he gives no other reason. It would be interesting to know upon what evidence, short of general assumption, he bases this statement. I have not been able to find any unquestionable proof that epithelium from a scarlatinal patient is *per se*, and *excluding all possibility of infection from other sources*, able to originate the disease. Observe, I do not deny that it may do so; I simply ask for evidence.

On the other hand, I know from abundant observation that the disease may be propagated from persons who have not had the slightest trace of desquamation—have not even had any rash, which is the indispensable prelude to such desquamation. But it is not as a mere matter of speculative interest that I desire to insist on this point; it is of the most vital and practical importance. For, so long as the profession and the public are encouraged in the belief that the desquamating epithelium of the skin is the main source of infection, instead of the throat, which is, from beginning to end of the attack, a constant focus of infection, so long will attention be distracted from this latter point; cases of the non-desquamating affection will escape notice; and those in which desquamation of the skin has ceased, but the throat-affection still persists, will be sent amongst the public with medical certificates of their recovery, as I have over and over again known done. It cannot be too often or too strongly reiterated that it is not to the skin, but to the throat, that we must look for the only safe evidence that is obtainable of the freedom of a scarlatinal patient from infection; and it is just as easy for a non-professional person to satisfy himself on this latter point by mere inspection, as it is by examining the general surface of the body. Indeed, it is easier; for it is often difficult to be certain, in the case of children with naturally rough skins, whether desquamation be going on or not; whereas the slightest blush of congestion in the throat should be sufficient to justify the maintenance of continued isolation in the case of a patient who has had scarlet fever.

The importance of this subject will, I trust, be an excuse for my writing strongly upon it. I have no desire to abolish the recognition of desquamating epidermis as a probable means of diffusing the infection of scarlatina, though I believe that its importance is greatly overestimated. What I wish to insist on is the fact that emanations from the mucous membrane of the alimentary tract, and especially from the throat, are far more important; and that both the profession and the public need to be awakened to an appreciation of it.

FRANCIS T. BOND, M.D., F.R.C.P., M.O.H., Gloucester.

A REMARKABLE CASE OF INCREASE OF WEIGHT IN PRETUBERCULAR PHTHISIS.

ELIZABETH B., aged 15, a dressmaker, residing in Upper Gloucester Street, was admitted into St. Vincent's Hospital, suffering from pretubercular pulmonary consumption. She had been ailing for about four months with cough, gradual emaciation, and, latterly, occasional night-perspirations. The catamenia had stopped. Encouraged by the recovery of her sister, Kate B., who had been one of my earliest patients treated by mullein, she resolved to try this treatment. On admission, her appetite was found to be bad; and, in addition to the symptoms already enumerated, she had very slight dulness and very loud respiration under the right collar-bone. She was ordered three ounces of green mullein leaf, boiled in a pint of milk (in the manner described in the JOURNAL of January 27th last), morning and evening. She was weighed on the first day of this treatment, and then regularly every week; great care being taken to secure uniformity of weighing conditions. The result was as follows: October 1st, 90 lb. 4 oz.; October 8th, 92 lb.; October 15th, 94 lb. 4 oz.; October 22nd, 96 lb. 8 oz.; October 29th, 98 lb. 8 oz.; November 5th, 102 lb. 12 oz. The progress of this patient was remarkable. The cough was at once relieved, and disappeared about the middle of October. On October 20th, the menses appeared, and lasted twenty-eight hours. The night-perspirations did not occur, after admission, to such an extent as to demand treatment. The appetite improved; and the girl went out to our Convalescent Home, near Dublin, plump, strong, and evidently quite cured. A slight subclavicular respiratory roughness still remains; but will, I expect, gradually subside. I have, since the publication of my paper, noted a very large number of mullein-cases, with the uniformly satisfactory results of cure in the earlier, and relief in the later, stages of consumption. The present is the most striking instance of increase of weight that I have had; and I publish this brief note in the hope of encouraging the use of a remedy which has all the advantages of cod-liver oil, without any of its drawbacks.

F. J. B. QUINLAN, M.D., F.K.Q.C.P.,
Physician to St. Vincent's Hospital, Dublin.

SEBACEOUS CYSTS OF THE HAND.

AT a recent meeting of the Pathological Society (BRITISH MEDICAL JOURNAL, October 20th, 1883), Mr. Poland exhibited a cyst removed from the palmar aspect of the ring-finger. The cyst was lined with thickened epidermoid cells, but presented no distinct sac-wall. Mr. Poland, on very good grounds, regarded the tumour as sebaceous.

The great interest of this and of like cases depends upon the occurrence of what is usually regarded as a simple distension-cyst, in a part where histology would teach us that no sebaceous cysts occur. I have recently had under my care at the London Hospital a patient whose case still further illustrates this pathological paradox. The patient was a man aged about 40, a railway-porter. He presented on his

palm, at the proximal end of the hypothenar eminence, and a little way below the pisiform bone, a cystic tumour about the size of a walnut. It had been growing for three or four years. I removed it, and it proved to be a typical sebaceous cyst. Its sac-wall was so substantial and distinct that the little mass was as readily "shelled out" as are many sebaceous cysts in the scalp.

FREDERICK TREVES, F.R.C.S.

EPIDEMIC PNEUMONIA.

BY the courtesy of the incumbent, the Rev. W. E. Cox, I am enabled to publish the following interesting extracts from the registers of the parish of Georgeham, North Devon.

Opposite the entries of burials for the years 1746-47, is the following marginal note.

"☞ All these marked X died of a violent Pleurotic Fever or Peripneumene (*sic*), most of them in 4 or 5 days after the first seizure. Memord. "John W."

I was not able to ascertain whether John W. was the rector at the time, although it seems probable, but he may have been the parish-clerk.

The number of funerals registered in each year (commencing on March 25th) was as follows.

1738 ... 20	1742 ... 17	1746 ... 13	1750 ... 15
1739 ... 12	1743 ... 7	1747 ... 24	1751 ... 14
1740 ... 9	1744 ... 6	1748 ... 8	1752 ... 10
1741 ... 16	1745 ... 8	1749 ... 13	1753 ... 8

The following names are marked with the X:—1746: Thomas Bennet, March 20th; Margaret Bennet, March 20th; John Davies, March 22nd; David Bennet, March 25th; Mary Woolin, March 25th; Joan Dyer, March 25th. 1747: Francis Adams, March 26th; Mary Nutt, March 26th; Zacharias Dyer, March 27th; Susannah Hooper, March 31st; John Thomas, of West Down, April 5th; Elizabeth Thomas, of West Down, April 6th; Eleanor Knill, April 8th; Morrice Michael, April 9th; William Passmore, May 7th; John Howard, May 8th; John Skinner, May 24th; Elizabeth Austen, May 27th.

It is surely remarkable that in a parish where the annual number of burials appear to have, at that time, averaged 12½, no fewer than 18 persons should have died of "a violent pleurotic fever," within ten weeks. It will be observed that the name Bennet occurs three times, Dyer twice, Thomas twice (both from the adjoining parish of West Down). The number of deaths, the time of the year, and the recurrence of the names, suggests that the disorder was infectious. The population of Georgeham, in 1871, was 716.

G. B. LONGSTAFF, M.B.Oxon., M.R.C.P.

ACUTE URTICARIA.

THE following case may be of interest, taken in connection with that reported by Dr. Finny, of Dublin, in the JOURNAL of November 10th.

Mr. Arthur K., aged 22, a healthy, athletic gentleman, was training for some swimming races last August. On the August 27th, the day fixed for the races, he felt poorly, and noticed some red patches on his wrists and legs, which were very itchy, and which he mistook for ringworm. However, he contested several races. He got no sleep that night, and in the morning was greatly alarmed to find his whole body covered with a rash. His mother said it was erysipelas, whilst another relative pronounced it to be scarlatina.

When seen on the morning of the 28th of August, his face was flushed, his forehead covered with wheals, his conjunctiva congested, his left eyelids œdematous, and left cheek swollen. So far, there was sufficient to account for the maternal diagnosis. His chest, abdomen, and back, were thickly covered with wheals, which were also seen on his arms, back of hands, thighs, legs, and dorsal aspect of feet. The wheals varied in shape and size, and here and there were confluent. The eruption was everywhere symmetrical. The patient's temperature was 101.5°, pulse 80. His tongue was heavily furred. He complained of violent head-ache, sore-throat, intense itching, thirst, and pains all over. His bowels were constipated. An alkaline mixture and an aperient were prescribed, with iced milk and soda-water.

The same evening he was little better, temperature 102.0°, pulse 85. There was no perceptible change in the eruption. He was ordered 10 grains of Dover's powder. August 29th. The patient slept all night, the head and throat were better, the thirst less, the rash was fading on the arms and chest, it was gone from the forehead; temperature 99.0°, pulse 70. On August 31st, there was no trace of eruption.

The acute general form of urticaria, febris urticata, being comparatively rare, it is well not to lose sight of the fact that, with a sore throat, a temperature of 102°, pains in limbs, thirst, and furred tongue, it would possible be diagnose scarlatina. The tongue, however, is simply heavily furred, it wants the characteristic appearance of scarlatina, and if the wheals are well-marked, and there is the history of a sudden appearance, the diagnosis is easy. Though the œdematous eyelids, red and swollen cheek, may look like erysipelas, there is not the hard border to the swelling which is found in that disease.

GEO. C. KINGSBURY, B.A., M.B., Blackpool.

THERAPEUTIC MEMORANDA.

KAIRIN.

KAIRIN (oxy-chinolin-methyl-hydrate= C_{10} H_{13} NO) is one of a series of artificial alkaloids derived from chinolin (C_9 H_7 O) by the addition of oxygen, hydrogen, and carbonic acid, and was first made known by the experiments of Fischer and König. Its remarkable antipyretic qualities were discovered by Filehne, and confirmed during the present year by Ewald, Guttmann, and Janssen. (*See Berlin. Klinische Wochenschrift*, Nos. 16, 24, 31, and 46.) It occurs in a whitish crystalline powder, of a persistent bitter aromatic taste. It has the advantage over quinine of producing more decided and certain reduction of the temperature, unaccompanied by headache, singing in the ears, or other unpleasant effects, though the impure alkaloid at first employed was not so free from unpleasant sequelæ as the purer drug now to be obtained. It has been employed in croupous pneumonia, typhoid, tuberculosis, scarlet fever, with satisfactory results as far as the temperature is concerned. The pulse and respirations have also been reduced in number. Its action is accompanied by sweating, and the urine becomes of a greenish colour, reminding one of its condition in carboluria. Filehne employs the alkaloid in doses of 7 to 15 grains (half a gramme to a gramme) in an adult, given hourly for three or four successive hours; this usually reduces the temperature 2°-4° F., and then smaller doses of 3 to 5 grains every hour or two hours, unless the temperature again rises, or rigors occur announcing a rising temperature. Each dose is followed by draughts of water. As the antipyretic effect is of short duration, it is better to give repeated small doses than larger ones, and less frequently. To avoid the unpleasant taste of the drug, it may be given in gelatine capsules. The alkaloid has now been given in a sufficient number of cases to establish its value as an antipyretic remedy, probably the most powerful we possess, and also that no deleterious results follow its administration in even large doses. On the other hand its action is only temporary, has the disadvantages of being unpleasant to take, and at present somewhat expensive. While it is doubtful if it possesses the power of cutting short or even lessening the duration of any of the specific fevers, it certainly is useful in mitigating the effects of the fever, by reducing temperature when a high temperature exists. This is



illustrated by the accompanying chart of a case of typhoid in a girl aged 10 years under my care; two grains of kairin being given when the temperature rose to 103°, and when the temperature was taken within an hour, a decided reduction of temperature was noted. The chart only represents three days of the disease, 18th to 21st, but in this case the fever lasted over the 30th. The effect of the drug may be increased by cold sponging or packs, but they were not resorted to in this case, during the administration of the drug.

HENRY ASHBY, M,D., Manchester.

ACUTE RHEUMATISM TREATED WITH SALICYLATE OF SODA.

AT 10 P.M. on Thursday, September 20th, I was requested to visit R. McM., aged 33, a master builder, who, I was informed, had been ill for the previous fortnight. I found the patient in bed, propped up with pillows in a semi-recumbent position. His legs were stretched out before him, and his arms were resting on pillows at his side, being perfectly unable to move either. Every joint of the extremities was affected, being swollen, red, and extremely painful. The feet and hands were œdematous. His head was thrown back, and he was unable to turn it to either side, or bring the chin down into the chest. It was with difficulty that he could separate his teeth so as to allow anything to be passed into the mouth; the condition of the head and neck simulated tetanus. He was sweating freely; the tongue presented the characteristic cream coating; temperature 104°; pulse 120. He had been taking bicarbonate of potash; lemonade and kali-water had also been ordered. Some of the joints were without wrapping, while the remaining ones were covered with cotton-wool. The patient had been vomiting, nothing having lain on his stomach during the greater part of the day.

I prescribed six powders containing fifteen grains of salicylate of soda, one to be given every hour, and to suck ice freely. The next morning, I found him in the same condition, as he had vomited off every one of the powders. I ordered them to be repeated. On calling in the evening, I found he had retained the powders; he felt better, being able to move the left arm a little, and draw the feet slightly up. Temperature 102.4°; pulse 104. I ordered a powder to be given now every four hours. Next day (Saturday), I found him sitting up with his feet hanging over the edge of the bed, using both hands supping rice. The swelling and redness had nearly disappeared from the joints. Temperature 100.5°; pulse normal. A powder was now ordered to be given every six hours. On the following day (Sunday), he was walking about the room, and would take no more medicine; and on Monday he was out looking after his business.

REMARKS.—I have had, though only a young practitioner, a number of cases of acute rheumatism in which salicylate of soda has proved itself most efficient; but none of them were of so severe a type as the above. I have tried salicine and salicylic acid, but never with so good a result. The presence of the alkaline base appears greatly to add to the therapeutic value of the drug. I believe that this combination acts as a direct antidote to the poison of acute rheumatism in the system. In the mode of prescribing it, I followed the plan recommended by Professor Cuming—viz., fifteen grains every hour for six hours, and afterwards the same quantity every four or six hours (according to the temperature) for two, or at most three, days. As a modest contribution of clinical experience, I have ventured to record this case.

W. J. MEHARRY, L.R.C.P. and S.Ed., L.S.A., L.A.H., Belfast.

HYPERICUM (ST. JOHN'S WORT) FOR THE PREVENTION AND CURE OF BED-SORES.

MY attention was drawn to this remedy, some years ago, by the friends of a patient afflicted with bed-sores. From the slight experience of two cases I can strongly recommend it; it appears to induce healthy granulation and a more or less rapid cure, in a manner which we should vainly look for from alcoholic or balsamic preparations—and this without any smarting from the application. The compound oil of hypericum, which alone I have used, is sold by Mr. Garrad, chemist, of Leamington; I have vainly tried to procure it in London. A recipe in my possession directs that bottles be filled half-full with the flowers of the St. John's Wort; olive-oil is then to be added, and the bottles are to stand in sunshine for a few days, till the oil becomes of a deep red colour; it is then fit for use, and may be either drawn off at once, or left till required. It is merely brushed over the sore, two or three times daily, with a feather.

HERBERT L. SNOW, M.D. Lond.

SUPERANNUATION.—Mr. H. Pink has obtained a superannuation allowance of £112 10*s.* per annum, upon resigning as Medical Officer of Health for the Greenwich district, after nearly twenty-eight years' service.

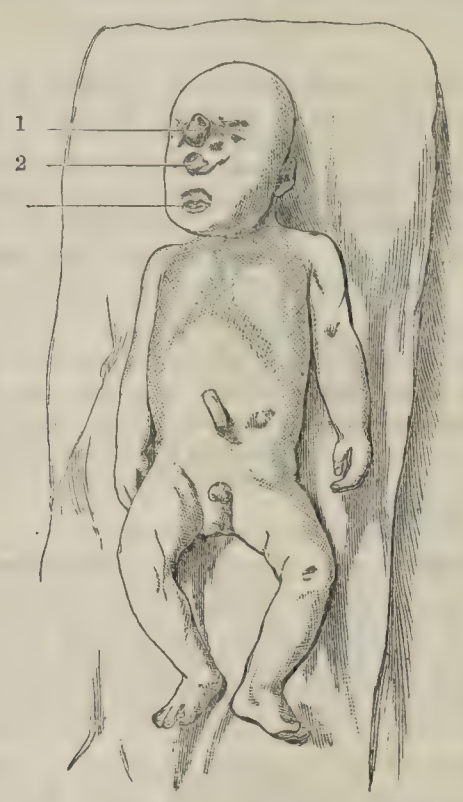
MEDICAL LIFE HISTORIES.—Mr. Francis Galton, the well-known Anthropologist, offers £500 in prizes for Medical Life Histories written by medical men. Printed forms and full particulars will be forwarded, on application, to any medical practitioner in the United Kingdom. Mr. Galton's address is 42, Rutland Gate, S.W.

OBSTETRIC MEMORANDA.

A CASE OF MALFORMATION.

THE following case, which came under my notice, may be of interest. Mrs. J. was delivered by me on November 8th of a male child, at full time, having the peculiarities as shown in the accompanying woodcut.

There was but one eye, and that placed in the upper part of the face, where the nose should have been. It was covered with a membrana pupillaris, and was quite bright and clear at birth. There were no optic cavities in the usual positions, and no eyebrows. Above the eye, and in the centre of the forehead, was a fleshy tube, bearing



1. Fleshy Tube. 2. Eye. 3. Mouth.

no resemblance at all to a nasal organ. The hollow of the tube led down to the bone, having no communication with the back of the pharynx, as in the case of the posterior nares. The malar bones could not be felt, and the upper maxilla was imperfectly developed. The body and limbs were well formed, but the generative organs were only rudimentary. The child survived its birth about twenty minutes. The mother, who is a young delicate woman, can remember nothing, such as a fright or a dream, to account for this freak of nature.

A. GRAHAM, L.R.C.P.E.

2, Sloane Terrace.

DEATH FROM PULMONARY EMBOLISM AFTER PARTURITION.

MRS. E. R., aged 26, an East Indian half-caste, who had previously borne several children, was confined in the Female Hospital at Aden on January 3rd, 1883. The labour was perfectly natural; and, with the exception of slight vomiting on the fifth and sixth days, and a somewhat sluggish condition of the bowels, recovery was uninterrupted. On January 11th, she was, at her own request, allowed to go home, but returned to hospital on the 15th, and died the following day. On readmission, she complained of severe pain extending from the right thigh downwards; and the lower third of the leg, together with the ankle and foot, were discoloured, and perceptibly colder than the other extremity. The following morning, it was found that gangrene of the right foot had set in, with a distinct line of demarcation just above the ankle-joint. Soon afterwards, her breathing began to become hurried, and her pulse to fail. At mid-day, there was urgent dyspnœa, with general coldness of the surface, and at 9.30 P.M. she died, collapsed. A *post mortem* examination was not available.

The similarity between this case and that reported by Mr. Horace Hastings, in the JOURNAL of October 13th, induces me to forward this brief note. H. R. GREENE, Surgeon-Major A.M.D., Aden.

SURGICAL MEMORANDA.

THE DETECTION OF VESICAL CALCULUS *PER RECTUM.*

In the JOURNAL of June 23rd of this year, a gentleman drew attention to the advantage of examining the bladder by the finger of one hand in the rectum, assisted by the other hand on the abdomen, in cases of stone occurring in children. Mr. Edwards, in the JOURNAL of the week following, pointed out that this method was mentioned in the text-books in ordinary use; and Dr. Meeres, in the issue of July 7th, showed that Celsus discussed very fully the advantages to be obtained by this mode of examination. In turning over the *Œuvres Chirurgicales* of Desault, edited by Bichat in 1813, I find the following paragraph, which may be of interest to some readers, as showing what value was attached to rectal examination in former times.

"Le doigt porté dans le rectum chez l'homme et dans le vagin chez la femme, sent facilement, à travers les parois de ces conduits et le bas-fond de la vessie, la tumeur que forme la pierre renfermée dans ce viscère, lorsque celle-ci est d'une grosseur médiocre; mais lorsqu'elle est peu volumineuse, souvent elle échappe aux recherches les plus exactes, surtout chez les calculeux dont la vessie est très-épaisse et comme racarnie. Les recherches sont aussi quelquefois impracticables, comme dans le cas d'hémorrhoïdes, de squirrhe, et de carcinome du rectum. Ce moyen est d'ailleurs très-illusaire; car la tumeur que l'on prend pour une pierre peut être produite par un gonflement de la glande prostate, par un fongus de la vessie, ou un engorgement de toute autre nature, qui aura son siège dans les tuniques de ce viscère, ou dans les parties qui l'avoisinent."

R. CLEMENT LUCAS, B.S., F.R.C.S.,
Senior Assistant-Surgeon to Guy's Hospital.
18, Finsbury Square.

EXTRACTION AND REPLANTATION OF TEETH.

I AM much interested in Mr. Stevenson's surgical memorandum in the JOURNAL of November 17th, and I very much wish that all dental surgeons would follow his example, and record all examples of failure of replantation of teeth after their extraction, and of treatment for alveolar abscess in the manner Mr. Stevenson so justly condemns.

In Section XII of the Medical Congress in 1881, where this operation was brought forward with much display, I protested against it as being unscientific and unjustifiable. I maintained that the operation of replantation was only expedient when a tooth had been accidentally or intentionally removed from its socket, possessing a healthy periosteum, and not when there was an acute or chronic alveolar abscess. Mr. Stevenson's experience in this case. and his very cogent strictures upon it, quite bear out the views I ventured to express in 1881.

S. J. HUTCHINSON,
Dental Surgeon to University College Hospital.

VACCINATION.—The Local Government Board have awarded to Mr. May, public vaccinator of the Forest Hill district of the Lewisham union, a first-class grant of £17 2s., for efficient vaccination. This is the fifth time in succession.

PRESENTATION.—Mr. C. C. Balding, who is leaving Shelford, in consequence of ill health, has received a pleasing testimony of the great respect in which he has been held by his large circle of friends during the twenty-five years of his residence among them, in the presentation of an illuminated address, and a purse containing £192 11s. The names of 359 subscribers are attached to the document, which was expressive of their regret at his enforced retirement from practice through ill health, and hopes for his speedy recovery.

DEATHS FROM ANÆSTHETICS.—The American *Weekly Medical Review* says—Every death from chloroform or ether as an anæsthetic should be conscientiously published. The *Mississippi Valley Medical Monthly* says that Mrs. S. Scheibler died suddenly on August 16th, while under the influence of "Sansom" administered for the purpose of extracting a tooth. "Sansom" is an anæsthetic composed of two parts each of chloroform and alcohol, with one part of sulphuric ether, and so named in honour of the author of the formula. The patient was seated in an operating chair, and a handkerchief saturated with the mixture placed over the mouth and nose. It was not long in producing a decided influence, which was soon followed by death. She was then lifted from the chair and placed in a recumbent posture; physicians were called and every effort made to restore life, but without avail.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

TWO CASES OF NERVE-STRETCHING FOR FACIAL NEURALGIA—THE SEQUEL AFTER THREE YEARS AND TWO YEARS RESPECTIVEL

(Under the care of Dr. BUZZARD.)

THE patient referred to in the report which immediately follows, recently attended at the hospital at Dr. Buzzard's request, three years after he had had the right fifth nerve stretched for neuralgia. We derive our account from notes taken by Dr. Beevor.

Robert F., aged 56, a stonemason, was admitted, on June 26th, 1880, suffering from neuralgia of the right fifth nerve, especially in its supra-orbital and infra-orbital division. The patient was a married man, the father of ten healthy children. His story was that, about ten years earlier, he was one day wiping his forehead, when he suddenly felt a violent attack of pain in the right side of his forehead, starting from the inner part of the eyebrow and shooting upwards and outwards. At first, he had recurrences of pain once or twice a week, but, in the course of a few months, the attacks became almost continuous for a period of three weeks together, and also involved the superior maxillary division. After this attack, in which he suffered night and day, with intervals of a few minutes only, he had a respite for twelve months, succeeded by a very bad attack again, lasting about three weeks, the paroxysms of pain recurring every quarter of an hour. This, in its turn, was followed by a pause which lasted about a year, and was followed by an attack in which he noticed that the pain was brought on by eating. After a rest of eight months, he experienced a worse seizure than ever. It lasted eight or nine weeks, and the attacks of pain came on at a few minutes' interval. He was treated at a metropolitan hospital. Again a respite of about twelve months' duration occurred, and was succeeded by an attack which lasted three months. Since that seizure, which occurred about two years before his coming under notice, he had never been entirely free from pain, and had suffered with exceptional severity for the last three months.

The patient was a strongly built man, thin in the face, with slight arcus senilis and tortuous brachial arteries, which were cord-like and rolled under the finger. He was suffering from paroxyms of pain, which usually began in the right gum of the upper jaw, and shot upwards and outwards to the malar bone. The pain seemed to go round and round outside the right eye, into the forehead and through the eye. The greatest pain was felt just over the supra-orbital notch. The pain would be excited by speaking, laughing, yawning, swallowing, or closure of either eye, and would occur also sometimes spontaneously and independently of any movement. Recurrence took place every ten minutes or less, the twinges of pain lasting about a minute. They were described by him as resembling the pain that would be occasioned by a number of red-hot wires being thrust into his face and then shaken about. In the agony his face would flush, and the features become distorted. There was at all times great tenderness of the right side of the face.

The patient having already received every description of treatment by drugs without any good result, Dr. Buzzard requested Mr. Adams to cut down upon and stretch the right supra-orbital nerve. The operation was performed on July 5th, 1880, the patient being under the influence of ether. Numbness of the skin of the forehead followed the operation. The wound healed by the first intention. The attacks of pain in the district of the supra-orbital nerve were not stopped, but for a time were distinctly mitigated in severity. It was noted four days after the operation that he had slept much better, without taking any sedative, and had had rather less pain in eating. On July 19th the patient described attacks of pain, commencing as a pricking sensation in the infra-orbital nerve, and shooting up to his eye. He continued to have about two such attacks daily, sometimes of severe character, and on July 28th it was decided to stretch the infra-orbital nerve; this was done by Mr. Adams. The upper lip on the right side felt numbed and dead after the stretching. This was followed by a week of almost complete immunity from pain, and the patient left the hospital on August 6th.

He applied again on September 1st, having had no pain till then,

when it had returned in the forehead. It now began to recur about four times a day, and on October 13th he was readmitted, suffering as much as he had originally.

Mr. Adams again stretched the right supra-orbital nerve. This was not followed by relief at first, but on October 20th there was distinct improvement; pain, however, now recurring in the *infra-orbital region*. He was treated at first with tonga, which produced no effect, and then with morphia hypodermically in increasing doses, but it was not until five-sixths of a grain was given that he got any relief.

On January 4th, 1881, Mr. Adams cut down upon and stretched the right supra-orbital and infra-orbital nerves, and afterwards divided them. A certain amount of relief followed, until January 15th, when the pains returned as severe but not so frequent as before the operation. The treatment by morphia had to be continued; attacks of pain occurred four or five times in the day, beginning on the right side of the nose and spreading all over the right side of the face.

On February 14th Mr. Adams made an incision along the right side of the nose, and stretched all the tissues down to the periosteum. In the evening the patient had a rather severe attack, beginning in the gums of the right side, and two such seizures in the night. On March 3rd he left the hospital, and on March 17th reported that he had been free from pains. On April 3rd he had only to speak of a few slight pricks of pain now and then. He could take his food without suffering.

Such was the last account in the note-book. The patient, who now, as we have said, attended by request, reported that he had certainly been better on the whole since the operations, the first of which had been performed three years ago. For one year after leaving the hospital, he was very much better. He returned to work, and had since continued at it. Formerly, he had been unable to work for six or eight months together. In the old days an attack would last six or eight weeks, during which he suffered excruciating agony. Latterly, although he continued to be attacked, the pain did not last nearly so long, and was much less acute in character.

At the same time, Dr. Buzzard referred to another patient suffering in a very similar manner from neuralgia, who had also been treated by nerve-stretching, and from whom he had lately received a report.

The following is a note of this case. Alfred A., aged 34, lived in the country, on hilly, dry ground, where it was very cold in winter. He was married, and his wife had given birth to twins, who both died. She had never miscarried. A sister of his father suffered from neuralgia, and some of his paternal grandfather's relatives had neuralgia. His father's brother was deaf and dumb. His mother died of phthisis. There was no case of paralysis, fits, or insanity in the family. The patient suffered from scarlet fever in childhood. He had never had acute rheumatism, syphilis, or gonorrhœa.

One day, in 1874, whilst washing his face (which was perspiring freely) with cold water, he suddenly felt a "stinging like a bad tooth." This had continued ever since and tended to grow worse. He had had a great variety of treatment for neuralgia, without effect.

He was admitted on June 1st, 1881, and Dr. Beevor took notes of his case. The pain was thus described. He had attacks of "screwing" pain in the right infra-orbital nerve, passing backwards to the front of the ear, and up that side of the head. The pain sometimes came down to the mental branch, and then it felt as though all his teeth were aching. He had also sometimes had pain in the roof of the mouth, and in the right upper gum. Until a year before, the pain had been confined to the infra-orbital region, but lately it had spread to the lower jaw and ear. There was constantly some pain in the right infra-orbital region, but no soreness to the touch. Pressure, however, would bring on pain. The part, he said, throbbed and felt as though some one were tapping the bone; at other times, the pain was screwing and hot. It was brought on by eating and drinking, and also by cold air; coughing and sneezing had no effect in causing pain. With regard to the frequency of his attacks, he had had, during the previous month, every day, without exception, about fifteen attacks in the twenty-four hours. An attack of pain would last a few minutes; at the most, not more than five or ten minutes. The patient had had several teeth removed, but without obtaining relief. About three years earlier a tooth was drawn, and its socket perforated into the antrum, when some matter came away, but he was not relieved.

For a month after his admission, the constant voltaic current was applied daily to the seat of pain for a quarter of an hour. This would give him relief, which persisted sometimes for two or three hours, but produced no permanent improvement.

Then, at Dr. Buzzard's request, Mr. Adams, on July 4th, cut down upon the right infra-orbital nerve and stretched it, as well as all the tissues in the neighbourhood of the foramen. Three days afterwards, the patient said that he had had no pain at all in the infra-orbital region since the operation, and that he had not been so free from pain for seven years. There was still some pain in the lower jaw, just behind and below the right angle of the mouth. The skin in the district supplied by the right infra-orbital nerve had been numbed since the operation.

On July 13th, he complained of two or three slight stings just outside the right ala of the nose. A week later, in consequence of his having complained of a great deal of pain in the mental branch of the fifth, and a few "stings" of pain in the right infra-orbital nerve, Mr. Adams cut down on the mental branch at the foramen and stretched it, as well as all the neighbouring tissue, down to the periosteum.

Next day there was anæsthesia of the right lower lip. No pain occurred up to the period of his discharge from the hospital on August 5th, 1881. Upwards of three months afterwards, Dr. Buzzard was informed that he had continued quite free from pain. This immunity, however, did not persist. The neuralgic attacks recurred with more or less severity. The last report, dated November 28th, 1883, is to the following effect. "A. is still suffering very much from his neuralgia. He was better for three months during the summer, but it came on very severe in September, and he has not left the house since. He has not derived any benefit from the operation. The pain is the same both in the face and chin, as severe as before the operation, but it never goes to the forehead. He has been obliged to inject morphia a few times to get a little ease."

REMARKS.—Dr. Buzzard remarked that these were cases of what Trousseau called epileptiform neuralgia. They were both of long standing when they came under observation, and had resisted, as such cases too often did, a variety of treatment. In these circumstances, he did not waste time in trying over again what had failed, but preferred giving the patients such chance as the operation of nerve-stretching appeared to offer. The result in the first case had been to a certain extent encouraging, but it must be noted that, in one of the operations, the nerve had been divided after being stretched. Viewing the state of the patient after the lapse of three years, it might, perhaps, be safely concluded that some permanent good had been effected by the operation. It was somewhat unfortunate, he thought, that hurry had been sometimes shown in publishing cases of so-called cure a few weeks or months after the operation, sufficient time not having elapsed to form any judgment of the slightest value. In the second case, the operation had been attended with distinct temporary, but no permanent, benefit. As regards the *rationale* of the method, he thought that nerve-stretching acted by impairing the conductivity of the nerve-fibres, and thus gave some temporary rest to the nerve-centre, in which, as he believed, the lesion existed. In the case of mixed nerves, the operation of stretching had the advantage over section, that it usually but little impaired the motor power of the limb to which the nerve was supplied. But in the case of a purely sensory nerve, like the supra-orbital or infra-orbital, he doubted whether nerve-stretching would be found to have any important advantage over the old process of nerve-section.

LIVERPOOL ROYAL INFIRMARY.

PROPHYLACTIC HERNIOTOMY WITH LIGATURE OF THE SAC HIGH UP, IN AN OLD MAN, FOR THE RELIEF OF RECENT DOUBLE INGUINAL HERNIA.

[Under the care of Mr. RUSHTON PARKER.]

ROBERT E., aged 75, formerly a sailor, was admitted in the last week of the year 1882. His condition was that of a stooping, tottering, dejected, and enfeebled person, of very small stature, but thickly built. Owing to poverty, want of food and rest, and other domestic embarrassments, half his complaint was obviously mental; but he definitely complained of uneasiness, due to constipation, and loss of appetite, with which there was a perceptible foulness of breath. He also complained of pain, associated with two inguinal herniæ, which he was very positive had appeared within the previous three months; that on the left side being a small bubonocele, that on the right descending into the upper part of the scrotum when he stood up, while both returned, or were easily reducible, into the abdomen when he lay down.

A little confection of senna was prescribed nightly, and as much of the daily common diet as he felt disposed to take.

He passed the day, sitting, in a state of somnolent vegetation, before the fire, while he slept pretty well in bed at night.

The effect of the rest, nourishment, and aperient, soon led to such improvement in his appearance, and contentment, that the case seemed one that might be justifiably treated by herniotomy, in spite of his age. He was quite willing, and submitted to operation under ether on January 5th, 1883. The incision was made in the groin, the empty sac being easily found, and stripped up without opening it. After pulling it well down, and detaching the adjacent connective tissue with the fingers and dissecting-forceps, the sac was tightly tied with catgut as high up as practicable. No particular "neck" was either found or sought, but as much peritoneum was pulled down as could be. After tying a couple of stout ligatures close together, the sac was cut off below, and the stump then slipped up well within the abdomen. The wound was drained with gutta-percha tissue, stitched, smeared with eucalyptus petroleum-ointment, and covered with a piece of gutta-percha tissue, and a draw-sheet was pinned round the body enclosing all. A little retention of discharge in the upper and outer limits of the wound, subsequently pointed a few inches outwards in the groin, and was relieved by incision. The patient was kept in bed two or three weeks and was well in two or three more. After a period at a convalescent hospital he was discharged.

No truss was used, nor was any attempt made to interfere with the pillars of the external inguinal ring, which were well united by the usual fasciæ. Their separation by the hernia had not been very wide; but that cause being now removed, they had once more the opportunity of being drawn together by the muscle to which they belong. In the first week of May, he came to have the left hernia operated upon. The operation was performed on May 8th, after the method adopted on the former occasion. No sutures were used, but the wound was smeared with eucalyptus-ointment and allowed to fall together without strain, being covered with gutta-percha tissue and a draw-sheet over all. A daily cleaning of the skin and additional smearing of the ointment resulted in speedy adhesion of the deep parts, while the strip of tissues that lay exposed between the gaping edges of the skin granulated with little or no suppuration. The patient was well in six weeks, and appeared before the members of the British Medical Association, in the first week of August, perfectly comfortable and free from any observed tendency to hernia. His condition was equally satisfactory when last seen on November 26th.

REMARKS BY MR. RUSHTON PARKER.—The time has not yet arrived at which anything of the nature of a radical cure can be said to have resulted in this case. In fact, only three years have elapsed since the writer commenced the practice of tying, instead of sewing, the sac in herniotomy. During that period he has done it in twenty-seven cases, of which fourteen were operated on for the relief of strangulation, the remaining thirteen being done "in cold blood" for prophylactic purposes. The proportion and degree of radical cure attained by this operation remains to be ascertained in the future; but the vast majority are, so far, successes. Meanwhile, let antiseptic ligature of the sac be persevered with in all cases of herniotomy that are free from gangrene or fæces at the orifice of the peritoneal cavity. The procedure is an invaluable addition to the operation, on the score of temporary convenience alone, to say nothing of the prospective hope of permanent cure.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

CASES OF CHRONIC OSTITIS OF THE TARSUS.

By EDMUND OWEN, F.R.C.S., Surgeon to the Hospital.

EDWIN M. came under treatment as an out-patient in 1877, he being then seven years old; each foot was swollen and discoloured, and a thin purulent discharge was escaping from unhealthy-looking sinuses. On the right foot, the sinus opened on the inner side behind the vertical line of the internal malleolus, whilst the skin of the left foot was broken in two places over the tarsus, and in one place over the metatarsus. A glance at the sores gave ample evidence of their being associated with ulcerations of the neighbouring bone-tissue.

The boy's general appearance was pale, flabby, and feeble, and suggested the use of the adjective—dissociating it altogether from the idea of miliary tubercle—strumous. A firm tin splint, well-padded, and bent to the proper curves, was fixed by strapping and soft roller to the dorsum of the foot, and well up the front of each leg; full and particular instructions were given that he was to be kept absolutely in bed, and a mixture of cod-liver oil and iron was prescribed. The disease ran a satisfactory though tardy course, the boy being kept at home and entirely off his feet for just three years. His general condition was improving during the whole time; he was brought to the hospital for inspection every few weeks.

At the end of the third year, the right foot was so soundly healed that he was trusted to use it for progression, and as he went about on crutches he kept the left foot carefully out of harm's way. In due course he became too old for treatment at the Children's Hospital, but I have him still under supervision, and find him walking about, strong, and sound but for an occasional slight watery discharge from one small painless sore over the scaphoid bone. He says that he is one of the biggest boys in the third standard of his board-school, where he is called a dunce; but he says, with a smile, that he does not mind being a dunce, as his feet are well.

A few years ago, the board-school authorities frequently worried the busy worker in the out-patient room, with instructions to fill up certificates for children whom the surgeon had ordered to stay at home. My reply to these instructions was a reference to the word REST, which I always write in capitals for the benefit of the patient, parents, and School Board. On the other hand, I find the masters and mistresses as a rule very thoughtful as regards little patients; they allow a child with chronic hip-disease to lie flat in his Thomas' splint during school hours; and a child with a chronic knee-disease to keep the encased limb in the horizontal position; more than this, I have perhaps twenty children in plaster-of-Paris jackets, who are at work at school, morning or afternoon, sitting or lying, whilst the more fortunate ones are standing. But whenever a conflict arises between general education and the thorough surgical treatment of chronic disease, I insist on the former giving way. I cordially accept this boy's philosophy, that it is better to grow up a dunce, with sound joints, than to have convalescence obstructed by study, for then surely "he that increaseth knowledge increaseth sorrow."

At no time, so far as I remember, were this boy's feet examined by means of a probe; indeed, I cannot be quite sure that we have such an instrument in the out-patient consulting-room; certainly, I never use it. In the surgery of childhood, the probe can afford no information which cannot be obtained by other means, which have the great recommendation of being painless. "Don't probe it, sir," is a supplication which I have often heard uttered by a child whom I have been about to examine for the first time; and the reply, "Certainly not: I haven't got a probe," goes far towards establishing a feeling of confidence and security. If there be a sinus over a joint or a bone, together with a deep-seated inflammatory thickening, there can be little doubt about the associations of the sinus. If there be no such thickening to be detected, the treatment required will be the same as if there were; a sinus near a joint or over a bone requires absolute rest; if no disease of deep structures exist, the wound will quickly close under the improved conditions.

I apprehend that the more general error consists in insufficient attention being given to the therapeutic importance of rest. There is a strong impression existing among mothers, that, if a child be the subject of disease of any tissue for which prolonged rest is prescribed, he will inevitably suffer and pine away if such confinement be strictly carried out. Experience shows that the reverse of this is true; and the request for only a partial confinement to bed must be refused, at any rate until, by being kept in bed, the patient has been broken of his natural habits of unrest.

Plaster-of-Paris bandages are extremely useful in the later stage of the treatment of chronic sinuses near joints and bones, a window being cut and carefully arranged for the cleanly escape of the fluid. If a child be not amenable to reason, and insist on getting on his feet, a light wooden splint down the outside of the sound leg, and long enough to reach some ten or twelve inches below the ankle, absolutely prevents the assumption of the erect posture. If he become clever at freeing the leg from the splint, it may be secured by a gypsum roller.

A second instance of sinuses in connection with ulceration of tarsal bones, was in an intelligent boy, who is now about eleven years old. On the occasion of his first visit, a little more than three years ago, he asked definitely, "If I am good, how long will it be before I am well?" My answer was, "Three years." As the months went by, I was reminded of my prognosis, and the repetition of my promise had an excellent tonic effect. That boy is now practically well; his sound foot is raised by a four-inch sole, and he is going about nimbly on crutches.

A third case, in a boy who has been about four years under treatment, has been even more satisfactory. He was pale, thin, and miserable—strumous, shall we call him? He used to be carried to the hospital periodically, by a sister who was not much bigger than himself. As he grew stronger and fatter he was too heavy for his

bearer, so the whole family came to live within a stone's throw of the hospital; the sore has now healed up, and the boy has been sent to a convalescent institution. In addition to the treatment of splints, rest, and cod-liver oil and iron, this case has received much help, in the way of food and warm clothing, through the kind offices of the out-patient sister and other friends.

The last case which I will briefly report is that of a girl aged three years, with chronic disease of the tarsus and metatarsus; the suppuration began in these parts when the child was but three months old. She was treated by the bent tin splint, by compression, and by the administration of oil and iron. She was never allowed to put her foot to the ground. A small sequestrum eventually came away from the fifth metatarsal bone. The wounds have now closed, and the child is well.

Thus, in all four cases, a completely satisfactory result has followed the quiet expectant treatment adopted; in not one of them was there any probing, and, what is even more important, there has been no gouging out of carious bone. Had one undertaken a gouging treatment in the case first recorded, or in any of the others, it would have been impossible to know when enough soft bony tissue had been scraped out; indeed, the question of the propriety of advising amputation presented itself, as regards both of the feet of Edwin M. The fact that both feet were diseased, points to the constitutional origin of the inflammation; but neither in this case, nor in the others, could a careful questioning elicit any suspicion of the mischief being due to imperfection of either closets or drains—a matter which, in the surgery of childhood, demands constant watchfulness.

GRAVESEND INFIRMARY.

CASE OF DOUBLE COLLES'S FRACTURE.

By R. J. Bryden, M.R.C.S., House-Surgeon.

A REMARKABLE case of double fracture of the lower end of the radius was seen at the Gravesend Infirmary, in an out-patient, who presented himself for treatment on September 18th. A Norwegian sailor, aged 18 years, named Ole Aas, was engaged on one of the yards of his ship in furling a sail, when, on pulling at a small rope, which was thought to be fast, it gave way, and, overbalancing himself, he fell a distance of thirty feet on to the deck below, alighting



on his chest and stomach, having each wrist doubled beneath him. The first mate, who saw the accident, stated that the lad fell "as flat as a pancake," to use his own expression; and he supposed that, the unlucky fellow attempting to lighten his fall by putting out his arms, the whole weight of the body must have been borne by the wrists. He was immediately taken up and brought to the Infirmary, where he was found to be suffering from a Colles's fracture of each wrist. There was no mistaking the injury, as, on each side, the deformity was well marked, and, at the same time, perfectly symmetrical. Each radius seemed to be broken about one inch from the lower end; at first, there was thought to be some impaction of the fragments; but, on strongly extending each hand on the forearm, the symmetry of the parts became more or less apparent. Dr. Firth, the surgeon for the week, saw the patient, and, thinking the case rather rare and curious, suggested that a photograph should be taken, which was accordingly done. The young fellow did not care much about this ordeal, as he could not keep his arms very quiet, on account of the great pain he was suffering. The fractures were treated with straight anterior and posterior splints, not reaching much beyond the wrists, each hand being drawn to the ulnar side; he was then sent to the Seamen's Hospital at Greenwich.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 4TH, 1883.

J. W. HULKE, F.R.S., F.R.C.S., President, in the Chair.

Multiple Tumours of the Foot.—The PRESIDENT showed drawings from a case of multiple tumours of the foot. The patient was a young married woman; at the root of the nail of the great toe was a firm swelling, and there were also two similar swellings on the second toe; on the third toe was a swelling, which showed on the surface small purple dots, resembling dilated veins. Over the dorsal aspect of the little toe was another tumour, and a still larger one on the heel; this last mass was movable on the subcutaneous parts. The cutaneous surface of all the swellings was noticed to sweat more than any other parts of the foot, and beads of sweat oozed out when pressure was made on the external popliteal artery. The patient attributed the development of the tumours to bruises. The President believed that the tumours were connected with the cutis vera; the blue dots were probably hæmorrhages. The patient gave a hæmorrhagic history. The tumours were not mollusca, nor sebaceous cysts, nor corns. They seemed to be connected with the secretory apparatus of perspiration. They were, however, of a character quite unfamiliar to him.

Purulent Pericarditis treated by Tapping.—Dr. SAMUEL WEST said that the patient whose case he wished to record was a lad, aged 14 years', who was admitted suffering from an abscess and acute arthritis of the left shoulder-joint; there was much dyspnœa and some cyanosis, and there were physical signs of pneumonia of the base. The left pleura was tapped a few days later, but only a few ounces of serum were evacuated, but the pericardium was ascertained to be full of fluid, and 24 fluid ounces of pus were drawn off. Though relieved for a time, the dyspnœa and cyanosis returned, and the patient died. The necropsy showed that there was a large abscess in the left thigh, and inflammation of the left ankle-joint. There was extensive thickening of the mediastinal tissue, the arteries being deeply embedded in it. The left pleura was divided by adhesions into three parts, each containing serous fluid; the pericardium was in great part obliterated, except at the apex; there was no obstruction of any of the vessels. The case, from the extensive mediastinitis, resembled those originally described by Kussmaul, but there was no ascertained obstruction of the vessels. The present was believed to be only the third case in which the pericardium had been freely laid open for purulent pericarditis. The first was under the care of Professor Rosenstein, of Leyden; the patient was a boy aged 14, the pericardium was twice incised and the patient ultimately recovered. The second case had been published by Dr. West in the *Transactions of the Royal Medical and Chirurgical Society*; it was an instance of idiopathic purulent pericarditis in a lad aged 17, who completely recovered in five weeks. Dr. West drew attention to the fact that in this case incision had entirely relieved the pericardium, which was rapidly tending to be obliterated fourteen days after the operation; and that death appeared rather to be due to the other lesions present. Dr. West held that surgical interference with the pericardium was not more dangerous, if indeed so dangerous, as with the pleura or peritoneum.

A Note of Experiments with reference to the Etiology of Tuberculosis.—Dr. DAWSON WILLIAMS said that, after Villemin had, in 1864, drawn renewed attention to the fact that tuberculosis could be transmitted by inoculation, his experiments were extensively repeated and varied; the correctness of his observations was generally

confirmed, but a number of observers reported that, in their hands, tuberculosis followed (in the rodents) the infliction of various injuries, and the injection of such substances as quicksilver and charcoal into the jugular vein (*Lebert and Wyss*). Waldenburg observed that the introduction into the subcutaneous tissue of various substances, among others anilin-blue, was followed by the eruption of tuberculosis; and Dr. Wilson Fox obtained a like result with putrid muscle, the products of acute inflammation, and vaccine fluid. Dr. Burdon Sanderson confirmed most of these observations, as well as Dr. Fox's statement, that the introduction of a seton, or inoculation with pyæmic pus was, under certain conditions, followed by a general tuberculosis. Other observers, who caused a like result by the inoculation of various non-tubercular substances, were Sir Andrew Clark, Mr. Simon, Ruge, and Empis. Quite recently (1881), Formad and Robinson, in Philadelphia, after a very extensive series of experiments, confirmed most of Dr. Wilson Fox and Dr. Burdon Sanderson's results. At the request of Dr. Wilson Fox, Dr. Dawson Williams had repeated some of the earlier experiments with non-tubercular materials; care was taken to avoid the contamination by tubercular material of the instruments and fluids used, but no antiseptics were used. The repetition of the experiments, with putrid fluids, gave entirely negative results; all the animals (guinea-pigs) which survived the primary infective fever, when this occurred, recovered entirely, and when killed, after varying periods, presented no lesions of either a tubercular or pyæmic character. A number of experiments were also made with setons, but no one of these latter animals became affected, and all, in fact, were, when killed, perfectly healthy. The observations published by Mr. Watson Cheyne, in April (while these experiments were in progress), had quite the same results, the animals remaining quite free from tubercular disease. Extensive series of experiments by Baumgarten, and by Salomenson, in Germany, had also been entirely negative. It would, therefore, appear that some fallacy underlay the results of earlier observers, The evidence in favour of the specific nature of tubercle was now, he thought, very strong, and it was strong also in favour of the view that the bacillus tuberculosis was a necessary part of the tubercular process; further, the recently published experiments of Baumgarten and Arndt seemed to prove that the lesions of tuberculosis depended directly on the growth of the baccillus, and were in fact produced by it, being, as it were, the re-action of the tissues under the peculiar stimulus of the growing bacillus. It had been contended, with relation to phthisis pulmonalis, that the bacillus might have, as its chief function, the destruction and disintegration of the tubercular masses; this view found special support in the fact that vomicæ and their contents contained the bacilli in far larger numbers than could be discovered in the tissues themselves. The admirable research of Baumgarten showed, however, that after inoculation of tubercle in the anterior chamber of the eye, the earliest changes in the histological structure were preceded by the rapid growth of the bacillus, and that before this growth commenced the histological changes were only such as tended towards the healing of the wound. The growth of the bacillus determined, after about three days, a different process, resulting in the production of tissue having tubercular structure. On the other hand, it was clear that the bacillus could not be the only factor in determining phthisis in man; the individual receptivity must be in some way increased.—Dr. WILSON FOX said that when tuberculosis had formed the subject of a discussion in that Society some years ago, he had taken up the position that there was good evidence to show that tubercle might have a heterologous origin. The abandonment, by Cohnheim, of the identical position which he at one time held, taken together with the observations of Dr. Koch, had led him to think that it was the duty of those English observers whose conclusions were contradicted by these new observations, once more to look into the matter. After consultation with Dr. Burdon Sanderson, he had therefore requested Dr. Dawson Williams to repeat some of the earlier experiments. This resolution was come to some six months before the publication of Mr. Watson Cheyne's report. Dr. Wilson Fox proceeded to say that he now felt that there must have been some fallacy in the mode in which the earlier experiments, his own and others, had been conducted. He could not now say, with certainty, where this fallacy was; it might have been insufficient cleansing of the instruments used, or it might have been due to keeping the tubercular and non-tubercular animals together, for it had subsequently been shown that guinea-pigs which had been subjected to some injury, became tubercular if allowed to live with animals suffering from tuberculosis. That might, perhaps, explain how the mistake was made. We were thus, he continued, reduced to Villemin's original position; and he desired to bear his tribute of homage to the brilliant induction which had led Professor Villemin to the research. At the International Congress at Paris, Villemin had said that he had been led by the marked morphological resemblance between the lesions of glanders, syphilis, and tubercle, to believe that the latter would be communicable, as the former two were known to be. With regard to the pathology of tuberculosis, he would suggest that it was still open to question whether we were dealing with a distinct specific bacillus, or with one which might be evolved from an allied species of the same genus. He thought it would be most disastrous if, what he would venture to name, a phthisiphobia were to seize on modern society. The work of the last thirty years with regard to phthisis ought to be a warning against drawing hasty conclusions; no doctrine had held its own for five years. He often recalled the remark made by Portal, who said that he was brought up in the belief that phthisis was contagious, but that calm consideration had made him change his mind. The greatest caution was required in drawing conclusions from pathological experiments; and he would commend the lesson to be drawn from the mistakes of earlier observers to the attention of those who were now working at the question of the part played by micro-organisms.—Mr. WATSON CHEYNE thought Dr. Williams's paper was a valuable contribution to the literature of tuberculosis. The experiments of Dr. Wilson Fox and others had been a stumbling-block to many in this country, and it was satisfactory to find that Dr. Fox now recognised that there had been some fallacy connected with them. Mr. Cheyne proceeded to say that, before he commenced his experiments, he believed that they would give negative results, since he had, in previous years, frequently inoculated putrid fluids without ever producing tuberculosis.—The PRESIDENT said that the subject was one of great importance. He congratulated Dr. Wilson Fox on the frank way in which he had announced his change of views. The question no doubt remained, whether all these bacteria were descendants of one primary form, or were all specifically different. Some competent observers—among others Billroth—believed that they were all modifications of one primary form; but, for himself, he thought that the contrary opinion was the more probable.—Dr. DAWSON WILLIAMS desired to make it clear that, in what he had said, he did not wish in the least to forecast the view that Dr. Burdon Sanderson might take.

Aneurysmal Dilatation of the Radial Arteries:—Mr. SYMONDS related the symptoms of a case of aneurysm of the radial artery, secondary to fracture, with suppuration; amputation was performed. The radial artery was surrounded by sloughing tissue, and dilated at two points into aneurysmal pouches, partly filled with coagula; the wall of one pouch was perforated. The inter-osseous trunk was softened and dilated at one spot. Microscopical examination showed that there was an accumulation of inflammatory products in the middle coat. As a result of the injury a diffuse arteritis had been set up, attended with the formation of pus. In a second specimen from another case of suppurative arteritis, the pus was collected in the inner part of the middle coat. The wall of the artery was unusually thick and rough, owing to the collection of the inflammatory products in the middle coat. He thought that suppurative arteritis might be the consequence of the injury directly inflicted on the vessels, or might be produced by extension from the cut and twisted or tied end. He believed that secondary hæmorrhage was due to this suppuration, and not to the non-formation of a clot.—Dr. GOODHART remarked it was a matter of observation that inflammatory conditions commonly attacked limited areas in the thickness of the vessels, and instanced syphilitic arteritis. Secondary hæmorrhage was dependent not on the ligature or on the clot, but on suppuration outside the artery. He held that aneurysm arising after embolism was dependent on some acute form of arteritis; it had been argued that the occurrence of aneurysm after ligature was due to the obstruction, but he believed that here also it would be found to be due to some such acute form of inflammation as had been described here.—Mr. SYMONDS, in reply, referred to a case in which an aneurysm developed in a man after amputation of the thigh, and subsequently ruptured. With the antiseptic system secondary hæmorrhage had almost become a thing of the past.

Tubercular Ulceration of the Tongue.—Mr. A. E. BARKER showed the tongue removed from the body of a man who had been ill for some few months before his death; he had scratched his tongue about a week before he applied at University College Hospital. Near the tip of the tongue was a fissure half an inch long, with pink lumpy margin, and white shreddy base. Later, he presented two ulcers of the tongue. He had pulmonary phthisis. He was treated with antisyphilitic remedies, but the ulceration of the tongue ex-

tended and invaded a third of the organ. He rapidly developed symptoms of advanced phthisis and died. At the necropsy, tubercular disease of the lungs and the whole of the alimentary tract was found. The margins of the ulcer on the tongue were excavated, but the base was not deep nor thickened. The microscopical appearances resembled those of tubercular direase of the intestine. Mr. Barker observed that descriptions of tubercular disease of the tongue were rarely met with in English literature, but in France the subject had received much attention, as also in Germany. Present knowledge seemed to point to the removal of tubercular disease of the tongue at as early a period as possible, as the best course to follow.—Mr. CROFT said that the important question was to ascertain whether the tubercular disease of the tongue was primary or secondary, as the propriety of operating depended on this.—Mr. GODLEE referred to the case of a patient who was in attendance, and who had been under the treatment of Mr. Heath. The period of the meeting was too advanced to enter into the case.—Dr. KINGSTON FOWLER also referred to a patient he had under treatment.—Mr. BARKER said that in his case the disease of the tongue had probably preceded the general development of tuberculosis.

Card-Specimens.—Dr. LEDIARD (of Carlisle) exhibited a specimen of caries of the sixth and seventh cervical vertebræ of a dog, in which paralysis, beginning on the left and spreading to the right fore limb, was the chief symptom noticed during life.—Mr. WAREN TAY showed a living specimen of "Bromide Rash" in a child aged 11 months, who manifested the affection after the administration of four and a half grains of bromide of potassium three times a day for eight days.

MEDICAL SOCIETY OF LONDON.

MONDAY, DECEMBER 3RD, 1883.

Sir JOSEPH FAYRER, M.D., K.C.S.I., F.R.S., President, in the Chair.

Plastic Operation for Penile Fistula.—Mr. CLUTTON remarked on the extreme difficulty of closing penile fistula, and discussed the various methods of dealing with the urine whilst the wound made by the plastic operation had time to heal. He maintained that, by opening the urethra in the perinæum, and keeping a catheter in the bladder through this opening, the fistulæ were given the most complete rest attainable, and that the healing of the wound was thus almost certainly ensured. The perineal wound did not, he thought, in any way increase the risk, but was a much less harmful proceeding than the constant passage of a catheter. He related an interesting case which supported this view.—The PRESIDENT said that, when in India, he had made use of the same proceeding as Mr. Clutton advocated; he had also found it useful in the treatment of congenital defects.—Mr. W. ROSE had adopted a somewhat similar procedure with great success in one case.—Mr. EDMUND OWEN had encountered a good deal of trouble in closing wounds in the urethra behind the scrotum, such as were produced by the procedure recommended by Mr. Clutton.—Mr. PICKERING PICK advocated tapping the bladder from the rectum.—Mr. DAVY concurred in the usefulness of this operation, but was inclined to prefer the operation of splitting the scrotum along the median raphe, and throwing the perineal and penile fistula into one large wound.—Mr. ROYES BELL referred to the fact that the stricture in these cases seemed to be cured.—The PRESIDENT said that he had never had any difficulty in the healing of the perineal wound.—Mr. CLUTTON, in reply, observed that failure of the perineal wound to heal was, he believed, due to the presence of a large amount of cicatricial tissue.

Valves in the Portal Vein.—Dr. THUDICHUM, referring to the discussion raised at the last meeting by Mr. Gay's paper, showed some drawings of valves in the portal vein of the ox and sheep. Their existence was known to Harvey.

Recurrent Femoral Aneurysm with Excision of the Sac.—Mr. WM. ROSE said that the patient, a stableman, had suffered from aneurysm of the right superficial femoral artery, about three inches below Poupart's ligament, which had only been noticed nine days before admission. There was no history of syphilis, his general health was good; he ascribed the swelling to a fall, when he strained his thigh and felt "something give way." Digital compression was tried for twenty-one hours without result, and Mr. Rose tied the external iliac artery on February 18th, 1880, antiseptically; the wound was finally healed by March 10th, and the man left the hospital on May 15th, with the tumour reduced to the size of a small walnut, but still with a slight pulsation in the sac. He returned to his occupation and drank rather freely. In July, 1882, after an interval of two years and two months, he was readmitted, the aneurysm having increased to the size of a large lemon; the pulsation and *bruit* were well marked; the external iliac was completely obliterated, and the pulsation of the right common iliac could be felt with difficulty. The whole limb from the toes upwards was bandaged with a Martin's rubber bandage, iodide of potassium was administered internally, in gradually increasing doses of from 5 to 40 grains three times a day, and his diet was gradually reduced at the same time to 1 pint of fluid and 14 oz. of solid, daily. This treatment was continued for a month, without any appreciable effect on the aneurysm. On October 18th, the right common iliac artery was controlled by Mr. Davy, who used his rectal lever. The pulsation was not, however, entirely stopped by it, and the limb was raised and Esmarch's tourniquet wound firmly round the thigh close to the hip-joint. An incision seven inches long was made over the centre of the tumour, and the sac exposed. The femoral artery was laid bare in Hunter's canal about one inch below the aneurysm. Two catgut ligatures were applied, and the artery divided between them. The aneurysm was then carefully dissected from below, upwards. By this means the sac was lifted intact from its bed, and the upper portion was reached, secured with strong catgut-ligatures, and the tumour completely severed below it. The femoral vein being incorporated with the mass was unavoidably opened, but the long saphenous nerve, which was flattened from pressure, was dissected clear. There was no bleeding of importance after the removal of the tourniquet, and the patient made a rapid recovery. The patient, as well as the aneurysmal sac removed, was shown to the Society.—Mr. BRYANT presumed that Mr. Rose did not regard the aneurysm as a traumatic aneurysm. He desired, however, to know why the external iliac was tied in place of the common femoral artery. In small arteries he thought excision of the aneurysm a good practice, and in the case of aneurysm of the larger arteries, where the ligature of the afferent artery failed, he thought the operation of tying above and below, and laying open the sac, was one to be taken into consideration in place of amputation.—Mr. DAVY thought that the experience of older surgeons was against the application of the treatment recommended by Mr. Bryant to deeply seated aneurysms.—The PRESIDENT referred to several cases, in one of which he had tied the common femoral, and in another the external iliac artery.—Mr. ROSE thought that there was no ground to suppose that the aneurysm was traumatic. He followed Sir William Fergusson in preferring to tie the external iliac rather than the common femora artery.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, NOVEMBER 5TH, 1883.

JOSEPH WALKER, M.D., President, in the Chair.

Specimens.—Amongst the specimens exhibited were two of considerable antiquarian interest. A partial denture worn by Queen Caroline during her trial was sent by Mr. JOHN PARKINSON. It consisted of five or six upper front teeth, fastened to a flattened gold wire, and secured by clasps at each end. Of course it could only have been intended for ornament.—Mr. FORAN (Southsea), sent a model of a seal, affixed to a deed of the time of Edward II, on which was the impression of upper incisor teeth, accompanied by extracts from standard works on the subject, explaining that, before the general use of engraved seals, it was the custom to confirm legal documents by impressing the wax with the teeth. The specimen from which the model was taken was a very late example of this practice.

India-Rubber Found in a Tooth.—Mr. W. A. HUNT (Yeovil), showed a right upper first molar, which he had abstracted on account of periostitis, etc., from the mouth of a lad, aged thirteen. Projecting some distance from the end of the palatal roof was a piece of elastic rubber, such as is found in the webbing used for spring-side boots. How it could have got there was a mystery. The apical foramen had become enlarged to exactly the size and shape of the rubber, showing the effect of even slight pressure in producing absorption.

The Relations between Dental Lesions and Diseases of the Eye.—Mr. HENRY POWER read a paper on this subject. It was only within the last sixty years that any connection between dental lesions and affections of the eye had been noticed by writers on ophthalmic diseases. Travers and Frick, in 1824 and 1826, were the first who made any reference to this connection, and they only mentioned difficult dentition as one of the causes of strabismus. Since that time, however, knowledge on the subject had been gradually added to by various observers. That there was such a disease as reflex sympathetic ophthalmia had long been known, since this was constantly being brought under the notice of ophthalmic surgeons by cases in

which injury to one eye was followed, after a period of very variable duration, by inflammation of the uninjured eye, of a low, but steadily progressive type, generally leading to more or less serious impairment, or even to complete loss of vision. It was well known also that injuries affecting the first (ophthalmic) division of the fifth pair might affect the eye of that side, and there were good reasons for believing that damage to other branches of the fifth pair might be the cause of ophthalmic troubles. Cases confirming this view were referred to. The existence of this connection with reference to dental nerves was specially dwelt upon by M. Delestri, in an essay published in 1870, in which he reported several cases of visual disturbance occurring in connection with odontalgia. The fact that dental irritation might, under certain circumstances, set up reflex irritation of the eye, could not now be doubted. This might express itself in any of the following ways: the reflex irritation might affect the striated or unstriated muscles, the mucous membrane and cornea, or the optic nerve and retina, and intra-ocular tissues. One of the commonest forms of visual disturbance induced by dental disease *was loss or failure of the power of accommodation*, due to paralysis of the ciliary muscle. Dr. Hermann Schmidt, of Berlin, who had specially investigated this point, had found diminished power of accommodation in nearly 80 per cent. of patients suffering from various forms of dental irritation, the failure being most marked in young subjects. Cases were on record in which paralysis of the iris and exophthalmia had been caused by dental irritation, but these were of rare occurrence. Strasbismus was not so often due to dental causes as had at one time been believed; still such cases did occur, as did also cases of the levator palpebræ, and of the orbicularis palpebrarum, supplied by the third and seventh nerves. Severe conjunctivitis not unfrequently resulted from this cause; and Mr. Power narrated a case which had come under his own observation, in which an abscess of the cornea seemed to be intimately connected with the presence of carious teeth on the same side, resisting all treatment until they were removed, when the inflammation gradually subsided, though not without leaving great impairment of vision. He then went on to quote some remarkable cases in which amaurosis had been induced, and in which, after the lapse of several months, the offending tooth had been abstracted, and the sight of the eye completely regained. Lastly, the relation of dental irritation to glaucoma was referred to, the result of various investigations going to prove that, where other circumstances predisposed to the disease, the irritation of a carious tooth might be a very active exciting cause. In conclusion, Mr. Power said that in most forms of eye-disease, especially in cases which resist ordinary treatment, the condition of the teeth should always be examined, and if faulty conditions presented themselves, these should be at once rectified; thus one at least of the possible causes of these diseases will have been removed.—The discussion was adjourned until December 3rd.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, NOVEMBER 21ST.

G. F. BODINGTON, M.D., President, in the Chair.

The Morality of Certain Obstetric and Gynæcological Operations.—Dr. HICKINBOTHAM referred first to the controversy as to the proposals of accouchements being attended by males, which raged two hundred years ago. He then alluded to the Cæsarian section, and to embryotomy; and reviewed at some length the progress of medical opinion upon these operations. He then dwelt with certain more modern operations: ovariotomy, cliteridectomy, preventive intercourse, production of abortion, and premature labour; removal of uterine appendages; Porro's operation, and its modifications. Upon the general question, he pointed out that some of the most valuable and successful operations were greeted, at their initiation, with an outburst of virulent opposition, alike from the ultra-conservatism of age and the prejudice of ignorance; and he said that the question of the propriety of a particular procedure must, to a large extent, be left to the conscience of the surgeon, who ought never to allow wise and justifiable experiment to degenerate into rashness, or a healthy enthusiasm for his art to lapse into a surgical delirium, knowing no therapeutics but the scalpel, the cautery, and the clamp. In conclusion, Dr. Hickinbotham denounced those unfair professional criticisms, begotten by jealousy and disappointment, which too often marred the debates of societies, and tarnished the correspondence-columns of the medical journals.—Mr. Lawson Tait, Mr. Furneaux Jordan, Mr. Bennett May, Mr. Ross Jordan, and Dr. Best, took part in the discussion which followed.

Phosphatic Calculus.—Dr. MALINS showed a specimen of phosphatic calculus, weighing 132 grains, taken from the female bladder by the urethra; also a specimen of chronic inflammation in both ovaries, with consolidation and distension of both tubes with fluid.

Cancer of the Bladder.—Mr. BENNETT MAY showed a specimen of this disease from a patient upon whom median cystotomy had been performed.

Progressive Muscular Atrophy.—Dr. SUCKLING showed an advanced case of progressive muscular atrophy. The patient, a man aged 42, for many years had been a foundry-labourer, and was accustomed to heavy manual work. The disease was of seven years' standing. The right upper extremity was completely paralysed, and the "main en griffe" present on both sides. The "reaction of degeneration" was not present in any of the muscles.

The Treatment of Fracture of the Patella.—Mr. CHAVASSE, in exhibiting one of Mr. Lister's cases operated upon for recent fracture of the patella, thought that the immediate suturing of the fragments should be limited to those instances in which it was desirable to obtain reliable reunion in a short time, and that the older methods of treatment would probably be preferred by those patients to whom time and money were not of great importance. Operations of this nature could only be safely undertaken by those who had served a long apprenticeship in the practice of strict antiseptic surgery.—In a discussion which followed, Mr. Furneaux Jordan, Mr. Lloyd, Mr. Bennett May, Mr. William Thomas, and Mr. Barling took part. The general expression of opinion was, that the operation should not be undertaken except under extraordinary circumstances.—Mr. BARLING remarked that, from the consideration of the published results of the operation, fatal issues seemed more apt to occur in cases of old fracture than in those of recent date.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

ORDINARY MEETING, NOVEMBER 30TH, 1883.

D. C. LLOYD OWEN, F.R.C.S.I., in the Chair.

A Surgical Accident.—Mr. J. W. TAYLOR read the notes of a case in which he had accidentally divided the musculo-spiral nerve, in operating for necrosis of the humerus. Some time later he returned the cut ends of the nerve together, and movement was ultimately restored to the parts.

Naso-Pharyngeal Fibroid Polypus.—Mr. FURNEAUX JORDAN referred to the various operative procedures which had been devised in order to obtain access to the nasal cavity, in order to extirpate these growths. He described a case in which he had succeeded admirably by making a vertical incision, splitting the nose, rather to the side of the mesial plane, and cutting through the upper lip. This allowed the nose and lip to be turned aside, and the tumour was readily removed. The result was excellent, as, by careful apposition of the cut edges and delicate sutures, only a linear scar was left.

Primary Sarcoma of the Cuboid Bone.—Mr. JORDAN LLOYD showed the bones of the anterior part of a foot, with sarcomatous enlargement of the cuboid bone. The growth was a myeloid sarcoma. He believed it to be an absolutely unique specimen. The foot was amputated by Tripier's modification of Chopart's operation.

Villous Growth of Bladder.—Dr. R. M. SIMON showed a villous growth in the bladder, from a case which died with encephaloid cancer of the liver. He was inclined to believe that the growth in the liver was the result of the bladder-mischief, and he suggested that an early operation would have effectually cured the bladder-disease and prevented the cancerous development in the liver.—Mr. FURNEAUX JORDAN said there were two forms of villous growth: 1, simple; 2, malignant. The present belonged to the second variety, as the wall was infiltrated.—Mr. JORDAN LLOYD had seen a case with every symptom of villous growth go on for seven years without any sign of malignancy occurring.—Mr. LAWSON TAIT had met with such cases frequently in women; he objected to their removal, and always advised the production of a permanent vesico-vaginal fistula to remove the pain and the constant desire to micturate.—Dr. WINDLE referred to a case in which an operation had been performed two years ago without any recurrence.—Dr. SIMON explained that he did not suggest an operation on the growth in its present state, but in its early, and, as he believed, pre-cancerous stage.

Tricuspid Stenosis.—Dr. SIMON showed a case of button-hole mitral valve and tricruspid stenosis.

Paralysis of Trapezius.—Mr. W. F. HASLAM showed a patient with an affection of the scapular muscles, which allowed the right scapula to project from the thoracic wall when the shoulders were

thrown back. The right acromion was depressed, and the arm could not be raised much above the shoulder. He thought the condition due to paralysis of the trapezius.—Mr. JORDAN LLOYD believed the rhomboidei were the muscles most in fault.—Mr. BENNETT MAY thought the serratus magnus was the muscle paralysed, and that the lower end of the scapula had slipped from under the latissimus dorsi.

Colles' Fracture.—Dr. B. C. A. WINDLE showed the bones from a case of Colles' fracture, in which there was no impaction,

Biliary Calculi.—Dr. WINDLE showed a number of biliary calculi; one, as large as a pigeon's egg, had been passed *per anum*. He asked whether it was possible for such a stone to pass through the common duct.—Mr. LAWSON TAIT had seen, in his operations of cholecystotomy, a duct so dilated that he could almost pass his finger into the duodenum.

Meckel's Diverticula.—Dr. WINDLE showed three dried specimens of Meckel's diverticula.

Tumour removed from a Hernial Sac.—Mr. H. L. BROWNE showed a flattened oval mass, apparently omental, which he had had to ligature and cut away in a recent operation for hernia.

Epithelioma of Cicatrix.—Mr. BROWNE showed an epithelioma which had originated in an old cicatrix from a burn.

Parts removed in a case of Acute Hip-Joint Disease.—Mr. BROWNE showed the parts he had removed by excision in a case of acute hip-joint disease. The patient was suffering from septicæmia, but after the operation he recovered rapidly, and ultimately did well. He advocated early operation in such cases.

Ulcerated Gall-Bladder.—Dr. J. W. BOND showed an ulcerated gall-bladder from a case of enteric fever. Some bile escaped into the peritoneum, but was encysted by adhesions between adjacent viscera. There was no ulceration in the duodenum, and the ulceration in the ileum was not very extensive.

Discussion on the Surgery of the Kidney.—The CHAIRMAN announced that the ensuing meeting in January would be devoted to a discussion on the Surgery of the Kidney, to be opened by Mr. Lawson Tait; and he asked intending speakers to send in their names to the Secretaries.

ACADEMY OF MEDICINE IN IRELAND: MEDICAL SECTION.

FRIDAY, NOVEMBER 16TH.

W. MOORE, M.D., President of the Section, in the Chair.

Living Specimens.—Dr. J. M. REDMOND exhibited a case of compressive myelitis.—Mr. LENTAIGNE showed a case of empyema, treated successfully by drainage and antiseptic irrigation.—Dr. C. F. MOORE presented a child suffering from degenerate varicella.

The President's Address.—The PRESIDENT delivered a brief opening address on the correlation of symptoms in disease. He emphasised the necessity of teaching students the correlation of diseases, as a factor of great importance in prognosis. Before the physician could begin to correlate symptoms, he must, however, be familiar with symptoms *per se*. A thoroughly educated man, conversant with the correlation of symptoms in disease, could say, on ascertaining the pulse and temperature, that "such a man was in typhus; or another was in pneumonia; or a third was in enteric fever." Thus, the knowledge he recommended gave the physician a commanding advantage in the diagnosis, and, therefore, in the treatment of disease.

Enteric Fever.—Dr. J. W. MOORE read a clinical note on enteric fever. Briefly summarised, the case reported was one of severe enteric fever, running a course of four weeks, characterised by a succession of high temperatures during the first twenty days, ataxic symptoms, obstinate constipation, hypostatic congestion, and right basic pneumonia. The patient was a grocer's assistant, aged 20. Treatment of a decidedly active kind was employed, and apparently with marked benefit to the patient. On five separate occasions, twenty grains of quinine were given as an antipyretic in two quickly succeeding doses of ten grains each; twice the wet pack was employed for two hours at a time to control the pyrexia; and on three occasions, at intervals of forty-eight hours, ten-grain doses of calomel, guarded with a grain of opium, were administered as an antiseptic aperient. Having referred to the use of calomel in typhoid fever in Germany, the author alluded to Dr. Wassiljeff's experiments in Hoppe-Seyler's laboratory as to the influence of calomel on fermentation and bacteria, from which it would seem probable that much of the good which calomel was known to accomplish in various intestinal troubles was due to its aseptic or antiseptic properties.—The PRESIDENT remarked that the treatment of enteric fever by small frequent doses of calomel was a long-established one.—Dr. HENRY KENNEDY hoped that the treatment detailed in the note would not be generally carried out. He objected to large repeated doses of calomel, and to the use of cold baths and quinine for reducing high temperatures.—Dr. MAC SWINEY referred to the powers of calomel in destroying microscopic organisms, and suggested this as an explanation of the success obtained by large repeated doses of calomel in the treatment of cholera.—Dr. FINNY said that, in his experience, quinine in large doses certainly did reduce temperature for some hours, but did not shorten the course of the fever. The packing adopted by Dr. Moore obviously lowered the temperature by inducing profuse diaphoresis; but the point of greatest interest, diagnostically, was the want of correlation between the pulse and temperature.—Dr. DOYLE had for some years used calomel in suspected typhoid fever, without succeeding in stopping a case.—Dr. J. W. MOORE, in replying, said that as the large doses of calomel passed through the system much more quickly than smaller ones, there was the less risk of its conversion into corrosive sublimate. The rate of mortality in enteric fever in Cork Street Hospital was merely an average of 7 or 8 per cent.; and the case in question recovered. He quite agreed with Dr. Finny as to the transitory nature of the reduction of temperature by quinine; but he thought that in a disease where hyperpyrexia alone might threaten life, it was of considerable importance to have a reduction of temperature even for twenty-four hours. With regard to the correlation of pulse and temperature, he mentioned that the pulse-observations were only taken in the morning.

Hyoscyamine.—Dr. R. A. HAYES read a note on hyoscyamine, which drug he had employed in the treatment of a case of tremor of the left arm. There was a history of injury to the left shoulder two years previously, but the tremor did not commence until eighteen months afterwards. The patient was admitted to Dr. Steevens' Hospital on October 15th, and two days subsequently was given one-sixteenth of a grain of hyoscyamine in pill without any effect. Next day, one-sixteenth of a grain morning and evening relieved the tremor, and the following morning one-eighth of a grain was given at eleven o'clock, causing at 2 p.m. considerable delirium, which continued during the day, but the tremor ceased. The next morning one-sixteenth of a grain was given, delirium again appearing at 3 p.m., and not completely passing off until the following morning, the tremor continuing less. The patient's accommodation being now quite paralysed and not having had refreshing sleep since getting the one-eighth dose of hyoscyamine, the drug was omitted; but the tremor at once returned, and shortly became very masked. After three days the hyoscyamine was resumed, one-thirty-second of a grain being given three times a day. In two days the tremor was better; but after six days, although the tremor was somewhat better, the ciliary muscle having again become paralysed, the patient objected to the further use of the remedy and it was discontinued. During the administration of the smaller doses the pupils seemed unaffected, although the accommodation was so completely influenced that reading was impossible. Whilst the patient was under the influence of the larger doses, their possible effect on the iris was unfortunately masked by the still remaining dilatation resulting from atropia, which had been applied to facilitate an ophthalmoscopic examination.—Dr. HENRY KENNEDY mentioned the case of a gentleman in whom alarming symptoms were produced by one-sixteenth of a grain taken in pill shortly before dinner.—Dr. W. G. SMITH asked whether Dr. Hayes had used the drug hypodermically, and also what was its appearance. There were three forms of the drug in the market; viz., the impure substance, the pure crystalline alkaloid, and the brown amorphous substance with a smell like tobacco. Chemically, hyoscyamine and atropine appeared to be isomeric; but their physiological effects differed. Hyoscyamine produced less excitement than atropine, and was more hypnotic; while the former dilated the abdominal vessels, and the latter did not. He suggested a solution of the sulphate in distilled water for hypodermic use.—Dr. MONTGOMERY and Dr. DOYLE joined in the discussion.—Dr. HAYES stated that, having made careful inquiries of the source whence the drug was obtained, he was satisfied of its purity. He had, as mentioned in his paper, given the drug in pill. He was not aware of any fatality consequent on its use.

HOSPITAL SATURDAY AND SUNDAY IN NEW YORK.—The *New York Medical Journal* says that it is announced that 293 churches have agreed to take part in the collection this year.

REVIEWS AND NOTICES.

THE DISPENSATORY OF THE UNITED STATES OF AMERICA. By Dr. GEO. B. WOOD and Dr. FRANKLIN BACHE. Fifteenth edition, rearranged, thoroughly revised, and largely rewritten by H. C. WOOD, M.D., Professor of Materia Medica in the University of Pennsylvania; JOSEPH P. REMINGTON, Ph.G., Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy; and SAMUEL P, SADTLER, Ph.D., Professor of Chemistry in the Philadelphia College of Pharmacy, and of General and Organic Chemistry in the University of Pennsylvania. Philadelphia: J. B. Lippincott and Co. 1883.

THE *United States Dispensatory* may be regarded as a commentary on the *United States* and *British Pharmacopœias*. Formerly, the *United States Pharmacopœia* was arranged in two divisions, under the respective headings of Materia Medica and Preparations. At the last revision, it was determined to abandon this arrangement, and to place the crude drugs with their preparations in alphabetical order. This change has necessitated an entire rearrangement of the *Dispensatory*, and has, in fact, so altered its character that it may be regarded as an entirely new work. There can be no question as to the superiority of the alphabetical arrangement in a work which is essentially a book of reference.

One of the earliest sections in the *Dispensatory* is devoted to the new class of preparations called "abstracts," now for the first time introduced into the *Pharmacopœia*. The necessity has long been experienced of convenient and reliable preparations bearing a definite relation to the drug. Powdered extracts have long been known, but they are objectionable owing to the loss of strength resulting from the heating during desiccation, and to their proneness to absorb moisture and become nothing more than a hard solidified mass. The new abstracts bear an uniform relation, as regards strength, to the crude drug, the fluid extract, and frequently to the tincture. In every case, they are twice as strong as the drug or fluid extract, and usually they are about ten times the strength of the tincture. The heat employed in evaporating never exceeds 122° Fahr. (50° C.), so that there is no danger of the destruction of the active principles of the drug. Being in the form of a dry powder, they are easily dispensed, and may be administered in any form that may be found convenient. Many of the abstracts are likely to come into general use in this country; and it is probable that ere long the abstractum belladonnæ, the abstractum digitalis, the abstractum ignatiæ, the abstractum nucis vomicæ, and the abstractum senegæ, will be familiar features in our prescriptions.

Speaking of aconitia, the authors criticise somewhat severely the process adopted in the *British Pharmacopœia*, and state that it does not yield a reliable medicinally pure alkaloid. They find that English aconitine is frequently in great part composed of pseudo-aconitine. The officinal product is always amorphous, but even of amorphous aconitine there are two varieties—the hydrated and the anhydrous. A spurious substance has sometimes been sold under the same name, and is nearly, if not quite, inert. It is to be feared that the alkaloid, as found in commerce, is a very unreliable substance. The medicinal properties of pure aconitine are undoubtedly of a very high order. Dr. Turnbull, we believe, was the first to recommend it as an external application for the relief of pain, and his statements have been amply confirmed by others. It is now used with much success in the treatment of neuralgia, gout, rheumatism, angina pectoris, and many other painful affections.

A very interesting section is that devoted to iodoform. Its mode of preparation is carefully described, and its properties and reactions are succinctly stated. The free use of this substance as an antiseptic dressing has led to many cases of poisoning, eleven deaths from its use being recorded by German writers alone. The principal symptoms are general malaise and depression, faintness, headache, loss of appetite, and a persistent iodoform taste in the mouth. In some instances a slight temporary rise of temperature has been observed. Mental excitement or depression is often noticed. The pulse is usually accelerated, soft and feeble, sometimes it is very rapid, 150 to 180, whilst the temperature remains normal. The cerebral phenomena are commonly those of delirium, but there have been observed, especially in children, symptoms resembling those of meningitis, such as coma, contraction, and inequality of the pupils, and rapid pulse, without marked elevation of temperature. In adults, a suicidal tendency has been noticed. The new officinal ointment is made by rubbing up together ten parts of iodoform, and ninety parts of benzoinated lard. It is important to have the drug in very fine powder, and it is customary to add oil of bitter almonds or balsam of Peru, to render the odour more bearable.

Jaborandi is fully described under the title of pilocarpus, and the new officinal alkaloidal salt, pilocarpinæ hydrochloras, receives due attention. The extractum pilocarpi fluidum is undoubtedly one of the most valuable of the new fluid extracts, and represents jaborandi-leaves thoroughly. Of the liquid extracts, the infusion and tincture are both open to objection, the former on account of the bulkiness of the dose, and the latter from the amount of alcohol it contains. The dose of the fluid extract is fifteen minims to half a drachm. Jaborandi is so powerful and certain in its diaphoretic action, that it has already taken rank as the most reliable and influential of the remedies of its class; indeed, so great is its power, that it has greatly extended the use of diaphoretics.

Nitroglycerine, another useful remedy, is passed over in a very cursory manner, and does not receive the attention it deserves. Its mode of preparation is fairly described, but the authors appear to be unacquainted with some of its most valued therapeutic uses. Peroxide of hydrogen is very fully discussed, and properties are attributed to it which it certainly does not possess. The piscidia erythrina, or Jamaica dogwood, receives a fair share of attention, although it must be admitted that its therapeutic uses have not as yet been fully determined.

The present edition is, in reality, very much more than a commentary on the *United States* and *British Pharmacopœias*, for it is encyclopædic in character, and treats of many subjects not noticed in any pharmacopœia. Many of the articles have been entirely rewritten, many new ones have been added, and the whole has been subjected to slow and careful revision, which, we are told, has occupied the spare moments of all three editors for the last three years. The work embodies the most recent discoveries in materia medica, pharmacy, chemistry, and therapeutics, and contains several novel features, including a series of carefully prepared illustrations engraved from original microscopic drawings of drugs. The sections on pharmacology, by Dr. H. C. Wood, the author of the well known manual of *Materia Medica and Therapeutics*, are especially deserving of attention. As some indication of the amount of new matter which has been introduced, it may be mentioned that the index—a very excellent index it is—contains one-third more references than that of the fourteenth edition.

A GUIDE TO THE MICROSCOPICAL EXAMINATION OF DRINKING-WATER AND AIR. By J. D. MACDONALD, M.D., R.N., F.R.S., Inspector-General of Hospitals and Fleets. Second Edition. London: Churchill. 1883.

THE microscopical examination of water is a matter of as much interest for the medical officer of health as for naval and military officers, for whom, Dr. MACDONALD tells us, his book was originally written. In a hygienic point of view, it is of the utmost importance to the former to be in a position to determine the nature and import of suspended and dissolved matters in potable waters, on the nature of which the health of communities may partially or even wholly rest. Mineral particles in water will affect health from their mechanical action; while dead or living animal and vegetable matters will exert more important influence, as when sewage or suspended fæcal matter is seen to produce irritation of the whole alimentary tract. On the other hand, living embryos, or the ova of entozoa, may give rise to certain grave affections; algæ may act on sulphites, and disengage in the stomach sulphuretted hydrogen; while extremely minute forms of the same may have a deeper sanitary significance. The nature and character of the latter can, however, only be determined by the aid of the microscope, or by what is known as the "physiological test." It cannot be doubted that officers of health in particular should be in a position to identify bodies which almost entirely elude the chemist—indeed defy the most skilfully conducted chemical analysis.

The author of the book before us, Dr. Macdonald, held for many years the important position of a teacher of hygiene at Netley, and is a scientific observer of great distinction. He had, too, at the same time, the further advantage of having the late eminent Dr. Parkes as a colleague; and, "with his valuable advice and guidance," he says, his "*Manual of the Microscopical Examination of Water* was made as practical as possible." In this direction, however, the book will be found to fail; it is not so practical as it should be; and this is probably the reason why "the demand for a second edition has been long delayed." Students and practical men want much more than an atlas; and, excellent as it is, this manual does not adequately fulfil

the conditions looked for in a guide to the microscopical examination of drinking-water by the profession.

We are disappointed to find that Dr. Macdonald, who is so well able to do justice to this subject, contents himself, in his second edition, by making few, and somewhat insignificant, changes. It is of far less importance to the student whether the Flagellata of authors should be transferred from the Protozoa to the Protophyta, than that he should be made acquainted with more recent researches into that remarkable class of bodies comprised under the family of Bacteriaceæ. We should have expected that Dr. Macdonald would have expunged from his preface a paragraph written eight years ago, and which no longer holds good, that "there is no good evidence of their hurtful action." He, however, admits that "no one would hesitate to condemn water containing bacteria or fungi; or swarming with the lower forms of life." Traces of bacterial life, however, in connection with a potable water, may commonly indicate sewage-contamination, in which might be lurking typhoid fever, or other grave form of disease; and the condemnation might, with advantage to the public health, be more forcibly and generally stated.

The book contains a series of twenty-five full-page plates, and all the figures bear evidence of having been drawn from nature, with pen and ink, by the author. Although these do not present the fineness and delicacy of steel-engravings, they have an artistic effect, and furnish a ready means of identifying and determining species, and the nature of the various objects contained in the specimen of water under examination. This will prove useful to the student and the busy officer of health. A short chapter on the microscopical examination of air has been added. This describes the most available methods of collecting air; Dr. Macdonald observes, "in all workshops, suspended matters are arrested by cobwebs, which can be easily transferred to a glass slip, and at once placed under the microscope."

NOTES ON BOOKS.

Life-History Album. By F. GALTON, F.R.S. (Macmillan and Co.)—One of the most novel of this year's Christmas publications will be the *Life-History Album* which Messrs Macmillan are bringing out. One of the objects which the Collective Investigation Committee have had most at heart ever since they began work, has been to obtain reliable histories of single lives, or of families, to show the relationship and inheritance of the various forms of disease. It was mentioned by Sir James Paget, in his Bradshawe lecture, and by Sir William Gull, in his address on Collective Investigation; and it has throughout been regarded as one of the most valuable pieces of work which the Committee could accomplish. Nor would such work possess only the scientific interest of tracing the family-histories of disease. There can be no question that in many cases of disease an accurate knowledge of the family-history, or of the previous history of the patient, is of the greatest importance to practice. The album aims at being a means of recording all the principal facts in a person's life. It may be roughly divided into three parts, each of which is continued through the five yearly periods into which the whole album is divided. First, there is a set of pages devoted to all sorts of common-sense observations on the various powers and faculties of the owner. There are charts for noting the height and weight, questions about the colour of the eyes and hair, the sight and hearing, the strength, and the vigour and endurance of body and mind. These are, at first sight, rather terrifying, but they really are perfectly simple and easy to fill up, and they contain a very pretty test for colour-blindness, which will form quite an amusement in a large family. Next come the record of the life-history, pages in which to write down all the chief events of life, and a place to mount photographs. This part ought to be both interesting and valuable. To look through past times of life, and to recall the likeness of years gone by, is interesting and amusing to any one; and to descendants in the future cannot but be of deep value. When completed it will form an abstract of a diary continued all through life, and a gallery of photographs taken at each age in succession. The Committee have wisely made all this as easy as possible, first by several pages of directions at the beginning of the book, and next by arranging with firms of instrument-makers and with a photographer to make all the necessary observations in an uniform manner and at a fixed price. Lastly come the pages on which the medical history is to be inserted. It is specially asked that the entries here should be made by a medical man, and it is satisfactory to see that the committee have pointed out that, for taking this trouble, he ought to have a fee. There is, in addition, a form for recording the genealogy, and a few pages to describe the children of the owner. There are two ways in which this sort of research can be carried on. It can be done either by asking medical men to make returns from their own experience of such life-histories as they can remember, or by getting the public generally themselves to make records of their own histories and those of their relations. The committee have decided to undertake the latter first. By so determining, they have both gained and lost. They have, of course, given up hope of hereby collecting any body of returns for medical purposes, and it is on that account justly arranged that no expense shall fall on the Association in connection with the album. Some persons will send copies of their height and weight charts, and some of their "anthropometric" observations (the bark of this terrible word is worse than its bite; we have elsewhere rendered it "common sense"); but these will not probably be of any great importance. On the other hand, they have gained very decidedly in two ways. First, they have thus been able to bring out a form in which not only medical, but all other facts of interest can be noted, in which a whole life, and not only one side of it, can be described; and secondly, the notes will probably be much more fully recorded when taken by the person whom they most interest. If it is only possible to get observations carefully made, there is no fear but that, some day or other, they will turn to good account. It is much more important to set on foot a thorough and really valuable movement, than to collect immediate and partial returns. The committee have wisely chosen this, the broader and sounder view, in their first attempt in this direction. It is much to be hoped that all medical men will recommend these albums to the more educated among their patients. There is no need to point out that a considerable advantage will accrue to practice from the exacter knowledge thereby insured; but medical men who follow an art so closely bound to scientific research, will feel the importance of getting scientific methods applied to daily life, and will, we earnestly hope, on this ground also, as much as in them lies, further the objects which the Committee have at heart. The album will be published about the middle of December.

The Transactions of the Pathological Society.—The thirty-fourth volume of the *Transactions of the Pathological Society of London* is published, and copies have been distributed to the members of the Society. It is not so large as several that have been issued within the last ten years, and over seventy pages are devoted to the discussion on the morbid anatomy of diabetes. The letterpress is, on that account at least, in no way worthy of adverse criticism; the subject of each paper has been already reported in our columns. The drawings of microscopical structures are not above the average, either in quantity or in quality; but, on the other hand, this volume contains some excellent engravings of objects that may be studied by the naked eye. In this category may be included two woodcuts appended to Mr. Bowlby's paper on a case of double obturator hernia, the engravings illustrating Dr. Cayley's case of acute yellow atrophy of the liver, Dr. Hadden's case of tubercular disease of the tongue, Mr. Heath's specimen of hypertrophy of the neck and condyle of the jaw, Mr. Arbuthnot Lane's case of fracture of the sternum, Mr. Bryant and Dr. Mahomed's specimens of anthracoid affection of the cæcum, colon, and stomach, and Dr. Southey's case of symmetrical gangrene of the extremities in a child; and, lastly, the photograph of Mr. Morris's patient, affected with osteitis deformans. The high quality of these illustrations is most satisfactory, as it is becoming very advisable that pathology should not be considered, by those who only study it superficially, as a purely microscopical science.

Christmas Gift-Books.—Among the more solid products of the season, in which we all take an interest, are the gift-books issued at Christmas, of which some excellent examples lie before us. A physician who is not a cook, or at least theoretically and practically versed in the science of dietetics and still higher mysteries of gastronomy, is imperfectly armed for his work. The classic guide in this region is Brillat Savarin's *Physiologie du Gout.* A new and complete translation is issued by J. C. Nimmo and Bain of London, under the title of *A Handbook of Gastronomy.* This *edition de luxe* is illustrated with fifty-two original etchings by A. Lallange, printed on China paper, issued from the press of A. Salmon, Paris. To book-lovers, this detail is now to apprise them that this unique book appears now for the first time in the English language, and in a dress and with adornments of artistic fancy and delicacy which make such a book a prized possession in any library The same

publishers issue *Types from Spanish Story*, with thirty-six proof-etchings by R. de los Rios. The subjects, chosen from the classic literature of romance in Spain, illustrate some of the best known scenes from *Don Quixote* and *Le Diable Boiteux*, from *Gil Blas* and *The Bachelor of Salamanca*. The etchings of M. de los Rios are delicate, full of technical beauty and quaint fancy, and demonstrate the perfection to which the art of etching has been carried, especially in France. The third publication of Messrs. Nimmo is the *Fables of la Fontaine*, translated from the French, with twenty-five original etchings by Delierre. Who does not know the wit and brilliant fancy of La Fontaine, and who would not envy the happy possessor of this exquisitely illustrated and luxurious book? The etchings are full-page illustrations, and pulled on China paper. These are worthy of being separately mounted as an art-portfolio. Among the seasonable publications of the Religious Tract Society are the annual volume of the *Leisure Hour*, 1883, with a coloured picture by Birket Foster as a frontispiece; profusely illustrated throughout, and well up, in the variety and interest of its matter, to the high and well-known standard it long since established. *The Girls' Own Annual* and *The Boys' Own Annual*, published at the *Leisure Hour* office, are huge volumes, which form a veritable treasury for boys and girls; these three publications together are in themselves a small household library of their kind. In addition to these, the Society issues this year a volume of *Scottish Pictures*, drawn with pen and pencil by Samuel S. Green, D.D., every page crowded with illustrations, many of them by eminent artists, recalling the most interesting scenes in Edinburgh, Glasgow, the Western and Central Highlands, the Dee-side, and the far North; also the *Crown of Flowers, Poems and Pictures collected from the Pages of the Girls' Own Paper*. Happy is the girl who is privileged to look through these pages, and to make verse and picture part of the memories of every-day life. Among the more serious publications are a volume, *The Spanish Reformers, their Memories and Dwelling Places*, by John Stoughton, D.D.; *Luther's Anecdotes*, memorable sayings and doings of Martin Luther, by Dr. Macaulay, a seasonable collection, gathered from the books and letters of the great reformer, and illustrating his life and work, by the same author; and a little pocket-volume, of four parts, of *Luther's Table-Talk*, a serious companion for a quiet hour. Professor Joyce, the highest authority in the Semitic languages, illustrates the by-paths of Bible knowledge by *Fresh Light on the Ancient Monuments*, a sketch of the most striking confirmations of the Bible, from recent discoveries in Egypt, Palestine, Assyria, Babylonia, and Asia Minor. Messrs. Cassell and Co. send us *Sunlight and Shade*, a handsome picture-book, with countless illustrations by English artists of repute, such as poems and pictures of life and nature. *Daisy Dimple's Scrap-Book* is a book of picture-stories for young people. It does not trouble them with letter-press, but all the stories are told by pictures that their elders will admire, not less then themselves, and which, appealing only to the eye, lead them through natural history and adventure. A most pretentious publication of the same firm is *The Forging of the Anchor*, a poem by Sir Samuel Fergusson, LL.D., beautifully illustrated by a catena of distinguished artists. Of this book, the chief points are the illustrations and typography, but these are considerable.

CHRISTMAS and New Year Cards have now become a national institution; they are as important to medical men and their families as to other members of the community. The distribution of kindly and beautiful greetings of the kind among the officers and patients of hospitals and public institutions grows every year to larger proportions; and so pleasant a custom may well spread. We have received from Messrs. Raphael Tuck and Sons, 72 and 73, Coleman Street, a selection of the new cards they have issued this season. They are of high artistic merit, and are most graceful and pretty mementoes of Christmas-tide. Flowers, children's heads, and wintry scenes are prettily combined with good wishes. The fourfold screens, which can be stood on a table, are novel, and the effect is very pretty. We note that, bought by the dozen or gross, Messrs. Raphael Tuck's cards are sold at remarkably low prices. We have also received from Messrs. W. G. Wallis, 112, Fleet Street, London, a series of brilliant cards, showing charming floral designs and figures in facsimile water-colour, designed and painted in Germany, though with good old English words. Here the flower-painting and figure-drawing are of a higher class than is usually found in such ephemeral productions. Messrs. E. Bollen and Co., Ranelagh Works, Leamington, have also sent us a series of Christmas and New Year cards some of which are very original and effective in character. The paper mosaics are a new feature, and have the effect of embossed satin in various and brilliant colours. The cheaper cards in this, as in the other above-named series, are so low in price that it i marvellous how much pleasure may be purchased and given for so microscopic an outlay. A goodly heap of these cards, distributed in a hospital, would largely aid the joyous and kindly influences of the season.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

NEW AND IMPROVED MOULDED ZINC SPLINTS.

PROFESSOR GUILLERY, Chief of the Belgium Medical Department, has produced an improved moulded zinc splint, for the rapid and easy treatment of broken limbs. Dr. Guillery chose a number of individuals, of different builds, whom he divided into three groups. In each group, he took a well-developed muscular person, whom he considered as a type. From each of these persons, he had plaster-casts of the arm, forearm, thigh, and legs taken. With the casts thus obtained, an exact counterpart was reproduced, from which the zinc splints are moulded. These splints are so arranged that their corresponding edges are a little distance apart, and may be fixed to the inner and outer sides of the limb, the distance between them being so arranged that they may fit limbs that may not in every way exactly agree with the type from which the original cast was taken. If two of these splints be required for a broken limb, the splints corresponding with the patient's height are selected, and the inside covered with a sheet of wadding, and the fracture reduced as far as possible. The limb is then placed in the splints, which are then secured by bands, which hold them securely in their place. Three sizes have been found sufficient for any case that may occur by Dr. Guillery, who provided for every case of fracture admitted to the Hospital of Saint Pierre during the two years he was chief of the staff of that institution. In the case of a simple fracture, the reduction is made by extension. It is only then necessary to remove the sole of the boot from the wounded leg, and the splints are then placed in position, outside the clothes, and secured by webbing-straps; or the clothes may be removed, and a lining of tow or wadding substituted. If the fracture be complicated by bleeding, a piece of lint may be dipped into a solution of perchloride of iron, and introduced into the wound before applying the splints. Supposing the lint to be carried away, a handful of charpie or lint may then be dipped into a solution of perchloride of iron, and applied to the bottom of the wound. The zinc splint is then cut lengthwise into three or four strips, and the ends turned under, to secure the wadding in its place beneath the stump; after which the splint is secured in the regular manner. A complete box of these splints ought also to be provided, with a pair of stout scissors, or shears and nippers, to bend the zinc; a roll of lint, tow, or charpie; a few bandages; and a concentrated solution of perchloride of iron. These improved zinc splints all fit into each other; they take up but little room; are light, strong, and easily packed. They were shown at the annual meeting at Liverpool, and attracted a large share of attention. They can be procured from Messrs. Evans and Wormull, 31, Stamford Street.

CREMATION SOCIETIES IN ITALY.—The Minister of the Interior in Italy, after consultation with the Sanitary Council, has decided on the following rules with respect to the cremation of human bodies and the societies formed for the purpose. 1. The societies will be considered responsible corporations as soon as their economical conditions give sufficient guarantee for their permanent existence. 2. The cremation of human bodies will be subordinate to a permit from the political authorities, to obtain which the consent of the family of the deceased must be produced.

A WIDNES chemist has been severely censured, by the coroner of the district, for selling half an ounce of arsenic to a man who poisoned himself.

THE DENTAL HOSPITAL.—Mr. Arthur Underwood has been appointed Lecturer on Dental Anatomy and Physiology, in the vacancy occasioned by the resignation of Mr. Charles S. Tomes.

VACCINATION. — Mr. Charles J. Jones has received a Government grant of £66 5s. for successful vaccination in the Ystradyfodwy district of the Pontypridd Union.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 8th, 1883.

THE ANNUAL MEETING OF THE ASSOCIATION IN IRELAND IN 1884.

WE are much pleased to learn from Belfast, that the profession there are actively engaged in making preparations for the forthcoming annual meeting of the Association.

After the formal acceptance at Liverpool of the invitation to hold the annual meeting of 1884 in Belfast, an intimation to that effect was conveyed to all the members of the profession resident in the province of Ulster, and a meeting was summoned of those desirous of taking part in the arrangements.

An enthusiastic response was given to this invitation, and a large and representative meeting assembled, from which an executive committee was appointed, composed of an equal number of town and country members, with Professor Cuming, the President-elect, as *ex officio* chairman. Dr. Whitla was appointed honorary treasurer, and Dr. John Moore, Dr. Dempsey, and Dr. Byers, were appointed joint secretaries.

It has been arranged by the Council of the Association that the meeting shall commence on July 29th, and terminate on the evening of August 1st. This will give ample time to all those attending the Association meeting to be present at the opening of the International Medical Congress at Copenhagen on August 10th.

Members leaving Belfast by any of the cross-channel steamers, which sail every night, except Sunday, can be in London on the afternoon of the following day.

Belfast enjoys great facilities in this way, and is as easily reached as any other port in the three kingdoms. This fact, it is hoped, will induce a great many foreigners to be present at the meeting; indeed, already a number of distinguished foreign members have intimated their intention of being present.

Dr. Porter, the courteous and distinguished President of the Queen's College, has kindly and graciously granted the use of the College buildings for the purposes of the meeting. In these will be found ample accommodation for all the sections, museums, council-meetings, and executive work of the Association.

The College is conveniently and pleasantly situated, and its adaptability for such a meeting has been more than once satisfactorily proved. One of the most successful meetings the British Association ever had was held within its walls.

The work of organisation has progressed so favourably, as to induce the members in Belfast to look forward with confidence to the success of the meeting. Neither time nor labour is being spared to make the meeting worthy of the Association and of the town in which it will assemble.

Under the Presidency of Dr. Cuming, Professor of Practice of Medicine in the Queen's College, whose scholarly attainments and professional ability eminently qualify him for the position he has been unanimously elected to fill, the meeting of 1884 promises to leave a red letter mark in the history of British Medical Association meetings.

The Dublin meeting of the Association in 1867 was a brilliant success, both in respect to hospitalities and to scientific and practical work. It is still warmly remembered, and the recollections of this most agreeable occasion will aid the anticipations of our forthcoming meeting on Irish soil, when the profession of the sister country will once more clasp hands with their brethren of Scotland and England, and renew their vows of friendly and fraternal co-operation in the great work which this Association has pursued with unprecedented success for a long series of years—the elevation of the standard of professional knowledge and education, the promotion of unity and the strength that comes from it, and the cultivation of medical science and practice.

THE FOUNDATION OF A MEDICAL SICK, ANNUITY, AND LIFE-ASSURANCE SOCIETY.

IN pursuance of the general principles already approved, and in fulfillment of the commission to that effect given to Mr. Ernest Hart, as chairman of the meeting held at Liverpool, Mr. Hart has taken steps to give a more definite shape to the proposals for the formation of a Medical Provident Fund, on a basis of independent mutual assurances. The following is a brief summary of the aims, constitution, and mode of working, which, after full consideration, seem most practical, and likely to meet the wishes of those interested. Fuller particulars will be found on another page.

The aim of the Society will be to provide, by means of quarterly payments, and on a strictly independent basis, provision for the following contingencies:—Sickness, incapacitating from professional duty, the payment of annuities after the age of 65, and the assurance of sums at death. Many advantages would accrue from the Society being registered under the Friendly Societies Act, which should certainly be a first condition; on the other hand, the effect of such registration at once determines the maximum annuity at £50 per annum, and the maximum assurance at £200. It is suggested that in all cases the premiums shall cease to be payable at the age of 65, and that members joining shall have the option of any, or all, of the following assurances:—(1) Sickness-pay of 2, 3, or 4 guineas per week for 26 weeks' of continuous sickness, and half that amount for the remainder of the same illness—all sickness-pay to cease at the age of 65, and to be replaced by an annuity of about one-fourth the amount of full pay; such annuity not to be contingent on the state of health of the member; no sickness-pay to be allowed for sicknesses of less than a fortnight's duration. (2) Annuities commencing at the age of 65, of not more £50 *per annum*. (3) Assurances of not more than £200, or less than £25; no assurance to be for any fractional portion of £25. It is obvious that some definition of the right to claim sickness-pay must be adopted; and it is suggested that this shall be entire cessation from professional duty.

The constitution suggested for the Society is one of financial centralisation combined with local co-operation in other matters, and is based on the broadest principles of representative management. It is obvious that, if the financial work is to be efficiently managed and controlled, and if the records of the experiences of the Society are to be useful for guidance in the future, they must be kept at a common centre and one system; while it is equally evident that other matters, such as the admission of members, visitation of the sick, etc., can be more efficiently performed by local organisations, where they can be created. For this co-operation, it is hoped and believed that the Branches of the British Medical Association may be relied on. The general management will be in the hands of a chairman and vice-chairman (elected annually),

a treasurer and sub-treasurer, and four trustees, who will meet monthly, and will form an executive committee. The Executive Committee will report their proceedings quarterly to a general committee, consisting of twelve members (elected annually), and the secretaries of duly formed branches; and the whole work and policy of the Society will be fully reported upon yearly, and considered by an annual meeting. All disbursements will be made by cheques issued weekly, and the Treasurer and Chairman will thus be able to exercise an effective and regular supervision over the whole financial work.

The mode of working must necessarily follow known and well-approved lines. It is suggested that in the choice of assurances, either as to their amount or nature, members shall be perfectly free, with one exception. This is, that owing to the extremely uncertain nature of old-age sickness, all sickness-pay shall cease at the age of 65, and, therefore, in order to prevent members from being left at that age without provision, arrangements have been made for a combination, replacing sickness-pay at that period by an annuity. Subject to this combination, members will be at liberty to join for one or more of the provisions of the Society, as they elect. The operation of the annuity and mortality assurance-funds would present no difficulties of an administrative nature, while provisions of an ordinary kind are made for the supervision of the sickness-claims—a matter in which, having regard to the nature of the membership, no difficulty should arise. The premiums will be payable quarterly, and an entry-fee of 10s. 6d. charged to each member, and there will be no participation in the sickness-fund till six months, nor in the mortality assurance-fund till twelve months, from the date of joining. The management-expenses will be met by a deduction (not to exceed 10 per cent.) from the premium-income, which has been contemplated in the preparation of the rates, and by the entry-fees. It must be borne in mind that this proportion, which may appear high, is a maximum one; and though it may be necessary at the outset, probably a modified rate will be sufficient in the future, as the growth of such societies as the one contemplated generally reduces the proportionate cost of management.

With reference to the rates, it is necessary to point out they have been fixed only after the fullest and most careful consideration, and much inquiry. They have, in addition, the sanction of the very high skill and large experience of Mr. Neison, with whom the future possibilities and other considerations have been fully discussed. No doubt, with all this, they are to some extent tentative; but if a careful record be kept of the work of the Society, there will soon exist trustworthy data by which the assumptions may be tested, and if it is thought advisable, after taking skilled advice, readjusted.

It is also worthy of consideration, that if an error have been made on the side of safety (which must by no means be assumed as certain), five years' experience, properly tabulated, will enable such arrangements to be made, on trustworthy evidence, obtained from the only possible source—experience—as will be just to every member, both as to the contributions paid in the past, and those necessary in the future.

THE INTERNATIONAL HEALTH EXHIBITION, 1884.

His Royal Highness the Prince of Wales announced, at the close of the International Fisheries Exhibition, his intention to arrange an International Health Exhibition of like extent and importance, to be conducted under his personal direction and presidency. This exhibition is intended to illustrate the most advanced knowledge in respect to the applications of modern science and improved sanitary practice to the dwelling and its curtilage, and to food and dress. As an additional heading, His Royal Highness includes in the programme the subject of education, notably in its relations to health and technical instruction. Such a display is especially opportune at the present moment, when health-questions are assuming a position of primary importance in the policy of Governments and in ministerial functions, as well as in the private duty of individuals. It is obvious that such an exhibition affords scope for the most extensive illustration of a great variety of subjects, which are at the same time of domestic and imperial interest. The wise saying of Lord Beaconsfield that "The home is the unit of the nation," finds its most practical illustration in the subject-matter of such an exhibition as this. The difficulty, indeed, in such a collection, will be necessarily to restrict within due limits the number of articles exhibited, so as to prevent overcrowding, and to concentrate upon worthy objects the interest which such a display will certainly excite. Under the heading of food will naturally come such classes as agricultural products and vegetable and animal substances used as food; preserved, prepared, and manufactured foods; alcoholic and non-alcohol drinks; illustrations of the chemistry and physiology of food, including analyses; questions of adulteration; food-constituents. All the varieties of diet for public institutions and for privates houses, and various kinds of cookery and cooking apparatus, will likewise necessarily come under view. A further class will provide for sanitary publications and literature, statistics, models, and diagrams. Under the head of the dwelling, will be included objects illustrative of the housing of the rich and of the poor; water-supply and purification, with all its accessory apparatus; drains, sewer-disconnection, and ventilation; the removal of refuse, and the vast army of apparatus and systems designed for that purpose. Heating, warming, and ventilation will necessarily bring into question all the modern inventions for the economical use of fuel, and especially also for the abatement of smoke. Lighting will give an opportunity for the display not only of all the varieties of gas and oil-lamps, but also for modes of electric lighting. The materials for house construction and decoration open a large field for interesting illustration, and their especial relation to hygiene will find a thousand applications of modern science and ingenuity. Dress, in its relation to hygiene, climate, and to the various purposes of industrial occupation, in historic retrospection, will afford an opportunity for illustration of an artistic and useful character. The wide field opened by the question of the construction of school-houses and school-rooms, and the relations of school-life to physical life, would of itself almost afford the material for an exhibition. In such a display, the medical man will find materials of deep interest to him, not only as a member of the community, but in his professional occupation, and in the duties of his daily life, as an adviser and investigator.

In the arrangements for such an exhibition, medical men, who have given so great an impulse to the art of preventive medicine, and to the practice of domestic and public sanitation, find necessarily an important sphere of work; and the Prince of Wales, in nominating the Executive Committee, has shown his confidence in the medical profession. On the General Committee, of which a completed list will shortly be published, will be found also the names of respected medical men, who have occupied themselves for many years in this great sphere of public usefulness. It is gratifying to find, on the occasion of so important and interesting an exhibition as this promises to be, that the list of the General Committee, which includes the names of nearly all who have taken most representative part in the great work of contributing to health, life, and the prevention of disease, includes, as we have just observed, a very large proportion of persons belonging to our profession.

This Exhibition, which has the advantage of the immediate and active supervision of Sir Philip Cunliffe Owen, whose great experience and energy in such enterprises are well-known, promises to be at least as picturesque and popularly attractive as its predecessor; and the useful purposes which it will serve are so obvious, as to need no verbal development in referring to them. The time at command is very limited, and this will, no doubt, considerably restrict the foreign supply; but Great Britain has always taken the lead among the nations in sanitation; and this Exhibition, which will be as far as

possible international, and promises at least to be widely representative and essentially typical and progressive. It is satisfactory to be able to announce that the Corporation of London and the Guilds have taken a large and liberal view of their duties in the matter, and have generously proposed to make a munificent contribution of £10,000 to the Fund for starting the Exhibition, and to guarantee a further sum of £20,000 if called for. They will provide a collective exhibition of great technical interest.

THE RESULTS OF THE COLLECTIVE INVESTIGATION COMMITTEE ON ACUTE RHEUMATISM AND CHOREA.

It is now about eighteen months since the memoranda and cards on acute rheumatism and chorea were issued by the Collective Investigation Committee, and last July preliminary reports on the results of a year's work were published in the *Collective Investigation Record*. The one on chorea, prepared by Dr. Stephen Mackenzie, deals with 128, that on acute rheumatism, by Dr. Mahomed, deals with 208 filled-up cards. Both are full of valuable material, and promise much for the future of the Collective Investigation movement. Such returns, recording as they do the common ailments of the patient, his family-history, antecedents, and surroundings, will, when sufficiently numerous, do much to enlarge our conceptions of disease, and will furnish us with abundant suggestions for future lines of investigation. Let us for a moment review some of the details of the first year's work on rheumatism and chorea.

With regard to sex, the decided preponderance of chorea in the female and the slight preponderance of rheumatism in the male are in accordance with other statistics. But below the age of twenty females are oftener affected with acute rheumatism than males, and it is curious to find that between the ages of ten and fifteen, the period at which chorea is most prevalent, there exists the same proportion between the sexes in the two diseases, thus there are 18 cases of acute rheumatism in girls, 6 in boys; 43 cases of chorea in girls, 14 in boys—that is in both rheumatism and chorea. F : M=3 : 1. Conclusions cannot, of course, be drawn from such a few cases; but, as we have not been able to find in any text-book on children's diseases a reference to the influence of sex on acute rheumatism at this age, the returns of the Committee are worth remembering.

Other points recorded of chorea are, that it is met with in great excess in the lower classes, most frequently in persons of spare habit, of weak or moderate vigour, and in those whose growth is moderate or rapid; thus the patient was stout in only 16, strong in only 24, and growth was slow in only 17 instances. Of antecedent diseases, anæmia was present in 22.5, scarlatina in 32, and definite rheumatism in 24.22 per cent, of the cases; in three other cases rheumatism is given as the exciting cause; and, in four others, it occurred during or after attacks of chorea, making a percentage of 30 in which the two affections were definitely associated; it should be noted also that rheumatism occurred during the attack in 18 per cent. In other cases, "vague pains" are recorded. Under exciting cause, fright has a percentage of 28, mental overwork of 22; heart-disease was present in 27.34 per cent. of the cases. Information with regard to "common ailments" is scanty; the chief-mentioned are various forms of headache, neuralgia, and other nervous derangements; urticaria occurred in three cases, eczema in one, and pityriasis rubra, with a temperature reaching 104° Fahr., in another case. We should like to have seen much more information about the skin in chorea, and we find that there is no question put with regard to it on the chorea card. It is important to note, not only eruptions, but also the condition of the skin as to moisture or dryness, before, during, and after the attack. The bearing of this in relation to the varying states of the skin in rheumatic fever is obvious enough, and we would suggest that a suitable inquiry on this point be inserted in the chorea card.

Turning now to the very interesting report on acute rheumatism. Amongst "recent antecedents," exposure to cold and wet is given in nearly 41 per cent. of the cases; in other 14.4 per cent. fatigue also enters as a factor, and in other 9.1 per cent. it is alone registered as an exciting cause. In future reports, we hope to see some precise information with regard to these antecedents. The usual lay explanation, that the patient was exposed to cold and wet, has never yet been thoroughly sifted, and perhaps, now-a-days, we are too apt to give little attention to this explanation, and do not seek to trace a direct connection between the part exposed and the part first affected. We can recall the case of a man who slept in a night-shirt with damp wristbands, and awoke in the morning with his wrists painful and slightly swollen, acute rheumatism ensuing. A remarkable example of a direct connection between rheumatism and cold, is related by Dr. Garden, of Aberdeen. An infant, aged 9 months, was very fond of its bath, and some girls amused themselves by plunging it in cold water; for the next four or five days it was feverish, and cried if the left leg was moved; it was then noticed that the left wrist, knee, and foot, were tender and swollen, and subsequently other joints were affected. Traumatic and other causes were excluded, and there was no family-history of rheumatism

Tonsillitis is stated to have preceded the rheumatic attack by variable periods in over 25 per cent., and to have been the prevailing minor ailment in 9 per cent. We should be glad to know how often it occurs at the onset, and how often during the course of rheumatism; and, in future observations, a few words as to the appearance of the throat and a reference to the possibility of scarlatinal infection would be valuable. Lasègue (*Archives Générales de Médecine*, 1880) describes two varieties of rheumatic angina, one precursory to acute rheumatism running a typical course, the other occuring often late in the course of an irregular subacute rheumatism; and he considers that, corresponding as they do in time to the two varieties of scarlatinal angina, they afford another proof of the close connection between scarlet fever and rheumatism, and the occasional occurrence of nephritis in the latter. He also adduces, as further evidence of the correlation of the two diseases; and we may incidentally mention that Leegaard has collected eleven cases of nephritis as complications of rheumatic fever. Boeck, too, has frequently observed acute rheumatism and erythema nodosum occur as sequelæ to attacks of sore-throat, and particularly to angina follicularis.

The common ailments to which the subjects of acute rheumatism are chiefly liable belong, according to this investigation, to the neurotic type, and we find no mention of lumbago, or of other so-called "muscular rheumatisms."

No fewer than 33 cases of persistence of the disease in one or more joints, are reported. It is scarcely necessary to insist how very important it is that full details of the further progress of these cases should be forthcoming, knowing, as we do, but little of the suppuration, ankylosis, or disorganisation of joints, which occasionally occur as sequelæ to rheumatic fever. Körte (*Berl. Klin. Woch.* 1880), describes six cases of resulting suppuration in one joint, and excision was necessary in four of the cases. Voelkel, Huber, and others, have also recorded examples of this rare sequela. Didier has written a thesis on five cases of spontaneous dislocation following acute rheumatism, probably, he says, due to softening and stretching of the fibrous joint-apparatus, and to muscular contraction. More accurate knowledge of such exceptional cases is needed before we can pretend to fathom the nature of rheumatism. As Mr. Hutchinson remarked lately, in Manchester, "the study of what are called rare diseases is by no means a matter of mere curiosity; we can often far better study the laws of a whole group from a rare and exaggerated example, than we can from dozens of the more common." If, on the one hand, in its occasional development from over-fatigue or shock; in its chronic, and in some of its hyperpyrexial manifesta-

tions; and in the occasionally ensuing muscular paralysis and atrophies, and other nervous phenomena, there is much pointing to the nervous origin of rheumatism; on the other hand, in its rare termination in suppurative arthritis, and in its relationship to scarlatina and the puerperal state, we have many suggestions of its affinity to septicæmia or pyæmia.

And this leads us to ask for observations on the joint-affections, other than pyæmic, which sometimes occur in association with the puerperal state. The possibility of a casual relationship existing between pregnancy, parturition, and rheumatism, seems to have received little attention from English writers on midwifery and diseases of women; cases, at least, indistinguishable from true rheumatism have been met with during or after labour, and we must look to those engaged in family practice for more light on such exceptional instances. Potain (*Gaz. des Hôp.*, No. 19, 1882) describes three forms of articular disease after labour; the first tends to suppuration, and occurs, as is well known, in the pyæmic variety of puerperal fever; the second, less dangerous, supervenes two to three weeks after a confinement, and is usually uni-articular; there is often much effusion; the disease is persistent, and commonly ends in ankylosis, and thus resembles gonorrhœal rather than ordinary rheumatism; the third form, by its migratory character, and by its frequent cardiac complications, is closely allied to, if not identical with, acute articular rheumatism.

A remarkably interesting case of scarlatina and polyarticular acute rheumatism in a lying-in woman, is related by Dr. Paul Grenser, in the *Archiv fur Gynækologie*, 1880. The labour was natural, and the woman did well till the sixth day, when a scarlatinal rash appeared; there was pyrexia, sore-throat, and albuminuria; desquamation began on the eleventh day; was excessive, and disappeared on the seventeenth day. On the eleventh day, nearly all the joints of the right hand were swollen and painful; on the sixteenth day, the left elbow, left shoulder, and pubic articulations, were affected; on the twenty-second day, the right elbow, and on the twenty-fifth day, the left hip, were attacked. On the nineteenth day, an extensive crop of miliaria rubra appeared on the new skin, and remained for many days. Tison (*Thèse de Paris*, 1876) gives notes of twenty-three cases of rheumatism during pregnancy. He considers that pregnancy predisposes to rheumatism in two ways, first, by its influence on the general health; and secondly, by the leucorrhœal and other simple (not gonorrhœal) discharges which are so often present at this time. The disease usually occurs towards the middle of pregnancy, is subacute or chronic in character, attacks a few joints, or sometimes only one joint, is prolonged and persistent, and in half the cases terminates in ankylosis, but rarely or never in suppuration.

The results obtained by the Investigation Committee with regard to chorea and acute rheumatism, without considering others equally valuable, convince us that the collective movement merits all our support. Many of the working details are capable of improvement, and we do not like to hear of "a final report on pneumonia;" for the main object of the scheme, we take it, is to collect records of the family history of disease, and this is not attained by the mere filling up of cards on isolated cases of disease. For example, a practitioner has a patient suffering from chorea; he fills up and posts his card to the secretary; during the next twenty years the patient or other members of the family to which he belongs may pass through various minor ailments or more serious illness; the bearing of these on the pathology of chorea may be of great importance; at any rate, they should receive a brief record, and we want a simple yet complete method to enable the busy practitioner to note these facts. The *Life-History Album*, lately issued by the Committee, though thorough enough, is too elaborate to be wholly satisfactory. Possibly an annual post-card or circular letter from the secretaries to each contributor, asking for a brief account of subsequent medical events in the family to which his case belonged, would partly meet the difficulty. We trust the Committee will soon find a simple and practical way, and we must not be accounted too sanguine if we have a vision of a time when every case of illness in the land will find a place in this new medical literature. A large staff of workers would be necessary to deal with such an enormous mass of material; but, if the profession show themselves in earnest, the public will begin to see the importance of the project, and the time, we hope, is not far distant when secretaryships and curatorships to the Collective Investigation Committee will be well-paid Government appointments.

THE IRISH LUNACY BILL.

THE Lunacy Bill for Ireland, introduced last session into the House of Lords by Lord Carlingford, and withdrawn after its second reading, to be again introduced next session, is of very considerable importance to the well being of the insane in that country; and, although several members of the House of Lords supported the measure on its second reading as necessary, all thought it a bad one. It was intended "to make better provision for the care of the lunatic poor, and for the inspection of lunatic asylums in Ireland, and for other purposes relating thereto." Part I attempts to provide for neglected lunatics by empowering magistrates to commit all such to workhouses; it is, however, very doubtful whether accommodation could be provided for them in many of these institutions, and whether, if it could, they would fare much better than they do at present. In the large majority of workhouses, there is no provision whatever for the care of the insane; and in many country workhouses, where there are already some feeble-minded patients, they have little or no care, being both ill-clad and ill-fed, allowed to do much as they like, often getting into mischief for want of something to do, or irritated to bad conduct by the other inmates. Even if placed in charge of paid officials, they would not be properly taken care of in the small workhouses.

Part II, which provides for the proper inspection of "lunatic poor not in workhouses or asylums," is a step in the right direction.

Part III, "Inspection of asylums and licensed houses," is perhaps the most important part of the Bill, and proposes to pension the present inspectors, and transfer the control of asylums to the Local Government Board; this change, we believe, would be most detrimental to the interests of the insane, more especially as the new Bill intends that the new inspectors should hold no better position than the present Local Government Board inspectors, providing only that they "be practising physicians or surgeons of seven years' standing;" power is also given to the Local Government Board to delegate its own inspectors to do the duty. We are strongly of opinion that these duties can only be properly performed by medical men who have made insanity their special study, and who have gained practical experience in the working of asylums. Who can know so well the precautions necessary to be taken against suicide, the special care of epileptics, and the many everyday difficulties of asylum-management? Special Boards are found to work well in England and Scotland, and the present Lunatic Asylum Office is acknowledged to have done its duty well, and to have been economically managed; why then make such a sweeping change, and abolish it altogether? We would rather be inclined to recommend that the power of the inspectors should be increased, and that they should be held directly responsible for the well-being of all the insane in the country.

Much inconvenience is caused by the present forms of admission. The inspectors in their last report state that some were admitted in the legitimate manner, while a large number were committed as *criminals* by the magistrates. The former way necessitates an application to the Board, and, therefore, some delay. The latter makes a prisoner of the patient, hands him over to the police, and returns him in the statistics of the country as a criminal. With regard to

these latter patients, medical superintendents are scarcely fairly dealt with. The warrants are frequently incorrectly filled, and, should a superintendent refuse admission, he is liable to be severely censured; but, should he admit him, he is liable to an action for false imprisonment. A superintendent quite recently had an action taken against him for detaining a patient on a warrant imperfectly filled, the magistrate's clerk having left out a few words. A farthing damages was given to the plaintiff, and the defendant was mulcted in £100 legal expenses. Similar forms to those in use in England might be adopted with advantage. With regard to the special care of neglected lunatics, much has been said in favour of adopting intermediate asylums; they would have the advantage of being more economically managed than the present asylums, and in them the patients would be far better taken care of than in the workhouses. No additional buildings would have to be constructed, as there are throughout Ireland many now idle that might easily be converted to the purpose with but little outlay. Why should not the Government, before making such a radical change in the management of lunacy affairs, first seek the advice of those most experienced in such matters in England, or appoint a small commission to thoroughly investigate everything connected with lunacy in Ireland?

A STAINED glass window to the memory of the late Dr. Robert Druitt, author of the *Surgeon's Vade Mecum*, is about to be placed by Mrs. Druitt in Wimborne Minster.

AMONG the names of those who attended the funeral of the late Dr. Hilton Fagge, and were present at the cemetery, should have been included that of Dr. Habershon.

DR. A. VAN CERVEER, in the *American Journal of Obstetrics*, reports a case of menstruation beginning at the age of four months, and regularly continuing every twenty-eight days until the present time, more than two years.

A COMMISSION on the law of insanity has been nominated in France by the Senate, under the Presidency of Dr. Duprez. The members of the Committee propose visiting the principal establishments of the insane in England, France, Belgium, and Scotland, and are employed in considering and settling the details of a new law of lunacy for France, and are taking the evidence of most of the eminent experts here on the subject.

A CONFERENCE on the "Dwellings of the London Poor" will be held at the Mansion House on Tuesday next, the 11th inst., at 2.30 p.m. The Bishop of Bedford, Lord Claud Hamilton, Mr. A. Cohen, M.P., Mr. Ernest Hart (chairman of the National Health Society), and Mr. C. T. Ritchie, M.P., together with other members of Parliament and several medical officers of health, are expected to take part in the proceedings.

THE President of the United States, in his message to Congress, refers to the removal by France of the prohibition against the importation of American pork, which he declares was due no less to the friendly representations of the American Government than to the growing conclusion in France that no danger was to be apprehended. The German Government had declined to send experts to Washington to inquire concerning the hog-products, and a Commission had been appointed in America to inquire into the subject.

A FAMILY POSSESSION.

DR. CUTHBERTSON states that he has known one of his prescriptions to be made up without his order to his patient more than three hundred times. He was paid for only one prescription.

AN INTERNATIONAL CONFERENCE.

IN his annual report, Director-General Walls, of the United States navy, recommends that the medical departments of the great naval powers be invited to a Conference, with a view to the adoption of a uniform nomenclature, classification, and tabulation of diseases, and of a system of interchange of periodical reports of the movement of disease from which international reports of sanitary conditions all over the world may be published at stated intervals.

UNIVERSITY OF MELBOURNE.

THE University of Melbourne has been enriched by a grant of £2,000 to the endowment-fund, and a further sum of £10,000 has been voted by Parliament for building purposes. Extra and much-needed accommodation for the medical school will be at once provided. In this young faculty of medicine, there are now 10 professors, 14 lecturers, and 180 students. The University has hitherto been much crippled by want of funds, and its usefulness somewhat marred by disagreements between the governing bodies.

ATROPINE-POISONING IN IRITIS.

DR. SINK reports a case, in the *Journal of the American Medical Association*, of poisoning, in a woman, sixty-seven years of age, by daily applications of five drops of a one per cent. solution of atropine upon the conjunctiva in iritis. The second and third application produced dizziness and dryness of the throat; after the fourth she fell senseless in the street, and was picked up by a policeman and taken to a hospital; the symptoms were—constant delirium, pulse 180, respiration quickened, tongue dry and cracked, powerful jactitation, slight deviation of temperature. In the evening, she recovered consciousness, and was discharged in a few days, having fully recovered. The deviation of temperature was the most notable feature in this case.

RESECTION OF THE STOMACH.

AT the Medical Congress of Olten, Professors Kocher of Berne and Socin of Bâle presented a report of cases of cancer of the pylorus treated by resection of the stomach. Thirty cases of resection of the stomach have been reported in Germany alone; of these, ten have ended in recovery. In twenty-six of the cases, there was cancer, and in four ulcer of the stomach; three of the latter made a rapid recovery; seven only of the cancer-cases recovered. In two of the latest cases occurring in women forty years of age, the digestive functions were completely re-established.

UNPHYSIOLOGICAL MARRIAGES.

THE mischief resulting from marriages entered into without due regard to physical physiological conditions is only too frequently the matter of observation to family physicians. Intermarriages among hereditary inebriates are, perhaps, among the most copious and melancholy examples. An observed case recorded by the editor of the *Quarterly Journal of Inebriety* affords a striking example of this: "The ancestors of A. B. were Irish, and inebriates. Owing to a rise in real estate, the son became wealthy. He was talented, and a paroxysmal inebriate at twenty-six years of age. He married a pious woman, having neurotic ancestors, in spite of the protest of the family physician. Seven children followed this marriage; two died in infancy of convulsions; the third became insane at puberty, and is now in an insane asylum, hopelessly incurable; the fourth grew to manhood, and is now an inebriate pauper and criminal, having been in prison five out of the last eight

years; the fifth became the wife of a wealthy man, and, in a paroxysm of inebriate insanity, killed her child, poisoned her husband, and then committed suicide. The sixth is a low dealer in spirits and a petty criminal, who has repeatedly been punished for crime. The seventh, after a short life of great excesses, died in a public hospital. The father became a paralytic, lost his property, and died in an asylum. The mother died in puerperal convulsions at thirty-four."

NEW METHOD OF TOOTH-DRAWING.

A DENTIST of Geneva has invented a new and ingenious process of tooth-drawing. A small square of India-rubber, pierced with a central hole, is pushed over the tooth till the upper part of the root is reached. The India-rubber gradually contracts, pulls on the root, and the offending tooth is finally enucleated, without causing the patient any pain whatever. Four or five days are generally required to complete the operation. Very slight bleeding and a slight swelling of the gum are the only inconveniences experienced. M. Paul Bert brought this ingenious method before the Académie des Sciences in Paris; when M. Galippe remarked that the process was already known, and quoted a case in support of its efficacy, in which a young girl had placed a ring of India-rubber round her two front incisors, and forgot she had done so; the result being that she lost the teeth.

OBSTETRICAL SOCIETY OF LONDON.

A VERY large number of Fellows and visitors were present at the meeting of the Obstetrical Society on Wednesday evening, when Dr. Barnes's paper on "The Mechanism of Labour, especially with reference to Naegele's Obliquity and the Lumbo-sacral Curve" was read. It was a most interesting monograph, and gave rise to an animated discussion, in which Drs. Matthews Duncan, Galabin, Wiltshire, Champneys, and Roper took part, Dr. Barnes concluding with a brief reply. In the course of the evening the President, Dr. Gervis, expressed great satisfaction at having the pleasure of seeing Dr. Wiltshire once more at a meeting of the Society, almost completely restored to health; and in this sentiment, which will be reflected by our readers, all that were present heartily concurred.

HOSPITAL SATURDAY COMMITTEES AND HOSPITALS.

IN Birmingham, which was the birth-place of the Hospital Saturday movement, a formal application has lately been sent by the Hospital Saturday committee to the governing bodies of each of the local dispensaries and hospitals, requesting that the managers of the Hospital Saturday movement shall be directly represented upon the committees of the various medical charities. As a fair recognition of the substantial and established support Hospital Saturday collections have afforded to hospitals and dispensaries, this request is a reasonable one, and as such it has been generally regarded by the authorities of those institutions. In most cases arrangements have been made by which the Hospital Saturday committee shall have the power of nominating two or three representatives for seats upon the boards of the various medical charities, such nomination being practically accepted without question, and the persons nominated being subsequently formally elected to the executives of the charities in ordinary course.

THE GENERAL DISPENSARY AT BIRMINGHAM.

A VACANCY having occurred in the office of consulting physician to the General Dispensary at Birmingham, by the resignation, after many years' service, of Dr. John Anthony, a meeting of the committee of the charity was held, on the 28th ult., for the choice of a gentleman to whom the appointment should be offered. A preliminary selection of three well-known local hospital physicians having been made, a ballot was taken, and the final vote was said to be in favour of Dr. Edwin Rickards. Dr. Rickards, who is a graduate of the University of Oxford, and one of the physicians to the Birmingham General Hospital, is the courteous and respected senior secretary of the local branch of the Association. It is needless to say that he has secured a sound reputation as a clinical and practical physician, and that he will well justify the choice which has fallen upon him. The appointment at the Dispensary carries an annual honorarium of one hundred and fifty guineas.

EVERY PATIENT HIS OWN CASE-BOOK.

DR. HOWARD A. KELLY states, in the *Medical News* for October 13th, that he has for more than sixteen months, while a resident in an American hospital, been in the habit of mapping out on the superficiaries of the body, in an indelible aniline colour, the results of a physical exploration of the condition beneath. The markings remain fresh and clear from one to several weeks or longer, profuse sweating being the only symptom that is apt to obliterate them. He uses abbreviations to designate certain physical signs, the day and month being also recorded. The markings are made so prominent as to be legible to the largest clinical class. This suggestion by Dr. Kelly may be enlarged upon to a very considerable extent. The clinical professor, it is true, would not have the opportunity of showing how a close and careful diagnosis is made, but he would be able to show a much greater variety of cases and have all his patients arranged like diagrams around him. In fever-patients, the daily record of the thermometer could be placed, with the date, on the borders of the axillary space, on the nates, or elsewhere, according to the mode of using it; what might be better still for this purpose, lines might be drawn in these situations to give the variations in the curve from date to date. In skin-diseases, isolated points might be ornamented by recurring areola of boundaries and dates to indicate progress from papular to vesicular, pustular, maturative, etc, etc.

TUBERCLE-PARASITE.

M. BÉCHAMP forwards a note to the Acadèmie de Médecine, endorsing M. Bouchardat's theory that the tubercle parasite is not of external origin. According to M. Béchamp, Dr. Koch has not discovered the parasite which is the origin of tubercle. M. Béchamp believes, to use a language more picturesque than correct, that cretaceous micrococci are the ancestors of Koch's "tubercle-bacillus." M. Béchamp admits that the tubercle micrococci are a special form, and considers the tubercle-bacillus as a later phase of these same micrococci. Normal micrococci, he says, are the primary elements of animal and vegetable tissue, the material which builds up animal and vegetable cells, and are present *ab ovo*. The morbid influence of phthisis provokes an abnormal development of the tubercle-micrococcus, which invades the whole organ. The view is, however, so much in accordance with M. Béchamp's strong preconceived views on the subject of biogenesis, that, like much of his work, it must be received with wholesome doubt. It is directly in opposition to the highly trustworthy and convincing research of Mr. Watson Cheyne.

THE ALICE MEMORIAL HOSPITAL.

IT is announced from Berlin that the new Alice Memorial Hospital at Darmstadt is now completed, and is to be ceremoniously opened by the Grand Duke on the 8th instant. This building, which stands near the road leading from the town to the Rosenhöhe, forms no unworthy memorial of the late Princess Alice, Grand Duchess of Hesse. Her late Royal Highness founded and took an active part in the management of the old hospital and training school for nurses, which was a branch of the Alice-Verein. The old house was found, however, to be quite inadequate to the requirements of the nurses and their patients, and this has led to the erection of the new Memorial Hospital in a commanding position, on a site granted

for the purpose by the Grand Duke. The trustees of the English "Alice Memorial Fund" have given a sum of £3,400 towards these buildings, and the balance of the amount required for its erection has been obtained from other sources. This fund, which in no small degree owes its success to the exertions of the Rev. D. T. Teignmouth Shore, who acted as honorary secretary, was started immediately after the lamented death of the Grand Duchess. The total amount received was £7,500, of which Her Majesty's native Indian subjects contributed over £3,000. What remains after paying for this building is invested, and the trustees have endowed the Memorial Hospital with £100 per annum. They also give an annual grant to some other branches of the Alice-Verein. There will be an inscription on the new building stating the part which Her Majesty's subjects in Great Britain and Ireland, India, and the Colonies have taken in the erection and endowment of this memorial of the beloved and honoured daughter of their Queen.

WESTON'S WALK.

WESTON'S eighth instalment of fifty miles a day was from Rugby to Leamington. On the ninth day he walked from Leamington through Warwick and Birmingham (in which latter town he was greatly impeded by the crowd) to Bilston, finishing the remaining fourteen miles of the day's task in a hall there. On the tenth day, the pedestrian covered his fifty miles on a boarded track at Wolverhampton. On the eleventh day (Monday), after a good rest on Sunday, he started from Wolverhampton at one o'clock in the morning, amid very heavy rain, and on extremely soft roads, reaching Leicester shortly after five o'clock in the afternoon. On the twelfth day, the usual distance was performed on a prepared track at the Skating Rink in Leicester, a performance repeated over the same track on the thirteenth day, Wednesday, thus finishing 650 miles. On the tenth day, the blister on Weston's left heel broke afresh, leaving a raw sore, which has continued to trouble him ever since. On the twelfth day, in order to rest the heel as much as possible, he wore a thin slipper, which made his lameness more marked. In all his previous prolonged walks, Weston has at times been seized with irrepressible drowsiness, generally passing off after a brief nap. This tour has been no exception to the rule. On the eighth and twelfth days, shortly after starting early in the morning, he became exceedingly drowsy, but half an hour's sleep quite refreshed him. On several occasions, Weston has been accompanied by clergymen and medical men; but these have soon found the work too severe, and after a few miles' walk have left him to pursue the even tenor of his way. One day, owing to mistaking the way, Weston walked fifty-two miles instead of the stipulated fifty.

THE VENTILATION OF COLLIER SHIPS.

AT the close of the recent official enquiry into the circumstances of the disastrous explosion on board the Hull coal-steamer *Empress*, the representative of the Board of Trade submitted a series of questions to the court. The most important of these was, "whether neglect to ventilate the holds of coal-laden ships in the home-trade be justifiable?" To this interrogatory, the court, after due deliberation, replied that, "although under special circumstances such neglect is not unjustifiable, the ventilation of holds containing coals is desirable in the home trade." In the case of the *Empress*, it was proved that a large quantity of explosive coal-gas had become quickly generated in her hold, and, on the hatches being opened by a sailor carrying a lighted and unprotected lamp, a terrible explosion occurred. The circumstances of this case were exceptional, as it appears that quantities of caustic soda, sulphate of ammonia, and coals, were all stowed together in the vessel's cargo. While it is, doubtless, unlikely that a dangerous development of coal-gas would often arise in the short coasting voyages from port to port of colliers engaged in the home-trade, the accident on board the *Empress* points to the desirability of requiring due provision for the ventilation of the holds of home-trading colliers, such as has previously been made compulsory in the case of coal-laden ships sailing to foreign and colonial ports.

LIBRARY OF THE UNIVERSITY OF ILLINOIS

THE SUEZ CANAL COMPANY AND PORT SAID.

WE have reason to believe that one of the first results of the appointment of Mr. Clifford Lloyd in Egypt will be of immediate international value. Port Said, of which the sanitary care has hitherto been officially entrusted to the Suez Canal Company, who receive from the Egyptian Government a large annual subscription for the purpose, is an international port which, from its situation at the mouth of the Suez Canal, ought to be kept at least cleanly and wholesome. Mr. Clifford Lloyd, in the course of a recent official inspection, has found it to be in a state of indescribable filth and neglect. The scavenging and general sanitary arrangements are of the most horrible and dangerous description, the general cleansing of the town is utterly neglected, the hospital establishment in a condition of dirt, overcrowding, and neglect, disgraceful to any civilisation. The whole place is liable at any moment to become a pest-house. Mr. Clifford Lloyd has reported, accordingly, in detail to the Government, and besides taking energetic measures for the immediate remedy of some of the most flagrant evils, has recommended that the duty of looking to the sanitation of Suez be removed from the Canal Company, and put into the hands of an effective local administration which he has proposed for the purpose. Hitherto the company has received a subvention of £7,000 a year from the Egyptian Government to carry out the cleansing of the towns of Ismailia, Suez, and Port Said. Of this sum, £3000 a year is granted for Port Said alone. This subvention will, of course, cease, and the work be placed in the hands of an efficient administration. Sir Evelyn Baring has expressed his approval of the recommendations of Mr. Clifford Lloyd, which accord also with the views of Surgeon-General Hunter. The sanitary abominations of Port Said at the present moment reflect considerable discredit on the Canal Company, and not on them alone.

THE HUTCHINSON TESTIMONIAL.

ON Thursday, November 29th, at the Holborn Restaurant, Mr. Jonathan Hutchinson was the guest of the past and present students of the London Hospital. About 150 gentlemen sat down to dinner under the presidency of Sir Andrew Clark, Bart., and, during the course of the evening, Mr. Hutchinson was presented with the testimonial subscribed for by a large number of his old pupils and friends. Sir Andrew Clark, in making the presentation, delivered an eloquent and most effective address; he recalled the memories of the earlier days, when Mr. Hutchinson was an earnest, thoughtful, fervent student in the wards of the hospital which owed not a little of its renown to the world-wide fame of the surgeon who has just ceased active association with its work. Sir Andrew Clark concluded by handing to Mr. Hutchinson the trust deeds of the "Hutchinson Triennial Essay Prize," of the value of £36, founded by subscribers to the testimonial, together with a handsome massive centre-piece of solid silver, purchased with the surplus funds remaining after endowment of the prize. On this ornament the following inscription is engraved: "Presented to Jonathan Hutchinson, F.R.S., on the occasion of his retirement from the post of Senior Surgeon to the London Hospital, where a number of his pupils—past and present students of the hospital—united to testify their appreciation of his services to science and humanity, and the benefits they have derived from his clinical teaching, by founding the Hutchinson Triennial Essay Prize, value £36; with the surplus of the fund raised for this object the plate bearing this inscription was purchased." Mr. Hutchinson, in reply, briefly sketched the history of his own life, and traced the

development of his own mind. He insisted on the intellectual training to be obtained from a constant study of the poets of our native land, and attributed a great part of his life's successful work to the early education he received as an apprentice to a conscientious practitioner, and as a pupil in the small medical school of York, where he alone constituted the whole class in many subjects, and so enjoyed the undivided attention of his teachers. The form the testimonial had assumed was, he said, exactly what he could have wished, and he gratefully accepted the honour done him by association of his name with the prize founded by subscribers to the testimonial. The usual loyal and patriotic toasts were duly honoured. In replying for the Auxiliary Forces, Lord Lyttleton referred to the action of certain Birmingham citizens, which, he said, might with advantage be imitated in the metropolis, and which he earnestly commended to the notice of the benevolent. One gentleman made a gift of £15,000 for the purpose of building a hospital; but there then remained a need of £25,000 for its endowment; an appeal for contributions was made at a banquet one evening, with the result that within twenty-four hours fourteen separate individuals had promised each £1,000 towards the amount. Lord Lyttleton thought that London should at least be abreast of Birmingham in such exhibitions of philanthropy. The other speakers included Mr. Walter Rivington, Dr. Stephen Mackenzie, Mr. Fred. Treves, Dr. Langdon Down, Dr. Hughlings Jackson, and Mr. Jas. E. Adams.

TEARS OF BLOOD.

THIS rare phenomenon, the reality of which has often been doubted, seems, however, to occur under certain circumstances. Damalix has published an interesting paper on this subject in the *Archives d'Ophthalmologie*. He was led to study it by the observation of a case in M. Panas's wards. The patient, a young hysterical girl, said that she had often noticed a flow of blood from her eyes, and spots of blood on her handkerchief after wiping them. For some time the hæmorrhage occurred every night. A careful examination of the eyes showed nothing abnormal, but there were photophobia, facial neuralgia, and considerable blepharospasm. This case, as M. Damalix himself says, cannot be considered as conclusive, in spite of the probable veracity of the girl and her parents, as the hæmorrhage was never seen by him. But there are on record some observations which do not leave room for doubt. In a case of Hauser, and in another of M. Brun, the observer could actually see the blood flowing from the eyes like tears; there was no possibility of trickery and microscopical examination of the fluid showed that it was really blood. As for the diagnosis, the name blood-tears must not be applied to the various forms of hæmorrhage caused by some organic lesion of the mucous membrane, such as small polypi, &c. The true form has nothing to do, with any visible lesion, and the course of the accidents is remarkably irregular. Sometimes there are no premonitory signs, the blood appearing without effort or pain; in other cases, the patient feels for some time pain in the forehead, or at the root of the nose, or, it may be, a feeling of tickling and heat in the lids, which disappears when the blood begins to flow The amount of blood lost varies from a few drops to a wineglassful; the flow never lasts more than a few minutes, is always intermittent, and generally coincides with other hæmorrhages in the skin or mucous membranes, or, on the contrary, with *suppressio mensium*. A study of the etiology of the disease shows that it is most frequent in hysterical women suffering from anæmia or hæmophilia.

PARALYSIS OF INDIVIDUAL FIBRES OF THE RECURRENT LARYNGEAL NERVE.

IN Nos. 46-49 of the *Berliner Klinische Wochenschrift*, Dr. Felix Semon of St. Thomas's Hospital, has communicated an exhaustive paper on the proclivity of the abductor fibres of the recurrent larygeal nerve to succumb earlier than the adductor fibres, or even exclusively, in all forms of organic disease or injury, central or peripheral, acute or chronic, which concern the motor nerves of the larynx. The general validity of this law he first stated in the *Archives of Laryngology*, July, 1881. In the papers now before us, there are notes of fifty-eight carefully observed cases, with twenty-one necropsies, all of which are in strict accord with the statements Dr. Semon has made. Many of these cases have been under the author's own observation; the remainder have been reported by men of the highest reputation; and, so far, no well-authenticated case has been brought forward which would invalidate his conclusions. The undoubted occurrence of transitory and varying isolated paralysis of the abductors, which, Dr. Semon has always contended, is characteristic of functional disorders of the motor nerves of the larynx in cases of soft lymphatic goître, is only seemingly contradictory to his teaching, as these paralyses can be explained on the theory of transitory anæmia of certain regions of the brain. The occurrence of an isolated paralysis of the abductors from central causes can only be understood on the assumption that the nucleus of the spinal accessory nerve consists of strictly differentiated ganglionic cells; and the author points out that the proclivity of the laryngeal abductors to succumb to organic disease is not a pathological curiosity, but, as Ferrier has shown in reference to the abductors and extensors of the body, a part of a general law. In conclusion, the author lays great stress on the diagnostic importance of this proclivity. He shows, practically as well as theoretically, that, in pure unilateral paralysis of an abductor, there is no alteration either in voice or respiration; so that, unless a laryngoscopic examination is carried out as a matter of routine in all cases of evident or suspected organic disease of the brain, neck, and thorax, an early and sometimes the only symptom may escape notice; and he claims, under these circumstances, for the laryngoscope, the position occupied by the ophthalmoscope in the diagnosis of cerebral and renal disease. If, as it would appear from this careful and exhaustive paper, the foregoing statements are unexceptional, there can, indeed, be no doubt of the extreme importance of this fact in anatomical and physiological, as well as in diagnostic respects.

DEATH OF MR. CROMBIE.

MR. JOHN MANN CROMBIE, M.B., M.A., aged 39, residing at No. 1, Oakley Square, has met with his death under very melancholy circumstances. It appears, from the evidence adduced at the inquest, that some year or two ago the deceased met with an accident which injured the right wrist, and he had been ailing of late from the effect of the bone becoming diseased. In a consultation he had with some medical friends, it was deemed advisable to have some of the carpal bones excised. This operation was successfully performed, but the deceased afterwards complained of excessive pain, and could not sleep. On the Sunday evening following the operation, he was noticed by Mrs. Crombie to be exhausted, but quiet, and she left the room for about half-an-hour. On her return she found him sleeping, and at times he seemed to breathe heavily. Mr. Farquhar Matheson said that the operation had been skilfully performed. He saw the deceased on the following day (Saturday) and Sunday, and he seemed progressing favourably, and was very cheerful. On being sent for by Mr. Stephens on Monday morning, he noticed that the deceased's eyes were dilated, and he was insensible. His impression was that he must have taken internally some narcotic poison, and his suspicions were confirmed when he looked at the bottle from which hypodermic injection was taken, as it seemed diminished in quantity. The stomach-pump was used, and every possible means employed to rouse the patient, but he died at 3 o'clock in the afternoon. Deceased was of a cheerful disposition, and was not likely to have taken the morphia intentionally to destroy life. He was in good practice. The jury returned a verdict,

"That the deceased, Mr. John Mann Crombie, had died from the mortal effects of poisoning by morphia, in taking an over-dose from a bottle containing a strong solution of the said morphia when he was in pain and want of sleep, and that such death was from misadventure."

HOSPITAL REFORM.

Two Reports have lately issued from the London Hospital, which cannot fail to interest and to gratify the advocates of a reform in our out-patient system. The first is a Report of the House-Committee to a Special Court of Governors, held on the 6th of last June, and the second is a Report of the House-Governor to the House-Committee, dated October 30th, 1883. The House-Committee have had their attention called to the *system of recommending patients;* and, in order to consider the subject fully, a Subcommittee was formed, who took counsel, not merely with the staff, but also with leading general practitioners of the neighbourhood, and with Dr. Bridges of the Local Government Board. The result is a Report which embodies most of the reforms which have been advocated in our columns and elsewhere during the last ten years. An inspector of out-patients is to be appointed, whose duty it shall be to inquire into the social standing of the applicants, and into their fitness for charitable aid. This officer is to have the power of referring patients on the one hand to the Poor-law infirmaries, and on the other to provident dispensaries. At the same time, the medical staff are authorised to refuse treatment, after a first prescription, to persons holding governors' letters, but whose ailments are too trifling for hospital treatment; and also to decline to renew a letter when it has run out, unless they see good cause, thus diminishing the number of chronic cases. The special departments are no longer to be free, but are to be placed under the same rules with regard to governors' letters as the general department, "*it being generally understood that no inconsiderable number of the cases attending in special hospital departments are well able to pay for consultant advice.*" The last paragraph of the Report holds out a hope that, if a provident dispensary be opened at the East End, it will be encouraged by the authorities of the London Hospital; and we have no doubt that the Metropolitan Provident Dispensaries Association will be glad to take advantage of the opportunity thus afforded. The House-Governor's Report deals with the alterations which will be necessary in the arrangements of the out-patient department in order to give effect to the recommendations of the Special Subcommittee. These changes are to be introduced at the commencement of the New Year. They are of great importance in themselves; and, coming from the great East End hospital, they cannot fail to attract the attention of all hospital managers. The House-Committee of the London Hospital is evidently convinced that they have got to deal with a real evil. The most advanced of hospital reformers have said nothing stronger respecting the abuse of special hospitals than the sentence we have quoted above. Everything now depends upon the way in which the system of inquiry is carried out, and upon the friendly relations which are established with the Provident and Poor-law dispensaries of the neighbourhood.

CHILBLAINS.

CHILBLAINS, if it be necessary to say so, are local congestions developed by cold. As a rule, they do not go on to the state of inflammation under the comparatively moderate conditions of temperature to which we are subject. They illustrate the well-known physical law, that action and reaction are equal and opposite. The effect of cold being to contract the blood-vessels, and to unduly diminish the blood-flow in any part to which it penetrates, the natural result of subsequent exposure to a milder air is a circulatory recoil, a reaction, which proportionately overfills with blood the previously chilled area. Sometimes one hears the observation that the healthiest people are most apt to suffer from chilblains. This statement, however, is erroneous. It is probably founded on the fallacy which substitutes the ruddy hue which often betokens constitutional vigour, for health itself. But mere colour is deceptive. All that it indicates is free blood-supply at the cutaneous surface. Curiously enough, the rheumatic temperament, the physical condition which is pre-eminently susceptible to suffer from cold, has this peculiarity for one of its commonest distinguishing features. At the same time, no one is so robust but that he may so suffer. It needs but sufficient disturbance of the balance between the impression from without and the resistance from within. Exposure to a frost more than usually intense, to cold of uncommon duration, or applied under circumstances which specially favour its action, is sufficient to assert the power of winter on skins and constitutions the reverse of sensitive. Frost-bite, let it be remembered, which cripples the most vigorous frames, by natural amputation of their extremities, is only a chilblain of the severest kind. The effects which are possible in strong people, only in exceptional circumstances, are produced with much greater ease in those whose vital powers are lowered from any cause. The want of nervous and muscular tone in such cases, implying as it does defective propelling force at the heart, and a lax, dilatable state of the walls of the vessel, favours the action of gravity and friction which tend to retard the blood in its progress, especially through such parts as the feet and hands, which are dependent, and distant from the centre of circulation; parts, moreover, which are naturally the most exposed to influences from without. Many causes contribute to produce the atonic state—overwork with underfeeding, mental worry, and nervous irritations of all kinds, dyspepsia, or foregoing illnesses associated with overaction, as fevers and the like. Whatever the cause, the tissues are flabby and inert, and the rigor of sudden chill penetrates too deeply before it is checked by any efficient recoil. The powerlessness of nostrums is nowhere more apparent than in the treatment of this slight ailment. Prevention, as in other troubles, is of the first importance; but, whether preventive or curative measures be called for, both alike must recognise and defer to the healing power of nature, and must aim at encouraging those gradual processes which tend to diffuse and weaken the intensity of local action, by the free use of food and exercise, and of all other means which increase the total fund of physical strength, and by avoidance of exposure to extremes of temperature, whether high or low. Thus, washing with warm water temporarily relaxes the blood-vessels of the surface, and is not advisable with reference to the hands and other parts, if these must soon be exposed to a cold atmosphere. Frequent cold bathing is also objectionable, though less likely to be adopted under the same circumstances. The use of moderately thick gloves is probably now so common, as to need no recommendation from us. We would welcome the general application of a similar principle with regard to the clothing of the feet, in the introduction of thick woollen socks and stockings, in place of the finer but less seasonable fabrics which have established themselves as a fashion of our not invariably temperate climate. We admit a similar preference for woollen material as a general underclothing for both sexes. No rule of cleanliness would necessarily be offended by such a change, and much gain in wholesome comfort would result from it. The therapeutic methods, false and true, which have been directed against the effects of surface chill, deserve remark. Counterirritant applications, as capsicum, etc., much in favour with some, serve rather to augment than to allay the turgidity of the tissues. Astringents are of more value. Packing, or covering the affected part with a piece of lint wet with oil or cold water, overlaid with oiled silk, to prevent evaporation, is a remedy of much value in certain cases. A plan to be combined with the former, or practised by itself, when circumstances will allow, is that of swathing the part in cotton-wool. By this means we obtain the double benefit of continuous and elastic counter-pressure, and of protection from further exposure. Hot-water fomentation causes a real aggravation of the morbid state, which

it cloaks with a delusive sense of temporary relief. Tepid water only should be used in washing. In addition to these suggestions on local management, the general considerations, which have been already referred to, as tending to maintain the efficiency of the body as a whole, must receive due attention. Brisk movement and full nutrition, wherever possible, are especially important. It would be unwise to leave this subject without the final caution, that a chilblain, particularly if chafed, should not be subjected to over-pressure, friction, or irritation, or neglect of any kind. Congestion readily passes into the state of active inflammation, and such a condition existing on the foot or hand may be the percursor of a chain of abscesses extending along the limb. We have known illness of many weeks' duration, of painful progress and precarious issue, result from a neglected chilblain.

SCOTLAND.

It is stated that Mrs. Elder, the widow of Mr. John Elder, the shipbuilder, has presented Govan with a public park, costing £37,500.

The Universities of Edinburgh and Aberdeen have appointed Professor Struthers of Aberdeen as their joint representative in the Medical Council, in succession to Professor Turner of Edinburgh, whose term of office has expired. The appointment is for a period of five years.

The Medico-Chirurgical Society of Aberdeen has elected Dr. Archibald Reith as President for the ensuing year. This is the more remarkable as Dr. Reith is a homœopath, and was formerly one of the physicians of the Royal Infirmary. Several years ago, he was forced to resign his physicianship.

Tainted milk is frequently a disseminator of disease. In a village called Strichen, near Aberdeen, there is at present an epidemic of typhoid fever. The source of the infection has been traced to a farm which supplied the milk, and where there were cases of typhoid fever.

AYR FEVER HOSPITAL.

The annual meeting of the subscribers to Ayr Fever Hospital was held last Monday. The annual report submitted stated that the income for the year was £856 12s. 8d., and the expenditure £1,274 9s. 4d., showing a deficiency of £417, or £553 altogether, including £135 of a deficiency last year. The building cost £12,000, of which upwards of £7,000 had been subscribed, leaving a balance of about £5,000; but against this there was the price of the old hospital when sold. The average number of patients in the hospital during the year was 34.

THE GLASGOW MATERNITY HOSPITAL.

At the annual meeting of the supporters of this charity, held on November 27th, the report, which was read and approved, showed a very satisfactory state of matters. From the medical statement submitted, the benefits of the institution are being fully taken advantage of by the class of patients for whom it was intended, no less than 258 women having been in-patients, while 1,284 had been attended in their confinements at their own homes. The sanitary arrangements of the hospital seem excellent, and of the 5 maternal deaths among the in-patients, only 1 was due to puerperal fever. In the out-door department, 10 deaths were reported. Financially, the funds of the hospital are also satisfactory, the income having been £2,335, and the expenditure £2,303, showing a balance in hand, although the amount of work done is in advance of other years, the total number of women who had received the benefits of the institution having been greater than during any year since the foundation of the hospital. The debt upon the hospital has also been entirely cleared off, which is a further subject of congratulation, seeing that only two years have elapsed since the building was erected.

HEALTH OF GLASGOW.

Dr. Russell's report of the health of Glasgow for the fortnight ending November 24th, shows an increase in the death-rate, which was 29 per 1,000 living, the number of deaths registered being 571. The chief features in the report are the increase in the deaths from pulmonary diseases, these numbering 220, and the high mortality from scarlet-fever, as many deaths from that disease not having been registered since the autumn of 1880. Of the 36 deaths, 16 took place in the northern district of the city. Two cases of small-pox were registered during the fortnight. The spread of typhus fever seems to have been checked, the number of cases having fallen to 7, while there were 17 in the previous fortnight. There are at present in the hospitals of the council 220 cases of scarlet fever, 69 of enteric, 31 of whooping-cough, 28 of typhus, 20 of measles, 6 of small-pox, 2 of chicken-pox, and 2 of erysipelas—in all 378 cases, as compared with 414 a fortnight ago, and 259 at the corresponding period of last year.

THE REGISTRAR-GENERAL'S RETURNS.

The returns of the Registrar-General for the week ending November 24th show that the death-rate in the eight principal towns during the week was 25.1 per 1,000 of estimated population. This rate is 0.8 above that for the corresponding week of last year, and 1.4 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 15.2 per 1,000; and the highest in Glasgow—viz., 29.1 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.1 per 1,000, or 0.5 above the rate for the previous week. The most fatal of these diseases was scarlet fever, the deaths from which were confined to Glasgow and Edinburgh. Acute diseases of the chest caused 140 deaths, or 8 less than the number recorded for the previous week. The mean temperature was 38.8°, being 1.4° above that for the week immediately preceding, but 0.7° below that for the corresponding week of last year.

GLASGOW WESTERN INFIRMARY.

The annual report of this hospital was made public on November 29th at the meeting of the subscribers, and it shows a large increase in the amount of work done by the charity, but a lessened income to meet the necessarily larger expenditure. During the past year there were treated 18,905 out-door, and 3,917 in-door, patients, which is an increase of 2,210 in the former department and of 557 in the latter over last year's numbers. The number of deaths was 296, or 8 per cent. of all the cases treated to a termination. Of these fatal cases, however, 50 were of such a hopeless character when brought to the hospital that the patients died within 48 hours after admission. Deducting this number, the death-rate is reduced to 6.9 per cent. The average daily number of patients in the hospital was 368, and the average residence of each 38 days. The ordinary income for the year was £15,153, and the ordinary expenditure £18,639, being a deficit of £3,486. The causes of this deficiency seem to be a falling off in the donations for maintenance and the large increase in the number of in-door patients. The past year is the first in the history of the hospital that the completed Infirmary, with all its additions, such as the erysipelas-building and nurses' accommodation, have been in full operation, and the total cost of the whole Infirmary buildings, as now completed, including the Freeland wing, has reached the large sum of £130,000. At the annual meeting suggestions were made as to the best means of increasing the annual

income, and it is to be hoped that the public, and among them the working classes, will respond to the efforts being made in this direction, so that the usefulness of the charity may be in no way lessened by want of funds.

THE NEW HOSPITAL APPOINTMENT, EDINBURGH.

IT will be remembered that, in a previous number of the JOURNAL, it was recorded that the managers of the Edinburgh Royal Infirmary had resolved to add to the staff an assistant-physician for the diseases of women, and that Drs. Halliday Croom and Hart were the candidates for the appointment. Other names have been mentioned, but practically the contest was between the two gentlemen named. Both candidates worked hard and enlisted in their support many enthusiastic adherents. The testimonials submitted by them showed that with either the Infirmary management might be congratulated on its acquisition. So much could be said for, and so little against, either, that it was even suggested to the managers that two appointments might be made; however, they did not see their way to acquiesce in this. On Monday the election took place; each was proposed, seconded, and supported by men of eminent professional standing; the result of the vote was in favour of Dr. Halliday Croom, who now holds the coveted position. We trust he will be as successful there as he has proved himself as a teacher previously, while we know that Dr. Hart's hard-earned and well-deserved reputation has certainly not suffered by his unsuccessful candidature, but is the more confirmed by the quality of the support he received, and the wide-spread appreciation which is shown of his labours as a brilliant and original contributor to the science and literature of gynæcology.

PROLONGED TRANCE.

CASES of trance, in which the individual seems suddenly to lose all consciousness of surrounding objects, are of rare occurrence, but they are undoubtedly sometimes met with. There has been for some time in the Western Infirmary, Glasgow, a case of this description, where the patient has been in what seemed one continuous sleep of nearly five months' duration. She is a married woman, about thirty-five years of age, and the mother of several children. The present seizure came over her in the month of June last, about a fortnight after the birth of her last child. After remaining for some weeks at home in this condition of apparent coma, she was removed from the Island of Skye to the Western Infirmary, Glasgow, where she was admitted at the beginning of August. Her condition on admission was as follows. She lay motionless on her back, with her eyelids closed, her arms by her sides, and her legs fully extended. Her breathing was natural in every way; her pulse ranged about 80, and her temperature was about normal. She remained fixed in this position, being apparently powerless to move, and quite unconscious of what was passing around her. She was fed daily by the aid of a tube passed into the stomach, and every attention paid to the maintenance of the bodily heat. Without going minutely into the case, it may be said that the clinical facts elicited showed that the condition of catalepsy was profound, and there was an entire absence of reflex movements. Consciousness seemed entirely in abeyance. In this state the patient remained until the end of last month, when quite suddenly she recovered consciousness, and spoke to those around her, being apparently quite ignorant of all that had happened, and of where she was. Since then she has continued to improve, and is now able to get about a little. She still holds that she knows and remembers nothing of what passed in the interval between the commencement of her attack and its sudden disappearance. The case is remarkable for the long period over which the symptoms extended, and the suddenness with which they passed off; but it presents many features common to the disease, in that it occurred in a female, and at a time when there is susceptibility to mental disturbance, the puerperal state being often marked by nervous exhaustion and emotional attacks. It would be satisfactory to have a full and detailed account of the case from the physicians under whose care she was, both before and after her admission to the infirmary.

LOCH KATRINE WATER.

PROFESSOR MILLS' monthly report on the quality of the Loch Katrine water has been issued, and the results, returned in parts per 100,000, are as follows: Total solid impurity, 3.100; organic carbon, 0.157; organic nitrogen, 0.014; nitric nitrogen, 0.008; ammonia, 0.000; total combined nitrogen, 0.022; hardness, 0.95; chlorine, 0.69; etc. The water, when sampled on November 15th, was of a light brown colour, and contained a little suspended matter.

ROYAL HOSPITAL FOR SICK CHILDREN, EDINBURGH.

DURING the month of November, 103 patients were treated in the above hospital; of these, 58 were in the hospital on October 31st, and 45 were admitted during November; 29 were discharged cured, and 4 were relieved. The average daily sick in the hospital was 63. In the dispensary, 616 patients were treated, and 16 vaccinated, making a total of 632. Of the 351 new cases during the month, 274 were from the city, 63 from Leith, and 14 from the country. In all, the number of patients treated at the hospital during the month was 735.

UNHEALTHY OCCUPATIONS.

UNDER the auspices of the Edinburgh Health Society, Dr. Smart delivered a lecture on Saturday, on the effects of unhealthy occupations. He traced the causes of what he considered the alarming increase of consumption among the industrial classes to the dust—metallic, mineral, vegetable, poisonous—inhaled in workrooms not large enough or properly ventilated. The problem to be solved was how to environ each worker in the prosecution of his work in a pure atmosphere. The Legislature having, by means of the Factory Acts and otherwise, assumed the responsibility of regulating much in connection with our great industries, we must fall back on Government regulation and control; and in order to extend this regulation and control, and prevent the evils he pointed out, Dr. Smart advocated an inquiry similar to that which, in 1833, preceded the adoption of the Factory Acts.

ST. ANDREW'S UNIVERSITY ASSESSORSHIP.

ANOTHER contest for the Assessorship of the St. Andrew's University General Council is threatened by the nomination of two candidates for the appointment—in fact, by the nomination of three candidates; one of these, however, has since been withdrawn, so that the contest narrows itself down to one between Dr. Richardson and Sir Richard Cross. The third candidate who was nominated and has since been withdrawn was Dr. Cleghorn. At the meeting of the General Council of St. Andrew's University, held on Friday last, Dr. Richardson was proposed, in a speech of some length, by Professor Macintosh, and seconded by Mr. Robb. Sir Richard Cross, M.P., was proposed by Professor Mitchell, and seconded by Dr. Scott Lang. Dr. Cleghorn was proposed by Professor Knight, and seconded by the Rev. Dr. Cæsar Tranent. The voting which took place showed for Dr. Cleghorn, fourteen votes; for Sir Richard Cross, ten; and for Dr. Richardson, three. A poll was demanded. In a circular issued on Monday, and signed by Dr. Cleghorn, Professor Knight, and the Rev. Dr. Cæsar Tranent, it was stated that they consider it most unjust that the office should be monopolised by one man, however eminent, for a period of sixteen years; they recommend those who voted for Dr. Cleghorn to vote for Sir Richard Cross, who, from his Parliamentary experience, position, and influence, will be able to render specially valuable service to the University in the prospect of coming legislation. The supporters of Dr. Richardson have also issued a

circular, calling attention to the services which he has rendered to the University during his assessorship. The office is held for a period of four years; and Dr. Richardson has been elected three times, so that he has held office for twelve years.

IRELAND.

WE deeply regret to have to record the death of Dr. John Wall, of Cork, from typhus fever. Dr. Wall succumbed from the disease on Tuesday last.

A CONCERT in aid of the Ulster Hospital for Children and for the Diseases of Women, will be held on the 18th proximo, in the Hall of the Constitutional Club, Belfast.

DUBLIN LADIES' SANITARY ASSOCIATION.

HER Excellency the Countess Spencer distributed the certificates conferred by the Society on those who had successfully passed its examination in Domestic Sanitation, on Wednesday last, in the King and Queen's College of Physicians.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

AT a meeting of the Central Committee of this Society, held on November 28th, it was unanimously resolved that the best thanks of the Society be given to Brigade-Surgeon Barry White for the donation of £29 15s. 3d. from the late Indian Medical Service Defence Fund, and for the cordial sympathy which the subscribers to that fund had shown towards the Society by thus allocating a moiety of the surplus at their disposal.

UNIVERSITY BIOLOGICAL SOCIETY.

THE inaugural meeting of this society for the current session was held in Trinity College last Tuesday week. The chair was occupied by the outgoing President, Dr. E. H. Bennett. Dr. W. G. Smith, the President, read an address on "The Antagonism of Drugs." On the motion of Dr. Purser, seconded by Dr. Storey, it was resolved that the best thanks of the Association be given to Dr. Smith for his address. It was also unanimously resolved, on the motion of Dr. Auchinleck, seconded by Dr. Miles—"That the University Biological Society is deserving of the support of all students of medicine and the natural sciences." A vote of thanks was passed to the outgoing President, and the proceedings terminated.

WATERFORD UNION.

THE list of vaccination-defaulters during the past quarter amounted to 50, and the Local Government Board have drawn the attention of the Guardians to the extreme importance of a careful administration of this Act, and have requested that they will enjoin on the relieving officers of the district the duty of following up every case of default, and reporting to them, from time to time, until every case not unfit for vaccination has been operated on. The Waterford Guardians have adopted a resolution, by a majority of one vote, that for the future a resident instead of a visiting medical officer be appointed for the workhouse, at a salary of £90 *per annum* and rations. The question of private practice was not finally settled, but it is generally expected that the unfortunate individual who may be appointed when a vacancy may occur, will not be permitted to attend to any but union business.

THE ROYAL IRISH ACADEMY.

Dr. EDWARD PERCEVAL WRIGHT, Professor of Botany in the University of Dublin, has been awarded the Cunningham Gold Medal by the Council of the Academy, for his services in natural history. The President (Sir Samuel Ferguson), in presenting the medal, referred at length to Professor Wright's zoological as well as botanical researches, and particularly to those in the direction of vegetable physiology and the minute observation of the beginnings of plant-life. Subsequently, on the motion of the Rev. Dr. Haughton, Dr. Wright was elected Secretary of the Academy, *vice* Professor Alexander Macalister, who had resigned the appointment consequent on his election to the Chair of Anatomy at Cambridge. A resolution, expressing its high sense of the services rendered to it by its late Secretary, Dr. Alexander Macalister, was unanimously adopted by the Academy.

SANITARY INSTITUTE OF GREAT BRITAIN.

AN important meeting was held in Dublin on the 19th of November, to appoint the local officers, and to consider the various arrangements to be made for the Congress and Exhibition to be held in that town by the Sanitary Institute in 1884. Sir John Lentaigne presided, and a large attendance of gentlemen representing the various leading societies in Dublin. A deputation from the Institute, consisting of Dr. Alfred Carpenter, Chairman of the Council, Professor W. H. Corfield, Chairman of the Exhibition Committee, Mr. Ernest Turner, and Mr. E. White Wallace, Secretary, attended the meeting, to explain the objects of the Institute, and the nature of the Congress and Exhibition held in connection with it. The deputation from the Institute visited the buildings proposed for the meetings of the Congress and Exhibition; and, from the way that the preliminary arrangements have been made by the local committee, there is every prospect of a very successful Congress and Exhibition. Sir Robert Rawlinson, C.B., has accepted the presidentship of the Congress, which will open on October 14th.

THE ROGERS TESTIMONIAL.

THE following additional subscriptions to the fund for a testimonial to Dr. Joseph Rogers have been received. It should be understood that the subscription to this fund is not confined to Poor-law medical officers. The Treasurer is Mr. J. Wickham Barnes, 3, Bolt Court, Fleet Street, E.C.; and subscriptions are received by the Editor of the BRITISH MEDICAL JOURNAL.

Sixth List.—Dr. James Wakley and T. Wakley, Esq., F.R.C.S., £10 10s.; C. Bader, Esq., Finsbury Circus, £1 1s.; Lennox Browne, Esq., 36, Weymouth Street, £1 1s.; Dr. Morgan, Newport, Monmouth, £1 1s.; Dr. Milward, Cardiff, £1 1s.; Dr. Webb, Wirksworth, £1 1s.; Jesse Newington, Esq., Tenterden, £1 1s.; T. Cheatle, Esq., Burford, Oxon, £1 1s.; Dr. England, Winchester, £1 1s.; C. F. Sutton, Esq., Holmes Chapel, £1; J. Elliot, Esq., Kingsbridge, £1 1s.; F. C. G. Griffin, Esq., M.B., Weymouth, £1 1s.; F. Wacher, Esq., Canterbury, £1 1s.; Dr. J. H. Hughes, Ombersley, 10s. 6d.; H. Malins, Esq., M.B., Watton, Norfolk, 10s. 6d.; Dr. A. Kirkland, Chalfont St. Peter, 10s. 6d.; Dr. H. M. Morgan, Lichfield, 10s. 6d.; Joseph Loane, Esq.. Dock Street, 10s. 6d.; Dr. Wallis, Brentwood, 10s. 6d.; C. Winstanley, Esq., Ingatestone, 10s. 6d.; J. Selwyn Cowley, Esq., Upton-on-Severn, 10s. 6d.; Dr. H. F. Manley, Padstow, 5s.; T. H., 2s. 6d.; Jas. Hughes, Esq., Middlewich, 5s.; Dr. Mackinder, Gainsborough, 5s.

THE BRADSHAWE LECTURE.

THIS annual discourse, founded in memory of the late Dr. William Woods Bradshawe, F.R.C.S., some time Mayor of Reading, was delivered in the theatre of the Royal College of Surgeons, on Thursday afternoon, by Mr. John Marshall, F.R.S., the President, who took for his subject, "Nerve-Stretching for the Relief or Cure of Pain." The lecture was largely attended.

This lecture will appear in our columns next week.

DR. MARION SIMS.—At a special meeting of the Board of Governors of the Women's Hospital of the State of New York, held on November 15th, a special resolution expressive of regret at the death of Dr. Marion Sims was passed. It was also decided that the members of the board should attend the funeral. One of the lady superiors of the hospital has presented the institution with a bronze bust of Dr. Sims.

THE PROGRAMME OF THE JOURNAL FOR 1884.

THE programme of the BRITISH MEDICAL JOURNAL for 1884, which will be found at page 1169, requires but a few words of comment. It points to a continuation of that prosperity which has hitherto attended the progress of the JOURNAL as an organ of scientific and practical teaching and of professional opinion. It indicates that an increasing number of those who are reckoned as leading authorities in the science and practice of all branches of medicine, are disposed to regard the JOURNAL as a valuable means of communicating knowledge to their professional bretheren; and that, while the communications, often of high value, of those of less note in the profession, will be always welcome, there will be no dearth of articles contributed by men of high repute.

In the specially editorial departments, including those of the Army and Navy, the Poor-Law and Public Health Services, the administration of hospitals, and other departments, we are glad to be able to expect a continuance of the valuable aid which has been afforded us in past years by men skilled in the knowledge of the general subjects; and we shall continue to spare no efforts to maintain the position of the JOURNAL as an advocate of all necessary reform, and a promoter of the honour and welfare of the profession. We are encouraged in our intention by the steadily increasing favour with which the JOURNAL is regarded, as shown by the continued growth of the Association—which, at the last annual meeting, comprised 10,050 members, as compared with 9,563 at the corresponding period in 1882. Encouragement is also given us by the courteous consideration with which our endeavour to do equal justice to the claims of contributors and correspondents—often a task of considerable difficulty—is recognised; and which, we feel confident, will be extended to us in the future as in the past. The increase in the size of the JOURNAL, which was mentioned in speaking of the last programme, has been continued; so that at present each member of the Association, for the subscription of only one guinea, receives in the year, in addition to the other privileges of membership, two volumes, each of at least 1,300 pages. The subscription to the JOURNAL alone to other than members is 25s. yearly; and of such subscribers there are a large number at home and abroad. The actual weekly issue of the JOURNAL amounts to eleven thousand six hundred and fifty copies—*a circulation which is about equal to the combined circulation of all the other weekly medical journals published in England.*

The annual meeting of the Association, which will be held on the last days of July and the first day of August in 1884, promises to be one of interest. Having on one occasion visited the metropolis of Ireland, and on another the chief city of the south of the sister kingdom, the Association has accepted for next year a cordial invitation from Belfast, the chief centre of northern Irish enterprise and industry. The arrangements are not yet sufficiently complete to enable us to give many details; but it will be observed that the presidency has been accepted by Dr. James Cuming, who holds a high position in Belfast as Professor of Medicine in the Queen's College, and Physician to the General Hospital; and that Dr. George Kidd of Dublin, one of the most eminent authorities in his department, has consented to deliver an address on Obstetric Medicine; while Dr. Peter Redfern, an eminent anatomist, and Professor of Anatomy and Physiology in Queen's College, has been appointed to deliver an address in Physiology.

The President of the College of Physicians of London has appointed Dr. Clifford Allbutt of Leeds to deliver the Gulstonian Lectures. He will take for his subject "Chapters on Visceral Neurosis." Dr. Hughlings Jackson will deliver the Croonian Lectures, of which the subject will be "The Evolution and Dissolution of the Nervous System." Dr. Andrew, of St. Bartholomew's Hospital, will deliver the Lumleian Lectures, on "The Etiology of Phthisis." Arrangements have been made with all these lecturers by which their addresses will be printed in the JOURNAL from the manuscripts of the respective authors. The Bradshaw Lecture, delivered at the Royal College of Surgeons by Mr. Marshall, will appear in our next number. Sir Henry Thompson will give the Hunterian course of Lectures on Surgery and Pathology at the College of Surgeons, and will take for his subject some leading topics in connection with the recent progress of the department of surgery with which his name is chiefly connected, and especially the surgical treatment of tumours and growths of the bladder, to the pathology and treatment of which he has recently made important contributions. These lectures also, together with those of Mr. Eve, Professor Schäfer, Professor Flower, and Professor Parker, will be laid before our readers; the former in their full text, and the latter in abstract.

THE MEDICAL SICKNESS, ANNUITY, AND LIFE ASSURANCE SOCIETY.

A MEETING of the Provisional Committee, appointed at Liverpool to arrange the basis of the proposed Medical Sick Fund and Annuity Association, was held at the office of the Association, 161A, Strand, on Tuesday, December 4th. There were present the following members of the Provisional Committee — Dr. Brierley (Old Trafford Manchester), Mr. M. R. J. Behrendt (Burringham), Dr. W. Clibborn (Birmingham), Surgeon-Major Evatt (Woolwich), Mr. Major Greenwood, jun. (Dalston), Mr. J. Brindley James (London), Mr. Ravenhill (Birmingham), Mr. E. Noble Smith (London), Mr. J. Bain Sincock (Bridgwater), and Mr. J. C. Radley (London). Mr. ERNEST HART was in the chair. Letters of apology, expressing continued interest in the work, were received from numerous members.

The CHAIRMAN said since they had met at Liverpool, and settled the general idea of this Society, and certain general principles upon which an actuary could be instructed, he had placed the data collected, the resolutions of the meeting, the memorandum of Mr. Humphreys, and other memoranda and correspondence, which had from time to time been published in the JOURNAL, before a gentleman who was extremely well versed in the affairs of the friendly societies throughout England, and they had been thoroughly considered. They had greatly considered how far it was possible to carry out the wishes expressed at Liverpool, and how far the three benefits then discussed could be included within the scope of the Society. There were three forms of assurance: first, against sickness, either temporary or permanent; secondly, assurance by way of annuity at a given age; and thirdly, the limited assurance of a certain sum, to be paid to the survivors after the death of the member of the Society. A doubt was entertained et Liverpool as to whether it would be possible to include permanent sick-allowance, an annuity, and a limited life-assurance within the scope of the Society. Mr. Hart proceeded to state that he had put the whole case before Mr. Neison, the eminent actuary, and with the assistance of Mr. Radley, and under the supervision of Mr. Neison, he had seen his way to prepare a scheme including all three, but with some necessary limitations. These limitations were included in the condition which was felt to be a necessary one for the sound formation and economical working of the Society, viz., that they should work under the Friendly Societies Act. The advantage of this Act was, that it provided at once an easy, cheap, and simple machinery for governmental supervision. They would be under a system of law which had had a most extensive trial. They would have the advantage of having laws and rules approved of by a Government official, subject to actuarial revision every five years. If they undertook life-assurance for sums payable at death under any other system, they would find themselves obliged to deposit a very large sum, viz., £20,000. The limitations of the Act in question were, that no annuity should be granted by any society under that Act exceeding £50, and in respect to life-assurance, no sum could be assured for more than £200. There was an universal opinion in favour of permanent sick-pay, and the tables had been constructed on that basis. The benefits to commence six months after entry, and to continue indefinitely according to necessities; with, however, one limitation; permanent sick-pay after the age of sixty-five was, he was assured by the best actuarial authority, a kind of allowance which was open to very great difficulties, and a far preferable arrangement was to substitute for the rate of sick-pay after the age of sixty-five an annuity of a given amount independent of health. This had many advantages from the actuarial point of view. As to the limits of the sick-pay, he was advised that that should not vary within a wide range, and that there were most serious difficulties, which were not to be overcome in dealing with any wide range of amount. He was strongly advised by Mr. Neison, who was the most eminent actuarial authority upon this subject, that they should not construct a table beyond the range of a minimum of £2 and a maximum of £4, and that the sick allowance should vary according to subscription between these amounts. As to the general constitution of the Society, of which the rules would be submitted for preliminary consideration, his object had been to put the Society on the broadest and most representative basis that could be devised. It was thought that the power of appointing officers should reside in the members themselves. At the same time, as this work would have to be done from some central office, it seemed necessary that the actual executive elected should not be very cumbrous, and should consist of persons sufficiently limited in number to have a plain responsibility. As the rules would indicate, it was suggested that they should have an unpaid executive limited in number; an unpaid

Chairman, one or more Vice-Chairmen, and two Treasurers. There must be of necessity a working paid Secretary; he need not, probably, be a person highly paid, but must be a thoroughly efficient person well acquainted with work of this kind. It was clear that a great deal of work would have to be carried out by local committees, and that they would have to look to the individual members from whom the idea of this Society sprang, and who had earnestly called for it to carry out the official organisation of the local committees; and it seemed right and necessary that the Secretary or similar officer of every such local committee should be *ex officio* a member of the Central Committee; entitled to attend and vote at all its meetings. The draft rules, as presented, could (after preliminary revision by the members present) be published in the JOURNAL of this week for the information and consideration of intending members and of the profession generally, and a subsequent meeting held to finally discuss them.

Mr. RADLEY read an abstract of the rules and constitution of the Society which had been submitted to Mr. Neison.

[The rules are published below and comment is invited.]

The CHAIRMAN stated, in reply to Mr. Ravenhill, that it was not contemplated that the examining officers would but act as one brother medical man would act for another; in case of illness certainly.

Surgeon-Major EVATT said it was the practice of the Army Medical Officers' Society to have each medical certificate signed by two medical men.

The general opinion expressed seemed to be in favour of the medical certificate being signed by two medical men.

Mr. BRINDLEY JAMES thought that the medical man should be required to sign a paper stating he was in good health. Every man, he thought, should in the first instance enter without a medical examination: if he signed it incorrectly he was liable to be turned out.

It was explained that this was contemplated; it was agreed that all duly qualified assistants would be eligible, but in all cases the applicant must be in actual work as a practitioner of medicine.

The CHAIRMAN said he should like all who were present, and all interested in the Society, to consider very seriously whom they were prepared to nominate to fill the office of President, Vice-President, and Chairman of the Executive, etc. Personally, he took a very great interest in the movement, and had been happy to bear all expenses up to this date, and to give his most anxious and cordial assistance in starting the Society; but, in consequence of the pressure of other public engagements, and considerations of health, he would be prevented from taking any permanent executive position, as he had been urged to do by many correspondents.

The rules having been generally examined in principle, a subcommittee was appointed, which went through them in detail, and approved them for publication as follows.

The customary vote of thanks proposed by Mr. BRINDLEY JAMES, and seconded by Dr. CLIBBORN, closed the proceedings.

DRAFT RULES.

NAME, PLACE, AND OBJECTS OF THE SOCIETY.

THIS Society shall be called the Medical Sickness, Annuity, and Assurance Fund, and consist of an unlimited number of members. The registered office of the Society shall be in London, or such other place as the Executive Committee, the General Committee, or a general meeting may, from time to time, determine. Notice of any change in the registered office shall be sent within fourteen days to the Registrar of Friendly Societies, in accordance with the Treasury regulation.

The objects of the Society shall be the payment of a weekly allowance during sickness or disablement, of annuities, of sums on the death of a member, and providing such other benefits as are permitted by the Friendly Societies Acts, and provided for by the rules from time to time.

QUALIFICATION OF CANDIDATES.

Membership shall be open to all male persons who are, and so long as they remain, registered members of the medical profession, residing in the United Kingdom, and comply with the following requirements:

They must be not less than twenty nor more than forty-nine years of age (last birthday).

Must sign a declaration of age and good health, and state when last medically attended.

Must furnish a medical certificate of good health.

Must be a registered medical practitioner, following his profession.

ADMISSION OF MEMBERS.

Every person desiring to become a member shall forward a declaration of the above facts, fill up a form of application for membership (to be supplied by the Society), furnish the necessary certificate of health, and deposit an entry-fee of 10s. 6d., a receipt for which shall be sent by the Secretary within seven days. The proposition shall be submitted to the next ensuing meeting of the Executive Committee, and, if accepted, the membership shall commence from the date of the receipt for the entry-fee. The Secretary shall, upon the admission of every member, enter his name, age, and address upon the Society's books, and supply him with a book of rules containing his name, registered number, and a statement of the amount due from him each quarter. Every communication, receipt, or document from any member to the Society, or any officer thereof, or *vice versâ*, shall state the registered number of such member. In the event of a candidate being rejected, the Secretary shall, within seven days of such rejection, notify the fact to him, returning all certificates and declaration, and the entry-fee in full.

CONTRIBUTIONS OF MEMBERS.

Every member on joining shall be at liberty to contribute for sick-pay of not less than two guineas nor more than four guineas per week full pay, and an annuity at the age of 65 according to the table; but no contribution can be received for any fractional part of one guinea per week. Contributions may be paid for payment of a sum at death not less than £25 or more than £200, according to the rates contained in the tables, but no contribution can be received for any fractional part of £25. Members may also contribute for annuities under the tables, and are at liberty to join for any or all the assurances provided.

Members may at any time reduce the amount contributed for, and have an abatement of contributions according to the tables, by giving three months' notice in writing to the Secretary. And any member desiring to increase his benefits, must give three months' notice, and forward a medical certificate of good health, when the matter will be considered by the Executive Committee, who shall have power to grant the request, contingent on the necessary increase of contributions according to the tables, or to refuse it.

The contributions shall be payable quarterly, and become due on the last day of February, May, August, and November in each year. Notice shall be sent to each member seven clear days before the date of the amount due from him, and a numbered printed receipt shall be forwarded to each member within ten days of his payment being received at the office. Any member being in arrear fourteen days from the date of his payment becoming due shall receive a further notice (for which he shall be charged one shilling), and, if payment is not then made within one month from the Society's quarterly day, the member shall be suspended from all benefits until such payment is made. Members owing more than six months' subscriptions shall be excluded, and shall only join as new members.

Any member desiring to extinguish his future contributions by the payment of a single premium, shall be entitled to do so by paying an equitable sum, to be arranged between the member and the Executive Committee.

MEMBERS EXCLUDED FROM THE SOCIETY.

Every member excluded from the Society shall thereby cease to be a member, and shall forfeit all moneys which he has paid to the Society, and all benefits and privileges accruing subsequently to the date of his exclusion.

WITHDRAWAL OF MEMBERS.

Should any member be desirous of withdrawing from the Society, he shall give notice in writing to the Secretary of his intention to resign all claim upon the Society, and also clear the books of all arrears, up to the date of such notice, and in default of such notice having been given, and such arrears paid, he shall be responsible for all sums due by him at the time of his exclusion for non-payment, and shall be proceeded against to recover the same, as the Committee may direct.

The Executive Committee shall have power to consider the application of any member desirous of withdrawing for compensation, and shall have power to award any sum not exceeding 70 per cent, of the ascertained surrender-value of such member's interest in the Society, or to refuse the application.

DECLARATION ON THE FUND.

When any member shall, by sickness or any bodily or mental infirmity, be incapacitated, he shall send, or cause to be sent, to the Secretary, at the Society-house, postage or delivery paid, a declaration in the following form, viz.:

"I (*here insert christian and surname*), a member of the , No. , residing at (*here give the full address*), being at the present time afflicted with and thereby incapacitated, do hereby declare on the fund of the Society; this day of 18 ."

No sickness-pay shall be made for illness of less than a fortnight; but at the close of that period, if the member remain sick, he shall be entitled to claim for the whole term, provided he forward a medical certificate that he has been under treatment at least ten days. He shall then be deemed a sick member, and shall be allowed sick-pay at the rate he has contributed for. No sick-pay shall be allowed under this rule until a medical certificate has been received, nor unless a printed form (to be periodically forwarded to the sick member from the office) is returned signed by the medical attendant. Should the Executive Committee deem it necessary, they may request a sick member to allow himself to be examined by a special physician or surgeon, and any refusal to do so shall be a sufficient cause for the discontinuance of payment of the allowance.

SICK MEMBER'S DUTY.

No sick member shall be allowed to perform any professional duty, or to engage in any work whatever, giving verbal orders or directions alone excepted. He shall not change his residence temporarily for change of air, etc., without first obtaining the consent, in writing, of his medical attendant, and sending it to the Secretary, with three days' notice of his intention. If there be two members residing within two miles of the sick member's residence, they shall be apprised of his illness, and shall each visit him at least once in every seven days, between the hours of ten in the morning and seven in the evening; and the sick member shall give them full facilities for judging of his condition.

DECLARATION OFF THE FUND.

When any member has recovered from his illness sufficiently to enable him to resume his duties, he shall, before he be allowed to do any kind of work whatever, send, postage paid, a declaration in the following form, addressed to the Secretary at the registered office: "I, (*here insert christian and surname*), No. , residing at (*here give the full address*), having recovered from my late indisposition, do hereby declare off the sick-fund of the Society this day of , 18 ." This declaration is to be accompanied by a medical signature, proving that the member was ill and unable to follow his occupation within at least seven days of the date of such declaration, and that he has recovered.

PAYMENT OF SICK-CLAIMS.

Every member, on the expiration of six months from the date of joining, shall, in the event of illness, be entitled to sick-pay according to the rate of his payments under the tables; or, on forwarding the necessary declaration and certificate. Sick-pay shall be computed up to each Thursday night, and shall be paid by crossed cheque posted to the member's address not later than 4 P.M.

on the Friday. A printed form of receipt shall be sent with each remittance of sick-pay, which the member shall sign and return within four days; and in no case shall a second week's pay be sent until a receipt has been fowarded for the preceding one.

REDUCTION OF SICK-ALLOWANCE.

When any member has been on the Society's fund twenty-six successive weeks, and his affliction continues, he shall be reduced to half-pay; but, should any member be on the fund, and afterwards declare off, if he again declare on within six calendar months from such declaration off, the time from him so declaring on again shall be added to his former time till the twenty-six weeks' full sick-pay are thereby completed.

PAYMENT OF ASSURANCES.

Any member may, by writing under his hand, delivered at or sent to the registered office of the Society during his lifetime, nominate any person not being an officer or servant of the Society, unless such officer or servant be the father, son, brother, or nephew of the nominator, to whom any moneys payable by the Society on the death of such member shall be paid, and may from time to time revoke or vary such nomination by a writing under his hand similarly delivered or sent. If the member shall not have appointed a nominee, the payment of the death-assurance money shall be regulated in manner following, viz.: that, if the deceased leave a widow, she shall have the priority of claim; if no widow, then to his executors; if no executors, then to the person who shall appear entitled by law to receive the same. All assurance-claims to be made within twelve months after the death, or the same to be forfeited. Should any member have failed to appoint a nominee, and leave neither widow nor children, the Society shall pay the amount to the person who shall appear to be entitled by law to receive the same. A registration-fee of one shilling to be paid for every revocation and subsequent nomination.

No assurance shall be paid on account of a member who has been so less than twelve months from the date of entry, after which time the amount contributed for under Table B shall be payable.

Within seven days after the death of a member, notice thereof shall be given to the Secretary by the person claiming the assurance-allowance, or nominee of the deceased, who shall produce (unless in the case of a death at sea) an official certificate from the Registrar of Deaths, or other person having the care of the register of deaths in which such death is, or ought to be, entered. The amount of such assurance shall then be paid as speedily as possible, and within one month. All arrears due to the Society shall be deducted from such amount.

PAYMENT OF ANNUITIES.

All annuities shall be paid quarterly. Members claiming annuities shall produce such proof of age as the Executive Committee may require, and furnish such evidences of identity as may be from time to time deemed necessary.

DIVISION OF FUNDS.

The sick-fund, assurance-fund, annuity-fund, and management-fund accounts shall be kept separate and distinct, and not more than ten per cent. be deducted from the premium, to form, together with the entry fees, a fund, from which all incidental, management, postage, printing, and other charges shall be met.

If, on valuation, there shall be a surplus in either of the funds, the General Committee shall have power, under the advice of a competent actuary, to appropriate it in reduction or liquidation of a deficiency in any other fund (should such exist).

BRANCHES.

In localities where there is a Branch of the British Medical Association, and not fewer than ten members have joined the Society, they shall form a Branch Committee, and shall have the same power of admitting candidates as the Executive Committee. The Secretaries of such Branch Committees shall also (when requested by the Secretary of the Society) provide for the visitation of any sick member in their locality. All payments shall, however, be made by the members direct to the registered office of the Society. The Secretary of each Branch so formed shall have a right to attend all meetings of the General Committee, of which he shall be a member *ex officio*, with full power to vote.

INVESTMENT OF FUNDS.

So much of the Society's funds as may not be wanted for immediate use, or to meet the accruing liabilities, shall, with the consent of the Executive Committee, be invested by the trustees in such or any of the following ways:—In the Public Funds, or with the Commissioners for the reduction of the National Debt, or upon Government Securities in Great Britain, or upon debentures or securities of any company incorporated by charter or Act of Parliament, and paying dividend, or upon the security of any county, borough, or other rates authorised to be levied and mortgaged by Act of Parliament, or upon mortgages of freehold or leasehold property.

TRUSTEES.

There shall be four trustees, members of the Society, and all property, moneys, goods, chattels, securities for money, or other obligatory instruments and evidences, and all other effects whatsoever, and all rights or claims belonging to or had by this Society (excepting only the Treasurer's balance to meet the current expenses) shall be invested in them for the use and benefit of the members thereof, their respective claims and interests; and upon the death, resignation, or removal of either of the said trustee or trustees, shall vest in succeeding trustees the same estates and interest as the present trustee or trustees have therein. The trustees shall be resident within ten miles of the registered office; shall continue in office during the pleasure of the Society; and in case of a vacancy or vacancies, another or others shall be elected by a majority of members at the next general meeting, due notice of the vacancy being given. The Trustees shall be admitted to all meetings of the Executive Committee, and shall be at liberty to take part in the proceedings thereof, and vote on any question under discussion. A copy of every resolution appointing a trustee or trustees shall be sent to the registrar in manner and form provided by the regulation in that behalf.

TREASURER AND SUB-TREASURER.

The Treasurer shall continue in office during the pleasure of the Society. All moneys not nvested in the name of the Trustees, shall be invested in his name as Treasurer of the Society. He shall attend at the office before 2 P.M. on each Friday, and sign and cross all cheques for sick-pay or other disbursements, the necessity for which shall have been shown to his satisfaction. He shall, at the same time, examine the banker's pass-book and the Secretary's cash-book, and generally satisfy himself as to the correctness of all matters pertaining to the finances of the Society. He shall also be *ex officio* a member of the Executive Committee, with full right to vote. The Sub-treasurer shall assist the Treasurer in his duties, and shall be *ex officio* a member of the Executive Committee. He shall, when necessary, sign and examine the cheques for disbursements in the same manner as provided for in the case of the Treasurer.

CHAIRMAN AND VICE-CHAIRMAN.

The Chairman and Vice-Chairman shall be appointed yearly at the annual meeting, and shall be eligible for re-election. The Chairman shall attend at the office before 2 P.M. each Friday, and countersign all cheques for disbursements, duly satisfying himself as to their nature; but he may depute this duty at any time, by notice in writing, to the Vice-Chairman. He shall preside at all committee or general meetings of the Society, and exercise a general supervision and control. The Vice-Chairman shall assist the Chairman in conducting the business at all committee and general meetings, and shall, when authorised in writing to do so by the Chairman, countersign and examine the weekly cheques for disbursements. The Chairman and Vice-Chairman shall be *ex officio* members of the Executive Committee, with full right to vote, the former being also entitled to the casting vote.

EXECUTIVE COMMITTEE.

The Executive Committee shall consist of the Chairman, Vice-Chairman, Treasurer, Sub-treasurer, and Trustees. They shall meet at least once a month, when a report shall be presented to them of the position of the Society, the number of members, amount and disposal of funds, and of such further particulars as they may deem necessary. At each meeting, the Secretary shall produce the banker's pass-book, balanced up to a date not more than three days previous to that of the meeting. The Executive Committee shall have power to deal with any matters connected with the general affairs of the Society, to decide upon the admission of members, and all other matters provided for by these rules. They shall, if they deem it necessary, have power to call a special meeting of the General Committee, giving at least seven days' notice, and stating the object for which such meeting is called.

GENERAL COMMITTEE.

The General Committee shall consist of twelve members and the members of the Executive Committee. The Committee shall meet at least once a quarter, and a report on the affairs of the Society shall then be presented to them. At least once in six months a statement of accounts and balance-sheet shall be presented to the Committee, duly audited and vouched by some firm of professional accountants, to be appointed by the Committee, and an annual statement shall also be submitted to them (duly audited) of the affairs of the Society, to be subsequently published to the members. The General Committee shall have power, at any time, to call a special meeting of the members, giving at least fourteen days' notice of the time and place of such meeting to every member, and the business to be brought before it. The General Committee shall have power, at any ordinary meeting, to decide that the next, or any future meeting, be held in any of the provincial towns.

SECRETARY.

The Secretary shall conduct the affairs of the Society under the control of the Executive and General Committees. He shall attend at the registered office daily during office-hours, for the purpose of superintending the general business of the Society. He shall attend every meeting of the Society, or any committee thereof. He shall keep a faithful account of all moneys received and expended by him on behalf of the Society; carefully record all minutes of their transactions, and assist them with his advice in all their affairs. He shall enter in the minute-books the proceedings of every committee-meeting within three days after it has taken place. He shall register, or cause to be registered, the admissions, residences, and removals of members, and properly keep the books, and balance the accounts of the Society. He shall, at least once in every six months (as the Executive or General Committee may direct) submit his books, accounts, etc., to be audited, and produce receipts and vouchers for all expenditure. He shall send to the members all necessary written or printed notices or summonses relative to the business of the Society. He shall, before four o'clock on each Friday evening, send, or cause to be sent by post, all moneys due to sick members. He shall enter in the book kept for that purpose, the name of each member that declares on the fund, the nature of his complaint, and the time of his declaring on and off the Society's fund. He shall prepare the various returns required by law, and forward them to the Registrar in due course. The Secretary shall, before taking upon himself the execution of his office, give security in the sum of £200, pursuant to the Friendly Societies Act, 1875.

CHANGE OF RESIDENCE.

When any member changes his residence or has his address altered, he shall give notice thereof, in writing, to the Secretary, postage paid, at the registered office, within seven days after such removal or alteration, in the following form,

I removed from, *or* my address has been altered from (*here give the old address*) to (*here give the new address*), on the day of , 18 .

Name

Number

or, for neglect thereof, be fined one shilling. If, through the omission to give such information, any letter or notice sent to a member of the Society should be returned, he shall be subject to the same fines as though he had received such letter or notice, and not attended to it.

ANNUAL MEETING.

An annual general meeting of the members shall be held in the same town and during the same week as the annual meeting of the British Medical Association, due notice of which shall be given to every member, and the time and place of which shall also be advertised in the BRITISH MEDICAL JOURNAL. A report of the general position of the Society, and an audited annual statement of accounts, shall be presented to such meeting. The annual general meeting shall elect the Chairman, Vice-Chairman, and General Committee for the ensuing year, fill up any vacancies in the Trusteeships, and appoint five Arbitrators.

SETTLEMENT OF DISPUTES.

Any disputes between a member and any officer or committee of the Society, and any disputes as to payments claimed by a member, or a person claiming through a member, shall be referred to five arbitrators appointed by the annual meeting, whose decision, or that of any number present after they have been duly summoned, shall be final and binding on all persons.

ALTERATION OF RULES.

These rules may from time to time be altered or amended in the following manner. Notice of any proposed alteration may be sent by any member to be laid before the next meeting of the General Committee, and it shall then be considered at the ordinary meeting of the committee next following that at which notice was given. The proposer and seconder shall be at liberty to attend and explain their proposition. The committee shall then consider the question, and if the majority of those present, and entitled to vote, are against it, the proposition shall be rejected; if a majority of the committee are in favour of the proposal, it shall be submitted to the next annual meeting for confirmation, due notice being sent to each member of the terms of the proposed alteration. A majority of the members present at such annual meeting and entitled to vote, shall have power to adopt, amend, or reject such proposals, but no alteration of rules shall have any force or effect until it has been duly registered under the Friendly Societies' Act.

INSPECTION OF THE SOCIETY'S BOOKS.

Every member or person having any interest in the funds of the Society shall be at liberty to inspect the books thereof, at the registered office of the Society, or at any other place where the same are kept, at all reasonable times within the hours of business, and it shall be the duty of the Secretary to produce them for inspection.

COPIES OF RULES.

It shall be the duty of the Executive Committee to provide the Secretary with a sufficient number of copies of the rules to enable him to deliver to any person, on demand, a copy of such rules, on payment of a sum not exceeding sixpence to members, and one shilling to other persons, and of the Secretary to deliver such copies accordingly.

ANNUAL RETURNS.

Every year before June 1st, the Secretary shall send to the Registrar the annual return, in the form prescribed by the Chief Registrar of Friendly Societies, required by the Friendly Societies Act, 1875, of the receipts and expenditure, funds and effects, of the Society, and of the number of members of the same, up to the 31st December then last, inclusively, as audited, showing separately the expenditure in respect of the several objects of the Society, together with a copy of the auditors' report, if any. Such return shall state whether the audit has been conducted by a public auditor appointed under the Friendly Societies Act, 1875, and by whom, and, if such audit has been conducted by any persons other than a public auditor, shall state the name, address, and calling or profession, of each of such persons, and the manner in which, and the authority under which, they were respectively appointed.

QUINQUENNIAL VALUATION.

Within five years from the registration of these rules, and so on again within six months after the expiration of every five years succeeding the date of the first valuation, the assets and liabilities shall be valued by a valuer to be appointed by the Society, and a report, signed by such valuer, shall be sent to the Registrar (and which shall also state his address and calling, or profession) on the condition of the Society, and an abstract to be made by him of the results of his valuation, together with a return containing such information with respect to the benefits assured, and contributions receivable by the Society, and of its funds and effects, debts, and credits, as the Registrar may from time to time require.

BALANCE-SHEET TO BE HUNG UP.

It shall be the duty of the Executive Committee to keep a copy of the last annual balance-sheet of the Society for the time being, together with the report of the auditors, if any, and of the last quinquennial valuation for the time being, always hung up in a conspicuous place at the registered office of the Society.

COPIES OF ANNUAL RETURN.

It shall be the duty of the Executive Committee to provide the Secretary with a sufficient number of copies of the annual return, or of some balance-sheet or other document duly audited, containing the same particulars as to the receipts and expenditure, funds and effects of the Society, for supplying gratuitously every member or person interested in the funds of the Society, on his application, with a copy of the last annual return of the Society, or of such balance-sheet or other document as aforesaid, for the time being; and it shall be the duty of the Secretary to supply such gratuitous copies on application accordingly.

PERMANENCE OF THE SOCIETY.

This Society may be dissolved only by the consent of five-sixths in value of the then existing members of the Society, testified by their signatures to the instrument of dissolution in the form prescribed by the Treasury Regulation, and also by the written consent of every person for the time being receiving, or entitled to receive, any relief or other benefit from the funds of the Society, unless the claim of such person be first duly satisfied, or adequate provision made for satisfying such claim; and for the purpose of ascertaining the value of members for the purposes of this rule, every member shall be entitled to one vote, and an additional vote for every five years he has been a member; provided that no one member shall have more than five votes in the whole, and, in case of such dissolution, the intended appropriation or division of the funds, or other property of the Society, shall be fairly and distinctly stated in the proposed plan of dissolution, prior to such consent being given.

INSPECTION AND INVESTIGATION.

It shall be the right of one-fifth of the total number of members, or, if the number of members shall at any time amount to 1,000, and shall not exceed 10,000, it shall be the right of 100 members, or, if the number shall at any time exceed 10,000, it shall be the right of 500 members, by an application in writing to the Chief Registrar, signed by them in the forms respectively provided by the Treasury Regulations in that behalf, to apply—

a. For the appointment of one or more inspectors to examine into the affairs of the Society, and to report thereon.

b. For the calling of a special meeting of the Society. Such application shall be supported by such evidence for the purpose of showing that the applicants have good reason for requiring such inspection to be made, or meeting to be called, and that they are not actuated by malicious motives in their application, and such notice thereof shall be given to the Society as the Chief Registrar shall direct.

c. Or, for an investigation into the affairs of the Society with a view to the dissolution thereof. Such application as last aforesaid shall set forth that the funds of the Society are insufficient to meet the existing claims thereon, or, that the rates of contribution fixed in the rules are insufficient to cover the benefits assured, and the grounds upon which such insufficiency is alleged.

SPECIMEN RATES OF SUBSCRIPTION FOR THE PROPOSED MEDICAL SICKNESS, ANNUITY, AND ASSURANCE SOCIETY.

TABLE I.—*Quarterly Premium to age* 65, *to provide the following Assurances.*

a. The sickness-assurance terminates at age 65, and the full amount of the allowance is payable for the first six months of protracted illness, and one-half the amount for the remainder of the same attack of sickness.

b. The annuity commences at age 65, and is contingent only on the duration of the assured's life; that is to say, it is payable irrespective of the state of his health.

Age last Birthday.	Sickness Allowance, £2 2s. per week. Annuity, £25 *per annum*.	Sickness Allowance, £3 3s. per week. Annuity, £37 10s. *per annum*.	Sickness Allowance, £4 4s. per week. Annuity, £50 *per annum*.
	s. d.	s. d.	s. d.
25	24 8	37 0	49 4
30	29 4	44 0	58 8
35	35 8	53 6	71 4

TABLE II.—*Quarterly Premium to age* 65, *to provide an annuity, on attaining age* 65, *of the following Amounts.*

Age Last Birthday.	Annuity *per annum* Payable Quarterly.			
	£20.	£30.	£40.	£50.
	s. d.	s. d.	s. d.	s. d.
25	7 4	11 0	14 8	18 4
30	9 8	14 6	19 4	24 2
35	13 0	19 6	26 0	32 6

TABLE III.—*Quarterly Premium to age* 65, *to provide the following Assurances Payable at the Death of a Member.*

Age Last Birthday.	Amount Assured at Death.							
	£25.	£50.	£75.	£100.	£125.	£150.	£175.	£200.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
25	2 9	5 6	8 3	11 0	13 9	16 6	19 3	22 0
30	3 4	6 8	10 0	13 4	16 8	20 0	23 4	26 8
35	4 3	8 6	12 9	17 0	21 3	25 6	29 9	34 0

NOTE.—The above specimen rates admit of a deduction therefrom of a sum not exceeding 10 per cent. of the subscription, to make provision for the expenses involved in the efficient conduction of the fund.

F. G. P. NEISON, Actuary.

30, Moorgate Street, London, December 5th, 1883.

INTERNATIONAL HEALTH EXHIBITION, LONDON, 1884.

THE following is the programme of the great International Health Exhibition, which will be held in the buildings of the recent International Fisheries Exhibition, in 1884, for which the arrangements are now in course of formation.

The Patron is Her Most Gracious Majesty the Queen; President, His Royal Highness the Prince of Wales, K.G.; Executive Council (appointed by His Royal Highness the President), *Chairman:* His Grace the Duke of Buckingham and Chandos, G.C.S.I.; *Vice-Chairman:* Sir James Paget, Bart., F.R.S.; Edward Birkbeck, Esq., M.P.; Sir F. Abel, D.C.L., F.R.S.; George Buchanan, Esq., M.D., F.R.S.; Sir F. Philip Cunliffe-Owen, K.C.M.G., C.B., C.I.E.; Sir Joseph Fayrer, K.C.S.I., M.D., LL.D., F.R.S.; the Marquis of Hamilton; Ernest Hart, Esq.; Sir John Lubbock, Bart., M.P., F.R.S.; Samuel Morley, Esq., M.P.; G. V. Poore, Esq., M.D.; Sir John Rose, Bart., G.C.M.G.; *Secretary:* Edward Cunliffe-Owen, B.A.

The subjects are HEALTH, including Food, Dress, the Dwelling, the School, and the Workshop. EDUCATION: Apparatus used in Primary, Technical and Art Schools.

The programme announces that it is proposed to hold, during the year 1884, an International Health Exhibition, which shall also illustrate certain branches of Education, and which will occupy the buildings at South Kensington, erected for the International Fisheries Exhibition. The object of the Exhibition will be to illustrate, as vividly and in as practical a manner as possible, Food, Dress, the Dwelling, the School, and the Workshop, as affecting the conditions of healthful life, and also to bring into public notice the most recent Appliances for Elementary School Teaching and Instruction in Applied Science, Art, and Handicrafts. The influence of Modern Sanitary Knowledge and Intellectual Progress upon the welfare of the people of all classes and all nations will thus be

practically demonstrated, and an attempt will be made to display the most valuable and recent advances which have been attained in these important subjects.

The Exhibition will be divided into two main sections, Division I., Health, Division II., Education, and will be further subdivided into six principal groups.

In the First Group, it is intended specially to illustrate the Food-Resources of the world, and the best and most economical methods of utilising them. For the sake of comparison, not only will specimens of food from all countries be exhibited, but the various methods of preparing, cooking, and serving food, will be practically shown. The numerous processes of Manufacture connected with the preparation of articles of food and drink, will thus be exemplified; and, so far as the perishable nature of the articles will admit, full illustrations will be given of the various descriptions of foods themselves.

In the Second Group, Dress, chiefly in its relation to health, will be displayed. Illustrations of the clothing of the principal peoples of the world may be expected; and a part of this Exhibition, which, it is anticipated, will be held in the galleries of the Royal Albert Hall, will be devoted to the History of Costume.

In the Third, Fourth, and Fifth Groups, will be comprised all that pertains to the healthful construction and fitting of the Dwelling, the School, and the Workshop: not only as respects the needful arrangements for Sanitation, but also the Fittings and Furniture generally in their effect on the health of the inmates. The most improved methods of School Construction will be shown, and the modes of combating and preventing the evils of unhealthy trades, occupations, and processes of manufacture will form portions of the Exhibition.

The Sixth Group will comprise all that relates to Primary, Technical, and Art Education, and will include Designs and Models for School Buildings, Apparatus and Appliances for Teaching, Diagrams, Text-books, etc. Special attention will be directed to Technical and Art Education, to the results of industrial teaching, and to the introduction of manual and handicraft work into schools. The following is a general classification of the six Groups: DIVISION I. HEALTH. *Group* I.—Food and Drink. Selected foods and preserved food Products; the Supply and Economic Distribution of wholesome and nourishing food and drink; the Conveyance of fresh provisions; the detection of Adulteration and Impurities; food Analyses and food Constituents; Cooking and Practical Dietetics, including varieties of diets consumed by different nations; New descriptions of food; food for the Young and for Invalids; Army and Navy rations; Prison and Workhouse diet; Domestic Economy.—*Group* II.—Dress for All Climates for Both Sexes and for Various Purposes. Examples of National Costume of all classes, retrospective and modern collections; New and Improved wearing apparel, and designs and materials for the same; specimens of improvements in the Design, Material, and the Making of clothing and cheap dresses; dress for Exercise and Sport; Uniforms; Life-Saving and Fire-proof dress.—*Group* III.—Dwellings for All Classes, their Sanitary Construction, Fittings, and Appliances. Improved Materials for external and internal construction; Damp-Courses; Non-Conductors for walls and roofs; Wall Linings and Cements; non-poisonous Paints and Paperhangings; solid Floors; Washable Materials for construction and decoration; Ventilation of houses and apartments; Air Cooling, Heating, and Purifying Apparatus; Apparatus for Heating and for the Abatement of Smoke; Heating by open grates and stoves; Hot Air, Steam, and Gas Apparatus; Improved Kitcheners and Gas Cooking-Stoves; Lighting by Gas and Electricity, Fittings and Apparatus for the same; Fire-Prevention—Extincteurs, Hydrants, Escapes, Preservative Solutions; Water-Supply, and Improved Sanitary Fittings connected therewith—Meters, Cisterns, Filters, Softening Apparatus, Baths and Lavatory Apparatus and Fittings; House-Drains, their construction and ventilation; Closets; Sewer-disconnection, Sinks, Traps, Gullies; the Disposal and Utilisation of House-Refuse.—*Group* IV.—Schools. Buildings for town and country Schools; Yards and Playgrounds for Schools; Fittings for School latrines and lavatories; Heating, Lighting, and Ventilation of Schools; Apparatus for physical training, Gymnasia; School Kitchens; storing of hats, cloaks, etc.; drying ditto in wet weather; isolation of diseases in Schools; School Infirmaries.—*Group* V.—Workshops and Factories. Models and designs for improved Workshops, especially those in which unhealthy, noxious, or dangerous trades and processes are carried on. Improved apparatus and plant for the same. Guards, Screens, Special Dresses, and objects for personal wear, to avoid or prevent injury from manufacturing processes. Illustrations of Special Diseases and Deformities caused by unwholesome trades and occupations. Means of guarding against the same. New Inventions or improvements for the better carrying on of dangerous or unhealthy processes of manufacture; Models, Diagrams, etc.—DIVISION II. EDUCATION. *Group* VI.—Educational Works and Appliances. Apparatus and Fittings for Créches and Infant Schools; Appliances for Teaching; Kindergarten Models, and Examples and Results of Instruction; Primary School Fittings and Apparatus; Examples and Models for Teaching Practical Manual Work to Girls, and various Handicrafts to Boys; Apparatus and Models for Science-Teaching; Apparatus and Models for Art-Teaching; Designs and Fittings for Apprenticeship and Industrial Schools; Apparatus for Instruction in such Schools; Specimens of Work done in these Schools; Schools for the Blind and for the Deaf and Dumb; Apparatus and Results of Teaching in such Schools. It is proposed to arrange Collective Exhibits in connection with some of the above classes, illustrating, among other subjects, the Dwellings of the Poor, the care in the Dwelling for the Welfare of the Children and of the Sick, Model Nurseries, Sleeping Apartments, completely fitted Kitchens, fully equipped Gymnasia for adults and for the young, Model Laboratories and Collections for Health-Teaching, Model Schools, Workshops, etc.; and also Collections having reference to Special Trades. It is also proposed to hold an International Congress in June or July next, in each of the main Sections of the Exhibition—Health and Education. Lectures will be given and Conferences will be held on the various subjects illustrated in, or cognate with, the Exhibition; they will be explained by practical Demonstrations and Experiments, and Reports on each group will be issued. Processes will be shown in actual operation; and Practical Tests will, from time to time, be made of the inventions submitted to the Juries.

An extensive and highly influential General Committee has been nominated, of which the list will shortly be published.

THE ROYAL SOCIETY.

PROFESSOR HUXLEY, President of the Royal Society, delivered his first presidential address at the annual meeting of the Society on November 30th. He touched upon a variety of subjects; and, in the course of his address, he said:

"With respect to those branches of knowledge on which I may venture to offer an opinion of my own, I may say that, though our records show much useful and praiseworthy work in biological science, the only event which appears to me to call for special remark is the opening of an attack upon a problem of very great interest, one which, in fact, goes to the root of the question of the fundamental unity of the two great embodiments of life—plants and animals. The well-known phenomena presented by many plants, such as the sensitive plant and the sun-dew, our knowledge of which was so vastly extended by Darwin, abundantly prove that the property of irritability, that is, the reaction of a living part, by change of form, upon the application of a stimulus to that part, or to some other part in living continuity with it, is not confined to animals. But, in animals, the connection of the part irritated with that which changes its form is always effected by a continuity of more or less modified protoplasmic substance, and reaction takes place only so long as that continuity is unimpaired; while, hitherto, the protoplasmic cell-bodies of plants have appeared to be isolated from one another by the non-protoplasmic cell-walls in which they are inclosed. It is as if, in the one case, there was a continuous bond of conducting substance between the point of irritation and the point of contraction; while, in the other, there was a chain of pellets of protoplasmic substance, each inclosed in a coat of a different nature. Now Mr. Gardiner, in his paper 'On the Continuity of the Protoplasm through the Walls of Vegetable Cells,' brings forward evidence, based chiefly upon the careful use of special reagents, that, in the sensitive cushions of certain plants and in other situations, the vegetable cell-wall is pierced by minute apertures, and that these are traversed by threads of protoplasm, which connect the cell-body of each cell with those of its neighbour, and thus establish, as in animals, a continuity of protoplasmic substance between different parts. Other observers are working at the same subject, and we may hope that, before long, great light will be thrown upon many hitherto puzzling questions in vegetable physiology."

Speaking of the cholera in Egypt, he said:

"I may perhaps be permitted to express a regret that the admirable energy of the Government, in taking measures to make the recent advances of medical science available during the late out-

break of cholera in Egypt, was not extended beyond the purely practical side of the matter, or, perhaps, not so far as the practical side in the proper sense; for, until we know something about the causes of that terrible disease, our measures for prevention and for cure will be alike leaps in the dark. Those who have looked into the literature of cholera may, perhaps, be disposed to think that a new search after its cause will add but another to the innumerable wild hypotheses which have been set afloat on that topic; and yet devastating epidemics, like the pebrine of the silkworm, so similar in their fatality and their apparently capricious spread, that careful investigators have not hesitated to institute a detailed comparison of the phenomena of this disease with those of cholera, have been proved by Pasteur to be the work of microscopic organisms; and hardly less fatal epidemics, such as splenic fever, have been traced to similar agencies. In both these cases, knowledge of the causes and of the conditions which limit the operation of the causes, have led to the invention of effectual methods of cure. And it is assuredly, in the present state of science, something more than a permissible hypothesis, that the cause of cholera may be an organic living *materies morbi*, and that the discovery of the proper curative and prophylactic measures will follow upon the determination of the nature and conditions of existence of these organisms. If this reasoning be just, it is certainly to be regretted that the opportunity of the outbreak of cholera in Egypt was not utilised for the purposes of scientific investigation into the cause of the epidemic. There are able, zealous, and courageous young pathologists in this country who would have been willing enough to undertake the labour and the risk; and it seems a pity that England should leave to Germany and to France an enterprise which requires no less daring than Arctic or African exploration; but which, if successful, would be of a thousand times more value to mankind than the most complete knowledge of the barren ice-wastes of the pole or of the sweltering barbarism of the equator. It may be said that inquiries into the causation of cholera have been for some years conducted in India by the Government without yielding any very definite result. But this is, perhaps, rather an argument in favour of, than against, setting fresh minds to work upon the problem.....

A Royal Medal has been awarded to Dr. J. Burdon Sanderson, F.R.S., for the eminent services which he has rendered to physiology and pathology; and especially for his researches on the electrical phenomena exhibited by plants, and for his investigations into the relation of minute organisms to disease. In making this award, the Council desire not merely to recognise the merit of Dr. Burdon Sanderson's researches, especially those on the analogy between the electrical changes which take place in the contractile tissues of plants and those which occur in the like tissues of animals, but to mark their sense of the important influence which Dr. Sanderson has exerted upon the study of physiology and pathology in this country."

At the conclusion, a vote of thanks to Professor Huxley for the address was carried unanimously.

The Copley Medal was presented to Sir William Thomson, F.R.S.; the Royal Medals, to Dr. Hirst, F.R.S.; and to Professor Burdon Sanderson, F.R.S. The Davy Medals were received by Professor A. W. Williamson, Foreign Secretary, for M. Marcellin Berthelot, Foreign Member R.S.; and by Count Sponeck, Secretary of the Danish Legation, for Professor Julius Thomsen.

The following Council and officers were elected:—*President:* Professor Thomas H. Huxley, LL.D.; *Treasurer:* John Evans, D.C.L., LL.D. *Secretaries:* Professor George G. Stokes, M.A., D.C.L., LL.D.; Professor Michael Foster, M.A., M.D. *Foreign Secretary:* Professor Alexander W. Williamson, LL.D. *Other Members of the Council:* Captain W. de Wiveleslie Abney, R.E.; Professor W. Grylls Adams, M.A., F.C.P.S.; the Duke of Argyll, K.T., D.C.L.; John Gilbert Baker, F.L.S.; Thomas Lauder Brunton, M.D., Sc.D.; William H. M. Christie, Astronomer-Royal; Warren De la Rue, M.A., D.C.L.; Sir Frederick J. O. Evans, K.C.B.; Professor George Carey Foster, B.A.; Francis Galton, M.A., F.G.S.; James W. L. Glaisher, M.A.; Sir William W. Gull, M.D.; Hugo Müller, Ph.D.; Professor Joseph Prestwich, M.A., F.G.S.; Professor Osborne Reynolds, M.A.; and Osbert Salvin, M.A., F.L.S. Captain Abney, the Duke of Argyll, Mr. J. G. Baker, the Astronomer-Royal, Dr. De la Rue, Sir F. Evans, Professor Foster, Mr. Glaisher, Sir W. Gull, and Dr. Müller were not members of the last Council.

The officers and Fellows dined in the evening at Willis's Rooms.

VACCINATION.—Mr. J. H. Gornall, vaccinator for Warrington, has received his fifth grant from the Local Government Board of £98 8*s*. Each grant has been in excess of that of the preceding one.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed.*

Applications should be addressed to

The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETING TO BE HELD.

METROPOLITAN COUNTIES BRANCH: HERTFORDSHIRE DISTRICT.—A meeting of the above district will be held in the Council Chamber, Town Hall, St. Albans, on Wednesday, December 12th, at 5 P.M. The chair will be taken by the President of the Branch, Dr. C. J. Hare. Papers will be read by A. E. Durham, Esq., Surgeon to Guy's Hospital; and by Dr. A. T. Brett, of Watford.—R. R. LLOYD, Honorary Secretary.

BATH AND BRISTOL RRANCH: ORDINARY MEETING.

THE second ordinary meeting of the session was held at the Museum and Library, Bristol, on Wednesday, November 28th; ED. CROSSMAN, Esq., President, in the chair. There were also present 54 members, and 2 visitors.

New Members.—The following gentlemen were elected members:—T. P. Lowe, M.R.C.S.. Bath; A. M. Irwin, L.R.C.S.I., Bath; T. S. Sheldon, M.D., Wells; H. Norton, M.R.C.S., L.R.C.P.Ed., Batheaston; H. R. Mead, M.R.C.S., L.R.C.P.Ed., Fishponds; W. E. Pountney, M.D., Clifton.

Communications.—The following communications were made.

1. Mr. Chalmers Norton read an Analysis of One Thousand Cases of Midwifery. Dr. Swayne, Mr. Hopkins, and Dr. Spender took part in the discussion which followed.

2. Dr. Stockwell (Bruton), exhibited a typical specimen of horseshoe kidney, and also a uterus which had undergone almost complete atrophy. Dr. Markham Skerritt, Mr. Harsant, Dr. Elliott, and Dr. Swayne, made observations upon this communication.

3. Dr. Aust Lawrence read a paper on Uterine Displacements, and what we can do for them, which was discussed by Dr. Swayne, Mr. Ewens, and Dr. Elliott.

4. Dr. Prowse exhibited a new form of Ophthalmoscope. Mr. Cross made comments upon the instrument, and showed an ophthalmoscope which he had devised.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above District took place at Eastbourne on Thursday, November 29th. Dr. ELLIS took the chair.

Communications.—The following papers were read.

1. Mr. Abbott read some notes on the Treatment of Acute Nasal Catarrh. The author advocated smelling the strong solution of ammonia, which, by its virulent quality, caused the blood-vessels of the mucous membrane to contract. This he had found the only curative treatment in his own case. For patients, he disguised it

by combination with benzoin, cloves, acetic ether, iodine, aldehyde, etc.

2. Dr. Crighton read a paper on the Use of the Seton in Chronic Cerebral Disease. The author considered the seton one of the "good remedies out of fashion." He had used it with good effect in cases of epilepsy, when other remedies had failed. Like the bromides, which had supplanted it, it acted by reducing cerebral congestion, especially of the medulla oblongata. The author pointed out that the derivative effect was much aided by the communication between the occipital veins and the lateral sinus through the mastoid veins. The form of seton recommended was a smooth tape, of material similar to that used for elastic catheters. Cases of epilepsy, and of impaired sight, the result of rheumatic headache, in both of which a cure resulted, and of cerebral tumour, in which, though death eventually ensued, severe pain was entirely removed, were quoted in support of the treatment.

3. Dr. Fussell read notes of a remarkable Outbreak of Enteric Fever, in which soakage of sewage into a well, through sand-rock soil, was considered the cause of the disease. The author pointed out the dangers attendant upon this kind of soil.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT. THE first meeting of this District was held on Friday, November 30th, at the residence of Dr. Henty, Camden Road; Dr. DYCE DUCKWORTH in the chair.

Papers.—Dr. Duckworth read a paper on Collective Investigation of Diseases, with replies to some objections raised. A vote of thanks was recorded.

Secretary.—Dr. Potter tendered his resignation as Secretary, and Dr. Henty was proposed as his successor.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

The Midland Medical Society.—Mr. Hutchinson's Address.—The Queen's Hospital.—The Children's Hospital.—The General Dispensary.—The Health-Lectures.—The Eye Hospital.—The Jaffray Memorial Hospital.

THE annual meeting of the Midland Medical Society is always a pleasant occasion, and this year proved no exception to the rule. Mr. Jonathan Hutchinson's address on Some Definitions of Disease for Clinical Use, was very suggestive, and contained many novel views, particularly in the proposal to class as "Catarrhal" all diseases due to chill. As he did not stop at rheumatic fever, which he expressly mentioned, he would doubtless include in this definition acute pneumonia, acute nephritis, and certain acute and chronic diseases of the nervous system, bones, etc. While an etiological grouping of diseases would have its advantages, few would agree to the divorce of the word catarrh from the pathological ideas with which it has been for thirty years associated, nor is "catching cold" such a definite etiological factor as to afford the best basis for a novel experiment in classification. Mr. Hutchinson's address is published in the December number of the *Birmingham Medical Review*, and will be read with interest by all who are (and who is not?) admirers of the author's versatile and vigorous genius.

The vacancy at the Queen's Hospital caused by the death of Dr. Hunt has been filled by the appointment of Dr. Suckling to the post of physician. This will create a vacancy in the office of casualty physician hitherto held by Dr. Suckling, but it is not certain that this appointment will be continued.

At the Children's Hospital there are several vacancies, and a lively contest for them is being waged. Dr. Jordan's retirement necessitates the promotion of one of the extra physicians to the charge of the wards, and in all probability Dr. Drury, who has been extra physician for six years, will succeed him. Dr. A. H. Carter, the other extra physician, has resigned his appointment, and does not seek promotion. The following are candidates for the two vacant extra physicianships: Dr. H. T. Bassett, Miss Clark, M.D., Dr. A. Harvey, Dr. Holmes, Dr. Richards, and Dr. Lee Strathy, and Dr. Suckling.

The health-lectures at the Midland Institute have been very successful. Dr. Heslop opened the course with a general Address on the Means of Preserving Health; Dr. Foster followed on Colds and Coughs; Dr. Carter on Food; Mr. Pemberton on Wounds and Bruises; Dr. Hill on Infection; and Mr. Lawson Tait will conclude the series next week, with an address to women only. The lectures have been published, and are sold at one penny each. There is a very great deal of knowledge that is absolutely common-place to us, but of which the public is very ignorant, and upon which it is not less our interest than our duty to enlighten them. I trust that these lectures will be repeated, and that their promoters may find imitators in each ward of the town, in which I should like to see similar lectures delivered by the local medical practitioners. Such lectures cannot be too simple; and if those lately delivered have been in any sense "learned," it is a fault which does not call for imitation. The importance of cleanliness, fresh air, pure water, exercise, woollen clothing, milk for babies, regular meals, the isolation of infectious diseases, methods of using disinfectants, etc., are all subjects well within the knowledge of every medical practitioner, which he can illustrate very readily from his own experience, and upon which he cannot fail to say a very great deal that is very instructive and useful to his audience.

The Eye Hospital is rapidly approaching completion. The masonry is finished, and the handsome exterior of the building fully satisfies all expectations. I presume it will be ready to open by April or May, next, at latest. As a large increased expenditure will be needed to carry on this large building, it is to be hoped that the hospital, which has done much good work for the town and district, will receive a due share of public support.

Mr. G. F. Muntz, of Umberslade Hall, has given £2,000 to the Jaffray Suburban Hospital fund, and £1,000 has been granted by the William Dudley Trustees. Altogether about £19,000 have been subscribed up to the present, including a good many promises not yet made public. The Mayor has opened an account at one of the banks, and has made a public appeal for subscriptions. He has empressed the wish that the endowment fund created may not be less than £50,000; yet there are few who are sanguine enough to hope that so large a sum can be raised in the present state of trade.

MANCHESTER.

Manchester and Salford Sanitary Association.—Health-Lectures.—Bread-Factories.—Medico-Ethical Association.—Sick Poor and Private Nursing Institution.—Salford Royal Hospital.

LAST Friday, a deputation, comprising members of the Manchester and Salford Sanitary Association, and many influential residents, waited upon the mayor, for the purpose of enlisting the co-operation of the corporation to provide playgrounds and open spaces for the recreation of children and adults. It was pointed out that in one district of the city alone 3,200 school-children were unprovided with playgrounds. It was also urged that a much more extended use should be made of the playgrounds attached to the board-schools. Attention was called to the number of disused burial-grounds which might be opened up and laid out as public gardens, and also to the urgent necessity of securing open spaces in the suburbs while available.

Dr. Tomkins delivered the fourth of the series of health-lectures, on November 23rd, to a large audience. He laid great stress on the necessity of some form of recreation as the counterpart of work, an advice which the hard-working members of our profession might well take to heart and follow with the best results.

We notice with pleasure the establishment of several Machine Bread Factories in our city, and we can testify to their excellent sanitary conditions, and to the scrupulous cleanliness observed in them throughout. It is gratifying to learn that they are successful as commercial undertakings.

At the last meeting of the Manchester Medico-Ethical Association, Dr. Ashby introduced a discussion on the compulsory notification of infectious disease. There was a general agreement that the compulsory clause had worked satisfactorily here. A few instances of incivility and undue interference on the part of officials were mentioned, and to prevent the recurrence of this, medical men were urged to report them at once to Dr. Leigh, the Medical Officer of Health, who has always shown himself anxious to attend to the representations of the profession.

The annual report of the Sick Poor and Private Nursing Institution, just issued, shows that the private nursing department has been self-supporting, and that an average of sixteen nurses have been constantly employed at the charge of thirty shillings per week.

In the sick-poor nursing department the expenditure has exceeded

the income by £168. A special appeal is made for subscriptions to avoid the necessity of curtailing the operations of one of the most valuable institutions in the city, and if possible to extend its operations. During the past year 2,245 cases have been attended to by the nurses; and medical men practising in the poorer districts frequently testify to the help thus afforded them in their trying work.

The annual meeting of the Salford Royal Hospital was held December 4th. During the year, 529 in-patients, 4,876 out-patients, 4,109 accidents, and 3,503 home-patients, making a total of 13,017, have been attended to. Owing to the insufficiency of accommodation, steps have been taken to secure a piece of land adjoining the left wing of the hospital, on which it is proposed to erect such buildings as might be deemed necessary. The ordinary expenses during the year had exceeded the income by about £200. During the year, two further instalments on account of the bequest of the late Mr. John Pendlebury had been paid, viz., £10,000 and £5,000 (less 10 per cent. for legacy duty).

ABERDEEN.

Aberdeen University Court.

OUR correspondent writes: This Court met on the 30th ult., when Dr. Webster submitted a motion regarding the Universities Bill, which was carried unanimously. The motion declared that the proposal to charge the Consolidated Fund with £40,000 annually for apportionment among the Scotch Universities in full, is objectionable in principle and unjust to the Universities; and it also expressed disapproval of the proposal to withdraw University buildings from the charge of the Government Board of Works. At the same meeting, a dignified protest, on behalf of a majority of the Senators, anent the pathological question referred to in the JOURNAL of December 1st, was laid before the Court. The protest, or rather representation, of the Senatus made it clear that the Senatus had not that "due" notice which the rules of the Court itself enjoined; at least, the Senatus did not consider the time given as the due notice required by the Court. We gave an opinion last week as to the proper issue; and, in fact, the result is what we predicted, namely, that the matter rests with the Board of Examiners. In the words reported to have been said by the Lord Rector, this Board "had the power of indefinite improvement any year they liked;" he also said that "they must not go in the teeth of any ordinance." That is just what has been maintained by all throughout; and the students have still to be examined under the ordinance of 1861, namely, upon "General Pathology." In fact, if the Board do not do so, they will be infringing the ordinance, and then only will they be liable to the interference of the Court. The question is for the Examiners to decide, and there the matter rests in the meantime. The Court has left the position of the students practically as before; and it would only have been just to the students had the Court responded to the representation of the Senatus, and indicated what was to be done. The Lord Rector stated that, "if the Board of Examiners were to order Professor Hamilton to give a separate paper on Pathological Anatomy, and a separate oral examination, they would certainly be infringing Ordinance No. 16, as interpreted by the University Court." Most certainly they would; but that is not the point. It seems quite clear to us that, if the Board decide to have a separate written and oral examination on "General Pathology," they would only be carrying out the provisions of the ordinance. The whole affair is unfortunate, and it cannot be said that the Court has cleared up the matter. The discussion has made the position of the Examiners quite clear; and it cannot be doubted that the Board, in the words of the Senatus, will extend to the students that thoughtful consideration which has uniformly characterised all their actions in the past.

Professor Matthew Hay has, with the sanction and approval of the University Court, appointed Dr. Alexander Macgregor, of Aberdeen, to be his assistant.

AUSTRALIAN MEDICAL NEWS.

WE gather from the *Australasian Medical Journal*—the official organ of the combined Australasian Branches of the British Medical Association—some items of intelligence.

This journal, which we and all the members of the Association naturally regard with peculiar interest, is conducted with much vigour and ability, and has materially aided the growth and influence of the Australasian Branches of the Association.

The following paragraphs we select for their general interest.

The New South Wales Government and Federal Quarantine.—It is satisfactory to hear that the New South Wales Government are taking active steps with a view to obtain the co-operation of the other colonies in a scheme of federal quarantine. The outbreak of small-pox on board the steamer *Duke of Westminster*, from which passengers had been landed in numerous Queensland ports before the disease was discovered in Brisbane Harbour, very obviously shows the necessity for early and united action, as, should small-pox or any other zymotic disease not now present in Australia, become established in one of the colonies, it would be but a short time before it had spread overland to the others, and this it would be impossible to prevent. The circular forwarded by the Premier of New South Wales to the chief secretaries of the other colonies, encloses a copy of the resolutions passed at the August meeting of the Sydney Branch of the British Medical Association, and is a fitting acknowledgment of the position which the Society occupies as an authority on such subjects.

The Medical Inspection of Emigrants in England.—The outbreak of small-pox on board the steamer *Duke of Westminster* in Brisbane, has been traced to the presence of two single girls shipped in London nine and eleven days respectively after discharge from the small-pox hospital. From this incident, the perfunctory character of the inspection prior to shipment is obviously shown. We are informed that the Government of New South Wales has issued regulations which will prevent the possibility of such a thing occurring amongst the immigrants to this colony, and will ensure to the authorities some knowledge of the previous sanitary history of the applicants for passages to the colony.

The Total Abstinence Society has set apart £500 as a nucleus fund wherewith to start a temperance hospital in Melbourne. Steps are to be at once taken to carry out the project.

An Amending Vaccination Bill is to be brought into the Victorian Parliament to legalise calf-lymph vaccination. It will be retrospective.

The Chief Secretary has decided to give the Central Board of Health control of the calf-lymph vaccination at the Model Farm. Mr. Mitchell will continue to conduct the operations.

CORRESPONDENCE.

THE ROYAL UNIVERSITY OF IRELAND.

SIR,—The third resolution to which I wished the attention of Convocation to be directed at the autumn meeting is, "That the Senate be requested to admit undergraduates of the late Queen's University in the Faculty of Medicine to two examinations in the year." In discussing the second resolution, I endeavoured to show that *one* examination in the year was *not* sufficient to enable the University to attain the objects which called for its creation. I propose, in the present letter, to point out how the students of the late Queen's University are thus seriously hampered in the pursuit of their medical curriculum. The Queen's regulations, under which these students entered, provided for *two* examinations in the year, and required the fees for degrees to be paid only on the *first* occasion. If a candidate were unsuccessful, he might present himself at subsequent examinations without paying again. The Senate of the Royal has thought it right to prevent such students presenting themselves for examination a second time in the same year, and insist on their paying the fees at every examination. Now, sir, I believe the Senate have the legal power to do this; but I think few will think it equitable. The Queen's students have fulfilled their part of the contract; and the Royal may very reasonably be asked to perform the other part, which would have been done by the Queen's University, if it still existed. I hold and believe that there is an essential difference with regard to the examination-fees paid to the two universities. The Queen's charged for the degree; the Royal charges for the examination. Surely, then, it is not right for the Royal to accept the Queen's fee from Queen's University students, and make them pay over and over again for a degree which they do not receive when unsuccessful, but which they pay for as if they did. I have a letter before me from a gentleman who tells me he is a student of the late Queen's University; that he was unsuccessful at the last degree-examination; and that he is now informed by the secretaries that he must pay his fees again, and present himself for examination in *additional subjects*. Is this fulfilling the promise that these students would be examined under the old Queen's rules? On their behalf, I ask the Senate, at their next meeting, to give these matters their serious consideration. I wish again to urge on them the desirability of obtaining power to confer

a registrable obstetrical qualification, and desire to thank you, sir, for your kindness in allowing me to discuss these resolutions in your columns.—Very truly yours,

CHARLES FREDERICK KNIGHT, M.D.

Harcourt Street, Dublin, December 3rd, 1883.

NEPHROTOMY FOR SUPPRESSION OF URINE.

SIR,—Will you allow me to correct an error which occurred in the printing of my letter in the JOURNAL of December 1st?

It was written to advocate incision of the pelvis of the kidney, or nephrotomy, in cases of suppression of urine, where one kidney is absent or disabled, and the ureter of the other kidney becomes blocked by a calculus. This condition was very clearly indicated by the symptoms detailed by Mr. Wilmot, as occurring in a case published in the JOURNAL of November 24th.

Unfortunately, the word nephrotomy is twice printed as nephrectomy, an operation evidently impossible where but one kidney exists. —I am, sir, your obedient servant,

R. CLEMENT LUCAS, B.S., F.R.C.S.

Finsbury Square, December 1st, 1883.

PHYSIOLOGY OF THE THYROID BODY.

SIR,—General attention having been drawn to the physiology of the thyroid gland in consequence of the recent interesting discussion on myxœdema at the Clinical Society, I may, perhaps, be allowed to mention some facts in the histology of the gland which have an important bearing on its function. A series of researches on this subject which I have made under the direction of Dr. Klein, and which are published in the *Philosophical Transactions of the Royal Society* for 1876 and 1881, have shown amongst other things that not only is a homogeneous, or finely granular, viscid material (termed "colloid") found in the vesicles of the thyroid gland, but that a substance morphologically identical with this is found in the lymphatics with which this organ is very richly endowed. It is, therefore, reasonable to conclude that a material is formed in the vesicles, which is carried off by the lymphatics of the organ. I have further shown that the colloid material in the vesicles is largely formed by the destruction of red blood-corpuscles which have entered the vesicles, as red blood-corpuscles are frequently found in the vesicles in all stages of disintegration and decolorisation—in fact, in such a state as to show beyond question that they had entered during life. There is, therefore, no doubt, I consider, that the thyroid gland exercises some general influence over the composition of the blood. Why a deposit of mucin should take place in the tissues in cases of myxœdema and cachexia strumipriva (supposing these two diseases to be analogous) is more difficult to explain, but it may be suggested that, if the elimination of colloid material or its constituents from the blood be prevented by excision or atrophy of the thyroid gland, a transudation of these substances into the connective tissue generally may take place. This presupposes that, on its way back to the circulation through the lympathics, the colloid material becomes changed in character. This is, of course, only theory, and must be taken for what it is worth. My object at present is to draw attention to some of the already ascertained facts of the histology and function of the gland. As soon as opportunity offers I intend to continue my researches in this direction.—I am, etc.,

E. CRESSWELL BABER, M.B.Lond.

97, Western Road, Brighton, Dec. 3, 1883.

FALSETTO AND NASAL NOTES.

SIR,—Mr. Mahomed having prominently mentioned my name, I beg permission to make a few remarks in answer to his letter. His description of the appearance of the soft palate in the production of nasal tone is perfectly accurate, though I do not quite understand why he finds it necessary to elaborate a repetition of Mr. Lennox Browne's remarks in explanation of the amply illustrative portrait of its appearance in figure 7 of his paper.

Mr. Mahomed is, however, in error in supposing that "in singing falsetto, the soft palate is not, as Mr. Browne maintains, relaxed, but, if possible, more tightly contracted than in the higher head-notes." What he means by the "higher head-notes" I do not underderstand, but, keeping to the point in question, I may observe that he has fallen into the common error, against which Mr. Lennox Browne cautioned his hearers and readers, of confounding the mechanism of the *lower thin* (by some called mixed voice) with that of the *falsetto*.

In falsetto, the soft palate is relaxed (column 3, line 17 from foot); in the lower thin it is contracted in a very high degree; but in falsetto the palate is by no means loosened to such an extent as to cause nasal quality. It is, of course, one thing for the muscles of the soft palate to partake of the general relaxation of all parts concerned in the production of falsetto, and quite another for the velum to be sufficiently down to cause the tone to pass through the nose.

A photograph of my soft palate in singing falsetto had been taken at the same time as the series published, but it was, unfortunately, destroyed by accident.

We are obliged to Mr. Mahomed for drawing attention to the importance of having a fresh picture taken, and shall soon do ourselves the pleasure of sending you and him an early copy. There was, of course, no pretence to make the sound emitted as "nasal" musical. On the contrary, the intention was to illustrate the ugliness thereof, as distinguished from a pure tone.

I am, Sir, your faithfully,

EMIL BEHNKE.

35, Talgarth Road, West Kensington, W.

CATARACT OPERATIONS.

SIR,—May I be allowed to make a comment on a passage in Mr. Anderson Critchett's lecture on "Operations for Cataract," reported in the JOURNAL of November 17th? He says:

"Amongst the great ophthalmic surgeons of the past, the late Mr. Tyrrell was pre-eminently skilful in the performance of the true flap-operation. He took justifiable pride in the completeness of the flap which his dexterity accomplished, and the first shock which the operator received, was on the discovery that his results at Moorfields were unsatisfactory in comparison with those of a less skilful colleague, who usually, *malgré lui*, severed the portion of iris which unsteadiness and premature escape of aqueous humour brought in front of his knife, and who completed his operative fiasco by making a species of curvilinear, instead of a flap-section. Looked at by the light of our modern experience, the solution of the mystery is simple. The involuntary iridectomy prevented iritic prolapse, and the edges of the curvilinear wound came readily and firmly together."

I cannot understand what Mr. Critchett means by "a curvilinear instead of a flap-section." The line of a flap-section must necessarily be curvilinear. What I wish, however, to protest against is the statement that the unskilful operations of one of Mr. Tyrrell's colleagues were more successful than Mr. Tyrrell's skilful ones. Mr. Critchett has been misinformed on this point. All Tyrrell's colleagues at Moorfields were more or less unskilful, and his own cases were by far the best as to their final results. Tyrrell died forty years ago, and his colleagues have also long since departed; one may, therefore, freely discuss their practice. For the last five or six years of Tyrrell's life I witnessed most of his extractions, both in public and in private, and I never saw, either in England or on the Continent, a better operator. He had his unsucessful cases, of course, as the best surgeon must sometimes have; but I affirm, from personal observation, that no one of his colleagues at Moorfields ever approached him as to the good result of his extractions. —I am, sir, your obedient servant, JAMES DIXON.

November 23rd, 1883.

FEVER IN THE PUERPERAL STATE.

SIR,—As one who has a very great interest in puerperal fever (as we will call it for convenience of nomenclature), may I be permitted to indicate some difficulties I see in the way of obtaining satisfactory returns, in reply to the recent inquiry of the Investigation Committee?

The magnitude of "fever in the puerperal state," as a term, is so vastly perplexing that I think it might be well for the guidance of observers to have some restrictions indicated. For example, I have in my note-book one case of febrile symptoms in the puerperium, extending over fifty-six days, several others over barely so many hours. Am I to report both varieties? Am I to understand that elevation of pulse and temperature, dry tongue, and suppression of certain secretions, are the signs which will justify the publication of a case? If not, what is meant by fever in the puerperal state?

Might it not be well to confine the reports to such cases as are regarded as "metria," "puerperal septicæmia," "pyæmia," "peritonitis," "metritis," "phlebitis," etc.; leaving out, or discriminating, reports of specific fevers in the puerperal state, febrile affections of temporary nature due to mental causes, "weed" and such-like allied affections. I have previously expressed a certain belief and now reiterate

that, in my opinion, there is such a disease as specific puerperal septicæmia.

I have postulated that (1) at certain times large numbers of parturient women are attacked with fever, followed by secondary evils; (2) this fever is not solely dependent on septic material conveyed manually; (3) it is not dependent on erysipelas; (4) it is not ordinary septicæmia or pyæmia; (5) it is communicable by contagion; (6) like other forms (*e.g.*, typhus, typhoid, scarlatina), complications frequently appear, varying in their nature, as the constitution of the patient and the surrounding hygienic arrangements may vary; (7) like other blood-poisons, it is most virulent in hospitals, or where large numbers of lying-in women are crowded together; (8) it is a distinct disease, from its complications, peritonitis, metritis oöphoritis, phlegmasia, etc.; (9) it is infectious to the fœtus in utero, as is small-pox. measles, etc.; (10) the lower animals are simultaneously affected; (11) when the disease runs its normal course, the *post mortem* appearances are not more inconstant than in other forms; (12) in the course of an epidemic, like all general epidemics, "a wave" is usual; after it has become endemic, in-coming strangers are more liable to infection than habitual residents, etc.

I believe in puerperal septicæmia, pyæmia, sapræmia, peritonitis, metritis, cellulitis, parametritis, and perimetritis, etc., as possibilities distinct from this specific septicæmia. I believe in puerperal scarlatina, variola, typhus, erysipelas, and diphtheria, etc., as distinguishable. Others are strongly opposed to every article of my faith. Now, how can these authorities and I meet on a common platform? Are we, in short, to record all our cases of febrile condition, or to select certain types, and if so, which?—Your obedient servant,

A. D. LEITH NAPIER, M.D.

Dunbar, November 28th, 1883.

THE TREATMENT OF DISEASE WITHOUT ALCOHOL.

SIR,—As I was partly responsible for the offer of £1,000 to the Manchester Infirmary to set apart a ward for twelve months for the purpose of testing the treatment of disease without the ordinary employment of alcohol, I trust you will allow me space to comment shortly on the decision of the Medical Board.

It is very easy to say that alcohol is very useful in the treatment of disease, and sometimes essential to save life, but how do they know it? How can they possibly tell unless they give nature an opportunity of showing what she can do in the absence of alcohol? I confess that, at one time, I was as confident of the virtues of alcohol in the treatment of disease as anyone could be, and it was not until I saw case after case recover under my care in the London Temperance Hospital—cases to which at that very time, in any other place, I should have given alcohol—that I became convinced that the value of alcohol as a drug was, at least, enormously exaggerated. The fact that improvement often sets in after the use of alcohol is no proof whatever, for I have repeatedly seen sudden turns for the better in all kinds of cases treated without it. The only fact which would justify the Board in their strong assertions, would be the recovery of a greater percentage of cases with alcohol than without. Such proof does not exist, and (so says the Board) "never shall if we can help it." But can they discover in any of the public institutions in which alcohol is not employed, that there has been a higher death-rate or longer duration of disease, other things being equal? Certainly not. Can they show that the practice at the Manchester Infirmary is any less successful now than it was a few years ago, when the quantity of alcohol given was immensely larger? I trow not. If, then, they, or their predecessors gave alcohol unnecessarily in years gone by, is it impossible that they should be ever giving it unnecessarily now? This is, no doubt, a very heretical suggestion, but I decline to consider the matter settled by mere dogmatic assertion. Faith in the virtues of all kinds of liquor which contain alcohol is so widespread, and is so disastrous in rivetting on the nation the alcoholic habits and notions which beget intemperance and its consequences, that it seems to me the bounden duty of the medical profession to reconsider their position in using and recommending such liquors, and not to employ them without some reliable proof of their absolute necessity, which, to say the least, does not at present exist. How can such proof be obtained unless the test of exclusion be faithfully employed?

It ought to be known, however, that in the conditions attached to this experiment, it was carefully provided that the medical attendant should have perfect liberty to administer alcohol in any case in which it might be considered essential, a right allowed, though only once used, in the London Temperance Hospital itself during its ten years' existence. This right was conceded at the foundation of that hospital on my notion, and I hold myself at liberty to give it at any time. I do not, because I am convinced that it can rarely be of any service, and that then it is not essential. If medical men would try for themselves, they would arrive at the same conclusion.—I am, sir, yours truly,

J. JAMES RIDGE, M.D.Lond, Enfield.

DEATHS UNDER CHLOROFORM.

SIR,—In the JOURNAL of November 17th two deaths under chloroform are reported, in both of which cases the readministration of ether was objected to on the ground of its unpleasant effects. I feel sure that nearly all the unpleasant symptoms attending the early stages of ether-inhalation, the sensation of choking, irritable cough or struggling, etc., may be overcome by adopting the plan indicated by Mr. Marcus Gunn in his paper on anæsthetics, BRITISH MEDICAL JOURNAL, July 21st, 1883, of combining a small quantity of chloroform with ether. For the past three months I have used a Clover's inhaler, with a valve made on the brass tube leading to the bag, as described by Mr. Gunn, and by placing over this valve a layer of lint saturated with chloroform, have combined that vapour with ether during the first 30 to 60 seconds of the administration. Since adopting this plan I have been surprised and gratified by the quiet and confident way in which patients have taken the anæsthetic. No cough, no struggling, and no choking sensation; as far as I have been able to judge, too, the after-sickness has been decidedly less—probably in consequence of the smaller quantity of ether used—and several patients have expressed no particular objection to a second administration. I may add, the alteration required in an ordinary Clover's apparatus is a very trivial one, and in no way damages the instrument for administrating ether without the chloroform.—I am sir, yours, etc.,

WILLIAM COLLIER,

House Physician and Chloroformist, the Wolverhampton Hospital.

CREMATION IN DORSET.

SIR,—As one of those whose great privilege it has been to assist in carrying out the last wishes of my dear friend, Captain Hanham, perhaps I may be permitted to supplement the report of the cremation of his body which has already appeared in the London daily press, by a few more particulars of that most pure and sacred rite. In so doing, I feel that I am acting in strict accord with his oft-expressed desire that this method for the disposal of the dead should be as often as possible placed before the public in its true light, in order that it may help to dissipate that sentimental dread which exists, and naturally so, in so many minds. After the ceremony, you have been told that the body was left in the beautiful mausoleum Captain Hanham had built in the grounds of Mauston House; thence it was borne by friendly hands to the crematorium the same evening, and was placed in the chamber of the furnace fashioned for its reception. As it was the custom of the Greeks for the dead person's nearest relatives and friends to light the funeral pile, so here that duty devolved upon his adopted son, Mr. J. C. S. Hanham, his friend, Dr. Edney, and myself. Soon the all-consuming and purifying fire was at its work, and at the end of two hours we saw, by removing one of the small side blocks, that it had indeed done that work well. We, as medical men, could recognise the various portions of the bony structure in the sea of fire, and the position of the body at the bottom of the furnace was by these means easily indicated. That there was nothing revolting to the feelings in the sight, was truly shown by the fact that others present, not accustomed to such sights, looked on eagerly, and expressed an unanimous opinion in the beauty and purity of the rite. After another hour it was found that the snowy bones crumbled at the slightest touch, and cremation was decided to be complete.

The furnace, which has been so well described by the writer of the report above referred to, was the work of Mr. Richards, of the Wincanton Iron Works, who in its construction displayed his complete knowledge of the principles governing that perfect combustion so necessary for the purpose of cremation. The evening was beautifully clear, and, notwithstanding the lowness of the chimney, so perfect was the combustion that not the slightest trace of odour was perceptible; and, having now thrice witnessed cremation, I can most truly assert that in no possible way can it be injurious to health, or in the least degree offensive to the senses. Can those who know the unspeakable horrors of our great city cemeteries say as much for earth-burial? The two processes, when considered with regard to the safety of the living, do not bear comparison; and, seeing that they so closely resemble each other in

both being processes of oxidation, differing chiefly in the fact that in the one case, by the agency of fire, the process is complete in an hour or two, whilst in the other, by a slow horrible decomposition, it is not complete for years. Seeing that the end is the same, the residuary dust and ashes consisting in each case of the earthy matter of the body alone, it can only be a question of time to overcome that sentimental dread and the curse of prejudice ere this will be the accepted method for the disposal of our dead. To-day, the apparatus having cooled, we collected the ashes, parts looking like frosted silver, parts like snowy dust. Reverentially and carefully was this done, as at Hector's funeral-pile, where

"His brother then, and friends, searched everywhere,
And gathered up his snowy bones with care."

These will be deposited eventually in an urn, and be placed in the mausoleum side by side with the urns containing the ashes of his late wife, Mrs. Hanham, and his late mother, Lady Hanham. As Captain Hanham was the pioneer of cremation in a practical form in this country, so also has it been due to his courage and forethought that those to whom he confidently entrusted his own cremation have been enabled so faithfully and so successfully to encompass it. That it may bring forth such fruit in the coming future as to be an enduring memorial of his revered name, must be the earnest wish of all who desire the health of their fellow-man. I cannot do better than conclude in the prerent Bishop of Manchester's words, when he said: "In the same sense in which the Sabbath is made for man, and not man for the Sabbath, I hold that the earth was made, not for the dead, but for the living. No intelligent faith can suppose that any Christian doctrine is affected by the manner in which, or the time in which, this mortal body of ours crumbles into dust and sees corruption."—I am, etc.,

J. COMYNS LEACH, M.D., B.Sc.

Sturminster Newton, December 5th, 1883.,

THE EPIDEMIC AT KIMBERLEY.

SIR,—I have forwarded for your perusal with this some newspapers, showing in the several reports therein contained the difference of opinion entertained over a species of epidemic which in all its manifestations appears to me to be veritable small-pox, as yet only amongst natives.

Practitioners of long experience amongst natives hold that it is varicella, and one or two relegate it to the domain of pemphigus—notably Dr. L. S. Jameson—or a disease allied to pemphigus—a bullous disease allied to pemphigus.

It would certainly be of vast importance to us to know if there is another disease other than small-pox, displaying the clinical characters, which I have noted in my report. Varicella it is not; pemphigus it is not.

You will note another solution, viz., that it is Kafir pock. Now what is this eruptive disease? Has it been described? I have seen it often, but the eruption comes out irregularly, dries up in a few days, and in its short development to maturity, resembles the course of varicella, while the eruption is totally different. The eruption is always multilocular, so that incision causes no collapse of the pustule. It is mild in its course, and often follows a drunken bout with exposure.

The course, character, and symptoms of the cases I saw, present a disease of a very different nature. Two of the three I saw have died, and *post mortem* notes are given by Dr. Smith. Any information throwing light on the subject will be most thankfully received by—yours faithfully, WM. ROBERTSON.

Kimberley, South Africa.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

EXAMINATION IN STATE MEDICINE.—The Syndicate appointed to superintend the examinations in State Medicine have issued their ninth annual report, in which they state that sixteen candidates presented themselves at the examination held in October last in Part 1, and seventeen candidates in Part 2. Sixteen who passed in both parts received certificates of proficiency in Sanitary Science. The corresponding numbers in 1882 were fifteen candidates in Part 1, fourteen candidates in Part 2, and eleven passed both parts and received certificates. The number of candidates who have failed to satisfy the examiners is, proportionally to the number examined, less than at previous examinations.

UNIVERSITY OF OXFORD.

RADCLIFFE TRAVELLING FELLOWSHIP.—The next examination for a Radcliffe Travelling Fellowship will commence in the second week in February, 1884. Intending candidates are requested to send their names to the Regius Professor of Medicine by the beginning of next term, when the day and hour of the commencement of the examination will be published in the *Gazette*.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL DEPARTMENT PRIZES.

THE subjects of the two prizes open to the competition of medical officers of the army, are published in the blue-book report, which has been recently issued by the War office. These are the Parkes Memorial Prize for £100 in money and a gold medal, and the Alexander Memorial Prize of £50 and a gold medal.

We have already published a notice of the Parkes Memorial Prize, and need not repeat it here (see the JOURNAL for Jan. 6, 1883, p. 25). The subject for the next competition of the Alexander Memorial Prize is announced to be: "On antiseptic surgery, and its application in military hospitals and in the field." The essays are to be despatched so as to reach the director-general, Dr. Crawford, who is President of the Alexander Memorial Committee, on or before the 31st of December, 1883, and the competition is limited to executive medical officers of the army on full pay. The conditions laid down regarding the manner in which the essays are to be written and subscribed, and the appointment of the assessors to determine their relative merits, are similar to those which have been before prescribed on these topics. The Honorary Secretary of the Fund, is Surgeon-Major W. Johnston, M.D.

THE BLANE MEDAL.—This medal, founded by the late Sir Gilbert Blane, Bart., Director-General of the Medical Department of the Royal Navy, has been awarded to Staff-Surgeons George Maclean, M.A., M.B., and C.M., Aberdeen, 1862, of H.M.S. *London;* and Staff-Surgeon Robert Hall More, M.D. and C.M., Aberdeen, of H.M.S. *Swiftsure*, for the excellence of their journals, on the nominations of the Presidents of the Royal Colleges of Physicians and Surgeons of London, and of the present Director-General of the Medical Department of the Royal Navy.

CAN AN ENGLISH WAR FIELD-HOSPITAL WORK?

SIR,—I would like to ask this question in your columns, Can an English field-hospital, as at present manned, do the work demanded of it? I would preface my remarks by saying, that it cannot possibly do its work with the existing hopelessly insufficient staff.

Owing, alas! to the complete ignorance which reigns in the civil profession as to what a field-hospital is, it seems advisable to state that, under existing rules, it is an establishment for the medical care of two hundred sick and wounded men. Further, it is important to remember that these two hundred patients are not slight cases, and as we see in peace, but are, as a rule, seriously wounded or diseased men, needing special care and great attention. Let us see if army doctors have got the means of satisfactorily attending this body of two hundred serious cases.

I have drawn up the following table showing at a glance the comparative strength of the *personnel* of an English field-hospital and of an Indian field-hospital as worked in Afghanistan, and of a proposed strength which seems to me needed if we are to do good work in war.

Comparison of the Personel of a 200 Bed Field-Hospital on the English and Indian Systems.

Class of Servant	English Regulations.	Indian War Establishment.	Proposed Scale.
Compounders	2	4	4
Ward-washers or dressers	2	8	4
Nursing orderlies	22	29	40
Clerks	1	1	4
Storekeepers	4	7	5
Cooks	6	9	8
Dispensary Servants	0	8	0
Watermen	0	15	8
Washermen	0	5	8
Sanitary police sweepers	0	23	8
Messengers	0	1	4
Carpenters	0	1	0
Tent pitchers	0	10	0
Barber	0	1	0
Total for one Hospital of 200 beds	37	122	93
Total of the 25 Hospitals of an Army Corps	925	3,050	2,325

With your permission I will explain the various points. We see thus that the English field-hospital has only 37 subordinates of all grades to do its work·

An Indian field-hospital, on the Afghanistan scale, has at least 122 for the very same work. Surely there must be a mistake on either side. The mistake lies entirely on the English side, and it needs no special knowledge to come to that conclusion.

Take, for example, the nursing orderlies on whom the fag of day and night duty falls. In England in peace, with a crowd of often trivial cases, in our wards we are allowed one orderly per ten sick. But if you glance at the field-scale, it is barely one per nine sick, counting every available spare man as a nurse. But one orderly per nine men is entireiy insufficient if the nursing orderly is to get sleep and proper relief. I have put down 40 orderlies, or one per five sick, which everyone says is the least we can work with in the field. The Indian scale of 2 men per 200 was always insufficient; and if the dhoolie-bearers had not been largely employed, the hospitals could not have worked.

Again, take the clerks. Only one is allowed for the heavy, continuous, and elaborate returns and correspondence of a field-hospital; it is entirely insufficient. Although one clerk is shown under the Indian scale, in reality, the apothecaries and the hospital sergeant are available there for clerks' work. But if we are to keep the returns needed, inform regiments about their men, keep the money accounts and documents of the staff, four clerks per 200 sick are needed. This allows two men for 100 beds, or half field-hospital, if the hospital subdivides.

In the cooks, again, there is need of increase. I think two cooks per fifty sick are needed, and hence claim eight men instead of six. There is, in war, heavy cooking work, making fireplaces, carrying wood and rations, and much of this falls on the cooks. I ask, then, for at least eight cooks if the work isto be done.

In India eight shop coolies, or dispensary bottlewashers, are allowed in a 200-bed hospital. I ask for four compounders instead of two, so that if the hospital subdivides, there may be two compounders with each hundred-bed division.

But when we ask how is an English hospital to get water, or how it did get water in Egypt, the answer is difficult. In peace, we have water-taps and cisterns, and hot and cold water everywhere in a hospital ready to hand. In war, in a camp-hospital, or in a hut-hospital, how can the water come? Only by hand or by cart; but we have no single man to carry water in an English hospital. We, the priests of sanitary science, have not the water even to wash our hands. In Egypt this want was, as you may imagine, excessive. The only way to remedy it is to have regular watermen—that is, soldiers borne on the hospital strength for this purpose. I have asked for eight, that is, four per cent. of sick, or two for each fifty patients. When we remember the excessive need of water in a hospital, this is hardly excessive.

We now come to the washing of the clothes. We are, above all things, Listerian antiseptic surgeons. But, while we thus worship cleanliness, we have no one to wash the soiled clothes of the typhoid patient.

It is amusing to read, on this head, the evidence of Lord Morley's Committee. We hold the Commissariat responsible for washing the clothes. They discover the responsibility; but, while the Army Medical Department and Commissariat discuss the question, the clothes lie unwashed. It is all-important to have such washermen. Is it not utter nonsense preaching Listerism with the washing of the clothes still unprovided for. Every hospital needs to embark for war with a regular number of fatigue men to do the washing. It is altogether essential.

War is a return to primitive savagery, and, as a rule, water-pipes are not yet laid on to battle-fields, nor does the laundry-cart call every Monday morning at the field-hospital at Ismailia or Tel-el-Kebir for the soiled clothes. If we want things done, we must do them ourselves; and on this principle we should provide for the hospital-washing by increasing the hospital-staff of subordinates.

Now, I beg you will observe the enormous mass of conservancy staff (23) allowed to an Indian war-hospital. In an English hospital, there is not a man given us. When one remembers what the great teacher now passed away taught us so often at Netley, is it not sad to think that there is not one man allowed in an English hospital in the field to carry away and bury the sewage of a hospital. It is really too terrible to think of this sad want. I will not say more of this, although I could write much about it. I have asked, therefore, for eight men for this duty; they also bury the dead, and act as fatigue-men and guards or escorts.

No messenger is allowed to an English hospital. If a letter has to be sent, and there are dozens such daily, how is it to be done? Only by withdrawing a nursing orderly; and hence the sick must be neglected.

The other points do not need much reference; but a carpenter is, of course, very useful in a hospital.

In reading Lord Morley's Committee report, there is apparently an idea that the bearer-company can be used to do this fatigue-work of a hospital. It is an utterly wrong conclusion. At the base-hospital, there is no bearer-company available, yet it is there the heavy work will always be. On the line of communications, for which an army corps is allowed thirteen hospitals, there is no bearer-company to draw from. We will spoil both hospital and bearer-company if we try to do this impossible thing. The bearer-companies themselves are too few by half for their ambulance and convoy work; and it is quite wrong to trust to them to wash hospital-clothes or bury hospital-filth.

I have now shown that one unit—the field-hospital, on which our whole good name rests—is hopelessly undermanned. How can we do good work when we have not the means? We must tell this openly to the world; and, above all things, to the combatant officers. They blame us for want of perfect success; but how can we succeed? We need greatly increased war-reserves; and that is the "burning question" of the Army Medical Department. England means us to succeed; of that I have no doubt; but we should state openly our demands. We want abundance of men for war, and on such lines only can we succeed. It is for this reason we need militia and volunteer assistance.

Begging that our civil brethren will read the above, and see how we are handicapped.—Yours, HANDICAPPED.

October, 1883.

PRESENTATION.—Dr. John Davy, Senior House Surgeon to the Halifax Infirmary, has been presented with a set of handsome vases by some of the old patients, upon the occasion of his leaving to commence private practice.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE TAUNTON SANITARY HOSPITAL.

THE annual report of this institution for the year 1882-83 shows what an advantage it is to Taunton and the neighbourhood, and what a safeguard it must form against the spread of infectious disease.

The number of cases admitted during the year was 64. On the whole the value of the hospital is gradually coming to be appreciated; but if more use were made of it, the health of the town might be still further improved. Of these 64 cases, 8 were scarlet fever, 48 diphtheria, 7 typhoid fever, and 1 small-pox. The epidemic of diphtheria, which was a prolonged one, might have been cut short if the hospital had been freely used at the outbreak of the disease.

Of the 64 cases, 11 died, 50 were discharged cured, and 3 were still in the wards when the report was drawn up. Of the deaths, 10 were diphtheria, and 1 from typhoid fever.

The total working expenses during the year were £367 10s., and of this sum £23 18s. 6d. were received from the payments of patients.

The report concludes with some statistical tables which are of much local interest.

LONDON FEVER HOSPITAL.

MR. E. BURN-CALLANDER, Secretary of the London Fever Hospital, Liverpool Road, states that this hospital is sorely in want of funds. The number of patients admitted this year will be about 1,000, including persons from all ranks and classes of society, except paupers. Owing to the severe outbreak of typhoid fever, the expenses have been unusually heavy; and, although the fee of admission is only £3 3s., the average cost in each case is over £10. During the year, one medical officer and nine nurses contracted fever, besides two nurses who caught diphtheria. The reliable annual income is very inadequate to meet the expenditure; and funds are earnestly requested, not only to meet the current expenses, but also to defray sadly needed repairs and additions to the buildings. As the only hospital in London of its kind, the London Fever Hospital has very special claims on the benevolence and support of the middle and upper classes.

THE LIMITATION OF OUT-PATIENTS.

AFTER much consideration, and as the result of repeated representations and conferences, the London Hospital has issued the following notice to governors and patients. On and after the 1st January, 1884, the following arrangements which are in accordance with the terms of a report from the House Committee, adopted by the Special General Court of Governors, held on Wednesday, 6th of June last, will come into operation. With a view to prevent the abuse of charity by improper objects, a waiting-hall inspector will be employed to ascertain whether any patients presenting governors' letters are able to pay the fees of consulting physicians or surgeons, or (not being urgent cases) of local practitioners; or should be referred to recognised provident institutions (wherever existing; or, being in receipt of parish relief, should be required to attend at poor-law dispensaries. In order to insure that renewed attendance is granted solely to such patients as require the continuous advice of experienced hospital physicians or surgeons, a governor's letter will not entitle to more than one attendance, unless the medical or surgical officer on duty may decide to prolong such attendance; and he is not at liberty to continue in force any ticket unless in his professional opinion further treatment is necessary or desirable; in which latter case attendance may be prolongued without renewal. New tickets presented by patients who have been classed as not requiring further treatment will be of no avail, except for a fresh disease, and will be at once cancelled. Patients desiring treatment in the department for diseases of the eye, ear, or skin, or for cancers, tumours, &c., must obtain governors' letters,, and will be subject to the inspection noted in paragraph 1. But as to skin cases, it should be understood that one letter will be sufficient for all the members of one family who may be suffering from the same. The object of these arrangements is to bring the numbers of patients in attendance within manageable limits, thus at the same time rendering the tickets a more valuable possession to the governors or subscribers who may issue them, and to those patients who may be recognised as requiring and deserving skilled hospital treatment. Incorrect information in reply to inquiries will lead to forfeiture of tickets.

WEST CHESHIRE PROVIDENT DISPENSARIES.

THE fourth annual report of this institution shows that it continues to make steady progress. It maintains two dispensaries in Birkenhead, and a third is about to be opened at Tranmore. At both the establishments which are at present in operation, the figures show an upward tendency. The number of members enrolled during the year at the Borough-road Dispensary was 421, and the contributions received from the Provident members amounted to £225 9*s.* 4*d.*, against £190 16*s.* 7*d.* last year. At the North-End Branch, which was only opened in October, 1881, the new members enrolled were 34, and the amount received from the members during the year was £19 13*s.* 1*d.* against £17 18*s.* 7*d.* last year.

Only £31 were received from honorary subscribers. The sum divided among the medical officers was £103 13*s.* 11*d.*

These dispensaries have made a good beginning. But in a district such as West Cheshire, there must be room for far greater development than they have yet attained.

THE DUBLIN HOSPITALS.

A LARGE number of these hospitals receive an annual grant from the city, in the form of presentments made by the Corporation of Dublin. Much interest was felt in the distribution this year, from the fact that, as has been reported in this column, a Committee of the Corporation had inspected the hospitals receiving these grants, and had reported unfavourably upon some of them. The amount voted to the hospitals last year was £4,595. This year an application was made for an increase of the presentment to St. Mark's Ophthalmic Hospital from £150 to £200. The Finance and Leases Committee, however, did not recommend this increase; but, on the contrary, recommended the following reductions, which would reduce the vote to £4,125—viz., the votes to the Charitable Infirmary, Jervis Street, to Mercer's Hospital, and the Rotunda Hospital, to be reduced from £300 to £200 each; that to the Coombe Lying-in Hospital, from £520 to £400; that to Dr. Steevens's Hospital, from £150 to £100; that to the National Orthopædic Hospital, Adelaide Road, from £100 to £50; and the grant of £50 to the maternity department of Sir Patrick Dun's to be discontinued. Total reduction, £570. These votes were the subject of an acrimonious controversy in the Corporation, extending over two days, and were discussed seriatim. Political and religious differences were unfortunately introduced, and general vague charges were made against the administration of certain hospitals, which could not be substantiated. Finally, the votes, instead of being reduced, as originally proposed, were, in most cases, increased, and no grant was reduced or withheld.

MEDICO-LEGAL NOTES AND QUERIES.

FEES FOR MEDICAL EVIDENCE.

SIR,—I shall feel much obliged if, in the next number of the JOURNAL, you will kindly give me your opinion on the following point in connection with fees for medical evidence. A woman was brought to this institution a few days ago by the police, having been assaulted by her husband, and received a severe scalp-wound as the result. I dressed the wound, and the woman returned next morning to let herself be seen, accompanied by the policeman, who arrested her husband. When I had done with her the policeman asked me for a certificate, stating the nature of the injury. This I innocently gave to him, having no idea that it would be used as medical evidence at the Petty Sessions that morning. However, by the next day's paper, I saw that this certificate was handed in to the bench of magistrates, and, consequently, my evidence in person was not required, and the payment of a fee also avoided.

What I should like to know is, Must I in such cases give a certificate to the police when they ask for it? or, Have I the right to demand payment of a fee for so doing? If so, I shall, on all future occasions, refuse to give a certificate unless the fee is also handed to me; or wait till I am summoned in due form to give evidence in court. It has been told me that, some time ago, the committee of this hospital were instructed by some of the magistrates to require the house-surgeon to give a certificate when asked for by the police—I presume, not intending to pay for the same. Of this, until now, I was not aware, and know not on what authority such an order was given. No such order has ever been conveyed to me from the committee, and, even if it had been, I should feel it my duty to take no notice whatever of it, unless I am clearly bou by law to do so.—Yours truly,

WILLIAM H. BENNETT, M.B.,
Resident Surgeon, Londonderry Infirmary.

*** We have no doubt that the police-constable had been directed by his superintendent to apply for a certificate, stating the character of injury the woma had sustained, but, in our judgment, it was optional with our correspondent whether he complied with the request or not. Unfortunately, house-surgeons and resident medical officers are often too willing with their pens. The duty of such officials is ended when they have attended to the medical or surgical wants of a patient; and, if further information be required beyond what is generally patent, it should be paid for.

LIFE-ASSURANCE AND SUICIDE.—The Supreme Court of the United States has recently delivered an important decision in reference to a contested life-assurance claim. It appears that a person named Israel Ferguson insured his life in the Manhattan Assurance Company, and some time subsequently hanged himself in Central Park. It was expressly set forth in the policy that the company would not be liable should the insured die by his own hand; but the heirs under Mr. Ferguson's will entered an action to recover the amount, on the ground that he was not responsible for his actions when he hanged himself; and the Court has decided in their favour, with costs and interest. The Supreme Court holds that the company is liable, on the ground that suicide by an insane or temporarily insane person is not a suicide within the meaning of the special condition in the policy.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SCARLET FEVER IN LEEDS.

THE death-rate in Leeds has recently exceeded, in a marked degree, the rate which has prevailed in this town in the corresponding period of any year since 1875. The mean annual rate of mortality within the borough (during the nine weeks ending last Saturday) has been equal to 25.4 per 1,000, and 4.4 above the mean rate in the twenty-eight large English towns dealt with in the Registrar-General's weekly return. That this excess is almost entirely due to the fatal epidemic of scarlet fever now prevailing in the town, is evident from the fact that the annual death-rate from this disease during the past nine weeks has been 3.6 per 1,000. The days are past when the verdict in such epidemics might be returned as "visitation of God," and grave responsibilities now rest upon sanitary authorities in such cases. What are the facts as regards recent scarlet fever fatality in Leeds? During the thirteen years ending with 1882, the deaths referred to scarlet fever within the borough were 3,480, averaging 268 per annum. The years of greatest fatality were 1873 and 1874, when, under the influence of a severe epidemic, the fatal cases rose to 628 and 664. Since this epidemic the annual deaths from this cause have been much fewer, and in 1881 only 77 fatal cases were registered. In 1882 the deaths rose again to 164, of which 79 occurred in the last quarter of the year. In the first three quarters of 1883 the registered fatal cases were 134, 111, and 148 respectively, while in the first nine weeks of the current quarter the deaths from this cause rose to 202. Thus no fewer than 595 deaths from scarlet fever have been recorded within the borough since the beginning of this year, signifying at least 6,000 cases of attack, unless the disease is of an exceptionally malignant and fatal type. That this epidemic should be as fatal as that which occurred three years ago, does not afford satisfactory evidence of the present sanitary condition and organisation of the borough. Hospital-isolation for scarlet fever in Leeds is practically untried, and abundant evidence of its efficacy in controlling epidemics authoritatively suggests that the present epidemic in Leeds might have been kept within far smaller limits if local means for hospital-isolation had existed and been fully utilised when the epidemic broke out twelve months ago.

MANAGEMENT OF POOR-LAW INFIRMARIES.—A meeting of the members of the Metropolitan Poor-law Guardians' Association was held recently in the board-room of the Guardians of the City of London Union, Bartholomew Close, for the purpose of discussing questions relating to the administration of the Poor Law. Mr. Mann presided. The subject of "The Management of Poor-law Infirmaries" was introduced by a paper by Mr. W. Bousfield, who urged that the management of infirmaries was one of the most important parts of the guardians' work, and while admitting the necessity of separating the sick from the general body of paupers, said that there had been a steady improvement in the state of the workhouse infirmaries, especially in London, and pointed to the great importance of obtaining the assistance of trained ladies as trained matrons. He also advocated visits of volunteers, but at the same time as the infirmaries improved they would become more and more attractive to the sick. He also spoke of the importance of separating the infirmary system from application for Poor-law relief, by which the dread of the workhouse was to some extent removed; at the same time

he had no doubt the Guardians had been helped by enforcing the in-door test, and dwelt upon the advantages which the infirmaries might confer in training nurses.—Mr. Fosgate referred to what was done in the Poplar workhouse in regard to details of management.—Mrs. Charles thought that the danger was that the infirmaries which were so very comfortable might be used by those who were not paupers. The objection of the poor had been, she thought, not so much on account of their dread of pauperism, as from the fact that the infirmaries were not comfortable. She suggested that the guardians should take into consideration the question of giving relief on loan at the infirmaries.—Dr. Lloyd spoke in favour of the attendance of lady visitors, but objected to the City missionaries. He said that he would be happy to see medical students attached to the workhouse infirmaries, as he believed nothing would tend more to their efficiency.—Dr. Bridges, one of the Local Government Board Inspectors, said his conviction was that the experience of ten years showed that the infirmaries were working favourably. As far as he had been able to observe, he believed that the people who were able to pay who found their way into the infirmaries were very few. It had been said that paupers were induced to go into the infirmaries in consequence of the comforts there to be found; but he did not think such would be often the case, as many paupers preferred the freedom of the old sick wards of the workhouse to the strict discipline enforced in a well regulated infirmary.—Mr. Tattersall thought it important that the people should be sent direct from the infirmaries to their homes on their recovery, in order that they might be removed from the taint of pauperism. Workhouses had not that deterrent effect which many people believed; on the contrary, he thought that many who had not been paupers before rather liked the workhonse when they once got there. He also thought it would be a good thing if some of the surplus labour of the workhouses was used in the infirmaries, as, by the adoption of such a course, a considerable amount of money would be saved in scrubbing and washing. After some further discussion, the meeting closed.

MORTALITY IN MANCHESTER.—The rate of mortality in the city of Manchester has recently shown a marked excess, and in each of the last two weekly returns of the Registrar-General, the death-rate of that city has appeared at the bottom of the usual list of the twenty-eight towns, being so high as 33·4 and 31·7 per 1000 respectively. During the past eight weeks of the current quarter the Manchester death-rate has averaged no less than 28.3 per thousand, while the same rate during the same period in the twenty-eight large towns dealt with by the Registrar-General did not exceed 20.8. Thus the mean death-rate in Manchester has exceeded by nearly 40 per cent. the mean rate in twenty-eight of the largest English towns. Indeed, the rate of mortality in Manchester, since the beginning of the year, has exceeded that which has prevailed in any other of the large English towns, not even excepting Liverpool. It is well to note, however, that the local returns issued by the Medical Officer of Health for the city are somewhat less favourable than those published by the Registrar-General. Take the return for the week ending 17th November as an example; the Registrar-General reports that the annual death-rate in the city of Manchester during that week was 33·4 per 1000, whereas the local rate shows a return of 31·8. An examination of the local return appears to show that the Medical Officer of Health for the city excludes in his return the death of Manchester paupers occurring in the Chorlton Union Workhouse, which are (and correctly, as it appears to us) included by the Registrar-General. Another source of the difference in the death-rate may be found in the estimated population of the city, in the middle of this year, which the local return makes 341,508, while the Registrar-General places it at 339,252. The population of the city of Manchester showed a decline between 1871 and 1881, and the Registrar-General assumes that this decline is continuing, while the local authorities assume that the population of the city has been stationary since 1881. Especially at a time when the high death-rate in Manchester calls for the earnest attention of the local sanitary authority, this material difference between the official and local mortality statistics of the city, is much to be regretted.

HEALTH OF FOREIGN CITIES.—It appears, from statistics published in the Registrar-General's return for the week ending the 1st instant, that the death-rate was recently equal to 35.8 per 1000 in Madras, 29.0 in Calcutta, and 20.9 in Bombay, the mean rate in these three principal Indian cities being 27.3. Cholera caused 46 deaths in Calcutta, and small-pox 21 in Madras; "fever" fatality being considerably greatest in Madras. According to the most recent weekly returns, the average annual death-rate in twenty-one of the largest European cities was equal to 24.0 per 1000 of their aggregate population; this rate was 1.0 above the mean rate last week in the twenty-eight large English towns. The rate in St. Petersburg was equal to 24.0, 24 of the 428 deaths being fatal cases of diphtheria. In three other northern cities — Copenhagen, Stockholm, and Christiania — the mean death-rate was only 20.7, the highest being 24.7 in Christiania; scarlet fever caused 3 deaths both in Stockholm and Christiania. In Paris, the death-rate was 22.9, the deaths including 31 from typhoid fever, and 44 from diphtheria and croup. The 156 deaths in Brussels, of which 8 were fatal cases of small-pox, were equal to a rate of 20.1. In Geneva, the 29 deaths give a rate of 21.6. In the three principal Dutch cities —Amsterdam, Rotterdam, and the Hague—the mean death-rate was 27.1; the rates ranging from 17.5 in the Hague to 30.3 in Amsterdam, where 13 more fatal cases of diphtheria and 24 of croup were reported. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 26.4, and ranged from 24.5 in Berlin and Hamburg, to 29.4 and 30.1 in Breslau and Munich. Small-pox caused 27 deaths in Prague, and diphtheria 82 in Berlin and 17 in Dresden; 19 of the 383 deaths in Vienna resulted from measles. The rate did not exceed 21.3 in Rome, and 20.0 in Venice; 12 of the 124 deaths in Rome were, however, referred to malarial fever. The 118 deaths in Lisbon included 3 fatal cases of scarlet fever, and were equal to a rate of 28.8. The recorded death-rate in four of the principal American cities averaged only 19.7, ranging from 21.2 in New York to 17.1 in Baltimore. Typhoid fever caused 24 deaths in New York and 9 in Baltimore. The 323 deaths in Philadelphia included 27 from diphtheria and 13 from scarlet fever.

THE INSPECTION OF LODGING HOUSES.—It is understood that the Local Government Board are about to issue regulations under the Sanitary Acts for adoption by the vestries of the metropolis, so as to enable them to deal with houses let out in tenements. By these regulations the vestries will be enabled to fix the number of persons who are to occupy houses let in lodgings, to inspect such houses, to prescribe rules for keeping them in a cleaner and more wholesome state, to enforce the provision of appliances and means of cleanliness in proportion to the number of lodgings and occupiers, and the cleansing and ventilation of the common passages and staircases, also to require the cleansing and whitewashing of such premises at stated times.

THE first ten cases of the 100 to be heard against local anti-vaccinators came before the borough justices at Blackburn this week. Two persons were fined 10s. and costs each, for failing to have their children vaccinated within three months after birth, and eight were ordered to have their children vaccinated within the next fourteen days. Most of the persons prosecuted are members of the Anti-vaccination Association, which will meet the penalties imposed.

ATTENTION was this week called, by the city coroner at Exeter, to the danger of the feeding of infants with biscuit food. He said in several recent cases death was undoubtedly due to improper food, and a medical man remarked that it should be publicly known that infants under the age of six or eight months should not be fed with anything except milk.

SIR,—Will you kindly give me a reply in your next issue to the two following questions?

1. I wish to prepare myself for the post of medical officer of health, but have done nothing in this branch since attending lectures upon public health five years ago. What work is best adapted for thoroughly learning the duties of the post?

2. A young friend of mine has passed his medical preliminary examination, but does not wish to attend university lectures upon chemistry, etc., until next October. What are the best elementary works upon Botany, Natural History, and Chemistry, to place in his hands until that time?

Please reply, and oblige, yours very truly, WINCHESTER.

*** 1. If "Winchester" merely seek to acquire a knowledge of the practical duties devolving on the medical officer of health of a small urban or rural district, to be able to confer with the surveyor on general principles, to advise his board as to the removal of nuisances, and to detect the defects in private houses, and does not at present contemplate going up for a certificate in sanitary science, we would recommend the following works. For general matters, Wilson's *Handbook of Hygiene* (Churchill's). For the principles (not details) of sanitary engineering, Galton's *Healthy Dwellings* (Macmillan). For domestic sanitation, E. Bailey Denton's *House-Sanitation* (Spon), and Hellyer's *Lectures on Science and Art of Plumbing* (Batsford). F. R. Wilson's *Guide for Inspectors of Nuisance*, contains much useful and practical information as to inspection, supervision,

and specifications, with forms and modes of procedure. For sanitary law, Stratton's cheap edition of the public-health statutes, and Alex. Glen's *Artisans' and Labourers' Dwellings Act*. These three works are published by Knight, of Fleet Street; and, appended to the guide, is a catalogue of all the official forms, etc., that can possibly be required. Much valuable current information is found in the *Sanitary Record*, and valuable items also in the *Sanitary Engineer*. Ward and Lock's shilling *Handbook of General Building Art and Practice* will give him an insight into technical details very effective in dealing with builders, who are quick to detect ignorance of their art. Should he have occasion to advise as to "disposal and utilisation of sewage," he will find Robinson's little book on *Sewage-disposal* (Spon) invaluable.

2. Barff's *Chemistry* (Groombridge), though not going beyond the non-metallic elements, will, if carefully studied, give a sound foundation for further study; then Williamson's *Chemistry for Students* (Macmillan), Greville's *Student's Handbook of Chemistry*, has considerable merit. Huxley and Martin's *Biology*, followed by Rolleston's *Forms of Animal Life* (Macmillan), are the best text-books of comparative anatomy and physiology. If, however, his future examinations require zoology rather than biology, then Alleyne Nicholson (Blackwood) or Huxley's *Manuals of Invertebrata and Vertebrata* (Macmillan) will be useful. Oliver's little book on *Botany* (Macmillan), followed by Master's *Henfrey* (Van Voorst), or Bentley, may be used.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 29th, 1883.

Agar, Samuel Hollingsworth, Trinity Square, Borough.
Anderson, Langford McEwan, New Cross Road, S.E.
Caldecott, Charles, Church Square, Basingstoke.
Hamilton, Thomas Theophilus, Loughgilly, Co. Armagh, Ireland.
Kelson, William Henry, London Hospital.
Lee, George Thomas, Upper Wimpole Street, W.

The following gentleman also on the same day passed the Primary Professional Examination.

Caswell, George William, University College.
West, William Paynter, Guy's Hospital.

MEDICAL VACANCIES.

The following vacancies are announced:

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House-Surgeon. Salary, £65 per annum. Applications by December 11th.

BALLYMAHON UNION, ABBEYSHRULE DISPENSARY.—Medical Officer. Salary, £120 per annum, and Fees. Applications by 18th instant to G. H. Miller, Honorary Secretary, Lenamore, Edgeworthstown.

BATH GENERAL OR MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum. Applications by December 20th.

CAMBRIDGE UNION.—Two Medical Officers. Salary, £50 per annum each. Applications by December 18th.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Honorary Surgeon. Applications to Mr. Adam Fox, Honorary Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant-Physician. Applications by December 17th.

COTON HILL LUNATIC HOSPITAL, Stafford.—Resident Medical Superintendent. Salary, £400 per annum. Applications to the "Committee of Visitors," by December 8th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Dental Surgeon. Applications by December 10th.

FULHAM UNION.—Dispenser. Salary, £90 per annum. Applications by December 10th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester.—Junior Resident Medical Officer. Salary, £80 per annum. Applications by December 12th.

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon and Dispenser. Salary, £50 per annum. Applications by December 21st.

LEOMINSTER UNION.—Medical Officer for the Bodenham District. Salary, £20 per annum. Applications by December 18th.

LIVERPOOL NORTHERN HOSPITAL.—House-Physician. Salary, £80 per annum. Applications to the Chairman of the Committee by December 14th.

LODDON AND CLAVERING UNION.—Medical Officer. Salary, £55 4s. per annum. Applications to J. C. Copeman, Clerk to the Guardians, Loddon, Norwich, by December 8th.

LONDON HOSPITAL.—Surgical Registrar. Salary, £100 per annum. Applications by December 17th.

NEW ROSS UNION.—Medical Officer, New Ross Dispensary. Salary, £115 per annum, and fees. Election on December 17th. Applications to P. J. Roche, Honorary Secretary, New Ross.

NEWTON ABBOTT UNION, and the URBAN SANITARY AUTHORITIES OF DAWLISH AND WOLBOROUGH, in the County of Devon.—Medical Officer of Health. Salary, £350 per annum. Applications by December 18th.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead.—Resident Medical Officer and Registrar. Honorarium of 40 guineas per annum. Applications by December 10th.

PAROCHIAL BOARD OF INVERARY AND GLENARY AND LOCAL AUTHORITY OF THE BURGH OF INVERARY.—Medical Officer. Joint Salary, £90 per annum. Applications to the Town Clerk, Inverary, by December 14th.

ROYAL CORNWALL INFIRMARY.—House-Surgeon. Salary, £120 per annum. Applications by December 10th.

SHILLELAGH UNION.—Medical Officer, Shillelagh Dispensary. Salary, £115 per annum and fees. Applications to William Murphy, Honorary Secretary, Ballykilane, by December 19th.

SOLWAY LODGE OF ODDFELLOWS, Whitehaven.—Qualified Medical Practitioner. Applications by December 14th.

UNIVERSITY OF EDINBURGH.—Additional Examiner in Medicine in the Department of Medical Jurisprudence. Applications to J. Christian by January 14th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon. Salary, £50 per annum. Applications by December 10th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Assistant-Physician. Applications by December 10th.

WESTERN GENERAL DISPENSARY, Marylebone Road, N.W. Honorary Surgeon. Applications by December 10th.

WOBURN UNION.—District Medical Officer and Public Vaccinator for the Aspley Guise District. Salary, £70 per annum. Applications by December 20th.

WOBURN UNION.—Medical Officer for the Workhouse. Salary, £35 per annum. Applications by December 20th.

MEDICAL APPOINTMENTS.

ANDERSON, W. M., M.B, appointed House-Surgeon to the West London Hospital, *vice* H. Hendesy, M.R.C.S.E., resigned.

BREDIN, H. A., M.R.C.S.Eng., L.S.A., appointed House-Surgeon to the Bootle Borough Hospital, *vice* C. A. McLean, M.D., resigned.

CARDEW, G. S., M.B., appointed House-Surgeon and Dispenser to the Teignmouth, Dawlish, and Newton Infirmary and Convalescent Home, *vice* F. M. Puddicombe, L.R.C.P., resigned.

CLEGG, Joseph, M.R.C.S., L.S.A., appointed Medical Officer to the Dispensary (Gartside Street) of the General Hospital for Children, Pendlebury, Manchester, *vice* T. C. Booth, resigned.

COCKEY, C. P., M.R.C.S., appointed House-Surgeon to the Female Lock Hospital, *vice* P. P. Whitcombe, M.R.C.S., L.S.A., resigned.

DOVE, J. R. Bathurst, M.B. and B.S.Lond., L.R.C.P.L., M.R.C.S., etc., of Pinner, elected Visiting Surgeon to the West Herts Infirmary, Hemel Hempstead, *vice* Dr. Wilson Iles of Watford, deceased.

EDWARDES, E. J., M.D., appointed Honorary Physician to the Farringdon Dispensary and Lying-in Charity.

EVANS, Frederick William, M.D., C.M.Aber., M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer to Howell's School, Llandaff, *vice* Thomas Evans, M.R.C.S., L.S.A., deceased.

EVANS, Frederick William, M.D., C.M.Aber., M.R.C.S.Eng., L.S.A.Lond., appointed Surgeon to the Melin-Griffith Tin Works, South Wales, *vice* Thomas Evans, M.R.C.S., L.S.A., deceased.

FOX, W. H. P., L.R.C.P., appointed House-Surgeon to the Wrexham Infirmary and Dispensary.

JAKINS, Percy S., M R.C.S., appointed Surgeon to the Western Ophthalmic Hospital, Marylebone Road, *vice* W. Charnley, M.B., resigned.

MURDOCH, A. M., L.R.C.P.E., appointed Medical Practioner to the Calton and Bridgeton combined disiricts of the Borough Parish, *vice* W. R. Watson, L.R.C.S., resigned.

MURRAY, G., M.D., appointed Surgeon to the Sick and Wounded Seamen and Marines, and Admiralty Agent to the Port of Belfast, *vice* James Moore, M.D., deceased.

ROBERTSON, T. M., M.B., appointed Junior House-Surgeon to the Darlington Hospital, *vice* F. W. Grant, M.B.

ROUSE, Rolla E., M.R.C.S., appointed Resident House-Surgeon to the Brighton and Hove Dispensary, *vice* C. B. Richardson, M.D., resigned.

VINRACE, E. D., M.R.C.S., appointed Resident Medical Officer to the Hospital for Diseases of the Throat, Golden Square.

WISE, A. Tucker, M.D.Brux., L.R.C.P.Lond., appointed Resident Physician to the Kursaal de la Maloja, Engadine, Suisse.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

BROADBENT—HARRISON.—At St. Mary Abbott's, Kensington, on the 6th inst., Samuel Winn Broadbent, M.R.C.S., of Dalton-le-dale, Co. Durham, to Julia Louisa, daughter of Rev. W. Gorst Harrison, Rector of Easington, Co. Durham.

SINCLAIR—HADDON.—At Honeyburn, Hawick, on the 29th November, by the Rev. Robert Borland, Minister of Yarrow, assisted by the Rev. David Cathels, M.A., Minister of Kirkton, William Japp Sinclair, M.A., M.D., Manchester, to Maggie, daughter of Andrew Haddon, Honeyburn.

SMITH—ASHBY.—On 1st December, at St. Luke's, Redcliffe Square, Kensington, by the Rev. H. T. L. Walker, M.A., J. Creig Smith, M.A., C.M., F.R.S E., of 16, Victoria Square, Clifton, to Adela, youngest daughter of the late Alexander Ashby, Esq., of Barbadoes, West Indies.

RABIES.—The following notice has been issued by the Brown Institution. This disease occurs in dogs of all ages, and may appear at any season of the year. It is recognised by a change of demeanour of the dog, which becomes dejected, morose, inclined to roam, and anxious to hide itself. The animal gnaws at wood, stones, and any refuse which it sees, snaps at imaginary objects, and becomes unusually excited by strange or sudden noises. It rubs its throat with its paws, as if striving to get rid of some object lodged there; at the same time there is a more or less abundant flow of saliva from the mouth. The animal is, moreover, very readily excited, and barks with a peculiar harsh, strange cough. The dog will attack its master, or animals of any kind; but it is most easily roused to fury by the presence of other dogs. It is feared and shunned by healthy dogs, not only when it attacks them, but when the disease is in a very early stage. There is throughout the disease no dread of water. Before the tendency to bite shows itself the animal may be unusually affectionate to its master, licking his face and fawning upon him. In one form of the disease called "dumb madness," there is paralysis of the jaw, and therefore inability to bite. If a dog has shown any of the symptoms of madness mentioned above, or an unusual tendency to bite other animals, it should be at once loose-muzzled and securely chained up, but it is advisable that it should not be destroyed until it has been examined by some authority capable of determining whether the animal be rabid or not. Owners of dogs are warned of the danger they may incur by allowing their faces and hands (especially if scratched) to be licked by the animals, even if these show no sign of madness. All dog-bites should be immediately cleansed by suction and washing, and the wounds should be cauterised as soon as possible.

PRACTICAL APPLICATION OF CEREBRAL LOCALISATION.—Dr. T. O. Summers contributes the following to the *American Southern Practitioner*. "A little child, five years of age, received a blow or had a fall upon the head about two years ago, producing no external lesion as far as could be observed, but resulting in complete aphasia. After the injury he could only make idiotic noises, though he understood all that was said to him. From this time he developed as a left-handed child. The father applied to me for relief. I was satisfied of depression, and located it at the third convolution of the anterior lobe of the cerebrum on the left side, led to this conclusion by the aphasia and left-handedness of the child. I removed the disc of bone from a point just superior to the temporal ridge, and anterior to the coronal suture as it bends forward to cross the ridge. This disc covered a portion of the ascending frontal and middle frontal convolutions, and its posterior border rested over the fissure of Rolando, close up to the ascending parietal convolution. Of course the diploic structure was rudimentary in a child of that age, but what was to be the inner table was clearly depressed by a green-stick fracture. After the operation the child articulated clearly, crying out, 'Turn me loose, doctor, my head's bleeding.' From that time on to the present day he has talked well, and has recovered his intelligent expression and manner. The interest in this case lies in the apparent practical demonstration of the location of the centre of speech in this portion of the brain, and on the left side in right-handed persons, as contended by some neurologists."

HYSTERICAL DEAFNESS.—Dr. C. K. Mills, in the *Polyclinic*, speaking of the difficulty of detecting hysterical deafness, gives the preference for that purpose to the Cammann's binaural stethoscope, used by David Coggin in one medico-legal case, for detecting simulated unilateral deafness, as being as sensible as it is simple. Coggin thus described its use: "The patient affirmed that he was deaf of the left ear. I therefore inserted a tightly fitting wooden plug into the right caoutchouc tube, and then put the two caoutchouc tubes into the metal ones. When I tried the instrument on myself, I found that words spoken could not be understood by the right ear. After the patient had adjusted the stethoscope, he repeated without hesitation the words which I had whispered into the bell of the instrument, which served as a mouth-piece. The tube containing the plug was then taken out of the right ear, which was firmly closed by pressure on the tragus. When I again spoke into the stethoscope, which was still in connection with the left ear, the patient positively assured me that he could no longer distinguish the words. He was, of course, aware that the tube through which he had before heard was no longer in connection with the right ear."

THE Greenwich District Board of Works, upon the resignation of Mr. H. N. Pink, as Medical Officer of Health, have decided to divide the district into two, and to appoint one for the Greenwich division, at £100 per annum, and one for the Deptford division, at £150 per annum.

CREMATION IN DORSETSHIRE.—The remains of Captain Thomas B. Hanham, R.N., J.P., were cremated in the mausoleum in the grounds of Mauston House, near Sturminster Newton, Dorset, a few days ago. The funeral ceremony was entirely a masonic one, no clergy or ministers officiating. The ritual used by the Pro. Grand Master of Dorset (Mr. Montague Guest, M.P. for Wareham) was very ancient, and has not been employed in England for the past century. About 100 provincial officers and brethren assembled under the presidency of the P.G.M. at Mauston House, and a part of the ceremony was performed in the hall, where an anthem was sung. The procession moved in masonic order to the mausoleum, chanting a processional hymn. The coffin was of plain elm, without ornamentation of any kind. The white ensign was used as a pall, with the masonic clothing, emblems, &c., of the deceased arranged upon it. The remains were cremated late at night. For this purpose a furnace had been erected in the grounds, Captain Hanham having given instructions for its construction. There are already two urns in the mausoleum (copies from antiques at present in the South Kensington Museum), containing the ashes of the mother and second wife of the deceased, who were cremated some time since under the supervision of the late Captain. We publish in another column a letter from Dr. Comyns Leach on the subject.

BEQUESTS AND DONATIONS.—Mr. Percy Smith, of Letcombe-Basset, has bequeathed £5000 for the establishment of a Cottage Infirmary at Wantage.—Mr. G. D. W. Digby, bequeathed £2000 to the Yeatman Hospital, Sherborne.—Miss Priestley has given £300 to the North-West London Hospital, for the endowment of a cot.—Miss C. C. V. Bower has given £300 in support of the Ripon cot at the Victoria Hospital for Children.—The York Medical Aid Society has received upwards of £200, the proceeds of a bazaar.—Dr. Arnold Brün has given one hundred guineas to the University College Hospital, in memory of the late Mr. Moses Ascher, only son of the Rev. Benjamin H. Ascher.—Mrs. Elizabeth Borrodaile, of St. Leonard's-on-Sea, has bequeathed £100 to the British Home for Incurables, and £100 to the Medical Benevolent College.—The Leicester Infirmary has received £100, less duty, under the will of Mr. Henry Walker.—The Buckinghamshire General Infirmary has received £100 under the will of Mr. Richard Rose.—The Birmingham and Midland Eye Hospital has received £100 under the will of Mr. Thomas Yates.

CINCHONA IN BENGAL.—It appears that the result of the Government planting operations during 1882-83 was a total of 50,000 less trees than in the previous year, owing to the uprooting of a great number of hybrid varieties and some 160,000 red-bark trees. The total number of trees of all sorts at the end of last year was 4,711,168, while the crop was the largest ever gathered, being 396,980lb. of dry bark. All this was sent to the factory, except 41,800lb., which was forwarded to London at the request of the Secretary of State, to be made up in different forms of febrifuge and to be afterwards returned for experimental purposes to India. The revenue derived from the sale of febrifuges, seeds, plants, and bark amounted to Rs.152,807, leaving a profit, according to the *Pioneer*, of Rs.66,284, equal to a dividend of 6½ per cent. on capital. The cost of an equal quantity of quinine at Rs.96 per lb. would have been Rs.401,328, being a consequent saving to the Government, or the public, of Rs.332,340.

THE ROYAL METEOROLOGICAL SOCIETY.—The first meeting of the present session was held on November 21st, Mr. J. K. Laughton, President, in the chair. The following papers were read: 1. Report on Temperatures in two different patterns of Stevenson Screens, by E. Mawley. 2. On the Storm which crossed the British Islands between September 1st and 3rd, 1883, and its track over the North Atlantic, by C. Harding. 3. On the Influence of the Moon on the Height of the Barometer within the Tropics, by Inspector-General Robert Lawson. 4. The great Ice-storm of July 3rd, 1883, in North Lincolnshire, by J. Cordeaux.

THE suggestion is made by the *Boston Medical and Surgical Journal*, that the ordinary automatic pencil-holders, made by the Eagle-Pencil Company, can be readily converted into an easily adjustable handle for the laryngoscopic and rhinoscopic mirror. The handle of the mirror is held in place in the same manner as the lead, and can be lengthened or shortened by pressure on the spring at the end of the holder. After several months' trial it has been found most satisfactory, from its smoothness, and the short time required to adjust it.

AN AGED PHYSICIAN.—It is reported that Dr. Jakimoviez, of Jarvszinka, in the Government of Kiew, Russia, has just died at the age of 107, and that he was able until nearly the close of his life to superintend the working of an extensive practice.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F. 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu. 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. H. Royes Bell: On a New Method for Exposing the Knee-joint in order to remove Pulpy Degeneration of the Synovial Membrane. Dr. Richardson: Opium Habitués, and their Treatment.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M. Ballot. 8.30 P.M. Mr. Jonathan Hutchinson: On High Amputations for Senile Gangrene. Mr. Frederick Treves: On the Direct Treatment of Spinal Caries by Operation.

WEDNESDAY.—Hunterian Society, 7.30 P.M. Council. 8 P.M. Mr. Bryant: On Some Peculiarities in the Course of Strangulated Hernia. Mr. Charters J. Symonds: 1. The Reliable Signs of Fracture of the Neck of the Femur. 2. Fallopian Tubes and Ovaries removed for Relief of Uterine Fibroid.

THURSDAY.—Ophthalmological Society, 8 P.M. Living specimens, etc. 8.30 P.M. Dr. S. Mackenzie: On Anæmia as a Cause of Retinal Hæmorrhage. Mr. Nettleship: Case of Sympathetic Iritis following Immediate Excision for Injury. Dr. Brailey: On the Various forms of Sympathetic Ophthalmitis. Mr. Simeon Snell: Two Cases of Retinal Glioma, in one of which Shrinking of the Eyeball occurred without Perforation. Dr. G. A. Brown: A Case of Severe Conjunctivitis with Formation of Membrane on the Corneæ, caused by Whiskey thrown in the Eyes. Mr. Priestley Smith: Blood in Sheath of Optic Nerve from case of Cerebral Hæmorrhage; and Model illustrating Conjugate Movements of the Eyes. Mr. A. Stanford Morton: Congenital Unilateral Absence of Lacrymation in a Boy. Mr. E. Nettleship: Case of Sympathetic Ophthalmitis in which the Eyelashes became White. Mr. W. J. Milles: An Improved Microtome, with a New Method of Imbedding Eyes. Mr. H. W. Pigeon for Mr. W. A. Brailey: Microscopic Specimens showing the Development of Bacteria in Jequirity-Infusions.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. House-Physicians' Evening.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Cayley: Pneumothorax occurring in the Course of Typhoid Fever. Dr. S. West: Case of Complete Recovery from Pneumothorax without Effusion of Fluid. Mr. C. J. Symonds: Cases illustrating the Relation between Labial Herpes and Rigor. Dr. J. K. Fowler: Case of Subcutaneous Nodules in an Adult Male. 8 P.M. Living Specimens. Mr. Clement Lucas: A Case of Charcot's Joint-disease attacking the Right Elbow and Foot.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE HIND FUND.

THE following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—

	£	s.	d.		£	s.	d.
Field, G. P. Esq.	1	1	0	Bartlett, E., Esq.	0	10	0
Gregson, G., Esq.	1	1	0	Braine, F. W., Esq.	3	3	0
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Subscriptions may be paid to Dr. Richardson, F.R.S. (chairman), 25, Manchester Square; John Tweedy, Esq., F.R.C.S., 24, Harley Street (honorary treasurer); A. J. Pepper, Esq., F.R.C.S., 122, Gower Street; and T. Wakley, Esq., L.R.C.P., 96, Redcliffe Gardens (honorary secretaries), or to Messrs. Coutts and Co., Strand.

THE BOAST FUND.—Mr. Lennox Browne (London), £1 1s.

EXCESSIVE SNEEZING.

SIR,—I was asked the other day by a lady if I could suggest anything that would relieve permanently the above troublesome symptom from which her husband has suffered for many years. All the remedies I could think of at the time, or find recommended in various books of reference, have been already tried, but with only temporary relief. I shall feel greatly obliged if any of your readers who may have had similar cases would kindly give me the benefit of their experience.

The sneezing began seventeen years ago after a severe cold caught at Lahore, and since then, with the exception of three weeks spent in Italy, the attacks have come on nearly every day, in all climates, and even at sea; in fact, they are more frequent on board ship than on land.

The fit comes on suddenly, without warning, at any period of the day or night (3 A.M. is a favourite time for it to begin), and may last a few minutes or several hours, leaving the patient very exhausted. Accompanying it is a very profuse watery discharge from the nose. This comes on after the sneezing has lasted a short time, and disappears soon after the attack has passed away.

Asthma in a slight degree made its appearance two years ago, and it is steadily getting worse, while there is no diminution of the sneezing. The late Dr. Warburton Begbie, who attended the patient when he was in Edinburgh, and who saw him more than once during an attack, carefully examined the throat, nasal passages, and ears, and told him it was not hay-asthma, but that the mucous membrane of the upper part of the nose was in a very irritable condition.

At present, during the cold season, the patient is travelling about the north-west of India, living chiefly in camp, and he goes to Simla as soon as the heat begins to be oppressive. All sorts of astringent and sedative lotions, inhalations, snuffs, and sprays have been used; iron, quinine (by the mouth and hypodermically), arsenic, belladonna, and various other medicines internally.

There is not a family history of gout, and the patient gets through a vast amount of work, being a very active man, physically and mentally.—I am, sir, yours truly,

C. M. MAXWELL, M.B.

Lasswade, Midlothian.

QUEEN'S PLACE, WHITECHAPEL.

MR. HENRY DAWKES, the owner of this property, of which we recently published the particulars, writes to say that he does his best to keep the property in good condition; and, whenever the parochial authorities call his attention to anything necessary to be done, he has endeavoured, to the best of his ability, to do what they required; and he denies that he has defied the law. As to the property being a valuable investment, he observes that he will be very willing to sell it at a very moderate sum, which he names.

The Bower Trap.

Dr. Dean Fairless.—We believe the Bower Trap to be a very useful invention, and an excellent seal against sewer-gas. It is valuable against the elimination of absorbed gases and back-water flooding. It has the advantage of being self-scavenging, and of not retaining sediment. The following is the report of the Committee on Science and the Arts, constituted by the Franklin Institute of the State of Pennsylvania, to whom was referred for examination Bower and Co's sewer-gas trap.

"That they have examined the invention, and find it to consist in providing a sewer-gas trap, with a floating valve, which will permit the flow of water and gases carried with the water in one direction, and prevent their regurgitation.

"The outlet-pipe is, etc. [here follows a description of the trap]. When water is poured into the inlet of the trap, the ball is forced away, and permits a free passage to the outlet. Should anything occur to bring a pressure upwards from the outlet of the trap, the ball (already held in its place by flotation) is more firmly pressed into its seat, and prevents the passage of liquids or gases through the trap from its outlet to its inlet. The advantage possessed by this device above others with check-valves consists in the constant approximation of the valve to its seat, and the ease and little force with which it is displaced and replaced when water has passed the trap. As an essential to the proper working of the device, care must be taken to select material for the valve that shall secure flotation; if a hollow rubber-ball be used, it must be perfectly air-tight.

"Under this condition, the apparatus will fulfil the design of the inventor—that is, prevent the regurgitation of sewer-gases. Your Committee consider the invention useful, and worthy of commendation.—(Signed) Charles M. Cresson, M.D., Hector Orr, Henry Leffman, M.D., John J. Weaver, C. Chabot, Subcommfttee; J. B. Knight, Secretary."

A New Mountain Station.

We learn from *Le Scalpel* of Brussels of November 18th, that Dr. A. Wise, who has been for two or three years at Davos or Weisen, has transferred his services to a great new establishment or *kursaal* now in course of erection, and which will be completed by July 1884. It is situated at Maloja, some miles further up the valley of the Inn than St. Moritz, and on the route to Chiavenne.

It will contain four hundred beds, and is to be heated and ventilated according to the most modern principles. It appears that a fall of the Inn, within five hundred yards of it, is to be utilised for the production of electric lighting and of ozone. There are said to be excellent iron-springs in the neighbourhood, resembling those of St. Moritz; if this should turn out to be the case, St. Moritz would have a formidable rival in Maloja, the scenery of which is infinitely more picturesque. There is probably not much difference of climate between the two, and no returns of the temperature of Maloja seem to have been published. It still has to be decided whether St. Moritz, or Maloja, or Weisen, have the stillness of air in winter of which Davos boasts.

On Inhalations (especially Antiseptic Inhalations in Pulmonary Affections.)

Sir,—The perusal of Dr. Hassall's paper in the Journal of November 3rd impels me to submit a few observations respecting the efficacy of inhalations in affections of the lungs, a system of treatment which I have been in the habit of employing extensively for the last few years with my club and private patients alike, and with marked success. May I venture to solicit that gentleman's attention to the results of some of my cases, carefully watched while subjected to this description of treatment?

A young lady, under my care during the whole time of her illness, presented every symptom indicative of serious pulmonary lesions. A short and hacking cough, unrelieved by any ordinary palliatives, emaciation, a weak and rapid pulse (120, 130), night-sweats, expectoration of a bronchitic character, general anæmia, eyes of a pearly and lustrous aspect, slight dulness, on percussion, at the apex of the lung, a jerky, wavy inspiration, tubular breathing, bronchophony, and dyspepsia, all combined to demonstrate, at the very first visit, the unmistakable signs of phthisis. I instantly prescribed nourishing diet, tonics, cod-liver oil (the Ol. morrhuæ mixture), and, moreover, the inhalations of the following vapour: ℞ tinct. iodi ætherialis, acidi carbolici, āā 3ij, thymi olei, 3j, sper. vin. rect., ad. ℥j.; twenty drops to be inhaled (having been dropped on an inhaler) night and morning. At first the patient complained of her inability to use the inhaler from cough caused thereby; but after a few repeated trials she became enabled to keep it on for both night and morning after the second day. Encouraged by rapid improvement and abatement of the distressing symptoms enumerated above, she persevered with confidence in its use, so far as to sleep all night with the inhaler on. Rapid progress towards recovery now asserted itself; restored strength, revived spirits, abatement and gradual disappearance of cough, return of the pulse to a normal condition, all tended to restore the patient to a most satisfactory condition—to use her own words: "As well as she ever was." One point in connection with this case I beg especially to call Dr. Hassall's attention to, a most marked fœtor in this patient's breath rapidly disappeared after the second day of treatment in this form, her respiration, at present, being perfectly inodorous.

If Dr. Hassall can explain away these so favourable results of this system of treatment, and demonstrate some other cause of these fortunate results, I shall have no option but to become a disciple of his. But the case I have described is by no means a solitary one. I could instance no fewer than eighty of my patients who are at present using inhalation with marked benefit. A short time since, a man consulted me respecting a very bad attack of hæmoptysis, which none of the customary remedies could alleviate. Inhalations of Ol. terebinthi, at my suggestion, cut short this distressing affection with surprising celerity, and the patient is now pursuing his avocations with perfect comfort.

I offer no scientific explanation of the cases I am now instancing out of many, but simply describe facts I have myself witnessed; indeed, I do not for one moment wish it to appear that I have thoroughly explored the subject from a scientific point of view; but I do say emphatically that the practical results I have carefully watched and noted, in a most extensive practice, attending this mode of treatment, in my own personal case as well as among my patients, of whom I have more than 3,000, may warrant the suggestion that the efficacy of inhalation should not be thus summarily disposed of without further and deeper research.—I remain, sir, yours, etc.,

J. Brindley James.

Royal College of Surgeons of England.

The following were the questions submitted to the candidates at the final examination for the Diploma of Member of the College, on November 9th: A. *Surgical Anatomy and Principles and Practice of Surgery.* (At least four questions, including one of the first two, to be answered.) 1. Give the course, relations, and branches of that part of the radial artery which lies between the styloid process of the radius and the palm of the hand. 2. Mention in order the several parts whose condition may be ascertained by digital examination per rectum in both sexes. 3. A child, aged 3, attempted to swallow some boiling water: this proved fatal in five hours. In such a case, describe the symptoms and the appearances after death. 4. Mention the several courses which an abscess may pursue, and the circumstances which determine them. 5. What are the disorders of the eye which occur in inherited syphilis? Describe the symptoms of each. 6. State the causes of epistaxis, and describe the appropriate treatment in each case. B. *Midwifery and Diseases of Women.* (Three questions to be answered.) 1. Describe the long forceps, and specify its advantages over the short forceps. 2. What are the dangers arising from implantation of the placenta on the lower segment of the uterus, and how would you combat them? 3. What are the conditions especially apt to cause Pyrexia during the puerperal state, and how would you distinguish between them? 4. You are consulted by a patient who has a swelling rising out of the pelvis, and reaching halfway between the pubes and umbilicus. What might such a tumour be, and how would you ascertain its nature? C. *Principles and Practice of Medicine.* (Three questions to be answered, including No. 4.) 1. What are the signs, symptoms, causes, prognosis, diagnosis, and treatment of facial neuralgia and sciatica? 2. How do you discover and treat an empyema of the right pleural cavity? 3. What are the signs and treatment of Hydatid disease of the liver? 4. Give the composition and doses of the pharmacopœial pills which are aperient.

The following were the questions in pathology, therapeutics, and surgery submitted to the candidates at the second examination for the Diploma of Fellow, on November 22nd. *All* four questions had to be answered. 1. Describe the immediate and remote effects of severe injuries of nerves. 2. State what you know of the causes of venous thrombosis. Describe the changes which the clot may undergo, and the consequent course of the affection. 3. Enumerate the various forms of loose bodies met with in joints; describe their pathology. 4. Discuss the differential diagnosis of the various forms of internal intestinal obstruction, and the treatment suitable to each.

Low Diet as an aid to Hæmostasis.

Sir,—The treatment of hæmorrhage from the plantar and palmar arches has been recently under discussion at the Clinical Society. One aid (which I have thought I have seen useful in such cases) is that of putting the patient on starvation-diet, and giving almost no liquids, with a view to diminish the *vis a tergo*. In a young and vigorous patient, if his diet is unrestricted and his usual employment stopped, blood must be formed rapidly, and the force of the arterial current regained before the clot in the injured vessel has become sufficiently organised for effectual resistance.—I am, etc.,

Peter Tytler, M.D., Surgeon to the Ardwick and Ancoats Hospital, Manchester.

St. John's Hospital for Diseases of the Skin.

Mr. J. Startin requests us to publish the subjoined.

A meeting of the medical staff of St. John's Hospital for Diseases of the Skin was held on Thursday, November 22nd, for the purpose of consultations upon cases of interest occurring in the hospital practice. There were present Messrs. Boothby, Dow, Milton, Tom Robinson, and James Startin, and Dr. Farrier of Buenos Ayres, Misses Gilbert, Tapholm, and Clithero as visitors. Mr. Milton showed two cases of scrofuloderma, successfully treated by administration of small doses of mercury and salines; Mr. Startin, a case of elephantiasis Arabum, and a case of true prurigo (of Hebra); Dr. Tom Robinson, a case of congenital syphilis, syphilitic lichen, and gumma, a case of peliosis rheumatica. Mr. Startin proposed that the staff should take into their consideration the formation of a "Dermatological and Syphilo-logical Society of London," open to the profession, the object of which, and the proposed rules, were read, adopted, and agreed to unanimously, and that meetings of this society take place on the first Thursday in every month—July, August, and September excepted—at 8.30 p.m., at St. John's Hospital, Leicester Square, for the present. For particulars of membership, of the cases to be shown, and papers to be read, apply to Mr. James Startin, honorary secretary.

Chronic Eczema.

Mr. St. Vincent Mercier, Secretary to St. John's Hospital for Diseases of the Skin, writes, in reply to the question of "M.R.C.S.E.," in the British Medical Journal of November 17th, that a paying in-patient suffering from chronic eczema would be received into the hospital. The terms for paying-patients range from 15s. to £2 10s. per week, according to the accommodation required. The last-mentioned charge is for the private ward.

The Consumption of Beer.

An American contemporary publishes some statistics respecting the brewing of beer, collected from the leading countries of the world. It appears that the German people are not, as has generally been supposed, the largest consumers of beer and other malt liquors. The production of beer in the German empire is said to amount to 92 quarts annually per head. In the Austrian empire, the production of beer only reaches an average yearly supply of 34 quarts for each inhabitant. In Great Britain, each inhabitant is credited with 115 quarts of very strong beer. In the United States, the production of beer per inhabitant is 40 quarts; in Denmark, it is 112 quarts; in Belgium, 71; in France, 24; in the Netherlands, 51; in Norway, 43; in Sweden, 40; in Switzerland, 39. In Russia, only four quarts of beer are manufactured for each inhabitant, while the production in Italy is but a tenth part of that amount. Apparently, malt liquors are not manufactured in Spain, Portugal, Greece, and Turkey. In most wine-producing countries, the consumption of malt liquors is very small. In Russia, distilled liquors are principally drunk. The three Scandinavian countries consume large quantities of both fermented and distilled liquors. The consumption of beer and other malt liquors is increasing faster in the United States than in any other country in the world. The consumption, however, is chiefly limited to the northern States. In the States south of the Ohio river, there are very few breweries, and little demand for them. New York, Pennsylvania, and the States west of them, produce nearly all the beer made in the entire country.

Sporadic Cholera.

Sir,—The following case may probably be of sufficient importance for a place in your Journal. On the 13th instant, I was sent for, about 9 A.M., to see A. W., aged 38, a spare man, of short stature, and nervous temperament. He is a retail tradesman in this town, of sober and temperate habits, and the father of a family. About an hour previously, he had sent for a diarrhœa-mixture. He had been chilled the day before. He took cocoa for supper, and also some of Eno's fruit-salt. About 5 A.M., he was attacked with bilious vomiting and diarrhœa. I found him writhing in agony from cramp, which supervened four hours after the attack. The countenance was anxious, the heart's action very feeble, blue nails, excessive and persistent vomiting, suppression of urine, rice-water evacuations, cold feet, and, in fact, with all the symptoms of Asiatic cholera. The stomach was evidently in a state of intense irritation, rejecting everything. He continued in this wretched state for about two hours, when the violence of the symptoms began to abate. The watery evacuations ceased when the cramp came on, and the urine was suppressed for about twenty-six hours. The treatment consisted of continuous friction with hot flannels to allay the cramp, mustard-plasters on the epigastrium, crude opium and cold water, together with abstention from any stimulating nostrums. By 2 P.M., the cramp had ceased, and order was being restored to all the functions of the body. The stomach was still irritable, and I ordered that the thirst should be allayed with nothing but cold water, nature's restorative non-stimulating physic. On visiting the patient about 6, I found him sitting on a chair comfortably before a nice fire, thirteen hours after the first attack. He had just had and retained some hot tea. The natural warmth of the body had returned, and the pulse was soft, regular, and moderately full. I ordered hot gruel with salt, and a pediluvium before returning to bed. Happily, the opium was retained, of which, during the morning, he had taken altogether three grains in one-grain small pills. The enemy was effectually repulsed. He passed a tolerably good night. The next day, he was down-stairs, very sore, and greatly prostrated, of course. To restore him as quickly as possible, the *vis medicatrix naturæ* was allowed full play, without being impeded by any kind of medicine. The third morning, a small quantity of castor-oil quietly restored the suppressed action of the bowels.

It should be stated that no kind of epidemic disease, beyond a mild kind of measles, had visited the neighbourhood for a long time; but, on the other hand, I have ascertained that the drainage of the premises is defective, and that the patient has occasionally been subjected to villainous smells from an adjoining yard, where he has a warehouse. These abominations have been duly reported to the medical officer of health.

I may be allowed to remark that, in this case, the value of opium as a restorative, an anodyne, and an antidote to the powerful and excruciating attacks of cramp, is fully maintained.—I am, etc.,

Ludlow. Henry Meymott, Surgeon.

The History of Epidemics.

Sir,—In the Journal of November 17th, page 1004, I notice that a correspondent recommends the work of Dr. Bascombe to "Enquirer." As I have had occasion to go through that book very carefully, comparing it with other authorities, I may perhaps mention that, so far as historical facts are concerned, it is hardly reliable. The remarks of the author on contagion and so forth, although out of date now, are very good, and lead me to think that the chronological part of the work must have been intrusted to a subordinate. I do not notice any mention of Parkins's *Epidemiology* by your correspondents. Although the writer has a theory to support, the work contains much valuable information. Howe's *Epidemic Diseases* is of little value. I presume the contribution to the Statistical Society so mysteriously referred to by Mr. Palmer, is the first part of Mr. Cornelius Walford's *Chronology of Plagues;* but I venture to think that, for other than purposes of statistical inquiry, laborious production will not be of much use, the details being necessarily very meagre. We still want in our language a work on epidemics like that splendid one on epizootics, Fleming's *Animal Plagues*.—Truly yours,

J. A. Westwood Oliver.

3, St. Martin's Place, Trafalgar Square, London, W.C.

Determination of Sex.

Sir,—In all cases (which, of course, are not many) where I have had the opportunity of observing the results, a female child has been born when impregnation has taken place shortly after the menstrual period—which must be what Dr. Shelly means by post-menstrual impregnation; and a male child, if a longer period has elapsed. When contact has been deferred to within a short time—say a week—before menstruation, no impregnation takes place. This has been my theory for many years, and I have advised patients in accordance with it; but, of course, I have not known a sufficient number of cases to say that I have proved its truth. Dr. Shelly alludes to cattle-breeders. It was seeing an account of a French breeder some years ago that first gave me the idea. When I have mentioned it to agriculturists, they have been very incredulous, and said that, if it were true, a breeder might soon make his fortune.—I am, etc.,

R. S.

Tricycles for Winter Riding.

Sir,—There are two tricycles which, from my own experience, I can strongly recommend for a medical man's winter riding. For very hilly districts, the "Omnicycle" has not a peer, as it will climb any hill over which a road is carried. It also runs well through mud and over rough ground. I believe Messrs. Singer intend to increase the speed-power of the "Omnicycle" next year. For ordinary country, up-hill and down, Messrs. Singer's new "Traveller" is a splendid machine. I rode a 44-inch one last week thirty-five miles in six hours over rough and muddy roads. I did not feel the least fatigue. The "Traveller" can be ridden in ordinary clothes, and does not throw any mud on to the person. It is a good luggage-carrier, and, on good roads, a speed of ten miles an hour can be got up. Where there are many hills, I would recommend a 44-inch machine. In level or slightly undulating country, a 48 or 50-inch machine is best, which will run at a very fair speed. The "Traveller" is easy to clean, not likely to get out of order, and can be made telescopic, so as to contract for passing through an ordinary doorway. It steers three wheels, and can therefore turn in a very limited space. A medical practitioner in either town or country, possessing one or the other of the above machines, may dispense with horse-keeping, and all the expenses thereof. I may mention that the "Traveller" ploughs through the mud in grand style.—I am, sir, yours, etc.,

H. A. Allbutt, M.R.C.P., C.T.C.

24, Park Square, Leeds.

An Old Definition of "Doctor."

Sir,—The epigram quoted by Dr. Creswell Rich, in his note published in the Journal of December 1st, which is signed "W. R.," may, I should think, with some probability, be referred to "William Rowland, M.D." This W. Rowland was one of the translators of the "*Practise of Physick*, in seventeen books, by Nicholas Culpeper, Abdiah Cole, and William Rowland, founded on the works of Lazarus Riverius," folio, London, 1668 and 1672.

Rowland was also the author of a well known "*Treatise of Wind Offending Man's Body*, 1668; and *Judicial Astrology Judicially Condemned*, 1652. An *Elegy on the Death of Robert Earl of Essex*, a broad-sheet, is also attributed by Lowndes to a certain William Rowland, but whether the same person, or not, I cannot say.

Dr. Rich's edition of Riverius's *Practise*, dated 1653, is quite unknown to me; and since I cannot find it mentioned in any of the catalogues, etc., to which I have access, I presume it must be a rare book. It would doubtless be a translation of Riverius's *Praxis Medicæ*, printed at Paris in 1640, etc.

Talking of physicians in the 17th century and their fees, there is an epigram by the wirty charlatan, Nicholas Culpeper, which is worth preserving. It should be premised that the regular physician's fee in the days of Charles I was one angel (a gold coin = ten shillings), which leads Culpeper to lament that many of his poor wounded countrymen should perish for want of an angel to see a physician, since, says he: "Too many Physitians in England are like Balaam's ass; they will not speak unless they see an Angel."—Yours,

J. F. Payne.

78, Wimpole Street, Cavendish Square, W., December 1st, 1883.

A New Departure in the Dispensary Movement.

Sir,—Writing about 2,600 years ago, Solomon said there was no new thing under the sun; but we have advanced since those days, and methinks that could the kingly sage revisit this earth to-day, he would hardly venture to make so hazardous an assertion. Moss Side, Manchester, had probably not been founded in th se days, and certainly not the "Moss Side Dispensary and Family Club, established by Rev. Dr. Garrett, 1st August, 1883," which caught the eye of the medical practitioner in these parts on his morning round to-day. It is unnecessary to describe the place; suffice it to say, that it is an ordinary corner shop, with the windows painted and gilded, with the usual lamp, and the usual list of charges of from 6d. to 1s. prominently displayed.

I was told, a few weeks since, that a clerical-looking gentleman had called upon two, probably more, practitioners, inviting them to lend their names to his two sons (unqualified) for the purpose of conducting a private dispensary, the latter gentlemen, of course, to do the bulk of the work, while the former exercised a general supervision and signed certificates. Of course, no medical man with any self-respect would for a moment entertain the proposal, and his reverence had to depart. A few days afterwards, viz., July 14th, the following advertisement appeared in the Journal:

"Medical man wanted. Young medical man, qualified, wanted August 1st, as resident officer of dispensary, good neighbourhood. Appointment may last two years, and prove valuable introduction to private practice afterwards. Duties light. Liberal terms. Send photo. if possible, with references and full particulars, to save delay. Address, J. G., 18, Entwistle Street, Manchester, S.W."

With the reverend gentleman I am not now concerned, and trust I never shall be, but I wish to ask, What about the "young medical man, qualified," who has been induced to lend himself to such a scheme? Can nothing be done by the licensing body whose diploma he holds? I do not know, or care, who the young man is, and am therefore not influenced by any feelings with regard to him personally, but I have some jealousy for the honour of my profession.—Yours, etc.,

A Dissenter.

Dr. A. H. T. Cameron, Liverpool, asks if there is any institution where a child, aged 13, who is subject to epileptic fits, could be sent, in order that, by constant supervision, an improvement in her condition might be hoped for. The parents are in affluent circumstances, and only desirous that the child should be removed from home in the hopes that permanent benefit might result from it.

Portrait of Dr. Edward Jenner.

Sir,—About ten years ago, Mr. Frederick Broughton, formerly of Brecon, now of Ottawa, Canada, presented me with an oil painting of Dr. Edward Jenner, which he purchased at a sale in Cheltenham, a town where Dr. Jenner passed many of the later years of his life. It is a life-size, and nearly a half-length portrait. The dress is different from that of all the portraits I have seen. The coat is of a very dark greenish tint, with a trace of blue about it, and has a large collar and big lapels, and large plain yellow buttons. It is buttoned across the chest at one button, and is, in shape, like an old-fashioned dress-coat. The broad lapels of a pale yellow waistcoat are visible above the breast of the coat, and an inch or so of the yellow vest is visible below the waist. He wears a large white neckcloth. The face is fair and rosy; the cheeks smooth and plump; the chin double; the upper lip curved, as in Northcote's portrait; the eyes are small, dark brown; the eyebrows very arched. The hair is not parted in the middle, as in some of the portraits, but is pushed back from the forehead and temples, and is long, and apparently powdered and banged. The portrait is that of a young man.

I know nothing more of the history of this printing; but I should be very glad to receive from any of your readers, information that would help me in the matter.

In the *Lives of British Physicians*, at page 258, Dr. Edward Jenner is said to have worn, in his younger days, when in practice at Berkeley, "a blue coat with yellow buttons," a dress evidently similar to that depicted in my portrait.

The question asked in the Journal for November 17th, by "Medicus," respecting Say's engraving of Northcote's picture of Jenner, has been answered by Dr. Diamond in last week's Journal; but it may, perhaps, be of additional interest if I enumerate a few other engravings of Jenner, to which Dr. Diamond has not alluded.

There is a 4to mezzotint engraving, from a bust by Manning, engraved by Hodgetts; an 8vo engraving by Scriven; a small 8vo engraving of Northcote's by Finden; one by Dudley; and an 8vo engraving of Northcote's by Ridley, which latter was published in the *European Magazine* for October 1st, 1804, and of which I possess a copy.—Yours, etc.,

Talfourd Jones.

Brecon, December 4th, 1883.

GYNÆCOLOGY, DARWINISM, AND MEDICAL ETHICS.

SIR,—In a case of triplets which I recently attended, the children were all males, and in each one the presenting part was the left foot. Whether the fact of the father being a soldier would account for the progeny stepping into existence left foot foremost, on Darwin's theories, is a point on which, perhaps, an army surgeon could throw some light.

As an obstetric case, perhaps the most noticeable feature was the utter absence of expulsive pains after the os had become fully dilated. This I have generally observed in cases where the uterus had been over-distended; and in this, and in other such cases, ergot seemed to be inert. Traction on the presenting limb was necessary to effect delivery; and this was done in each case without difficulty or delay. The placentæ coalesced and came away in one large mass, but each had its distinct membranes.

With respect to medical ethics, I am on delicate ground; for, my patient being in poor circumstances, I thought it right to call attention to the case in the *Standard*, with a view to raising a small fund to help in what even well-to-do people might look upon as a domestic calamity, and which the parents certainly were quite unprepared to meet.

That professional opinion is divided on the subject may be judged from the fact that two medical neighbours wrote to me anonymously, without enclosing subscriptions, evidently aggrieved that the triplets should have advertised my name; but another medical neighbour called to look at the happy family, made a little collection at a dinner party where he mentioned the case, and handed over three guineas to the patient on the following day.

I make no comments, but shall be happy to take charge of any contributions which may be sent to me, and which I know will be gratefully received by my patient.—I am, sir, yours truly and obliged,

12, Ladbroke Grove, W., December 4th, 1883. ALFRED E. BARRETT.

INQUIRER.—We cannot answer such a question, coming from a lay source.

TENNIS-ELBOW.

SIR,—I have seen in the JOURNAL, from time to time, communications on the subject of tennis-elbow, and, in the issue of November 10th, a letter from a member who suffers from this painful affection.

I have had to treat some cases of this injury, and, looking upon it as a lesion of the musculo-spiral nerve—the principal symptoms being manifested in the muscles supplied by this nerve, or its branches. I have treated it successfully by a continuous current of electricity. I think, if a member tries this plan of treatment, he will find it effectual in restoring the lost nervous power of the affected muscles.

Of course, if the symptoms be referable to any other set of muscles than those supplied by the musculo-spiral nerve—as those supplied by the median and ulnar—the points of application of the electricity must be changed accordingly.

S. O'SULLIVAN, M.D., M.C.H., F.R.C S.I.,
Professor of Surgery, Queen's College, Cork.

GYNÆCOLOGICAL EXAMINATIONS.

SIR,—As bearing upon my letter of last week, and illustrating the delicate nature of certain uterine affections which occasionally come under the notice of practitioners, the following particulars may be worthy of a place in your columns.

A young lady, aged about 20, formerly in excellent health, for the past few months complained of a feeling of irritation in the bladder, and frequency of micturition. The urine contained more or less mucus, with a considerable quantity of urate of ammonia. The usual treatment in such cases, having in view that the affection was simply vesical, was employed without any benefit. Pain in the back, shooting pains down the thighs, and dyspepsia, with the vague feeling of a swelling within the vagina, having been related to me by the patient's mother, I expressed the opinion that, however unusual, under the circumstances, there was, in all probability, some misplacement of the uterus. There was a history of a severe fall some five months ago. Unwilling myself to make an examination, for obvious reasons, I requested the aid of Professor Leishman, who discovered that the case was one of extreme retroversion of the uterus. By means of the sound, the organ was replaced in its normal position, where, it is to be hoped, with the assistance of rest, etc., it will remain.

Touching the correspondence originated by Dr. Dutton, obvious conclusions may be drawn from such cases as this one.

D. CAMPBELL BLACK, M.D.

L.R.C.S.I.—Such remarks as those reported appear to us quite unjustifiable. Irish qualifications are not only of full legal value in England, but the status, and learning, and professional dignity of the Irish medical profession as a whole are justly held in the highest esteem. L.R.C.S.I. was certainly entitled to expect a courteous reply, and an apology for any hasty expressions which may have wounded him.

DRIVING GLOVES FOR WINTER.

SIR,—A short time since a correspondence took place in the BRITISH MEDICAL JOURNAL, as to the best gloves for country practitioners to drive with in the winter.

Amongst those mentioned as being most suitable for cold and inclement weather, were the well known woollen knitted Ringwood gloves, but they possessed this disadvantage, from their perviousness they admitted both wet and cold, unless a pair of kids were worn underneath them, and worn in this manner there was the further disadvantage, by their bulkiness, of the driver not obtaining a firm grip of the reins.

Messrs. Cox and Hicks, the well known glove manufacturers here, have now introduced a great improvement in the old gloves, by adding dogskin to the palmar aspect, and between the fingers of the glove. I am now using a pair for driving, and can most thoroughly recommend them as being warm, light, and at the same time possessing, by the virtue of the dogskin, a perfect grip on the reins.—I remain, yours faithfully, H. GEORGE DYER.

Ringwood, November 27th, 1883.

THE CLIMATE OF SKYE.

AN OLD COCKNEY.—The climate of Skye is mild, but wet, the winters are seldom severe, snow never lies long, and lengthened periods of frost are rare. It is supposed that the Gulf-stream has a moderating influence on the climate. In the coldest season the temperature is usually several degrees higher than that of London. Our correspondent might find further information in the statistical reports of the Scotch parishes, published some years ago.

CAUTION: GUY'S MAN: IMPOSTOR.

SIR,—I wish to warn your readers, especially Guy's men, against a man who gives the name of Wilford, and claims to have been at Guy's Hospital as a student, having left in 1865. He displays a considerable personal knowledge of various Guy's men, but, as far as I have yet inquired, they know nothing of him. He professed to have returned lately from New Zealand, and that he was bound for Sheffield, where his children are in the Union.—I am, sir, yours truly,

ARTHUR H. JONES.

32, Sheep Street, Northampton.

COMMUNICATIONS, LETTERS, etc., have been received from:

Our Manchester Correspondent; Our Birmingham Correspondent; Dr. Junker, London; A Bilious Physician; Dr. Herman, London; Mr. Wickham Barnes, London; Mr. N. Stevenson, London; Mr. W. J. Ready, Newport, Monmouthshire; Dr. Talfourd Jones, Brecon; Messrs. Griffin and Co., London; Mr. C. J. Barry, London; Mr. Lennox Browne, London; Dr. Bridgwater, Harrow; "Aristos"; Dr. Frances Hoggan, London; Dr. A. W. Wallace, Parsonstown; Mr. T. D. Cook, Kettering; Mr. A. E. Barrett, London; Dr. Moorhead, Weymouth; Mr. B. Kingston, Bromsgrove; Dr. G. Henty, London; Dr. S. R. Macphail, Carlisle; Mr. Henry Dawkes, Wood Green; Mr. James J. Marsh, Manchester; Mr. C. G. Wheelhouse, Leeds; Mr. James Todd, Glasgow; Mr. A. G. Hearn, London; Mr. William Lewis, Cardiff; Dr. Fairlie Clarke, Southborough; An Old Member; Dr. J. D. McCaw, Belfast; Mr. H. C. Andrews, London; Mr. F. W. Lowndes, Liverpool; Dr. J. W. Moore, Dublin; Dr. J. H. Hume, Newcastle-on-Tyne; Mr. George Jackson, Plymouth; Dr. J. F. Woodroffe, London; Mr. H. A. Breden, Bootle; Dr. Duncan J. Mackenzie, Glossop; Our Edinburgh Correspondent; Messrs. Burgoyne and Co., London; Mr. A. Pearce, Salcombe, Kingsbridge; Dr. McKendrick, Glasgow; Dr. Dawson Williams, London; Mr. Bennett May, Birmingham; Mr. G. P. Field, London; Dr. J. Johnston, Bolton; Dr. J. Sawyer, Birmingham; Mr. C. L. Feltoe, Lampeter; Dr. J. J. Coppinger, Mallow; Dr. H. N. Nadder, Rathmines, Dublin; Dr. Clippingdale, London; Mr. J. W. Measures, Kidderminster; Dr. Maclean, Southampton; Dr. A. Smart, Edinburgh; Dr. C. F. Pollock, Glasgow; Dr. Chapple, London; Mr. Tom Bates, Worcester; Mr. W. G. Wallis, London; Dr. E. Le Bec, Paris; Dr. W. H. Bennett, Londonderry; Dr. D. Campbell Black, Glasgow; Dr. J. James Ridge, Enfield; Mr. T. Anderson Alexander, Epsom; Our Aberdeen Correspondent; Mr. W. Bartlett, Newcastle-under-Lyme; Mr. A. Lloyd Jones, London; Mr. Francis Toulmin, London; Dr. Braxton Hicks, London; Mr. E. Burn Callander, London; Dr. Carrington, London; Dr. E. Cresswell Baber, Brighton; Dr. Buzzard, London; Mr. J. Stevenson, Aldershot; Mr. J. Bain Sincock, Bridgwater; Mr. Davies-Colley, London; Dr. James Murphy, Sunderland; Dr. Macdonald, Liverpool; Mr. Walter W. Reeves, London; Dr. Lloyd Roberts, Manchester; Dr. Sidney Coupland, London; Dr. Ashby, Manchester; Dr. C. F. Knight, Dublin; Mr. T. W. H. Garstang, Manchester; Dr. Willoughby, London; Mrs. Borchardt, Manchester; Mr. D. J. Hamilton, Aberdeen; Mr. Benjamin Newbott, London; Mr. John Brown, Bacup; Mr. R. J. W. Orton, London; Mr. Warwick Steele, Dorchester; Mr. M. Maxwell, Lasswade; Mr. F. W. Bramwell, London; Dr. C. A. Cameron, Dublin; Messrs. Raphael Tuck and Sons, London; Mr. John Philipson, Newcastle; Dr. A. D. Leith Napier, Dunbar; Dr. Markham Skerritt, Bristol; Mr. E. A. Snell, London; Dr. J. F. Payne, London; Mr. Behnke, Kensington; Dr. C. S. W. Cobbold, Earlswood Asylum; Mr. James Blackwood, London; Dr. Macpherson, London; Mr. May, London; Mr. T. Jenner Verrall, Brighton; Dr. Brailey, London; Dr. Habershon, London; Mr. R. Clement Lucas, London; Mr. James Rose, Liverpool; Mr. W. Wynn Westcott, London; "Medicus"; Dr. Norman Kerr, London; Dr. F. Giles, Wem, Shropshire; Dr. Sutherland, London; Mr. J. R. B. Dove, Pinner; Mr. J. Clegg, Manchester; Dr. Henry Corby, Cork; Dr. Comyns Leach, Sturminster Newton; Mr. Arthur Cooper, London; Mr. H. Bennett, Londonderry; Dr. C H. Orton, Newcastle-under-Lyme; Dr. Walter G. Walford, London; Dr. William Robertson, Kimberley; Dr. Dyce Duckworth, London; Mr. F. W. Mott, Liverpool; Mr. Furneaux Jordan, Birmingham, etc.

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FIFTY-SECOND ANNUAL MEETING, 1884.

THE BRITISH MEDICAL ASSOCIATION.

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President-Elect.—JAMES CUMING, M.D., F.K.Q.C.P.I., Physician to the Royal Hospital, and Professor of Medicine in Queen's College, Belfast.
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Editor of Journal—ERNEST HART, ESQ. **General Secretary**—FRANCIS FOWKE, ESQ.

The FIFTY-SECOND ANNUAL MEETING of the Association will be held July 29th, 30th and 31st, and August 1st, 1884, at BELFAST,

Under the Presidency of

JAMES CUMING, M.D., F.K.Q.C.P.I.

The ADDRESS in MEDICINE will be delivered by SIR ANDREW CLARK, Bart., M.D., F.R.C.P., Physician and Lecturer on Clinical Medicine, London Hospital.

The ADDRESS in OBSTETRIC MEDICINE will be delivered by GEORGE H. KIDD, M.D., Master of the Coombe Lying-in Hospital, Dublin.

The ADDRESS in PHYSIOLOGY will be delivered by PETER REDFERN, M.D., Professor of Anatomy and Physiology in Queen's College, Belfast.

The objects of the Association are—the promotion of Medical Science, and the maintenance of the honour and interests of the Medica Profession. The Subscription to the Association is One Guinea annually; and each Member on paying his Subscription is entitled, in addition to the other advantages of the Association, to receive weekly, post-free, the "BRITISH MEDICAL JOURNAL: BEING THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION." The Subscription is payable, in advance, on the 1st January in each year.

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At the Annual Meeting in Liverpool, in 1883, the Association instituted, in addition to the grant above-mentioned two Research Scholarships. each of the yearly value of £150, tenable for three years.

The BRITISH MEDICAL JOURNAL for 1884.

Edited by ERNEST HART, Esq.

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Treves, Frederic, F.R.C.S., Assistant-Surgeon to the London Hospital.—The DIAGNOSIS and TREATMENT of INTESTINAL OBSTRUCTION.

Tweedy, John, F.R.C.S., Professor of Ophthalmic Surgery in University College, and Ophthalmic Surgeon to University College Hospital.—OPHTHALMIC CASES.

Walker, Thomas J., M.D., Surgeon to the Peterborough Infirmary.—CASES of ABDOMINAL SURGERY.

Walter, William, M.A., M.D., Surgeon to St. Mary's Hospital for Women and Children, and the Manchester and Salford Lying-in Hospital.—CASES of GYNÆCOLOGICAL and OBSTETRIC INTEREST.

Warner, Francis, M.D., F.R.C.P., Assistant-Physician to, and Lecturer on Botany at the London Hospital. Assistant Physician to the East London Hospital for Children.—The GRAPHIC METHOD employed in the STUDY of NERVOUS CONDITIONS.

Waters, A. T. H., M.D., F.R.C.P., Physician to the Royal Infirmary and Professor of the Principles and Practice of Medicine in University College, Liverpool.

West, Samuel, M.A., M.D., M.R.C.P., Assistant Physician to the City of London Hospital for Diseases of the Chest.—PNEUMOTHORAX; HOSPITAL STATISTICS with SPECIAL CASES.

Wherry, George, M.A., M.B., Surgeon to Addenbrooke's Hospital, Cambridge.

Whipham, Thomas T., M.A., M.B., F.R.C.P., Physician to St. George's Hospital.

Whitehead, Walter, F.R.C.S.Eng., Surgeon to the Royal Infirmary, Manchester.

Wicks, W. Cairns, M.B., Physician to the Hospital for Children, Newcastle-on-Tyne.

Will, J. C. Ogilvie, M.S., F.R.S.Ed., Surgeon to and Lecturer on Clinical Surgery in the Royal Infirmary, Aberdeen.

Willcocks, Frederick, M.D., M.R.C.P., Assistant-Physician to, and Lecturer on Botany at, the Charing Cross Hospital.

Williams, A. Wynn, M.D., M.R.C.P., Physician to the Samaritan Hospital.

Williams, C. Theodore, M.D., F.R.C.P., Physician to the Hospital for Consumption and Diseases of the Chest at Brompton.—LECTURES on the COMPRESSED AIR-BATH and its uses in PULMONARY DISEASE.

Woakes, Edward, M.D., Aural Surgeon to the London Hospital.—SOME FORMS of NASAL STENOSIS.

BRADSHAW LECTURE

ON

NERVE-STRETCHING FOR THE RELIEF OR CURE OF PAIN.

Delivered at the Royal College of Surgeons of England, December 6th, 1883.

By JOHN MARSHALL, F.R.C.S., F.R.S.,
President of the College.

Dr. William Woods Bradshaw, who was a physician practising at Andover and then at Reading, was M.D. of the University of Erlangen, and he also held other titles of that University. He was M.A. of the University of Oxford; he was a Member of the Royal College of Physicians, London, and Fellow of this College; he was, therefore, a man who was not altogether undistinguished in our profession, and one who held a high position in the county in which he resided. He contributed a few papers to the medical journals, and he also indulged himself in writing articles on matters of general interest, under the signature of Beta. He died seventeen years ago, in the month of August, and fourteen years afterwards his widow left £1,000 to the College of Physicians, and another £1,000 to this College, in order to establish perpetual lectureships. This lectureship has been held only once before this day, by Sir James Paget; and as my immediate predecessor chose for his subject some "new" forms of disease, so I have chosen for the lecture on this occasion the subject of what may be termed a "new" operation, for it is only within the last eleven or twelve years that this operation has been introduced, and has been used gradually more and more extensively for the "relief or the cure of pain." It has also been applied to a great number of spasmodic diseases of the nervous system; but it is in relation to its effects in relieving "pain" that I chiefly wish now to direct your attention to this particular operation of "nerve-stretching." The first thing I have to say concerning nerve-stretching is, that you must understand by it not the mere drawing out of a nerve, so that you may see it lifted from its bed in the body, but a palpable stretching. And this opens up the question, Can a nerve be stretched? Now, nerves are extensible to a certain degree, but to a much slighter degree than you would imagine. There is a Table here showing the degree of extensibility of nerves, and you will find that the results are, after all, not very great. One observer says that a nerve may be stretched to one twenty-fourth of its length; another observer makes out a larger amount of stretching; and another a still larger amount.

Extensibility of Nerves.—Human Nerves after Death.

—	Extending Weight in lbs.	Distance Lengthened in Inches.	Ratio to whole nerve.
Median nerve	$6\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2\frac{1}{4}}$
,,	Extreme weight possible	$1\frac{1}{4}$	$\frac{1}{5}$
,,	Breaking strain	$2\frac{1}{4}$–$2\frac{3}{4}$	$\frac{1}{9}$–$\frac{1}{7}$
Great sciatic and its branches	66 (supposed weight of lower limb)	4-7$\frac{3}{4}$(?)	—
Great sciatic (just killed rabbit)	—	—	$\frac{1}{3}$–$\frac{1}{7}$
,, ,, (living ,,)	—	—	$\frac{1}{3}$–$\frac{1}{4}$
,, ,, ,, ,,	—	—	$\frac{1}{4}$

Elasticity of Nerves.

Human Nerve. (after death)	.....	extended $\frac{1}{2\frac{1}{3}}$–$\frac{1}{1\frac{1}{3}}$	retracted to $\frac{1}{4\frac{1}{6}}$ wholly
Rabbit (living)		$\frac{1}{4}$ (one experiment.)	

But, after all, one is surprised at the small amount of stretching of which a nerve is capable. The following simple experiment will show you that a nerve is not so very extensible, though it is extensible. Here is a piece of tendon, and here a piece of nerve; the same weight is applied to the same length of tendon, and the same length of nerve; and you will see how very inextensible the tendon is, and how the nerve has only given way a very small degree beyond the tendon. You must remember, however, that the weights employed in the cases mentioned in the table were considerable, some of them as much as 20, 30, and even 80 lbs. Here, however, we have only a 4 lb. weight. No doubt, with a greater weight on a perfectly fresh piece of nerve, the nerve would extend still more than this; at the same time, the amount of extensibility of nerve is certainly comparatively slight. It is not nearly so extensible as an artery, but it is somewhat more extensible than a tendon. It has been noticed, with regard to this extension, that the nerves nearer to the spinal cord are rather more extensible than those at a distance. This may be owing to the relatively less thickness of the sheath; the distant nerves are smaller, but they are probably better protected.

It has been observed that the nerves of the upper limb are more extensible than those of the lower limb, probably for the same reason—that the nerves of the lower limb are better protected by sheaths; for we must recognise that it is the sheath that bears the strain when you pull upon a nerve. It has also been noticed that a long piece of nerve will stretch a great deal more, relatively, than a short one, and this is only in harmony with what takes place in common extensible tissues. If you take two pieces of elastic tube, one twice the length of the other, and load them with the same weight, you will find that the longer piece will stretch, relatively, more than the shorter one. This piece, for example, has stretched about two inches with 1 lb. weight, and this other will stretch nearly five inches; so, also, the longer the nerve is, the greater is its elasticity, the greater amount of stretching it will bear.

The next point we come to is the recoil of the nerve. After you have stretched a nerve, does it recoil? We find that observers have proved that it does recoil. According to one observer, the elasticity was so great that, although it had been stretched $\frac{1}{24}$ of its length, it recoiled to within $\frac{1}{40}$ of its original length. This shows the recovering power in the sheath of the nerve. Observe, that in the living animal the extensibility of a nerve is greater, and so is its elasticity. A living nerve will stretch a great deal more, with all its tissues in a fine healthy condition—the sheath flexible, its elements mobile over each other—than the dead nerve; so, on the other hand, it will recoil more effectually; its elasticity is greater, its power of recovery greater. This is just what we might expect.

Passing on to other considerations as to the effect of this pulling upon a nerve, the next point is, how much weight will a nerve bear? Now, it is very remarkable that nerves will bear such an extraordinary weight before they break. In the Table before you, you will see a list of the breaking-weights of some of the smaller nerves of the body, varying from 6 lbs. in the case of one of the branches of the trigeminus, to 12 lbs. in another branch, increasing in weight until you get to the brachial plexus, the median, the crural, and so on, gradually, with the size of the nerve. However, for a moment, let us give special attention to the breaking-weight of the sciatic nerve. This has been tested by Symington, by Tillaux, by Gillette, by Trombetta, and others, and they differ most extraordinarily. The weights vary from 82 lbs. up to 280 lbs. This discrepancy, of course, must be accounted for, and can be accounted for on various grounds. There is no doubt they examined the nerves of persons of different height and conformation, and of persons, probably, who were not in identical conditions of health; some of the nerves might have been themselves diseased; then, again, the nerves were examined at different periods after death, in different climates—some in hot and some in cold climates, when, no doubt, the effect of *post mortem* changes might fully account for differences in the results. As the mean result of these various experiments, you find that 180 lbs. is the weight that the sciatic nerve will bear. You can understand, therefore, that when I just now put only a 4 lb. weight upon a nerve of this size, I was far within the power that is required in order fully to stretch the nerve.

We will now pass from this Table (to which I shall have to return immediately) with only one further remark: that, as I contrasted the effects on the dead and the living nerves just now, so here it is

Cohesion of Nerves.—Breaking Strain in Pounds.

Human Nerves after Death.	Lbs.	Human Nerves after Death.	Lbs.
Trigeminus 1. Supra-orbital	6	Great Sciatic:	
2. Infra-orbital	12	(Johnson, Symington)	86–176
3. Mental	$5\frac{1}{2}$	(Tillaux)	118–127
Cords of the Brachial Plexus	50 to 64	(Gillette)	165
Ulnar nerve	58	(Trombetta)	82–288
Musculo-spiral	61	(Ceccherelli)	154–220
Median	84	Lowest weight	82
Crural	83	Highest weight	288
Internal Popliteal(Trombetta)	114	Mean weight	185

Living nerves in animals—Great sciatic will bear 1.8 of the body-weight (Stintzing).

Average weight of human body is 150 lbs.; 1.8 of 150 lbs. = 83.3 lbs.

The normal function of healthy sciatic nerve completely restored, even after the nerve has been stretched with a force equal to a little more than half the body-weight. (Stintzing.)

Safe strain for healthy sciatic (man) 60 lbs.
,, ,, diseased ,, ,, 30 lbs.

shown, after Stintzing (to whose, name I shall have again to refer), that, whereas the sciatic nerve of a dead animal broke with half the weight of its own body, that weight being about ten pounds, another living sciatic nerve bore 1.8 of the body-weight. This again shows a great difference in the power that there is in the living as compared with the dead nerve to resist force. But still more interesting results are displayed when we examine the effect of stretching on the structure of a nerve. Here I might express the general result in the form of a truism. We may say that experiment has shown that every constituent of the nerve is more or less modified, altered, or changed, by a force applied to it, in proportion to the force itself. As I have said, this is a truism; but it is valuable, as throwing a sort of mantle of reconciliation over the various observations and facts that have been accumulated on this subject during the last eleven or twelve years. No one who has not perused the literature of this subject can understand how extremely varied the facts are that have been recorded upon it. If, however, we recollect that the particular results vary according to the force used, we shall find that we may pass in a very general way over the effects that have been produced.

Before nerve-stretching came into vogue as an operation, Haber and Harless examined the effects of stretching nerves. They pointed out the tension of the sheath, the elongation of the fasciculi and fibres, and the compression of these within the tightened sheath. Valentin went further, and showed that the small individual tubules of the nerve were elongated and narrowed in diameter. Vogt added to these observations—chiefly, however, by confirming them. Gen noticed remarkable constrictions formed on the tubules of the nerve, to which I shall refer. Quinquand discovered segmentation in the so-called medullary sheath of the nerve. Schleich observed that the segments were at last broken; and that here and there you saw the axis-cylinder, as it is called, passing through them.

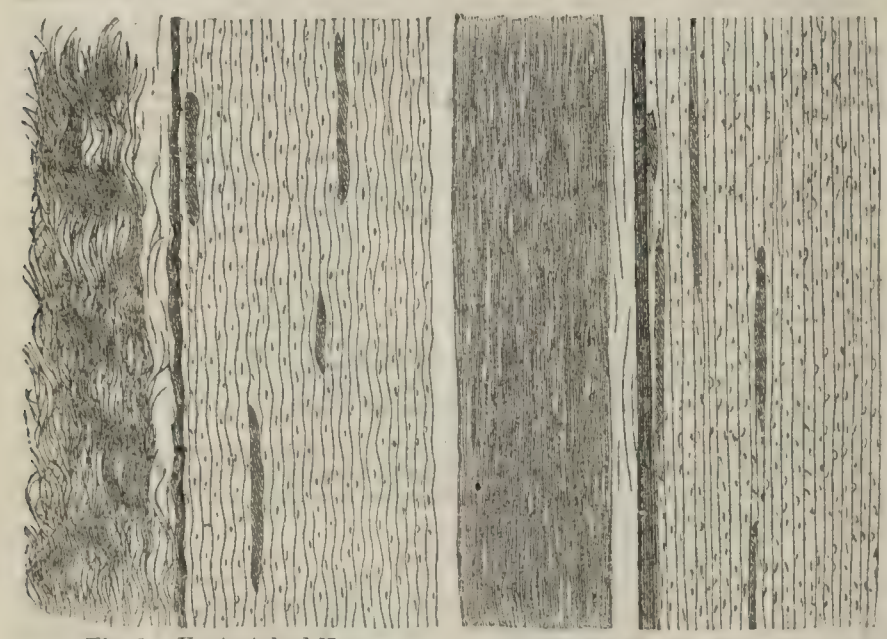


Fig. 1.—Unstretched Nerve, Longitudinal Section.

Fig. 2.—Stretched Nerve, Longitudinal Section.

Here, then, we have a series of observations upon the effects of stretching upon the nerve-tubules. At my instigation, Mr. Horsley has made many interesting observations, some of which certainly seem to throw additional light upon this subject, and for which I think, his ingenuity must be praised. He has made sections for me of an ordinary unstretched nerve, and of a stretched nerve; and on the diagrams here exhibited, drawn from his specimens under the microscope, we can trace much more effectually than I can do by mere description what these various observers have seen, as actual changes in the several constituents of a nerve. In the sheath or epineurium, which covers the nerve, you will find, in the unstretched specimen (Fig. 1), that the fibres are beautifully wavy, like the ordinary fibres of fibrous tissue. You find also that the tubules are, more or less, loose in their sheath, and that even the perineurium, the fine membrane lying between the epineurium and the tubules, also presents this kind of wavy contour in the unstretched state. Blood-vessels are seen at intervals lying in this position. Contrasted with this specimen is one from the same median nerve stretched by a weight of twenty-eight pounds, far within its breaking strain, which would be above sixty pounds. Here you find (Fig. 2) that the epineural fibres, instead of being wavy, are in perfectly straight lines, stretched out as tight as they can be; that the perineurium is perfectly straight, and that the tubules are somewhat narrowed, and also stretched to an extraordinary degree. In a transverse section of the unstretched nerve (Fig. 3), we see the spaces in which the fasciculi of the nerve-fibres lie, the smaller bundles being represented as combining into a larger one, the individual tubules of the nerves being represented in the centre, constituting each fasciculus. In this condition the perineurium is loose, the channels or tubes in which the nerve-fascicuii lie are more or less open, and there is a space between the fasciculus and the perineurium, that space being most likely a lymphatic space, occupied during lifetime with lymphatic fluid. The vessels are drawn of a largish size, but in this section (Fig. 4) we see, irrespectively of the changes that may be supposed to take place in the smaller vessels, a complete alteration. You find the epineurium or sheath again tightened in its tissue, and marked with straight rigid lines, as if the whole texture was pulled out tight, and cut in a sort of hard, solid block. You find the fasciculi compressed, and the lymphatic space between the actual covering of these bundles obliterated, indicating, as it would appear, the compression of the bundles. This is the compression which, no doubt, Haber and Harless observed many years ago; but they did not show it in the very decided way in which Mr. Horsley has done.



Fig. 3.—Unstretched Nerve, Transverse Section.

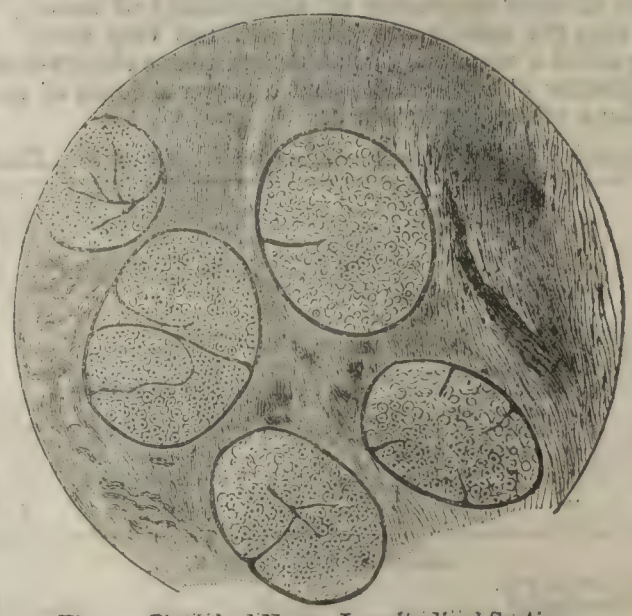


Fig. 4.—Stretched Nerve, Longitudinal Section.

Now let us consider what other changes must take place in the nerve-tubules. Here is the drawing of a nerve-tubule, with one of its annular notches in the natural state, and here is the nucleus of a nerve-tubule. The outer sheath of Schwann is also represented. The black part represents the soft medullary sheath, the lighter part the axis-cylinder or axis-fibre. It had been observed by Leuterman, that the medullary sheath, after a certain time, broke into these curious segments, not large segments between the annular constrictions of the tubule, but the medullary substance frequently segmented in this curious way. It is evidently not an accidental occurrence. It might be a crystallisation, or a solidification, or coagulation, but at all events it presents these curious segmented appearances. This was published by Leuterman, but it was discovered, quite independently, by Mr. Horsley, and for this reason I

wished him to have this diagram here to-day. Besides the segmentation of the medullary matter, which seems to be natural, other appearances, which have been noticed even in healthy unstretched nerves, are these numerous constrictions which probably really occur opposite the segmented parts of the medullary sheath. This appearance has also been observed by Mr. Horsley, quite independently of the earlier observations of the author I am quoting. In a stretched nerve the segmentation assumes not quite its regular character, but a more irregular character. This, however, is a regular segmentation, supposing it to be carried a little further than you see above. Below, is the effect upon a stretched nerve where those segments are broken up. The medullary sheath lies in irregular masses, whilst most observers agree that the tubular part of the nerve is not broken, or that it is very rarely broken, and that the axis-cylinder is still more rarely torn across. It is only by Marcus and Weit that the observation has been made of the breaking of the axis-cylinder-fibre, but rupture of the fine hyaline sheath has been noticed by other observers; so that we find, when we examine the minute changes which take place, that the natural segmentation seems to give way to an abnormal or irregular breaking up of the medullary sheath; that sometimes the tubuli break, and that still more rarely the axis-cylinder gives way. These observations have been made, not only upon dead nerve, that is to say, a nerve that has been dead some time, but also upon the nerves of animals that have been recently killed. Here, then, we get a series of very remarkable changes, demonstrated to be produced upon a nerve by stretching.

If we push this a little further, and inquire what takes place in a living nerve, we find that these anatomical changes are followed by degenerations; and these degenerations may be spoken of just as well under the description of the anatomy of the part, as under the account of the physiological changes which take place. Degenerations naturally follow in all these tissues. The sheath becomes infiltrated and hyperæmic, charged with little ecchymoses, and larger hæmorrhages; the vessels become compressed or twisted; and the lymphatics must undergo a similar compression. Then, with regard to the tubules themselves, degenerative changes are rapidly set up in them, in which the fine nerve-tubule melts away, the axis-cylinder is broken across, the medullary matter escapes in the form of oil-globules, and the whole mass of nerve becomes disintegrated, and subject to soft atrophic changes. Then restorative changes follow in the living nerve.

Let me mention an experiment in reference to the idea of compression only. There is no doubt, it appears that these bundles must be compressed. The canals in which they lie are smaller, the lymphatic space round about them is diminished, and the bundles look as if they were compressed; and no doubt they are subject to extreme lateral tension. But it occurred to me to ask, What happens when you elongate a tube? The channels are, of course, tubes. So, again, the medullary sheath of a nerve is but a hollow tube containing material. What happens when a tube is elongated? Is its original cubic capacity increased or diminished? You will probably think neither the one nor the other—that is, in fact, what I supposed. But a very simple experiment will show that, in an elastic tube, if I extend it, its capacity is increased. Here is some fluid in a glass tube ending in a piece of elastic tube below; if I pull that down, you will see that the fluid descends. Here, then, is an actual proof that, given an elastic tube of a certain length and elongating it, its capacity is greater than in the unstretched condition. If you apply this to what might happen in the nerve, you find that the perineurial channels, although diminished in transverse diameter, are so much elongated in the act of stretching that their total capacity is increased and not diminished. And so with regard to the tubules; for I believe what is true on a large scale must be true on a small; these little tubules being elongated must really have a greater capacity than when they are in a natural condition. Now, if this be so, we can understand that this stretching may take place without much compression. It is a subject for further investigation, I believe, and I would not pronounce a positive opinion upon it; and I have no time for physiological research. But I can see that here is a sort of struggle between two forces; on the one hand, there is the compression, and there is the expansion; there is the narrowing of the tube, and there is the stretching out of its contents to fill the tube which contains more space; and the result, we can easily see, would be such as to shatter up—to use the phrase—the medullary sheath into fragments, and produce the temporary destruction which we see represented in these diagrams.

Now, as to the physiological results of nerve-stretching, that is, on the functions and properties of the nerve. Here we find, also, an endless variety of statement and opinion; but, speaking generally, it may be said that all the functions of a nerve are influenced by its being drawn out or stretched in a greater or less degree, according to the amount of force. The motor properties and the sensory properties are both of them diminished. If the stretching be of a sufficient degree at first, there is very little depression; but, if the stretching be made stronger and stronger, the motor and sensory functions are depressed. The motor functions are less markedly depressed than the sensory functions. All the sensory functions are depressed, not only that of common touch, but the sense of temperature, heat and cold, the sense of pressure, are all diminished, providing the stretching be strong enough. That, of course, one would understand. Then, with regard to the irritability of the nerve, that is, its power of conducting impressions—this has been tested in various ways; and it is shown that, when a nerve is stretched slightly, its irritability is increased. This is a very important element, I think, in our attempts to explain what happens in the operation of nerve-stretching. The irritability of the nerve is increased; but, if you go on with the extension, the irritability gradually diminishes, and is finally extinguished. That early increase of the irritability of the nerve seems to be an important factor in attempting to explain the way in which this operation acts upon living nerves.

Now, with regard to the reflex properties of a nerve; they also are of necessity gradually diminished: but, curiously enough, they are not so suddenly affected as the voluntary motor or the sensory function; and here we have, perhaps, an explanation in the fact that I mentioned, that moderate degrees of pressure, and even tolerably strong pressure, serve to raise the irritability of a nerve and not to diminish it. It is only when it goes beyond a certain point that it is diminished. In reference to this reflex action not being extinguished so early as sensation and motion, we shall obtain, perhaps, a certain clue to the *modus operandi* of nerve-stretching in the cure of pain. These researches do not, by any means, exhaust what we ought to say concerning the action of nerve-stretching upon the functions of the nerve; for here, in a most important memoir by Stintzing, which it is scarcely possible to praise too much, we have the first most elaborate inquiry, on physiological grounds, as to the effects of nerve-stretching upon the functions of the nerves. He has gone over the whole question, and proved, to a great extent, what was known before. But the important part about his inquiry is this, that he measured every result; he measures the touch by an æsthesiometer; he measrues the cutaneous sensibility by the faradaic current, and the muscular power by the constant current. He puts the results into curves, so that the facts are recorded in a manner which can immediately be understood and appreciated in a much more thorough way than they had ever been before. Again, he has compared the effects produced by using different weights, often using proportionate weights to the weight of the animal's body experimented upon; so that he gives us an account of the effect of the weight of half the animal's body on the sciatic nerve, of $\frac{3}{10}$, $\frac{4}{10}$, $\frac{5}{10}$, working up to 1.8, which I mentioned to you as one of his figures, showing the physiological effect of various degrees of stretching. Setting aside all the irregularities of earlier experimenters, who trusted to merely describing that they stretched the nerve and watched the result, but gave no idea how much force was applied,—he measures the force and measures the effect. Besides this, he has also compared the effect of stretching on the one side as compared with what happens on the other side; and, in this way, he has shown that the effect of stretching nerves on the one side, passes over, in various degrees, to the opposite side of the nervous system; an important factor, in regard to any explanation which may be attempted of the mode in which nerve-stretching cures disease. And in other ways he has compared the effects of stretching different nerves, as the sciatic and the crural; he has stretched nerves upwards and downwards; and he has pushed his inquiries, tabulated and measured his results, so that his is certainly the most trustworthy account of the effects produced upon the functions of nerves by nerve-stretching that we yet possess; and, no doubt, it will ultimately lead to modifications of opinion.

Now, amongst the interesting inquiries that have been made as to the effect of nerve-stretching, there comes this. Are the mechanical effects of nerve-pulling transmitted on to the spinal cord, or are they not? Now here, Vogt, one of the earlier observers, said not. Gillette, a French observer, says, Yes—if you stretched the sciatic nerve, you moved the spinal cord in the spinal canal. More recent observers have also come, apparently, to the same conclusion. Gussenbauer and Braun, working together, have recorded that they have seen, in one case, a movement

through the whole length of the cord, up to the occipital foramen. In another case, the movement was not measurable, and, in a third case, they saw no movement at all. Now, in the case in which the movement was measured, one record which, when you take it in millimètres, looks large, turns out to be one-fiftieth of an inch. In this one case, the greatest amount of movement, in the lumbar region, amounts to one-tenth of an inch; of course, this is a palpable movement. Now, this positive observation is made by the same observers, who, in one of their cases, recognise hardly any movement, and in another they recognise none at all. Dana, an American observer, confirms the fact of there being some movement; Symington doubts it. Langenbuch, one of the greatest authorities on nerve-stretching, who has stretched more nerves than any living man, tried this, and he found exactly what was met with in one of Gussenbauer and Braun's cases: that, although the movement was propagated to the spinal ganglia and to the sheaths that cover the roots of the spinal nerves, as they pass out of the intravertebral foramina, it was not communicated to the intraspinal roots of the nerves, and necessarily not communicated to the cord. Mr. Horsley has inquired into this point in four experiments upon the sciatica in the dead body, and he found no movement; and, yesterday, having the opportunity again of testing the point in this College, together with Mr. Horsley, I repeated this experiment, and we found no movement. We did find what may be an explanation of an apparent movement in certain cases; we found that, with the greatest care, the spinal column, when you apply traction to the nerves, has its curves a little modified; so that, in fact, what forms a series of gentle curves becomes straighter in some parts, and that, of course, produces a movement in the cord. When that was prevented, we had no movement. We recognised a movement in the dura mater; and, if you remember the attachment of the ligamentum denticulatum on either side, between the dura mater and the cord, you will see that, if you move the dura mater, you can gently disturb the cord. I believe, in these two ways, such casual movements as have been observed by Braun, and Gussenbauer, and Dana, may be fully accounted for; and that, practically, there is no stretching mechanical effect propagated through the roots of the nerves to the spinal cord. We find the stretching effect pass to the sciatic plexus; we find it passing to the roots of the nerves, where it must disturb the spinal ganglia on the posterior roots, and it must disturb the dura mater. It may, by disturbing the dura mater, shake the cord a little through the ligamentum denticulatum on either side; but we find no change of tension in the intra-spinal, or intra-meningeal part of the nerve, and no movement in the cord.

Here, therefore, we get another important factor when we attempt to explain the *modus operandi* of stretching nerves in the cure of disease.

These are the chief points which I wish to direct your attention to, in reference to the actual effects of stretching nerves. But now let us ask ourselves what are the *therapeutical* effects; and on this part of the subject I must dwell very briefly, knowing that you all have access to the medical periodicals, and that some have tested for themselves the success or failure of these operations. I content myself, therefore, with pointing out to you a Table constructed from one published by Artaud and Gilson, and added to by Ceccherelli, who has written a most interesting review on this subject in the Italian journal *Lo Sperimentale*—very important, and travelling very much on the same lines, only therapeutically, as Stintzing has done by practical observation. Ceccherelli's figures, added to Artaud and Gilson's, give us this enormous list of two hundred and fifty-two cases of nerve-stretching in various diseases. If you look at certain of these several columns, you will find, no doubt, that the successes are comparatively few. Take, for example, tetanus and epilepsy, the successes are but few; but on referring to the Table we must observe the two upper components of the Table, namely, the diseases classified under the term "neuralgia" and the special spinal disease which produces locomotor ataxy and sclerosis of the posterior columns of the cord and the posterior nerve-roots. These are the two diseases that are chiefly responsible for what I should call pain—the "pain" which is the subject of consideration of this lecture: neuralgia, with all its prolonged torture; and tabes or locomotor ataxy, with its lightning-flashes. How is it with regard to those? Now, with regard to neuralgia, you see the proportion of successes in the first column is enormous. With regard to tabes, the successes are far fewer; but the partial improvements, in which a modification and amelioration, or only a temporary cessation, of pain is mentioned, are also not to be ignored. The success in actual neuralgia is great; the success in curing the pain of tabes is much less; still the pains are improved, and that is at least one part of my subject which I wish to bring before you to-day. I could add to that Table many successes and many failures from other sources. I will caution you against accepting its details; we all know that statistics must be received with distrust. We all know that there are cases of failure here unrecorded; and that it is extremely difficult to analyse and describe the subjective condition of pain. We know, also, that patients often describe their symptoms too hopefully; and the surgeon is only too glad to receive such accounts; we know, lastly, that many recurrences must pass utterly unnoticed in these Tables; that a case is put down as a success which, if watched sufficiently long, would not justify that term. Making full allowance for all this, still you will find such a preponderance of facts in favour of nerve-stretching curing neuralgia, that you cannot dispute the fact that it often does and will cure that disease.

Further, this Table from Nocht, constructed long after the other in reference to the operation of nerve-stretching in tabes, gives us, certainly, sufficient encouragement to believe that nerve-stretching is not only available for the cure of neuralgia, but also for the amelioration of tabes. Time will not permit me to analyse these figures fully; but I may say in reference to them, and to any other points which may require amplification, that I shall, of course, if this lecture be considered worthy of publication, feel bound to explain them. I desire to state now that the Tables contain most of the British cases.

I may pass on, therefore, with a regret that I have no more time to dwell on this part of the subject—to consider the possible *modes in which nerve-stretching cures* the pains of neuralgia and tabes; and to these two points I must exclusively confine my attention. With regard to the pain of neuralgia, it has such peculiar characters, that we can separate it altogether from the pain produced by tabes. First of all, it is commonly unilateral; that of tabes is liable to fly from side to side. The pain of neuralgia runs along the course of a nerve. It is concentrated, as it were, along the path or territory of a particular nerve. The pain of locomotor ataxy, on the other hand, is diffused over the areas of many nerves; it may be on both sides of the body, it may be in the two limbs, or in the trunk; in fact, you do not know where it may not be.

Again, the pain of neuralgia is always increased by movement or pressure, and this gives it, of course, a local character.

Results of 252 Cases of Nerve-Stretching in Disease.—(Artaud and Gilson, with Ceccherelli.)

—	Number of Cases.	Success.	Partial Success.	Doubtful.	Failures.	Deaths.
Neuralgia of all kinds	99	74	12	7	6	—
Central disease with pain	36	5	16	—	7	8
Central disease with contractions	14	12	1	—	1	—
Facial tic	7	6	—	—	1	—
Traumatic spasms	12	10	1	—	1	—
Tetanus	45	14	—	2	—	29
Epilepsy	4	1	3	—	—	—
Peripheral paralysis (motor and sensory)	34	34	—	—	—	—
Lepra (included in the above)	—	—	—	—	—	—
Optic nerve (Hallucinations)	1	—	—	1	—	—
Totals	252	156	33	10	16	37

Results of Nerve-Stretching (Nocht).

—	Total Cases.	Cured.			Failed.	Died.
		Quickly.	Slowly.	Total.		
Sciatica	24	16	5	21	2	1
Facial neuralgia	17	10	5	15	2	—
Traumatic neuralgia	19	10	2	12	6	1
Locomotor ataxy (true)	10	Pain { Removed 4, Relieved 3, No effect 1 } 8 + 2 Deaths.				
Total Cases	70					

U. C. H. and Self.

	Cases.		Improvement.				Failure.
Sciatica	9	...	4 decided	...	4 partial	...	1
Locomotor Ataxy	2	...	— ,,	...	2 ,,	...	—

The pain of neuralgia, also, is more severe at certain apertures where the nerves pass out of the osseous or fibrous framework of the body, or pass round given points of bone. These, for instance, are painful points. The painful point of sciatica is where the nerve passes out close to the sacro-sciatic ligament, and every movement or twitching of the adjacent muscles is liable to press upon a tender nerve, and also to influence its circulation by acting on the branches of the sciatic artery and vein which supply the nerve. Another painful point is just below the head of the fibula, where the external popliteal turns round below the head of that bone, is there bound down by the fascia, and is liable to pressure. The fact, indeed, is that neuralgic pains are increased not only by external pressure and by internal movement, but they manifest themselves at particular points of the nerve, which, owing to the construction of the body, are themselves liable to internal pressure, including pressure upon their blood-vessels, and thus to a hindrance to their circulation, and an intensification of any hyperæmia to which they may be subjected.

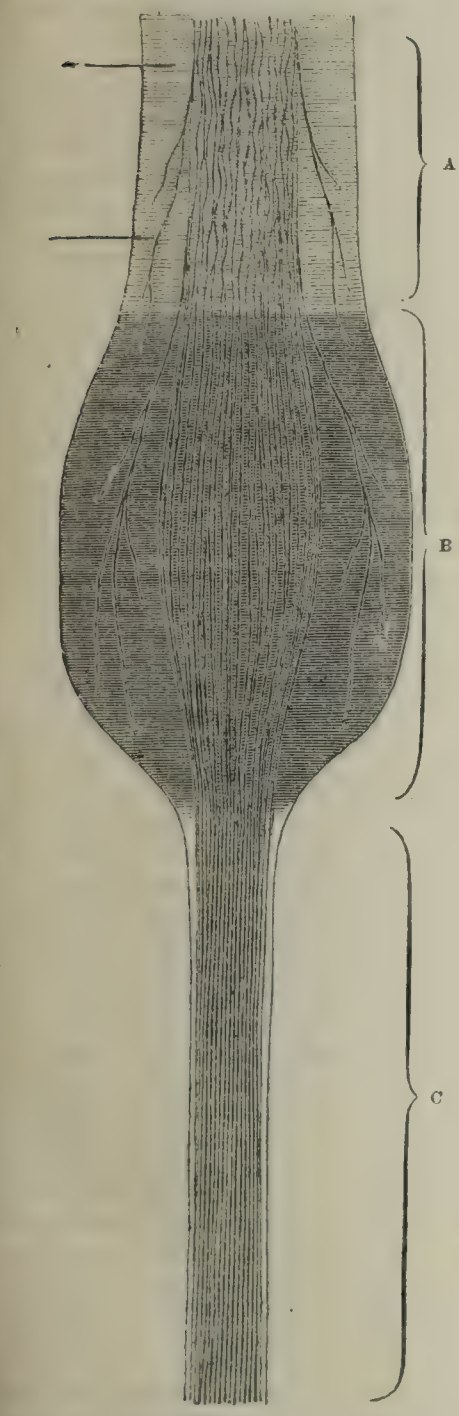


Fig. 5.
A. Unstretched, Healthy Nerve.
B. Unstretched, Inflamed Nerve.
C. Stretched Nerve. *a*. Nerve-sheath. *b*. Nervus Nervi.

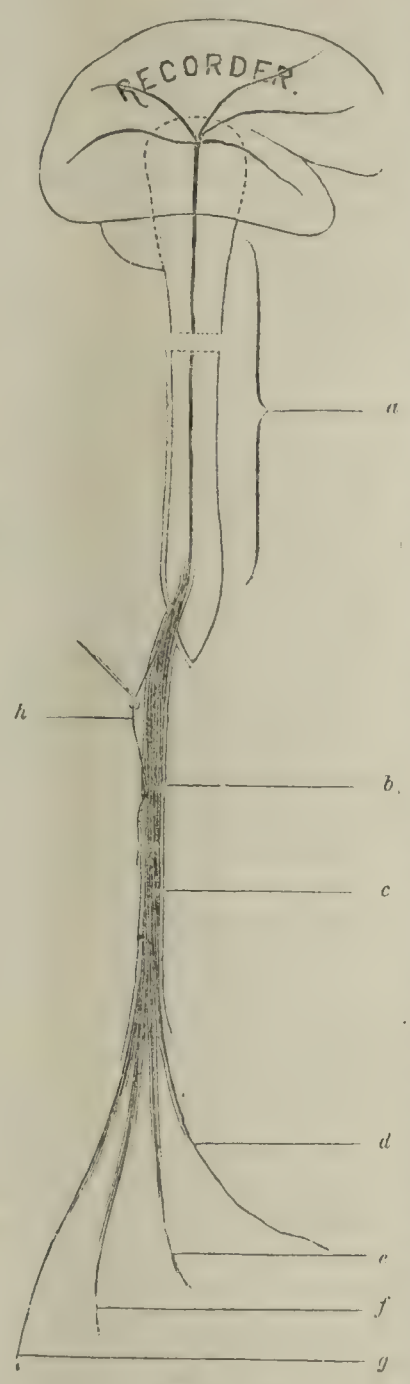


Fig. 6.
a. Cord. *b*. Spinal Nerve. *c*. Its Sheath. *d*. Dermal Nerve. *e*. Periosteal Nerve. *f*. Articular Nerve. *g*. Muscular Nerve. *h*. Nervus Nervi.

I would also venture to point out that we must consider neuralgia, I think at any rate in some cases, as not a pain in the nerve-tubules (otherwise it surely would be transferred by the consciousness to the extremities of those nerve-fibres), but as a pain in the nerve itself; and this, I think, points out that it must be pain due to what I have ventured to call the *nervi nervorum*. Sappey has described such *nervi nervorum* running on to the optic nerve only, in that case, of course, supplied by the ciliary nerves. I think, on the other hand, we may see that, in an ordinary sensory nerve, or a mixed sensory and motor nerve, the fibres which supply the epineurium and the perineurium probably come from the nerve itself. This has not yet been demonstrated in the ordinary nerves, but I hope that someone will take up the point and will succeed in doing so. I have imagined them to exist, and in the upper part of this diagram (Fig. 5), in a healthy nerve, you will see the so-called *nervi nervorum* supposed to be coming out from the trunk of the nerve, and ramifying in its sheath; they ramify in other fibrous tissues, and it is the nerves alone in such tissues that produce pain. We speak of neuralgic pain, as if there was something peculiar and striking in it. So there is, seeing that it is pain in the nerve; but all pain is in nerves. The periosteum does not feel pain except through its nerves. So with the skin, muscles, and tendons—nothing feels pain except through its own nerves. And here, I contend, the argument is strong in favour of the idea that there are really these *nervi nervorum* in the sheath of a nerve. If you touch a dermal nerve (Fig. 6), the sense of pain is carried up to the recorder, that is, it is received on the spinal cord, and is carried up to the brain, and produces a sensation of pain at the skin-point corresponding to it. So with the periosteal sensory nerve, so with the nerve going to a joint, so with the nerve going to muscle and tendon, and so with the *neural* nerve, if I may so call it—the *nervus nervi*—coming out from the sheath of the nerve, which produces a sense of pain upon its own extremity. Now, supposing this to be the case, and that we have the nerve stretched, what can become of these *nervi nervorum*? In an inflamed state, represented by the swollen part of the nerve, the hyperæmic condition, the plastic matter thrown out, the irritating fluids, gouty, rheumatic, etc., must excite these nerves. The lower part of the diagram represents the proportionate effect of stretching as compared with the upper part. Now what, in that case, must become of the proper *nervi nervorum?* They must be stretched, they must be broken; their tubuli must be actually sacrificed, in this way, very much more completely than the tubuli of the nerve in the interior. These are soft and elastic and free to move, and we find they become very elongated; but they do not become broken, except in rare instances. But what must happen to nerve tubuli, the extremities of which are fastened into the sheath? They must be stretched so as to be paralysed completely; and, in this way, I believe we can account for the relief of certain neuralgic pains. Of course, we must not ignore the fact that, side by side with these neurilemmal or perineural conditions, there are conditions which will cause pain in the internal tubules themselves, and these are probably arrested or interrupted by the shattering of the medullary tissue and the stretching of the axis-cylinder, which I have described as actually taking place. I would not for a moment suppose that all neuralgiæ are due to *nervi nervorum*, but I do think that a large proportion are. They may be considered to be true peripheral neuralgiæ. Nerve-stretching probably acts in the way I have described in a great many cases, but, in other cases, by partially benumbing or paralysing the internal tubules, arresting their functions for a time: or, further, by indirect effects on nerve centres.

With regard to tabes-pains, they are produced evidently in association, not so much with changes in the nerves outside the dura mater, but rather, so far as we know, with changes in the posterior roots, and in the spinal cord. Still, observe, the changes are chiefly in conductors; they are not in the grey substance alone; they are rather disproportionately in the conductors, that is, in the roots of the nerves and in the posterior columns; and, although we speak of this tabes-affection as a central affection, I think we should take care to eliminate from our minds the idea that it is entirely a grey-matter disease, or rather, we should not overlook the fact that it still is a disease of the conductors of nervous impressions rather than of the receiver of nervous impressions. Certainly the conductor suffers obviously more than the receiver, although the receiver, no doubt, likewise undergoes changes; the grey matter undergoes changes, but the white matter is more conspicuously affected.

But how can nerve-stretching affect these intra-meningeal, these intra-dura-matral conditions? We must have recourse to something different from the mere mechanical effect of stretching, because we have shown that stretching does not go beyond the roots of the nerves in the sheaths of the dura mater. But there it affects the ganglia, there it produces an excitation of the vasi-motor centres, or trophic centres; and, to the reaction that takes place, and the changes induced in the nerve-elements in consequence of that, I think we

must look for the benefit obtained in cases of tabes dorsalis or locomotor ataxy.

The explanation of the cure of neuralgia seems to be easy when it is peripheral. Admitting that there are other neuralgiæ which are central, the effect of nerve-stretching in the cure of those must be by producing some indirect effect upon central nerve-elements through trophic changes, probably induced by the disturbance of vaso-motor actions. Here, again, I must ask you to excuse me from following out these ideas to their fullest extent; the scope of my lecture being rather to illustrate here and there points in the subject which seem to me to be most interesting, leaving it to others who are also engaged in the practice of our profession, and in the investigation of disease, to follow out any hint which I may have dropped.

I pursue my course, therefore, by asking what are the cases in which nerve-stretching should be employed, and what seem to be the indications for the proper mode of employing it. Now, it seems quite certain that, in these preparations on the table, we have cases in which nerve-stretching is suitable. Here are two examples of neuromata of stumps. This is a painful ulcer of the skin, for which, in former days, a limb was sacrificed, and it might probably have been cured by stretching the posterior tibial nerve, or whatever nerve was involved. This again, is a nerve which has received some damage, but only appears to have on it a mass of coagulated blood, still causing immense suffering, but quite probably curable by nerve-stretching. Here is another case of a painful ulcer which might, I think, have been well treated by nerve-stretching. In this jar we have a beautiful example of nerve-thickening of the median and ulnar nerves, opposite the annular ligament of the wrist, causing such excruciating pain that the forearm was amputated. This was a case which, I firmly believe, would have been completely cured by nerve-stretching for neuralgic peripheral disease.

This, again, is a case which illustrates the contrary view; it is the fractured limb of a donkey, with a nerve entangled in the cicatrix or in the soft callus. Here, probably, the treatment would be, not nerve-stretching, but dissecting up the nerve, restoring it to its freedom, if possible, or, if not, paring off the ends of the nerve and ligaturing them together, as has been done with success by one of our own Council, at present in this room. Then, there are tumours of nerves in which one could not recommend this operation—multiple neuromata situated in the very heart or substance of a nerve. In such cases, stretching would certainly be useless. In cases like that, one would dissect out the tumour; or, if not, one must sacrifice the nerve.

Then we get still more formidable examples of tumours of nerves, in which cases tumours exist more or less in nerves in every part of the body. Here is a sciatic nerve in which there are at least a dozen or fifteen little nodules. Here, again, is a specimen of an arm in which every nerve has one or two nodules upon it. These multiple neuromas are, some cancerous, some soft sarcomas, and others fibromas; but all cases of this kind would be utterly unsuitable for nerve-stretching. Here is a beautiful specimen of a tumour pressing on the intra-spinal sensory roots of lumbar nerves, in which the most excruciating agony was suffered. In that case, I, some years ago, *divided* as many of the branches of the crural nerve as I could get at, without relief. After death, the patient being examined, a tumour was found inside the spinal canal, sufficiently explaining the reason of the failure of the operation to give relief.

Could we hope to get any benefit in such a case from nerve-stretching? The probability, I am afraid, is not; because we have shown that nerve-stretching does not pass beyond the dura mater, does not affect the posterior roots. Besides, no change in the nutrition of the tumour, through the vasomotor action, could be expected to give relief, as it seems to be able to give relief in cases of tabes dorsalis.

Finally, as to the *mode* in which this new operation should be set about. First of all, we may indulge in a generalisation with regard to the physical experiments, investigations into anatomical structure, and how that is altered by stretching, those on the functional disturbances that take place in nerves, and, lastly, the observations on the therapeutic effects of stretching nerves—all of which I have been able to glance at, viz., that we should set very little value on these if they did not furnish us guides for the mode of operating so far as we are at present able to use them safely. I need not say, with regard to these operations, that they must be directed to the nerve itself; that is to say, that in all cases of neuralgia (with one exception, which I shall mention presently) the operation consists in exposing the nerve, lifting it either with a hook or with the finger, stretching it to a certain point so as to produce that palpable stretching of which I have spoken, and without which the operation will fail.

To what extent may we stretch? These Tables do not give us any reliable information if we translate them literally, because if you take the mean of these numbers that will be an unsafe guide. There have been sciatic nerves broken, as you see, at 82, whereas the mean is 185 lbs. Therefore, the arithmetical mean is of no value at all; every practical surgeon would shake his head and shudder, or laugh at it. Nor can you take the lowest of these numbers, 82, because some sciatic nerves may break at a lower weight than that.

Stintzing's observations have shown that, in the living nerve, you may safely stretch it with half the weight of the animal's body. Here we get a little safer guide that will diminish the strain or force on the sciatic nerve from 80 pounds, to half the average weight of a man, or 75 pounds. But that is not a perfectly safe guide, because we are dealing with diseased nerves. The nerve on which we are operating is not a healthy nerve, the man not a healthy man; you must go, therefore, far below that limit. Stintzing has observed this, however, which is a great consolation, that you may stretch the sciatic nerve of an animal by half the weight of its own body, and you will produce temporary anæsthesia, temporary paralysis, temporary loss of nerve-power, but it will all recover; every function of the nerve will be recovered, provided you limit your weight to half the weight of the living animal's body. These are experiments on the sciatic nerve; so that, at any rate, if we used 75 pounds weight upon the human sciatic, and it did not break, we should feel that, whatever mischief we did, it would be recoverable in a healthy man. But, as I have said, we must translate these conclusions in their application to *disease*, and I would myself counsel that no sciatic nerve should ever be stretched by a greater weight than between thirty and forty pounds. I should say thirty is a reasonable weight. Here I have a dynamometer, which will enable you to understand at a glance how difficult it is to apply a weight of thirty pounds to a nerve. If I put this ring upon a staple and pull, as I would pull at a nerve, I find that there is a pull of twenty pounds; but if I pull very hard, I find that it increases to thirty pounds, and that, I think, is as hard as a man can well pull, holding a soft nerve with his finger and thumb. You must pull gently. You will find that a very strong man, pulling with both hands, can only pull up to about eighty, or ninety, or one hundred pounds. But if you pull as you would pull a nerve, you will find that thirty is about the limit of your pull.

We have here also a portion of the sciatic nerve, not a very good specimen, somewhat decomposed, and you will be able to try after the lecture, and see what you can pull upon it. You will see how it will bear a weight of thirty pounds quite easily, and I take it that thirty pounds is a very safe weight to use. Now, taking the limit of thirty pounds for the sciatic nerve, of course this would be graduated downwards for smaller nerves. Gillette invented a dynamometer to use in operations, but I believe he gave it up afterwards; and I should say it is an instrument which may be condemned. Surgeons should educate their feeling of resistance so as to be able safely and adequately to stretch a nerve—adequately, in order to cure; safely, so as not to injure the patient. We do educate ourselves in a great number of ways: we can, without instruments, tie an artery without tearing the outer coat, and either with or without tearing the middle coat; we can test the tension of the eyeball, and see whether it be greater or less than it ought to be; we can displace or extend a cataractous lens safely; we can use a certain amount of force in reducing a hernia so as not to burst an intestine, and yet succeed in our object. Now, if the surgeon can do this without dynamometers, why should not he be able to discipline and exercise his tact in stretching a nerve? This is far preferable to any instrument, which might deceive you at any moment. You might meet with a nerve so strong, that your instrument would be safe, whilst the next nerve, apparently looking just like it, would be dangerous to stretch with the same force; but, if you grasp the nerve with your hand, and feel the resistance it offers, you can judge, after a few experiments on a dead nerve, how much force is necessary to produce that adequate stretching of which I have spoken; the nerve sensibly yields to your traction, you feel an internal creeping movement in the particles of the nerve—of the sheath, no doubt—you feel a certain attrition and vibration going on, and you must educate yourself to that, and then you will be safe.

But, now, there are two other points of great importance in nerve-stretching which, I think, have not received sufficient attention; and that is, not the direction, but the *mode*, in which you pull, either with irregular jerks, or with a steady pull, and *how long* that pull should last. Here, again, Stintzing comes in to our aid inci-

dentally. You can make use of his facts in this and many other ways. Thus he found the best way to produce his results with measured weights, and the only way to make his experiments parallel, was to keep up the pressure or the weight for a certain uniform time. Now, the time that he adopted in various experiments was from three to six minutes; but, in certain experiments, where he wished to have exactly parallel results, he kept up the stretching uniformly for five minutes. I believe if stretching with a moderate power, prolonged for a certain time, was really the *modus operandi* adopted by Surgeons, they would have better and safer results than they have now. A sudden pull is not enough, however hard it may be; a series of jerks, also, are inadequate, for each jerk only repeats the mischief of the impression produced by the previous one; but, if you put a strain upon the nerve, and stretch continuously, say for five minutes, with a moderate pull, you are producing insensibly those internal changes of which I have spoken as essential to the production of genuine nerve-stretching. Now, with regard to pulling the nerves upwards or downwards, it does not seem, in experiments, to have had much effect. Stintzing says that, on therapeutic grounds, it would be far better to stretch downwards in tabes, and upwards in neuralgia. I should say myself, stretch both ways for neuralgia, and yet as near to the seat of severest pain as possible. It is of less consequence to stretch from the extremities in tabes; it is essential to stretch from the trunk or body.

Before concluding, I must ask you to bear in mind that the cutting operation to which I have alluded hitherto is not the only way of stretching nerves; for it has been found, in the case of the sciatic, that if you bend the thigh upon the body so that the knee comes up to the chin, and then straighten the leg upon the thigh, and flex the foot upon the leg, so as to stretch the ankle-joint also, you can produce an extraordinary strain and tension upon the sciatic nerve as it passes out of the pelvis. Trombetta, who is a great advocate for this method—Billroth has the credit for introducing it, but I believe Trombetta was earlier—found that the sciatic nerve in the dead body could be stretched one inch by this proceeding; but the proceeding must be tolerably firm and resolute; and I would say, in order that it should succeed, it should be continued for five minutes. That is the sort of rule I would lay down in all these cases. Mr. Horsley has stretched the sciatic nerve on the dead body in this way, and has found that it does diminish the diameter of the nerve. He intended to have brought the specimen here to compare it with an unstretched nerve. As a matter of fact, the nerve is stretched according to Trombetta, and it is diminished in diameter according to Horsley. In a living person, I have found the exposed sciatic to be very tightly stretched by forced flexion of the lower limb. Here there is an undoubted power of stretching the sciatic without a cutting operation; and the results of this, which the Germans call the *unblutige* operation, as contrasted with the *blutige* operation, are very satisfactory, as shown by Lange, Trombetta, and Stintzing, who adds a clinical chapter after his experimental results. It is there stated that this method of stretching the sciatic for tabes dorsalis, in four cases, turned out admirably in one, produced decided improvement in the second, partial improvement in the third, and a little less improvement in the fourth; so that, in fact, there are means of stretching sciatic nerves successfully without the cutting operation. Again, quite recently, I lit upon some observations made by Motsckutkowski with reference to what happens in the use of Sayre's apparatus for suspending the body. The body is said to be elongated from an inch to two inches and a quarter—that is, the entire body; but he found that the trunk is elongated to nearly seven-eighths of an inch. He opened the spinal canal, and then suspended the body in the same way, and he found the spine itself was elongated seven-eighths of an inch; but he found, as confirmatory of what I have already told you, that, although the membranes moved, and he thought there was a slight amount of tension on the posterior roots of the nerves, he was not quite sure of that, and at all events it was a very slight degree of tension. But, suppose there was a degree of tension, consider the amount of stretching that he was now employing, stretching which was acting on every part of the vertebral column, not limited to the sacro-lumbar part alone; and it is just possible in this way, by stretching the entire vertebral column, and undoing its curves, he did get a certain amount of tension on the posterior roots of the nerves, and therefore on the cord. His practical application of this consisted in suspending the patients suffering from locomotor ataxy, for ten minutes at a time, three times a week. He reports fifteen cases. In thirteen cases, there was positive diminution of the pains; as well as of the abnormal sensations which characterise that painful disease; some decided improvement in the ataxic condition, and general recovery of muscular power. In thirteen cases, without going into detail, this method of stretching nerves has succeeded in relieving those agonizing pains of tabes or locomotor ataxy, with which we are concerned here. In two cases, it produced either no result or a very unobservable result.

With regard to the dangers of nerve-stretching in tabes, if you read the cases, you will find that they are comparatively few. One patient died from chloroform, another from thrombosis in the veins, another from pyæmia due to inattention to antiseptic dressings, a fourth from a similar cause. Then we may record three or four cases in which, undoubtedly, the death may be attributed to disease of the spinal cord set up by nerve-stretching, but one of these was a case of spasmodic disease. These mishaps have taken place in other operations. A boy had his hips and knees contracted; he had these stretched; he had collapse, and died in two or three days. Hæmorrhages were found along the cord. Shampooing, even, has been found to result in a fatal issue—no doubt, from an imperfect mode of performing it. If, therefore, I conclude by saying that nerve-stretching demands much further consideration, and that the facts already brought to light upon this subject serve to illustrate more clearly the mode in which it acts, and indicate that there should be one mode of treatment for neuralgia and another mode for tabes, I trust we may hope that in future this operation will take its place more prominently in English surgery.

I will conclude by thanking Mr. Horsley for his very great assistance; also my old house-surgeon, Mr. Thring, for collecting the University College Hospital cases for me; and Mr. Castañeda for his great trouble in verifying the tabulated cases. I again repeat that I should hope, if I publish this lecture, to furnish such appendices as will fill up gaps, which, for want of time, I have been compelled to leave open.

Once more assuming my position as President of this College, I beg to thank you most sincerely for your attendance here to-day, and to express my obligations to the Members, Fellows, and Council for the honour they have done me; and also to say, with regard to our visitors, that they have, undoubtedly, by their presence contributed to our attempt to pay a just tribute to the memory of the lady who founded these lectures, and also to keep alive the recollection of the physician in whose honour they have been founded.

HEALTH OF FOREIGN CITIES. — It appears, from statistics published in the Registrar-General's return for the week ending the 8th instant, that the death-rate was recently equal to 21.9 per 1000 in Bombay, and 36.1 in Madras. Small-pox caused 34 deaths in Madras, where "fever" fatality was also considerably greater than in Bombay. According to the most recent weekly returns, the average annual death-rate in twenty-two of the largest European cities was equal to 24.3 of their aggregate population; this rate was 2.7 above the mean rate last week in the twenty-eight large English towns. The rate in St. Petersburg did not exceed 22.9, showing a further decline from the rates in recent weeks, although the 408 deaths included 28 fatal cases of diphtheria. In three other northern cities —Copenhagen, Stockholm, and Christiania — the mean death-rate was only 19.3, the highest rate being 25.2 in Stockholm, where the 88 deaths included 8 from diphtheria and croup, and 6 from scarlet fever. In Paris, the rate was 22.6, and the deaths included 43 from diphtheria and croup, and 32 from typhoid fever. The 183 deaths in Brussels, of which 8 were fatal cases of small-pox, were equal to a rate of 22.8. In Geneva, the 31 deaths gave a rate of 23.1. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the rates ranged from 18.8 in the Hague to 27.0 in Amsterdam, the mean rate in the three towns being 25.4; in Amsterdam, 26 deaths were referred to croup, and 12 to measles. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.8, and ranged from 21.4 and 21.9 in Hamburg and Buda-Pesth, to 30.1 in Munich and 32.1 in Prague. Small-pox caused 24 deaths in Prague, and diphtheria 80 in Berlin and 26 in Dresden; measles showed fatal prevalence in Hamburg, Vienna, and Munich. The rate was equal to 23.3 in Rome, 24.2 in Turin, and 28.2 in Venice, the mean in these three Italian cities being 24.6; 11 deaths were referred to malarial fever in Rome, and 8 and 6 deaths respectively to measles and typhoid fever in Turin. The 132 deaths in Lisbon, including 5 fatal cases of diphtheria, were equal to a rate of 32.9. In four of the principal American cities, the mean death-rate was 20.9; the lowest rate was 17.9 in Brooklyn, and the highest (22.4) in New York. Typhoid fever caused 15 deaths in New York, 12 in Philadelphia, and 7 in Baltimore; diphtheria showed more or less fatal prevalence in each of these American cities.

TUBERCULOUS DISEASE OF BONE.

By C. MACNAMARA, F.R.C.S.,
Surgeon to the Westminster Hospital.

II.

I HAVE already referred to the existence of small hard masses in the cancellous tissue of scrofulous bones. On examining sections of these bones, we often see accumulation of osteoblasts resting against the trabeculæ of the bone, and projecting into the medulla as dark vitreous bodies. These overgrown and calcified osteoblasts may gradually extend themselves into the area occupied by tubercle in the medulla, and so form in the cancellous tissue of the bone a small mass almost as hard and dense as a little bit of flint. Such a dense mass excites inflammation and necrosis of the bone surrounding it; and, until the sequestrum is removed, suppuration continues, and hence the persistent nature of not a few cases of scrofulous diseases of bone.

It is a matter of some importance to determine if tubercle of the medulla commence in a hyperplasia of the cells over a diffused area of the adenoid tissue, such as we might imagine would occur from the result of a contusion; or, if it begins at a definite point in the epithelioid lining of the capillaries, it may be from the action of a specific bacillus, and extends to the surrounding structures. It is certain that, in many sections of diseased bone, we find active proliferation of the brood-cells progressing over considerable portions of the adenoid tissue, without there being evidence of the formation of tubercle in the part. But, it must be remembered, we can only examine very thin sections of bone under the microscope; and it is impossible, therefore, to determine what may have been the condition of the medulla which has been removed. That is, tubercle may have existed in the medulla contiguous to the areas in which the cells are undergoing proliferation, but may not have been included in the section. The evidence, however, so far as it goes, is to the effect that the increased cell-growth in the adenoid tissue is the primary change, and leads to the formation of tubercle through the crowding together of round cells, which are unable to escape from the part, because the channels through which they ordinarily pass into the circulation are choked up. Supposing this to be the true pathology of the disease, it would account for the beneficial results which, experience teaches us, follow the efficient drainage of the diseased bones.

Turning from the examination of the medulla to the cartilage of bones affected by tubercular disease, we find that, at the angle between the epiphysal and articular cartilages, there is almost always evidence of abnormal action, commencing in the substance of the cartilage. We not unfrequently observe patches in the matrix of the cartilage, which appears granular, and much more transparent than the surrounding parts. As the disease advances, the cartilage-matrix in the affected part yields to the pressure of the increased cell-growth; for we find, in this transparent area, that the nuclei of the cartilage-cells proliferate rapidly. In a more advanced stage of the disease, these cells may be seen crowded together; the patch becomes opaque; the cells undergo fatty degeneration, and become disintegrated; compound cells and a fine reticulum of fibres may be seen in the part. These changes occur independently of capillaries or any other vessels, and the cartilage-cells immediately surrounding the affected area appear to be absolutely unaffected. It is not uncommon to see the cells throughout the thickness of a portion of the epiphysal cartilage broken down in this way, and a passage thus formed through the cartilage, which unites small tuberculous cavities in the medulla, contained in the diaphysis and epiphysis of the bone; so that, in the cartilage, as well as in the medulla, there seem to be well-defined areas of tissue, in which an overgrowth of cells occurs, leading to degenerative changes in the part; but, in the early stages of the disease, these areas are surrounded by perfectly healthy tissue. It is worthy of remark, that these changes most frequently take place in those parts of the growing bone which would be most liable to suffer from contusion.

At an early stage of the disease, we find the articular cartilage separated from the epiphysis, and this condition is more marked round the ligamentum teres. The separation of the articular cartilage from the bone is clearly the result of changes such as I have described, commencing in the medulla, upon which the cartilage rests. In fact, in its early stages, the so-called scrofulous disease of the hip-joint is a disease of the medulla, and of the deep or attached surface of the cartilage forming the head of the femur; the same remark applies to the extremities of the other long bones.

In approaching the subject of the cause of tubercle in the medulla, it would have been satisfactory to have discovered evidence of the presence of a specific bacillus in the early stages of the disease; but, so far, no traces of such a definite cause of tuberculosis in bone can be discovered in the human subject. There can be no question, however, that, in the cancellous structures of the lower extremities and of the bodies of the vertebræ, but especially in the head of the femur, tubercular disease is of common occurrence, and, as in its early stages, it is most marked in the line of resistance to force transmitted along the bones; it seems reasonable to suppose that contusion of the affected part is in some way not unfrequently connected with the disease. Clinical experience lends support to this idea, for we often have a history of a fall or injury as being the assigned commencement of the disease. Healthy children, however, repeatedly meet with such accidents, but seldom suffer from scrofulous disease of the bones. On the other hand, among the children of the poor reared in our large towns it is common; these children have but few inducements to take exercise, one of the most important and essential factors in promoting sound health among the young. Moreover, both within their houses and in the courts and alleys in which they amuse themselves, they breathe a dirty atmosphere, and exist to a large extent without the necessary and salutary influence of sunlight. These children are not only pale and sickly-looking, but are characterised by weighing considerably less than children of the same age and height residing in rural districts. Light weight is synonymous with irritability of tissue, or with tissue incapable of healthy reparative changes when it has been contused or otherwise injured. In such children, the cell-hyperplasia, which is the natural consequence of shock or the contusion of tissues, in place of taking on a reparative action, has a tendency to become excessive and revert to embryonic conditions, and so the agglomeration of cells in the medulla, such as I have described, occurs. It is quite consistent with this idea to suppose that inherited tendencies may increase, and, in some cases, be the sole cause of an unstable condition of the tissues.

The treatment of the early stages of scrofulous diseases of the bones would seem to rest most securely on a correct knowledge of the nature of its causes and pathology. Nevertheless, authorities differ on this point, for Mr. Howard Marsh observes, in his lecture on Hip-Disease in Children, that "although the pathology of many cases is thus obscure, the doubt is practically of slight importance; for, in respect of treatment, whether they are scrofulous or whether they are not, one law must be rigidly observed, that is the law of absolute rest." But if, in the majority of cases of so-called disease of the hip-joint, the abnormal action commences in the medulla contained within the head of the bone, and is a local affection, surely it is opposed to reason to lay a little child affected in this way upon his back for months together in the wards of a London, or any other, hospital. It seems to me hardly possible to conceive any position in which a little patient could be placed more likely to produce unhealthy tissues. Granting that rest is necessary, it can be well applied to the part by means of a Thomas's or Sawyer's splint, and with a thick-soled boot to the sound limb, and crutches; the child can then move about with comfort. In fact, if the pathology above inculcated be correct, it stands to reason that, so far from absolute rest in bed being the main object of treatment, it is exercise in the open air, sunlight, wholesome food, proper clothing, that the patient requires. At the same time, a flexed limb may be extended, and the diseased bone kept from pressure or injury in the manner above described. A little London patient, protected in this way, and sent to one of the many convalescent homes that now exist all over the country, will, from my experience, best secure the relief or cure of the disease from which he is suffering. For the well-to-do, sea-air, and, if possible, a mountain-home, are highly to be recommended.

In most cases, cod-liver oil and iodide of iron should be administered, and continued counter-irritation, in the form of iodine paint, applied over the skin of the groin on the diseased side. The same line of treatment may be adopted to affections of the extremities of the other long bones in the early stage of the disease. If such treatment, after a prolonged trial, fails, we may have to resort to draining the bone, under antiseptic precautions. It is not, however, the object of this paper to discuss the treatment of cases in which the disease has advanced to that stage where the joint and surrounding structures have become extremely compromised. The affection we have been considering is a chronic one. Its early stages

are well marked, and it is then we may, by judicious treatment, confidently hope to avert the serious consequences which threaten those suffering from this disease.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

AN ADDRESS ON CHRONIC INFLAMMATION OF BONE.

Read in the Section of Pathology.

BY CHARTERS J. SYMONDS, M.S.Lond., F.R.C.S.E.,

Assistant-Surgeon to Guy's Hospital, and Demonstrator of Morbid Histology in the Medical School; Surgeon for Out-patients to the Evelina Hospital for Sick Children.

(*Concluded from page* 1116.)

TURNING, now, to the cranial bones, several new causes of enlargement present themselves for consideration; and these I now propose to investigate.

Localised thickenings of the cranial bones may, as in others, be due to syphilis and struma, but neither of these produces an uniform enlargement. These uniformly thickened skulls, examples of which occur in almost every museum, are still ill-understood.

Several distinct appearances are presented by these specimens.

1. In some, the outer and inner tables are distinct, compact, and of no great thickness; the diploë is well-defined, with a regular open texture. It is, indeed, normal in all respects, except for its great thickness. Here is an example of this form, which, I think you will see differs from all the others. It is part of a skull of a man aged 30, who committed suicide, many years ago, at the London Hospital. A portion of the same is in the museum of the College of Surgeons.

Writing on hypertrophy of bone, Sir J. Paget attributes to concentric hypertrophy, from shrinking of the brain, many thick skulls.[1] He does not describe the appearances in such cases, but gives an illustration—which I pass round—taken from a similar section of

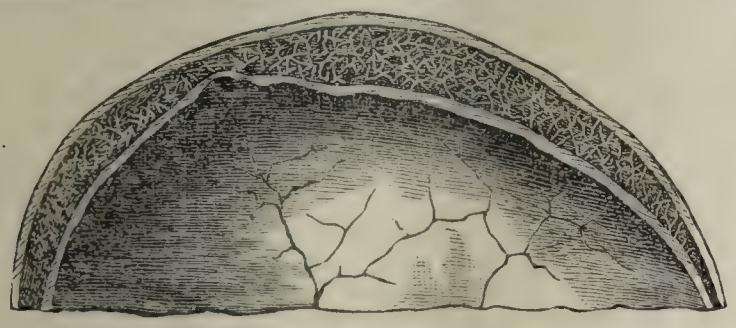


Fig. 7.

this same skull, so that we may take it as representing his idea of the change. He describes it thus: "The thickening of the skull is effected by the gradual remodelling of the inner table and diploë of the bones of the vault; so that, although the exterior of the skull may retain its natural form and size, the inner table grows more and more inwards, as if shrinking towards the retiring and shrinking brain—not thickening, but simply removing from the outer table, and leaving a wider space filled with healthy diploë."

He gives another case of a young lady, intellectually feeble, whose cranial cavity was singularly contracted, the skull having adapted itself to an imperfectly grown brain by a hypertrophy of its deploë, while externally the skull was not below the average female size. It seems to me that this case offers a different explanation of itself, and one that may be applied to the specimen I have handed round, and of all thick skulls presenting similar characters.

So far as I can gather, there is no appearance which suggests the present existence or progress of this "concentric hypertrophy." I am rather inclined, on the contrary, to hold that the shrinking brain is replaced by cerebro-spinal fluid, an appearance frequently observed, and that the thickening in such skulls as these takes place during the period of development only, and that it is not a true example of accommodating hypertrophy. The capacity of the cranial cavity is, I imagine, determined—as indeed Paget has suggested—by the growth of the brain, or in some perhaps by an early ossification of the bones with closure of sutures. Admitting this, two explanations suggest themselves.

First, after the lateral increase, or increase in area, has been checked, the process of growth continues and leads to a thickening of the bone; the new material being added to the surface instead of to the margin. In this way, the size of the head may not be diminished.

Secondly, it is not unlikely that rickets may produce this appearance. In this disease, as is well known, the cranium becomes enlarged, often with remarkable elevations round the centres of development, producing the so-called natiform skull. A section through such a skull of an adult, in the College of Surgeons, shows exactly the appearances presented by this piece of bone and by Paget's drawing. I have not met with any description of an adult rachitic skull where enlargment had persisted. Sir J. Paget's description applies, without doubt, to the early stages, specimens of which exist in the College museum, and are described as "very light, almost friable, not porous, but like fine cloth or felt."

I must not omit to mention here that M. Parrot has attributed these bossy or natiform skulls to congenital syphilis; but many others hold the opposite view, and my own observations amongst living children lead me to decide in favour of rickets.

It is worthy of more than passing remark, that in the skull alone do we find a permanent increase in size in rickets, though, of course, not in all cases. It suggests some difference between the subsequent modelling process in the two parts of the skeleton.

2. In another form, the bone is porous throughout the inner and outer tables, as much so as the intervening substance. Irregular gaps occur in the section, indicating possibly the situation of the diploë. Many have the mortar-like appearance described by Mr. Durham, while others are more dense. Probably, as has been suggested, these two are but stages of one process. Mr. Durham, however, regards the two as distinct, the porous form—at least some of them—he considers examples of cured osteomalacia; the denser ones as rachitic. The majority of these skulls are no doubt examples of osteitis deformans, in which disease, as is well known, the bones are uniformly thickened. No trace of the compact tissue is left at all. Several of these specimens illustrate this appearance.

Another disease said to lead to the production of this appearance is osteomalacia. This has generally been stated since the publication of Mr. Durham's paper in the *Guy's Hospital Reports* for 1864, and since Mr. Solly's communication to volume xxvii of the *Medico-Chirurgical Transactions*. Paget alludes to it upon the authority of the above writers. I have examined, with regard to this point, the specimens upon which the statement of enlargement has been based, and I cannot but think that a different and truer explanation can be given, and indeed, that in this malady there is no increase in the thickness of the skull. Here is Mr. Durham's specimen. The calvaria is seen to be much thicker than normal, and to show all the appearances described in osteomalacia. It is by no means so thick as in the dry specimens just exhibited, and it is far more porous.

Mr. Solly's specimen may be seen in the museum at St. Thomas's Hospital. It is a dry preparation of about the same thickness as this one, and shows the same degree of porosity.

In the same bottle with Mr. Durham's specimen are portions of several other bones from the same patient, none of which show any thickening, and it will be found to be true that in no other bone does an increase in size take place. Surely, therefore, unless we admit that the effects of disease are entirely different in the cranial bones from what they are in the long bones, this is almost sufficient to negative the conclusion of enlargement.

Again, in some well-marked examples of the disease, the cranial vault is, if anything, thinner than usual; at least it is not increased in thickness, though showing well the characteristic changes. Mr. Solly records one such case, and explains the absence of thickening by the short duration, which was four and a half years, while that in which the enlargement occurred had existed eight years; and he says he has no doubt that, had his second patient lived, an increase would have taken place. In opposition to this opinion, it must be said that, though the skull was not thick, the other bones exhibited the softening effects of the malady in an extreme degree, the cranial bones themselves being deeply affected.

Mr. Durham's patient in whom the skull was thick had been ill but three years; so that, upon the ground of duration of the disease,

[1] On this subject of shrinking brain, with alteration in the bone, I may quote a remark from Billroth, who says "that the filling up of the diploë with bony substance is so common in advancing age as to be scarcely pathological." This seems to me to need confirmation. He does not state if, at the same time, the bone is thickened.

little support can be given to Mr. Solly's conclusion. Mr. Durham founded his statement also upon certain microscopical appearances, which he found to be alike in his case of osteomalacia, and in a soft spot in one of these thick skulls. He concluded that the latter was an example of cured osteomalacia. I am unable at present to dispute the observation, for it would require minute examination of several of these osteoporotic crania, and this at present I have not made.

Again, here is a specimen showing all the changes of osteomalacia, without any increase in thickness—in fact, it is rather thin. This is the ground upon which, so far as I can find, the statement is based; and, in opposition to it, I will suggest, believing I am nearer the truth, that osteomalacia does not give rise to any increase in thickness of the cranial bones, but that the occurrence of this appearance is a coincidence of a normally thick skull made porous by the disease. Moreover, neither Mr. Solly's nor Mr. Durham's specimens are by any means so thick as the bone is in osteitis deformans. Finally, I may add that Mr. Durham's conclusion that some of these porous skulls are due to osteomalacia, infers that the disease is curable. The rarity of this result in well marked examples—if, indeed, it ever occur—is an argument against his deductions.

If we remove this disease as a factor in producing examples of these porous skulls, but one cause is left, and that is Osteitis Deformans. I do not, for a moment, mean to state that this is the only cause, but that, so far as we can say at present, it is the only one we know.

3. A third group, illustrated by this example, exhibits, besides a general increase in size, numerous nodular projections from the inner surface, varying from small rounded nodules to the large irregular agglomeration of bony ridges seen in this specimen. The bone besides is heavier and more dense than in the previous class. The cause of this change is obscure, but it may possibly be an earlier stage of the next group, in which a more definite tumour-formation occurs. They have been found in lunatics; and the smaller nodules are said to occur in puerperal women.

4. In the next class comes the disease known as leontiasis ossea. This differs, however, in so many respects from the previous group, that there is not much difficulty in associating examples of this affection. The bones of the face are affected as well as the vault of the skull, and, moreover, the change is more irregular and nodular, at least, so far as the vault is concerned. Again, some of the specimens of this disease show definite growths, which are evidently exostoses, indicating probably the association of the affection.

Coming next to these specimens, are those skulls covered with smooth bossy masses of bone, and, at the same time, showing considerable increase in thickness. The most notable example is Mr. Bickersteth's well-known specimen, now before you.

Through these last two groups, we are led easily into tumours; and I must not omit to mention that several of the cases of osteitis deformans have been associated with malignant disease of the bones; and the suggestion, I believe, originally made in the discussion on Sir J. Paget's paper, by Dr. Goodhart, that that affection might, after all, be a diffuse form of new growth, may be true. Here is an example of a thick calvaria, with cancer in the vertebræ.

Returning to these osteoporotic skulls, there is yet the important question to answer: How is the enlargement produced? Is the new material laid down under the pericranium or dura mater, or is it due to a formation in the diploë whereby the two tables are pushed aside?

So universal is the change in all the specimens examined, that I have been unable to discover a point where the change is in progress. So far as simple and well-known inflammatory processes are concerned, I have no doubt that all additions in thickness are surface-formations, as in other bones; but, with regard to osteitis deformans, I must admit the explanation is more difficult. That an increase occurs externally, is manifest, from the size and shape of the head, and the increased depth of the grooves for the meningeal arteries is as good an evidence of an enlargement internally. The irregular gaps, by indicating the original position of the diploë, show in some that greater increase is external to this point, while in others it is internal to it; so that little can be gained from this appearance.

As mentioned before, I think it probable that osteitis deformans differs in its mode of effecting changes in bones from ordinary inflammatory affections; and that this may account for the peculiar appearances in the cranial bones, and may be another reason for separating it as a special pathological change.

Mr. R. W. PARKER (London) said, if he had understood Mr. Symonds's argument aright, that all enlargement of bone was due to changes in the periosteum, and that it did not depend on changes in the bone itself, he should be obliged to join issue. In his own opinion, uniform enlargement of bone depended on changes in the bone-substance itself, and might run its course with very little implication of the periosteum. He thought that, just as chronic inflammation of soft tissues led to thickening, and to a kind of spurious elephantiasis, so chronic inflammation would probably lead to a similar enlargement in bone. He showed some specimens illustrating these views, which were quite at variance with those Mr. Symonds had just laid down. His first specimen showed a femur uniformly enlarged, due to a small central necrosis; the femur retained its normal shape; it was larger in all its dimensions, and heavier; its periosteum had peeled off with the greatest readiness, except at one spot, and this corresponded exactly to where surgical means had given rise to a local periostitis, and so caused thickening and roughening on the surface of the shaft. The second specimen showed a central necrosis, with great and (as usual) very irregular deposit on the surface of the bone, due to periostitis; the bone itself was not much, if at all, enlarged. The one specimen was evidently an ostitis proper, and the other a periostitic deposit. As regards the statement that syphilis never produced a uniform enlargement of a bone, he also joined issue. He had seen many such specimens, and handed one round, illustrating this point as he thought, for the inspection of those present.

Dr. JOSEPH COATS (Glasgow) agreed with Mr. Symonds that thickening of bone in connection with inflammation was usually due to new formation from the periosteum. He differed from him in his contention that no expansion of the bone itself occurred. There was no such thing as expansion in the rougher sense, by shifting of the dense bone and the lamellæ, but there was such a thing as an expansion entailing absorption and new formation in the substance of the bone itself. Dr. Coats referred to the conditions observed during development as throwing light on the subject. Mayer pointed out that the cancellated tissue of bone had a definite architectural arrangement, and that this arrangement was preserved during the growth of bone. This must be effected either by expansion of the various lamellæ, or by absorption and new formation. Wolff asserted that it took place by interstitial expansion, but this view could not be accepted. There was in the growth of the individual bones an abundant absorption and new formation of bone, so as to adapt them in shape and internal architecture to the altered conditions. Turning to a definite inflammatory process, the union of fractures, there was here also, when the fracture was united, a rearrangement of the bony lamellæ, so as to adapt the bone to the different directions of pressure; and, in order to do this, there must be absorption and new formation. Again, in cases of concentric thickening of the skull, Mr. Symonds supposed that this mostly occurred during the period of growth. This was not consistent with the fact that, in atrophy of the brain, as in general paralysis occurring in old or middle-aged persons, there was frequently considerable thickening. This could only occur by what might be called an expansion of the bone, a process of absorption and new formation, so as to give the appearance of a displacement inwards of the internal table by increase of the diploë.

Dr. G. SIMS WOODHEAD (Edinburgh) agreed with Mr. Symonds as regards the absence of distension of bone as a mechanical condition. In the soft tissues, any increase in tension was followed at no great date by formation of abscess, even when in a chronic form; and, in the case of bone, it would be expected that, where there was increased tension sufficient to cause distension, abscess would rapidly be formed. Distension must be looked upon rather as a "vital" process, and a process in all respects similar to what took place in inflammation of soft tissues, as in ordinary tissue or in cartilage, where there was final increase in the number of cells, and then an absorption of the formed material. At no distant date, this was followed by a new formation of the formed material, which might be moulded afresh, and then distension might take place, as undoubtedly it did in many cases. He agreed with Mr. Symonds that periostitis played the principal part in the formation in bone, or where there was great increase in size. In the majority of cases of periostitis, the formation of new bone was modified considerably by various external conditions, and by the degree rather than the kind of the inflammation. He considered that, until bone was looked upon as a form of connective tissue, little progress would be made in our knowledge of the study of bone-disease. It could be looked upon as amenable to modification during growth; but, when once formed, no change could take place until the rigid tissues were removed, and the way was left clear for a remodelling of the bone. In inflammation and for-

mation of new bone, the whole of the changes pointed to absorption, followed by new formation when the process was within the bone. On the surface of the bone, or under the periosteum, the changes which took place were now pretty generally agreed upon. In many cases, undoubtedly, the two processes, "endostitis" and "periostitis" were combined.

Mr. PAUL (Liverpool) said that, in his experience, malignant infiltration of bone, whether osteoid or otherwise, invariably induced absorption of the original bone, though the former growth was accompanied by the formation of fresh bone. He thought that, in fractures and many other conditions, bone-formation was not entirely due to the periosteum, but often depended, to a large extent, upon the bone-tissue.

Dr. GOODHART (London) agreed with Mr. Symonds in very much that he had said. He had perhaps laid himself a little open to criticism by his way of stating the case, but that he would be able to deal with, in his reply; as it was sufficiently obvious that, seeing that it was necessary to admit a remodeling of the bone to a larger scale, the changes in the central parts must be an essential part of the process; and, of late, Dr. Goodhart had come to think that, while the periosteal changes were the more important, all inflamtions were inflammations of the whole bone. One of the difficulties of the subject was that specimens admitted interpretation to suit different views; and a better illustration of this could hardly be found than the specimen of an infant femur, passed round by Mr. Parker, to illustrate just the opposite view to that of Mr. Symonds. Dr. Goodhart, looking at this, thought that it supported Mr. Parker's contention; but Mr. Symonds and he had seen others like it, where, as the result of injury in children, the old shaft still remained enclosed by a new shaft derived from the periosteum. There were many other points in this very interesting paper upon which he would have been very glad to say something, but time would not allow.

Dr. TURNER referred to specimens of enlargement of the tibia in connection with an old central sequestrum, in which, on section, cancellous tissue alone was seen, with filling up of the medullary canal, in which an indication of compact bony wall was traceable. In such a case, it could not be said whether the enlargement of bone was due to periosteal or osteal growth. Where a sarcomatous growth was developed in the centre of a bone, the outer shell of bone, left by absorption of the inner layer, might be widely expanded; and it seemed possible that, in the case of the cranial bones, an inflammatory hyperplasia of the diploë might lead to a separation of the inner and outer tables, and, subsequently becoming ossified, might lead to true osteal enlargement of the bone. The occurrence of similar expansion of the thick walls of the shaft of the long bones seemed more doubtful.

Mr. SYMONDS replied.

THE CLINICAL FEATURES OF TYPHUS FEVER IN CHILDREN.

Read in the Section of Diseases of Children.

BY HENRY TOMKINS, M.D., B.Sc.,
Resident Medical Officer Monsall Fever Hospital, Manchester.

AMONGST diseases peculiar to children, or to which they are especially prone, typhus fever cannot, of course, be reckoned; on the contrary, up to the age of ten or twelve years, the liability to contract this disease is undoubtedly less than above that age. But, whenever typhus is prevalent, a certain proportion of children do contract it; and, during the past two years, out of a total number of 164 cases which I have had under treatment, 17 were children under ten years of age.

It is especially within the last two years that my attention has been attracted to the variation in young children from the usual typical course of the disease, as seen in adults, which, so far as I have been able to discover, has not been particularly alluded to by writers on this subject.

In adults, the course of typhus, briefly, is a short period of general malaise, intense headache accompanied or quickly followed by a distinct rigor; the pulse and temperature rapidly rise, the latter often registering 104° to 105° on the third or fourth day of attack; a few days later, the characteristic eruption begins to appear, with general aching of body and limbs, rapidly increasing prostration, with more or less delirium; the symptoms all increase in severity until towards the end of the second week, when, in favourable cases, a sudden fall of temperature occurs, the rash fades away, the delirium ceases, and the patient is left in a very exhausted condition, from which he makes a steady and permanent recovery.

In young children, according to my experience, most of these symptoms are more or less modified. The initial symptoms are less marked, the rigors often entirely absent or unnoticed; the chief thing complained of being the severe headache, which is accompanied by a rise of temperature, seldom, however, reaching more than 103°. The points of greatest contrast, however, are the mental condition and the course of the temperature. In a large proportion of the cases of typhus occurring in children under ten years of age, these two features of the disease show a considerable variation from that met with in the adult. After the first three or four days, the patient becomes exceedingly torpid and lethargic, often lying for hours in a dull heavy stupor or profound sleep, to such a degree, as I have more than once pointed out to the students, as to excite suspicion that the patient was under the influence of some narcotic. They are with difficulty roused and made to partake of food or medicine. This condition lasts for four, five, or six days, without much real or active delirium. When roused up, the child is stupid, frightened, or irritable, and speedily lapses into the same state. During this time, the temperature may remain pretty steady, but generally shows a gradual fall; more often it falls rapidly, so that, within seven or eight days from the onset of the attack, it will have become nearly normal, from which time the patient begins to brighten up, and quickly convalesces. Hence, what I desire particularly to direct attention to is the heavy torpid condition, rather than any real delirium, the less degree of pyrexia, and the much earlier fall of temperature than in the adult, followed by a more speedy convalescence. It has often appeared to me that the mere fact of the child having been removed from its infected, ill-ventilated home to the comparatively pure air of the hospital ward, is in itself an important factor in this early fall of temperature; for frequently, after the very first day of admission, a steady decrease is seen.

With regard to this torpid, drowsy state, Dr. Holt, of New York, in a work recently published by him on malaria in children, calls attention to much the same condition in that disease, and says "the symptoms are less definite in children, but very prominent in an extreme heaviness and apathy." The variation in the typhus-rash, as seen in children, has been noted by most observers. In at least one half the cases it is very difficult to define a true rash at all; a dirty, dusky mottling of the skin being frequently all that can be made out, and this is seen, perhaps, on the face as well as anywhere, accompanied by a flushed look, and seldom remains more than three or four days.

Happily, typhus is a disease which is not very common now in this country, though occasional outbreaks occur in our large cities, as has unfortunately been the case recently in this town of Liverpool; and it but seldom happens that we have cases occurring amongst children, without at the same time having cases amongst adults in the same locality to assist us in diagnosis. But of the necessity of recognising typhus early, even among children, a striking example was furnished at the end of last year, when an outbreak occurred in London at Nazareth House, a home for destitute children, which appears to have gone on for some time before it was recognised to be typhus, and thus the disease spread amongst the children, and was conveyed to the attendants and nurses, some of whom lost their lives from it.

You may, perhaps, remember that this occurrence attracted notice in the House of Commons, and an inspector from the Government, Mr. Spear, was appointed to report upon the outbreak, and in his report he states that "the disease spread because, occurring first in a mild form amongst children, the disease remained for some three months unrecognised; the sick, the convalescent, and the healthy, mixing together."

A like experience has come under my own observation. A child, aged 3, was taken from a house where typhus existed, to be under the care of a friend some distance off. It was noticed to be feverish and very sleepy, both day and night (such was the friend's account); the child slept with the friend, who was taking care of it, and who lived in a healthy district; she sickened about a week after receiving the child into her house, and died from a very severe attack of typhus fever.

The prognosis in these cases is most favourable; of the total number (17) on which I have based these remarks, not one died. Murchison, in 234 cases under 5 years of age, had a death-rate of 6 per cent, whilst amongst 1,196 cases under 10 years of age the mortality was 3.5. Lebert, in Ziemssen's *Encyclopædia*, puts it at about 2.7. Probably the disease in Murchison's day was more virulent than we now see it.

Anyhow, to the children themselves it is really not a very fatal ailment; but, as the same rule holds good here as with most other infectious diseases, viz., that the most severe attack may be contracted from a very mild one, it is important that this disease in children should not be overlooked or mistaken, but at once recognised, in order that precautionary measures to prevent its spread may promptly be taken.

NOTES ON THE OPHTHALMIC CONDITIONS OF DEAF-MUTES.

Read in the Section of Ophthalmology.

BY CHARLES G. LEE, M.R.C.S.Eng., L.R.C.P.Lond.,
Honorary Surgeon to the Liverpool School for Deaf and Dumb, and Assistant-Surgeon to the Liverpool Eye and Ear Infirmary.

My connection with the Liverpool School for the Deaf and Dumb impressed me with the difficulty under which the deaf-mute, who might be the subject of any one of the numerous forms of defects of vision, would be placed, through his inability to appreciate and communicate his sense of deficiency to his teacher or guardian. Influenced by this thought; and, at the suggestion of Mr. Edgar Browne, I made an examination of more than a hundred children in our institution, and now lay the results before you, trusting that, although I may have nothing either startling or novel to communicate, at least my remarks may serve to draw more particular attention to this interesting class of patients.

Of a total of 110 thus examined, 61 were found to be emmetropic; of the remaining 46, there were 30 hypermetropes, 3 myopes, and 2 antimetropes. Eleven were found to have affections of the eye other than errors of refraction; viz., corneal leucoma, 2; cataract, 2; choroiditis, 1; retinitis pigmentosa, 6.

The colour-vision, tested by Holmgren's wools, in fifty-eight of the elder children, afforded surprisingly good results, there not being a single case of complete achromatopsia. The slight deficiency present was confined to boys: four failed to distinguish between blue, purple, and violet; and one mixed up green and blue with violet.

Of the whole number (110) examined, in only two cases did I meet with definite signs of hereditary syphilis, and in both the notched and pegged central incisor teeth were the only manifestations present. There were no cases of interstitial keratitis. It is right, however, to mention that n six children secondary dentition had not yet occurred. While speaking of teeth, I may observe that, in a case of zonular cataract, to which I shall again refer, the teeth had that rough, uneven surface, devoid of enamel, that has been aptly described as rocky.

Such being the general results obtained, I will now notice one or two points that appear to suggest themselves at a little more detail.

You will doubtless be struck with the number of cases of retinitis pigmentosa—six in 110. Of a total of 6,240 new eye-cases that attended the Liverpool Eye and Ear Infirmary in 1881, only three cases of this disease are enumerated. No one will, I think, question the peculiar liability of deaf-mutes to this affection, although the causes of the susceptibility may be more debatable. In Hartman's treatise on deaf-mutism, translated by Dr. Cassells, the proportion of cases is variously stated; Liebreich having found it to be 5.8 per cent., while Wilhelm of Magdeburg found only 1 per cent. From this, my proportion—exactly 5 per cent.—will appear high. As a partial explanation, I must observe that my six cases represent only four families. It is a matter of satisfaction to me that five of these children were examined by one or more of my colleagues of the Eye Infirmary, and my diagnosis thereby confirmed. The ages of these children ranged from eleven to fourteen, and I have had no opportunity of observing a case at an earlier period of life.

Although from the fact that each one of these children was congenitally deaf, the influence of consanguineous marriage in the parents might be presumed to be a predisposing cause to the production of retinitis pigmentosa; that it is not a *sine quâ non* is evident, if we may accept the history furnished by the parents themselves; for, in two of the four families represented by these children, the parents were entire strangers before marriage: in the other two, however, they were first cousins.

Though not bearing strictly on my subject, I may remark that the influence of consanguinity in parents, in its relation to deaf-mutism, appears much less than my preconceived ideas would have led me to infer; for in fifty-one cases of congenital deaf-mutism, only six are said to be the offspring of previously related parents.

However, to return to our retinitis cases, in not a single instance were there any signs of congenital syphilis, and in each one the affection was symmetrical, so affording a sharp contrast to the solitary case of choroiditis, in which the lesion was confined to the left eye.

Ten years ago, Mr. Jonathan Hutchinson drew attention to this peculiarity of the disease; for, in the seventh volume of the *Ophthalmic Hospital Reports*, he there states: "I should consider any marked tendency to asymmetry as a suspicious fact in the direction of a remotely syphilitic cause."

An attempt to take the field of vision with McHardy's perimeter met with only very partial success, only two of four in which a trial was made being possessed of sufficient intelligence to understand what was required of them. The charts I hand round indicate considerable limitation of the normal field; and reliably represent the peripheral field of a brother and sister, whose parents were entire strangers before marriage, but in whose peculiarly greyish white discs, contracted retinal vessels, and pigmented patches, unmistakable evidence was borne to the presence of this disease.

I was unfortunately prevented from carefully estimating and correcting the amount of ametropia that existed in the thirty-five children so affected, in consequence of the advent of the midsummer vacation.

The thirty hypermetropes included only two cases of convergent strabismus; one hypermetropic child was, however, particularly interesting, who, able to read $\frac{2}{30}$ and Jäger 1 at ten inches, and with about three dioptres of uncorrected hypermetropia, had very marked hyperæmia of each optic disc; and, inasmuch as there existed no symptoms, either local or constitutional, of any other affection, I am obliged to find the cause in her ametropic condition.

The three cases of myopia require no further comment, save that, in every one, there existed a posterior staphyloma—a condition that would, I presume, be predicted in patients that had attained thirteen years of age with a moderately high degree of uncorrected myopia.

A child, with remnants of persistent pupillary membrane, is mentioned as a clinical curiosity rather than from its being in any way peculiarly affected in virtue of its deaf-mutism.

I would venture to hope that, although my observations have been made on a comparatively small number of cases, and in spite of their crude nature, at least some questions of interest may have been opened.

For example: Seeing that cases of pigmentary degeneration occur frequently in these children, and, as my cases would seem to indicate, chiefly in those of a congenital origin, may we seek for a common cause, both for their optical and aural deficiency, in some developmental deficiency or error?

Again: What may be the prognosis of these unfortunate cases? Is it always to be a hopeless progression from bad to worse; or, may we hope, by any therapeutic or hygenic aids, at least to preserve a minimum of eye-sight? Cases illustrative of the hitherto unfavourable tendency are, doubtless, known to all. A brother of one of the children included in our six cases, and a few years his senior, is, I am informed, almost totally blind from this malady.

It may not be uninteresting to consider the reason why asthenopic troubles have not been complained of by any of these ametropic cases, and one I have already suggested in my opening remarks, viz., their inability to express or define the discomfort they felt; while their teachers, accustomed to exercise extreme patience, would scarcely notice the extra difficulty under which they laboured. I find another reason in the system pursued in their education; for while, in ordinary elementary schools, children commence at five, or, it may be, earlier, to tax their accommodation and convergence, in deaf and dumb institutions, on the other hand, the education does not begin until seven, and even then there is comparatively little strain put upon the intrinsic muscles of the eye, much of their school-time being occupied in acquiring the names of such every-day objects as balls, tables, tops, etc., things that the hearing child learns almost instinctively. This cause will also account for the absence of more cases of convergent strabismus; a deaf-mute at seven being optically, at least, only as old as a hearing child at five. And it would afford me little or no surprise to learn, were statistics forthcoming, that these children, instead of producing an alternating squint at five or seven years, the usual time, according to Donders, failed to do so until nine, or even later.

In conclusion, I would express the hope that my remarks, fragmentary though they have been, will have sufficed to indicate that these unfortunate children, although apparently uninteresting, and at

times unintelligent, are not devoid of peculiar conditions that would amply repay a more systematic observation than has hitherto been attempted. Particularly I would venture to suggest to gentlemen who may be connected with deaf and dumb schools, the advisability of making, or causing to be made, a careful ophthalmic examination of each new pupil; that any visual deficiency be noted, and, if possible, remedied, so that the child may be enabled to commence its studies under circumstances as little unfavourable as may be, seeing that it is already all too heavily handicapped for its life-race. One example may serve to emphasise this remark, and I have done. In the course of the examination, I discovered a boy, aged 11, suffering from an advancing lamellar cataract in each eye, striving to compete with his class-mates in their studies, and with how much success you will easily imagine, whose affection had not been even suspected by teacher or parent.

THE TREATMENT OF LACRYMAL OBSTRUCTION.

Read in the Section of Ophthalmology.

BY EDWYN ANDREW, M.D.,

Surgeon to the Shropshire Eye, Ear, and Throat Hospital, etc.

OBSTRUCTIONS in the lacrymal apparatus, and the morbid changes produced, are such common complaints, so annoying to the patient, and, when chronic, so intractable to the means used for their relief, that their treatment has engaged the attention of the best surgeons for many years. The different plans of treatment have been chiefly surgical, rather than medical, and may be mentioned; as opening the sac; dilating with catgut or laminaria-tents; probing and incising the canaliculi and nasal duct; the use of styles; applications to the mucous lining; and, more rarely, destruction of the sac and extirpation of the lacrymal gland. The only real advance during the present century was introduced by Mr. Bowman in 1857, by gaining an opening into the sac through slitting up the puncta and canaliculus, instead of an incision in the skin beneath the tendo oculi.

Mr. Brudenell Carter, speaking of these disorders in his recent work on the eye, after reviewing the various remedial plans, says that, in the majority of cases, the result is only palliation; that too often the last state of the treated patient is worse than the first; and that, generally speaking, the best surgery is to leave the obstruction alone. It is to be feared that these remarks are too true, and will be borne out by the honest convictions of those specially engaged in the treatment of eye-disease.

If we make a short examination of the anatomy and physiological function of these parts, and their bearing on treatment, when the apparatus is in a diseased state, we find that the lacrymal gland at one end, with its ducts opening at the under and outer part of the upper lid, becomes continuous with the lower meatus of the nose, through the mucous membrane lining the eye, canaliculi, and lacrymo-nasal duct. The eyelids are in close apposition with the eyeballs. The conjunctiva has scaly epithelium on its ocular part, ciliated on its palpebral. The lacrymal canaliculi, lined with scaly epithelium, appear, from the elasticity and density of their coats, to be always patent, although some anatomists declare them to be opened and closed by muscular fibres derived from Horner's muscle. The bony fibro-mucous lacrymo-nasal canal is made up of two parts, the lacrymal sac and the nasal duct, slightly constricted at their junction, lined with a rather pulpy mucous membrane, also having ciliated epithelium. The surfaces of the mucous membrane are in loose contact, and there is no actual space to be designated as a tube.

Glancing now at the physiological function in a normal state, we see the whole mucous tract of the lacrymal apparatus kept continually moist by a moving current of fluid, the tears of so fine a film that, like the grease on the well polished axle of a wheel, they are not detectable by the eye. The term tears is here used to apply to the fluid whether derived from the conjunctiva or from the lacrymal gland, although, by many, it is limited to the latter.

The tears lubricating the eye, apparently limited in quantity, are probably chiefly derived from the conjunctiva; for I have found, with others, that the entire removal of the lacrymal gland has not lessened the ordinary moisture of the eye; whilst from the supply of the branches of the fifth nerve, both to the conjunctiva and to the gland, the slightest stimulation of the gland, such as in the mental emotion of crying, causes at once such extra secretion as to run over the lid. The rate of the movement of the tears varies in different individuals; in some, it is so free, that atropine-drops cause their poisonous effect through the rapidity with which they are conveyed to the throat; so much so, that one German surgeon has invented an instrument to close the puncta in such patients.

Many writers consider that the cause of the movement of the tears through the lacrymal apparatus is due to the movement of the lids in winking, produced by the action of the orbicularis muscle, pressing the tears inwards to the inner canthus, where they are drawn into the sac through the canaliculi by a suction-action produced by a diastole of the sac, succeeding its previous compression by the fibres also of the orbicularis, this compression causing the sac to empty its contents into the nasal duct; whilst others consider, in addition, there is some siphon-action of the nasal duct, and some influence from the act of inspiration through the nostrils.

Although it must be allowed that the movements of the lids have considerable power in forcing fluid from the outer to the inner angle of the eye, as may be readily seen by the rapid passage of floating particles in this direction, and by the circumstance also that, during winking, when the sac is distended in disease, fluid often regurgitates through the puncta, still, such facts do not prove that muscular action is the essential cause in the normal state. In sleep, when the muscles are at rest, the process goes on perfectly, and often in opposition to gravity; and again, in a normal state, there is so little fluid in the sac, that none can be pressed out with the finger; besides, if compression were an active cause, a valvular arrangement would be necessary, which does not appear to exist, except imperfectly at the end of the nasal duct. It seems probable that the important cause of the movement of the tears in the natural state is the ciliated epithelium, although this may play a secondary part in the eye during waking, when the action of the lids cannot be denied.

The fluid of the lacrymal apparatus is continuous from the conjunctiva to the nose, and by the apposition of the lids to the eyeball, and the attraction of adhesion and cohesion produced, a thin layer of tears is brought into contact with the cilia, and by them conveyed to the puncta, where the capillary action of the canaliculi brings them within reach of the cilia of the lacrymo-nasal canal, which passes them onwards through the sac and nasal duct to the nose. This natural course of the tears is most easily upset, the power of the cilia is feeble, and soon overcome by any increase or altered condition of the fluid in contact. Extra secretion is so easily excited through irritation of the branches of the fifth nerve, which supply the conjunctiva and lacrymal gland, that the whole lacrymal apparatus quickly becomes engorged with fluid, which, if persistent, soon produces morbid changes in the adjoining mucous membrane. The irritation thus produced, which soon causes in the open eye change of the natural secretion to muco-pus or pus, inflammation, ulceration, thickening of lids, inversion and eversion, closure of the puncta, etc., naturally becomes still more injurious in the almost pent-up cavity of the lacrymo-nasal canal, frequently converting it into an abscess, occluding the channel by exudation, and causing stricture of the constricted portions, particularly at the entrance of the canaliculi into the sac, and at the junction of the sac and nasal duct.

Although cold, changes in the nostrils, struma, disease of the bone, cause obstruction of the lacrymo-nasal apparatus, in the majority of cases it appears that in the first place it is due to extra secretion from the eye itself, and that the sac is generally first affected, and, later, the nasal duct.

To relieve these evils, what is the treatment generally employed? The puncta and canaliculi are probed or slit up, the probe is at once passed down the nasal duct with no light hand, the mucous membrane is bruised, frequently torn, and not rarely a false passage made. The probe of to-day is followed by a larger to-morrow, and so on, until such an instrument is reached—I refer to No. 12—that will rarely pass the average bony canal in the skull; and where it goes in the living body it would puzzle anyone to say. This bold probing not causing sufficient dilatation, incisions after the manner of Stilling are used, the nasal duct throughout is incised with a knife in various directions, until a large probe will freely pass. This failing, a style is introduced, when, no matter the situation of the stricture, it is made to reach the floor of the nose, and to project out of the slit-up canaliculi; still failing, the sac is often destroyed by caustics. It has been suggested that the treatment of the nasal duct should be the same as that of the urethra; but what connection there can be between a muscular mucous tube with scaly epithelium, a mere channel for the exit of fluid from an expulsive organ, and a bony fibrous mucous canal with ciliated epithelium, through which a stream never passes, it is difficult to understand. To widely dilate a tube, the surfaces of which are naturally in contact, to bruise the lining membrane of an osseous canal by instruments almost as large as the canal itself, to incise a delicate structure in

various directions, to introduce a style the whole length of the duct, when one part is only constricted, is to destroy the vital portion of a structure on which its activity depends.

The injections commonly used can be of little service, as they cannot be retained; and, if they be frequently employed, the irritation of the instrument outweighs the good effects.

Criticising the violent treatment so frequently employed, and confessing that a large number of cases will probably defy any scientific means yet known, still, believing as I do that the cilia are great factors in the function of the lacrymal apparatus, and that extra secretion is the great cause of lacrymal obstruction, I feel that any effective treatment must be based on the preservation of the normal condition of the lacrymo-mucous tract, or on its restoration when diseased.

The practice I have carried out and suggest is, in all conditions of the eye causing lacrymation, to examine the lacrymal sac at the earliest period by pressure, and, should the minutest quantity of clear fluid regurgitate through the puncta, to order the patient to continually empty the sac, and to trust at first to the means used for the ye-disease; but if it be not quickly lessened by treatment, or if the fluid be at all turbid, to at once slit up the lower canalculus, and apply remedies to the interior of the sac. In both these conditions I use leeches, even if there be no pain or sign of inflammation, either near the sac, or, better still, within the nostril; and these I strongly advise, to release that very early congestion which is the forerunner of so many ills.

The nasal duct is never probed until a considerable interval has elapsed after opening the sac, and keeping the opening patent; for, by treating the latter, which is generally first affected, the duct previously obstructed frequently becomes pervious, or allows a probe to be passed with ease, which at first would have required much force. A large probe is not used when a small one will pass with ease, nor a larger one than No. 6, except in very exceptional cases, and sufficient interval is allowed between each probing to allow time for the irritation caused by the instrument to have passed away.

When a stricture will not yield to probing, one incision only is made, and that limited to the stricture itself. Lead styles are generally used, their great flexibility moulding them to the part with the least irritation, whilst any chemical effect on the metal by the surrounding secretions will have an useful tendency. Those of small calibre are preferred, and certainly smaller than the largest probe that can be easily used. When the duct is free beyond the stricture, a short style is merely kept in the strictured part.

Hollow probes, flexible, made of palladium, with the opening at the point, have been used with advantage, not only to examine the canal, but to apply remedies to the interior of the duct at the time of withdrawal. Vaseline has been used as a medium instead of water for nitrate of silver, chloride of zinc, carbolic acid, iodoform, tannin, etc., and for introducing the same into the nasal duct through the hollow probes. Vaseline has been found most useful by preserving the active qualities of the agents used, and by making the effects of applications more lasting and beneficial; and it has the further advantage of passing through the finest syringes almost as easily as water itself. No expensive instrument is required; the commonest hypodermic syringe will be sufficient, with a long smooth nozzle, or, better still, the hollow probes I have before suggested.

In very bad cases, where the mucous membrane is hopelessly changed in structure, and only relief is possible, a style must be left permanently, or a hole drilled through the os unguis, and kept open by a style; or, when the patient will permit it, the removal of the lacrymal gland is far preferable.

Constitutional treatment is generally required, and, in children, is of more importance than surgical manipulation. To sum up these crude remarks, my aim has been to preserve the delicate structure of the mucous membrane by the most patient and gentle treatment, the very early slitting up of the canaliculus, long delay before probing the nasal duct, very limited incision, use of small rather than large probes, smaller and shorter styles, free use of leeches, and the application of remedies in vaseline through hollow probes. I had hoped to have introduced to this meeting medicated bougies sufficiently tough, flexible, and smooth to be used as probes or styles, and to be left permanently in the duct, from which I anticipate great advantage.

PRESENTATION.—Mr. J. B. Woolby, lately a resident medical officer at the Bristol General Hospital, has been presented by the students with a testimonial of instruments and books.

FOUR CASES OF ADVANCED FIBROUS STRICTURE OF THE RECTUM TREATED BY PROCTOTOMY.

BY W. HARRISON CRIPPS, F.R.C.S.,
Assistant-Surgeon to St. Bartholomew's Hospital.

(*Concluded from page* 1121.)

CASE IV.—L. D., aged 30, kindly transferred to my care by my colleague Mr. Howard Marsh, was admitted in July 1882. She was quite well till eight years ago. She then, for the first time, noticed great pain after passing her motions. This continued till she married, two years later. She then consulted a medical man, who said she was suffering from fissure. He did something which caused great pain, and, for the next six months, she was worse rather than better. After this, she greatly improved, though occasionally she had pain about the anus, but no straining was necessary when passing her motions, nor were they smaller than natural.

Three years ago, she had a bad confinement, being a long time in labour, eventually being delivered by forceps. A few days after the confinement, she suffered great pain about the rectum and the lower part of the body. This pain lasted a week, when it slowly got better. A few weeks after getting about, she noticed, for the first time, that she had great difficulty in passing her motions. This trouble steadily increased, and, for the last year, she had had much discharge from the back passage. She now had a frequent desire to pass wind, but, if she attempted to do so, two or three teaspoonfuls of discharge immediately shot out. She suffered great pain, and was constantly tormented with the desire to pass a motion; which, when passed, gave little relief. She had lost flesh, and was now much emaciated. On examination under an anæsthetic, the anus was normal, with the exception of two slightly œdematous folds. At two inches and a half up the bowel, a tight stricture could be felt, through which the finger could not be passed. The bowel, at the strictured portion, moved freely upon the surrounding parts.

She had been treated with bougies, which caused great pain, and from which little benefit was derived.

July 5th. The stricture and intervening parts were thoroughly divided. The hæmorrhage was pretty sharp for a few seconds, and two or three small vessels required ligature. The wound was kept clean, and treated in all respects in a similar manner to that in Case I, She had no bad symptoms. Indeed, on the day after the operation, she expressed herself as feeling more comfortable, and in less pain than for many months.

On the tenth day, the wound was looking healthy, with a very copious discharge of pus. A full-sized bougie was passed.

From this time, to her discharge from the hospital in August, a full-sized bougie was passed, and left in for an hour daily. On leaving the hospital, her bowels acted regularly, without pain or trouble, but she only had partial control over the sphincter. The wound had not completely healed, and there was still a slight discharge.

February 12th, 1883. Mrs. D. called to see me to-day, seven months after the operation. She had no difficulty in going to stool, and had complete control over her motions and urine. She felt perfectly well in her general health, and only suffered occasionally from smarting pains. She was now far advanced in pregnancy.

In answer to a letter of mine inquiring as to her health in July 1883, I received the following reply.

"I should like to call upon you, and explain how ill I have been lately. I have long been going to write you a letter of thanks for the cure you effected when I was at St. Bartholomew's Hospital. I trust, sir, you will believe me ever grateful for the operation which gave me so much relief, after a number of years of intense suffering. It is only since the birth of my baby I seem to have gone back, and my symptoms are all new."

She called to see me, and I ascertained that she felt weak and poorly since the birth of her baby. She had an idea that, two months previously, she had some slight attack of paralysis. She is very nervous, and has got in the habit of taking a little stimulant. She had no difficulty whatever in passing her motions, and she still used the bougie regularly. There was, however, some little discharge from the bowel, and some pain. On careful examination by the finger, there was absolutely no trace whatever of the stricture.

REMARKS.—The preceding cases happen to have been under my care, during the same year, at St. Bartholomew's Hospital, and appear worthy of record by showing what may be expected from the operation of linear proctotomy.

Short of cancer, no disease can be more distressing than fibrous stricture of the rectum. If untreated, the disease is almost always

progressive. Commencing insidiously with but slight symptoms of constipation, the disorder gradually advances till severe signs of obstruction are produced, much of the day being passed in frequent and prolonged efforts to evacuate the bowel. At this stage, ulcerations and fistulous communications complicate the disorder, and such cases, if untreated, nearly always have a fatal termination, death resulting either from gradual exhaustion, or, perhaps, more commonly from peritonitis, or obstruction.

Considering the distressing nature of the disease, any method that affords a prospect of cure, or alleviation, is worthy of careful consideration.

In the earlier stages of rectal stricture, much may doubtless be accomplished by the persevering use of the bougie; but I am not now considering the disease at its commencement, but rather as it is met with in hospital practice, that is to say, when a tight stricture is actually formed, and, in which, probably, there are also secondary ulceration and fistulous communications.

In these circumstances, treatment by bougies alone is rarely productive of permanent benefit. A certain advance can be made towards dilatation, as occurred in some of the cases recorded; but it frequently happens, when the larger sized bougies are attempted to be used, so much irritation and constitutional disturbance is set up, that the treatment has to be altogether abandoned.

These are the cases in which Verneuil's operation of linear proctotomy affords a prospect of permanent relief. Yet, as the history of my cases shows, this complete division of the stricture is not in itself sufficient to cure the disease; for, unless the greatest care be taken during the whole process of healing of the wound, the stricture will be again produced.

In Case I, although I freely and completely divided the stricture, I was surprised to find on introducing my finger into the bowel on the eighteenth day, the contraction had already commenced at the site of the old stricture, which, nevertheless, rapidly yielded to the passage of a full-sized bougie. In the other cases, I commenced the use of the bougie between the tenth and thirteenth days after operating, and continued its use daily for a month, afterwards advising the patients to pass it for themselves on alternate days.

All my cases left the hospital without any sign of stricture.

Case IV was the only patient, however, who persistently followed my advice as to the use of the bougie, with the result that, when I examined her at the end of a year, she was free from the least sign of stricture.

In Cases I and II, in which the use of the bougie had been discontinued for a long period, there was a tendency for the disease to be reproduced. The contractions, when I examined them, were so comparatively slight, that I have no doubt the use of the bougie for a few weeks would readily have restored them to their natural diameters. On the other hand, I believe that, if no bougie were used, they would, in the course of a year or two, relapse into as bad a condition as that prior to the operation.

In my cases, no untoward symptoms followed the operation, but still, so free an incision in patients with broken health cannot be regarded as without risk. The immediate danger to life, however, is probably but small, and has to be weighed against the alternative operation of colotomy, or the risk of leaving the sufferer unrelieved.

Of course, Verneuil's operation is only applicable to annular strictures within reach of the finger. Tubular strictures, extending high up, and involving many inches of the gut, can only be treated by colotomy. The annular stricture is, fortunately, the more common of the two, and in the great majority of cases, it will be found situated between two and three inches from the anus, that is, at a point well within the reach of the finger.

If the stricture be so tight that its extent cannot be determined at once, it will generally be found possible, by the careful use of small bougies, to dilate it sufficiently to admit of digital examination. In Case II I could not, however, at any time pass my finger through the stricture, yet I was able, by a small olive-headed bougie, to ascertain almost certainly that it was of the annular variety.

In conclusion, although I cannot allege that any of the cases recorded were actually restored to sound health, their condition, in periods varying from five to fifteen months after the operation, was so immensely improved as to enable me to speak with certainty of the great value of Verneuil's operation, when supplemented by a careful and prolonged use of the bougie.

VACCINATION.—Dr. Edward Monro Spooner, of Blandford, Dorset, has received the Government grant of £10 for efficient vaccination (third time).

THE TREATMENT OF CARIES OF THE SPINE: WITH CASES.

By NOBLE SMITH, F.R.C.S.Ed.,

Surgeon to the All Saints Children's Hospital, and Surgeon to the Orthopædic Department of the Farringdon Dispensary.

II.

CASE IV.—C. M., aged 12, at three years of age hurt her back from a fall. At the age of five, a protrusion appeared (ninth dorsal vertebra). This increased slowly, and, pain occurring, the child was taken to a children's hospital, where a plaster-of-Paris jacket was applied. The first jacket was worn for four months, during which the pain increased, and the irritation became so severe that the casing had to be removed. The pain was constant in the left side and stomach, and the angle was increasing.

February 1st, 1882.—I fixed the spine with a splint, and insisted upon recumbency. In a few days, the pain left her, and the child has continued to improve ever since. Apparently perfect consolidation of the vertebræ occurred in about one year from the above date. There was no scrofula.

CASE V.—G. C., sent to me by Dr. Stevenson of Paddington, had long-standing caries centred in the ninth dorsal vertebra. He was suffering much pain, which was greatly increased by walking. The application of a splint relieved him from pain, and he was soon able to get about; and there are now no symptoms of active disease. Scrofula was very pronounced.

CASE VI.—A. P., aged 25, sent to me by Mr. Curgenven, had old-standing caries for fifteen years, lumbar abscess, and much pain. By fixing the spine, pain was removed; but the patient then left town, and I have not heard more of her. She had a scrofulous appearance.

CASE VII.—Miss R., aged 23, sent to me by Dr. Mackey of Brighton, in July 1882, had caries of the lower cervical and upper dorsal vertebræ. Dyspnœa was becoming a serious symptom, but was perfectly relieved by fixation of the spine. This patient is now free from all bad symptoms. There were no general symptoms of scrofula.

CASE VIII.—August 1882. L. L., general servant, aged 24. Lumbar pain for two years, attributed to lumbago. Mr. Curgenven examined the spine, and found that caries of the lowest dorsal vertebræ existed. He sent her to me. The suffering was so great, that the patient could hardly move about, and she was quite exhausted from pain when she came to have the instrument applied. She felt the benefit of fixation of the spine at once. In a few days, the pain left her, and she has felt none since. The deformity has ceased to increase, and the vertebræ seem to be ankylosing. Scrofula was very pronounced.

CASE IX.—October 1882. J. L. (adult) had suffered from pain in the spine for six years, commencing after an accident. The pain extended from the fourth to the eighth dorsal vertebræ. There was slight protrusion of these vertebræ. He experienced great difficulty in walking, and felt constant pain, except when resting in an easy-chair or in bed. The use of an instrument gave him immediate relief, and has enabled him to get about comfortably. The condition of the spine, and a great difficulty in breathing, from which he suffered, are improving.

CASE X.—November, 1882. E. D., aged 4, sent to me by Dr. Cockell of Dalston, had caries, centred in the fourth dorsal vertebra, in the acute stage. The child was perfectly relieved from pain by the instrument, and has continued to improve. The vertebræ now seem to be ankylosed; scrofula is present.

CASE XI.—J. C., aged 22, sent to me by Mr. Austin of Lingfield, had caries centred in ninth, tenth, eleventh and twelfth dorsal vertebræ. The severe symptoms were quite relieved by fixation of the spine. After several months of treatment, ankylosis seemed to be taking place. He had advanced scrofula, and died lately from pneumonia.

CASE XII.—I. N., aged 17, now in the All Saints Children's Hospital. Has severe caries, but now the vertebræ seem perfectly ankylosed. There is no scrofula.

CASE XIII.—Miss B., aged 21, had caries in lower dorsal vertebræ of four years' duration. The severe symptoms were quite removed by fixation of the spine. The angle is slight; scrofula is doubtful.

CASE XIV.—G. E., aged 4, sent to me by Dr. Dodsworth of Gunnersbury, had caries of the lower dorsal and upper lumbar vertebræ

of two and a half years' duration. Strict recumbency and fixation of spine has led to firm ankylosis, and the child is now running about, although, for the present, the spine is kept fixed. There is no scrofula.

CASE XV.—M. L., aged 6, has caries, centred in sixth and seventh dorsal vertebræ. She is progressing most favourably. There is no scrofula.

CASE XVI.—Miss A., aged 26, had caries, centred in lower dorsal vertebræ, progressing for years. Severe pain was constantly present. She was partially relieved by a poroplastic jacket; but this failed to support the upper part of the body. An instrument gave almost complete relief at once. The case is progressing favourably. There is no scrofula.

CASE XVII.—M. N., aged 7, had caries of the lower cervical vertebræ, of two years' duration. Plaster-of-Paris jackets had been used for five months, being changed every month, and had failed to give any relief to the pain, or to stop the progress of the disease. An instrument, fixing the spine and supporting the head, has now been used for six months, and the case is progressing most favourably. The deformity has ceased to increase; and the breathing, which was much embarrassed, is now quite natural. There is no scrofula.

CASE XVIII.—May, 1883. R. A., aged 3½, was sent to me by Mr. Sydenham Knott with caries of the dorsal vertebræ. He was healthy when born, but had a fall when eighteen months old, after which the deformity appeared. The child suffered considerably from constant pain in the abdomen; and the general health was very bad, and getting worse, in spite of tonics and other general treatment. The spine was fixed; and in a few days the pain ceased, and the child improved rapidly. On July 7th, the patient was suffering from want of sufficient nourishment, and was, therefore, taken into the All Saints Children's Hospital, and has improved rapidly since. There is no scrofula.



Outlines of the angles and curves formed by the disease. The number of the case is placed under each outline.

A few other cases that I have under treatment are progressing quite as favourably as the above; but they have not been under observation sufficiently long for me to give details. I may add that it will give me much pleasure to show some or the majority of the cases recorded above, to any one wishing to see them.

I cannot conclude this paper without expressing my appreciation of the ingenuity and earnestness which Professor Sayre has displayed in elaborating the plaster-of-Paris jacket-treatment. That plan of restricting the movements of the spine has doubtless been the means of saving many lives which, without any treatment, would have been lost. The advantages of the plan, however, have been overrated—a result which is not surprising. If the surgeon should wish to use plaster-of-Paris, I think he would do well to follow, as far as possible, the principles which I have advocated above, which he might do by leaving the front and sides of the thorax free, by carrying up the casing posteriorly to the level of the shoulders, strengthening it by means of strips of metal, and fixing the arms drawn backwards by shoulder-straps. Such a modification of the jacket would be useful when no better apparatus could be procured: but (as I think I have already shown) an instrument which fixes the spine completely, which does not interfere with thoracic respiration, and which can be adapted and rearranged by the surgeon himself, is better fitted for treating these serious cases with success.

OBSTETRIC MEMORANDA.

CASE OF SPINA BIFIDA CAUSING RETARDED LABOUR.

MRS. G., aged 45 years, has had eleven children, ten born alive, and two "miscarriages;" she was twenty-one years of age when the first child was born. My assistant, Mr. Dennis M. O'Callaghan, was called at 6 o'clock in the evening, and, on arrival, found the patient in strong labour; pains regular. On taking a pain, he found a breech-presentation, with the child's back to the pubes. After waiting some hours, he found, on passing his finger up the spine of the child, a soft tumour with opening (the tumour having burst). He could not feel the feet, the legs being straight up the stomach of the child. After waiting some hours, I was sent for, and found the woman in great pain, and labour progressing slowly. On making an examination, I was able to hook my finger into the groove, and then, with the aid of a blunt hook and prolonged traction, the woman, after some trouble, was delivered; the legs being straight up and the arm over the head. After delivery, we found a spina bifida; and the child had also a very large head. The woman was much exhausted, but revived wonderfully on being given one tea-spoonful of "Valentin's beef juice," with one tea-spoonful of brandy in a wine-glassful of cold water. Ten minutes afterwards, we repeated the dose of beef-juice, and left her very comfortable. In about an hour the woman recovered without a bad symptom.

I think the above case worthy of record, both on account of the rarity of its occurrence, and the difficulty of diagnosis, and also as an illustration of the efficacy of a fluid preparation like "Valentin's beef-juice." I would advise every country practitioner to always take in his obstetric case a bottle of Valentin's beef-juice.

GEORGE H. ELLIOTT, M.R.C.S.E.

SURGICAL MEMORANDA.

RESECTION OF THE ANKLE-JOINT.

IN the BRITISH MEDICAL JOURNAL of November 10th is a valuable report on two cases of resection of the ankle-joint by Dr. H. C. March of Rochdale, whereby it is clearly shown that the operation may be performed without carrying an incision across the instep. I am glad to see this, as it corroborates the conclusion at which I arrived in 1866, from a case in which I performed the operation at Dunville, Ontario, and published in the *Lancet* of November 6th, 1869. There is, to a great extent, a similarity between the procedure adopted by me on that occasion and the method employed by Dr. March. My present purpose, however, is not to draw attention to this, so much as to show that the best results may be obtained even when the disease has passed beyond the limits of the joint and invaded the tarsus, at least so far as partially to involve the scaphoid; for though, on the occasion in question, more bone probably was removed than in any similar instance—for a large portion of the scaphoid, half of the os calcis, the astragalus, internal malleolus, and a slice off the tibia, were taken away—still the patient was able, in ten weeks, to get about with the help of a stick; and in seven months and a half the ankle was strong, and, strange to say, possessed considerable and increasing mobility. He walked five miles to show it to me.

The incisions practised by Dr. March were to a great extent similar to those employed in this case. He says: "A curved incision, three to four inches in extent, is made along the posterior border of the external malleolus and the outer border of the foot; from the middle of this, which corresponds with the tip of the external malleolus, another incision is carried forwards as far as the tendon of the peroneus tertius. On the inner aspect of the joint, a somewhat shorter but similarly curved incision is made along the posterior margin of the internal malleolus and inner border of the foot. If necessary, from the centre of this an incision extends forwards to the inner edge of the tibialis anticus tendon." In my Canadian patient, an external incision was not required, as the external malleolus had been removed on a previous occasion; but, had not this been the case, "it might," I remarked, "be removed by a vertical incision, turning aside the peronei and applying a bone-forceps and knife." The inner incision, from one inch above the joint downwards, in front of the fibula (in front, on account of a sinus) and malleolus, and forwards and inwards to the base of the metatarsal bone of the great toe, having a slight concavity inwards, a small incision was now made inwards over the tip of the malleolus, and another outwards.

Owing to the swollen condition of the parts, extensive gaping resulted, and a few touches of a small knife effected sufficient room to permit removal of the diseased bone by slow and cautious manipulation. In the further steps, the ordinary custom or procedure was departed from. The tibia was not touched until, by the removal of the astragalus and other diseased structures, its end was rendered easily accessible, and a portion removed with a Key's saw, so as to disturb its anatomical contiguities to the smallest possible extent.

I may add that, at the time of operation, this patient was suffering from incipient phthisis, the symptoms of which passed off, and did not reappear for several years afterwards; but I have lately heard that he died a few years ago from "consumption."

JOHN MULVANY, L.R.C.S.Ed., etc., Holloway Road, London.

OPENING THE KNEE-JOINT.

IN connection with this subject, the following case may be of interest, as it presents a great similarity to that recorded by Dr. Garrod Thomas in the JOURNAL of December 1st.

L. K., aged 25, a railway-porter, met with an injury to his right knee, which resulted in suppurative synovitis. On February 21st, seeing that it was upon the point of bursting, I aspirated, and drew off a large quantity of thick pus. Next day, the joint was freely opened by two lateral incisions, thoroughly washed out with a 5 per cent. water-solution of boroglyceride, and a drainage-tube was inserted through it. The whole knee was enveloped in a thick pad of lint, soaked in the same solution, and kept continually moistened with it. On February 23rd, there was a slight discharge of inodorous pus and serum; the joint was again syringed out with the boroglyceride, the drainage-tube reinserted, and pad reapplied. Next day (February 24th), there was no purulent discharge, only thin serum. Treatment was continued until February 26th, when the tube was removed. By the 27th, the discharge had entirely ceased. The wounds were quite healed on the 28th, and, with the exception of some subsequent stiffness, the joint gave no further trouble, and it is now as good as ever. In this case, there was no fresh formation of pus after the joint was entirely emptied and kept aseptic, as Mr. Lister used to point out to us often in Edinburgh Infirmary. Here the end was attained by the use of the boroglyceride, without any complicated apparatus or specially prepared dressings. I have used the boroglyceride solution in herniotomy with a similarly happy result; the wounds healing up by first intention, exactly as I have seen them do in Mr. Lister's hands, and the patient recovering without a single untoward symptom.

J. JOHNSTON, M.D., Bolton.

PERFORATION OF THE TYMPANUM.

IN the papers on otology published in the JOURNAL, I see no mention made of a very simple and efficacious means of supplying the great want occasioned by perforated tympanum. The means I employ are suitable for those cases in which the membrane is not perforated extensively, and not too high up. This is, simply to drop into the ear three or four drops of castor-oil, which may be easily done by the patient himself, out of a piece of quill about an inch in length; when the oil reaches the part, the effect is at once apparent, and the viscidity of the oil is sufficient, in the cases mentioned, to keep it in its place, often for a whole day, or as long as the upright position is maintained. It is advisable to add a drop or two of carbolic acid to the oil, so as to correct any unpleasant odour.

T. N. GRIFFITH, M.R.C.S., L.R.C.P.

CLINICAL MEMORANDA.

A NEW TREATMENT FOR CHRONIC NOISES IN THE HEAD (TINNITUS AURIUM).

IN my practice as an orthopædic surgeon, I have, during the last six months, found Dr. Mortimer Granville's "precise nerve-vibration," by means of the percuteur, most useful in relieving and curing various neuralgias of the head and back, which are frequently present in cases of lateral curvature of the spine. Holding the opinion that, in some cases, tinnitus aurium is allied to neuralgia, I was induced to try the percuteur in the following case.

Mrs. S., aged 57, the wife of a professional man, consulted me on October 16th, with the following history. She was quite well, up to four and a half years ago, when she took scarlet fever, which was followed in a few months by deafness and tinnitus aurium. The patient was never free from the noises, which had become gradually worse till the day of consultation, although the deafness was much less than it used to be. The noises were now so severe that they were felt all over the head, especially at the top of the cranium; and at times the patient was driven quite distracted, and almost out of her mind. She had tried everything during these four years, without even the slightest temporary relief to her distressing symptoms, although she has been treated by leading aurists. The patient described the noises as varying in character, but generally they gave her the impression of iron filings constantly falling. I applied the blunt ivory hammer of the percuteur over the forehead, and then at the top of the head. The vibration was at once very soothing; and in about five minutes, more relief was given than the patient had ever received during the whole of the four years. After waiting about ten minutes, the noises, which had not quite disappeared, became worse, but decidedly less violent than before the percuteur was tried. On applying it again, a similar relief was given. Next day, Mrs. S. reported that she was much better till late at night, when the noises became raging again. I reapplied the percuteur on and off for three-quarters of an hour, which gave even more relief than the first day. All noise did not disappear, but it was so slight that the patient described it as being "quite a pleasant chink," and that she would not have noticed it, if she had not been thinking about it.

On October 24th, I saw the patient for the seventh and last time. She had experienced so much relief that she decided to buy a percuteur for home use, as she felt it would give her most relief late at night.

I am aware this is still an incomplete case; but while I am waiting for the patient to report progress, I am anxious that other surgeons more specially engaged in aural practice should try this treatment in similar cases of apparently incurable tinnitus aurium, than which there is scarcely any more distressing affection.

BERNARD ROTH, F.R.C.S., 48, Wimpole Street, W.

ABSENCE OF CACHEXIA IN A CANCEROUS SUBJECT.

THE following case presents some points of interest.

Donald A., aged 59, came under my care about the beginning of the year 1882. He was a shoemaker by trade, was married, and had but one child, a boy, who lived only twenty-two days. He was lame from dislocation of hip, which was caused by a fall at the age of 16, and it never had been properly set. He had been a hard drinker in his early years. He was born with a squint of the right eye. About twenty years ago this eye began to protrude, and twelve years ago it was enucleated by Dr. Argyll Robertson, of Edinburgh. Since then, it has not troubled him much, except that a slight pain was felt in it from time to time. It was painless before operation. No opinion was given then of the nature of the disease.

For the last eight years he had been suffering from severe attacks of gall-colic, and the pain was only relieved by subcutaneous injection of morphia. He suffered from occasional attacks of hæmatemesis, and passed, by the bowels, small gall-stones now and then. Cancer of the liver was diagnosed during life. The heart-sounds were quite normal, but seemed far distant. During the last fortnight the disease took on a new phase. Morphia required to be injected once or twice a day to relieve the pain, instead of once a week. The bowels became obstinately obstructed, and calomel, jalap, podophyllin, elaterium, and croton-oil in succession, with large enemata, had no effect.

He was sent into the infirmary with the view to having colotomy or gastrotomy performed. He died, however, the morning after the night of admission.

The subcutaneous injection of morphia always relieved pain. Even two grains of solid opium, or one half grain of hydrochlorate of morphia by mouth, or in suppositories, failed to give relief.

The *post mortem* examination was kindly made for me by Dr. Gowans, the house-surgeon. The stomach was found greatly distended with liquid fæces, as were the large and small intestines. Stricture of lower part of the large gut was seen to be the cause of obstruction. The liver was of an enormous size, and seemed to be almost one solid mass of cancer. The pyloric end of the stomach was also cancerous; so, too, was the pancreas. There was no bile in the gall-bladder, but it was full of large gall-stones. The other organs were normal.

The chief peculiarity of the case is that, in so strongly marked a

cancerous subject, the cachexia was entirely wanting. The thoracic and abdominal parietes were covered with more than an inch thick of fat. The heart and kidneys were well coated with fat, as were the omenta. The brain, however, was not examined.

A. SIMPSON, M.A., M.B., and C.M.

4, King's Place, Perth, November 10th, 1883.

THE CORPUSCULAR RICHNESS OF THE BLOOD IN ANÆMIA, AS AFFECTING PROGNOSIS.

IN the JOURNAL for November 24th, I notice the summary of a discussion on anæmia by the Harveian Society. Dr. Stephen Mackenzie, in his paper, tabulates the grades of anæmia into "moderate," "grave," "very grave," and "fatal." In the "fatal" group he classifies cases with corpuscular richness below twenty per cent. During the last few months I have been engaged in making a series of observations with the hæmacytometer. In the series, two cases of iodopathic (pernicious) anæmia were met with in which the percentage of red blood-corpuscles was below twenty per cent. One case proved fatal, the other recovered. In the fatal case, the observations I made were—September 17th, 17.3 per cent.; September 25h, 17 per cent.; October 4th, 14.8 per cent.; October 13th, two days before death, 14 per cent.

In the case which recovered, the observations were—July 5th, 17.4 per cent.; July 12th, 17.8 per cent.; July 19th, 16.8 per cent.; July 26th, 20 per cent. On December 1st, the percentage of this patient's blood was 62.5 per cent., while he appears to be in his normal state of health, and has certainly recovered from his profound anæmia.

The treatment employed in both cases was identical; iron and quinine for a few weeks, without benefit in either instance, and afterwards arsenic with malt extract, continued for three months in one case with very marked benefit.

S. R. MACPHAIL, M.D., Garlands, Carlisle.

HAIRS IN THE URINE.

THE letter of "Medico" in the JOURNAL of November 10th (page 952) brought to my mind a patient who was under my care for a short time in the early part of last year. She was 17 years of age, in good general health, but had had, for some months, pain after passing urine, and almost constant desire to micturate. A specimen of urine was brought to me; it was slightly turbid, and alkaline, and had in it a stringy mass, more or less equally diffused through the whole of the fluid; these strings were about one-eighth of an inch in diameter. On removing the mass from the urine, and washing it, I found that each string was composed of a hair surrounded by mucus. As the symptoms continued, I gave her chloroform, and examined the bladder, but could detect nothing abnormal.

Rest in bed for a short time relieved the distressing symptoms, and the strings diminished considerably. She then returned to her home in Yorkshire, and I have heard nothing about her since.

Whence the hairs came, I could not discover; and I came to the conclusion that hysteria was at the root of the matter.

JAMES TAYLOR, F.R.C.S., Chester.

DIAGNOSTIC VALUE OF THE BACILLUS OF TUBERCLE.

IN the spring, two cases of cervical abscess, in children, came under my care, which were interesting to me inasmuch as they showed the value of the presence or absence of the bacilli of tubercle in giving a prognosis as to the probable rapid termination of these cases.

The first was in a lad of about 12, who was sent to St. Leonards with enlarged cervical glands of the right side, in which softening had already commenced; in due time the abscess was opened, and in the pus there were, in fair quantity, the characteristic organisms of tubercle. This case ran the usual chronic course of a scrofulous abscess of a gland, and the lad left a few weeks after with the wound still discharging.

The other case was in a child of between 4 and 5 years. The glandular swelling came on slowly, without any obvious cause, and was in a state to be opened when first brought to me. The pus was similar in character, as far as its appearance went, to that of the last case, and the evacuation of the matter left the surrounding gland-structure indurated.

Under the microscope, however, I could find no bacilli, and the rapid cure after the pus was let out, and the subsidence of the induration, showed, I think, that the two cases arose from different pathological causes—the first specific, the latter from simple inflammation of the gland.

D. HOADLEY GABB, Hastings.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

METROPOLITAN FREE HOSPITAL.

OBSCURE CASE OF ANEURYSM OF ABDOMINAL AORTA: RUPTURE INTO LEFT PLEURAL CAVITY.

(Under the care of Dr. C. R. DRYSDALE.)

[Reported by CHARLES J. POWER, M.A.Cantab., L.R.C.P.Lond., M.R.C.S.Eng., Junior House-Surgeon.]

MRS. S. S., a widow, aged 37, was admitted on September 7th, 1883. She complained of pain in the back, about the lower part of the dorsal, and commencement of the lumbar region; also between the shoulders, and in the left iliac, and lower part of the left lumbar regions; there was also some pain over the nates and about the buttock and trochanter major on the left side. The pain was continued in the direction of the left knee. There was a sense of weight after taking food, as well as constipation and some dyspeptic symptoms. The patient was treated for dyspepsia; and, at her own request, had a poultice placed over the region of the stomach. She did not improve under treatment; the pains became worse, and there was a general condition of hyperæsthesia in the parts of the body above-mentioned. In spite, however, of careful examination, no satisfactory cause for her illness could be ascertained.

September 19th. She complained of pains about the body of a supposed rheumatic character, and was ordered iodide of potassium.

September 20th. The pains were increased; there was some redness about the left hip-joint; also pain about the tuberosity of the ischium, passing down the left thigh; the leg was not swollen; the pain in the back still continued; the tongue was foul, and the pulse weak and rapid. She was ordered ten grains of salicylate of soda, every three hours. The patient took only two doses of this medicine. About 7 P.M. the same evening, Mr. Power was called to see the patient, and found her with a pale face, covered with cold sweat; the pulse at the wrist could hardly be felt. She was apparently *in extremis*. One ounce of brandy, mixed with a small quantity of water, was administered as soon as possible by means of a teaspoon. The patient then somewhat revived, and was able to speak. She complained of great pain around the heart, and had some dyspnœa. The dose of brandy was subsequently repeated; the pulse then gradually became stronger. A poultice was applied to the front of the chest. About two hours afterwards, Mr. Power was again summoned, and found the patient endeavouring to get out of bed; her face was covered with cold sweat; the pulse was very feeble, and quick; she was trying to throw the bedclothes off her chest, and was suffering from extreme dyspnœa. She was quite sensible, and gradually became more calm; the breathing also becoming more easy. On listening to the heart, the sounds at the apex were very feeble and the action very quick, but there was no murmur; the sounds at the base were not audible. The breath-sounds were harsh. The patient gradually sank, though, as long as her strength lasted, she endeavoured to get out of bed. She died about 12 P.M., apparently free from pain.

Although the patient, during the time she was in hospital, was frequently and carefully examined, no physical signs of importance indicative of disease were discovered; there was no cardiac *bruit*, and the lungs were apparently healthy. No tumour could be felt in the abdomen. The urine was of specific gravity 1020, and contained no albumen. As to previous history, the patient had never been very strong, always somewhat ailing; she had suffered from two attacks of rheumatic fever, and one attack of pleurisy on the left side. She had one child, who is still living. In appearance, the patient was a delicate-looking woman, thin, and inclined to be anæmic.

The *post mortem* examination was made about thirty-six hours after death. On opening the thorax, the left pleural cavity was found to be full of recent blood-clot. The left lung was compressed backwards, and there were evidences of old pleuritic adhesions. The right lung was congested. The heart was healthy. The liver was considerably enlarged, soft, and somewhat friable. When iodine was applied to a section, the characteristic appearance found in amyloid degeneration was seen. The right lobe was almost entirely occupied by a large cyst, containing a number of hydatids. The spleen showed signs of lardaceous disease. The kidneys were large

and pale, the capsule somewhat adherent; the amyloid change was here less marked than in the other organs. On removing the intestines, a tumour, about three inches in length, was discovered, commencing in the epigastric, extending into the left lumbar region, and diverting the abdominal aorta from the vertebral column. The aorta was found to communicate with the tumour, just above the level of the cœliac axis. The tumour, on being opened, was found full of clot, but unruptured. The walls were formed by the artery and the surrounding tissues. The exact seat of the rupture in the artery, unfortunately, was not discovered.

REMARKS.—This case appears to be chiefly instructive, owing to the fact that, although several careful examinations were made, there were no physical signs of abdominal aneurysm; the only symptoms appear to have been pain in the back, shooting down the thigh; this was no doubt caused by pressure on the lumbar nerves. There was never any swelling of the leg, nor, apparently, any pressure preventing the return of blood from the lower extremity. No tumour could be felt in the abdomen.

WORCESTER GENERAL INFIRMARY.

TWO CASES OF FRACTURED PATELLA TREATED BY THE WIRE SUTURE.

(Under the care of Mr. WALSH.)

[From notes by Mr. M. B. SHIRLEY, House-Surgeon.]

CASE I.—Harriet E., aged 35, was admitted into the Infirmary on September 5th, 1883. Six months before, she fell, and fractured her right patella; she was treated in hospital, and was sent out at the end of three weeks with plaster-of-Paris bandages applied, so as to keep the joint stiff. These were from time to time renewed, as she was quite unable to move the limb without.

When admitted on September 5th, the seat of fracture was easily made out. It was transverse, with about one inch of separation. On removing the plaster-of-Paris bandages, she was quite unable to raise the heel from the bed; there seemed to be fair ligamentous union.

On September 6th, the patient being under ether, Mr. Walsh proceeded to operate. The operation throughout was performed under strict antiseptic precautions. A semilunar incision was made over the joint, and the patella exposed. The fibrous band between the fragments was cut through, and the two pieces separated from the bones beneath, to which they were adherent by strong fibrous bands. There was a considerable amount of hæmorrhage from these adhesions, many points being tied with catgut-ligatures. A very thin piece of bone was then sawn off each fragment; and two holes were drilled in corresponding positions in each, and two pieces of strong double wire passed through. These were twisted, and the ends laid flat on the bone. The fragments came well together in the centre, but there was half an inch of separation on the outer side. The remaining points of hæmorrhage in and around the flaps were then tied with fine catgut, and two pieces of drainage-tube inserted, one on each side. The wound was then stitched up with catgut-sutures, and dressed antiseptically. The limb was placed on a back-splint, reaching well up to the buttock, and fixed on with plaster-of-Paris bandages, rendering it perfectly immovable. The temperature on the evening after the operation was 99.2°.

On the third day after the operation, the wound was dressed, and the drainage-tubes removed. It was dressed again three times, at intervals of a week; on the last occasion, the incision was quite healed, not a drop of pus ever showing itself.

The temperature remained normal after the third day, and there were no signs of constitutional disturbance.

The patient had an attack of eczema of both legs, about the fifth week, which prevented her from getting up so soon as she would otherwise have done; however, she got up in the seventh week, and has continued to walk about ever since. There is very little power of flexion of the knee-joint; this is, no doubt, owing to the many adhesions beneath the patella.

CASE II.—Thomas B., aged 14, was admitted on the evening of September 13th, having fallen from a window upon his left knee. On admission, the left knee-joint was very much swollen and tense, and a fracture of the patella could easily be detected, the exact nature of which was difficult to make out. The patient was put to bed, and some cooling lotion applied.

September 14th. The patient being under ether, Mr. Walsh performed, under strict antiseptic precautions, the following operation. A semilunar incision was made over the joint, and its cavity opened; a very large quantity of blood and clots was evacuated, and the fractured bone exposed. It was found to be broken into three pieces, two upper fragments and one lower, which was very small, and to which was attached the ligamentum patellæ. The case seemed to be almost hopeless, the lower fragment being so small that it was thought to be almost useless to deal with it in the way proposed. There was no great amount of separation of the fragments. However, a hole was drilled through each upper fragment obliquely, and through the lower one almost transversely, in this case going through part of the ligament. One piece of thick silver wire was passed double through the whole three fragments, and all were easily brought together, and the wire twisted. The joint was well cleaned out with a 5 per cent. solution of carbolic acid; a drainage-tube was inserted at each side, through openings made at the most dependent points, and the skin-wound brought accurately together with catgut sutures. There was very little hæmorrhage, a few small vessels being tied with catgut-ligatures. The wound was dressed antiseptically, and the limb placed in a back-splint reaching up to the buttock, and fixed with plaster-of-Paris from the foot to the knee, and also on the thigh. There was no shock following the operation. The evening temperature was 99°.

On September 18th, four days after the operation, the case was dressed, and the drainage-tubes removed. The temperature rose to 101° on the day after the operation, and then gradually fell to normal. It was dressed again on the ninth and sixteenth days. On the latter date, the whole of the sutures were removed, and the wound was quite healed, not a drop of pus showing itself.

The patient was allowed to get up six weeks after the operation the splint was removed, and he began to walk about at first with crutches, but soon he walked without any artificial aid. He now walks about easily and well, and can flex the limb very considerably, though he is not quite able to kneel. The wire suture is still in the joint.

WEST NORFOLK AND LYNN HOSPITAL.

PERINEAL FISTULA OF THREE YEARS' DURATION COMPLETELY CURED BY GRADUAL DILATATION OF THE STRICTURE.

(Under the care of Mr. C. B. PLOWRIGHT.)

[Reported by Mr. S. H. LINDEMAN, House-Surgeon.]

WILLIAM B., aged 55, was admitted into the hospital on May 18th 1883, with the following history.

Difficulty in micturition commenced eighteen years ago. Since then, he had been under medical treatment almost constantly. Three times he was admitted into the hospital with complete retention. Instruments were passed, and he gained temporary relief each time; but the obstruction gradually became worse. Three years ago fistulæ formed in the perinæum, through which, at first, a few drops of urine dribbled each time he micturated. For the last six months, the whole of the urine had passed through the fistulæ. During this time, he had been unable to follow any employment.

On admission in May, 1883, the following condition was present. The whole of the perinæum was indurated and brawny, and perforated by five fistulæ, which constantly discharged pus, and through which the urine dribbled. Two strictures were present in the urethra, through the second of which the smallest French catheter could not be passed. After two days' entire rest in bed, on very low diet, with alkaline medicine, and warm hip-baths, a No. 1 French catheter was passed. This was tied in; and, at the end of twenty-four hours, it was withdrawn, and the next size placed in. From this time no difficulty was encountered. By means of passing progressively large catheters, both strictures were completely dilated; and, as the urine was only allowed to come by the natural passages, the fistulæ commenced to heal. The healing of the latter appeared to be greatly assisted by the application of unguentum hydrargyri.

Six weeks after his admission the fistulæ had quite healed, and a full-sized catheter could be easily passed. He was discharged as an out-patient. As such, he presents himself from time to time, in order that an instrument may be passed to prevent the strictures from contracting again. His health is quite restored, and he says he has not felt so well for eighteen years.

REMARKS.—The most important point in the treatment of the case was that, after the strictures had been dilated to enable a medium-sized catheter to pass, the patient was never allowed to micturate naturally; the urine always being withdrawn, either by the patient himself or by someone else, and he was never allowed to hold his urine longer than was absolutely necessary. When the fistulæ began to heal, the catheter was being passed almost every four hours.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 11TH, 1883.

JOHN MARSHALL, F.R.S., President, in the Chair.

On High Amputations for Senile Gangrene.—By JONATHAN HUTCHINSON, F.R.S. The paper began by the statement that the author's chief object was to urge the safety and expediency of amputating in senile gangrene, if the operation were done at a good distance from the disease. In the common form of gangrene of the toes and foot, the lower third of the thigh was the part suggested, and in rare cases in which the hand was affected, the middle of the upper arm. After remarking on the fact that amputations had hitherto generally proved disappointing, owing to the return of the disease, the author urged that this was owing to their having usually been done too low down. The calcification of the arteries, upon which in the main the disease depended, was usually greatest near the periphery, and hence the difficulty as to supply of blood for the nutrition of the flaps. This source of danger was not encountered if the amputation were done sufficiently high. In a series of cases in very old patients, the author had not encountered the recurrence of gangrene excepting in one. In three, the stump had healed well. In a fourth, in which the patient, although not old, was prematurely senile, and the calcification of the arteries extreme, the recovery had also been excellent. In this instance the femoral artery was so rigid, that it stuck out from the face of the stump like a small bone. One of the patients, in whom the stump had healed without a drawback, was 70 years old. In two of the cases, the other foot had been subsequently threatened with gangrene. As to the time to be selected, the author thought that, as soon as the patient was so ill as to be confined to bed, and the disease well established, it was better to do the operation. Spontaneous cure was, he urged, very exceptional, and a great majority of such cases ended in death, after a long period of much suffering. The thinner the patient, the less probable was the risk of the amputation. In a few cases in which the thigh is exceptionally fat and the tissues flabby, it might be wise to hesitate as to recommending it. In all his cases Lister's precautions had been carefully used, and in two or three the patient had never experienced the slightest pain from the day of the operation. —The PRESIDENT, in returning thanks to Mr. Hutchinson for his paper, expressed his pleasure at learning how greatly modern improvements in the methods of operation had extended the range of disease to which relief could be given, and expressed his confidence in their ultimate general adoption.— Mr. RIVINGTON remarked that, in an experience which certainly would hardly deserve to be called extensive, he had never met with any case where there was spontaneous recovery after the gangrene had spread beyond the anterior half of the foot; and he, therefore, welcomed any assistance from amputation. He had himself amputated two or three times; in the last case, the patient was aged between 60 and 70, the gangrene reached above the ankle; he amputated in the lower third of the leg with antiseptic precautions; slight sloughing followed, and the carbolic dressings were discontinued. The sloughs came away, and the stump healed well.—Mr. J. W. HULKE had not found Mr. Hutchinson's evidence as conclusive in favour of his practice as he had hoped. The cases which had been brought forward seemed to belong to different categories; one was a case of frost-bite, another of gangrene after a burn, a third of moist gangrene, and only two were cases of pure senile gangrene.. As to the recovery of gangrene without operation, he quoted a case in which he had seen recovery after gangrene had spread over all the foot and the lower third of the leg as well. He was himself inclined to an expectant and conservative treatment, and could never put aside the maxim that the risk of amputation in the leg increased with every inch of its greater distance from the foot.—Mr. BARWELL had only once amputated for senile gangrene, and in that case below the knee; the result, however, had been fortunate. He understood that Mr. Hutchinson's chief reason for recommending high amputation was that he might find the arteries in a less advanced state of degeneration. His case, however, in which the femoral artery had stood out like a piece of bone, seemed to show the small effect that the condition of the main arteries had, compared to the condition of the minor arterioles.— Mr. CROFT said that he had never had a case of senile gangrene to operate upon. He was struck with the title of the paper, "Senile Gangrene;" and had expected to hear a list of cases of gangrene in older persons than those to whom Mr. Hutchinson had referred. The great majority of deaths in senile gangrene occurred from blood-poisoning, more or less marked; the object of high amputation was to remove the local cause of this blood-poisoning, with a large margin; and such a principle he thought thoroughly sound. The removal of the dangers from blood-poisoning by the use of antiseptic precautions, he had been glad to notice, was provided for by Mr. Hutchinson, and, he had no doubt, contributed considerably to his success.—Mr. GODLEE mentioned the case of a man, aged about 50, who was at present under treatment in University College Hospital. He had been admitted in the summer months with gangrene of several toes of the right foot; no pulsation could be detected in the external iliac or femoral artery on the right side. The gangrene was progressive, and an operation seemed imperative. He performed amputation at the knee, preserving the patella and the soft parts around, in the hopes of supplying the stump with blood from the internal iliac artery by the anastomosis round the knee. No vessel was tied in the operation; there was slight oozing afterwards, and a clot formed on the inner side of the stump; antiseptic precautions were used. There was no suppuration or blush about the stump for several weeks, but, finally, the clot suppurated. Owing to the condition of the bone in the stump, a drainage-tube had to be inserted, and portions of the dying bone had twice to be cut away. The stump had, at length, almost healed; it was probable, however, that a third piece of the bone would need removal. He agreed that the use of antiseptics was, in these cases, very important, and hoped that it might lead to the possibility of operating nearer to the border of the gangrene than had been possible before they were introduced.—Mr. W. H. CRIPPS contrasted the comparatively hopeful tone that was now adopted in cases of senile gangrene with that which obtained in a previous generation, as evidenced by the complete hopelessness with which Brodie spoke of any gangrene that had gone beyond the foot. He detailed a case in Mr. Holden's practice, which he had the opportunity of observing in St. Bartholomew's Hospital, where the anterior half of the foot was gangrenous, and in which Mr. Holden amputated in the lowest third of the leg, and the case ended, after slight sloughing, in complete recovery. He was inclined to suggest that low amputation, with antiseptics, should be tried before recourse was had to as high an amputation as Mr. Hutchinson had recommended.— Mr. SAVORY said that Mr. Hutchinson's suggestions seemed to him to involve very serious risks, especially with such patients as those to whom it was proposed to apply them. He felt afraid that, in the cases which Mr. Hutchinson had brought under notice, there was some danger of being misled by a name, and brought to consider, as instances of one disease, what Mr. Hulke had so very justly pointed out were cases of very different characters. Mr. Hutchinson's proposals had reminded him of M. Larrey's similar advice to amputate boldly in traumatic gangrene, at a time when no one else ventured to interfere. For a time, the proposal was frequently adopted, until Vincent started a reaction by showing all the mischief, as well as good, that might result. In any consideration of gangrene, it should never be forgotten that there were two different categories, in one of which the injury, and, in the other, the constitutional state, was the predominant factor, and it was irrational to treat both alike. So far as the mischief was constitutional, he regarded amputation as unlikely to do good. In cases of injury, before he could amputate, he must feel sure that the operation was less severe than the injury, and, indeed, had a considerable margin of advantage. Such an advantage might often, perhaps, be found in traumatic cases, but very seldom in constitutional cases, where the traumatic origin was so trivial that they were naturally called spontaneous. In Mr. Hutchinson's cases there were many that were not instances of that dry condition which he regarded as characteristic of senile gangrene.—Mr. JONATHAN HUTCHINSON said he would reply first to the criticism that his cases were not all examples of true senile gangrene. With the exception of the first, which he had adduced simply to prove the advantages of amputation through the thigh over that through the leg, he must submit that they were all of the senile form. All the patients were between sixty and eighty, excepting one; and although, in that case, the patient was only forty-eight, he was prematurely senile, his arteries being calcified in an extreme degree. The difficulties of defining senile gangrene must be admitted by all; the best definition which he could give of it, was that which he had ventured in the paper, viz., gangrene due to calcification of arteries. This form of gangrene always presented peculiarities, and was almost always progressive. He could not admit Mr. Savory's description of the type form of senile gangrene as being that in which the limb dried up. In his experience, nine-tenths of the most definite cases of senile gangrene were moist and not dry,

whilst the most typical examples of mummified limbs were in association with other causes; most certainly senile gangrene and dry gangrene were not synonymous terms. Nor could he admit that senile gangrene was always spontaneous, for not unfrequently some slight injury, attended by inflammation, appeared to act as its local and exciting cause. Although we were accustomed to classify gangrene as traumatic and spontaneous, it must never be forgotten that, in almost all cases, both constitutional and local influences had their share. In some cases the one predominated, and in others, the other; but it could seldom or never be said that a gangrene was due wholly either to local or to constitutional influences. He was glad that Mr. Savory had so ably reminded them of the important step in surgical practice which was taken when M. Larrey recommended amputation in traumatic gangrene without waiting for a line of demarcation; he also felt indebted to Mr. Croft, for suggesting that the present discussion should be widened, so as to include other forms of gangrene than those purely senile. He felt sure that the line of practice which he had endeavoured to recommend would be found applicable to a larger class than those referred to in his paper. Having regard to the risks which all forms and conditions of gangrene necessarily entailed, of death from septicæmia when acute, and from pain and exhaustion when chronic, he believed that the rule of practice ought to be to amputate early in all cases, unless it was thought that, by so doing, more of the limb would be sacrificed than was necessary. He could think of no other consideration which would induce him to delay; for, unquestionably, the relief to the patient's pain, and the removal of the danger of blood-poisoning, was most definitely secured by amputation. With anæsthetics, the operation caused no shock; with Esmarch's bandage, there need be no loss of blood; and, with Lister's dressings, or an equivalent, the wound ought to heal without fever and without suppuration. In two of the cases which he had narrated, in both of which the arteries were most extensively diseased, in one (the patient being close upon eighty) the healing of the stump had been literally that referred to. In one of them, the patient suffered from diabetes and albuminuria at the same time; but he was now alive and well, three years after the amputation of his thigh. He fully accepted the criticisms of Mr. Savory and Mr. Hulke, that his cases were not sufficiently numerous to warrant the formation of a new rule of practice; certainly we must wait the result of further experience. Since he had written his paper, however, he had succeeded in finding, after much search, an important piece of statistical information. It consisted of a record by Mr. James, of Exeter, of no fewer than five cases of gangrene of the feet, in old patients, in which amputation had been performed. In some, the amputation had been through the leg, and in others through the thigh; although it would appear that, in nearly all, the stump had been for a time in an unhealthy condition, all five patients had ultimately recovered. In two, both limbs had, with an interval, been removed, and in one of these, Mr. James stated, he had himself seen the patient walking about on two wooden legs. These cases were all done before the introduction of antiseptics, and of improved methods of dealing with arteries. Mr. Dix, of Hull, had also supplied him with the notes of a case in which he had amputated close below the knee, and the patient had recovered. With regard to the selection of the place of amputation, Mr. Hutchinson said that his own experience would lead him to hold strongly to the opinion expressed in his paper, that the lower third of the thigh was the safest place. He did not believe that the common dictum as to increase of risk as we ascend the limb was true. The lower third of the thigh offered several definite advantages; there was only one bone to cut, and often only a single artery to deal with. The arteries in the upper third of the leg were often more or less difficult to secure, and recurrent hæmorrhage was by no means uncommon. He had often seen amputation in the lower third of the thigh heal absolutely by first intention, whilst he had very seldom indeed witnessed this result in the upper third of the leg. These reasons, added to the yet more weighty one, which had been prominently mentioned in his paper, that the greater the distance from the gangrene, the less was it likely to recur in the stump, led him to believe that future experience would demonstrate the superiority of the position recommended. In elderly persons, the saving of six inches more or less in the length of the stump was not a matter of much importance, and it was certainly not worth while, with that object in view, to diminish the probability of rapid painless recovery.

Addendum to Third Communication on Artificial Respiration in Stillborn Children: Mediastinal Emphysema and Pneumothorax in connection with Tracheotomy. By FRANCIS HENRY CHAMPNEYS, M.A., M.D. (Statement from Dr. ANGEL MONEY.)—Since the publication of the above paper (*Medico-Chirurgical Transactions*, 1882, p. 75) there have been twenty-eight cases in which necropsy was made after tracheotomy. Of these, fourteen were males and fourteen were females. In all cases the examination was made under water. In sixteen cases out of the twenty-eight (eight males and eight females) emphysema of the mediastinum was found. In two of these cases pneumothorax was also found. It was found in no case without emphysema of the mediastinum. The amount of emphysema of the mediastinum was greatest when pneumothorax existed also. In many, if not all cases, artificial respiration had been performed. It would be seen that the occurrence of emphysema was noted in five cases, or 6 per cent., of those which ended fatally after tracheotomy in twenty-one years, before the publication of the paper above referred to, and in 16 cases, or 57 per cent., in the two years following its publication. Pneumothorax was not noted in one of the 82 cases occurring in the twenty-one years previous to the paper, but had been noticed twice in 28 cases occurring in the two years following its publication. These facts spoke for themselves.—Dr. J. K. FOWLER considered the facts which Dr. Champneys had brought forward of considerable value with regard to the operation of tracheotomy, and had himself taken careful notes of the *post mortem* condition of all the cases of diphtheria which had died in the Middlesex Hospital since the publication of Dr. Champney's paper. There were 20 cases in all; 10 were males, 10 females. Their average age was 4½. In 16 tracheotomy had been performed; in 6 mediastinal emphysema was found. The higher operation for tracheotomy had been performed in 13 cases; among these were four cases of emphysema, and in two of the emphysematous cases pneumothorax was found also. In three cases in which the lower operation had been performed, there were two cases of emphysema, and in one of these there was also double pneumothorax. Artificial respiration was performed in five cases, and in three of these there was mediastinal emphysema. The most interesting case was one in which no tracheotomy had been performed, but in which, nevertheless, there was emphysema of the anterior and middle mediastina and of the tissues at the root of the neck on both sides, and also pneumothorax of the right side. The examinations were not made under water, but by a careful dissection of the intercostal muscles, after which it could easily be determined whether there was air in the mediastina or in the pleura, by observing whether the lung was in contact with the chest-wall. In the last-mentioned case, there could be no doubt that Dr. Champneys' explanation of the method of entry of the air did not apply. It was probably a case in which some of the surface-vesicles of the lung, and subsequently the pleura, had ruptured; and the very severe strain leading to such an accident might not improbably have been due to the obstruction caused by a plug of mucus in the trachea. This case showed at least one exception to the method of entry of air below the deep cervical fascia, which Dr. Champneys had suggested. Such a method of entry was adequate to explain the phenomena observed in his experiments; but it did not follow that this was the only route of the air in all cases of mediastinal emphysema in the living body. It might be that in some cases the source of the air was from the lung itself.—Dr. DOUGLAS POWELL agreed in the practical importance of the subject, and had made observations in the fatal cases of diphtheria in his practice. There had been seven fatal cases; in two of them, he had found mediastinal emphysema. In one of these, the tracheotomy-tube had been misplaced in front of the trachea when it was first introduced; and rapid emphysema had ensued, with collapse of the lungs. In the second case, a low operation had been performed; the emphysema began very soon afterwards, and the child died in a few hours. Before death, the crackling of the air in the mediastinum was very obvious to auscultation. The conditions tending to produce emphysema after tracheotomy were somewhat different in life and after death; for, during life, the air entering by the trachea had to contend against the elasticity of the lung, which did not oppose the entry of air at the same time under the cervical fascia; whereas, after death, the resisting force of the elasticity of the lung was lost; so that, during life, the abnormal route for entry of the air was comparatively easier than after death. The experiments of Dr. Champneys led to the practical recommendations in tracheotomy—(1) to operate high up, without dreading the hæmorrhage; and (2) to refrain from stretching the neck backwards, as likely to favour this abnormal entry of air into the mediastinum.—Dr. F. H. CHAMPNEYS, in reply, said that, as to the case of emphysema without tracheotomy to which Dr. Fowler had called attention, he must observe that his paper had expressly referred only to cases of

tracheotomy where the emphysema was due to inspiration, and mentioned that he hoped in a few days to present another paper, dealing with cases of emphysema due to expiration, such as Dr. Fowler's. In his own experiments, he had not left the source of air doubtful; for, after dividing the deep cervical fascia down to the central line of the neck, by an incision which did not go deeper than the trachea, he had left some coloured fluid in the small pouch thus formed above the episternal notch, and found that this could be very easily seen to be drawn down into the anterior mediastinum if respiration were performed by Sylvester's method. That was sufficient to prove that the method of entry he had suggested was among the possible routes. He quite agreed with the practical conclusions which Dr. Douglas Powell had drawn, adding that care should be taken to divide the deep cervical fascia as little as possible, and that the dangerous time in the operation was between the division of this fascia and the introduction of the tracheal tube.

MEDICAL SOCIETY OF LONDON.

MONDAY, DECEMBER 10TH, 1883.

J. HUGHLINGS JACKSON, M.D., F.R.S., Vice-President, in the Chair.

Foreign Body in the Larynx.—Dr. MUNROE showed a piece of vulcanite watch-chain, with hook attached, three inches long, with links half an inch broad, which had been swallowed by a child fifteen months old. Some dyspnœa was at once caused, and attempts to withdraw the chain failed; but it was pushed down into the stomach, and was passed from the bowel twenty hours later. On the third day, there was some tumefaction of the larynx and croupy cough; the child quickly recovered.—Mr. H. MORRIS inquired whether the chain had undergone any notable alteration. In a case under his care, where an aluminium pencil-case was swallowed, the metal was notably eroded.—Dr. MUNROE replied in the negative.

Pulpy Degeneration of the Synovial Membrane of the Knee-joint.—Mr. H. ROYES BELL read the particulars of a case of pulpy degeneration of the synovial membrane of the knee-joint, which he had treated by making a transverse incision across the joint, and dividing the patella with a saw. The interior of the joint was thus exposed in a satisfactory manner. The severed patella was subsequently united by a silver suture; the operation was done with antiseptic precautions. The patient was relieved; but, owing probably to some fresh injury, it became necessary to excise the knee-joint about four months after the first operation. Examination of the excised portion showed that the patella was united by fibrous tissue to the femur between the condyles, and that the two halves of the patella had united by bony union. The cartilages of the condyles and of the head of the femur were ulcerated. There was no suppuration in the soft parts about the joint, the operation-wound having healed soundly.—Mr. WM. ADAMS thought that the operation could not suitably be applied to cases of pulpy degeneration occurring in children. The most striking point in the case was the perfect bony union which had occurred between the two parts of the patella.—Mr. A. P. GOULD described the case of a man, aged 47, who had a peculiar firm thickening of the synovial membrane of the knee-joint, which he had treated by free lateral incision.—Mr. ROYES BELL briefly reiterated the advantages of section of the patella, which he thought more applicable to children, in whom the growth of the bones had not ceased, than excision.

On the Morphia-Habit and its Treatment.—Dr. B. W. RICHARDSON, in the first part of an elaborate paper, described the usual circumstances which led to the habitual hypodermic injection of morphia, to which his communication more particularly referred. With regard to the quantity of morphia which could habitually be tolerated, he described the doses as varying from under a grain to as much as fifteen grains a day. With doses under three grains, the symptoms were not of sufficient gravity to interfere with the discharge of the ordinary duties of life; but larger doses soon began to cause marked symptoms. He had known as much as twelve grains injected every day over long periods, and had heard of a patient who took eighteen grains. The minor symptoms (caused by the daily injection of three and a half grains of morphia for a period of two years) were described from facts supplied to Dr. Richardson by an *habitué* himself. They were as follows: torpidity in the action of the liver, tendency to the formation of an abscess at or near the seat of puncture, to local indurations, and to free excretion from the bronchial surfaces. Difficulty was occasionally noticed in swallowing morsels of small substances, as if the object were arrested in the passage by becoming enveloped in a layer of tenacious mucus, as well as a tendency at times to violent perspiration, not habitual, but seeming to occur when the drug had almost left the body, or when the system had been much weakened, as by an abscess. Various perversions of impressions made on the senses, and occasional difficulty in articulation, like that caused by alcoholic excess, with some other signs of intoxication, also occurred. There was a great difficulty in breaking off the habit, owing to craving for the narcotic, and symptoms of debility when it was left off. Mental exaltation and depression, with a tendency to magnify dangers, and an unnatural degree of imaginative excitement when reading such works as fictions. Finally, sexual impotency, together with reduced sensitiveness and adaptability, and an inclination to apathy, varied with brief periods of exaltation of mind, completed the picture. The more serious symptoms induced by deeper indulgence in the habit, were, ordinarily, intensified appetite for the morphia, loss of power of will, confirmed apathy without the ordinary toxic effects of opium, failure of all the mental faculties, together with general failure of voluntary and involuntary muscular power. The objective symptoms were those of diminished vitality generally; bending of the body and the signs of premature old age. Immediately after the dose the temperature might be noticed to be commonly raised one or two degrees at least, until the habit had been long established; irregularity of the heart occurred as the effect of the dose was passing off. The danger incident to the practice was the next topic brought forward, qualified by the observation that in certain forms of fatal diseases the habit, with all its drawbacks, might sometimes be useful, might sometimes make existence easier, and prolong life. This, however, was the exceptional part of the practice, and required to be carefully separated from the general. In conclusion, Dr. Richardson dwelt on the treatment of the morphia-habit, asserting that total withdrawal of the drug, effected in a period of not more than twenty-one days, nor much less, as a rule, than seven days, was the only natural and safe mode of cure.—Dr. THIN had seen the total and sudden withdrawal of opium applied without any dangerous results. His experience agreed with Sir Robert Christison's aphorism that all opium-eaters were liars; the moral sense seemed to be peculiarly perverted. He quoted evidence, furnished by the medical missionaries in China, in favour of the complete and sudden withdrawal of opium; 500 cases had thus been treated, with one death. With regard to the question whether any difference in the treatment of morphia-injection and opium-eating was to be recommended, he thought that the effects of the withdrawal were quite identical, whatever form of the drug be taken. He believed that the use of morphia or opium was comparatively common among members of the medical profession; the habit incapacitated them from their duties for several hours after the dose, but he thought the physical effects of the use of opium had been exaggerated.—Dr. MACLAGAN, from the experience of six cases of habitual injection of morphia, was strongly of opinion that the sudden and complete withdrawal was the proper course to follow.—Dr. HERON referred to a case which had come under his notice, where a man, who said he took three grains a day, and one and a half grains a day, in alternate months, was yet, after twenty years, able to discharge the duties of an important position entailing the necessity for much public speaking. Was the patient speaking the truth with regard to the peculiar manner in which the drug was taken?—Dr. RICHARDSON, in reply, believed that the symptoms caused by morphia, and by opium-smoking, were different, inasmuch as in the latter habit the narcotic effects were more pronounced. A considerable proportion of the cases of morphia-injection which had come under his notice were members of the medical profession. He thought the story related by Dr. Heron was quite credible. If the quantity of morphia were small, and the habit not of long duration, it might be advisable to suddenly withdraw the drug. But where the habit was well-established, he adhered strongly to the opinion expressed in his paper—that the drug should be reduced in a period of from seven to twenty-one days.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

NOVEMBER 2ND, 1883.

J. L. W. THUDICHUM, M.D., President, in the Chair.

Chemical Reports.—Dr. THUDICHUM reported on two cases which had been referred to a committee. The first was as to the composition of a calculus removed by lithotrity from a girl by Mr. J. R. Lunn. In three operations, 5.4 grammes of fragments were removed. They were white, and consisted of urate of ammonia, phosphate of calcium, and the phosphates of magnesia and ammonia. The pow-

der of the calculus, on combustion, left 57.9 per cent. residue, giving 42.1 volatile matter, uric acid, ammonia, water, and mucus. The calculus was probably formed in the progress of a febrile disease, causing retention and alkaline decomposition of urine. The second report was on Dr. Hood's case of hæmatinuria. The deposit in this case consisted of hæmatin only, no undecomposed hæmoglobin being present, either as a deposit or in solution. The hæmatin dissolved entirely in alcohol and acetic acid, and gave the characteristic spectrum of that body.

Thirteen Cases of Herniotomy for Strangulated Hernia.—Mr. KEETLEY read a paper on this subject. Of these cases five were femoral, seven inguinal, and one umbilical; three died. Of course, such small numbers were of no value statistically. For example, at St. Bartholomew's, in 1876, only two cases of inguinal herniotomy died out of ten, while, the very next year, six died out of seven. After discussing the probable cause of death in his two fatal cases, which he attributed in one case at least to septic infection, the author said that, with one exception, the chief indications of practice of antiseptic ovariotomists should be borne in mind by the herniotomists. The exception was the rule, that, in case of extravasation of blood or other fluid, the abdominal cavity should be thoroughly sponged out, and rendered aseptic. It was absolutely essential that, in herniotomy, all extravasation into, or septic contamination of, the peritoneal cavity should be prevented. To attain this end, he advocated the practice now coming into vogue, both on the Continent and in this country, but especially in Liverpool, of tying the neck of the sac high up as soon as the strangulated bowel, etc., had been reduced. Thus the whole operation-wound, including even the notch in the edge of the femoral inguinal ring, would be entirely cut off from the peritoneal cavity. However, sometimes after cutting the constricting edge, the surgeon found it a work of difficulty and slowness to reduce the swollen intestines. In the meantime, hæmorrhage was very likely taking place into the peritoneal cavity. Within certain limits, strict antiseptic precautions made this a matter of indifference. Beyond these limits, it might become a serious matter. Hence, in such cases, Mr. Keetley suggested a second incision of the linea alba into the peritoneal cavity, just above the pubes, merely large enough to admit two fingers, with the help of which the intestine, etc., could be pulled back into the abdomen. When the hernia was known to be quite recent, it would be justifiable to attempt to reduce it by this proceeding alone, with an incision over the hernial aperture. It was so much more rational to attempt to pull back than to push back a soft and flexible loop through a tightly constricting hole. The same principle had long ago been applied to umbilical herniæ by Crompton, of Birmingham, and more recently and successfully by Annandale and Bennett May. But Mr. Keetley had conceived the idea quite independently, and without at the time knowing of these cases. He had not yet himself met with a case in his judgment demanding an application of this plan of a suprapubic incision. He had done Crompton's operation in the case of umbilical hernia which died. —The following members then discussed the paper: Dr. Travers, Dr. Alderson, Mr. Barrow, Mr. Swinford Edwards, Mr. Ballance, and Dr. Thudichum.

Amputation of the Forearm; Stump Perfectly Healed within Fifteen Days under one Antiseptic Dressing.—Mr. BALLANCE read this case. The patient, a big, florid woman, aged 24, eight months' pregnant, fell down in the road, and the wheel of a van passed over her right hand and wrist. Amputation was performed a little above the middle of the forearm. Catgut ligatures, catgut stitches, and a decalcified bone drainage-tube, were employed. Previously the utmost care had been taken to make the skin of the injured limb antiseptic, and, when all bleeding had ceased, an antiseptic dressing was applied, and kept in place by an elastic bandage. The dressing was removed on the fifteenth day, when the healing process was found to be complete. The dressing contained a little altered blood, and a few flakes of lymph. During the whole fifteen days the thermometer registered a normal temperature, and the woman expressed herself as never having been better in her life. The bone drainage-tube could be felt for some weeks between the flaps, but gradually became smaller, until it could no longer be detected.—The following members took part in the discussion that followed: Mr. Boyce Barrow, Mr. Swinford Edwards, Mr. Keetley, and Dr. Thudichum.

PRESENTATION.—Dr. Fleming of Worksop, who has recently delivered a course of ten lectures in connection with the St. John's Ambulance Association, has been presented by the class with a handsome piece of silver.

LIVERPOOL MEDICAL INSTITUTION.

THURSDAY, NOVEMBER 22ND, 1883.

T. SHADFORD WALKER, M.R.C.S., President, in the Chair.

Acute Necrosis of the Ribs.—Dr. J. CAMERON showed a preparation of the ribs, and a *post mortem* photograph by Mr. Paul, of the following unusual case. A Mexican sailor, aged 19, was admitted into the Southern Hospital in a condition of exhaustion, with pleurisy and pneumonia at the right base. He had a temperature of 102°, dyspnœa, and cough; he slept badly, and was very restless. The liver and spleen were enlarged, and somewhat tender. The gums were spongy, and mastication was painful; there were also pains in the legs, with some swelling about the knees, and a small sore over the left great toe. This sore was produced by his shoe, and had been the commencement of his illness two and a half months ago; he having been laid up on board his ship during this time with symptoms of low fever. A day or two after admission, it was noticed that his ribs were in a peculiar movable condition; and since he did not refer any pain to the part, it was believed to be of old standing. In the hospital, his febrile symptoms increased; he became delirious and semiconscious. The dyspnœa and restlessness increased, and in ten days he died. At the *post mortem* examination, on reflecting the skin, the sternum with the costal cartilages at once fell back into the chest, the latter being all separated from their attachments with the ribs, except just at the upper part. The ribs, on the contrary, projected from the neighbouring soft parts for three or four inches, the third to the ninth on the left side, and the fourth to the ninth on the right. Before removing the skin, each of these ribs had been surrounded by an abscess. No evidence of pyæmia was met with; but pleuropneumonia at the right base, and enlargement and congestion of the liver and spleen, were found. Dr. Cameron concluded that the patient had suffered from malarial fever, and that the periostitis and necrosis of the ribs were a sequela of this. He quoted Sir James Paget (on the Occurrence of Necrosis, especially of the Ribs, after Typhoid, Roman, Neapolitan, or other Malarious Fevers) in support of his opinion.—In a discussion which followed, Dr. ARCHER and Dr. SELLERS supported Dr. Cameron. Mr. R. HAMILTON, distrusting the history, thought that it was the result of injury; and Mr. PAUL, Dr. GEE, and Dr. A. CAMERON regarded the case as one of septic poisoning.

Salivary Calculus.—Mr. PUZEY showed a specimen of a calculus, which had been produced in the duct of the submaxillary gland. The latter was also shown. The patient was a female, aged 40. Eighteen months ago, Mr. Puzey removed a mass of tubercular glands from the axilla, the patient, at that time, having also a swelling under the jaw, and scars on both sides of the neck. Three weeks ago, she was re-admitted. The swelling under the jaw had suppurated, but was now healed. Mr. Puzey removed it, when it was found to be the submaxillary gland, containing in its main duct a calculus composed of earthy phosphates, measuring $1\frac{1}{2}$ in. by $\frac{7}{8}$ in. by $\frac{5}{8}$ in., and weighing 108 grains. The lump could be easily felt from the floor of the mouth, but not the stone, which was almost buried in the gland. Subsequently it was ascertained that, on some occasions, a discharge of pus and blood into the mouth had taken place.

Cirrhosis of the Liver.—Dr. CARTER showed a very small liver, from a man aged 59. It became necessary to tap him for ascites, and the tapping was followed by a diminution in the secretion of urine. Whenever this occurred, it showed that the obstruction to the portal circulation was so great, that the course of the case would probably be rapidly fatal. On the other hand, when the secretion of urine was increased after tapping, improvement would take place.

Sayre's Jacket.—Dr. OXLEY showed a child in whom a jacket, worn for six months, had produced a cure, and another in the same family at present wearing a jacket with perfect comfort, and able to run about like any robust child, who, without it, was seriously crippled. In a third case of a girl, aged 10, the fourth, fifth, sixth, and twelfth dorsal and the first lumbar vertebræ were diseased, producing two curvatures. She was admitted unable to stand, and otherwise very ill. A Sayre's jacket was at once applied, with the jury-mast. The next day Dr. Oxley found her walking about the ward, and she had not had a bad symptom since.—Mr. D. HARRISON mentioned a case of paraplegia from spinal curvature, which he had treated with the jacket, and which rapidly improved. In nine or ten months the man went back to his work as a cotton-porter quite well.—Dr. GLYNN said that opinion had varied as to the cause of paraplegia in spinal curvature. Formerly, it was regarded as due to direct pressure, recently to thickening of the membranes; but it was experimentally

proved that slight pressure on the spinal cord at any part produced loss of motion, though not loss of sensation, below it; and the rapid recovery after the application of a jacket in these cases showed that the paraplegia must have been due, in great measure, to direct pressure.

The Distribution of Typhus in Liverpool.—Dr. HOPE, the assistant medical officer of health, read a paper upon this subject, which went to prove that the prevalence of typhus depended upon the character and habits of the people occupying the dwellings, rather than upon the actual sanitary construction of the dwellings themselves; and he contended that the only power which the medical officer of health could use effectually against the spread of typhus was early notification and a close sanitary inspection. [The paper was published in the JOURNAL for December 1st, p. 1064.]—Drs. BAILEY, PRYTHERCH, and ROBERTS spoke of the mortality of typhus.—Dr. JOHN BLIGH stated that the Irish were not more susceptible to typhus than other people, and recommended a better attention on the part of the medical officer to house-sanitation to check the spread of typhus.—Dr. CARTER assumed that Dr. Hope considered that improvement in the dwellings of the poor would not lessen the prevalence of typhus, and that the courts were not the chief fever-breeding localities. This was contrary to the opinion of medical men for the past eighty years, and to the testimony of Currie, Duncan, Trench, and others.—Dr. ROBERTSON thought Dr. Hope had clearly shown that the present distribution of typhus was not regulated by the unsanitary condition of the dwellings, but depended upon the nature and habits of the people; and he agreed with him that the medical officer of health would be unable to effectually work against typhus until compulsory notification was introduced.—Dr. BARR spoke of the rarity of typhus in prisons, and stated that he was one of those who always notified infectious diseases to the medical officer of health.—Dr. ARCHER spoke strongly in favour of compulsory notification.—Mr. R. HAMILTON said that, if compulsory notification dealt only with the low parts of the town, there could be no two opinions respecting its advantages; but, if every class were to be included without distinction, there were great difficulties in its way. He also strongly advocated a close sanitary inspection.—Dr. WHITFORD supported Dr. Hope in his approval of compulsory notification and frequent sanitary inspection of these low parts of the town.—Dr. HOPE replied to those who had disagreed with him, firmly maintaining the position he had taken.

REVIEWS AND NOTICES.

ARMY MEDICAL DEPARTMENT REPORT FOR THE YEAR 1881. Vol. xxiii. London. 1883.

[SECOND NOTICE.]

THE Army Medical Blue-book contains some remarks on the recruiting of the army which merit attention; but we had not space enough to refer to them in our previous notice of the volume. It appears that the number of men desirous of becoming army recruits who were examined during 1881 was 47,444; and that, of this number, 41,400 were inspected by army medical officers, and 6,044 by civil medical practitioners. The military surgeons rejected as unfit for the service 17,498, or 422.66 per thousand, of the men they examined; the civil practitioners 1,308, or only 216.41 per thousand, of those whom they examined. But, of the 4,736 men reported fit for the service by the civil medical practitioners, 1,716 were subsequently rejected by the army surgeons on secondary inspection. It follows either that the inspection of the men by the former was not so searching as it was by the latter, or that the civil practitioners are not so well acquainted with the bodily conditions which are regarded by the army surgeons as essential to qualify men for military duties. Altogether, the final rejections amounted to 432.5 per thousand of the number of men examined. Natives of England and Wales formed by far the largest number of the men who sought enlistment, viz., 34,588; Ireland brought forward 8,142 men; while Scotland furnished only 4,163 out of the total number. The proportion of Englishmen offering themselves as recruits was, therefore, 729; of Irishmen, 172; of Scotchmen, 88 per 1,000 of the total number examined. The proportion rejected on medical examination was closely similar among the recruits of each section of the kingdom, being, of Englishmen, 429; Irishmen, 443; and Scotchmen, 445, per 1,000. The preponderance in the number of English recruits entering the army is equally shown in the Adjutant-General's Annual Return of the British Army for 1882, during which year the tables show that, out of a total of 23,555 recruits passed into the army, 18,840 were raised in England, 2,465 in Ireland, and 2,250 in Scotland. One table in the Horse Guards' Annual Return shows in what a remarkable degree the recruits who are actnally passed into the service become diminished in number even within so short a space of time as three months after joining the ranks. Out of the 23,395 recruits who joined the army in 1882, only 21,247 remained at the end of three months from the date of their enlistment, no fewer than 2,148 having become non-effective by that time from various causes. It seems rather strange that among these causes, within so short a space of time, as many as 85 recruits were invalided or discharged as medically unfit for service. The causes of rejection of all the men examined and found unfit by the army and civil surgeons together are shown in the *Army Medical Report* before us under forty headings. The largest number of rejections, among the 18,806 men found medically unfit, viz., 7,908 men, appear under deficient chest-measurement, height, and weight; 2,058 were rejected on account of defective vision; 895 for heart-disease; 549 for syphilis; 765 for varix; 381 for hernia; 948 for defects in the limbs, the result of fractures, contractions, etc.; and 175 for phthisis.

The ages of the recruits examined varied from those of boys under 17 years to men of 25 years of age and upwards, the average of the whole being 20 years and 10 months. Of the 47,444 inspected, 8,921 were under 19; 16,876 between 19 and 20; 20,769 between 20 and 25; 71 were 25 years of age and upwards. The ages of 37 men were not recorded. Out of the 41,400 men inspected by the army medical officers, 6,072, or 146.7 per 1,000, were found to be unable to read or write; and 4,827, or 116.6 per 1,000, able to read only. The report states that no information as to the state of education in these respects was furnished respecting the men examined by civil medical practitioners. Although the proportion above shown of men unable to read or write still exhibits a very considerable deficiency of education in a certain part of the civil population of the country, and a somewhat higher rate than that of the previous year, 1880, when the proportion was 139 per 1,000, it is still an improvement over the deficiency in these respects which was shown to exist by the recruiting-returns of comparatively a few years ago. The army schools are doing useful work in remedying the ignorance of these uneducated recruits; and we have reason to believe that the better class of soldiers greatly appreciate the advantages they derive from the instruction given at these institutions. The work done by the army schoolmasters is sufficiently obvious from the fact, shown in the Adjutant-General's Annual Return for 1882, that, at the end of that year, out of the total 185,518 men composing the army, there remained only 6,051, or 30 men per 1,000, who could neither write nor read, being almost identically the same in number as that of the uneducated recruits who had joined during the year.

The deterioration in constitutional power of resisting disease induced by the habits and occupations of military life, continues to be strikingly shown in a table in the present medical report, as it has been in previous reports, exhibiting the influence of age on the mortality of the troops serving in the United Kingdom, contrasted with the mortality among the civil male population of England and Wales at corresponding periods of life. The ages are shown arranged in a quinquennial series. As might be expected from the careful selection of the men, and the pains taken to secure for them good habitation, wholesome food, and other essentials for the maintenance of health, the relative ratio of mortality during the early years of their service is less among the military than it is among the civil population. Thus, while the average mortality of the troops on home service is 3.16 per 1,000 among the men under 20 years of age, 4.93 between 20 and 25, and 6.60 between 25 and 30, the ratios among the male civil population of England are, at corresponding ages, respectively 6.89, 8.67, and 9.55 per 1,000. The contrast is less marked if the comparison be made with the population in the healthy districts of England and Wales; and this seems to be a fairer footing to take, for then the ratios among the civil male populations are respectively 5.83, 7.30, and 7.93 per 1,000. During the period between 30 and 35 years of age, the annual ratio of deaths for the year 1881 was nearly the same among the troops as it is shown to be in the civil male population, viz.: 10.15 among the troops, and 10.37 among the male civilians of similar ages in England and Wales. If, however, the comparison be confined to the civil population in healthy districts of England, the mortality among the troops has now become relatively greater, viz., as 10.15 to 8.36 per 1,000. During the next quinquennial period, the military ratio of mortality is considerably higher, and subsequently becomes still further augmented. Between 35 and 40 years of age, the annual ratio of deaths

among the troops was 16.48 per 1000, and between 40 years and upwards, 24.59 per 1,000; while, in the whole civil male population of England, it was 11.96 and 13.96 per 1,000 respectively at the same ages of life; and, in the healthy districts of the country, only 8.96 and 9.86 per 1,000 at the same periods of life. The causes of this important difference in the proportionate mortality of the two classes deserve attentive investigation; for, when all the care that is taken to ensure the best health attainable among the troops is considered, and when, too, the elimination which takes place of defective lives from the army by the system of invaliding, and the consequent additions made to the normal number of sickly men in the civil population, are remembered, it might well be anticipated that the ratio of mortality among the troops, even taking into account the influence of service on foreign stations, would hardly be so much in excess of the mortality among the civil population, at corresponding ages, as it is shown to be by the figures in the table from which we have quoted.

We now turn to the reports on the health of those parts of the army which were serving in foreign stations in 1881, and commence with India, which is far the most important as regards the number of troops employed in the country. The average annual strength of the British forces in India, exclusive of commissioned officers, was 58,588; and of this number, 38,213 men were quartered in Bengal; 10,389 in Madras; and 9,986 in Bombay. There were altogether, in the course of the year, 92,151 admissions into hospital; 1,077 deaths; the average number of men constantly sick was 1,571; and 2,232 were sent home to England as invalids. The admissions into hospital were thus 1,571 per 1,000 men; the deaths 17.19, more than double the ratio of deaths among the troops in the United Kingdom; the proportion of men constantly sick, 66.14; and of invalids sent to England, 38.10 per 1,000, During the previous year, 1880, the corresponding proportions were: admissions, 1,748; deaths, 24.65; constantly sick, 69.32; and invalided to England, 29.88 per 1,000, It is thus seen that, in 1881, the ratios of admissions into hospital and deaths, especially the latter, were considerably less than they were in the previous year; but that the proportion of men invalided to England was considerably larger. Of the 1,007 deaths in 1881, 77 occurred among the invalids during the passage homewards, the rest took place in India itself. The ratio of mortality was least in the Madras command, and highest in the Bengal command.

In the Bengal Presidency, among the 38,213 troops quartered there in 1881, there were treated 63,006 cases of sickness; the deaths were 734 in number; and 1,422 men were sent away invalided to England. Forty-five of the deaths occurred among the invalids during the voyage homewards. The average number of men constantly sick in hospital was 2,600. The ratios were, therefore, of admissions into hospital, 1648.8; of deaths, 19.21; of discharges as invalids, 37.21; and of men constantly sick, 68.04 per 1,000. During the previous year, 1880, the corresponding ratios were: hospital-admissions, 1,763; deaths, 29.26; invalided, 25.51; and constantly sick, 70.29 per 1,000. The comparison shows that the amount of sickness and mortality among the troops serving in Bengal was considerably less in 1881 than it was in 1880. The classes of disease which caused the greatest number of hospital-admissions were fevers, and disorders of the digestive organs. Those which led to the largest numbers of deaths were diseases of the digestive system, including hepatic diseases, dysentery, and diarrhœa, altogether 156 deaths; fevers, including enteric and paroxysmal fevers, 139 deaths; and cholera, 116 deaths. An outbreak of dengue fever occurred in Lucknow, 105 men being treated in hospital for it, but no fatal results ensued. It is stated that many cases of the disease, of trifling severity, were treated without taking the men into hospital. Curiously, although the dengue prevailed among the men of the artillery and cavalry at the station, no cases occurred in either of the infantry regiments in the garrison. The number of admissions under enteric fever was 249, entailing 107 deaths. The Principal Medical Officer remarks that "the great mortality, nearly 43 per cent. of cases treated, is sufficient evidence that the real prevalence of the disease has been understated." Other cases were probably returned among the continued fevers. The number of admissions for cholera in Bengal was 159, with 116 deaths, or a ratio of 720.9 per 1,000 cases. The largest number of cases occurred at Meean Meer, in the Lahore Division—viz., 80, with 58 deaths. There were also 14 cases, with 13 deaths, at Fort Lahore, in the same division. Twenty-two cases occurred at Lucknow, in the Oudh Division, and led to 17 deaths. The remaining 43 cases were scattered among fourteen stations, at remote distances from one another. The disease was absent altogether at twelve stations where there had been outbreaks during the previous year; and, throughout the command, this fatal disease was happily less prevalent than it had been in 1880. There were 140 admissions into hospital for poison, with 17 deaths; among these being 37 cases of alcoholic poisoning, with 5 deaths; and 96 cases of delirium tremens, with 6 deaths. Three of the remaining deaths were caused, respectively, through poisoning by chlorodyne, opium, and oxalic acid; while two others were caused among three men who were admitted for treatment for dissection-wounds, following the examination of bodies of animals which had died of epidemic anthrax.

The following observation, which occurs in the sanitary report of the principal medical officer, Surgeon-General Sir A. D. Home, V.C., K.C.B., is not only interesting as a historical record in the administration of the army medical department in India, but is also important on account of its bearing, as a matter of evidence, on the question of the relative advantages of the regimental and general system of military hospital management, which has been so frequently discussed in our columns. "In July," Sir A. Home remarks, "the constitution of the hospitals in the command was altered from a regimental to that of a general basis; the system being brought into use successively as arrangements could be made. At the end of the year, all the hospitals were conducted on the general plan. Preceding this improvement, the hospital-servants were formed into a corps of enlisted and trained men, with much advantage in the way of efficiency, and, at the same time, a reduction of one-third in their number. All the medical officers who notice the subject write approvingly of these alterations in the arrangements for the treatment of the sick."

In the Madras Presidency, the average strength of the troops being 10,389, the number of hospital-admissions was 11,989, or in the ratio of 1,154 per 1,000; of deaths, 121, or 11.65 per 1,000; of men sent home as invalids, 286, or 27.53 per 1,000; while the average number of men constantly under hospital-treatment was 602, or nearly 58 per 1,000. In 1880, the ratios were—hospital-admissions, 1,370; deaths, 10.51; discharged as invalids, 23.15; and constantly sick, 63 per 1,000. It thus appears that, while the admissions into hospital of cases were more than 200 per 1,000 less in 1881 than they were in the previous year, the deaths were 1.14 per 1,000 higher. This is due to cholera having broken out in 1881; whereas, in the year 1880, there was not a single case in the whole of Madras proper, and only one case in British Burmah, which forms part of the command. There were 35 cases of cholera in 1881, and they led to 17 deaths. The principal outbreak was at Kamptee, where there were 25 cases admitted into hospital, with 13 deaths resulting; while at Thayetmyo, in British Burmah, there was a partial invasion of the disease among the troops, 4 deaths having occurred among 7 cases admitted. The only other station at which cases of cholera were treated was Secunderabad, and only 3 admissions occurred there, while all three patients recovered. But, although the troops happily escaped from a general invasion of cholera, the disease was prevalent over a large section of Southern India during the year among the civil population, and, the principal medical officer relates, caused much anxiety regarding the safety of the troops. Altogether, however, the year 1881 was an exceptionally healthy one for the Madras forces; for, by comparison with the average of ten years preceding it, the hospital admission-rate of 1881 was lower by 77.0, the death-rate by 6.11, and the invaliding rate by 13.56 per 1,000. The average number of men constantly sick in hospital was almost identically the same throughout the eleven years referred to. The health-statistics of the British troops are contrasted in the report before us with the corresponding statistics of the native troops of the Madras army, and it is shown, what perhaps would hardly have been anticipated, that the loss of efficiency, and the deaths from disease, were greater among the native soldiers than they were among the Europeans who were foreign to the country and climate. Among the native troops of the Madras army, averaging 30,626 in number in 1881, the death-rate was 5.53, and the invaliding rate 13.37, per 1,000 higher than they were among the white troops. These facts certainly seem to afford a strong testimony to the hygienic care bestowed on the British troops in the Presidency of Madras. The principal medical officer attributes the difference just mentioned to the fact that "the native soldier is usually inferior in physique to the European, is not so well fed, and lives at a disadvantage as regards his dwelling and its sanitary surroundings."

In the Bombay command, where the average strength of the troops in 1881 was 9,986, nearly the same as in the Madras Presidency, the number of admissions into hospital was 17,156, or at a rate of 1,718 per 1,000; the deaths 152, or 15.22 per 1,000; the number sent to England, as invalids, 524, or 52.47 per 1,000; and the average number constantly sick, 673, or 67.38 per 1,000. It will be seen that all these ratios were constantly higher than they were in the Madras

command during the same year. The proportions of admissions into hospital, of men constantly sick, and of invalids sent home, were also a good deal higher than the averages in Bombay of the preceding 10 years, which were respectively 1,562, 56.36, and 45.50 per 1,000; but the ratio of deaths, 15.22, was less than the average for the preceding 10 years, which was 16.94 per 1,000. The largest number of admissions into hospital, and also of deaths, occurred under the headings of fever, and diseases of the digestive system. Continued fevers, 2,064 in number, caused 21 deaths, and paroxysmal fevers, of which there were 6,134 cases admitted, 19 deaths; while diseases of the digestive system, under which the admissions were 2,161 in number, led to 38 deaths. There were only 6 cases of cholera in the command during the year, 3 of which proved fatal. There were 34 admissions and 19 deaths from enteric fever. They were spread over 9 stations in the command, Poona furnishing the largest number, viz., 13 cases with 7 deaths. The majority occurred among young soldiers. Sunstroke occurred in 21 cases, and of these, 7 proved fatal. The principal diseases of the digestive system, which entailed fatal results, were, as usual, hepatitis, under which there were 239 admissions with 14 deaths; dysentery, 236 cases with 15 deaths; and diarrhœa, 548 admissions with 1 death. Twenty-eight cases of alcoholic poisoning and delirium tremens came under hospital treatment, but no death occurred among them.

The statistics given in the foregoing remarks refer to 143,330 out of the 173,331 troops, which constituted the average annual strength of the British forces in 1881. The remaining 30,000 troops were quartered in the following foreign stations:—Malta, Gibraltar, Cyprus, Canada, Bermuda, West Indies, West Coast of Africa, Cape of Good Hope, St. Helena, Mauritius, Ceylon, China, and the Straits Settlements. Limit of space will only allow us to notice the state of health of the troops at a few of these stations.

At Malta, where the average annual strength of the troops was 4,553, the hospital-admissions were 4,118 in number, or at the rate of 904.4 per 1,000: the deaths 52, or 11.12 per 1,000; men sent home as invalids 129, or 28.33 per 1,000; while the number constantly sick was 264, or 58 per 1,000. All these were above the corresponding rates for the previous year, and also above the averages of the preceding 10 years. The largest number of admissions into hospital occurred under fevers; diseases of the digestive, respiratory, and cutaneous systems; venereal diseases; and local injuries. 20 deaths were due to continued and paroxysmal fevers; 14 to tubercular diseases: and 8 to general and local injuries. During the autumn, an outbreak of dengue fever occurred, 41 cases being admitted into the military hospitals, mostly of a mild form. It appeared in an epidemic form over the whole island, and the civil population appears to have suffered more severely than the military. It was supposed that the disease was imported from Egypt, where it had been prevalent over the whole country in the month of August. The epidemic in Malta gradually subsided on the setting in of the cold weather and rains at the beginning of December. A description of the symptoms attending the fever, by the medical officer in charge of Valletta, is included in the report. The principal medical officer remarks on the sanitary condition of the island, that it "has been greatly improved through the gradual enforcement of the sanitary laws, and by the Malta drainage works, which are steadily pushed on to completion. A railway is in course of construction from Valletta to Civita Vecchia, touching at the principal villages. This is shortly to be followed by another running from east to west, so as to relieve the town of Valletta from its over-crowded state."

In the West Indies, the admissions into hospital and the number of deaths were largely increased by the occurrence of an outbreak of yellow fever at Barbadoes. The average annual strength of the troops in the command was only 897; but the admissions into hospital were in the proportion of 1,059 per 1,000; the deaths, 61.3; the men sent away as invalids, 33.45; and the constantly sick in hospital, 40.42 per 1,000. In comparison with the rates for the previous year, the hospital admission-rate was higher in 1881 by 141, and the death-rate by 52.63 per 1,000. The average admission-rate for the ten years from 1870 to 1880 was 913.6, and the death-rate 11.02, per 1,000. The great increase in the corresponding ratios for 1881 was due to the epidemic of yellow fever. The disease appeared among the civil population of Bridgetown in June; towards the end of July, it spread to the officers' quarters, situated between the garrison and the town; and shortly afterwards it attacked the troops in barracks. Owing to the continuance of the fever, the troops were removed from the barracks between the 6th and 9th of August, and encamped on Gun Hill, about six miles distant. The change had a good effect on the men for a time, but on September 21st the disease reappeared among them. The disease about this time became general over the whole island. It was then decided to move the troops from it, and accordingly they were embarked for England. The cases of yellow fever admitted into hospital were 66 in number among the men, and were attended by 41 deaths. Not a single case of the disease occurred among the black troops. Among the European officers, 13 were attacked by yellow fever, and 10 died. Four medical officers were among the number who fell victims to the disease. A special report on the epidemic of yellow fever at Barbadoes in 1881, by Surgeon-Major E. Hoile, A.M.D., the senior medical officer at the station, is given in the Appendix to the Blue-book under notice.

At the Cape of Good Hope, the average annual strength of the troops, 10,636 in number, was considerably higher than ordinary, owing to the reinforcements consequent on the campaign against the Boers. The admissions into hospital were 8,048, being at the rate of 756.7 per 1,000; the deaths, 393, or 36.95 per 1,000; invalids sent to England, 790, or 74.27 per 1,000; and the average number constantly sick, 534, or 50.18 per 1,000. Fevers caused 1,477 admissions, with 43 deaths; diseases of the digestive system, 1,771 admissions, with 26 deaths; general and local injuries, 835 admissions, with 28 deaths; and injuries in action, 428 admissions, with 267 deaths. Sixty of these deaths occurred among the wounded admitted into hospital for treatment, and the remaining 207 occurred on the field of action. A special report of the "Medical Transactions in Natal and the Transvaal during the Boer Rebellion of 1880-81," by Surgeon-General Holloway, C.B., was published in the Army Medical Department Report for 1880, which appeared a year ago. In the latter part of the year 1881, enteric fever prevailed in the Newcastle district; altogether there were 244 admissions of this disease, followed by 39 deaths. The Principal Medical Officer remarks that the fever was "attributable to a polluted water-supply, consequent on the rains, which washed impurities into the rivers. From the prolonged occupation of the district by Europeans and natives, almost every available camping-ground had become contaminated, and the place was almost covered with latrines. This in no small measure aided in reducing the vital powers of the men, already lowered by want of fresh vegetables and good food, in a place where little or no amusement was to be found, and of which the general barren aspect was sure to depress the highest spirits." The following observation has interest. Among the troops at Bennett's Drift and Ladysmith, 25 cases of scurvy appeared, owing to a deficient supply of fresh vegetables. The Principal Medical Officer noticed that the natives, who live almost entirely on crushed maize, were free from scurvy, and consequently recommended its issue to the troops in default of vegetables. A decided improvement resulted; and it is suggested, as worth consideration, whether maize should not always form a part of field-rations.

A return at the close of the statistical report shows how large a portion of the British army must annually pass part of their service at sea. During the year 1881, 43,712 men spent a portion of their time on board ship. Of this number, 17,744 were troops proceeding on service abroad; 13,755 belonged to corps returning from abroad; 8,323 were men of corps or detachments passing by sea from one command to another; and 3,890 were invalids returning to England. The sanitary condition of the troop-ships and transports is reported to have been satisfactory in nearly every instance.

The important papers in the Appendix, relating to the Egyptian campaign of last year, must be left to form the subject of a future notice.

DISEASES OF THE BRAIN AND SPINAL CORD. By DAVID DRUMMOND, M.A., M.D., Physician and Pathologist to the Newcastle-upon-Tyne Infirmary. 1 vol. 8vo., pp. 374. London: Kimpton.

THE growing interest taken in nervous diseases, which, with the study of germ-diseases, have divided the attention of recent workers, is shown by the great number of publications designed to guide the student's and practitioner's steps towards an understanding of the new doctrines. The ordinary handbooks of medicine are not remaining behind, and the most superficial reader will perceive the change that has taken place by comparing the chapter on Nervous Diseases in the recent manual of Bristowe, for instance, with the former classics. The works of Gowers and Bramwell on the spinal cord are models of exposition and illustration within the limited field they are intended to cover, whilst the comprehensive treatise of Ross is by far the best book of its kind in any language. The editions rapidly succeeding one another of these and other recent English neurological productions naturally invite fresh authors to place themselves in the ranks.

Dr. DRUMMOND'S book, originally written for the *Student's Journal*, is one which, within its limits, deserves to be recommended. Its aim is simply to furnish those whose opportunities do not allow them to read the larger or more special works with a compendium of nervous diseases, at least of some nervous diseases, for all neuroses (except epilepsy) are passed under silence, such as hysteria, chorea, paralysis agitans, etc.; and among organic diseases we look in vain for cortical lesions, which, if of no pre-eminent practical import, are of great value from an "educational" point of view, and might have been mentioned had it even been at the expense of the chapter on Thrombosis of the Cerebral Sinuses, which occupies nine pages. The chapter on General Paralysis is by Dr. McDowall. Whilst agreeing with the writer on the error too generally made in not including this disease in every systematic work or course of lectures on diseases of the brain, we would point out that the mistake has been corrected by Bristowe, who, in his last edition, has most wisely inserted a short chapter on mental diseases. The gap between psychical and the somatic manifestation of cerebral disturbance tends, with every advance of neuro-pathology, to become less wide, and a general knowledge of mental symptoms is necessary to every student of brain-disease.

The statements contained in Dr. Drummond's book are accurate, and evidently based upon a close study of the works of Charcot, Erb, and other masters. There is but little room for originality in a compendium. On the other hand, a good eye for perspective is required, and the relative importance of the several subjects and their component parts is ever to be kept in view. In this the author has been successful. The illustrations are occasionally rough, but to the point. He might, however, have omitted the motor points, and pictured a better form of faradic machine than he has done, and given whatever credit they deserve to the original makers instead of the imitators. We agree with a criticism recently passed by Dr. de Watteville upon the electro-diagnostic terms *kathodal* and *anodal*, which should be *kathodic* and *anodic*, according to the ordinary rules of derivation.

We cannot, however, enter into detailed criticism of the work before us; and we prefer, in conclusion, to say that we usually agree with Dr. Drummond when he has the opportunity of expressing a personal opinion, *e.g.*, when he recommends the name "inhibitory," instead of "hysterical," paraplegia.

We wish every success to the book, and recommend it as a pleasant and safe guide to those for whom it is intended.

NOTES ON BOOKS.

Lectures on Cataract: its Causes, Varieties, and Treatment. By GEORGE COWELL, F.R.C.S. London: Macmillan and Co. 1883.—These lectures, which were originally delivered as a course at the Westminster Hospital, give in a short form an agreeable and lucid summary of the present state of knowledge in regard to cataract. After an account of the various modes of operation, beginning with couching, the author describes the modification of von Gräfe's operation, which he has found to be attended with the most success. He is an advocate of the use of anæsthetics, and is of opinion, despite the opinions of Horner, Raymond, de Wecker, and others, that nothing is gained by the adoption of the antiseptic method in cataract-extraction.

A Treatise on the Diseases of the Eye. By HENRY D. NOYES. London: Sampson Low, Marston, Searle, and Rivington.—This book displays a great deal of originality, the author's personal experience being clearly apparent in most of its pages. Nor does he fail to introduce in due proportion the conclusions and researches of the latest authorities; witness, for example, the numerous references and the tables in the chapter on Strabismus. The woodcuts are fairly good, but this is more than can be said of the ophthalmoscopic plates, which are not only few in number and small, but poor in colour and execution. Notwithstanding this and other trifling defects, we can cordially commend the book as one of the best, if not the best, of the larger manuals in English of the diseases of the eye.

Some Debatable Questions and How to Solve Them. An address delivered at the opening of the session 1883-4, before the Birmingham and Edgbaston Debating Society, by SAMPSON GAMGEE, F.R.S.E., President of the Society. Printed for and by order of the Society. Birmingham: Cornish Brothers, 1883.—This is an extremely interesting and well-written discussion of many questions of physical and moral education, with an *excursus* in defence of experimental physiology.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 15th, 1883.

THE RESULTS OF THE FRANCO-EGYPTIAN CHOLERA-COMMISSION.

A FEW weeks ago, we placed before our readers a summary of the Report of the German Cholera-Commission in Egypt. We now propose reproducing the salient features of the report which has been submitted to the French Minister by M. Straus, writing on behalf of himself and of the other members of the Commission—MM. Roux, Thuillier, and Nocard—which had been sent to Egypt by the Government of France.

The Commission reached Alexandria on August 15th, and were able to conduct twenty-four necropsies of persons who had died of cholera. Seven of these persons were males, and seventeen females—five of whom were either pregnant or had been recently confined. The ages ranged from 5 to 54 years. The disease had run a rapid course in fifteen of the cases—death having occurred in from ten hours to three days from the commencement of the attack. In some instances, the necropsy was conducted immediately after death, and in all cases the examinations were conducted, at the latest, within fourteen hours. The microscope showed that the vomited matters, the intestinal discharges, and the contents of the intestinal canal, when examined after death, contained such a great number of organisms—bacteria of various sizes, mobile and immobile; micrococci, isolated, linked, and in zoogloœa-colonies—that it was found impracticable to select any special micro-organism as being the real cause of the disease.

Sections of spirit-hardened pieces of intestine were stained with an aqueous solution of methylene-blue, then dehydrated in alcohol, cleared in oil of cloves, and mounted in Canada-balsam in the usual way. In preparations thus treated, it was observed that the epithelial lining of the mucous membrane and of the villi had disappeared—a condition ascribed in part to the action of the alcohol used in hardening the tissue, and in part to the disease, though the epithelium of Lieberkühn's glands was retained. The villi and the reticulated tissue of the mucous membrane were found to be infiltrated with nuclear elements, especially in the ileum and in the vicinity of the ileo-cæcal valve, in those cases in which the disease had been of some duration, and had presented a hæmorrhagic appearance. A variable number of divers kinds of micro-organisms were found in the tubular glands, in the villi, in the intertubular connective tissue, and, here and there, in the submucous tissue, according to the particular part of the intestinal canal examined, and the duration of the disease.

Of these micro-organisms, bacilli of various kinds were the most numerous. Some were long and slender, and, as regards length, reminded the observers of the bacillus found in charbon; others were short, and of some width. One of the forms which was most frequently met with was a slender micro-organism which resembled the bacillus of tubercle, and was a form which manifestly predomi-

nated in some places—either forming nests or prolongations which extended as far as the submucous tissue, but without ever penetrating the blood-vessels or the muscular coat. It is this micro-organism which, the Commission say, is "without doubt the bacillus which M. Koch describes in his report, and which he compares to the bacillus of glanders, and which, moreover, he manifestly is inclined to look upon as *l'organisme charactéristique* of cholera."

This entero-mycosis was found to be more marked towards the lower end of the small intestine, but it existed in certain cases, though in a less degree, in the jejunum and duodenum. As the necropsies were performed early after death, it was considered improbable that their presence was due to *post mortem* changes; on the other hand, it is suggested that a mucous membrane which had been denuded of epithelium during life might easily be invaded by any of the organisms which were contained in the fluid in which it was macerated. It will be recollected that we ourselves suggested a similar explanation of this phenomenon when referring to the researches of the German Commission, and pointed out that in many cases the vitality of the intestine was manifestly very materially diminished, and this often for several hours before the death of the patient.

Moreover, the variety of organisms which were met with in the preparations aroused the strongest suspicion in the minds of the members of the Commission, that the invasion of the intestine by micro-organisms was a secondary phenomenon; and, with regard to the particular form which had reminded them of the bacillus tuberculosis, all that could be inferred was, that the intestinal canal in cholera furnished a more suitable medium for its development than it did to the other and less numerous organisms which were associated with it. The Commission think that, had any causal relation existed between this particular micro-organism and cholera, it ought to be found in *all* cases of the disease; which, according to the experience of the French observers, is not the case. Micro-organisms were only found to abound in those instances where the disease had been of long duration, and which were combined with hæmorrhagic extravasations into the intestine. In three cases of an extremely rapid type—*choléra foudroyant*—where death had resulted in from ten to twenty-four hours, and where the intestine was pale rather than congested, they were unable to detect any appreciable number of micro-organisms in the intestinal walls. In another case of an extra acute character, the number of bacilli were extremely few, and a great number of sections had to be examined before they were found. "Now, it is precisely in these extraordinarily rapid cases," M. Straus writes, "when the disease manifests its greatest intensity, that the presence of a micro-organism in the intestinal mucous membrane, were it in reality a new and characteristic organism, should be most clearly and abundantly demonstrated."

The search for organisms in the mesenteric glands, the liver, the spleen, and in the kidneys, yielded completely negative results. Sections of the lungs presented organisms of various kinds; but, considering the relation of these organs to the outer air, no importance could be attached to their presence.

The Commission give an account of their examination of the blood in cholera, and draw attention to the existence of certain minute particles which they have detected amongst the blood-corpuscles. They are described as very pale, slightly elongated, and so feebly refractive as to be only with difficulty seen. Sometimes they were found to abound in the blood of the heart, but usually they were found to be more abundant in that of the veins of the stomach, liver, and mesentery. They could not be satisfactorily stained either with gentian-violet or with methylene-blue, and it was found very difficult to make satisfactory preparations of them; the more so because of the risk of confounding them with the precipitated granules of the dye, or with granules which had escaped from white blood-corpuscles. The Commission were not successful in preserving specimens for subsequent exhibition. When tube containing cholera-blood was subjected to a temperature of 38° Cent. (104°Fahr.) for twenty-four or forty-eight hours, the particles, or what is believed to have been these particles, were found (especially at the bottom of the tube, and consequently away from free contact with the air) to have become augmented in number, and sometimes formed little chains consisting of three or four particles.

These particles appear either to have escaped the attention of Dr. Koch and his colleagues, or possibly to have been ignored by them, considering how frequently particulate bodies have been observed even in healthy blood, and even chains of such bodies, when the blood has been kept at a somewhat high temperature for some time; the latter supposition appears to us to be by no means improbable. Some of our readers may remember that, about ten years ago, minute particulate bodies were found by Lostorfer in the blood in syphilis, and that, on "cultivation," rosary, chain, and other forms were developed, but that, after having afforded material for warm controversies for some months in Vienna and elsewhere, they were eventually pronounced to be precipitated particles of paraglobulin, and nothing has been heard of them since.

As regards experiments with animals, the results obtained by the French observers are in complete accord with those obtained by the German commissioners, which, as our readers know, were completely negative. M. Straus mentions that fowls, pigeons, a turkey, rabbits, guinea-pigs, rats, mice, dogs, kittens, and pigs, were made to swallow choleraic vomit and intestinal discharges, without experiencing the slightest evil effects. Four pigs had partaken of considerable quantities of intestinal discharges, as also of portions of the intestines and of the viscera of persons who had died of cholera, without any evil result. In order to bring the animals into a condition which was likely to predispose them to taking the disease, the intestinal canal was irritated by the administration of purgatives. Rice-water discharges and a considerable quantity of choleraic blood were administered to a monkey without any appreciable result. The choleraic material was found to be equally inert, whether administered to the animals in a fresh state, or after having been kept for a few days; whether dried in the air or in carbonic acid. Nor were inoculation-experiments neglected. Subcutaneous injections of rice-water discharges, and of "cultivated" organisms which had been obtained from them, as also of cholera-blood, were resorted to, but did not produce any symptoms of a choleraic type.

CHOLERA AND SMALL-POX IN INDIA.

WE have before us a copy of the "Rules laying down the Measures to be adopted in India on the Outbreak of Cholera or Small-pox," being the Appendix xxxix to the Bengal Medical Regulations, 1882. This publication is issued, not, as one might naturally suppose from its subject-matter, from the office of the Surgeon-General, but from that of the Quartermaster-General in India, Army Head-Quarters, Simla. When, however, the rules are looked into, the reason of this becomes sufficiently apparent; they are issued, not for the guidance alone, or even chiefly, of medical officers, but of general officers commanding divisions, senior officers of stations, and regimental commanding officers—a class to whom orders cannot be issued by medical officers, whatever their relative rank may be. The rules, however, although promulgated to the army in India by the highest military authority, emanate from the Government of India; and, except in matters of mainly military detail and procedure, are evidently drawn up by one or more medical officers in the confidence of Government.

The new rules supersede all former orders on the subject, including those known in India as Sir Hugh Rose's, because they were issued during that officer's command, although in reality drawn up by a Cholera-Commission, with a due proportion of medical members.

We may with truth say that the rules under notice are, without exception, the most complete and exhaustive ever issued to the army on a sanitary subject; they are precise on every point; and where discretion is left to those in authority, every departure from the letter of the regulations has to be accounted for to the commander-in-chief, and good and sufficient reasons given for the same. As we might expect in a code of rules to be acted on without hesitation, all disputable and theoretical matter is excluded. Rightly, as we think, in the present state of knowledge, it is assumed, from the first page to the last, that sanitation—taking the term in its widest sense—if energetically carried out, can do much to confine cholera and small-pox epidemics, so far, at least, as British soldiers are concerned, within narrow limits.

The attention of all concerned is emphatically called, at the very outset, to the conservancy and sanitary condition of all barracks, stations, and bazaars; and the authorities are held responsible that they should be preserved in a state of constant preparation to meet a danger which may come at any time. Precise instructions are given to prevent crowding in hospitals and barracks, and the means of doing so, by an abundant supply of tents, are placed at the disposal of commanding officers and medical authorities in the hot season, or when an epidemic threatens. The early treatment of premonitory symptoms is insisted on as of vital importance, particularly looseness of the bowels; and detailed instructions are given for the exercise of the utmost vigilance for the detection of this symptom; instructions which, if carried out by those concerned, cannot fail to save many valuable lives. The civil authorities are charged with the duty of keeping the military informed of the approach of cholera, day by day, and a simple telegraphic code is even supplied for use for this purpose, and for keeping the commander-in-chief informed, day by day, of the number of cases and deaths, should the disease appear in a military station.

Nothing, we think, can be better than the measures ordered to be taken when an outbreak occurs. Here nothing is left to chance, or the caprice of officers in command. As in Sir Hugh Rose's rules, flight from the tainted area lies at the root of these measures. What are called "preparatory camps," are ordered to be always kept in readiness; and, that there may be no confusion and no delay when the necessity for movement arises, the Commissariat Department, in connection with the civil authorities, are directed to make such arrangements that carriage may be at once available when required. Nothing connected with the "preparatory camps," and the sanitary arrangements regarding them—the disposal of the tents, the conservancy of latrines, the water-supply—is left to chance; all contingencies are provided for by orders at once precise and simple; and whether men be treated in camps or in cantonments, the hospital-arrangements, the nursing, the diet, the supply of extra articles, of attendants, native and European, are all provided for. Medical officers have not to be, as was too often the case in former days, left dependent on the good will of military and commissariat officers for the supply of what they require for the right discharge of their arduous duties, thus adding immensely to their trouble and anxieties. Our space will not allow us to notice many other equally important rules and directions given for the guidance of military and medical officers in the difficult circumstances in which invasions of cholera place them, particularly where there is a conflict of authority, and the fear of responsibility in taking measures to minimise the suffering and death inseparable from such visitations. It is painful to reflect on the vast amount of "experience" (that dear school), that was needed before this complete code of rules and orders was excogitated. But, better late than never; and we congratulate the officers, non-commissioned officers, and soldiers, and the medical staff of the army, on the promulgation of the rules we have thus briefly noticed; rules which, if carried out in letter and spirit, will, we are confident, save many valuable lives.

THE NUTRITIVE VALUE OF THE FOOD-STUFFS.

THE researches of Pettenkofer and Voit on the nutritive value of albuminates, fats, and carbohydrates, and the part that each plays in the economy of digestion, metabolism, and nutrition, will long take their place among the most brilliant examples of the triumph of the true scientific method, *i.e.*, of experiments ingeniously conceived and carefully carried out, so as to exclude or to neutralise each possible source of error, over the crude experiment, whether presenting itself casually, or undertaken without previous adequate precautions, and the other alternative of deductive speculation, as seen in the observations or experiments of Beaumont, Bidder and Schmidt, etc., on the one hand, and the attractive but dubious conclusions of Liebig and Frankland, on the other; none of which are to be considered free from sources of error.

But, if one were to judge from the way in which not merely popular but more serious books on physiology and hygiene, nay even university examination-papers, occasionally refer to flesh-forming foods, to respiratory foods as sources of heat, and to the relative quantity of energy contained in given weights of any aliment, one would think that they were still unknown in this country. Yet the practical value of their results is so great, and the consequences of acting on the hypothesis of the aforesaid speculators might be so serious, that it will not be a waste of time to review the present state of our knowledge on the subject of dietetics.

Liebig, whose fertile imagination led the way to discoveries of the highest importance, although the same discoveries often brought about the rejection of the hypothesis which first suggested the lines of investigation, proposed the earliest rational doctrine of nutrition. In his researches on the food of plants, which have revolutionised agriculture, created new industries, and increased the food-producing capabilities of the old world, he showed that we could learn from the composition of the vegetable-ash what minerals entered into the constitution of the plant, and, by supplying them in the right proportions, enable almost any soil to carry any crop. From this he reasoned to the animal, with this difference, that the latter must have its food provided already in the complex organic forms of the albuminates, carbo-hydrates, and fats. Since nearly all tissues contained nitrogen, it was evident that they could be built up and restored only by nitrogenous materials; that is, that albuminates alone could be applied to tissue-formation. So far he was right; but, when he began to speculate as to the actual processes of nutrition, he went wrong.

Recognising in metabolism the only source of functional activity, he assumed that each organ, in the exercise of its functions, consumed a certain proportion of its substance, and that, consequently, albuminous nutriment must be provided in direct proportion to the activity put forth. Albuminates he distinguished as plastic or flesh-forming food; the fats and carbo-hydrates he considered to be no more than fuel for the production of heat, and he therefore called them respiratory food.

According to this theory, the elimination of urea should be proportioned to the amount of energy put forth, and also to the quantity of albumen in the food. But such is not the case. For a short time, the difficulty was met by the theory of luxus consumption, which assumed that, when more albumen was ingested than was required for the repair of the tissues, the excess underwent combustion in the blood with evolution of heat, thus playing the part assigned to the carbohydrates and fats. The measure of the necessary albumen was inferred from the excretion of urea observed during abstinence from all nitrogenous food.

Moleschott raised the first protest against the speculations of the famous chemist; but it was Voit who demolished the whole theory, by showing that albuminous metabolism is not increased by exercise, and that the albumen metabolised by a fasting animal is insufficient, even when combined with the due proportion of carbo-

hydrates and fat, for the maintenance of life; while severe muscular exercise does not augment the excretion of urea, though it does that of carbonic acid enormously.

Voit's experiments clearly point to the conclusion that the greater part of the albumen taken in the food is accumulated *pro tempore* in the general fluids of the body, whence so much is withdrawn by the tissues as is required for their repair, and that this fluid albumen is far more easily metabolised than that which has already entered into the structures. In a previously well-fed dog, the daily excretion of urea during the first days of fasting, was no less than sixty grammes; but when the stock of free albumen was exhausted, it sank to ten or twelve; while, in one that had not previously had more than was necessary for the maintenance of the *status quo*, the excretion never exceeded fourteen; since the hardly metabolised organised albumen had to be drawn on almost from the first. The increased excretion of urea, in certain pathological conditions, is owing probably to the loosening, as it were, of the bonds of the albumen in the tissues, which is thus brought into the easier metabolised condition of the dissolved albumen. In health, a certain excess of albuminous food above the actual needs of the tissues—in other words, an ample stock of albumen, dissolved in the juices of the body, appears necessary to great functional activity, and to afford the power of resisting injurious influences, as exposure to the elements or to disease; but if the ingestion of albumen be continued in greater excess, the surplus is immediately subjected to metabolism, the excretion of urea depending on the albumen ingested, and not on the amount of muscular activity as Liebig supposed. Yet albuminous metabolism can never be entirely suspended, and is practically the same in animals fed entirely on non-nitrogenous food, as in those actually starving. Albumen alone can, however, maintain life, though not health, for a considerable time, and can thus replace the fats and carbohydrates, whereas the converse is not the case.

The experiments of Pettenkofer and Voit, of Plosz and Györgyai, Maly, Latschenberger, and others, tend to the conclusion that peptones can entirely fulfil the functions of albumen, while they are more easily metabolised than the unaltered albumen, whereas gelatin can replace it so far only as regards metabolism, being incapable of entering into the formation of the tissues. The clinical value of these facts is obvious.

The impulse to metabolism seems to proceed from the cells themselves, and to be more of a vital than of a chemical character; the oxygen combining rather with the products of the splitting up of the food-stuffs than directly and primarily with them, as Liebig taught. Thus, in the opinion of Fränke, an increased destruction of tissue is actually induced by a deficiency of oxygen in the system; at any rate this is certain, that there is little or no relation between the facility with which any given substance combines with oxygen, *i.e.*, burns in the air, and under the totally different conditions under which it finds itself in the animal body. Thus fats are clearly less easily metabolised than carbohydrates, and albuminates are far more so than their slow combustibility would lead one to anticipate. Albumen splits up into products, one of which is fat, and the others, immediately or remotely, carbonic acid and water. It is, therefore, the probable source of the fat stored up in the body; and the apparent fat-producing power of carbo-hydrates is owing to their easy metabolism effecting a saving of the albumen which would otherwise have been employed in the production of heat and force.

Experiment on the living animal shows this very clearly; for instance, a dog which, on a diet of 1,000 grammes of pure flesh and 500 of fat, gained weight for over a month, began to lose weight when the flesh was increased to 1,500 grammes without a corresponding increase in the non-nitrogenous food. And again, Frankland's estimates of the energy contained in equal weights of each article of food, based on the heat given off in their combustion, are not confirmed by experiment or by common experience. These points cannot be determined *a priori* by chemists, but must be decided by carefully conducted physiological experiment. It is, we repeat, by the influence exerted on the vital cell-processes that metabolism is increased or diminished, rather than by an act of substitution; thus, while alcohol, the most combustible out of the body of all foods, but by no means the most easily metabolised in it, in large doses depresses that action and lessens tissue-change, albumen, hard to burn, but most easy of metabolism, excites it almost in direct ratio to the quantity ingested, or, rather, to the proportion it bears to the other food-stuffs. We are far from maintaining that every conclusion of the Munich physiologists is beyond criticism, but they are clearly working in the right direction, and their results must lead to a great change in our views and practice, especially in the dietary of the sick-room, and in our ideas of the value and action of alcohol.

NERVE-STRETCHING.

In the Bradshaw Lecture, which is published in our present number, Mr. Marshall has shown himself to be a strong advocate of the new operation of nerve-stretching for the relief and cure of pain. British surgeons are ever cautious about introducing novel operations, especially those which, like nerve-stretching, are largely based upon theoretical grounds. In February 1881, we recorded a case where Mr. Marshall stretched the great sciatic nerve on the right side, in a man suffering from locomotor ataxy. Nearly three years have passed by, and nerve-stretching still has the high sanction of the present President of the Royal College of Surgeons of England. The risk attending an operation is the first question discussed by competent critics; Mr. Marshall believes that the dangers of nerve-stretching are comparatively few. The lecture included a very able review of the scientific aspect of the subject. It was shown that a long piece of nerve will stretch more, relatively, than a short one, according to a law observed in other extensile tissues. A stretched nerve is now known to recoil, and the extensibility of a living nerve is greater than that of a dead nerve, a fact ever to be borne in mind by experimenters. Nerves bear a far greater amount of stretching than would at first sight be supposed; the slender branches of the fifth cerebral nerve will bear a weight of from six to twelve pounds before breaking, whilst the great sciatic will bear about one hundred and eighty pounds—though the lecturer did not recommend that a force at all approaching this should be employed in practice. These facts have a highly practical bearing, as an operator, especially if inexperienced, has a natural dread of breaking a nerve which he is stretching, and, therefore, is liable to confine himself to subjecting the nerve to a degree of tension insufficient to produce good results, and, indeed, capable of causing evil effects. A diseased nerve, he is aware, bears less stretching than a healthy one. But, as Mr. Marshall demonstrated, a personal experiment with the dynamometer is sufficient to show any operator how difficult it is to apply to a nerve a weight of thirty pounds.

The lecturer dwelt also on the microscopic appearances of stretched nerves. In specimens prepared by Mr. Horsley, the fibres of the nerve-sheath or epineurium, naturally wavy, appear quite straight, the bundles of tubules are compressed, and the spaces, probably lymphatic, between the perineurium and the fasciculi which it invests, are obliterated. On examining an individual tubule from a stretched nerve, it is found that the natural segmentation of the medullary sheath gives way to an abnormal or irregular breaking-up of that sheath, that sometimes the tubule gives way, and more rarely the axis-cylinder gives way. Degenerative changes follow, and involve the vessels and lymphatic elements in the nerve, external to its tubules Regeneration ensues. Passing to the physiological effects of stretching, it is found that the motor and sensory properties of a nerve are both diminished, but the sensory is the most affected. Slight ten-

sion increases the irritability of a nerve, stronger tension diminishes and extinguishes it, a fact of great practical import. The stretching of a nerve is not mechanically transmitted to the spinal cord; it may, in a manner explained by the lecturer, shake the cord, but even then no change of tension is found in the intrameningeal part of the nerve, nor any in the tubules within the cord.

Turning to practical results, Mr. Marshall considered that the fact cannot be doubted that nerve-stretching does and will cure neuralgia. The explanation of this good result lies, to a certain extent, according to the lecturer, in the stretching and partial destruction of the *nervi nervorum* in the sheath of a nerve. Mr. Marshall is a believer in the existence of these nerves that supply nerves. They are liable to irritation at certain points where the nerve to which they are distributed passes round a bone or out of an osseous foramen; hence some of the phenomena of neuralgia may be explained, for, were the tubules of the main nerve the seat of that disease, the pain would hardly be so localised, but would be transferred by the consciousness to the extremities of the tubules. The value of nerve-stretching in tabes is less easy to comprehend. The disease is central, and, as experiments above alluded to have shown, the substance of the spinal cord is not affected, mechanically, by the tension, but it affects the ganglia of the cord, and produces an excitation of the vaso-motor centres, or trophic centres; and to the reaction that takes place in the changes thus produced in the nerve-elements, we must look for the explanation of the benefit obtained from nerve-stretching in cases of tabes or locomotor ataxy.

Mr. Marshall, towards the conclusion of his lecture, spoke of the stretching of nerves by flexion of a limb without the use of the knife, as advocated by Trombetta and Billroth. The actual stretching in these cases has been proved by experiment, and very satisfactory results have been obtained.

The Bradshaw Lecture at the Royal College of Surgeons of England in 1883 is not only an eloquent discourse, but a most valuable essay wherein an operation still new to surgery has received the approval, on grounds publicly demonstrated, of a leading metropolitan surgeon.

AT a recent special meeting of the professors of the Paris Faculty of Medicine, M. Rendu was chosen as a candidate for the chair left vacant by the death of M. Parrot.

AN anonymous letter has been sent to the Secretary of the Swansea Hospital, enclosing the welcome gift of Bank of England notes for £1,185, to be invested for the hospital.

PROFESSOR CHARLES A. DOREMUS read recently, at the Medico-legal Society of New York, a report of a toxicological examination for arsenic, prepared by Dr. John J. Reese, professor of toxicology in the University of Pennsylvania, and incidentally alluded to the importance of guarding against the addition, by coroners or others, of alcohol as a preservative, or any other substance whatever, to parts to be submitted to the chemist for analysis, on account of the danger of the analysis being thereby invalidated.

DAMAGES FOR ACCIDENTS DURING ANÆSTHESIA.

LEGAL proceedings have recently been taken against a dentist in New York city, for negligence in allowing a piece of tooth to drop into a patient's throat. After causing the patient to suffer from troublesome fits of coughing, the tooth was expectorated at the end of a month. A verdict was found for the plaintiff, and the defendant was obliged to pay five hundred dollars damages, and on appeal the judgment was sustained. This recalls the case of a boy who died while under the influence of nitrous oxide gas, being suffocated by a molar tooth which slipped out of the forceps and became impacted in the larnyx. In such cases, a dentist should be both competent and willing to perform tracheotomy, for the patient will generally die of suffocation before a surgeon can be summoned.

UNQUALIFIED ASSISTANTS.

RECENTLY, in the Court of Queen's Bench, the names of William Brame Abbott and William Hicks, solicitors, were ordered to be struck off the rolls; these gentlemen having allowed Edward Lewis and James Osborn, both unqualified persons, to act in their name. Lewis and Osborn were sentenced to six months' imprisonment. Evidently, therefore, the employment of unqualified assistants is, in the legal profession, treated with a severity unknown in our own.

METROPOLITAN HOSPITAL SUNDAY FUND.

A MEETING of the constituents of this fund will be held in the Egyptian Hall of the Mansion House, on Monday, December 17th, at 3 P.M. The business of the meeting is to receive and approve the report of the Council for 1883; to elect the Council for the year 1884; to determine the date of next Hospital Sunday; and to transact annual general business.

THE DERMATOLOGICAL AND SYPHILOLOGICAL SOCIETY OF LONDON.

THE Committee, at their last meeting, held on Thursday, the 6th inst., decided to name this Society the "Willan Society of London," after Willan, the father of English dermatologists. It was also decided that the objects of the Society should be the exhibition and demonstration of patients, drawings, models, specimens, microscopic and otherwise, illustrating diseases of the skin and venereal diseases; and the reading of papers and discussions on subjects on dermatology and syphilis.

THE PHYSIOLOGICAL ACTION OF COFFEE.

ACCORDING to the result of experiments, recently made by Messrs. Couty and Guimaraès, to ascertain the precise physiological action of coffee, that beverage is not a preventer of tissue-waste. The maintenance of nutrition is, no doubt, improved by its consumption, as Gubler asserted; but simply because it involves an increased assimilation of nitrogenous food through improving the appetite, when not taken in excess, and thereby encouraging its consumer to take nutritious food.

ROYAL COLLEGE OF PHYSICIANS.

THE lectures of 1884 will be delivered at the College, Pall Mall East, on each of the following Wednesdays and Fridays, at 5 o'clock. The Gulstonian Lectures, by Dr. Clifford Allbutt, on March 7th, 12th, and 14th; subject, Chapters on Visceral Neuroses. The Croonian Lectures, by Dr. Hughlings Jackson, on March 19th, 21st, and 26th; subject, Evolution and Dissolution of the Nervous System. The Lumleian Lectures, by Dr. James Andrew, on March 28th, April 2nd, and 4th; subject, Etiology of Phthisis. We are informed that the President has appointed Dr. Russell Reynolds to deliver the Harveian oration.

THE ALICE MEMORIAL HOSPITAL.

THE *Times* correspondent at Darmstadt announces that the Alice Memorial Hospital, constructed on the most advanced sanitary principles, was ceremoniously opened on December 8th, in presence of the Grand Duke and all the members of his family. The Grand Duke received the keys from the architect, and handed them, with a few appropriate and moving words, to the Lady-Superintendent of the nurses. In the opening speech full justice was done to the piety, the charity, the benevolence, and other noble qualities of the deceased Princess; while thanks were also expressed for the generous contributions to the Memorial Fund from England and India, as well as from the Queen and the members of Her Majesty's family,

and from the German Emperor and Empress. A letter was read from the German Crown Princess, expressing her warmest sympathy with the undertaking, and her good wishes for its success.

THE CHILDREN'S HOSPITAL, BIRMINGHAM.

AT a meeting of the Election Committee, held on December 10th, Dr. Richard Drury, whose promotion was unopposed, was appointed acting physician, in succession to Dr. Jordan. Dr. Drury has already served the charity for several years as one of the extra acting physicians. At the same meeting, after a sharp contest, Dr. Richards and Dr. Ann E. Clark were elected extra acting physicians. For the latter appointments, there were nine candidates, and the election has been regarded with considerable interest in professional circles

THE MEDICAL SOCIETY OF LONDON.

ON Monday next, December 17th, Sir Andrew Clarke will read a paper on "Catheter-Fever." The subject, it may be remembered, was raised by him at a recent meeting of the Clinical Society, but failed to give rise to much discussion, owing probably to the fact that the members had received no notice that the subject would be referred to. The paper on Monday next will be followed by a discussion, to be opened by Sir Henry Thompson; and the occasion will, no doubt, be one of unusual interest.

LONDON FEVER HOSPITAL.

THE first instalment of a block of separate isolation-wards and private rooms has just been completed at the London Fever Hospital, and they represent all that is most modern as regards the sanitary and other requirements of such hospital accommodation. They stand at the back of the general hospital buildings in the Liverpool Road, Islington, and, before occupation, they will be on view between 1 and 5 P.M. to-day (Saturday).

LAY NURSES IN FRENCH HOSPITALS.

THE Hospital Council of Paris has voted that the Necker Hospital be provided with lay nurses, and the sisters of charity be removed. M. Desprès, a French hospital surgeon, sends to the *Gazette des Tribunaux* a letter he addressed to the Préfet of the Seine to protest against this change, highly unpopular amongst a large section of the medical officers of Parisian hospitals.

COPPER AND CHOLERA.

M. VULPIAN presented to the Académie de Médecine a note from M. Bochefontaine, which states that, after a careful investigation of different districts densely populated by copper-workers, he ascetained that these districts have not been exempt from epidemics of cholera and typhoid fever, and mentions the instance of the coppersmiths of Villedieu, among whom, some time ago, there appeared a severe epidemic of that disease. M. Bouley has presented to the Académie des Sciences M. Burq's report of his inquiry among large copper-factories. It contains a great deal of concordant evidence that copper-workers are exempt from cholera and infectious illnesses, the report, therefore, differing entirely from M. Bochefontaine's note.

THE AMENITIES OF ANTIVIVISECTIONISTS.

WE call attention to the case of Adams *versus* Adlam, Cobbe, and others, published this week in our medico-legal columns. It illustrates not only the tendency of antivivisectionist associations to quarrel with each other, but also the want of harmony amongst the members of each individual association. It tends to prove that the humanity of an antivivisector is confined to animals, and does not extend to man, as in a choice specimen of polite correspondence addressed by one of the defendants, a well-known lady enthusiast, to the plaintiff, hope was implied that "the old impostor," Professor Owen, would be killed by a course of the vigorous invectives of the plaintiff, who "knew nothing of all this six months before."

THE TREATMENT OF TUBERCULOSIS BY ARSENIC.

IN the *Centralblatt für die Med. Wiss.*, of November 24th, the results obtained by three observers, who have treated tuberculosis with arsenic, are given. G. Kempner treated very unfavourable cases with arsenious acid, raising the amount gradually to ten milligrammes (one-seventh of a grain) daily. The local processes were not apparently altered. The drug could not be regarded as an antipyretic, since it did not cause lowering of temperature independently of disease; but, on the other hand, the subjective condition, especially as to appetite, was much improved by the use of arsenic, so that the general condition was often really better, and there was relative lowering of fever. Of twelve patients, in whom loss of weight would have occurred if allowed to run their own course, only two, in fact, lost weight. The author thinks that the use of arsenic in phthisis would bear favourable comparison with the most costly hygienic mode of treatment. H. Lindner also observed no distinct influence upon the fever from arsenic, but a favourable one upon the quantity and kind of expectoration, a distinct improvement upon the general condition, with lessening of night-sweating, and an increase of bodily strength, following upon decided improvement of the appetite. Although he only obtained transitory improvement in his cases, which included tuberculosis, diseases of the bones and joints, also lymphoma and lupus, Lindner advises further clinical trials. R. Stintzing gave arsenic in daily amounts of two to ten milligrammes ($\frac{1}{30}$ to $\frac{1}{7}$ grain) in sixteen cases of phthisis, of which three were light, eight were moderate, and five were severe; so that, in from three to nine weeks, between 120 and 420 milligrammes were used (nearly two grains to six and a half grains.) The consequences were throughout unfavourable, judged collectively by the objective phenomena.

HORSE-AMBULANCE CARRIAGE OF THE ST. JOHN AMBULANCE ASSOCIATION.

WE recently had the opportunity of inspecting, in the courtyard of Sir Richard Wallace's house in Manchester Square, a new "horse-ambulance carriage," which has been presented to the St. John Ambulance Association by a member of the Committee. This ambulance is intended for use in the metropolis, and will be stationed at the office of the Association, St. John's Gate, Clerkenwell (within five minutes' walk of Farringdon Street station on the Metropolitan Railway). The carriage is constructed of English and American ash, varnished, but not painted; it has thus, at the first glance, a bright and cheerful appearance, which is in pleasing contrast with the funereal aspect too often given to ambulances. Three patients, on stretchers, can be carried in it, two on the floor of the carriage, the third suspended in a simple and ingenious manner, which permits of the stretcher being run forward, without lowering, until it is sufficiently free of the carriage to be securely grasped by the second bearer standing on the ground. If one or two patients only be carried, two attendants can travel in the carriage. The carriage is slung on ordinary carriage-springs; no springs are introduced into the construction of the stretchers, experience having shown that their use in that situation is not advisable. The stretchers fold together in a narrow compass, and are constructed so as to fit, when open, the two-wheeled ambulance-litter used by the Association. The carriage-ambulance and the hand-litters are available for the use of any person who may choose to apply at the office of the Association, and the terms demanded are extremely moderate. In the case of the necessitous sick or injured, the Association will make removals at reduced rates, or even gratuitously. The ambulance-carriage has been made by Messrs. Marshall Brothers, of Ash-

ford, under the direction of Mr. John Furley, the Honorary Director of Stores to the St. John Ambulance Association.

A DANGEROUS POMADE.

In the *Annales de la Société Médicale de Gand*, Drs. Van der Mursch and De Visscher describe the symptoms during life, and the results of the necropsy, met with in a child two years of age, who died in five hours from swallowing half the contents of a bottle containing 150 grains of nitro-benzine, procured by its mother for making pomade. The dangerous nature of this highly poisonous liquid is too little known, notwithstanding that deaths from its use are become by no means uncommon. The symptoms observed in the above case were, first, somnolence, followed by agitation, delirium, and convulsions. There was no disturbance of the digestive organs.

MUNIFICENT ENDOWMENTS.

A FIRST list of donations to the endowment fund of the newly founded Jaffray Suburban Branch Hospital, near Birmingham, which has just been published, shows the handsome total of £21,299. This munificent sum includes one donation of £2,000, and thirteen of £1,000 each. This first list, which marks so liberal and so prompt a recognition of the claims of the Birmingham General Hospital for special support at the present time, is independent of the endowment-fund opened by the Mayor at the Council-House, and from which substantial results may also be expected. It is estimated that an annual income of from £2,500 to £3,000, representing a capital sum of at least £60,000, will be required to maintain in full efficiency the new hospital of fifty beds which Mr. Jaffray has provided. Besides the donations we have announced, new special annual subscriptions, amounting to £76, have been already promised.

"SQUALID BRISTOL."

MAKING every allowance for the exceptional sanitary skill and experience of Mr. Davies, the health-officer of Bristol, it is a little difficult to follow him in the opinion which he "deliberately expresses," that there is not in Bristol "any area to which the present Artisans' Dwellings Act can be applied." The report of the last meeting of the Bristol Sanitary Committee, at which the recent public revelations as to the housing of the poor at Bristol were discussed, is indeed in many respects very curious reading. The health-officer blamed the writer of some articles on the subject in a local daily paper, because he did not specify names of houses, and give the cubic dimensions of the rooms where overcrowding was alleged. But, so far as can be made out from his report, Mr. Davies does not deny the existence of the conditions to which public attention has been drawn, and his dictum as to the unapplicability of the Artisans' Dwelling Act is therefore a little surprising. It seems to have been too easily assumed by the committee that the evils arising from the too close aggregation of the poor were not such as they had any power to cope with. The general tone of the meeting was reflected by the chairman, when he remarked, "that if they could satisfy themselves that nothing could be done in addition to what the committee had already ordered, he believed it would be a satisfaction to each one of them." It is fair to say that this optimist view of the situation was not universal, for one member has succeeded in obtaining a discussion on the question at the next meeting of the committee. It is hard to believe that in a place like Bristol there can be no scope for the action of the sanitary authority in the improvement of the houses and surroundings of the poor. There is much truth in what Mr. Davies says as to the committee "having no power to improve the habits of the people, to wash them, or to lodge them"; and no doubt the fallacy needs to be exploded, that you have only to provide the helots who are in question with clean and habitable homes for them forthwith to become decent members of society. But with the examples before us of what can be done by an authority conscious of its powers, and determined to exercise them to the full, we must refuse to be convinced that nothing can be done at Bristol for the improvement of the conditions under which the poor are compelled to live.

THE LATE DR. MARION SIMS.

AT the meeting of the New York Academy of Medicine, on November 15th, Dr. F. V. White, the statistical secretary, announced the death of Dr. J. Marion Sims, for many years an honoured Fellow of the Academy. The President, Dr. Fordyce Barker, said that, by the death of Dr. Marion Sims, the Academy of Medicine and the profession of New York, and, indeed, of the whole country, had lost its most brilliant and original genius in the department of surgical gynæcology. If circumstances had forced him into other branches of surgery, his promptness and fertility in practical procedure, his intuitive power of conception of new means to secure any desired result, his endowment of invention, and his wonderful mechanical adroitness, would undoubtedly have secured for him equal eminence in any of its departments. No one, he thought, could be compared to him in his own special field except the late Sir James Y. Simpson, whom, indeed, he closely resembled in many respects. The resemblances of these two great men were much more numerous and striking than their points of contrast. To speak of the greatest achievements of each, the one had won for himself imperishable fame by his courage and ardent zeal, carried almost to rashness, in successfully introducing the use of anæsthetics for the relief of the agonies of parturition, and the other by devising new methods of physical exploration, and new surgical procedures. Both men were incessant zealous workers, who, for many years, were constantly making contributions of positive worth to the store of knowledge of the profession. The former added more to scientific literature, and the latter more to the practice of his art. In concluding, Dr. Barker announced that he would appoint Dr. Thomas Addis Emmet to read a memoir of Dr. Sims at the first meeting of the Academy in January.

PROFESSOR OWEN.

PROFESSOR OWEN, at the ripe age of 80 years, retires this week from the post which he has so long held at the head of the National Zoological Collections, full of years, and with all the honour which is due to a chieftain in science. Professor Owen will have learnt from the grateful public recognition which has been elicited, that his numerous labours as a man of science have been appreciated by those who are best able to form a judgment of them, and that they are known to the great public. For a period of time far beyond that in which men of science are usually able to extend their labours, Professor Owen has continued his epoch-making researches. He has lived to see some of his theories disputed, and some of his conclusions altered. The teleological theory, of which he was, from his earliest days of scientific work, the eloquent and learned advocate, has given way to the Darwinian theory of development, and his theory of archetypes has fallen before the later researches of Huxley, Hæckel, Flower, Lankester and others. But the patient accumulation of facts; the synthetic power which has enabled him to arrange them; the indefatigable research and untiring devotion to anatomical investigations, have made for Owen a place in science comparable only with that of Cuvier. His name is indissolubly connected with the Hunterian Museum of the Royal College of Surgeons of England, which he did so much to re-create; and with the great Museum of Zoology at South Kensington, which is the apotheosis of his labours in connection with the national collections of the British Museum. Only his influence, his indisputable authority, and his indefatigable industry could have succeeded in bringing the great biological possessions of this country to the position

in which he leaves them, and in the monumental building which he succeeded in obtaining from the Government as their home. It may be hoped that he will still, for many years, retain the intellectual power which he has enjoyed for so long a period, and, notwithstanding the infirmities incidental to declining years, enjoy the happiness due to the closing years of a life spent in the service of science and his country. He retires only with the rank of C.B., but we have reason to hope that a distinguished mark of the favour of the Crown will, ere long, be conferred upon him.

WESTON'S WALK.

LAST week we reported that Weston had, on his thirteenth day, walked his daily journey of 50 miles at the Leicester Skating Rink. The preceding day's task having been fulfilled in the same place, the confinement in a covered building seems to have told upon him, for he had two attacks of drowsiness on the thirteenth day; the first in the morning at six o'clock, after having walked for an hour, necessitating 40 minutes' sleep, and the latter in the afternoon, calling for an hour and a quarter's rest. Before retiring at night, Weston was examined by Dr. Blunt and Dr. Buck, of Leicester, who gave a favourable account of his general condition. On the fourteenth day, between Leicester and Melton Mowbray, the hilly roads were rendered very difficult, by a heavy snowstorm, both for the pedestrian and his following. The last fourteen miles were accomplished at the Corn Exchange, where many ladies and gentlemen well known on the hunting field were among the spectators. On the fifteenth day, after a very restless night, Weston walked from Melton Mowbray to Grantham, on a bright frosty day, starting at half-past five o'clock in the morning, and finishing at half-past eight o'clock at night, with one stoppage of a few minutes, in addition to one hour and twenty minutes for dinner. During the early part of the day he suffered considerably from drowsiness. On Saturday last Weston completed the sixteenth stage of his great undertaking, with a heel steadily improving, and with better and faster walking than on any preceding day. The last 20 miles he performed at Lincoln. On Monday he did his 50 miles at the Corn Exchange, greatly refreshed by the rest on Sunday. As usual, he began comparatively slowly, covering $3\frac{1}{3}$ miles in the first hour, and quickening the pace to $4\frac{1}{3}$ miles in the second hour. On the eighteenth day, Weston did another 50 miles in the Corn Exchange, in wonderfully good health and spirits; getting out at four o'clock A.M., he slept during the day about 35 minutes, delivered a lecture in the afternoon, and finished the day's task at ten minutes to six P.M. On Wednesday last he walked from Lincoln to Great Grimsby, doing the last eight miles of the 50 in the latter town, thus completing 950 miles, or nearly one-fifth of his entire work. On one day a clergyman walked 28 miles with Weston, and at different places medical men have met him. At Northampton, Dr. Bryan drove out to see the pedestrian, whose heel is now rapidly improving under what may literally be called "the movement-cure."

THE DECLINE OF COFFEE-DRINKING.

A LARGE audience assembled at the Parkes Museum on Thursday, December 6th, to hear a lecture by Dr. G. V. Poore, Professor of Forensic Medicine in University College, on Coffee and Tea. Sir Henry Thompson was in the chair. The lecturer, after expressing his belief that stimulants, both alcoholic and alkaloidal, had their uses, proceeded to contrast coffee and tea. Both, he observed, contained the same alkaloid, which had been called thein or caffein, according to its source of origin, and the effects produced by coffee and tea were almost identical The cup of coffee, provided it were genuine, contained more alkaloid than the cup of tea, and owing to the absence of tannin the action of coffee was more rapid than that of tea. The specific gravity of a cup of tea was about 1003, that of coffee 1009, and of *café au lait* sweetened 1035. Tea was more of a pure beverage than coffee, and hence it was possible to use it as a mere luxury, as it demanded scarcely any digestive effort from the stomach, and did not "cloy" the palate. The danger of excessive tea-drinking lay mainly in the large amount of astringent matter, which was a potent cause of dyspepsia among women of the sempstress class, who consumed enormous quantities of common tea, which they not unfrequently boiled. When a stimulant was required by the body, the lecturer recommended a strong cup of coffee; if it were desired to wean the drunkard from his spirits, he thought that a real stimulant ought to be provided in their place, and not the sickly bitter unwholesome compounds which were allowed to be called coffee in this country. In order to make good coffee, the coffee-berry ought to be fresh roasted and ground. There ought to be no difficulty in getting fresh roasted coffee in London, and the lecturer stated his belief that there was an opening in this direction for enterprising tradesmen. There was no difficulty whatever in roasting coffee, and it ought to be part of the daily routine of every well-regulated house. The next step in the making of good coffee was to use enough coffee—1 oz. of coffee to a pint of water was barely enough, but $1\frac{1}{2}$ oz. or 2 oz. to a pint made first-rate coffee. The elaborate coffee-machines might be convenient, but provided the coffee were pure they were by no means necessary. If the coffee required for breakfast were put into a common earthenware jug over-night and cold water poured upon it, it might be heated to boiling point in the morning by being stood in a saucepan of water over the fire. In this way any violent ebullition was avoided, the aroma was preserved, and the maximum extract was obtained from the coffee. The grounds, if the coffee were pure, occasioned no inconvenience, but if starchy pultaceous rubbish were used instead of genuine coffee, then elaborate coffee-filters became necessary. Chicory and the allied bodies, which were largely used as adulterants for coffee, were in no way substitutes for coffee, since they contained no alkaloid and had no stimulating properties. Out of 90 samples of ground coffee purchased in London shops only five were found to be genuine, so that those who purchased ground coffee were likely to be defrauded. The coffee-mixture gave an infusion of much higher specific gravity—1020-1023—than genuine coffee, and tended to derange the stomach and cause dyspepsia. The colour of coffee-infusion was no indication of its strength, and many of the black coffees owed their colour to caramel. The consumption of coffee in this country was steadily declining, a fact which was, he thought, largely due to the mistaken policy of the Government, who had placed the chicory and dandelion on a level with the aromatic coffee-berry. Coffee ought to be protected from adulteration, and he thought the temperance-party would be doing good work if they seriously took the matter up and tried to protect the poor man from unscrupulous tradesmen who adulterated his coffee with all kinds of vegetable materials. The lecturer was listened to with attention, and several gentlemen, who spoke from practical experience, confirmed the opinion expressed by Dr. Poore as to the proper way of making coffee. It appeared also from statements made that the greater part of the finest coffee grown was not only sold in England, but purchased by English tradesmen, so that there was no reason on that score why coffee in England should not be better than on the Continent, or in the East.

THE MILK-SUPPLY OF LONDON.

ACCORDING to a paper read by Mr. G. W. Wigner before the Society of Public Analysts, on November 16th, pure milk appeared to be the exception, rather than the rule, in London; though, perhaps, London was not worse off in this respect than some of the other large cities. Mr. Wigner stated that it had been his conviction for a long time that the regular reports of the public analysts gave very little idea of what the actual extent of milk-adulteration was. Inspectors were, of course, always recognised by those who made adulteration a business. The regular adulterators were seldom convicted. It

was very important, however, in the public interest, to know how far adulteration of milk actually prevailed, and at some considerable trouble he endeavoured to find out what the quality of the average milk-supply of London really was. Londoners, within the area of the London water-companies' supplies, numbered nearly, or quite, four and three quarter millions, about 4,760,000, and the cost of the milk-supply was therefore a tolerably large figure. The limit of pure milk had, by almost (but not quite) universal consent, been fixed at 9.00 per cent. solids (not fat), and 2.50 per cent. fat. His opinion was that this was, if anything, too low, especially in fat; he therefore procured 55 samples during the month of October from entire dairies of milk as the milk arrived in London. The farmers' men might have added a little water, but, unless in one case, he had no reason to think that this had been done. No precautions whatever were taken to procure special samples, he was therefore fairly justified in saying that this milk was a fair sample of what dairy-farmers could supply in London during the month of October. These deliveries were from the milk of about 2,000 cows. Out of these series of 55 samples, the solids (not fat) fell in one case to 8.93 per cent., with 3.14 per cent. of fat, and in the next lowest case to 9.10 (not including fat); that is, 54 out of 55 samples were above the limit, and the one remaining sample had a high proportion of fat; but the average was more important, and this came to: solids not fat) 9.60, fat 3.46, total solids, 13.06; so that the average of these 2,000 cows was, at the very least, six per cent. above the limits used by the Society, and nearly 40 per cent. higher in fat. Mr. Wigner purchased 300 samples in London, and three out of the 300 corresponded with the average of the milks sent to London, and one of the 300 was richer than the average; 296 remained to be accounted for; 93 of these passed the limit. They might have been watered, and, in fact, many probably had been, but they were just above the limit; 203, or 67.9 per cent. were below the limit, and this represented the amount of sophistication which he had actually found. The percentage of added water, in these samples, varied from 3 per cent. to 61 per cent. Out of the 300 samples, no fewer than 60, or 20 per cent. of the total, were just on the limit-line of solids (not fat) and fat in genuine milk. But as soon as this limit-line was passed, watering went on rapidly; 15 per cent. of the samples contained more than 20 and less than 30 per cent. of added water; and 15 per cent. contained more than 30 per cent.; in all, 68 per cent. were watered. The percentage of skimming was almost equally formidable. Here again he had passed all samples above the limit, though it was too low; but, even on this low calculation, 19 per cent. were skimmed as well as watered, and more than 7 per cent. were skimmed, but not watered. In the 300 samples, the average result was that 13 per cent. of the fat had been skimmed off, and that the milk had, in addition, been watered nearly 13 per cent; while, if the figures actually found in the dairies were taken as the standard, as it was considered they ought to be, twenty per cent. of the fat had been skimmed off, and the watering was nineteen per cent. Ten years' working of the Anti-Adulteration Acts had brought us really to this point, that, as regards milk, the position was hopeless until the law was amended. No one could hope to get pure milk in London unless under other guarantees than this Act afforded, and the public should take action in the matter. Trivial fines of a few shillings did not bear on the question at all. The average consumption of milk in the middle-class districts of London might be taken, to put it at the least, at three gallons and a half per head per year, or one ounce and a half per day for each person. The milk-bill of this population of four millions and three quarters must therefore be, at 5d. per quart, somewhat about £1,400,000. This milk appeared to be watered, on the average, nearly nineteen per cent. The value of this milk replaced by water was £266,000 per year. It was not easy, he thought, to say absolutely what value should be given to the fat, but certainly it was putting the most lenient view possible on the matter if it were considered that the abstraction of this fat was equal to a value of £90,000 more. Adding this figure to the other, Mr. Wigner found that the inhabitants of London paid £356,000 a year for fraudulent dealing with milk. How long this would be tolerated he could not say. It needs no calculation, however, to show that the heads of families and public institutions would do well to protect themselves by many analyses made for themselves. The process is cheap, and the result would be, in the majority of instances, to save that expense ten times over in the course of a very few weeks, by enforcing the supply of really good milk, which very few public institutions, and only a minority of individuals, now receive. This fraud is the more appalling by reason of its gigantic dimensions and the danger to health involved in the systematic adulteration now pursued on so large a scale, and permitted by the law.

VEXATIOUS PROSECUTIONS OF MEDICAL MEN.

ON another page, an account is given of a meeting held at the house of Sir William Jenner, the President of the College of Physicians, to consider the course to be taken in the case of Messrs. Bower and Keates, who have been submitted to harrassing prosecutions under circumstances described briefly in the article to which we have referred. It will be seen that an influential committee was formed for the purpose of collecting subscriptions to defray the legal expenses incurred by the gentlemen implicated, and that a considerable sum was furnished at the meeting, and also that a resolution was passed, suggesting the necessity of the Public Prosecutor having skilled advice when called on to undertake the prosecutions of medical men. A similar resolution has been adopted by the Council of the College of Surgeons. A statement of the case, with an expression of sympathy with Messrs. Bower and Keates, will shortly be circulated among the profession, and we hope that it will receive an abundant response, both in sentimental and in practical expressions of sympathy. It is a healthy feature in the case that the College of Physicians has, at the instance of one of its Fellows, Dr. Moxon, undertaken to support the cause of two gentlemen in general practice (one of whom is connected with the College as a Licentiate) who have been made the subjects of a vexatious prosecution. As was well observed by Sir William Jenner in opening the proceedings, the case is one "in which every member of the profession must feel a deep personal interest; for any medical man, whether consultant or practitioner, might be placed in a similar position at any moment." It is also satisfactory to find some of the leading men in the College of Surgeons—notably Sir James Paget—cordially co-operating with the College of Physicians in the matter. It would be very desirable, also, if the support of the Branches of the British Medical Association could be obtained. Such numerous and influential bodies, for instance, as the Metropolitan Counties Branch, the Lancashire and Cheshire Branch, the South-Eastern and Birmingham and Midland Counties Branches—to mention only some of the largest Branches—constituted as they are of all classes of the profession, and possessing great influence, might give much valuable moral support. We do not know, however, that the case of Messrs. Bower and Keates has been brought under their notice by the promoters of this movement; but we feel confident that, if laid before the Council of any Branch, and of all Branches, it would receive such generous consideration as it might be possible to give.

THE NEW BARONETS.

THE announcement that the Queen has expressed her gracious intention of bestowing the honour of baronetcy upon Mr. Lister and Mr. Bowman will have taken no one by surprise; and this is, perhaps, the most striking confirmation of the judicious selection made, and of the high character of the merit which is thus recognised. When the recent distribution of honours was in contemplation, it is no secret that the names of Mr. Lister and Mr. Bowman

were very freely mentioned and everywhere approved. We have ventured ourselves to indicate the peculiar fitness of such a recognition of the claims which the author of the system of antiseptic surgery possesses to the gratitude, not only of his own country, but of all mankind. His claims have indeed been universally acknowledged, and as enthusiastically by the profession throughout the European continent and America, as they are in this country. Listerism is a newly coined phrase, designating a principle and a method which are honourably known and gratefully remembered wherever men are engaged in any department of the profession in the effort to alleviate human suffering. It is not too much to say that the philosophical research and practical genius of Mr. Lister have revolutionised surgical practice thoughout the world. On the battle-field, in the hospital, and in the homes of the sick, Listerism is a household word. The text-books have had to be rewritten. His doctrines and their results have, in their application, indirectly as well as directly, saved countless lives, and have rendered possible successful and safe, surgical proceedings which before would have been regarded as beyond the reach of the most skilful and the boldest surgeon. Moreover, they have been as fertile in adding to the resources of conservative dressing, as in widening the field of operative surgery. It is within the bounds of demonstrable fact and sober deduction, to declare that the successful application of the principles which Mr. Lister has, with rare patience and brilliant imaginative genius, laid down as surgical canons, has saved more lives in one year than the most dashing commander in the most destructive of wars has sacrificed for the glory of his country and in the defence of commercial or national interests. If Mr. Bowman's sphere of usefulness has been more limited, it is none the less real. His long career has been one of unbroken devotion to the study of scientific anatomy and physiology and the improvement of a department of surgery, which within the course of his professional life has been completely reconstructed. The name of Bowman stands in the annals of ophthalmology side by side with that of Von Gräfe, and it is right that, like Von Gräfe, he should be honoured socially, as he has long been in the annals of science and of surgery. Bowman's researches on the kidney, and the great work which he completed with Todd, are classic. In his own department—ophthalmology—he has combined conscientious conservatism with a prompt, judicious, and trustworthy investigation of the newest methods and their application to the treatment of disease. The solidity, the modesty, and the sincerity of his character have won for him the confidence and respect of his profession, and have aided him to establish the speciality which he practises, and the society which he has recently founded and endowed with munificent generosity, on a firm and enduring basis. These honours, then, are well won and will be worthily worn. Simultaneously with the announcement of these honours is that of the elevation of a distinguished poet to the peerage. This we hail as a happy omen, and we cannot doubt that the precedent thus created will before long be extended to the medical profession. Many medical men who now hold hereditary honours as baronets would bring to the House of Lords a kind of distinction, a class of knowledge, a quality of mind, and a form of experience, which would be at least as valuable for legislative purposes as those which can be possessed by the last addition to the peerage, and we trust that before long we shall be able to congratulate the House of Peers on the acquisition to that House of some of the most eminent names in medicine, surgery, and preventive medicine.

SCOTLAND.

SCARLET fever is still very prevalent at Fouldhouse and in the surrounding districts, so that it has been found necessary to close several of the schools in consequence.

THE returns just issued of the November weather in Scotland show no special features of interest; but they state that the last week of the month was remarkable for a series of bright sunrises and sunsets, accompanied by unusual brilliancy and splendour of the sky.

GLASGOW MEDICAL MISSIONARY SOCIETY.

THE annual report, made public at the sixteenth general meeting of the supporters of this institution, shows that it is carrying out very efficiently the work it undertakes. No fewer than 18,000 separate cases had been treated at the dispensaries during the year, and 1,287 cases had been visited at their own homes by skilled nurses and by senior students of the different medical schools. The plan of employing these latter had been found to work very well, and was not only a benefit to the patients, but profitable to the students themselves. To increase the sphere of usefulness of the society, new buildings are being erected on the south side of the river for carrying out the work among the sick poor in that locality; and, if funds are only forthcoming to meet the larger expenditure that must be incurred, the operations of the society during the present year should be successful to even a greater extent than heretofore.

DUNDEE CHILDREN'S HOSPITAL.

THE Dundee Children's Hospital, which has been established in connection with the Royal Infirmary, was formally opened by Sir John Ogilvy, Bart. The hospital, which has been provided with about thirty cots, is situated on the ground-floor of the present infirmary, and nearly £6,000 has been subscribed in its aid in the locality. Sir John Ogilvy, in opening the hospital, referred to the great benefit it would be to the community, and also to the hearty manner in which the movement had been supported. During the proceedings it was suggested that steps should be taken to present Sir John Ogilvy with his portrait in oil, in acknowledgment of his long and valuable services to the infirmary and to the town of Dundee.

THOMSON SCIENCE LECTURES IN ABERDEEN.

THE Thomson Science Lectures in Aberdeen Free Church College are being delivered this year by Mr. William Carruthers, F.R.S., Curator of the Department of Botany of the British Museum; and the subject of the lectures is the "History and Development of Plant-Life." After giving, in the first two lectures, a sketch of the vegetable kingdom and its relation to the mineral and animal kingdoms, in speaking of the systems of classification of plants, and especially of the natural system of Jussieu, the lecturer said that perhaps the most important additions that the natural system had obtained, had been the result of the work of a Scotchman, Robert Brown, who, in the beginning of this century, investigated the flora of New South Wales. In speaking of the geological distribution of plants, Mr. Carruthers referred, in terms of high praise, to the too little known labours of David Ure, a minister of the Church of Scotland, in the small parish of Kilbride, who, at the end of the last century, published a very interesting volume, containing very accurate illustrations, both of plants and animals, which were found in the coal-measures of his own parish of Kilbride. In speaking of the geological distribution of fungi, Mr. Carruthers remarked that the earliest traces of them occurred in the carboniferous bodies, in which he himself detected a species nearly related to the fungus which is proving so disastrous to the potato-crop. Hardened mycelium had been found in clays in Newcastle, and fungi upon the leaves of the cycads of the trias period. An interesting lecture was devoted to the ferns, which are chiefly abundant where there is a persistent moist climate. There are few ferns on the east coast, and many on the south coast of England, as in Devonshire; and in New Zealand, the brown colour of the ferns gives a tone to the landscape. Although, at the present day, the horsetails and

club-mosses are extremely small and unimportant groups, yet in the fossil-bearing palæozoic rocks, such as the carboniferous, they are enormously developed, and in a condition of perfection that surpasses anything with which we are acquainted in the vegetation of the present time.

PREVENTION OF INFANT-MORTALITY.

THE high rate of mortality among the young children of our large towns is well known; and that it depends largely on causes that are preventable, is equally admitted. Of the different steps that have been taken to lessen this high death-rate, one of the most recent and useful is that of establishing day-nurseries, where, at a small cost, mothers who have to go out to work can leave their infant children while they are following their occupation, with the full knowledge that the little ones will be carefully tended and properly fed. For some time there has been in Glasgow one of these institutions; and its working has been followed by such beneficial results, that a public meeting has been held with the object of promoting the establishment of more of these day-nurseries. The figures given at the meeting show clearly their need; for it was stated that, out of the 14,000 of annual deaths, 2,000 were those of infants who died before they were three months old. Professor McCall Anderson was present at the meeting, and warmly supported a movement which, he was sure, would do much to secure the preservation and well-being of the children of many of the labouring poor.

COPYRIGHT IN UNIVERSITY LECTURES.

THERE has just been raised in the Sheriff's Courts, at Glasgow, the question as to whether it be competent for anyone to publish and circulate a professor's university lectures, as taken down in the form of notes while being delivered. The matter has been brought up by the publication, on the part of a local publisher, of *Aids to Moral Philosophy*, which are, to a large extent, the substance of the lectures delivered by Professor Caird, in the University of Glasgow. This gentleman has applied to the courts for an interdict to prevent the further sale of the book, and it has been granted for the present; but it has been decided that the case will be heard at length shortly, when judgment will be given on the point in dispute. The real matter at issue is as to whether the lectures of an university professor are protected at common law as his literary property, and under these circumstances cannot be further circulated by anyone attending the lectures, without special leave and permission. According to the Copyright Act of Parliament, lectures in an university are specially excluded from that Act, and do not come under its provisions; so that some interest attaches to the judgment which will shortly be given, for it is right that both professors and students should have a clear idea as to their respective rights in these matters. The question has already once arisen in connection with Abernethy's lectures, when an injunction was granted against their being published and circulated, and to this case the judge referred when granting the interdict in the present trial; but the circumstances were different, in that Abernethy was a private lecturer, and he had imposed certain conditions as to publication, which were binding on any one attending the course. Whatever be the decision given, it will be of importance, as deciding a point not heretofore raised in Scotland, and which should be settled.

IRELAND.

CORONER OF COUNTY DOWN.

OWING to the death of Mr. Gardner, solicitor, a vacancy is created in the coronership of the northern division of the County Down. The candidates who are contesting the election are Dr. Parkes, J.P., Newtownards; Dr. Carlile, Crossgar; and Mr. Russell, solicitor Downpatrick.

CHILDREN'S HOSPITAL, CORK.

A MEETING of the subscribers was held last week, when a resolution, proposed by Mr. Addey, and seconded by Dr. Grattan, was unanimously adopted, to the effect that the right of appointment of officers shall be taken out of the hands of the medical staff; and that the Board of Management should have the privilege of electing the staff, and controlling the hospital in every way.

ACADEMY OF MEDICINE IN IRELAND.

COMPLAINTS having been made of the delay in publishing papers read at the meetings of the Academy, the subject was referred by the annual general meeting to the council for consideration. This body being unable to arrive at a satisfactory opinion, owing to new considerations having been introduced into the discussion, referred the matter back to a special general meeting of the Academy. Here the subject was fruitlessly re-discussed, and for the second time remitted to the council. Finally, the council adopted the following resolution, which was approved by an adjourned special general meeting on the 5th instant. "That an abstract (prepared by the author) of each communication made at the Academy, along with a report of the discussion thereon, shall be furnished to the editors of such medical journals as may desire to publish them; and that the authors of such communications shall be empowered to publish their papers, *in extenso*, in any periodical or periodicals they may think fit; such communications also to appear in the *Transactions*, provided the council consider them worthy of insertion."

ULSTER MEDICAL SOCIETY.

THE first meeting of the session 1883-84, of this society was held in their rooms at the Belfast Royal Hospital, on Tuesday, November 27th, at eight o'clock in the evening. The president, Professor Dill, M.D., occupied the chair, and delivered his inaugural address. He ably reviewed the past history and the present position of medicine, and gave a clear and concise account of the social and scientific progress which medicine had made since he commenced practice, exactly fifty years ago. Among the changes and innovations effected in that period, the admission of women to practice was one which he did not consider either progressive or likely to prove advantageous to the profession or to society. He argued their unfitness on metaphysical and physiological grounds, and laid particular stress on the relative disparity in development between the male and female brains, as evidenced by their size. The annual dinner of the Society was held in the Castle Restaurant, on December 4th, and was very enjoyable, and numerously attended.

THE PROPOSED CONJOINT EXAMINATION FOR IRELAND.

THE following *ad interim* report of the combined Committee of the King and Queen's College of Physicians and of the Council of the Royal College of Surgeons in Ireland has been submitted to both Colleges, in the form of the following resolutions.

I. "That it is desirable that, under certain conditions, the King and Queen's College of Physicians, and the Royal College of Surgeons in Ireland, should combine so as to give a complete examination in Medicine, Surgery, and Midwifery."

II. "That candidates who pass the combined examinations shall be entitled to receive the Licences of the Colleges in Medicine, Surgery, and Midwifery."

III. "That the Colleges do bind themselves not to grant separate diplomas, except to candidates who already hold, in the case of the College of Physicians, a surgical diploma; and, in the case of the College of Surgeons, a medical diploma: the surgical and medical diplomas referred to in this resolution are to be approved by both Colleges."

IV. "That the fee to be paid by each successful candidate shall be thirty guineas for the diplomas in medicine, surgery, and midwifery."

V. "That the expenses of the professional examinations shall be defrayed in equal shares by the two Colleges, and that the surplus thereafter remaining shall be divided between the College of Physicians and the College of Surgeons, in the proportion of three to five respectively."

VI. "That, in the opinion of this Combined Examination Committee, the proposed scheme should be based upon the principle of sessional professional examinations."

We do not see any reason to alter the opinion previously expressed as to the result of this proposition.

THE LATE DR. JOHN WALL, OF CORK.

ALLUSIONS were made at the late meeting of the Cork Board of Guardians and of the Town Council, to the untimely decease of this gentleman, which took place from typhus fever. By the former body a vote of condolence with the family of the deceased was passed; and Dr. Brodie, Local Government Board Inspector, said that, although connected with Poor-Law unions for over thirty years, yet he could say of Dr. Wall that he never met a more painstaking and conscientious medical man in the discharge of his duties. At a meeting of the Corporation, the subject was introduced by the Mayor; and Alderman Daly moved, that the Town Clerk be directed to convey to the family of Dr. Wall the condolence of the Council on the loss they and the public had sustained in the death of Dr. Wall. He said he felt a most melancholy pleasure in rising to perform this duty. In Dr. Wall they had lost a good citizen, an eminently able medical man, and a man who, in the discharge of his duties, had a conscientious idea of his duties to the poor. As to the committee of the Corporation with which he was most particularly connected, he had the most important functions to discharge. While he occupied that position his duties were discharged with fidelity and exactitude which were almost unequalled. For the late John Wall, a personal friend, he had the greatest possible respect and affection. Under other and ordinary circumstances, and if the business of the Council was not so urgent, he would have moved that the Council adjourn, as a mark of respect to his memory, but they were unfortunately debarred from doing that, because they had business before them that would admit of no postponement. The funeral took place on the 6th instant, and was one of the largest ever seen in Cork.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary monthly meeting of the Council of the College was held on Thursday, the 13th instant. The minutes of the last meeting were read and confirmed. The following gentlemen were elected to act as Examiners on Anatomy and Physiology during the ensuing year: in Anatomy, Messrs. Pick, Bellamy, Langton, Howse, and Edmund Owen; and in Physiology, Messrs. Henry Power, Lowne, and Professor Gerald Yeo. The signatures of the gentlemen who were approved of at the last pass-examination for the Fellowship were received, and they were admitted Fellows. Mr. E. T. D. Harrison, a member of twenty years' standing, was elected a Fellow *ad eundem*. A letter was read from Mr. John Gay, announcing the resignation of his seat in the Council, on account of the state of his health; his resignation was accepted. The President and Vice-Presidents were authorised to place themselves in communication with the Home Secretary on the subject of charges against medical practitioners in connection with their professional work, with a view to experts being in future consulted before any legal proceedings shall be instituted by the Public Prosecutor.

MR. F. S. EVE, Pathological Curator of the Museum of the Royal College of Surgeons, has been elected Assistant-Surgeon to the Royal Free Hospital, Gray's Inn Road, in the place of the late Mr. Shuter.

CHOLERA IN EGYPT.

[FURTHER REPORT OF DR. KOCH TO THE GERMAN GOVERNMENT.]

WE have been favoured with an early copy of a second report to the German Government from the leader of the German Scientific Commission which was sent to investigate cholera in Egypt and India. It was written at Suez, and the following is an abstract of its chief points.

Although only scattered cases presented themselves, we were fortunately able to make the *post mortem* examination of a cholera subject in the European Hospital; the results, as far as regards the appearance of bacilli in the intestinal mucous membrane, being the same as in the earlier cases.

Injection experiments with the intestinal contents of this body, and with fluids, collected on different occasions from cholera-patients, and from those who had died from it, were pursued with the most varied modification. We tried to cause infection in animals by injecting immediately into the rectum, and as high as possible; also by mixing the matter with earth or water, drying on indifferent material, and then feeding apes, dogs, mice, and fowls with this; but all with a negative result, as in the earlier cases.

When these proceedings were finished, and no further necropsy of a cholera-patient could be expected, the Commission moved to Cairo on the 16th. While at Cairo, we had news that the epidemic had revived at Alexandria, but it was not thought advisable to return there. Besides, Drs. Schien Bey and Kartalis, in Alexandria, had very kindly offered to collect any *post mortem* material of interest. This they did in four more cases.

I had, at first, selected Bombay as the best place for studying cholera in India, because numerous cases of cholera had been announced from there in August and the first half of September; but, since then, the epidemic apparently disappeared, and, upon the advice of several English officers who knew India well, I turned to Calcutta as the most proper city for the aims of the Commission, cholera being always more or less prevalent there.

Before the Commission left Egypt, we subjected to a severe study some questions of the greatest importance in the prevention of cholera. In the first place, we examined the truth of the statement, made from several quarters, and with great emphasis, that the cholera-epidemic of this year in Egypt was not imported from India, but originated in the former country; and, therefore, that in future Egypt and India must be put on the same level, as regards the production of this dangerous pest. In order to come to an opinion, the Commission went from Alexandria to Damietta, where the epidemic broke out, on October 6th; and for several days the most searching inquiries were made. A thorough report has been preserved of the results obtained. Far more important questions were those of the effectiveness of quarantine, and the conveyance of cholera by pilgrims passing to and from Mecca.

But when the cholera was lately announced to have broken out among the pilgrims at Mecca, and it was determined to keep the pilgrims coming from Jeddah in quarantine at Tor, such a favourable occasion occurred for information upon this important matter, that I regarded it my duty to profit by it. Since, moreover, no regular connection with the Egyptian quarantine places on the Red Sea exists, it only remained for us to ask the aid of the Egyptian Government to enable the Commission to visit the quarantine haven. The Khedive, at the request of the German Consul, graciously placed at our disposal a steamboat going to Tor ready laden with supplies. The Commission hoped to be able to go afterwards to Jeddah, and embark thence for India. But the programme was not carried out, owing to the long quarantine to which we had to submit at Jeddah. We had to return to Suez before we could proceed to India. On October 30th the Commission went from Cairo to Suez, on the 31st to Tor, on November 3rd to El Wedi. On the 7th it returned to Suez, after another visit to the quarantine camp of the pilgrims in Tor, and lastly, a view of that near Suez.

The above excursion was most instructive; for, at our first visit, the occasion was afforded of seeing the quarantine encampment for the pilgrims, appointed, but still unoccupied. On that day an Austrian Lloyd steamboat delivered in the harbour of Tor about 500 pilgrims, and, according to the ship's surgeon, all were healthy.

But, on the bringing of the pilgrims to the encampment, in presence of the Commission, some of them looked very ill; and, cholera being suspected, they were at once conducted to the quarantine lazaretto. On the second visit to Tor, the Commission found another ship there, from which the pilgrims had already been

landed. In both camps, cholera had broken out. Of the pilgrims from the first ship, three had died; of those of the second, one had died, and several were ill. While the Commission were in the lazaretto, one body of a cholera-patient was seen, besides several patients showing the characteristic symptoms. Generally speaking, the Commission endeavoured, in viewing the quarantine arrangements at El Wedi, Tor, and Suez, to gain as deep an insight as possible into their relations, so important for the importation of cholera into Europe; and, both by its own investigations and from information derived from the quarantine-officers and the pilgrims, it believes itself enabled to afford therefrom an authentic judgment on the matter, founded on direct evidence. It may be mentioned that, on the return to Suez, the travelling effects had to undergo disinfection.

Besides the investigations directly related to cholera, the Commission prosecuted inquiries into various matters connected with it, such as the supply of water and its filtration, the influence of the rise and fall of the tide upon the progress of the epidemic, the mode of burial, the pollution of the soil by latrines, the meteorological data, etc.

Moreover, numerous necropsies were made in Alexandria, and valuable observations collected on dysentery, on the appearance of tuberculosis in Egypt, and on parasites (*distoma hæmatobium*) which live on the blood of the portal vein, and which are frequently found in the dead body in Egypt. We were also able to observe other important diseases caused by parasites (ankylostomum duodenale, filaria sanguinis hominis).

About 50 patients suffering from Egyptian ophthalmia were seen, and it was found that two distinct processes are here gathered under one name. One process, which runs a bad course, is caused by a species of bacteria resembling the micrococci of gonorrhœa, and most probably identical with the same. In the other and less dangerous process, very small bacilli were regularly found in the pus-corpuscles.

The cattle-plague still continues in Lower Egypt, though only scattered cases present themselves. The Commission often tried to learn to know the disease by its own evidence; but all attempts to get hold of cattle ill with the disease, or their dead bodies, were fruitless.

THE CASE OF MESSRS. BOWER AND KEATES.

A DRAWING-ROOM meeting of a large number of the leading consultants and practitioners residing in London, was held at the residence of Sir William Jenner, on Monday evening, December 10th, to consider the case of Messrs. Bower and Keates, who, it will be remembered, were recently charged with the manslaughter of a child suffering from diphtheria, upon whom they had performed the operation of tracheotomy, to avert impending asphyxia. The matter was taken up by the Public Prosecutor, who conducted the case against the prisoners.

The case was brought before the College of Physicians, at the last meeting of the Fellows, on November 22nd, by Dr. Moxon, and it was referred to the Council to consider what steps could be taken to protect members of the profession from such unwarrantable prosecutions as this proved to be.

The meeting was opened by some remarks by Sir WILLIAM JENNER in the course of which he stated that he had invited the members present to attend the meeting, because he felt that the subject was one of the gravest importance, and one in which every member of the profession must feel a deep personal interest; for any medical man, whether consultant or practitioner, might be placed in a similar position at any moment.

Dr. MOXON was then called upon by Sir William Jenner to make a statement of the details of the case to the meeting, from which it appeared that two actions had been brought against the unfortunate gentlemen; one a civil action, brought by the father of the child, to recover damages from Messrs. Bower and Keates because he had been instructed by them, after the operation of tracheotomy had been performed, to suck the tube which had become obstructed, and thereby to save the life of his own child. He subsequently had some slight throat-affection, which was thought to be probably of a diphtheritic nature, though it was certainly not severe diphtheria; and it was to recover damages for this that he brought the action. The first trial terminated by the disagreement of the jury. A new action has been commenced; and this part of the matter is, therefore, *sub judice*, and cannot be discussed at present. After the failure of the civil action, although it had been given in evidence, in the course of the trial, that the parents had no complaint to make concerning the treatment of the child, and, indeed, were completely satisfied therewith, the mother proceeded to swear an allegation at the Lambeth Police Court, stating that the treatment of the child had been improper, and charging its medical attendants with manslaughter. This charge was taken up by the Public Prosecutor, who conducted the action on behalf of the Crown. It might appear scarcely credible that this high public functionary felt justified in undertaking the criminal prosecution of these gentlemen for the manslaughter of their patient, without one atom of medical evidence before him in support of the charge. The result of the examination of the prisoners before the magistrate was the dismissal of the charge immediately after the cross-examination of the medical witness summoned on behalf of the prosecution; the magistrate remarking that this was a case of "persecution, not prosecution."

It appeared clear, from Dr. Moxon's statement, that the united action of the profession was called for in three distinct lines; first, to bring under the notice of the Government the terrible injury that must be inflicted upon any medical man against whom the Public Prosecutor may see fit to take action, and to ask that steps may be taken to restrain this official from taking action without first obtaining adequate medical evidence in support of the charge; secondly, to convey to Messrs. Bower and Keates an expression of the deep feeling of sympathy for them in their troubles which is felt throughout the profession; thirdly, to obtain subscriptions to indemnify them for the heavy legal expenses which they have been compelled to incur.

After some discussion on the best methods by which these objects could be attained, the following resolutions were unanimously adopted.

1. Proposed by Sir JAMES PAGET, and seconded by Dr. MOXON: That a committee be formed for the purpose of collecting subscriptions to defray the legal expenses incurred by Messrs. Bower and Keates, in their defence from the charges recently brought against them, and of preparing a statement by which subscribers may express their sympathy with those gentlemen, and their conviction that the treatment of the case, for which they were prosecuted, was right? That the committee consist of Sir William Jenner, Sir James Paget, Dr. Quain (Treasurer), Dr. Wilson Fox, Dr. Moxon, Dr. Glover, Mr. Hutchinson, Mr. Bryant, Dr. Bright (Forest Hill), Mr. Jackson (Highbury Grove), Mr. Sidney Turner (Anerley), with Dr. Mahomed and Dr. Burnet as honorary secretaries.

2. Proposed by Sir JAMES PAGET, and seconded by Dr. WILSON FOX: That the Council of the Royal College of Physicians, and the Council of the Royal College of Surgeons, be requested to consider the propriety of representing to the Secretary of State for the Home Department that it is very desirable that there should be some arrangement by which the Public Prosecutor may obtain the assistance of skilled advisers when he is solicited to institute prosecutions of medical practitioners.

A vote of thanks to Sir William Jenner for summoning the meeting to his house, and for so promptly and powerfully taking action in defence of the profession, in a matter of vital importance to every member of it, proposed by Dr. GLOVER, and seconded by Mr. WILLIAM ADAMS (of Regent's Park Road), was carried with enthusiasm, and brought the meeting to a close.

Promises of subscriptions, which would amount to upwards of £200, were received on this evening alone; but the committee will be asked to consider at its next meeting whether it would not be better to limit the amount of each subscription, as it is felt that the support of every member of the profession is required, and that by limiting the amount of each subscription, a larger number of gentlemen will have the opportunity afforded them of expressing their sympathy with the movement. A complete statement of the case, with a memorial for signature, is being prepared by the committee, and it is hoped that it may be in the hands of every member of the profession in the United Kingdom about the end of next week. We have no doubt that the response which will be made to this appeal will be unanimous and emphatic.

The following subscriptions were promised at the meeting:—Sir William Jenner, £25; Dr. Moxon, £25; Sir James Paget, £21; Dr. Quain, £10 10s.; Dr. Wilson Fox, £10 10s.; Dr. Herbert Davies, £5 5s.; Mr. Bryant, £5 5s.; Mr. William Adams, Regent's Park Road, £5 5s., Dr. Glover, Compton Terrace, N., £5 5s.; Mr. J. T. Jackson, Highbury Grove, £5 5s.; Dr. H. J. Stokes, Highbury, £5 5s.; Dr. Bright and Mr. Eyre, Forest Hill, £5 5s.; Dr. F. T. Roberts, £3 3s.; Mr. J. Sidney Turner, Anerley, £3 3s.; Dr. John Brockwell, Gipsy Hill, £2 2s.; Dr. Arthur Evershed, Hampstead, £2 2s.; Dr. Forshall, Highgate, £2 2s.; Dr. E. Baxter Forman, Stoke Newington Road, N., £2 2s.; Messrs. Hewer and Calthorpe, Highbury New Park, £2 2s.; Dr. Hooper

May, Tottenham, N., £2 2s.; Dr. Nash, Lansdowne Road, W., £2 2s.; Mr. J. Rand (paid to local fund, Dulwich), £2 2s.; Mr. Sidney Parsons, Kennington Park Road, £1 1s.; Dr. Mahomed, £1 1s.

The following gentlemen, who either attended the meeting or were unavoidably prevented from doing so, also promised subscriptions, but the sums were not stated:—Sir William Gull, Sir Andrew Clark, Sir Spencer Wells, Professor Lister, Mr. J. Allen (Alexandra Road, N.W.), Mr. Edgar Barker (Hyde Park Street), Mr. J. Blackstone (Albert Terrace, N.W.), Dr. Blades (Kennington Park Road), Mr. Blasson (Edgware), Dr. Brockwell (Gipsy Hill), Dr. Lauder Brunton, Mr. W. F. Butt (Park Street, W.), Mr. Brudenell Carter, Mr. Arthur Durham, Dr. Easton (Norfolk Crescent), Dr. Gibbings (Dalston), Dr. Robert Harris (Hackney), Mr. Christopher Heath, Mr. E. Reynolds Ray (Dulwich), Dr. Russell Reynolds, Dr. H. Cooper Rose (Hampstead), Dr. Sergeant (Camberwell), Mr. Septimus Sibley (Harley Street, W.), Dr. Stocker (Peckham Rye).

THE ALEXANDER MEMORIAL PRIZE.

WE publish, on page 1216, a letter from a "Possible Competitor" for the above prize. As the subject is one of some importance, not only to officers of the Army Medical Department, but also to the progress of medical and surgical science, we have been at some pains to ascertain the facts, with reference not only to the complaint of our correspondent, but to other statements on the same subject which have come to our notice.

The complaint is, first, that the Alexander prize has been twice won by Surgeon-Major Welch, he being on both occasions a Netley official. It is, further, a ground of complaint, as set forth in the postscript to the letter, that on two other occasions this prize has been won by Netley medical officers, whose names are given, viz., Surgeon Myers of the Guards, and the late Surgeon-Major Porter. Now it will suffice to say that in no way can Mr. Myers be called a "Netley man," in any other sense than the term is applicable to every other medical officer in the service who has passed through the Army Medical School, that is to say, to all who entered the department since October 1st, 1860. Mr. Myers never held any office, either in the Army Medical school, or in the Royal Victoria Hospital, where that school is "located." And it is well known that this gentleman collected the material for his successful essay in the hospital of the Guards, in London. As regards Dr. Porter, his essay was written, and the prize gained, before he was appointed to the Netley School and Hospital; and it is an open secret that it was the fact of his being a successful competitor for this prize, and the high surgical knowledge evidenced by his essay, which led to his being appointed assistant professor of military surgery at Netley.

As regards Surgeon-Major Welch having twice gained this honourable distinction while at Netley, it is right to point out that the prize was founded expressly to encourage the advancement of medical and surgical knowledge in the ranks of the medical department of the army; that no restriction was ever contemplated as to the place where, or the manner how, competitors are to gain the requisite knowledge and experience to fulfil the purpose for which the prize was founded. If, as is suggested, Netley be the place where both are best gained, so much the better for the object in view, viz., the advancement of medical and surgical knowledge, by which not the service only, but the whole profession gains. Nor is there any rule against a medical officer competing for, and, if he can, winning the prize a dozen times. Now, however, for the facts.

We find that, when this prize was awarded to Mr. Welch for the first time, he was assistant professor of pathology at Netley; but no one can read his admirable essay without seeing that the bulk of the observations on which it was based had been gathered at many places and in many climates, while a regimental medical officer. The only part of the essay in which the post of assistant-professor of pathology could have helped him, was merely the comparatively brief segment relating to morbid anatomy, constituting a small portion of the work done. As regards the essay with which this accomplished medical officer won the prize for the second time, every line of it was written in India, after he had ceased to have anything to do with Netley, and the sources whence he obtained the knowledge of his subject were the same as those open to every army medical officer.

We cannot pass over a matter more hinted at than directly stated, viz., that the professors of the Army Medical School being assessors, favour "Netley men." It ought to be noticed, on the part of those who intimate this serious accusation, that at least two of the assessors are independent judges, having nothing to do with the school or any Netley official; that the opinion of the assessors is sent in to the committee without communication one with the other, that the letter of identification is opened after the award to a motto, and is never seen by them at all, the necessary result being that, until published by the committee, the judges, as a body, are ignorant of the result of the competition.

COLLECTIVE INVESTIGATION OF DISEASE.

LIST OF RETURNS RECEIVED IN SEPTEMBER, OCTOBER, AND NOVEMBER, 1883.

ENTERIC FEVER.

W. C. Adams, Esq. (6); A. de W. Baker, Esq. (2); Howard Barrett, Esq.; J. Chalmers, M.D. (3); G. B. Collet, Esq. (2); F. H. Daly, M.D.; T. Eates, M.D.; F. E. Fenton, Esq. (2); J. M. Finzi, Esq.; J. C. Fletcher, M.D.; C. O. Fowler, Esq. (14); A. Goullet, Esq.; H. N. Hardy, Esq.; R. R. Lloyd, Esq.; F. A. Mahomed, M.D.; J. S. Meagher, Esq.; A. Miller, M.D.; B. H. Mumby, Esq.; W. Odell, Esq. (2); H. G. Orlebar, M.D. (2); C. H. Ralfe, M.D.; A. Sheen, M.D.; E. A. Snell, M.B.; W. C. Steele, Esq. (4); E. Tegart, Esq.; W. G. Walford, M.D.; A. D. Walker, M.D.

Total number of cards received, 55.

I.—PNEUMONIA (93).

B. Addy, M.D.; J. Allan, M.D.; G. H. Batterbury, M.D.; W. Bernard, Esq. (2); W. G. Biggs, Esq.; G. Birt, M.D. (2); D. Bradley, Esq.; C. Broomhead, M.D.; Jas. Brown, Esq.; C. Boyce, M.B.; D. Bowen, Esq.; D. A. Carter, Esq. (2); S. D. Clippingdale, M.D. (5); D. W. Currie, M.B. (2); D. A. Davies, M.B.; L. Druitt, M.D.; T. Eastes, M.D. (3); J. Farrar, Esq.; D. H. Forty, Esq.; D. O. Fountaine, Esq.; R. W. Gentles, Esq.; A. R. Grosvenor, M.D.; G. P. Hadley, M.D.; J. B. Hamilton, M.D.; J. Hamming, M.D.; W. Harman, Esq.; F. W. Humphry, Esq. (2); W. L. R. Hunter, M.D.; W. N. Holberton, Esq.; H. R. Ker, Esq.; C. G. Lewis, Esq.; J. T. Lipscombe, M.D.; J. J. Lloyd, Esq. (5); R. R. Lloyd, Esq.; A. Maclean, Esq.; A. Macpherson, M.B. (3); S. F. McLachlan, M.B.; J. J. Marshall, Esq.; T. Martin, Esq.; W. T. Mullally, M.D. (2); J. Mulvany, M.D.; B. H. Mumby, M.D.; S. Nesfield, M.D.; G. A. Phillips, Esq. (2); J. Quirke, Esq.; J. Reid, M.B.; H. S. Renshaw, M.D. (3); C. H. Robinson, Esq.; N. Russell, M.B.; G. T. Schofield, Esq. (2); W. Shaw, M.D. (3); E. Skinner, Esq. (2); D. T. Smith, M.B.; W. G. Smith, M.D.; W. G. Stevens, Esq.; H. G. Terry, Esq.; F. Wacher, Esq. (3); C. D. Walker, M.D.; W. White, M.D. (3); G. H. Whitaker, Esq.; G. Wilks, M.B.; E. J. Wood, M.B.; W. W. Wright, M.B.; M. T. Yarr, Esq.

II.—CHOREA (10).

H. M. Barker, M.D.; G. M. Edmond, M.D.; C. H. Milburn, M.B.; A. Macpherson, M.B.; W. Shaw, M.D.; D. T. Smith, M.B.; T. H. Simpson, M.D.; W. C. Steele, Esq.; E. T. B. Watters, M.D.; F. Wacher, Esq.

III.—RHEUMATISM (33).

M. Davis, M.D.; C. Broomhead, M.D.; D. Bradley, Esq.; J. B. Hamilton, M.D.; C. H. Hill, M.D.; A. R. Kerr, Esq. (2); W. Odell, Esq. (2); J. J. Lloyd, Esq. (2); W. Lyon, Esq.; J. Mulvany, M.D.; H. G. Orlebar, M.D. (2); T. F. Raven, Esq. (8); H. S. Renshaw, M.D. (2); W. G. Stevens, Esq. (2); F. Waeher, Esq. (6).

IV.—DIPHTHERIA, CLINICAL (10).

C. Boyce, M.B.; O. Bowen, Esq. (2); C. H. Hill, M.D.; C. E. Hoar, M.D. (2); J. Mackenzie, M.B.; W. W. Quinton, M.B., Surgeon-Major A.M.D.; T. F. Raven, Esq.; J. Reid, M.B.

IVa.—DIPHTHERIA, SANITARY (5).

J. Diamond, M.D.; C. E. Hoar, M.D. (2); J. F. Raven, Esq.; J. Reid, M.B.

V.—SYPHILIS (3).

D. W. Currie, M.B.; J. Dramond, M.D.; C. H. Hill, M.D.

Va.—SYPHILIS (2).

S. D. Clippingdale, M.D.; C. H. Hill, M.D.

VI.—GOUT (1).

A. H. Newth, M.D.

Total number of cards received, 157.

The Committee beg also to acknowledge communications: Dr. W. Bernard, Dr. Fyffe, and Dr. Suckling, and the report of the Medical Officer of Health for Stroud during 1882.

186 answers have been received to the Puerperal Pyrexia inquiry, which will be acknowledged next week.

THE ROGERS TESTIMONIAL.

THE following additional subscriptions to the fund for a testimonial to Dr. Joseph Rogers have been received. It should be understood that the subscription to this fund is not confined to Poor-law medical officers. The Treasurer is Mr. J. Wickham Barnes, 3, Bolt Court, Fleet Street, E.C.; and subscriptions are received by the Editor of the BRITISH MEDICAL JOURNAL.

Seventh List.—C. Sedgwick, Esq. Hollingbourne, £1 1s.; A. E. Boulton, Esq., Horncastle, £1 1s.; Dr. Tyley, Wedmore, £1 1s.; Jabez Hogg, Esq., Bedford Square, £1 1s.; R. R., Well Wisher, £1 1s.; Dr. Dutton, Sidlesham, 10s. 6d.; Dr. Grove, St. Ives, 10s.; Dr. Jardine, Capel, Surrey, 10s.; W. F. Brooks, Esq., Fareham, 7s. 6d.; W. E. Soffe, Esq., East Harling, 5s.; Dr. Harday, West Haddow, 5s.; Dr. C. J. Connon, Allendale, 5s.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
V. Syphilis, acquired.
Va. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed. Cards will be received until further notice.*

Applications should be addressed to

The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETING TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above district will take place on Thursday evening, December 20th, at the Hackney Town Hall. The chair will be taken at 8.30 P.M. Dr. Cullimore will read a paper On some Disputed Points concerning the Infection and Contagion of Cholera. Dr. Dundas Grant: On the Treatment of Apnœa Neonati.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, Upper Clapton.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

THE second meeting of the South London District was held at the Royal Naval School, Greenwich, on the evening of November 28th. There was a very good attendance. Dr. STEPHEN MACKENZIE occupied the chair.

Papers.—The following papers were read.

1. Dr. A. L. Galabin read a paper on Transfusion of Blood for Puerperal Hæmorrhage.

2. Mr. Lloyd Jones read a paper on A Case of Chyluria. This was illustrated by living specimens of the *Filaria sanguinis hominis*. The Chairman, who had special experience of the *Filaria*, made some important remarks on the result of his own observations.

Votes of thanks to the readers of the papers and the Chairman were carried, and the meeting adjourned.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: AUTUMN MEETING.

THE autumn meeting of this Branch was held at Newport, on November 15th: Present, Mr. EBEN. DAVIES (Swansea), President, in the chair, and about twenty-five members.

New Members.—Mr. Roger D. Williams (Morriston), and Dr. Reid (Tenby), were elected members of the Association and Branch.

The Case of Dr. Joseph Rogers.—Dr. MILWARD (Cardiff) explained, in detail, the suspension of Dr. Rogers by the Westminster Board of Guardians. Universal indignation was expressed by the members at the treatment to which Dr. Rogers had been subjected, and the following resolutions were passed unanimously:

"That this Branch desires to offer to Dr. Rogers its sincere sympathy in the position in which he is placed by the action of the Westminster Board of Guardians, and to express an earnest hope that the inquiry now pending before the Local Government Board will result in his speedy reinstatement in his office."

"That a copy of this resolution be sent to Dr. Rogers, and to the BRITISH MEDICAL JOURNAL and the *Lancet*.

Communications.—The following communications were made.

1. Dr. STEEL (Abergavenny) introduced a patient in whom he had removed a Scirrhus from the Breast, where subsequently numerous tubercles, some ulcerating, had appeared around the cicatrix. An unanimous opinion was expressed that these nodules were of a malignant nature.

2. Mr. MARSH (Newport) showed a male patient in whom he had, two years previously, Excised the Elbow, removing four inches of bone. The patient had now excellent movement of the limb, and an unusual amount of force.

3. Dr. THOMAS (Newport) showed a case of Disease of the Knee-joint, from injury, suppuration occurring in ten days, treated antiseptically, and recovering rapidly.

4. Mr. J. HANCOCKE WATHEN (Clifton) related a case of Lipoma of the Scalp of four years' growth, and showed the specimen. He laid stress upon the difficulty of diagnosis between sebaceous cyst and lipoma.

5. Dr. C. T. VACHELL (Cardiff) related a series of cases in which Erysipelas had followed Vaccination. On November 1st, a child aged three months, and an adult, were vaccinated with lymph obtained from London. On the eighth day, the arm of the adult was much swollen and red. On the same day, the child presented every appearance of having been successfully vaccinated, and five tubes were charged from it. On November 10th, five children were vaccinated from these tubes. On November 11th and 12th, all these cases were attacked with erysipelas of the arm vaccinated; and, on inquiry, it was found that the child from whom the vaccine was taken was attacked with erysipelas on November 9th.

6. Mr. G. A. DAVIES (Newport) showed a Tonsil removed for great hypertrophy.

Representation of the Branch on the Governing Body of the South Wales and Monmouthshire University at Cardiff.—The following resolution was passed unanimously: "That Dr. Edwards (Cardiff) and Dr. Talfourd Jones (Brecon) be requested to bring before the Council of the South Wales and Monmouthshire University at Cardiff the desirability of securing the representation of the South Wales and Monmouthshire Branch of the British Medical Association on the governing body of that institution."

Dinner.—The members afterwards dined together at the King's Head Hotel.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE eighty-ninth meeting of the above District was held at the Kent and Canterbury Hospital on Thursday, November 15th, 1883; Dr. JOYCE of Cranbrook in the chair.

Previously to the meeting, Mr. Wacher, the medical officer, and Mr. Cross, the chairman, of the board of guardians, conducted the members over the new union infirmary, which contains sixty-two beds, and is warmed by Captain Galton's patent ventilating stoves.

Life-history Album.—Dr. HERRINGHAM, the Secretary of the Collective Investigation Committee, explained "the life-history album," on which an interesting discussion followed.

Papers.—The following were read:

1. Dr. J. Herbert Stowers read a paper on Infantile Eczema.

2. Mr. Whitehead Reid showed cases of Infantile Eczema, Ichthyosis, and Porrigo.

3. Dr. Gogarty read a paper on Gout in Diagnosis; and, in the discussion that followed, some valuable remarks were made on the rheumatic offspring of gouty ancestors, and the tendency of these diseases to "sport back."

Next Meeting.—It was arranged to hold the next meeting at Ashford, on March 13th, 1884, under the presidency of Dr. Wilks, when Dr. Joyce's subjects for discussion will be again brought forward.

Dinner.—The members afterwards dined together at the Royal Fountain Hotel.[1]

[1] It came out casually at this meeting that the report of a diphtheria-epidemic in Canterbury was without foundation; the five cases that had occurred were confined to one house, and the disease had not spread. There is no diphtheria now (November 26th).

VERY CHARACTERISTIC.—"You will find in our museum," said Professor Wendell Holmes, in his recent address to the Harvard students, "specimens of human integument, showing its constituent parts in different races; among the rest, that of the Ethiopian, with its cuticle or false skin turned back, to show that God gave him a true skin beneath it as white as our own."

CORRESPONDENCE.

MR. F. GALTON'S PRIZES FOR LIFE-HISTORIES.

SIR,—The arrival of shoals of letters has made me aware of a paragraph in your last number, written under some misapprehension and without my authority, concerning a forthcoming offer of £500 in prizes. The corrections I desire to make are—(1) that the offer will not, as at first intended, be confined to medical men; (2) that I have never undertaken to forward printed forms on application.

The full particulars of what I want, the reasons for it, the precise way in which I ask that my wants may be supplied, will be all found in a book now in the press, and advertised by Messrs. Macmillan, called *Record of Family Faculties*. This book is intended to stand on its own basis, and to enable a person to collect the more important anthropometric data concerning members of his own family, in an orderly arrangement, just as the forthcoming *Life-History Album*, edited by myself, and which you noticed last week, is intended to enable individuals to collect similar data, but with much greater minuteness, concerning themselves. The two books assist each other, both working along different paths, with the same object of inducing persons to record facts that are steadily gliding into oblivion, partly for their own use, and partly for the establishment of a store, whence future inquirers may perhaps have the good fortune to draw contributions of great value to their studies in heredity. A fly-leaf to this *Record* will contain the conditions of the prizes, which will be open to all British subjects resident in the United Kingdom. They will be for extracts by the candidates from their own family records, to be used by myself, in strict confidence, for statistical purposes only, and to be sent before May 15th, 1884. Their relative merits will be judged on grounds that are fully described in that fly-leaf.

I found it impossible to explain exactly what was wanted in the narrow bounds of a mere circular, or to dispense with an abundance of schedules. The *Record*, which I have endeavoured to make as inexpensive as possible, is designed to save the owner all possible inconvenience in filling up. It will look like a large substantial copy-book, with twelve pages of preface, and fifty more of various blank schedules, with numerous questions in them. Each of the first fourteen schedules refers to a separate ancestor in the direct line, the others to the brothers and sisters of those ancestors. There are summary-forms as well, which are intended to show at a glance the distribution of any given quality throughout the family at large. Equal space is given to every ancestor within the same degree of kinship. The questions are minute, but they relate to plain matters of fact, and such as can be answered without great difficulty in the large majority of instances. It is supposed that the schedules will be usually filled up by one of the parents—say, the father—of a family of growing children. He will be able to record the required facts about himself, his two parents, and (after inquiries) about his four grandparents. Similarly, he will be able to record data about his wife, her two parents, and her four grandparents. Consequently, the children will be put in the possession of an extensive family history, including *all their direct ancestors* up to their own eight great-grandparents inclusive.

In brief, this book is intended for those who care to forecast the mental and bodily faculties of their children, and to further the science of heredity. I trust that my offer of prizes will be understood in the spirit in which it is made—namely, to stimulate family research and the record of family data; to extend the just appreciation of the strength of the bonds of kinship; and, lastly, to put myself in quick possession of a large amount of material for statistical research.—Yours obediently, FRANCIS GALTON.

42, Rutland Gate, S.W.

THE LIFE-HISTORY ALBUM.

SIR,—I find that a good deal of confusion has arisen between our *Life-History Album* and Mr. Galton's prize scheme to obtain records of family faculties. The *Life-History Album*, which you reviewed last week, is brought out under the direction of the Collective Investigation Committee, and has been drawn up by a subcommittee, of which Mr. Galton was the chairman. His name is, therefore, prefixed to the album as editor.

Mr. Galton's prize scheme, on the other hand, is quite distinct in its aims and in its method from our *Album*, and is quite unconnected with the Collective Investigation Committee, except for the fact that we gladly undertook to help Mr. Galton by distributing some of his papers for criticism.—I am, sir, yours, etc.,

W. P. HERRINGHAM, M.B., Sec. Coll. Inv. Com.

STONEY MEMORIAL FUND.

SIR,—At a largely attended and representative meeting of past and present students of the Carmichael College, held on the 9th inst., it was decided to found a memorial to the late Dr. Loftie Stoney, and a committee was appointed to raise the funds necessary for the purpose.

It was also decided to invite the co-operation of those gentlemen not present at the meeting, who might be willing to further the movement, which it is intended shall result in the foundation of a memorial prize.

A large number of Dr. Stoney's former friends and colleagues having already identified themselves with the movement, I beg to draw the attention of others to the matter, in the hope that they will allow their names to appear as subscribers to the fund; and as it is impossible to obtain a complete list of names and present addresses of many pupils who passed through the late Dr. Stoney's hands, I take the liberty of making known in your widely-circulating journal the object in view of founding a prize memorial fund in memory of one of our late most popular private teachers; and I feel sure when these lines are read by some of the pupils who attended Dr. Stoney's classes it cannot but recall to them his genial good humour, pleasant manner, and warm interest he always took in their advancement. A very influential committee has been formed to further the object, composed mainly of Dr. Stoney's former hospital and school colleagues, together with a number of his past pupils. This committee have appointed me as one of the honorary treasurers, in conjunction with Mr. Malcolm E. Thomson, 15, MacMahon Street, Dublin, a post I have a peculiar pleasure in filling, owing to my long and friendly connection with Dr. Stoney, as one of the firm of private teachers. Sums varying from £5 to 5s. have been received up to the present. Any sum sent to me will be thankfully acknowledged.—I am, sir, yours, etc., LAMBERT H. ORMSBY, M.D., F.R.C.S.

4, Merrion Square West, Dublin, December 11th, 1883.

FALSETTO AND NASAL NOTES.

SIR,—Since Mr. Behnke's letter satisfactorily answers Mr. Mahomed, I simply desire, through you, to request of him the favour of reperusal of my paper on Photography of the Larynx and Soft Palate. I shall be indeed surprised if he can point out any words in which I have, either "designedly" or by a "slip," laid myself open to the charge of having "used the terms 'nasal' and 'falsetto' as interchangeable," for I cannot conceive how it would have been possible for me to have emphasised their difference more clearly than I did, both in the illustrations and in the letterpress.—I am, sir, your obedient servant, LENNOX BROWNE.

36, Weymouth Street, Portland Place, W., December 8th, 1883.

FEVER IN THE PUERPERAL STATE.

SIR,—I am very glad to take the opportunity, in answering Dr. Leith Napier's letter of December 8th, of saying what the Collective Investigation Committee intends by its inquiry on fever in the puerperal state. Dr. Leith Napier's last paragraph is my best answer. "I believe," he says, "in puerperal septicæmia, pyæmia, sapræmia, peritonitis, metritis, cellulitis, parametritis, perimetritis, etc., as possibilities distinct from this specific septicæmia. I believe in puerperal scarlatina, variola, typhus, erysipelas, diphtheria, etc., as distinguishable. Others are strongly opposed to every article of my faith. Now, how can these authorities and I meet on a common platform? Are we, in short, to record all our cases of febrile condition, or to select certain types, and if so, which?"

It is exactly because of this divergence of opinion that collective investigation is needed; exactly because of this that the only possible standard of comparison is "fever in the puerperal state," without limit to its duration; and exactly because of this that I hope Dr. Leith Napier and everyone else will send me all the cases of whatever kind coming under this heading which he can remember.—I am, sir, yours, etc., W. P. HERRINGHAM, M.B.,

Sec. to the Coll. Inv. Com.

THE *Citizen* states that the Law and City Courts Committees have determined to recommend the Corporation to appropriate the residue of Ward's bequest (about £20,000) to the erection of dwellings for the poor at Saffron Hill and Bleeding Heart Yard; the rents to be at the rate of 2s. 6d. per week per room, which, it is estimated, will return three per cent. on the outlay on the land and buildings.

MEDICO-LEGAL NOTES AND QUERIES.

ANTIVIVISECTION LITERATURE.

ON Monday last, in the *Nisi Prius* Division of the High Court of Justice, the case of Adams *v.* Adlam, Cobbe, and others, was tried before Mr. Justice Lopes and a special jury. It was an action to recover £158 11s. for articles contributed to the *Zoophilist*, an anti-vivisection newspaper, at the request of the defendants. The defendants pleaded that the work claimed for was part of the salaried duties of the plaintiff as secretary to a society; further, that, in fact, he had been paid £103 for the articles he had written; and the balance, without admitting their liability, they brought into Court.

Mr. Waddy, Q.C., and Mr. Sutton, appeared for the plaintiff; Mr. Finlay, Q.C., and Mr. Blake Odgers, were for the defendants.

The plaintiff's case having been opened by Mr. Waddy, the plaintiff, Charles Warren Adams, was called, and gave the following evidence. He was appointed secretary of the Antivivisection Society on January 21st, after receiving a letter from the defendant, Miss Frances Power Cobbe, who was the most active member of the committee of the society. In the following March, he had an interview with Miss Cobbe as to the desirability of bringing out a newspaper which should propagate the views of the society; and, as the result of this interview, the *Zoophilist* was started. He drew up, by request, an estimate of the expenses to be incurred, one of the principal items being a sum of twelve guineas for literary contributions for every number of sixteen pages. This estimate was accepted, and the twelve guineas had never been exceeded. He was appointed editor; and between the months of May and November he contributed a variety of articles, filling up 151 columns. It was in respect of these columns, at the rate of a guinea each, that he brought this action. The articles attacked vivisection from a scientific standpoint; and, as he started by being entirely ignorant of his subject, much reading and labour were involved. Such men as Professors Owen and Huxley were his chief opponents; and he had to "coach" himself in anatomy, medical science, surgery, etc. His work was greatly approved of, and he received numbers of congratulatory letters from Miss Cobbe. In one of these, she described his ability as transcendent, and said it was a pleasure to read his brilliant illustrations and clenching arguments; and she concluded the letter by saying: "My soul quakes at the peril that, among so many shoals and quicksands, nothing but a miracle would have saved you, who knew nothing of all this six months before." In another letter, she wrote: "How splendid about Owen! It will be the death of that old impostor, and teach all his kind not to meddle with edged tools," and then came a tender inquiry about his health, and a hope that he would not work too hard. His salary as secretary was £200, but in June 1881, in consequence of a legacy of £1,500 left to the society, it was increased to £250. The last payment was in July 1882. He produced a receipt for £32, for his articles from January to April 1882. Up to July 1882, he had received £103, and it was never suggested, as he sent in his claims, that they were within his paid duties as secretary. About November 5th Miss Cobbe first demurred to his receiving more money. He wrote expressing surprise, and reminded her of his estimate, and he added that if she really insisted he ought not to be paid he would pay the £103 back rather than keep it on such terms. Subsequently he did repay the money, and laid his claim before the committee. He understood them to admit that he had fairly and honourably earned the money, and if it had rested there he would not have brought this action; but after he was dismissed, on November 15th, he received a letter from Mr. Channing, the chairman of the committee, distinctly denying that the committee admitted he had honourably earned the money, whereupon he made this claim. —Cross-examined: He was author of a book called *Coward Science*. A passage was here read to the witness, in which, after adopting Professor Owen's description of himself as a paid agitator and hired scribe, he alluded to his duties and his salary; and he was asked whether this did not state that his articles were to be included in his work as secretary.—Witness: Certainly not.—Did you not receive 100 guineas from the committee for *Coward Science*?—I did.—And you now claim £103 as well?—Certainly I do. The first was an honorarium, the other is my legal right.

On the following morning, Mr. Finlay, in answer to the learned judge, said he no longer relied upon the defence that payment of the articles was included within the secretary's salary.

The JUDGE: I am glad of that, because after the plaintiff's evidence such a contention would have been impossible.

Mr. FINLAY: Our point is, that the plaintiff's claim for £103 has been paid. He insisted upon returning it, and then the committee, to save his feelings, gave him a cheque for 100 guineas in the shape of a *douceur*.

The JUDGE: What a pity they did not say so.

A verdict was entered for the plaintiff for the amount claimed, and his lordship gave judgment accordingly.

LUNATICS IN PRIVATE HOUSES.

SIR,—Will you kindly inform me in your answers to correspondents what is the proper course for me to pursue under the following circumstances?

I have been asked to take into my house as a resident patient a lady who, I believe, is a lunatic, but who has not been certified as such, and has hitherto been living with a relative, and occasionally visited, as I am told, by a "doctor." Some of her friends have expressed a wish for a commission (*de lunatico inquirendo*), but, as yet, no steps have been taken in that direction, and I have been asked to receive her in my private house for a few months as a patient. If I do so, will it be necessary for me to send any notice to the Commissioners in Lunacy, or otherwise communicate with them or others? Shall I have to pay any fees to anyone; and, if so, what?

Your answers to the above, and any further information you can give, will be much esteemed by yours obediently, ARISTOS.

London, December 4th, 1883.

*** If "Aristos" have any doubt as to the mental condition of the patient he purposes to receive in his house, he should first get an opinion about her case from some expert in lunacy-practice. If there be any doubt in the matter, it is always safer to get the patient certified, as this saves subsequent trouble with the Commissioners. He had also better study the Lunacy Acts, from which the following is extracted.

"No person (unless he be a person who derives no profit from the charge, or a committee appointed by the Lord Chancellor) shall receive to board or lodge in any house, or take the care and charge of any one patient as a lunatic or alleged lunatic, without the like order and medical certificates, in respect of such patient, as are hereinbefore required on the reception of a patient (not being a pauper) into a licensed house.

"Every person who shall receive any one patient as a lunatic shall, (1) within seven clear days after so receiving or taking such patient, transmit to the Secretary of the Commissioners (19, Whitehall Place, S.W.) a sure and perfect copy of the order and medical certificates on which such patient has been so received, and a statement of the date of such reception, and of the situation of the house into which such patient has been received, and of the Christian and surname and occupation of the occupier thereof, and of the person by whom the care and charge of such patient has been taken; and every such patient shall, at least once in every two weeks, be visited by a physician, surgeon, or apothecary, not deriving, and not having a partner, father, son, or brother, who derives any profit from the care or charge of such patient; and such physician, surgeon, or apothecary shall enter in a book—to be called "the Medical Visitation Book," the date of each of his visits, and a statement of the condition of the patient's health, both mental and bodily, and of the condition of the house in which such patient is; and such book shall be produced to the Visiting Commissioner on every visit (8 and 9 Vict., cap. 100, s. 90). (2) Notice of death, removal, escape, and recapture of the lunatic, must be sent to the Secretary of the Commissioners."

Our correspondent would not have to pay any fees, as far as we are aware, to anyone except the medical men who sign the certificates.

The question of making the lady a chancery-patient can only be answered generally, as the advantages or disadvantages of this proceeding differ in individual cases. If the patient be likely to recover soon, a commission should be avoided. Money may be obtained temporarily by getting the patient's banker to advance any necessary sums on proper security. A sort of half-way house on the road to the Chancery Court is also provided. It is enacted: "Where, by the report of one of the Masters in Lunacy, or of the Commissioners in Lunacy, or by affidavit or otherwise, it is established to the satisfaction of the Lord Chancellor that any person is of unsound mind and incapable of managing his affairs, and that his property does not exceed £1,000 in value, or that the income thereof does not exceed £50 *per annum*, the Lord Chancellor may, without directing any inquiry under a Commission of Lunacy, make such order as he may consider expedient for the purpose of rendering the property of such person, or the income thereof, available for his maintenance or benefit, or for carrying on his trade or business: provided, nevertheless, that the alleged insane person shall have such personal notice of the application for such order as aforesaid as the Lord Chancellor shall, by general order, direct." (25 and 26 Vict., cap. 86, sec. 12.)

QUADRUPLETS.—The *Canadian Practitioner* contains an account of four living children at a birth, two boys and two girls, with but a single placenta. The mother is a small woman, weighing 100 pounds, 38 years old, and had nothing unusual in three previous confinements. The father is 41 years of age, weighs 169 pounds, and is a strong, healthy, and robust man.

THE Bishop of Exeter opened on Saturday the new chapel erected in connection with the Western Counties' Idiot Asylum. The cost has been £850.

MILITARY AND NAVAL MEDICAL SERVICES.

SLIPPERS FOR SOLDIERS.

THE authorities at the War Office have wisely determined still further to lighten the burdens to be borne by the British soldier. As one of the results of recent committee-work on equipment, it has been decided that a pair of light canvas waterproof slippers shall henceforth be carried by the soldier in his valise, when on active service, instead of the second pair of boots which have hitherto been included in the soldier's kit, but which will now be carried in the first line of transport. A small supply of boots will accompany each battalion, to replace the few that may be prematurely worn out. It has been found that troops can keep the field, in a rough country, on one pair of boots, for two months; and it is believed that the addition of light canvas shoes, to be worn when the boots have been removed, to ease the feet, will answer all requirements. We find that this sensible reform, so long delayed, was suggested many years ago by the late Dr. Parkes, the well-known authority on military and general hygiene. In reference to the possibility of lightening the weight of a soldier's field-kit, he wrote: "The boots are the heaviest individual articles in the kit; and possibly, if magazines of boots are properly established in war, a pair of light shoes would be better in the pack. On talking with soldiers, both officers and men, I have found great divergence of opinion about the utility of the spare boots in the pack. It is a point on which it is very desirable some good authority should express an opinion."

THE ARMY MEDICAL DEPARTMENT AND THE ALEXANDER MEMORIAL PRIZE.

SIR,—This prize has been again won by Surgeon-Major Welch, quartered at Netley; and the same officer carried off this prize in the year 1872, when he was also at Netley as an assistant-professor. Thus, out of the five competitions since the institution of the prize, Mr. Welch has been twice successful. Other competitors may fairly ask, is it of any use competing with a man who can work up the subject at Netley? Being quartered at Netley enables a man to gain other valuable hints for his essay. Far be it from me to say one word against Mr. Welch—he and his attainments are, I feel sure, of a high order; but is the perennial winning of the prize by the same man "at Netley" fair to competitors who have no means of getting to Netley; or are the intentions of the Alexander Memorial Committee best met by allowing officers who enjoy the immense advantages of residence at Netley to quietly work up the subject there, and carry off repeated prizes?

That the rest of the Army Medical Department are unfairly handicapped in this matter seems clear enough to a POSSIBLE COMPETITOR.

P.S.—The following facts respecting the gainers of the Alexander Prize speak for themselves.

Year.	Winner.	Station.
1869	Myers	Netley.
1872	Welch	Netley.
1875	Porter	Netley.
1878	Martin	Ireland.
1882	Welch	Netley.

It would seem that the great bulk of the members of the Army Medical Department, quartered all over the world, would have little chance against a man who can prepare his essay with all the resources of Netley at his disposal, not the least of which is intimacy with the opinions and views of the Netley professors, who are the prize-assessors. Perhaps, too, a winner on one occasion might be debarred from competing again. In the case of similar competitions elsewhere, it is customary to prevent those who are in any way connected with the judges from joining in the contest. In regard, for instance, to the Astley Cooper Triennial Prize of £300, the adjudicators of which are the medical officers of Guy's Hospital, it is particularly declared in the testator's will: "that no physician or surgeon, or other officer for the time being, of Guy's Hospital or of St. Thomas's Hospital, in the borough of Southwark, nor any person related by blood or affinity to any such physician or surgeon, for the time being, or to any other officer for the time being in either of the said hospitals, shall at any time receive or be entitled to claim the prize." But, with this exception, the prize is open for competition to the whole world.

THE INDIAN MEDICAL SERVICE.

WE understand (Allahabad *Pioneer*, November 6th) that a distinguished member of the Indian Medical Service, who passed first out of Netley, and who recently resigned his commission in disgust, has decided to bring an action for breach of contract against the Indian Government on the grounds that his services were obtained under false pretences. Should he gain his case, the example would probably be followed by many other aggrieved medical officers.

THE BLANE GOLD MEDALS.—Sir Gilbert Blane, M.D., F.R.S., a distinguished medical officer in the navy, who died in 1834, left in trust to the Royal College of Surgeons of England, a sum of money to found two medals, to be awarded biennially as a mark of honorary distinction to those medical officers of the navy whose journals, in the opinion of the adjudicators, possess the most merit. The awards this year have been made to Staff-Surgeon George Maclean, M.B. and M.C.Aberdeen, 1862, of H.M.S. *London*, and Staff-Surgeon Robert Hall More, M.D. and M.C.Aberdeen, 1862, of H.M.S. *Swiftsure*.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

"THE BITTER CRY OF OUTCAST LONDON."

A PAMPHLET, with the somewhat sensational title of *The Bitter Cry of Outcast London*, published under the auspices of the London Congregational Union, has recently attained a very large circulation. It is described on the title-page as "An inquiry into the condition of the abject poor;" it is better described as an impassioned appeal to the public for help in an attempt to ameliorate the condition of the poor inhabitants of certain special districts of London. In very forcible, and often eloquent, language, the author, who is, we learn on the authority of the *South London Press*, the Rev. Mr. Preston, a Congregationalist minister, describes the conditions under which the very poor live, the miserable tenements which they inhabit, and the vice and immorality for which their unhappy surroundings are, no doubt, largely responsible. This JOURNAL has, for years, ceased not from directing attention to this subject—the great question now so much agitating the political world—of the housing of the poor. We heartily wish to see some effectual remedy found, or more efficient application of existing remedies. It is because we have the cause so much at heart, that we are anxious that it should not lose adherents owing to exaggerated or incorrect statements. The truth about some of the courts and alleys of "Poorer London" is, in all sober earnest, bad enough. The writer of the pamphlet to which we refer concludes by giving a "Description of the Districts," and begins this section by speaking of the "district known as Collier's Rents," he then proceeds to give a graphic description of the insanitary condition of the houses in Collier's Rents, at least so it would appear from the context.

Collier's Rents is situated just within the borders of the parish of St. George the Martyr, Southwark; and as the sanitary authorities of that parish have been, for some years past, honestly endeavouring to make use of the powers given to them by the various Acts of Parliament to better the sanitary condition of the parish, the medical officer of health, Dr. Waterworth, thought it his duty to explain that the writer of the pamphlet had evidently been under some misapprehension. He, therefore, wrote a letter, which appeared in several of the daily papers. He says:

"A pamphlet has been circulated, entitled *The Bitter Cry of Outcast London*, in which especial attention is drawn to the condition or Collier's Rents, in this parish. The pamphlet states that the houses are of the worst description, dirty and filthy in the extreme, fearfully overcrowded, and occupied by persons of bad character. I must beg to contradict some of these statements. Collier's Rents is a small street leading out of Long Lane into the High Street, and includes Victoria Place and Young's Buildings. The total number of houses is 23 (four of which are at present tenantless), containing 45 rooms. In these, there are 30 families, consisting of 55 adults and 65 children (averaging from 18 years to one month), making a total of 120 inhabitants, which is less than three to a room. The average length of residence of these people has been about seven years. About six or eight months ago, most of these houses were cleansed and repaired throughout by my orders; and, within the last week, I have visited them with Mr. Smith, the inspector of nuisances, and find them in a fair condition."

We have taken an opportunity of looking at Collier's Rents; and, from what we could hear and see, it did not seem to deserve the hard things said of it by the author of the pamphlet; though, like most places used as tenement-houses, much room for improvement remained.

The Rev. A. Mearns, of the Congregational Union, after the publication of Dr. Waterworth's letter, wrote to the daily papers, and stated that the writer of the pamphlet did not "speak of one small street called Collier's Rents," but of "the district around that street." That being the case, it would have been better if the writer had been more explicit. We hear that large numbers of people have visited Collier's Rents since reading the pamphlet; they have seen a fairly broad street, containing a few houses not, outwardly at least, very bad, and a tidy chapel or hall. Most people would be apt to go away with the impression that the whole cry had been exaggerated. In the neighbourhood, there are courts and alleys which are very bad, and to which the description in the pamphlet may very well be taken as applying; but these are not, we are informed, in the same parish as Collier's Rents. As we have said,

the sanitary authority of St. George the Martyr appear to be anxious to do their duty; not long ago, they spent a large sum of money in erecting a mortuary for the use of the parish; they have taken steps which have led to the clearance of several overcrowded areas; and only last week they obtained a conviction in a case where the first legal steps were taken some months ago, and before the publication of this pamphlet. We are informed that they have now under consideration the best way of dealing with several other limited areas. Unfortunately, the various Acts, such as the Artisans' Dwellings Act, and Torrens' Act, are not as easy to work as might be desired; the powers of the Metropolitan Board of Works are strictly limited, and the question of cost is always an element of difficulty; besides, the mere pulling down of houses is not a solution. There are courts in the neighbourhood we are referring to, though not in St. George the Martyr's parish, which are thoroughly bad, and ought to come down; their demolition has, we believe, been recommended by the sanitary authorities, but endless difficulties arise; the Metropolitan Board, it is said, cannot deal with them, because the areas are too small, so that everything is left to the parish authorities; what wonder if they have some hesitation in putting fresh burdens on the shoulders of the already overburdened ratepayers!

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BUILTH RURAL DISTRICT.—An unsatisfactory feature of the death-rate of this district during 1882 is the increased fatality amongst infants. Out of 119 deaths from all causes, 27 were those of children who had not completed the first twelvemonth of their existence. No fewer than eleven deaths were certified as from convulsions, and seven of these were only a few weeks old, and before dentition had set in. Mr. Herring attributes this mortality to that fruitful source of sickness and death amongst infants—improper feeding. Scarlatina was present in various portions of the district, and, of eleven cases, three proved fatal.

MEDICAL OFFICERS AND RELIEVING OFFICERS.

"A LATE Union Medical Officer" advises "M.R.C.P." to try the following plan, which he found most successful whilst holding an union appointment in Devonshire. He wrote to the relieving officer, as well as to the board of guardians, to the effect that if in any case nourishment or stimulants which he had ordered, or rather suggested, were refused, and the patient died, he should take care that an inquest would be held, and that, most probably, they would be held responsible. This had the desired effect; the relieving officer being told by the board in future to carry out the orders. He hopes that, in time, the Poor-law may be so altered that medical men, and not relieving officers (often most ignorant and overbearing men), shall have the power of definitely ordering nourishment, etc., for recognised pauper patients.

SIR,—Dr. Driver's advice to medical officers, concerning relieving officers, is very good. But suppose the medical officer had only just secured his appointment after a close contest with two or three opponents, any one of whom would be only too glad to occupy his shoes, and, perhaps, even to help to render them vacant by fomenting disturbances; how would it work then?—Yours truly,

NEMO.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—M.B. Examination for Honours. Medicine.

First Class.

S. H. C. Martin, *B.Sc.* (Scholarship and Gold Medal), University College.
R. F. Fox (Gold Medal), London Hospital.
W. D. Halliburton, *B.Sc.*, University College.
E. W. von Tunzelmann, University College.
J. H. Champ, Guy's Hospital.

Second Class.

J. Collier, Owens College and Manchester Royal Infirmary.
P. F. Moline, University College.
S. Worthington, Guy's Hospital.
R. H. S. Spicer, *B.Sc.*, St. Mary's Hospital.
F. F. Caiger, St. Thomas's Hospital.
W. H. Horrocks, *B.Sc.*, Owens College.
J. A. P. Price, Guy's Hospital.
J. T. Rogerson, Owens and University Colleges.

Third Class.

W. T. Brooks, King's College.
E. W. Roughton, St. Bartholomew's Hospital.
R. Black, London Hospital.
J. M. Beverley, Owens College and Manchester Royal Infirmary.
C. B. Voisey, Owens College, Manchester Royal Infirmary, and St. Mary's Hospital.
W. Hull, St. Thomas's Hospital.
R. Sisley, St. George's Hospital.
St. Clair Thomson, King's College.

Obstetric Medicine.

First Class.

S. Rabbeth (Scholarship and Gold Medal), King's College.
E. W. Roughton (Gold Medal), St. Bartholomew's Hospital.
J. H. Champ, Guy's Hospital.

Second Class.

St. Clair Thomson, King's College.
C. M. H. Jones, St. Mary's Hospital.
R. Sisley, St. George's Hospital.
W. Hind, Guy's Hospital.

Third Class.

C. F. Bailey, St. Bartholomew's Hospital.
W. D. Halliburton, University College.
F. F. Caiger, St. Thomas's Hospital.
T. W. Shore, *B.Sc.*, St. Bartholomew's Hospital.
R. F. Fox, London Hospital.

Forensic Medicine.

First Class.

J. Collier (Scholarship and Gold Medal), Owens College and Manchester Royal Infirmary.
J. M. Beverley (Gold Medal), Owens College and Manchester Royal Infirmary.
J. A. P. Price, Guy's Hospital.
J. H. Targett, Guy's Hospital.
J. H. Champ, Guy's Hospital.

Second Class.

R. H. S. Spicer, St. Mary's Hospital.
S. Worthington, Guy's Hospital.
W. Hind, Guy's Hospital.

Third Class.

S. H. C. Martin, University College.
C. H. L. Meyer, Guy's Hospital.
E. Tomlinson, London School of Medicine for Women and Royal Free Hospital.
R. F. Fox, London Hospital.

N.B.—The bracket denotes equality of merit.

B.S. Examination. Pass List.

First Division.

F. F. Caiger, St. Thomas's Hospital.
L. A. Dunn, Guy's Hospital.
S. H. C. Martin, *B.Sc.*, University College.
C. H. L. Meyer, Guy's Hospital.
T. Wilson, University College.

Second Division.

G. H. Barling, St. Bartholomew's Hospital and Birmingham.
W. Hind, Guy's Hospital.
J. T. Rogerson, Owens and University Colleges.
A. G. Salmon, St. Bartholomew's Hospital.
I. Scarth, Owens College and London Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following members of the College, having undergone the necessary examinations at the half-yearly meetings of the Court of Examiners on the 22nd, 23rd, and 24th ultimo, were reported to have acquitted themselves to the satisfaction of the Court, and, at a meeting of the Council, on the 13th instant, were admitted Fellows of the College, viz.:

Messrs. F. Marshall, L.S.A., Stafford, diploma of membership dated April 24, 1877; J. T. J. Morrison, B.A. & M.A.Cantab., Trinity Square, S.E., January 24, 1879; A. M. Sheild, L.R.C.P.Lond., Cambridge, July 24, 1879; J. Whitehouse, L.R.C.P.Ed., Smethwick, July 22, 1879; W. B. Platt, M.D. Harvard, Baltimore, April 19, 1881; R. F. Rand, M.B.Ed., Constantinople; J. E. Square, L.R.C.P.Lond., Plymouth, November 15, 1881; and D'Arcy Power, M.A. and M.B.Oxon., Great Cumberland Place, W., January 18, 1882.

At the same meeting, Mr. D. D. Day, M.B.Lond., Norwich, who passed the examination on May 20th, 1880, having reached the legal age of twenty-five years, was also admitted a Fellow; another candidate also passed who will receive his diploma when twenty-five years of age; and eight candidates, having failed to acquit themselves to the satisfaction of the Court, were referred to their professional studies for twelve months. The examinations for the present year are now brought to a close.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 6th, 1883.

Bennett, Frank Albert, Queen's College, Birmingham.
Griffin, John Hubert, Woburn Place, W.C.
Llewellyn, John, Mount Place, London Hospital, E.
Parsons, Charles John, Muxter, near Newport, Salop.

The following gentlemen also on the same day passed their Primary Professional Examination.

Brooks, William Harrison, London Hospital.
Jaynes, Frederick John, Middlesex Hospital.
Naghten, Matthew Barnwell, Dublin School of Medicine.

MEDICAL VACANCIES.

The following vacancies are announced:

BALLYMAHON UNION, ABBEYSHRULE DISPENSARY.—Medical Officer. Salary, £120 per annum, and Fees. Applications by 18th instant to G. H. Miller, Honorary Secretary, Lenamore, Edgeworthstown.

BATH GENERAL OR MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum. Applications by December 20th.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum. Applications by January 15th.

CAMBRIDGE UNION.—Two Medical Officers. Salary, £50 per annum each. Applications by December 18th.

CHORLTON-UPON-MEDLOCK DISPENSARY.—House-Surgeon. Salary, £120 per annum. Applications to Mr. Adam Fox.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Honorary Surgeon. Applications to Mr. Adam Fox, Honorary Secretary.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant-Physician. Applications by December 17th.

CORK UNION.—Medical Officer to Workhouse. Salary, £100 per annum. Election on December 20th.

COSFORD UNION, Boxford District.—Medical Officer. Salary, £50 per annum. Applications by December 22nd.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by January 5th,

KENT AND CANTERBURY HOSPITAL.—Assistant House-Surgeon and Dispenser. Salary, £50 per annum. Applications by December 21st.

LEEDS FEVER HOSPITAL.—Resident Medical Officer and Secretary. Salary, £150 per annum. Applications by December 24th.

LEOMINSTER UNION.—Medical Officer for the Bodenham District. Salary, £20 per annum. Applications by December 18th.

LONDON HOSPITAL.—Surgical Registrar. Salary, £100 per annum. Applications by December 17th.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer. Salary, £120 per annum. Applications by January 14th.

NEW ROSS UNION.—Medical Officer, New Ross Dispensary. Salary, £115 per annum, and fees. Election on December 17th. Applications to P. J. Roche, Honorary Secretary, New Ross.

NEW ROSS UNION.—Medical Officer, Workhouse Infirmary. Salary, £40 per annum, and £10 as Consulting Sanitary Officer. Election on December 19th.

NEWTON ABBOT UNION, and the URBAN SANITARY AUTHORITIES OF DAWLISH AND WOLBOROUGH, in the County of Devon.—Medical Officer of Health. Salary, £350 per annum. Applications by December 18th.

OLDCASTLE UNION.—Medical Officer, Workhouse. Salary, £110 per annum, and £10 as Consulting Sanitary Officer. Election on December 31st.

PARISH OF ELIE.—Medical Officer. Applications to Mr. R. Birrell, Inspector of Poor, Elie, N.B.

PARISH OF KILCONQUHAR, COLINBURGH.—Medical Officer. Salary, £50 per annum. Applications to Walter Davidson, Esq., Cairnie, Colinburgh, Fife.

PAROCHIAL BOARD OF INVERARY AND GLENARAY.—Medical Officer. Salary, £90 per annum. Applications to the Inspector of Poor, Inverary, by December 17th.

SHILLELAGH UNION.—Medical Officer, Shillelagh Dispensary. Salary, £115 per annum and fees. Applications to William Murphy, Honorary Secretary, Ballykilane, by December 19th.

UNIVERSITY OF EDINBURGH.—Additional Examiner in Medicine in the Department of Medical Jurisprudence. Applications to J. Christison, by January 14th.

WESTBOURNE PROVIDENT DISPENSARY AND MATERNITY, 29, Westbourne Park Crescent, Harrow Road.—Surgeon. Applications by December 17th.

WESTERN INFIRMARY, Glasgow.—Apothecary. Applications by December 31st.

WOBURN UNION.—District Medical Officer and Public Vaccinator for the Aspley Guise District. Salary, £70 per annum. Applications by December 20th.

WOBURN UNION.—Medical Officer for the Workhouse. Salary, £35 per annum. Applications by December 20th.

YORK DISPENSARY.—Resident Medical Officer. Salary, £130 per annum. Applications to S. W. North, Esq., 84, Micklegate, York, by December 26th.

MEDICAL APPOINTMENTS.

AUDLAND, W. E., L.R.C.P.Lond., M.R.C.S.E., appointed Assistant House-Surgeon to the Northampton General Infirmary, *vice* — Smith, resigned.

CHAFFEY, W. C., M.B., appointed Medical Registrar to the Hospital for Sick Children, *vice* A. Money, M D., resigned.

CLARK, Annie E., M.K.Q.C.P.I., M.D.Berne, appointed Extra Acting-Physician to the Children's Hospital, Birmingham.

MIVART, F. St. George, M.R.C.S.Eng., appointed Surgeon to the Western General Dispensary, *vice* G. H. Hames, F.R.C.S., resigned.

PERKINS, Whitfield, M.R.C.S.E., appointed Medical Superintendent to the Sir George Bowles Hospital for Butleigh-cum-Baltonsborough and six adjoining parishes.

RANKIN, A., M.B., appointed Out-door Accoucheur to the Glasgow Maternity Hospital, *vice* J. Donald, jun., M.B., resigned.

RICHARDS, Thomas, M.B., appointed extra Acting-Physician to the Children's Hospital, Birmingham.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

PARSONS.—December 6th, at 13, Whitworth Road, South Norwood, the wife of H. Franklin Parsons, M.D., of a daughter.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F. 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu. 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Sir Andrew Clark: On Catheter-Fever.

TUESDAY.—Pathological Society, 8.30 P.M. Dr. Charlewood Turner: Quiet Necrosis. Dr. Wickham Legg: Melanosis after Melanotic Sarcoma of the Choroid. Mr. Godlee: Three Cases of Tubercular Disease of the Tongue (living). Mr. Symonds: Tubercular Ulceration of the Tongue. Mr. Jessett: Tubercular Ulceration of the Tongue. Dr. Goodhart: Tubercular Ulcers of the Base of the Epiglottis (card). Dr. Norman Moore: Three Examples of Pancreatic Disease. Mr. Bowlby: Dermoid Cyst of the Finger.

WEDNESDAY.—Royal Microscopical Society, 8 P.M. Dr. J. H. Z. Flügel: On Sections of Diatoms.

THURSDAY.—Abernethian Society, St. Bartholomew's Hospital, 8 P.M. Mr. Robert Jones: What Constitutes Insanity?

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CHEYNE-STOKES RESPIRATION.

SIR,—Will some member kindly explain the Cheyne-Stokes respiration? I have searched three of the well-known text-books on medicine, but can find no mention of it.—Yours truly, IGNORAMUS.

*** The precise mechanism by which the so-called "Cheyne-Stokes respiration" is produced, has, so far as we are aware, never been worked out; still, the conditions under which it occurs are well known, and may afford a hint as to the mode of production. It occurs commonly when death is impending, and where the heart is enfeebled (Stokes), and especially when the enfeeblement is due to fatty degeneration (Cheyne). It occurs also in other diseases of the heart, and with considerable frequency in certain forms of cerebral disease—hæmorrhage, thrombosis, tumor cerebri, and tubercular meningitis. It has also been observed in diphtheria and typhoid fever, and in renal disease. If we omit tumor cerebri, it will be seen that all these diseases tend in a marked manner to enfeeble the circulation—the chronic diseases by the vascular and cardiac degenerations they cause, the acute by the extreme exhaustion which they produce. In health, during the inspiratory act, the arterial tension rises, and the heart acts more powerfully; the tension, and therefore the cardiac activity, reach the maximum soon after the end of inspiration; in the dyspnœa caused by approaching asphyxia, the arterial tension (pressure) rises very rapidly. We are justified in concluding that, during the rapid deep inspirations of the respiratory stage of the Cheyne-Stokes phenomenon, the arterial tension and the cardiac activity rapidly increase, and that, therefore, the efficiency of the circulation is greatly increased; the blood, that is, becomes rapidly aërated in the lungs, and rapidly distributed throughout the whole system; it thus reaches the brain in good quantity and well aërated (oxygenated); now the respiratory centre is stimulated (using the word in a general sense) by venous blood, that is, the more venous be the blood which reaches the respiratory centre in the medulla, the more rapid will be the respiratory movements (*cæteris paribus*). The action of the respiratory centre is, as is the case with most if not all centres, rhythmical; so that, though the stimulus be constant, the action of the centre is intermittent; in health, this intermittence is regular or rhythmic. Let us, however, suppose the respiratory centre to be less susceptible to its stimulus than natural; let it be, in fact—to use Dr. Sansome's phrase—paretic; then, when the blood supplied to the centre is more oxygenated than natural, or at least not more venous than natural, the activity of the centre ceases, and respiration ceases. The centre being paretic, or less susceptible to stimuli than in health, does not act at once when the blood becomes venous to a degree sufficient to stimulate it in health. The consequence of this cessation of respiration is a diminution in the activity of the circulation, both in the brain and lungs; gradually the blood becomes so venous that it at last succeeds in starting the centre again into activity. The violence of the one or two deepest inspirations may be set down to the perverted activity of the centre, as an instance, in fact, of the irritability of exhaustion. The observed disorder is as follows, beginning the cycle at a pause: respiration begins again, and is at first short and shallow, but quickly becomes deeper and more and more laboured, and then becomes again slower and shallower, until it ceases altogether; this pause lasts for a period of a quarter of a minute to a minute; then the respirations begin again, and pass through the same ascending and descending scale.

With regard to our correspondent's failure to find any mention of the subject in the text-books, we may remark that, in both the text-books with which we are most familiar, those, namely, of Dr. Roberts, and of Dr. Bristowe, there is a short description of the phenomenon, and a statement of the class of cases in which it occurs.

W. H. C.—The report was made to the Académie des Sciences as published. We have no further details.

FIGS OR ORANGES?

LITTLE things, says Oliver Wendell Holmes, mean a great deal in the sick-room. "Will you have an orange or a fig?" said Dr. James Jackson to a fine little boy now grown up to goodly stature. "A fig," answered Master Theodore, with alacrity. "No fever there!" said the good doctor, "or he would certainly have said an orange."

MEDICAL TEMPERANCE ASSOCIATION.

R. L. asks for information as to the Medical Temperance Association, mentioned at page 1085 of the BRITISH MEDICAL JOURNAL of December 1st, its constitution and rules, scope, etc.

*** The conditions of membership are personal total abstinence from all intoxicating liquor as a beverage, and a minimum subscription of five shillings a year. Members are elected by the Council. Application for membership may be made to the Secretary, Dr. Ridge, Enfield; to Dr. Norman Kerr, 42, Grove Road, Regent's Park, N.W.; or to any other member of Council.

TRICYCLES FOR WINTER RIDING.

SIR,—Permit me to caution those brother practitioners who are worried by the trouble and expense of horse-keeping, against trusting too implicitly in the sanguine views of Mr. Allbutt as to the capabilities of a tricycle. I have ridden bicycles and tricycles for five years, and I have frequently seen the roads in such a state, that it was impossible to use any machine whatever. Your correspondent seems to think that mud and hills are the chief bugbears of cyclists; he forgets that high winds sometimes accompany rain, and that a fall of a few inches of snow is not quite unknown. The possibility of not always feeling quite well I leave out of the question.

Occasionally during the winter, a good tricycle or bicycle will be found very useful; but, in the country at least, a horse cannot be dispensed with. On any intending tricyclist, I would strongly impress the importance of getting as small a machine as possible. One with 40-inch wheels is much lighter and stronger than a similar one with 48 or 50-inch wheels; and, if "geared up," it will, with less exertion, run as fast as the taller machine.—Yours truly, IXION.

TRAVELLING EXPENSES OF MEDICAL WITNESSES.

SIR,—A lady instituting a suit for divorce thinks I can give some technical evidence in her favour, and has directed her solicitor to serve me with a subpœna requiring my attendance in London during the present sittings. Believing the lady to be in not very affluent circumstances, I thought it desirable to write to the solicitor, informing him that I did not consider myself bound to leave Cork till I should have received "reasonable expenses." He wrote in reply, saying the £5 handed to me with the subpœna was only to cover my travelling expenses; but, to show how inadequately it will do even that, I may mention that the return fare, *viâ* Holyhead, is very nearly £6. Will you kindly advise me as to how I ought to act under the circumstances. Will the law require me to not alone neglect my practice, but to advance money out of my pocket for hotel and travelling expenses, without, as far as I can see, any sufficient guarantee that I shall be ever recouped?—I am, truly yours, H. C.

*** If our correspondent can prove a fact, he must obey the subpœna; but, if he be called upon to give evidence as to his opinion only, he is under no such obligation. But in any case, should he not appear at the trial, he may be sued for damages, owing to his non-attendance. Reasonable expenses, under such circumstances, are commonly, we believe, taken to mean second-class return fare by any ordinary route—unsatisfactory as that view is. The whole subject is discussed in the third edition of Taylor's *Principles and Practice of Medical Jurisprudence*, vol. i, pp. 17-19, 40, and 41.

THE COLLECTIVE INVESTIGATION COMMITTEE ON ACUTE RHEUMATISM AND CHOREA.

SIR,—In your article in the JOURNAL of December 8th on "The Result of the Collective Investigation on Acute Rheumatism and Chorea," you say: "The common ailments to which.....and we find no mention of lumbago or of other so-called muscular rheumatisms." I have now under my care a youth, aged 19, suffering from acute rheumatism. Ten years ago, he had a first attack of the same, complicated with pneumonia of the right side, according to the account of his mother, a very intelligent woman. Since then, he has suffered at various times from lumbago, pleurodynia, and vague muscular pains; and this present attack commenced with pleurodynia of the right side; and for two days he suffered severely from that complaint before any signs of pyrexia or articular rheumatism showed themselves. Then acute rheumatism set in whilst in bed, attacking first his ankles, then the knees, and lastly the right shoulder. The exciting cause was apparently getting wet through, and standing in front of a fire till dry enough to walk home. The treatment has been salicine in fifteen-grain doses, the acute symptoms subsiding rapidly after the first half-dozen doses.—Yours faithfully, T. RUELL ATKINSON.

Madeley, Hereford.

LUMINOUS HARNESS.

WE have lately heard of an ingenious application of "luminous paint," which may be useful to those who drive at night. This paint, as is well known, absorbs light by exposure during the day, and gives it out again in darkness. When portions of prominent parts of a horse's harness, as the blinkers or the collar, are coated with luminous paint, the parts so treated become quite visible in the dark, and so the position of a horse may be clearly indicated. Luminous night-blinkers will be an useful novelty on dark roads.

EDUCATION AND BODY-GROWTH.

DR. CHARLES ROBERTS, whose report of the Anthropometric Committee attracted much attention at the last meeting of the British Association, has drawn up a special chart, to be used in schools and families, for tracing the body-growth of boys and girls. On the chart are marked in ascending curves the average development of Englishmen, based on the measurements of over 53,000 individuals, so that any departure from normal type may be at once detected. The article which accompanies this chart (published as a supplement to the *Journal of Education*) contains some curious and interesting facts. Thus, it appears that, between the ages of 11½ and 14½, girls are actually taller, and between 12½ and 15½ are heavier, than boys of the same age. The difference between classes is not less marked. The public-school boy at 14 averages nearly seven inches more in height than the industrial-school boy at a corresponding age. Again, the prize-winners in life are found to have a decided advantage in height. Fellows of the Royal Society are more than two inches above the average stature. Dr. Roberts's practical deductions from these and other statistics deserve the attention of all parents and schoolmasters.

TRAPS FOR MEDICAL PRACTITIONERS.

SIR,—I have been nearly thirty-eight years in my house. On an average, about three or four cases of bastard pregnants a year used to call to inquire whether they were really so. By the aid of the admirable Rescue Society, I have been able to point a way of escape from the consequences of their folly. Now, on an average, two blooming young females call in each month, stating that they are pregnant, and require remedies, etc. I answer them by saying, "Bring a respectable married woman with you, and we will hear what you have to say." I need scarcely add they never do this. There must be a large staff of such girls, for the same woman never turns up again. I mean by "blooming females" such as are certainly not pregnant; no trace of sadness, or shame, or sickness; but bold, unabashed, as such visitors always appear to be. I write to ask some experienced members, in the plenitude of their knowledge, to tell what these women are.—Yours, etc.,

AN OLD MEMBER.

SCHOOL ON THE SOUTH COAST.

COLIN G. CAMPBELL, Uppermill, Saddleworth, offers his best thanks to the many gentlemen who have so kindly replied to his inquiry published in the JOURNAL of December 1st.

DETERMINATION OF SEX.

SIR,—The explanation of "R. S." on determination of sex does not elucidate the reason why, week after week, without exception, there are more males born than females. If it were as he surmises, we would expect to find that the females would be in excess some weeks, and that the general balance for the whole year would be pretty nigh even; or that some years would show an excess of females. I know a lady with five girls, and who has never given birth to a male child. There must be a more obscure reason for this than "R. S." imagines.—Yours truly,

A. T.

L.R.C.P.(ED.) should write to the Registrar of the College in question, and we should be glad to see the answer.

CAUTION: GUY'S MAN; IMPOSTOR.

SIR,—Having received one or two letters concerning my communication, which appeared in your columns last week, touching a man professing to be a Guy's man, Wilford by name, I think it might make the matter clearer if I state that the man who called on me giving that name has called on other Guy's men with a different tale and a different name. I do not suppose his real name is Wilford (although some have read my letter as if I did), but that he assumes the names of various Guy's men resident abroad in order to give colour to his tale. He does not beg, but he does what is equivalent to it.

The letter which you were good enough to publish last week was based upon inquiries I had made of those of my friends whom "Wilford" named as personally known to him, and as having advised his calling on me; but I had not then found to what an extent the deception was pushed.

I think this notice is as much due to the real Wilford—who, I presume, is still resident abroad—as to the Guy's men who may be deceived by the variously named mendicant; and I should have sent it to you earlier, had I not thought that the pressure of other matter had excluded my first letter from your columns.—I am, sir, yours faithfully,

ARTHUR H. JONES.

32, Sheep Street, Northampton, December 11th, 1883.

DR. BROWNLESS, MELBOURNE.—We understand that, as the papers were only sent in from the Colonial Office on Thursday last, the election will not take place until January next.

THE SHOEING OF HORSES.

SIR,—My attention has been drawn to an article in a late number of the *Veterinarian* on "Horses without Shoes," by Mr. Greene, of Northampton. For the benefit of those who hesitate to try a new plan of shoeing, I will relate my experience.

For the last three years, I have entirely discarded the old form of shoes for horses. During this time, I have had in my stable five horses, for periods varying from two and a half years to six months. Their ages, at the time of purchase, have been: in three cases, six years; in one, eight; and in another, about ten. First of all, on getting a new horse, I take off the shoes, sometimes weighing one pound each or more, and substitute light Charlier steel tips weighing about two ounces, which are let into the hoof by cutting a shallow groove in the hard outer horn. These allow the heel to rest on the ground, as they only circle the hoof to about two-thirds of its extent, and permit the natural expansion to take place when the foot is in this position. For a few days, perhaps, the horse will go a little tender on his feet, especially if the frog have been previously much cut away, as is usually done by blacksmiths. The horse will soon become accustomed to the new order of things; and, if carefully put on, the tips will remain on quite as long as ordinary shoes. Meanwhile, the portion of hoof which is allowed to rest on the ground is gradually becoming harder, and the whole foot is slowly filling up with callous horn, except the heel, which remains a soft pad to lessen the shock of concussion. It takes almost a year for a hoof to assume this condition; but long ere that period has elapsed, it is possible to run the horse for short intervals without shoes at all. For instance, when a steel tip drops off at the end of, perhaps, six weeks, I allow the hoof to become worn down until tenderness is shown before putting on another. Under no circumstances should the frog be touched with the knife. At the end of ten or twelve months, it is quite possible to run a horse which has made a good hoof without any shoes. This I did last summer, for about four months, in the case of a horse seven years old, which I bought a year previously. I found, however, that when the roads became muddy in the autumn, he began to go tender, due, I think, to the increased friction and consequent wear of hoof on the wet roads, as compared with the dry roads in summer. In no case have I found lameness or any other than a good result to follow this method.

This plan of shoeing seems to me to have, amongst others, the following advantages: 1. Horses do not require to be so frequently shod; in summer, at least, it is possible to run a horse without shoes. 2. Horses shod in this way never have corns or tender feet, except just at first; the legs are saved the shock of the concussion of a heavy iron shoe on a hard road; the legs do not become swollen after a long run. 3. It is impossible for a hoof of this kind to take up snow in winter, or a stone when the roads are newly macadamised. This does away with the dread of slippery or snow-covered roads and the necessity for "frosting."—Yours faithfully,

GEORGE T. B. WATTERS.

Stonehouse, Gloucestershire, November 26th, 1883.

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BOOKS, ETC., RECEIVED.

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The Organs of Speech, and their Application in the Formation of Articulate Sounds. By Hermann von Meyer. London: Kegan Paul, Trench and Co. 1883.

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Elements of Surgical Pathology. By Augustus J. Pepper, M.B. Illustrated with Eighty-One Engravings. London, Paris, and New York: Cassell and Co., Limited. 1883.

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AN ADDRESS
ON CATHETER-FEVER.

Delivered at a Meeting of the Medical Society of London, Monday, December 17th, 1883.

By Sir ANDREW CLARK, Bart., M.D., LL.D.,
Physician to the London Hospital, etc.

Somewhere about the year 1850, one of the medical officers of Haslar Hospital (who, I dare say, will be kept in remembrance by my former messmate, Sir Joseph Fayrer), between fifty and sixty years of age, of nervous constitution, but apparently in robust health, requested me to examine his urine. Accordingly, I submitted it to as careful an examination as I was then competent to make, and all that I could find out against it was, that it was too great in quantity, too low in density, and too pale in colour. He then informed me that he had trouble with his bladder, that he meant to consult Sir Benjamin Brodie, and that he wished me to accompany him for that purpose to London. Sir Benjamin examined his patient; drew off a large quantity of urine from the bladder; told him he was suffering from simple enlargement of the prostate; prescribed the regular use of the catheter; and, with a few general cautions against a careless diet and exposure to cold, he quickly but kindly dismissed us both. We returned to Haslar. In about a week, the patient was free from local discomfort, and without complaint of his general health; but then he began to feel and to look ill. He complained of *malaise* and weakness, and of general pains. He lost his appetite; was tormented by thirst; had nausea; became feverish; took to his bed; got daily worse; and, notwithstanding the efforts of his colleagues, who could not agree as to the nature of his malady, he died in about three weeks from the beginning of his illness. No *post mortem* examination was allowed. The case here so imperfectly narrated made upon my mind an impression which has never been effaced; but, until about the year 1865, I saw no other case exactly resembling it.

In that year, I was summoned by Mr. Peter Marshall to visit a gentleman suffering from fever. Certainly he was in, what is called vaguely amongst our elder brethren, a typhoid state. He was between fifty and sixty years of age. He was lying on his back in bed, apparently in a state of great prostration. The face was faintly yellowish and mottled, the lips dry, the pupils dilated, and the breath fœtid. The tongue was small, brownish red, dry, tremulous; there was complete anorexia. The bowels had been imperfectly relieved. The urine, habitually removed by the catheter, was low in density, acid, and deposited, on standing, a little muco-pus, and contained a small quantity of albumen. The heart's action was quick and frequent, the pulse small and compressible. The bases of both lungs were congested. The skin, subicteric, and for the most part rough and dry, was here and there, chiefly about the hands and feet, bedewed with watery sweat. The acuteness of all the special senses was blunted; and the patient, dull, heavy, and indifferent, could yet be roused to speak, and to answer clearly questions put to him. The temperature of the body at the time of examination in the afternoon was 103°. The story of this case resembled the story of the case first narrated. The patient, supposed to be healthy but suffering from an affection of the bladder, was, a few weeks before my visit, placed upon the daily use of the catheter, did well for about a week, then became ill, and fell suddenly downward into the condition in which I saw him. Neither Mr. Marshall nor I ventured to form a definite diagnosis of the nature of the patient's malady; but, remembering the case at Haslar, I suggested that the fever, which, we agreed, was not a specific fever, had originated out of the condition begotten by the entrance upon catheter-life. I saw the patient only once. The remedies proposed, the food, the alcohol, the quinine, the aperients, were all of no use to the patient, and he died within a week of our consultation. With great difficulty, permission was obtained to make a *post mortem* examination; and, although it was made with both care and interest, nothing definite was found outside the bladder, and nothing in it sufficient to necessitate or account for death. The prostate was enlarged, the bladder was dilated and thickened. Viewed from the inside, it was trabecular and slightly saccular; the mucous lining was congested, and, in part, eroded, and everywhere coated with a greyish-white stinking mucus. There was nothing to be detected in the urethra or in the kidneys although they were carefully examined. I was accustomed to such examinations, and neither Mr. Marshall nor I could say anything better of the cause of death, than it was due to irritative fever.

The study of this case gave birth to the opinion (now a confirmed belief) that the entrance upon catheter-life occasionally gives rise to a pernicious fever, which, in the majority of instances, destroys life, and is sometimes, without the intervention of any sensible structural change, sufficient to account for death. Since 1866, every year has added to my experience of such cases; and, for over ten years at least, I have been in the habit of mentioning them to surgeons with whom I have had the privilege of consulting. From Sir James Paget, and especially from Sir Henry Thompson, whom I have often met in such cases, I have received at various times much important information; but as I have received from neither of these distinguished surgeons explanations completely in harmony with my own experience and views of such cases as the one just narrated, and as further information might be now in their possession, or in the possession of others, I ventured, upon a recent occasion, at the Clinical Society, to mention the subject in the way in which it has occupied my thoughts, and to invite from my surgical contemporaries their latest experiences and conclusions concerning it. The constitution of the Clinical Society did not permit abstract questions of this kind to be discussed, and my object was not to offer, but to receive, information. My remarks, finding a place in the medical journals, and being by them widely disseminated, have elicited from practical surgeons in all parts a variety of interesting and instructive communications concerning the nature and causes of the fever which occasionally follows casual or habitual catheterisation. Nevertheless, as the exact character of those remarks which I made has been, doubtless by my own fault, misapprehended, and as the subject is of such importance as not only to justify, but to require, the statements made respecting it should be accurate and clear, I gladly, as I have said, comply with the request conveyed to me from various quarters to re-open the subject. Now, sir, it is not my intention on the present occasion to narrate a series of cases and to build thereon a dissertation upon what, for the sake of provisional convenience, I have called catheter-fever. I have not, indeed, at my command the materials necessary for such an undertaking; and if I had, devoid as I feel myself to be of the enlightenment and strength which flow out of the surgical instincts begotten by long surgical experience, I would not attempt it. I have seen many cases of catheter-fever, but I have never had charge of one. I have visited my cases only occasionally, and in consultation with other practitioners; and almost always my colleagues have been too busy to keep and to furnish me with minute and continuous records. Indeed, from the present temper of the public mind, the fear which patients have of being made the subjects of experiment, and the demands so thoughtlessly and even cruelly made upon a practitioner's time, it has become increasingly difficult to keep clinical records of any case for oneself; and the public, in what I must call its vicious stupidity, is thus hindering us from helping it so well as, otherwise, we might have the power to do. But, although my records of individual cases of catheter-fever are thus, from the necessity of the case, incomplete, I venture to think that, both by the study of their salient characteristics and by the questioning of those in charge of them, I have learned at least enough of their nature and importance to justify me in making certain propositions, and in asking certain questions concerning them. The statements which I propose making about this catheter-fever will be most conveniently embodied in a short series of propositions. But, before submitting them to your consideration and criticism, it will be necessary, in order to obtain a clear and comprehensive understanding of the subject underlying them, to discover the origin and to follow the historical development of those ideas which have shaped the theories of surgeons and determined their lines of practice.

I have placed here a table, which, I regret to say, is imperfect. It is a table prepared by my assistant, Dr. Delépine, who has devoted to it most careful study and most conscientious care; and it has, on account of the deficiency of indices to books, occupied an amount of time and caused a degree of labour which you can scarcely imagine. I shall have it, for further purposes, completed. In the meantime, it will enable those who do not follow me closely in reading to determine for themselves the order and development of the ideas which have been promulgated concerning this subject. I shall not, in my retrospect, follow as minutely as is here followed the development of these ideas; but I shall take the leading ideas;

for, by holding to these leading ideas alone, I think we shall be able to survey the whole field.

In 1800 it was known, but not distinctly expressed, that surgical interference with the urethra and bladder was sometimes, and in certain circumstances, followed by an irritative fever. It was not, however, until 1810 that Moffait, as quoted by Velpeau, described a case of chronic stricture of the urethra, in which simple catheterism was followed by rigors, irregular fever, purulent arthritis, as it is called in France, and death. In 1832, ideas concerning the causal relationship of catheterism to consecutive fever first found form and expression in the writings and teachings of Brodie and Velpeau, and perhaps of Civiale. Brodie distinctly, and even emphatically, mentions the dangers of catheterism, and describes as occasionally occurring in consequence of it, paroxysms of irregular fever—like ague, and leading sometimes to prolonged debility, sometimes to continued fever, with rheumatic pains, and sometimes even to mania. He further says that, in such cases, death may follow, but he cites no case of its actual occurrence. Velpeau enters much more minutely into the nature and relations of the fever thus mentioned, and contributes several new ideas to the further development of the subject. He alleges that in some persons, perfectly healthy, not malarious, not exposed to its influences, even easy catheterism may develop a consecutive and continuous fever, and that this fever has five varieties. In the first it consists of a single paroxysm of fever, ending in *malaise* and debility, with recovery in a few days. The second consists of recurring paroxysms of fever, issuing in continued fever, and oftentimes fatal. The third consists of an inflammatory fever arising out of nephritis, phlebitis, and other local inflammation. The fourth consists of fever, associated with purulent arthritis. The fifth consists of a rapid succession of violent paroxysms of fever, speedily ending in collapse and in death. Velpeau then points out, and very clearly, that in the second and fifth varieties he has never found present at the necropsies any adequate structural cause of death, and in these cases he is disposed to regard the origin of the fever as caused by the re-absorption of vitiated urinary constituents. But on this, and indeed on similar points of pathogenesis, he is both obscure and vague. Civiale, whose great work is disfigured by passionate claims of priority in this matter (of which claims he furnishes no proof), and by the satirical invective which he launches against the juster and greater Velpeau, gives a full and admirable description of this catheter-fever; but, whilst admitting that the fever is due sometimes to the urethra, and sometimes to the bladder, and contending that the fever of the one differs essentially from the fever of the other, he almost angrily minimises the effects of surgical interference, and, it would seem as if with a judgment disturbed by emotion, contends that in most cases the fever has existed before the use of the catheter, or that it is due to nephritis.[1]

But in the latter part of Civiale's work, marked by greater sobriety of language and a more judicial tone of argument, (page 612, ed. 1860), he distinctly qualifies these strong assertions, changes his point of view, and says that the cause of fever is vague and uncertain, and that, in speaking of its nature, we can only guess.

In 1858, Mr. Phillips contributed some further ideas concerning the conditions under which this fever is developed. Describing the fever, and in the main following the classification proposed by Velpeau (who, it may be remarked, is the source whence almost all subsequent writers have derived their inspiration, and sometimes, without acknowledgment, their ideas), he asserts, first, that the simplest as well as the severest catheterism, with the largest or the smallest instrument, may originate the fever; secondly (and this is the most important contribution, if it be a true one, which he has made), that, unless the affection of the urinary passage lies behind the bulb, the fever does not follow; and, third, that the predisposition to the fever does not lie in the state of the nervous system at all, but in the existence of certain diatheses and in chronic disorders of the general health.

In 1859, Marx, in a monograph of remarkable merit, reviewed the state of the question at his time, and contributed to its elucidation and development certain important facts and ideas, expressed with great clearness and used with judicial ability. He adopted a classification of the varieties of catheter-fever similar to that given by Velpeau; recognised uncomplicated cases issuing in death without any discernible structural lesion outside the bladder, quoting eight or nine that occurred in his own experience; asserted that it may occur in persons of perfect health; and that, in them as well as in others not healthy, it may follow upon any state of the urinary organs requiring the passage of a catheter; and, finally, he declared with emphasis the fever to be positively uræmic, and ascribed its origin to insufficiency of the kidneys arising out of functional or of structural disease. In this work, perhaps for the first time, the causal relationship of catheterism to catheter-fever was most clearly and comprehensibly set forth, and a logical, coherent, and ingenious, if not accurate, theory of the genesis of the fever was propounded.

In 1867, the practical, and indeed, also, in some respects, the theoretical, aspects of this subject were greatly advanced by the publication of the now classical work of Sir Henry Thompson on the urinary organs. In this work, characterised by great force, method, clearness, precision, and knowledge, he mentions the perils of catheterism, gives instructions for averting them; notices the occurrence, in a few exceptional cases, of a low, irritative fever; and quotes Sir Benjamin Brodie to show that, in a few weeks, it might terminate in death. But, furthermore, he says (and here he differs from almost every one of his predecessors in this line of inquiry), that, in all such cases, there will be found old-standing pyelitis, with dilatation and marked degeneration of the renal structures, and that in no circumstances could such patients long survive. Looking at the unrivalled experience of this distinguished surgeon, and remembering how often I myself have consulted with him about cases such as this that I am now considering, I confess to a feeling of disappointment that he has not made time to give to the profession a more serious and adequate account of this important matter, which he must know better than almost any one else.

In 1867, the distinguished President of this Society, Sir Joseph Fayrer, gave an admirable account of the varieties of catheter-fever; declared, if I understand him aright, that the predisposition to it lay in the malarious state and its consequences, or else in incipient or advanced disease of the kidneys, or other parts of the urinary tract; that it began (and from him we have, for the first time, a clear and express statement on this point) in reflex disorder of the nervous system; that it was not toxæmic; and that catheterism alone, without injury or sensible irritation, was in these circumstances sufficient to originate the febrile phenomena and process. In 1868, Sir James Paget notices this fever, and makes some remarkable additions to our knowledge of it. He says that, when the urine is of low density and abundant; when the patient is gouty, dyspeptic, or otherwise chronically disordered; when, having a stricture, it becomes irritable, and weakens the health; or when, being old, something has occurred to cause temporary depression of the health, catheterism will be especially dangerous, and may bring about a fever, ending in death. He leans to the opinion, although he does not distinctly express it, that renal degeneration is the cause of the fever, but admits that, so far as his own experience goes, the cause is apparently inadequate. Lastly, he states that the mortality of such cases is from three to four per cent.; which, even with my grave views of the subject, is a much higher ratio than my own experience would have led me to expect.

In 1871, Mr. Banks, of Liverpool, describes the effects of simple catheterism, and classifies them into three varieties; first, rigor, with *malaise*, recovering speedily; second, rigor with *malaise* and prostration, followed in a few days by fever and death; and third, cases of shock, producing death within sometimes a single day. Admitting that renal disease predisposes to such attacks, he denies that they are due to suppression of urine, and he ascribes them to shocks of greater or of less severity propagated through the sympathetic nervous system. Here the nervous theory begins to preponderate over the other. In 1873 Malherbe, in his work on the fever of diseases of the urinary passages presents a fairly just account of the state of our knowledge of this subject at the time of publication, and he adds certain important cases of his own. These cases are illustrated by a number of interesting and instructive temperature-charts. He avers that the fever may arise without local irritation; describes it as uræmic; alleges that the predisposition to it is renal; and whilst admitting—nay, giving evidence of the admission—that in some cases, not a few, no structural lesions are found after death, he yet holds to the hypothesis that the origin of the fever is in renal imperfection. In 1877 Mr. Marcus Beck contributed to the further elucidation of this subject two important papers bearing upon them the marks of practical knowledge, accuracy of observation, and careful thought. Describing the fever in which death may occur in from nine to forty-eight hours (and not, as I found, noticing the longer fever of which I speak), he holds that the predisposition to it lies in chronic disorders of the health, in renal imperfections, and in age; that the exciting cause is pro-

[1] I owe to Dr. Matthews Duncan my best thanks for a letter, in which he tells me that he himself has listened to Velpeau setting forth the characters of this very catheter-fever to which I am calling attention.

ably mechanical irritation or lesion of the urethra, and that the fever is begotten through irritation of the spino-cerebral and sympathetic nerves, reflected upon the kidney, and bringing about structural or other insufficiency thereof. Beck strongly supports the hypothesis that the fever is uræmic, but plainly his views are based on the study of old worn-out hospital cases.

Now, without carrying it further, it will be seen from this rough historical retrospect that catheterism is occasionally followed by a fever which has received the various names of urethral fever, urethro-vesical fever, urinary fever, uræmic fever, catheter-fever, and so forth; that, in some cases, this fever is dependent upon, or associated with, purulent arthritis, ordinary pyæmia—what is known in England as surgical kidney, or interstitial nephritis—and that, in a small but still noticeable percentage of cases, no adequate structural cause of death has been found. Now, it was of this last variety of fever that I spoke upon a recent occasion at the Clinical Society, and it was of this variety alone that I made, or mean to make, the following propositions.

First, about middle life in men perfectly healthy, or with no discoverable evidence of disease, except, perhaps, and even then not always, a low density of urine, the commencement of the habitual use of the catheter is sometimes followed by fever of the remittent type, which often ends in death; and, for the fatal issue in such cases, no adequate structural explanation can be found.

Secondly, it is important that such a fever arising in the midst of apparent health from such a seemingly small cause, and leading so often (as it certainly does) to a fatal issue, should be well and widely known, lest death should take the friends of the patient by surprise, and arrangements necessary to the welfare of a family should be left unmade.

Thirdly, although it is well known that in persons affected with renal disease, or in chronic gout, or with grave disorders of the general health, the commencement of habitual catheterism is attended with peril to life from secondary fever, the fact that this fever may arise in what seems to be good health, and, without the mediation of any visible structural lesion, issue in death, is not well known, or at least well known only to a few, and has, I repeat, no adequate place in English surgical literature, or in the English surgical teaching of this time. Of course this knowledge will be found, as I have in a very imperfect way shown you, in special monographs, and papers; but those are the luxuries of the few, and, for the most part, the luxuries of specialists who work in that direction; but such knowledge should be, as I think, fully imported into all common text-books, and so made accessible to the whole body of the profession.

Fourthly, this fever is neither distinctly uræmic nor distinctly pyæmic; although having some of the characters of each, it has all the necessary characters of neither. Probably it begins in the nervous system. Probably the disturbance of the nervous system reacts, in the first instance, upon the general metabolism of the body, and, in the second instance, upon the secretory organs, beginning with the kidney. The effect upon the kidney may consist either in structural alterations of the kidney, invisible by the aid of our finest instruments of research, or, as seems to me much more probable, in alteration of the constitution of the blood, the dynamic condition of its constituents in the renal vessels essential to the elaborative action of the secretory cells thereof; and, lastly, the concurrence of these conditions may, and often is, enforced by septic re-absorption into the blood.

Fifthly, a more complete knowledge of this variety of fever and of the conditions of its origin, maintenance, and increase, may, at least we may hope, lead to a material diminution of its mortality; and, even now, by treating in a serious manner entrance upon catheter-life, by taking the precautions set forth by Sir Henry Thompson, by great temperance in the use of foods and stimulants, by rest, warmth, and by other general means upon which I shall not dwell, such mortality, I repeat, may be possibly considerably diminished.

Of these five propositions, the one at the present moment most open to attack is the fourth, wherein it is asserted that this fever is not distinctly and exclusively uræmic. For, in these days, it has come to pass that almost every writer of distinction adheres to the view of the uræmic origin and nature of catheter-fever, or the thing known under that and other names, and I am, as it were, left by myself very imperfectly armed to oppose it. I oppose it. I ground my opposition to the exclusively uræmic theory upon the fact that the phenomena of catheter-fever, not as they exist at a particular moment, but in their assemblage and in their progress together, are different from those of the ordinarily recognised uræmia. The duration is at once longer and shorter—longer than that of acute uræmia, and wanting its headache, its perversions of sensation, its changes in the urine, its convulsions, its profound coma; shorter than that of chronic uræmia, wanting its neuralgias, its recurring headaches, its defects of sight, its itchings of the skin, its vomiting, its characteristic breath, its attacks of dyspnœa and palpitations, its painful nervousness, its low temperature. Furthermore, the urine of the catheter-fever—of this variety, at least, of catheter-fever—is always loaded with micro-organisms of various kinds; and, although it is deficient in urea, and contains more or less albumen, it deposits no tube-casts, and it is capable of amendment. Lastly, whilst chronic uræmia issues in death, catheter-fever may issue—sometimes does issue—in complete recovery. Sir Henry Thompson may remember that I saw with him a distinguished nobleman, not far from Oxford Street, who had to make an entrance upon catheter-life; and he very justly and wisely warned the relations that it was a serious procedure, and that he might suffer constitutional disturbance after the starting of this mode of life; and it happened that he did suffer this constitutional disturbance. It happened, indeed, that he had a mild variety of this fever which I am describing, and that it continued between a fortnight and three weeks. Eventually, with Sir Henry Thompson's help, he recovered; and I think I may say now—five, or six, or seven years afterwards—he is in good health at an advanced age. Except in its long duration, in its occasional rigors of great severity, and its exceptional clearness of mind, the phenomena of what is called endocardial fever resemble more nearly those of the fever which I have called for the moment catheter-fever than any other malady with which I am acquainted.

Two questions of a practical kind arise out of this study of the history of catheter-fever. Seeing that by almost universal assent the fever originates at least in a disturbance of the nervous system, and seeing, furthermore, that in the cases accessible to me, at least, there is no account of the fever following in cases where narcotics or anæsthetics have been used, may it not be that the fever is capable of being cut short by the administration, on entering upon habitual catheterism, of narcotic or anæsthetic remedies? I remember that my great master, Syme, in Edinburgh, with a reason which his instincts very often knew better than his understanding, invariably gave his patients, whom he had to catheterise, opium, frequently a grain or two from the very beginning, and I must also add that he was singularly free from catheter-accidents. The second question is this: assuming the presence of the fever, and seeing that quinine has signally failed in controlling it, what are the drugs to be employed on such occasions, and what is the sort of hygienic management to be followed, especially in respect of food and alcohol which are so variously used on such occasions, in order that the fever may be brought, if it be possible, to a successful ending?

Such, then, are the main conclusions which I have drawn for my fragmentary studies of this form of catheter-fever. I know that they are incomplete; I even fear that they may be inaccurate; but however this may be, I submit them to your consideration, and I console myself with the reflection that they may call forth the ripened experience of practical surgeons who, in this matter, furnished with a larger knowledge and a more practised judgment, may be able, not only to correct me where I am in error, and to confirm me in any small point where I may have caught the truth, but to supply us with the very knowledge which at this juncture we need and ask.

ST. MARY'S HOSPITAL.—In the new chapel of St. Mary's Hospital a striking feature is the handsome stained glass window to the memory of the late Miss Alys Hall, who was for some years the sister in charge of Manvers Ward. By her gentleness, amiability, and devoted zeal, she won the love and respect of all who knew her; and the staff—students, sisters, and nurses—have combined together to raise this tribute to her memory. Attached to the wall below the window is a brass, bearing this inscription, "In loving memory of Alys Hall, who died at her post as Sister of Manvers Ward, on the 9th of March, 1883. This window was put up by her fellow-workers in St. Mary's Hospital and Medical School."

A MEDICAL SOCIETY FOR ARMY MEDICAL OFFICERS.—A society, to which we wish every success, has been organised by the officers of the Army Medical Department at Woolwich for the discussion of medical and scientific subjects. The first meeting took place on Friday, the 14th inst., Sir James Hanbury, K.C.B., President, in the chair. Surgeon-Major Davy read a paper on the "Present System of Training Recruits," which was followed by a discussion.

THE RELATIONS OF PHTHISIS AND ALBUMINURIA.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

THE supervention of albuminuria in phthisis is far from rare; and, until recently, no attempt has been made to explain its pathology. It has always been regarded, and justly, as a very serious complication, which, if it do not immediately terminate life, places the patient in the category of the condemned; the patient lingers on, but some of the most promising cases of arrested phthisis have succumbed to this lesion. It is difficult to predict beforehand the kind of case likely to be associated with albuminuria, though our histories show that there has generally been some exhausting discharge, as diarrhœa, or profuse expectoration. Nevertheless, it also arises in patients in whom neither of these symptoms exists; and some observers have connected it especially with fibrosis of the lungs. The approach of this lesion is so gradual that it is frequently overlooked; and often the first indication which the patient has of the mischief is œdema of the ankles or of the shins. The urine is then tested, and for the first time found to contain albumen. Sometimes, however, the preliminary symptoms of renal mischief are present, such as nausea, and pain in the region of the kidney. Careful palpation will discover tenderness in the loin, as was noted in some of the patients whose cases are here given; but in most cases the symptoms are so obscure as to be overlooked.

When albumen has appeared in the urine, it is rare for it wholly to disappear; and though it may escape a superficial examination, it will generally be found, by carefully testing the urina sanguinis, *i.e.*, the urine passed on rising in the morning, and also that passed late at night. In two private cases, where very careful nursing was carried out, I remember the albumen disappeared from the urine for a period of some months, but later on returned, when both patients soon sank.

Another feature is, that it rarely occurs except where cavities have formed; in all of these sixteen cases, there were distinct signs of excavation in one or both lungs. It by no means followed that the discharge from the cavity was large, provided such discharge existed, and that the cavity was one of long-standing.

The following sixteen cases are given to show the influence of albuminuria on the temperature of phthisis. The patients were twelve males and four females, of ages varying from 16 to 46, and, with one exception, they were all hospital cases. Hereditary predisposition was present in three, syphilis in three, diarrhœa in eleven, and dropsy, either in the form of anasarca or of ascites, or both, in fourteen. The first three cases are especially interesting, from the albuminuria having supervened while the patients were under observation in the hospital. The temperature was always taken in the mouth for a period of five minutes.

CASE I.—Edward G., aged 18, single, a worker in stained glass windows, was admitted into the Hospital for Consumption, December 31st, 1878. He had had measles and purpura some years ago, but of late enjoyed fair health till nine months previously, when cough came on, with night-sweats, followed by diarrhœa, the latter lasting two weeks. Cough and night-sweats had continued up to admission, and in the last three months he had lost much flesh. He had never had any swelling of the legs. On admission, his aspect was pale; his cough hard and troublesome; expectoration greenish and copious; tongue red; he had slight diarrhœa; purpuric spots were visible on the thighs; the urine was acid, of specific gravity 1020, and contained no albumen or sugar.

Physical Signs.—On the right side were some dulness and coarse crepitation from the clavicle to the fourth rib, and above the scapula; on the left were loud cavernous sounds, audible over the upper third of the front and back. There was tenderness on pressure in the left iliac fossa. During the three weeks following admission, the diarrhœa continued, being only partially controlled by medicine, the number of stools varying from three to four. He also had epistaxis, and some discharge from the ear. From January 31st to February 13th, a careful record of the temperature was taken five times a day, and was kept, with the number of stools, to ascertain the natural course of the pyrexia. Line A in Diagram I gives the curve of the averages of these fourteen days. The diarrhœa gradually subsided, reaching an average of one stool a day on February 12th; and while the 8 A.M. record of temperature varied from 97.8° Fahr. to 99°, the 11 A.M., 2 P.M., and 5 P.M. records ranged from 100° to 103°, on only three occasions falling below 100°. The 8 P.M. notes show the time of daily subsidence.

February 13th. He was improved; the cough was easy; the bowels were open once a day; there was no tenderness of the abdomen. As the fourteen days' temperature-observations had clearly shown the pyrexial characters of the chart, the record was discontinued.

March 6th. Yesterday, some œdema of the lower extremities was noted, which to-day diminished. The patient complained of nausea, and of pain in the region of the left kidney, and some tenderness. The abdomen was somewhat distended. The urine was acid, of specific gravity 1023; it contained albumen (about one third). Observations in temperature were resumed five times a day on March 7th, and were continued up to the patient's death.

He became more and more dropsical. Ascites was detected on March 19th, and two days later there was general anasarca. On March 20th, fine crepitation was audible over the base of both lungs, in addition to cavernous gurgle at both apices. The patient died April 3rd.

The time during which the temperature was taken after the appearance of the albuminuria up to the death was twenty-seven days; and for the purpose of comparison with the pre-albuminuric period, it has been divided into two periods of fourteen (B) and thirteen (C) days each, and the subjoined are the means of the three periods

—	8 A.M.	11 A.M.	2 P.M.	5 P.M.	8 P.M.	Max.	Min.
From Jan. 31st to Feb. 13th, 14 days (pre-albuminuric)	98.1°	101.1°	101.4°	101.4°	99.4°	103°	97.2°
March 7th to 20th, 14 days (albuminuric)	97.6°	99.5°	98.8°	98.8°	98.1°	100°	96.8°
March 21st to April 2nd, 13 days (albuminuric)	96.8°	96.9°	97.1°	97.1°	97.3°	100.2°	95.6°

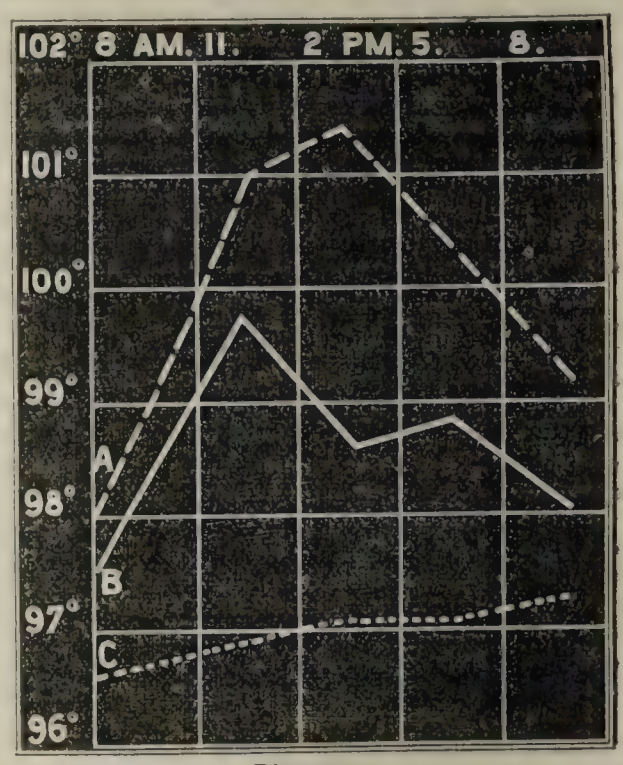


Diagram I.

The fall after the albuminuria appeared is very striking, and this feature of temperature is well seen in the maximum and minimum columns, but it appears to affect the temperatures taken at all times of the day. The third period, when the dropsical symptoms were fully developed, showed still further lowering; the minimum, 95.6°, being reached shortly before death. The urine varied in quantity from 15 ounces to 28 ounces, the specific gravity from 1018 to 1024, and the daily excretion of urea from 135.5 grains to 337.6 grains, the amount apparently depending on the amount of urine passed; in other words, the more urine, the more urea. The total quantity of urine was small; the amount of albumen was generally about two-thirds of the test-tube.

The diarrhœa, consisting of two to three loose stools, accompanied the pyrexial period. In the second period, it increased, once reaching five stools a day, and averaging two stools. In the third period, it almost subsided.

Necropsy, on the day following death, showed both lungs to con-

tain large ragged cavities, of comparatively recent origin, at the apices. The rest of these organs were thickly disseminated with recent tubercle. The liver was small, weighing three pounds, and soft. The spleen was soft and lardaceous. The kidneys were in the early stage of lardaceous degeneration, giving marked reaction with iodine. The intestines were unfortunately not examined. Dr. Ewart kindly made a microscopic examination of the kidneys, and reports as follows. "A very plain reaction was obtained with solution of iodine. The Malpighian tufts and the peripheral zones of the secreting tubules were the parts mainly affected by the reagent. The tubes were somewhat enlarged, and choked by the proliferation and the swelling of their secreting cells. Fatty granular degeneration had made some progress, but it had not reached an extreme degree, such as to mask the presence of the lardaceous state; in many places, the cells were fused into long lardaceous lumps, which assumed a mahogany-colour with iodine."

REMARKS.—This case is of interest as illustrating the relations of tubercular disease and lardaceous changes, and their relative influence on the temperature. The patient was suffering from acute tubercular phthisis of the lungs, and probably of the intestines. The lungs were rapidly undergoing tuberculisation with accompanying excavation, and the temperature-chart gave the usual curve of acute third stage. The lung-changes seem to have proceeded unchecked up to death; but the sudden supervention of kidney-disease, which, owing to the early examination of the urine and the marked symptoms, was immediately detected, caused a cooling of the body; and from that time forth normal and subnormal temperatures appeared. The lardaceous disease was due to the extensive discharge from the lungs and intestine, and appears, from Dr. Ewart's report, to have already, to some extent, been succeeded by fatty degeneration.

CASE II.—William W., aged 16, a copper-smith, was admitted, on May 11th, 1880, with the following history. He had enjoyed good health till eighteen months ago, when, after a chill, cough with expectoration came on, which persisted up to the present time, the expectoration being occasionally tinged with blood. Shortly afterwards, night-sweats and rapid emaciation supervened, and for the last two months there had been diarrhœa.

On admission, cough and expectoration were moderate. The tongue was red and irritable. The bowels were relaxed—two motions a day. The breath was short on exertion. Pulse 104. Temperature 99° Fahr. The urine was acid, of specific gravity 1015; it contained no albumen. His weight was 6 stone 8 lbs.

Physical Signs.—There were dulness and cavernous sounds on the right side, from the clavicle to the third rib, and some dulness above the right scapula.

May 19th. The diarrhœa was checked by bismuth; the night-sweats were profuse; the voice was affected.

May 25th. The patient had improved till May 24th, when he vomited four times. His face was flushed; his skin hot; pulse 120, small and compressible. Temperature (evening) 103.1° Fahr. The pupils were slightly dilated; the tongue was coated white in the centre, with red irritable edges.

May 27th. Vomiting had ceased. The urine contained albumen. The bowels were open once a day. The physical signs had increased. Crepitation was audible over the lower third front and back of the right side, and also in the scapular region. Three days later, the diarrhœa returned; and on July 10th a careful record of the temperature, the quantity of urine, and the amount of urea and albumen, was commenced and carried out up to the patient's death, on August 30th, with a short intermission, by my clinical assistant, Mr. Wickwick. It is too long for insertion, but an abstract will be given.

The diarrhœa had been continuing more or less since admission, on May 16th, and was treated successively by bismuth; bismuth and opium; opium pill; opium and sulphate of copper; enema opii; enema opii, with acetate of lead; turpentine enema; by combinations of glycerine of gallic acid with tannic acid; by cupping (dry); and finally, by injections of half a pint of decoctum lini, and twenty minims of laudanum. All of the remedies failed to check it, with exception of the last mentioned, which for a short time reduced the number of stools to two a day. The patient never had pains in the abdomen till August 4th, when he complained of some at the region of the umbilicus; neither was there any œdema till August 18th, when it appeared on the feet and ankles, although for a considerable period there had been as much as seven-eighths of albumen in the urine. The pupils throughout the illness were much dilated, in spite of the large quantities of opium he was taking, till the day before death, when they became remarkably contracted.

The patient died August 30th.

The record of the temperature was omitted for twelve days between August 7th and 19th, which enables us to compare the two periods of the temperature. The last gives somewhat lower records than the former. The first period of twenty-nine days, from July 10th to August 7th, gives as averages, at 8 A.M., 98.5°; at 11 A.M., 99.2°; at 2 P.M., 100°; at 5 P.M., 99.6°; at 8 P.M., 100.6°; maximum, 102°; minimum, 98°. The second period of twelve days, from August 19th to 30th, is as follows:—at 8 A.M., 98.3°; at 11 A.M., 98.9°; at 2 P.M., 99.6°; at 5 P.M., 99.4°; at 8 P.M., 99.5°; maximum, 100.6°; minimum, 98°. All these temperatures were taken when albuminuria was present; but the lowering of the later ones was no doubt partly due to the supervention of uræmia, and partly to the general sinking of the temperature at the approach of death.

The quantity of urine varied very little, averaging from thirteen to twenty ounces, a very small amount. The albumen steadily increased up to the patient's death. At first (July 10th), it was only one-fourth of the test-tube, then one-half, then three-fourths, gradually increasing to seven-eighths; and, on August 19th, the urine was quite solid on boiling, and the determination of urea had to be relinquished. The urea, on the other hand, diminished from 201.4 grains on July 10th, to 54.2 grains on August 7th, a reduction of nearly three-fourths; the quantity of urine remaining the same. The specific gravity increased in the same ratio as the albumen, and in the inverse ratio to the urea. It rose gradually from 1014 to 1035. The diarrhœa steadily persisted, varying from three to ten motions a day, increasing, on the whole, as death approached.

Necropsy, on the following day, by Dr. Ewart. The abdomen contained a small amount of fluid. The intestines were largely ulcerated, the ulcerations extending high up to within six inches of the duodenum, and consisted of two kinds: (1) small and round, the result of simple softening; and (2) some situated lower down in the intestine, of good size, with a thickened floor, in which miliary tubercles were visible through the peritoneal coat. The neighbourhood of the ileo-cæcal valve was severely attacked, and the colon was one continuous ulcer. The liver weighed 2 lbs. 13 ozs., and showed signs of fatty, fibroid, and lardaceous changes. The spleen weighed 4½ ounces, and was lardaceous. The kidneys weighed 13½ ounces; they were smooth, pale, and with pink pyramids. The changes of chronic tubal nephritis were well marked. The Malpighian capsules gave the iodine reaction. The heart weighed 5½ ounces. The tricuspid valve was dilated. The pleuræ were closely adherent on the right side. The right lung contained abundance of grey tubercle, either isolated or in small groups. In other parts, small cavities were forming from the gradual disintegration of these groups, and some collections of pus were visible. The upper lobe contained a large smooth-walled cavity, of the size of a small orange, and a smaller one lined with a glistening membrane. The left lung had cicatrices at the apex, but was otherwise healthy. The bronchial glands were enlarged, and contained miliary tubercle. The larynx, trachea, and bronchial tubes showed extensive ulceration from the top of the œsophagus to the commencement of the bronchi, with some thickening of the mucous membrane. Ulcers were also present in the pharynx and epiglottis (buccal surface), and at the base of the tongue. The tonsils were hollowed out by caseation.

REMARKS.—In this case, during the last two months of the patient's life, acute tuberculisation and excavation were proceeding in the right lung, and tuberculisation and ulceration throughout a considerable portion of the intestines, a combination which, as I have shown elsewhere (*Lancet*, 1881), causes a high pyrexial chart of a fitful character. Nevertheless, the maximum was only 102° Fahr.; the average hardly reached 100° Fahr., and in the last period sank below it, showing the marked influence of the blood-poisoning in cooling the system.

From the symptoms, the nephritis appears to have come on about May 24th, a fortnight after admission, so that the whole series of clinical phenomena arising from it occurred under observation, and a great part are contained in our records. These consisted of 1, steady increase in the diarrhœa; 2, a constant quantity of urine secreted; 3, a rapid increase in the amount of albumen, and apparently, 4, a proportionate decrease in the amount of urea; 5, a steady increase in the specific gravity. Considering the small amount of urea excreted in the twenty-four hours (54.2 grains), and the absence of coma, we may conclude that a great part of the urea was excreted through the bowels.

The *post mortem* examination showed lardaceous changes in the liver, spleen, and kidneys; though, in the latter organ, there was superadded much blocking of the tubes from nephritis, and to this were no doubt due the diminished quantity of water and urea, and the larger amount of albumen.

CASE III.—Alfred B., aged 26, a coach-builder, was admitted into the Arnott Ward of the Brompton Hospital December 31st, 1878. His father and mother had died of chest-disease. Eight years ago he had syphilis, but had been free from symptoms since. Two years ago cough came on, accompanied by wasting and night-sweats, and persisted, the patient losing two stone and a half in two years. Three months before admission, he had hæmoptysis to the extent of half a pint, repeated three times to a lesser amount. The cough was troublesome, expectoration copious, and muco-purulent; the tongue clean; bowels regular. His weight was eight stone five pounds; his aspect was pale; the urine contained no albumen. The patient had a syphilitic scar on his forehead, but stated that his legs had never been swollen.

Dr. Tatham, who admitted him in my absence, found contraction of the right chest, and signs of a cavity in the upper lobe posteriorly, and crepitation at the base. The left lung was apparently drawn across the median line to the right of the sternum. Tubular sounds were audible under the left clavicle.

The patient continued in much the same condition till March 2nd, 1879, when diarrhœa came on, followed one week later by œdema of the feet.

On March 19th, a careful examination of the urine showed it to be of specific gravity 1015, with albumen to one-third of the test-tube, the diarrhœa having ceased. Observations were made under my direction by Dr. Griffiths, my clinical assistant, to ascertain the temperature, likewise the amount of urine passed, its specific gravity, and the proportion of albumen and urea. The record was carried out for thirty-one days. The temperatures were subnormal in the mornings, with a slight rise at 8 P.M., the averages being—at 8 A.M. 97.9°, at 11 A.M. 97.9°, at 2 P.M. 98.3°, at 5 P.M. 98.9°, at 8 P.M. 99.9°; maximum 101.2°, minimum 97°. The maximum was only reached once, and the records of 100° were limited to the last period, viz., 8 P.M. The urine varied in quantity from 17 to 36 ounces, giving a daily average of 21 ounces; the specific gravity was from 1023 to 1043, averaging 1031, and the albumen from one-third to two-thirds of the test-tube. A deposit of urates was often present. The urea varied in amount from 197 to 123 grains during this period.

April 26th, 1879. The bowels were open twice. He had œdema of the penis, and urine was passed with difficulty. General dropsy was present. The urine was 20 ounces in quantity, of specific gravity 1030. Urea 107.8 grains.

Physical Signs.—On the right side, cavernous sounds were audible from the first to the fourth rib. There was very coarse crepitation in the suprascapular fossa. On the left side, cavernous sounds were audible to the third rib. There were crepitation below and over the whole posterior surface.

May 5th. He had general œdema of the body; the bowels were loose, and the stools sometimes offensive. Friction (double) was audible over the cardiac area. The urine was 19 ounces, of specific gravity 1030; urea 73.9 grains, albumen two-thirds of the test-tube.

On May 6th he died.

Necropsy, on the following day. The right pleura was universally adherent. The upper lobe of the lung contained a large cavity. Tubercle was scattered throughout the lower lobe. The left pleura was adherent at the apex, where there was a large cavity. Tubercle was generally present, isolated and scattered. The heart weighed 8½ ounces. The pericardium contained fluid. The left ventricle was hypertrophied. The intestines were lardaceous. The liver weighed 3½ pounds. The spleen weighed 7 ounces; it was firm, hard, and lardaceous. The kidneys weighed 17 ounces; they were large and white. The Malpighian bodies were large; the capsules adherent.

Dr. Ewart reported of the microscopical examination of the kidneys: "the existence of lardaceous disease could be clearly recognised under the microscope, without the assistance of iodine. Some of the loops of Henle were converted into columns of bright hyaline beads. A similar appearance was also presented in small patches by the epithelium of the tubuli contorti. In addition to these changes there existed distinct evidence of fatty degeneration, and of the conditions commonly observed in the large white kidney. The lumen of most of the tubes was obliterated."

REMARKS.—Here syphilis was present, as a predisposing cause to lardaceous disease; but no albumen was detected in the urine until the patient had suffered considerably from diarrhœa, when albuminuria and the attendant œdema came on, about two months after his admission into the hospital.

The physical signs during life, and the *post mortem* examination, indicated that the lungs during the period of the thermometric observations were undergoing rapid excavation, and fresh tuberculisation, such as ordinarily give rise to considerable and obstinate pyrexia. Nevertheless, the average temperatures were subnormal in the mornings, and scarcely exceeded the normal in the evenings.

The diarrhœa was evidently due to lardaceous changes in the intestine, no ulceration being detected. From the succession of the symptoms the intestines were apparently attacked before the kidneys, the diarrhœa preceding the albuminuria, and both being brought about by long continued discharge from the lungs. The small amount of urea towards the end of life is worth noting, as it reached as low as 73.9 grains contained in 19 ounces of urine.

CASE IV.—Mary Ann P., aged 46, a housemaid. Her father died of phthisis at 48, her mother of the same disease at 28, her sister of the same at 27. Nine years ago, she had inflammation of the lungs, and in 1876 was admitted into the hospital with consolidation of the upper lobe of the right lung, and improved during her stay, gaining 8 lbs., and the consolidation diminishing. She had hæmoptysis to the amount of half a pint in December 1875, and since then the cough had been continuous, and accompanied by night-sweats and wasting. On January 6th, 1880, she was readmitted in a greatly emaciated condition, with diarrhœa and œdema of the lower extremities. The urine was highly albuminous. The tongue was red and furred along the dorsum.

Physical Signs.—Cavernous sounds were audible over the upper portions of both sides of the chest, extending as low down as the fourth rib, and crepitation was heard below. Hepatic dulness was considerably increased, and the liver could be felt an inch below the last rib as far as the median line.

Observations were taken from January 27th to February 5th (ten days) on the temperature, and the averages were as follows: At 8 A.M., 97.3°; at 11 A.M., 97.4°; at 2 P.M., 97.2°; at 5 P.M., 97.8°; at 8 P.M., 98.2°. Maximum, 99.2°; minimum, 96°.

The quantity of urine gradually fell from fifty-one to twenty-one ounces, the specific gravity varying from 1020 to 1028: the albumen occupied from two-fifths to three-fifths of the test-tube; the urea varied from 165 to 196 grains.

On January 30th, the diarrhœa, which had somewhat subsided, returned, the patient having four or five motions daily; and on February 1st she had peritonitis, and fluid was detected in the abdomen. On February 3rd, the fluid had increased, and there was more œdema of both legs. On the 5th, she passed her motions unconsciously; the pupils became dilated, she lost sensibility, and died of coma on the 6th.

At the necropsy, twelve hours after death, the right lung had an adherent pleura, and a large trabeculated cavity in the upper lobe, partly gangrenous. The lower lobe was studded with caseating patches interspersed with pneumonia. The left lung had the pleura adherent and a cavity at the apex, with cretaceous masses scattered through the rest of the upper lobe; the lower lobe was congested and œdematous. The heart was pale; its tissue was flabby; the coronary arteries were calcareous. The aorta was atheromatous. The abdomen showed signs of recent peritonitis, and contained a pint and a half of serum. The intestines displayed numerous ulcerations, especially in the ileum and large intestine, but no perforation was detected. A great portion of the intestines was lardaceous. The liver was enlarged and lardaceous. The kidneys were large and lardaceous; the capsules were adherent, and the surface granular in parts.

Dr. Ewart kindly examined sections of the kidneys under the microscope, and reported: "A thin section steeped in a weak solution of iodine gave a marked lardaceous reaction. The brown colour appeared in isolated spots with great intensity—viz., in short lengths of the tubuli contorti, and in most of the Malpighian tufts. A fainter staining was noticeable throughout the cortex at the periphery of the epithelium of the tubules. The tubuli contorti were of large size, and were the seat of cell-proliferation and of advanced fatty degeneration. Owing to the high degree of fatty granular change, the free surface of the cells was eroded, and a clear lumen resulted at the centre of the tube, in spite of the cell-proliferation which had obviously taken place."

REMARKS.—This was a well-marked case of lardaceous disease supervening on advanced tuberculosis of the lungs and intestines, and ending in dropsy and peritonitis, with uræmic poisoning, and death by coma. The temperatures were subnormal, the minimum reaching 96° Fahr. The quantity of albumen was large, that of urea below average. Hyaline casts were also present.

CASE V.—Thomas T., aged 35, was admitted under the care of Dr. Douglas Powell, who kindly placed the case at my disposal. One sister died of phthisis.

He had always been delicate, and was at one time subject to abscesses in the submaxillary region. Some years ago, he had his testicles removed for a fungoid growth, which made its way through the scrotum. He had also had an extensive abscess above the left scapula, and effusion into the right knee-joint. He had been confined to bed, more or less, for two years before admission, on account of constant headache and occasional epileptic fits.

Cough began eight months before, with very abundant expectoration, and rapid loss of flesh. He had slight hæmoptysis three months ago, repeated some weeks later, and again three weeks before admission.

Physical Signs.—The left chest was dull to the nipple, with diffused, scattered, moist crepitation. There was dulness with humid crepitation above the scapula; exaggerated breathing was heard below the spine of the scapula. On the right side, harsh breathing was audible in the subclavicular and supraspinous regions, dulness as far as the middle of the scapula, with subcrepitant *râles* posteriorly.

August 12th. The cough was severe; pulse intermittent.

August 21st. Œdema of the feet was noticed for the first time.

August 30th. He had pain in the perinæum on coughing. Micturition was painful. The prostate was large, tender on pressure. The patient had hæmorrhoids.

September 1st. Pain in micturition was increased.

September 3rd. Humid crepitation was heard all over the right side, posteriorly to the angle of the scapula. The sounds were less moist anteriorly, except below the fifth rib on the left side. The patient stated that he had had five severe shivering attacks, with dyspnœa, obliging him to sit up, and have blankets, hot water, etc., to restore warmth. He had but little coughing during the attacks.

September 6th. He had two shivering fits yesterday, at 11 A.M. and 5.30 P.M. A fit of dyspnœa came on at 8.45 P.M. The patient was very livid; pulse rapid and jerky. He died at 9.45 P.M.

Observations on the temperature were carried out from August 26th to September 6th, the day of his death, with the following average results: at 8 A.M., 98.6°; at 11 A.M., 99.1°; at 2 P.M., 99.2°; at 5 P.M., 99.6°; at 1 P.M., 100.1°; maximum, 102.4°; minimum, 98°. The quantity of urine varied from 22 to 53 ounces, with an average of 40 ounces; and the specific gravity from 1012 to 1024, with an average of 1018. The albumen ranged from three-fourths to one-third of the test-tube, averaging one-half; the urea from 130.2 grains to 334.8 grains.

Necropsy, on the day following his death, by Mr. Hugh Smith, the clinical assistant, showed cicatrices in the neck and above the scapula, and a discharging abscess in the left submaxillary region. The left testicle had been removed, and a large scar extended from the scrotum to the external abdominal ring. The intestines contained enlarged solitary glands and numerous ulcers, especially near the ileo-cæcal valve. The liver weighed 4 lbs. 9 ozs., it was enlarged, and of flabby consistence. The spleen weighed 14 ozs., and was pulpy and gave lardaceus reaction. The kidneys weighed 23 ozs., were unequal in size, pale, and the capsules were adherent. On section, the cortex was found increased, and gave marked lardaceous reaction. The larynx was much ulcerated, and the vocal cords thickened. Both pleuræ were adherent. The right lung contained greyish-yellow and hard nodules of various sizes in the middle lobe. The left lung had a smoooth-lined cavity at the apex, and a mass of greyish-yellow tubercle at the root of the lung. The heart was thin-walled and dilated.

REMARKS.—The temperatures in this case were rather higher than in the preceding ones; and the albuminuria, though it exercised a lowering influence, seems to have reduced them less than in other cases. The necropsy showed the kidneys to be lardaceous, but the specific gravity of the urine and the amount of urea exceeded the general run of lardaceous cases. Death appears to have occurred from apnœa, and not from toxæmia.

CASE VI.[1]—J. B., aged 29, was admitted October 30th, 1879. He had phthisis eight months; diarrhœa lasting some weeks; œdema fourteen days. There was a cavity in the left upper lobe, with active tuberculisation proceeding, the right lung being attacked and excavated during his stay in hospital.

The temperature-averages were as follows: at 8 A.M., 97.4°; at 11 A.M., 99.8°; at 2 P.M., 99.5°; at 5 P.M., 99.1°; at 8 P.M., 98.2°; maximum, 100° Fahr.; minimum, 97° Fahr. The urine averaged forty ounces a day, 1015 specific gravity, containing one-half albumen and 228 grains of urea. Death occurred on April 29th, 1880, from ascites and diarrhœa. *Post mortem* examination showed cavities in both lungs, with recent tubercle-formation and ulceration of the small and large intestines. There was lardaceous disease of the liver, kidneys, spleen, and pancreas.

CASE VII.—George M., aged 38, a waiter, was admitted into the Hospital on August 5th, 1879. He had lost a sister from phthisis. Five years ago, he had a fissure of the tongue, which healed of itself. Cough commenced in November, 1878, accompanied by expectoration, which had lately increased, and occasionally been streaked with blood. In the last four months, his voice had become affected. He had wasted considerably from the beginning of his illness.

On admission, cough was very troublesome, inducing vomiting. Expectoration was muco-purulent. Night-sweats were troublesome. The bowels were costive. There was some œdema of the feet and ankles. In the right chest, fine crepitation was heard from the clavicle to the third rib; in the left chest, crepitation was audible over the whole side, coarse over the upper third posteriorly, with tubular sounds. Laryngoscopic examination showed large ulcers in the larynx.

On September 5th, my clinical assistant, Dr. George Gulliver, commenced observations on the temperature and urine, which were continued to within a week of the patient's death, on October 12th. This was caused by severe diarrhœa, lasting about three weeks. The temperature-observations were continued one month, and give the following averages. At 8 A.M., 97.4°; at 11 A.M., 97.8°; at 2 P.M., 98.1°; at 5 P.M., 98.5°; at 8 P.M., 98.9°; maximum 100.8°; minimum 96.4°.

The urine varied in quantity from 18 ounces to 36 ounces; the albumen was about one-half the test-tube, and of specific gravity 1012. Unfortunately, no determinations of urea were made. The urine contained hyaline casts, with epithelial cells and some oil-globules.

Necropsy, October 13th. The body was emaciated. There were adhesions at the upper parts of both lungs, most marked over the left. The left lung had numerous well-defined cavities, rather thin-walled, and containing purulent matter. The right lung was in a similar condition, but somewhat more advanced. Emphysema was present, and tubercle was found at the base of the left lung. The larynx showed a large ragged ulcer on the posterior surface of the epiglottis. There was extensive ulceration between the vocal cords at the base of the arytenoid cartilages, leading to complete erosion of these cartilages. The kidneys weighed twenty-one ounces, and were typical large white mottled ones. The heart, liver, and spleen were healthy, and no lardaceous reaction could be found in the last two organs or in the kidneys. The small intestines showed ulceration over the lower two-thirds, for the most part follicular, but some patches were visible, a large one at the ileo-cæcal valve. Several ulcers were present in the large intestine. There was no scar on the penis nor enlargement of the lymphatic glands, but scars of old buboes were present in the left groin.

REMARKS.—In this case, the usual low temperatures prevailed accompanying intestinal ulceration and excavation-processes in the lungs. The kidneys weighed twenty-one ounces, and are described as white and mottled; but it is remarkable, considering the presence of constitutional syphilis, and the exhausting discharges from the intestinal ulcers, that no lardaceous disease was detected. Unfortunately, no microscopic examination was made, which might have discovered some commencing in the Malpighian tufts. In the absence of such evidence, we must conclude that the disease was chronic nephritis, supervening on old syphilitic phthisis.

The remaining cases are given in brief abstract.

CASE VIII.—Frederick G., aged 19, was admitted under the care of Dr. Reginald Thompson, who kindly allowed me to take observations of the case. He had always suffered from severe cough, and two years and a half ago began to lose voice. Expectoration was streaked with blood the previous winter. He was an in-patient of the Victoria Hospital from January to March, 1881, and improved; but, on leaving the hospital, the cough became more troublesome, and the expectoration profuse. The breath was shortened. He lost flesh rapidly, and, when admitted into the Brompton Hospital, had œdema of the feet. The bowels were open once a day, but the motion was loose and watery. A day or two later, diarrhœa came on, and varied in frequency from two to six motions a day. He died, exhausted by this symptom and his great weakness, on October 3rd. During the last ten days of his life, observations were made on the temperature, which gave the following results: at 8 A.M., 97.7°; at 11 A.M., 98.4°; at 2 P.M., 99.1°; at 5 P.M., 99.4°; at 8 P.M., 99.9°; maximum, 101.8°; minimum, 96.8°.

[1] As this patient was made the subject of a number of dietary experiments, the full notes are reserved for a future communication on this subject.

The urine was scanty, varying from eleven to twenty-one ounces; it contained two-thirds of albumen and 166.5 grains of urea. The diarrhœa doubtless was the cause of the diminished quantity of urine.

Necropsy, October 4th, 1881. The body was very emaciated. The lower half of the ileum, and the whole of the large intestine, were occupied by extensive ulcers of well-marked tubercular form. The spleen (11 ounces) contained numerous sago-bodies, and some tubercle, as well as lardaceous material. The liver (3 lbs. 7 oz.) was apparently lardaceous. The kidneys (10 ounces) showed a wide cortex, and were markedly lardaceous. The lungs had large cavities at the apices, with foul contents, each cavity being of the size of an orange. The left lung also had a cavity in the axillary region. The lower lobes of both lungs contained caseous tubercle and purulent infiltration. The larynx was ulcerated.

REMARKS.—This was undoubtedly a case of lardaceous disease following on the exhausting discharge of expectoration and diarrhœa. As it came under notice only shortly before death, the observations taken were few; but, as far as they went, they indicated the presence of moderate temperatures where, considering the extensive ulcerative processes, we should have expected high pyrexial ones. The quantity of urine and urea excreted was decidedly small; this may have been due to the profuse diarrhœa.

CASE IX.—James R., aged 27, was admitted May 14th, 1878. He had cough and yellow expectoration, occasionally streaked, fourteen months, caused by exposure to cold and wet, followed by night-sweats, and emaciation. Since November, 1877, he had shown rapid emaciation and loss of strength. His cough was troublesome; expectoration was yellow, and copious. The tongue was furred. In the right chest, tubular sounds and crepitation, were heard in the first interspace. In left chest, undue resonance and cracked-pot sound were heard, with distant cavernous breathing from the clavicle to the fifth rib. Crepitation was audible over the lower third. There was dulness above the scapula.

Temperature-observations were taken nine days after admission, in consequence of rigors coming on and occurring daily, generally about 11 A.M., accompanied by a quick pulse (110 to 120), and hurried respiration. Vomiting occurred generally after breakfast for a week. Later on night-sweats appeared, and the rigors ceased. On June 20th, he complained of pain in the back; slight œdema of the legs was noted, and the urine was examined, and found to contain albumen occupying one-third of the test-tube. The temperature-averages of twenty-seven days were: at 8 A.M. 100.2°; at 11 A.M., 101.6°; at 2 P.M., 101.8°: at 5 P.M., 102°; and at 8 P.M., 102.4°. Maximum, 104.2°; minimum, 98.2°.

The urine varied in quantity 16 ozs. to 44 ozs., containing one-third albumen, and some granular casts. The pains in the back (renal region) continued, the vomiting and shivering having ceased, till June 28th, when they subsided. Unfortunately, the patient quitted the hospital two days later, and was lost sight of.

REMARKS.—This case is included, as the temperature-observations were carried on steadily for twenty-seven days; but the height and range of these were not explained by anything occurring in the lungs, or in any other organ, and as the patient left the hospital and was lost sight of, the cause of the pyrexia was not explained.

CASE X.—John T., aged 30, groom, was admitted December 22nd, 1874. Five years ago, being chilled by sleeping in a damp bed, he occasionally had cough and expectoration since, which had become constant in the last three years. He had severe hæmoptysis twice, each time lasting two weeks. He had lost three stone in weight. Scattered crepitation was audible over both lungs. He had œdema of the feet and ankles. The urine contained a considerable amount of albumen, was of specific gravity 1027, and averaged one and a half pints daily.

Observations on temperature were carried on from January 8th to February 4th, by Mr. H. L. Bernays. During five days, diarrhœa had prevailed. The following were the averages of nineteen days: at 8 A.M., 98.1°; at 11 A.M., 98.6°; at 2 P.M., 99.4°: at 5 P.M., 100°; at 8 P.M., 100.2°; maximum, 101.6°; minimum, 96°.

The patient became more and more dropsical, there being general œdema and effusion into the right pleura, and he sank on March 3rd.

The *necropsy* on the following day showed general anasarca. The right lung contained a large cavity at the apex, and tubercle scattered through the upper lobe. The left pleura contained a pint of serous fluid; the left lung showed a small cavity at the apex, and tubercle scattered through the lower lobe. Both cavities were of old date, and had cartilaginous linings. The right cavities of the heart were dilated. The kidneys were large, mottled, and their cortical structure was much increased.

CASE XI.—J. M. W., aged 28, was admitted in February 1875, with a history of phthisis, of two years' standing, and of diarrhœa of some months' duration. Cavernous sounds were audible over the greater portion of both lungs, with crepitation at the base of the left lung. The urine (in quantity forty-four ounces), loaded with albumen, contained a large number of casts, epithelial, hyaline, and granular, with much loose epithelium. There was considerable œdema. The patient gradually sank, and died on March 2nd, twenty days after admission. During the last five days of his life, Mr. Bernays took temperature-observations, which gave the subjoined results as the average: at 8 A.M., 100.6°; at 11 A.M., 99.3°; at 5 P.M., 101°; at 8 P.M., 101.8°; maximum, 103.8°; minimum, 94°.

The *necropsy* showed both lungs to contain large thin-walled cavities, with scattered tubercle in the lower lobes. The liver was pale and large. The kidneys were very pale; their cortical structure was greatly increased; the capsules peeled easily (chronic nephritis).

REMARKS.—The shortness of this case precludes any decided deductions being made from it, the temperature being only taken for five days. The course was a very fitful one, such as often accompanies the termination of destructive lung-disease. Unfortunately, no account is given of the kidneys being tested with iodine, and we must accordingly accept them as instances of chronic nephritis though the description is more that of lardaceous.

[*To be continued.*]

THE ÆTIOLOGY AND PATHOLOGY OF SPORADIC PUERPERAL SEPTICÆMIA.[1]

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IN the year 1878, I published in the columns of the *Lancet* two papers on the subject of puerperal septicæmia. The principal point, amongst others, aimed at in those papers, was to establish the entire independence of true puerperal fever of the contagion of the specific zymotic diseases, such as scarlet fever, measles, small-pox, etc.; believing, as I then did, and do now, that the specific zymotic diseases, such as those above named, always breed true; and that, therefore, although the virus of any of those diseases may be introduced to a parturient woman, the disease which results will not be true puerperal septicæmia, but modified scarlet fever, measles, or small-pox, as the case may be.

This is a point in the etiology of puerperal septicæmia which is, however, still much mooted, and, by many, considered to be still *sub judice;* and, as such, it will fall to be considered in its proper place.

Since the publication of my former papers, it has fallen to my lot to be called upon to attend, and to attend regularly, in consultation, many fresh cases of this dire disorder, than which no disease to which flesh is heir spreads greater dismay among our patients and their friends, causes more anguish to the medical attendant, or extinguishes more hopes.

I do not propose to say anything in regard of that horrible form of contagious or endemic puerperal fever which, more often formerly than at the present day, decimated the parturient women gathered together in our lying-in hospitals. Also, I discard from present consideration those cases which are primarily due to an inflammatory process, set up, after parturition, in the peritoneum, or in the uterus, or in some of its appendages. The causes of these are well known, and their course is pretty definite, and they have little or no true pathological analogy with such cases as those with which we are now concerned.

By sporadic puerperal septicæmia I mean a form of disease, cases of which every now and then arise to perplex and astound the medical attendant, as frequently amongst the healthy and well-to-do as amongst the poorer and more sickly classes of the community, as well in the palace as in the cottage, in the country mansion as in the squalid court or alley. Neither can air or drainage be subjected to suspicion in many cases, nor can fatness or poverty, or anxiety of mind. Our text-books inform us that puerperal fever often seizes upon those unfortunate women who, at the time of childbirth, are under a cloud, whether from poverty, sickness, or mental anxiety. Yet the healthiest, happiest homes are not proof against the invasion of this horrible destroyer, as most of my own cases would show.

[1] Read at a joint meeting of the Worcestershire and Herefordshire and he Gloucestershire Branches.

It is these facts which invest the etiology of this disease with a special difficulty; and, as we find in many other cases, it will be necessary to acquire a correct idea of its pathology, to be used, *pari passu*, in elucidating its genesis or etiology.

Again, the course and duration of such cases as I have seen, disagree with the text-books in several important particulars. In the text-books we learn that more or less of the inflammatory element is generally mixed up with the septicæmic process; whereas, in my experience, it is generally absent. The duration of the disease, when fatal, is said to be from a week to ten days, or even less; whilst I have generally found it running on to three, four, or seven weeks, and, in one case, to ten weeks, the fever continuing unsubdued all the time.

As might be expected, we get little aid from the morbid anatomy, or dead pathology, of puerperal septicæmia. Let us see if the living pathology will prove more helpful to us in elucidating its etiology. From the thirty or forty cases of sporadic puerperal septicæmia which of late years have fallen under my notice, I may summarise the following average of symptoms. From the second to the fifth day, or, very occasionally, later, after delivery, fever arises, and the temperature continues abnormally high throughout the whole course of the disease; for when it has become normal, and remains so for a few days, the disease, as far as the sepsis is concerned, is at an end. The temperature ranges from 100° to 103°, or 104°, slightly higher in the evening than in morning, but not regularly so. When death is impending, the temperature may run up to 106° or 107°. The pulse keeps pace with the temperature, generally exceeding 100 and going up to 120, and, when a fatal issue is impending, to 130, 140, or even to 150. There are morning remissions in the pulse as in the temperature. The next thing that happens is the suppression of milk and lochia. This may be sudden and complete, as in the more severe cases, or it may take place gradually in four or five days. This suppression of the discharges does not bear so heavily on the prognosis as do the state of the pulse and of the temperature. In some cases, and in some cases only, there is more or less of diarrhœa, sometimes in the earlier days of the illness, sometimes in the later. It is always of unfavourable augury.

The urine is generally high coloured and scanty at first, but soon becomes plentiful; and, except for a little albumen in some cases, fairly healthy. The appetite may be disurbed, with or without vomiting, for a few days at the beginningt; but soon the power of digestion returns, and then, during the whole term of the illness, the patient is able to take an abundance of liquid, and sometimes of solid nourishment. The sleep is generally somewhat disturbed, but delirium is not frequent or violent.

Palpation of the abdomen scarcely gives pain unless the uterus be hardly pressed, and there is in most cases but little tympanites, at least during the early part of the illness. This symptom is much more marked in purely inflammatory cases. When death threatens, it nearly always becomes considerable. In a large proportion of cases there are remissions of all the symptoms about every six or seven days, when the temperature may fall nearly or quite to the normal; and if the pulse correspond, this remission may give rise to a hope, too often delusive, that the case is about to terminate favourably. As the disease proceeds towards its usual fatal termination, the temperature and pulse rise again, the respiration becomes hurried by the slightest exertion, the second sound of the heart being preternaturally sharp and dicrotous. The tongue, which has been preternaturally red throughout, owing to the loss of its epithelium, becomes dry, baked, and brown.

Now it is, that is, about the end of the second or third week, that in some cases, not in all, red spots and streaks make their appearance upon the wrist, elbow, or ankle-joints, or along the course of the long bones, especially of the lower extremities. Sometimes superficial abscesses form, and suppurate; or deeper effusion into the same joints may occur. Along with this pyæmic condition, the skin, previously very pale, assumes a dusky tint, and the prostration becomes extreme. The lungs and other parenchymatous viscera may now become the seat of pyæmic deposits, or of emboli, and a low form of pneumonia or of jaundice may quickly carry off the patient. In some cases, there is also effusion into the cellular tissue of the fleshy portions of the arms, thighs, or buttocks.

Death takes place at a period varying from ten days to three or four weeks. In one remarkable case, the patient succumbed only after 70 days, ten weeks, of uninterrupted septic fever. The death, in my cases, has been owing to one of three causes, viz., asthenia, or exhaustion; secondly, pyæmic deposits in some of the vital organs; thirdly, thrombosis of the heart and pulmonary artery.

This is the living pathology, or clinical history, which, with slight variations in each case, I have now observed in from thirty to forty cases of puerperal septicæmia. What other morbid process does it resemble? Surgical pyæmia, septic lymphatic poisoning, typhoid inflammation, or any of the specific zymotic diseases? I think it resembles none of them. In the pyæmia of our surgical wards, the tendency to form pus is more marked, and ensues at an earlier period. The abscesses are larger, and the course of the disease is shorter. "Pyæmia," Dr. Burdon Sanderson says, "is a malignant process which goes on to its fatal end, and has always a connection with some local morbid process." Septic lymphatic poisoning runs a course more nearly resembling that of surgical pyæmia than that of puerperal septicæmia. Then, of inflammation, whether of an active or typhoid type, there is often no trace at all. Of the poison of the specific diseases, I shall speak presently when I come to the question of infection.

Now, in the second place, as to the sources of infection, and the kind of germ or other pathogenic matter causing it.

I have lately seen it stated that the most useful classification of cases of this disease is into the autogenetic and the heterogenetic, the self-infective and the imported case. But I fail to see that this division can be of any use to us, unless it be to remind us that cases may owe their beginning to either of these sources. For the question is, Do those cases, in which the patient is supposed to have infected herself, the autogenetic, differ essentially from those in which the poison has been brought to her from without, the heterogenetic? If not, this classification does not help us at all. If the poison which is brought to the patient produces exactly the same train of morbid processes as that which, we think, arises in the woman's own system, there can scarcely be any specific difference in the *materies morbi* in the two cases. And, to my mind, there is no question that this is so. Indeed, a doubt has often arisen in my mind, when called to one of these sad cases, whether we are not too ready to conclude that the poison is autogenetic, *i.e.*, generated in the patient's own person, in order to cover some uncomfortable feeling of neglect on the part of some person, or as a cloak to our own ignorance. Strict inquiry will too often reveal the fact that the accoucheur has been lately making a *post mortem* examination, or has just come from the surgical wards of a hospital, without changing his clothes; or that the nurse or the medical man has just been attending a bad midwifery case; so that the suspicion necessarily arises whether a poison has not in some way been introduced from without, although we cannot quite make out in what way. If autogenesis were so easy, how is it that puerperal septicæmia is happily so rare a disease, where all the circumstances favouring such a mode of infection abound in the patient's own person? It is so rare a disease, that many busy accoucheurs go through life without meeting with a single case of it.

It is clearly impossible to go into the germ-theory of disease here. We cannot even discuss the question as to the various actions of the different kinds of germs, whether they be bacteria, micrococci, coccobacteria, or other kind of *hoc genus omne*. Those who have studied the conclusions to which Robert Koch has come from his own experiments, and from those of others lately published by the New Sydenham Society, must be satisfied that much remains for future experiment, and experiment of the most cautious and careful kind, before we shall be able to apportion to each form of bacillus, or micrococcus, its specific range of pathogenesis.

That the same germ-forms are generally found in the same diseased processes seems established; but, at the same time, these forms are not unmixed with other forms which, in different circumstances, produce distinctly other effects.

One thing seems to be clearly established; viz., that these organisms, in one or more of their forms, abound in the mucous lining of the passages in puerperal women affected with septicæmia, and that they are soluble in it; or, at least, by means of the fluids existing there, operate with facility. And we may safely conclude that in most cases, either in the hands or in the clothes of the accoucheur, or of the nurse, also by open windows in foul neighbourhoods, by the coming in and out of various individuals, not always of the cleanest, various, nay, every kind of septic germ, be they specific or non-specific, may get an introduction to the persons of lying-in women. And, if we adopt the commonly received theory that these germs are harmless until they meet with a suitable nidus for their development, are planted, in fact, in a soil in which they can grow and increase, such as the abraded surfaces of the genital passages, we may readily account for the symptoms of puerperal septicæmia; although we shall be as far off as ever from a solution of the questions as to what kind of germs they are which give origin to the disease, and what is the kind of soil they require; that is,

what is the exact morbid condition of the fluids of the woman's organs, upon which, when sown, these germs are found to thrive so well. Here, I think, you will agree with me, is work for the cultivator of germs.

Dr. Burdon Sanderson says that the poison of puerperal septicæmia, unlike that of pyæmia, does not multiply itself in the system. If this be so, how is it that a person may convey the disease from one lying-in woman to another without having introduced his hand into the passages of either? Surely the *materies morbi*, like that of scarlet fever, measles, etc., can be conveyed in clothing! If so, it *must* multiply in the woman's system, and be given off from her person, by her breath, her skin, or discharges. And here it is that an ounce of experience is worth a pound of theory or conjecture. I have seen a case where it was not possible to lay hold of any cause of the disease, except that the medical attendants had, a few days before, been attending a case of scarlet fever. Yet this patient never had a sign of scarlet fever, but died, after a month, of pure pyæmic septicæmia. In another case, which was thought to be owing to the state of the drains, the attendant had taken part in a nasty *post mortem* examination a few hours before being called to the confinement. In a third, no external source could be made out, and the case was decided to be autogenetic; but the medical attendant carried the infection from this case to another woman, who immediately took on the same disease, attended by the very same symptoms. In a fourth case, there was no parturition at all; but two surgeons introduced their hands into the unimpregnated uterus to remove a small growth, and the patient died within a week of acute septicæmia, in no way differing from such cases in lying-in women.

Now, as to the case of the specific zymotic diseases. We are told in the text-books that the poison of these, conveyed to a lying-in woman, may give rise to puerperal septicæmia. Is this the fact? In the case of each of the truly specific zymotic diseases, we are accustomed to find that each specific germ breeds true. Small-pox does not become scarlatina, nor measles typhoid fever. And, conversely, the septicæmic virus from a puerperal woman may give the same disease to another woman similarly situated; but we never find it setting up scarlet fever or typhoid in any one who may have come into contact with her. Suppose that a woman, just prior to her confinement, has been exposed to the contagion of some zymotic disease, What is it that we observe? A few hours or days after delivery, she becomes terribly ill; there are a hot skin, preceded by rigors, rapid pulse and respiration, with a tendency, in most cases, to speedy death. But some of the specific signs of zymotic disease will not fail to appear: dusky red skin and throat if it be scarlet fever, dusky papules if it be small-pox, plum-coloured blotches if it be measles, and so on. The specific disease will be modified, and, in most cases, intensified; but you will have no difficulty in recognising what it is, and you cannot mistake it for true puerperal septicæmia, such as I have now described.

In a word, is it not in the experience of us all that the germs of the truly specific diseases always breed true? There is, therefore, no analogy, except of the very loosest kind, between the symptoms, or living pathology, of the ordinary specific zymotic diseases, and those of true septicæmia, as it affects parturient women.

Whether disease-germs be all specific in character, or the contrary, cannot yet be decided. If we be guided by the phenomena of the specific contagious diseases, small-pox, scarlatina, measles, etc., we should say that they are. But if we look at the morbid processes in the surgical wards of our hospitals, we cannot believe them to be so; for we find that the poison of various diseases—erysipelas, scarlet-fever, diphtheria, etc.—will excite pyæmic mischief amongst our wounded patients. The experiments of Pasteur, Koch, and others, also appear to me to support the latter view.

Turning to the other element, we say that it must be the condition of the *nidus*, of the bed to which the micro-organisms gain access, that determines the form of the disease; or else that the germ carries with it its own specific virus, and so determines the kind of septic fermentation set up. If we adopt the first view, then we must conclude that a woman gets septicæmia because she has been delivered of a child; the condition of her discharges, and of the part, sdetermining the form of disease, whatever germs be applied. If we prefer the second, we ought to acknowledge as many forms of puerperal septicæmia as there are forms or species of germs which can gain access to her person. In favour of the first view, the researches of Nägelé and others tend to the conclusion that germs do acquire their particulate septic character by cultivation in albuminous fluids, and it is also found that the properties so acquired are capable of indefinite extension in the same form.

In the present state of our ignorance of the intimate character of various disease-carrying germs, we must be content to interpret facts by such light as we have. What I contend for is this—that sporadic puerperal, and sometimes non-puerperal, septicæmia, such as, in the cases I have described, attacks women in the best possible circumstances as to previous health and perfect sanitary surroundings. Also, I contend that the fact of the germs of the ordinary zymotic diseases getting to them, and inducing puerperal septicæmia, is not proven, and, in many cases, cannot possibly be entertained. Moreover, I contend that it is more in accordance with our experience, and with such knowledge as we possess of the action of disease-carrying germs, to conclude that, in most cases, a *materies morbi*, to call it by no more specific name, has been brought to the patient from another lying-in room, or from the wards of a hospital, or from a *post mortem* examination, or from some crowded assembly of human beings, or from some other unsanitary source, than that the disease has been set up *ab origine* in the woman's own person. The many known sources of a heterogenesis may well overwhelm the hidden and doubtful causes of autogenesis,

We may conclude, I think, from these propositions, that each specific germ will set up the same specific disease in a parturient as in a non-parturient person; and that non-specific germs—pathogenetic or zymotic matter—will give rise to such a form of disease as the particular condition of the patient is prone to; whether it be to puerperal septicæmia, to erysipelas, to typhoid fever, or diphtheria, all of which diseases I believe may be generated by septic matters, not yet rendered specific and particulate by cultivation in albuminous fluids. For recent experiments in the cultivation of germs would lead us to conclude that a simple zymotic *materies morbi* may, by successive cultivation in the bodies of patients, become, after a time, specific and particulate. And, again, such specialised germs may be afterwards diluted and toned down until they are able to produce only an ordinary non-specific zymosis, or blood-poisoning.

Those of you who listened to, or read, the very interesting Address in Pathology by Dr. Creighton, at Liverpool, will have noticed this idea developed at much greater length, and with all the author's acuteness of reasoning. If I am not mistaken, that address contains the germs of a large extension of our knowledge as to the origin of specific, pseudo-specific, and contagious diseases.

If you ask anything about treatment, I can say only that the almost sole indication is to keep the patient alive, in the hope that nature will eventually gain the victory over the destroyer. Along with attention to the state of the stomach and bowels, put your whole trust in quinine and iron in large quantities, with a sufficiency of nourishment and of stimulants, and persevere with them to the end. Never be led away by such mild affairs as Warburg's tincture, or tincture of aconite.

Since the above remarks were written, the Collective Investigation Committee have sent out a request for answers to certain preliminary questions on puerperal fevers. As I was one of the first to recommend this inquiry to the Committee, I cannot but rejoice that they have taken up such an important and interesting subject; but much fuller data are required than any that can be noted in this paper now issued.

BEQUESTS AND DONATIONS.—Mr. Thomas Mackrell, of Newton Abbot, has bequeathed £2,000 to the North Devon Infirmary, and £200 to the North Devon Dispensary, both at Barnstaple, his native place. —Mr. John K. Ford, of Portsmouth, bequeathed £2,000 to the Royal Portsmouth, Portsea, and Gosport Hospital, and a Southsea gentleman has given a similar amount.—The last quarterly report of the Hospital for Consumption and Diseases of the Chest announced bequests of £500 under the will of Miss Hayes, £500 under that of Miss Romney, £200 under that of Mr. Henry Couchman, £200 under that of Mrs. Perry, £100 under that of Miss Barlow, and £100 under that of Mrs. Maggs.—The Salisbury Infirmary has received £459 15s. 6d. under the will of Mrs. Fowler.—University College Hospital has received £80 further, making £400 for 1883, from the Peoples' Contribution Fund.—The North-West London Hospital has received £300 for the endowment of a bed in memory of A. D. K., St. Moritz.—The Halifax Infirmary has received £100 under the will of Mrs. Jane Stott, of Greetland.—The Grocers' Company have given £100 to the Dental Hospital of London, and £50 to the Royal Hospital for Children and Women.—The Goldsmiths' Company have given £100 to the Charing Cross Hospital.—Sir Erasmus Wilson has given £100 to the Dental Hospital of London.—Mr. S. G. Buxton has given £100 to the Norfolk and Norwich Hospital.

BRITISH MEDICAL ASSOCIATION.

FIFTY-FIRST ANNUAL MEETING.

PROCEEDINGS OF SECTIONS.

ON THE OPERATIVE TREATMENT OF SYMPATHETIC OPHTHALMIA.

Read in the Section of Ophthalmology.

BY CHARLES BELL TAYLOR, M.D., F.R.C.S.E.,
Surgeon to the Eye Infirmary, Nottingham.

WHEN an eye is injured, and its fellow becomes sympathetically inflamed, the chances of preserving or restoring sight are, as a rule, so slight, that I am sure that any record of cases in which this desirable end has been attained will be received with interest by all who have had any experience in ophthalmic surgery.

CASE I.—E. P., aged 28, while engaged at a steel manufactory, received a blow from a piece of metal on the right eye. He was seen at once by an eminent ophthalmic surgeon, and treated. In the course of a few weeks, the left eye became sympathetically inflamed. The injured eye was then extirpated; but, in spite of every care, the case went on from bad to worse until sight was completely destroyed. The patient was treated energetically by his medical attendant from first to last; but was ultimately dismissed, assured that his case was incurable, and advised to enter a blind asylum. In despair, he came to me. The case was most unpromising; but I determined to try what could be done. The pupil was completely closed, reduced to a point, blocked with lymph, and adherent to the capsule of the lens.

I first performed an iridectomy upwards, making an aperture, which closed. I then made another downwards, which also closed. Three weeks after the last operation, I removed the lens; but, as often happens in these cases, the pupil again became blocked with lymph and inflammatory deposit. I then, with a pair of fine scissors, cut out a piece of iris and tough membrane, thus forming a large pupil, which has since remained open; and the patient has now excellent sight for all ordinary purposes, and, with a lens, can read moderate-sized print.

CASE II, that of C. B., a male, aged 36, an inmate of Grantham union, was exactly similar in all its details. One eye, the left, had been extirpated in consequence of accidental injury, and the right had been destroyed from sympathetic inflammation, so that sight was reduced to bare perception of light. Repeated operations, with extraction of the lens and entire removal of iris and inflammatory exudation, resulted in the restoration of excellent sight, both for distant and near objects.

In the transplantation of skin with a pedicle, I have been in the habit, in certain cases, of supplementing lost tissue by the transplantation of skin from the immediate neighbourhood, either retaining the pedicle permanently, when this can be done without scar, or dividing it so soon as the skin has secured an attachment in its new situation. In this way, an excellent result was obtained in a case where both eyelids, and considerable portion of adjacent tissue, were destroyed from extensive sloughing, in a case of inoculation from a beast affected with malignant pustule; and in another case, where it was necessary to extirpate the upper eyelid for sarcoma. The one in which both eyelids were destroyed is now perfect.

With regard to cataract-operations, I have succeeded in many cases, by means of the alternate use of atropine and eserine, in securing a central and movable pupil.

NOTES ON A CASE OF ACUTE SYMPATHETIC OPHTHALMIA, IN WHICH THE SIGHT OF BOTH EYES WAS PRESERVED.

Read in the Section of Ophthalmology.

BY G. E. WALKER, F.R.C.S.Eng.,
Surgeon to St. Paul's Eye and Ear Hospital, Liverpool, etc.

DURING the six years which have elapsed since I published and exhibited, at a Branch meeting of the Association, a case of fulminating sympathetic ophthalmia, in which I showed the possibility of curing this hitherto fatal disease, many patients have been successfully treated after the method described in my paper; but none, I think, of greater interest than the one I now show, and of which the following is the history.

W. S., aged 25, on January 25th, 1882, stuck the point of a collier's pick into his left eye, and, on the 27th, came to me. I found a wound of the lower inner ciliary region, through which uveal tissue was protruding. A little of this was cut off, and the eye bound up. Eserine was used to lessen the protrusion, and all went on well until seven weeks after the injury, when he found the sight of the right eye dim. Two days afterwards, I saw him, and recognised the presence of a severe sympathetic ophthalmia. I therefore ordered the vigorous use of atropine, and the inunction of oleate of mercury. The tendency of the iris to contract and form adhesions to the lens was so great, that it was only by drenching the eye with atropine, and using the oleate to such an extent as to cause him to say he was swimming in it, that the ill effects of such contraction were prevented. We continued to hold our own until April 3rd, at which time there was no adhesion. Unfortunately, I did not again see him till the 14th, when I found that the mydriatic had been stopped, in spite of my strict injunction, and, in consequence, there were several adhesions. The vigorous use of the various mydriatics, with increased inunction, broke down several of these, but failed in three instances. However, the eye gradually quieted down, and, on May 1st, it was noted that there was no injection of conjunctival or scleral vessels; there was no pain, the upper and outer half of the pupil was more dilated than the inner and lower corresponding to the site of the wound in the left, and the starting point of the sympathetic inflammation. Upwards of fifty ounces of the oleate of mercury had been used, yet there had been no salivation.

During this time, the left eye went on to convalescence, heedless of the mischief it had worked in its fellow; and, after waiting some time to allow it to acquire a somewhat permanent shape, although its staphylomatous condition would seem to render its use as an optical instrument valueless, I succeeded, by means of a glass of 8 – cylindrical surface on one side, and 2.5 + cylindrical surface on the other, the axes, of course, being at right angles, in giving him vision $= \frac{15}{30}$; and on this I hope to improve, as he has worn the glass only for a few weeks. With the right eye, his vision is almost normal, and he has no pain or distress in either.

Since the publication of my essay on this subject, I have had only two other cases in which I was unable to relieve the patient, because in each the iris was completely adherent to the lens before treatment was begun. Should such a case again come before me, I should not hesitate to perform iridectomy in order to restore access from the posterior to the anterior chamber, trusting to the large use of mercury to prevent the closure of the pupil. I may state here that I have been successful in restoring useful sight in an eye which had undergone complete sympathetic inflammation. The case is narrated at pages 207 *et seq.* of my *Essays on Ophthalmology*. I have lately seen the girl, now six years after the operation; and, with the aid of ordinary cataract-glasses, she does well the duties incident to her rank of life.

Dr. BRAILEY (London) said his observations convinced him that the results of operations on eyes the subjects of sympathetic ophthalmitis, were extremely unfavourable. He also thought that while some cases of this disease were so mild as to do very well simply with mydriatics, many others were, from their onset, perfectly intractable by any methods of treatment.

Mr. HIGGENS (London) was sorry Dr. Bell Taylor was not present, as he should have liked to ask some questions respecting the cases reported. His own experience of such cases was most unsatisfactory. He had tried hard to improve sight. He had done iridectomy upwards, then downwards; subsequently removed the remainder of the iris, then the lens; had cut across opaque membranes with scissors, and torn them through with sharp hooks, but with only one result: the patient was made, if possible, worse.

Mr. LLOYD OWEN (Birmingham) gave particulars of the following case. A boy, aged 6, received a punctured corneal wound in the left eye. He came under notice a few days after the injury, with the iris incarcerated in the wound. There was but little irritation, which, under atropine and iced water, disappeared in a few days. The patient was not seen after for seven weeks, when he was brought with distinct sympathetic irido-cyclitis in the uninjured eye, and a slight ciliary redness opposite the portion of iris incarcerated in the other. The sight of the injured eye was but little impaired; the media were clear; tension was not raised; in fact, this eye presented little or no evidence of trouble, beyond the de-

formity of pupil. Small doses of the perchloride of mercury (gr. $\frac{1}{20}$) were given every two hours; frequent instillations of strong atropine solution were made; and the eyes were bandaged from light. Under this treatment there was but little change for a few days, when Mr. Lloyd Owen thought it probable that the irritation consequent upon the incarceration of iris in the corneal wound might be the exciting cause, especially as the limited ciliary redness opposite the incarcerated portion of iris remained. He therefore made a large iridectomy, separating the iris from its corneal adhesion, and removing a good sized portion on each side of the piece of iris separated. The medical treatment being continued in a few days, the ciliary congestion in the uninjured eye subsided, and the adhesions of the iris to the lens-capsule gave way, and the pupil became clear. Both eyes were now quiet, and vision was almost normal in each.

Dr. EDWYN ANDREW (Shrewsbury) said that, in cases of sympathetic ophthalmia, apparently similar and treated on the same plan, certain cases undoubtedly recovered or at least retained moderateiy good sight; but how much could be put down to treatment or natural powers was doubtful, until a number of cases could be collected to verify the result. These cases might often be divided into two classes, those where the anterior part of the eyeball was alone affected, and those where the whole choroid became infiltrated with lymph with general disorganisation. In the latter, any operation or treatment was useless.

Mr. SNELL (Sheffield) recollected at least six cases of recovery from sympathetic ophthalmitis in his practice. He referred particularly to a boy under treatment seven years ago, in which the sympathetic mischief had been going on for eighteen months. The exciting organ was removed, perchloride of mercury administered, and recovery resulted, the patient reading Jäger 1. He referred also to a case of sympathetic ophthalmitis, related recently before the Ophthalmological Society, in which perfect vision was restored in both eyes. As much of the prolapsed iris as possible was removed, and the incision prolonged in each eye (sclerotomy).

Mr. MCHARDY (London) asked whether hyposcleral cyclotomy ever caused sympathetic ophthalmitis.

Mr. G. E. WALKER, in reply, said, in answer to the criticisms of Dr. Brailey and Mr. McHardy, as to whether his case was in the category of those which recovered well by exclusion of light, leeching the temples, and atropine, that, in estimating the degree of the severity of the disease in a given instance, he referred to a case which he had described in his *Essays* (p. 198). A young man, aged 22, after sustaining a rupture of the ciliary region of the left eye, had sympathetic inflammation of the right, and, in spite of all the measures that have been mentioned, lost the sight totally; and that in spite also of the enucleation of the primary eye as soon as the sympathy had shown itself. Two years after this, he had another case, following an attempt to make an iridectomy in the hands of a beginner. In this, the sympathetic inflammation was much more violent; yet, after enucleation of the primary eye, the use of atropine to the secondary, and leeching the temple, had failed to stay the disease (the latter, indeed, produced profuse intra-ocular hæmorrhage), a vigorous inunction of blue ointment for two days salivated the patient and stopped the sympathetic inflammation; and, in time, the eye became almost normal with an eight-inch convex glass. Nineteen days after the beginning of the inunction, he read $1\frac{1}{2}$ Snellen. Mr. Walker thought this case proved conclusively the good effect of mercury.

ON THE EVACUATION OF DEEP ABSCESSES.

Read in the Section of Surgery.

BY J. F. LE PAGE, L.R.C.P.Edin., Manchester.

THE treatment of deep abscesses, to which my remarks have reference, is not one to the origination of which I can lay claim. My intention, therefore, is to direct your notice to a particular method, in comparison with other methods; to popularise a treatment which in my own practice has been most satisfactory; and to show to you an instrument, made for me by Messrs. Arnold and Sons, for the evacuation of these abscesses. Many years ago, Mr. Hilton urged the expediency of thrusting a director, instead of a knife, through the tissues down to the abscess, and through its walls, aud then enlarging the opening with a pair of forceps. He for many years opened deep abscesses in this way at Guy's Hospital, and the practice is still continued in that institution.

The disadvantages attendant on the usual mode of opening deep abscesses may be said to be, first, the danger, even to the surgeon whose anatomical remembrances have not grown misty, of wounding, or even dividing, blood-vessels or nerves which in their course present some abnormality in direction; secondly, the tendency which the clean cut wound of a knife has to heal before the process of suppuration in the cavity is altogether ended, and the consequent risk of the reaccumulation of pus.

The advantages I claim for this method are its perfect safety, its absolute harmlessness, and its entire efficiency. Neither blood-vessels nor nerves can be wounded, nor does healing of the canal take place before the sac has ceased to suppurate. To plunge a knife through to a deep axillary abscess, or a deep postpharyngeal or cervical abscess, or a deep abscess of the forearm, or leg, or thigh, or to pass it through the tissues, with all gentleness, or even with the careful cautious confidence and decision of the experienced surgeon, is to encounter a risk which has, in some cases, cost even the life of the patient; for deaths are on record which have resulted from the hæmorrhage which has followed the wounding of blood-vessels in the opening of deep abscesses with the knife. For, how very readily may an artery or vein be wounded when a knife is thrust haphazard in the vicinity of a plexus of blood-vessels. Clearly manifest, then, is it that, if the dangers to which I have referred can be avoided, and the unsuccessful results incident to this treatment obviated, and that by a practice which is not only perfectly safe, but far more satisfactory in every way, the evacuation of these abscesses is best effected by that method.

The instrument I now show you was designed by me to meet the exigencies of these cases. It is six inches and a half in length, and is composed of a handle and two blades. The upper surface is grooved from within half an inch of the handle to the extremity of the upper blade, where the groove is lost, immediately before the conical point is formed. The under blade is one quarter of an inch shorter than the upper one, and does not enter into the formation of the cone. The blades are separated by turning a thumbscrew, which works in the upper one, and which fixes them at any angle to which they may be opened. In using the instrument, it is necessary to make an incision down to and just through the fascia lata, then to thrust the conical point between or through the muscles and tissues, until the entry of the cavity is indicated by the presence of pus in the groove. The blades may then be separated by turning the thumb-screw, and the sac is in this way torn open. The evacuator is then withdrawn, with the blades diverging to any required angle; and the canal thus formed, not being a cut by a sharp instrument but a laceration, possesses the great advantage of having a tendency to keep open until the pus-cavity is healed. Re-accumulation of pus is, therefore, rendered impossible, and a re-evacuation is unnecessary. It sometimes happens that the first thrust of a knife does not puncture the abscess-wall; and a second one, with a repetition of the attendant dangers, in an altered direction, is necessary before the unseen foe can be assailed. With the evacuator, exploration may with impunity be made in different directions.

Before introducing the instrument, particles of dust should be carefully wiped off, and its surfaces should be lightly smeared with carbolic oil; for the warm albuminous liquid would favour the rapid development of the germs of putrefactive organisms. The canal should always be directed upwards to the cavity. Gentle, but uniform and sustained, pressure, should be commenced immediately after producing the laceration. Healing action is very greatly promoted by this important auxiliary. The reflux of air must be carefully guarded against by covering the opening with lint soaked in carbolic oil.

The deep abscess-evacuator, when used in the way and with the precautions I have mentioned, converts a dangerous operation into one of great simplicity and of perfect safety.

TREATMENT OF MALARIAL HÆMATURIA.—Dr. J. E. Halbert (*Mississippi Medical Association Transactions*, 1883), sums up the treatment of this affection as follows: Firstly, prophylaxis; purgative of calomel in large doses, encouraged by enemata; warm bathing to promote action of the skin, both of which indirectly relieve the nausea; sinapisms to the epigastrium; ice, and if the patient be weak, champagne; carbolic acid in small doses; digitalis as a gentle diuretic and heart stimulant; astringents of gallic acid and ergotine if the hæmorrhage be continuous or exhaustive. In addition, lemonade and bitrartrate of potash may be given *ad libitum*, but the sheet-anchor is quinine, injected hypodermically. Nourish by the rectum, if necessary, and avoid if possible giving medicine or anything except ice, champagne, or some concentrated nourishment by the stomach.

THE PREVENTION AND TREATMENT OF CHILBLAINS.

By DAWSON WILLIAMS, M.D.Lond.,
Honorary Secretary of the Parkes Museum.

THE members of the Association have recently, on more than one occasion, been advised to report observations made on themselves; and, as the JOURNAL of December 8th contained, on page 1145, a valuable note on "Chilblains," I venture to make one or two remarks on the subject. It has always had a good deal of interest for me, as, up to the age of nineteen or twenty, I was myself very subject to this affection, and have since had excellent opportunities for studying it.

I doubt whether it can be correctly said that chilblains are local congestions. With the exception of the very mildest and slightest cases, if even these can be excepted, there has always seemed to me to be something more than congestion. The classical signs of inflammation, *rubor et tumor, cum calore et dolore*, are all present; indeed, a chilblain, in its first or so-called erythematous stage, presents a remarkably good illustration of a simple acute dermatitis. If neglected at this period, a blain rather rapidly forms, and, under the slightest friction, quickly gives place to a very tender superficial ulcer; this ulcer is surrounded by skin which is acutely inflamed and tender. It is this combination of a superficial and very vascular ulcer, with extensive underlying and surrounding inflammation of the skin, which is most characteristic of the later stage of chilblain. The gentlest touch on the diseased finger gives pain; and the dread excited by the fear of a blow or rough handling may render the sufferer so miserably nervous, as to lead him to seek to escape from games and outdoor amusements, and so to avoid the means, that the article to which I have referred most justly recommends, as best tending towards prevention. Boys are very merciless to each other; and I believe that the best and quickest treatment, when a case has reached such a stage as this, is to put the boy on the sick-list for a day or two, and apply continuous poultices until the surrounding inflammation has gone down, and we have to deal only with the ulcer, which will quickly heal under favourable conditions. Occasionally, beneath the blain, or even before it has appeared, a limited sphacelus, involving the whole thickness of the true skin, occurs; after this becomes detached, a deep ulcer, with sharply cut edges, is left, but without any marked amount of surrounding inflammation. This ulcer is much less painful than the condition above referred to, and heals slowly, but without any difficulty, though it leaves, of course, an ugly scar. It is the first or so-called erythematous stage that is most amenable to treatment. My experience quite agrees with the statement that counter-irritants do no good. An exception might, perhaps, be made with regard to iodine, which seems to act, however, more as an astringent, and perhaps, by hardening the outer layers of the epidermis, may cause some pressure on the deeper layers of the cutis. Collodion is worse than useless; after drying, or even in the process of drying, it splits and cracks in various directions, and in each crack in the collodion a crack in the skin is liable to occur. Careful packing with cotton-wool, as recommended in the note on chilblains above referred to, is the most trustworthy treatment. A little calamine lotion, applied first, and allowed to dry, will help to allay the distressing itching.

It may be remarked that chilblains are especially apt to occur when the weather is both damp and cold. As a boy, I have often gone through a fortnight's frost with no chilblains, or the very slightest; whereas, as soon as the thaw has set in, my hands have at once become covered with numerous chilblains. The explanation of this is to be found in the fact that, in a thaw, the air is heavily charged with moisture, so that it is impossible to keep either boots or gloves dry, and the bared hand must be always moist. The evaporation which, under these conditions, is always going on, must necessarily keep the temperature of the parts continuously, for extended periods, below the normal. My experience is that, probably for the same reason, it is a mistake to wash the hands in tepid water; and warm water is, for the reasons assigned in the article, not to be recommended. I was early led by my own sensations to prefer very hot water. To plunge the hands in hot water, and then to raise the temperature still further by the addition of fresh quantities of still hotter water, certainly allays the irritation, diminishes the size of already existing chilblains, and, I believe, also aids in preventing the occurrence of fresh ones. The action of "hot water" is, as its recent use as a hæmostatic has proved, essentially different from the action of "warm water." Further, I believe that the use of "hot water" for washing the hands is beneficial, because they can be dried more rapidly and surely than when tepid or warm water has been used. In the case of children subject to chilblains, I should, therefore, recommend woollen stockings and armlets (reaching to the axilla); the use of very hot water for washing hands and feet, and rapid drying with a dry absorbent towel; and, finally, the exercise of the greatest care in seeing that boots and gloves are dried before use. To dry the boots, whether apparently wet or not, the soles should be exposed to the fire, and cautiously approached to it until thoroughly warmed through. The constitutional condition which underlies the pathology of chilblains is, no doubt, benefited by the use of tonic remedies, such as iron-phosphate; but not, I believe, by cod-liver oil or high feeding.

REMARKS ON BICHLORIDE OF METHYLENE.

By ROBERT KIRK, M.D., Partick, Glasgow.

DR. JUNKER'S article in the JOURNAL of July 21st induces me to mention some trials I made of bichloride of methylene about five years ago. This anæsthetic, not being used in Glasgow, was not to be found in any of the shops, and the first specimen I obtained through the Apothecaries' Company was described as "Morson's." I was exceedingly well pleased with this agent; it produced anæsthesia rapidly and with little excitement, while the patients felt lively and cheerful on awaking.

My experience of it in surgery was limited to only a few cases; but in midwifery I had the opportunity of making a mere extended trial of it. Here, it appeared to me, its advantages over chloroform were equally marked. There was little or no struggling and talking, which I have often found to be considerable drawbacks to the use of chloroform. Different samples of the agent, procured at various intervals, always gave the same excellent results. I next ordered some of Robbins's bichloride of methylene. This was much dearer; and a few trials convinced me there was a remarkable difference between it and what was sold as Morson's. I could perceive no advantage in Robbins's methylene over chloroform; indeed, the two seemed to be almost identical in their action. A folded towel was always used, which answered as well with methylene as with chloroform. It has surprised me to find no reference to these two varieties of methylene in the medical journals. I induced a chemist with whom I was acquainted to make some examination of the two liquids. By fractional distillation, he ascertained that both contained about four-fifths of their entire amount of chloroform. The remainder, with the exception of a small amount of alcohol, was a body with a considerably lower boiling-point than chloroform. This more volatile body was evidently different in the two cases. In the case of Robbins's, it appeared to be really bichloride of methylene, methylenic chloride, CH_2Cl_2. One method of producing this substance is by the action of nascent hydrogen on chloroform, and the same gentleman made some comparatively pure for me in this way. From its odour and other properties, I had no doubt of its identity with the more volatile part of Robbins's liquid, and I produced anæsthesia with it in a few cases, but it appeared to me to possess no advantage over chloroform. On the contrary, I found, probably on account of its greater volatility, that it was somewhat difficult to maintain sufficiently deep anæsthesia with it. The body with the low boiling-point obtained from Morson's methylene, on the other hand, was certainly not methylenic chloride; but my friend could not say what it was. Hence, I am much interested in the statement of Dr. Junker, on the authority of M. Regnaud, that bichloride of methylene contains one-fifth part of methyl-alcohol; although, after my experience, I am somewhat incredulous, especially with regard to Robbins's preparation, which appears to have been that examined by M. Regnaud. The boiling-point of methyl-alcohol is very slightly under that of chloroform, and a good deal higher than that of the volatile body obtained from the respective specimens of methylene by my friend. I have often performed experiments with methyl-alcohol, and it has a powerful and disagreeable odour. This may be aggravated by impurities in some instances; but I have a sample obtained from Mr. Dittmar, of Anderson's College, and which he said was almost absolutely pure; and it is very far from possessing the mild and agreeable odour of either of the two volatile bodies above mentioned. Further examination of this question seems highly desirable.

I have more recently tried a mixture of five parts of chloroform and one of ether, and find that in obstetric anæsthesia there is much less excitement than with unmixed chloroform. The modification of the effects of the chloroform produced by this compara-

tively small proportion of ether is quite remarkable, so that I should be prepared to find important results from combination with other agents, and I hope soon to try the mixture with methyl-alcohol mentioned by Dr. Junker, which I have already made up, and find of very pleasant odour and agreeable to inhale, the chloroform appearing to almost completely mask the methylic alcohol.

RAPID ABSORPTION OF A PLEURITIC EFFUSION BY TREATMENT WITH COMMON SALT, AND CUTTING OFF LIQUIDS.

By TOM ROBINSON, M.D.

JOHN C. came under my observation on August 1st, 1882. He was then suffering from a well-marked left pleurisy, *i.e.* pain, catching breathing, and a cry at the end of inspiration. He sat up in bed and held his hand against his side, complaining bitterly of the pain. A bandage was put firmly round the thorax, with much and rapid relief, and he was ordered absolute rest, a liquid diet, and some opium.

On August 2nd he was evidently much relieved, and his respiration was more uniform, deeper, and attended with less pain.

On August 3rd I was hastily sent for, and, on my arrival, I found my patient in great and urgent distress. His lips were livid, his nostrils were smoky, his eyes were prominent, and his nails blue. He had cold clamminess of hands and brow, and he was breathing fifty-one times in a minute. The pulse was barely appreciable at his wrist. The heart was pushed over to the right. I told him of his great danger, and urged him to permit me to draw off the fluid. This he flatly refused to allow me to do, saying that a friend of his was tapped, and died one hour afterwards. This was at 11 A.M. I put him under the following conditions. He was to take every hour one tea-spoonful of common salt, dissolved in a wine-glassful of tepid water. I produced sweating by a hot wet flannel and a piece of waterproof sheeting, and I gave him two ounces of the common black draught at once, and stopped all fluids.

At 1 P.M. he said: "I can get my wind now," and he had most markedly improved in every way. He looked less livid. His respiration had dropped down to 48.

At 9 P.M. he looked cheerful. The lividity had almost disappeared. He could lie on either side, and get well down in the bed.

On August 4th, on entering the room, I could not have detected any embarrassment of breathing, and all his subjective symptoms had disappeared. There was comparative dulness of the left base, but the air could be heard entering the lung. I now gave him one drachm of common salt twice a day, and two ounces of the brandy-mixture of the *Pharmacopœia* every four hours, together with some oysters, an anchovy and Digby chick, or a piece of salted bacon. He did not complain very much of the thirst, said his "mouth was dry," and his tongue looked red and glazed. From this time there is practically nothing to say, my patient never had a return of his symptoms, and he was up and out of doors in a week.

It is barely necessary to comment upon the *rationale* of the treatment adopted in this case, and my only object in bringing it forward is to see whether like results will follow in the experience of other similar cases, or in any effusion which takes place into a serous cavity.

The salt, I believe, increased the density of the blood; the blood became thirsty, if I may so express it, and drank up the pleuritic effusion in a manner to me singularly rapid and striking. Doubtless the sweating and purging aided me very much; but purging and sweating will not remove serous effusions with precision.

SEQUEL TO A CASE OF EPILEPTIFORM NEURALGIA TREATED BY NERVE-STRETCHING.

By W. J. WALSHAM, F.R.C.S.,

Assistant-Surgeon and Demonstrator of Orthopædic and Practical Surgery at St. Bartholomew's Hospital.

IN the JOURNAL of December 8th, in his remarks on two interesting cases of epileptiform neuralgia treated by nerve-stretching, Dr. Buzzard justly says that hurry has been sometimes shown in publishing cases of so-called cure a few weeks or months after the operation, sufficient time not having elapsed to form any judgment of the slightest value. In the BRITISH MEDICAL JOURNAL for December 25th, 1880, I reported a case of this distressing affection in which I had successfully stretched the infra-orbital nerve. Although nearly twelve months had elapsed from the time of the operation to the date of publication, I may possibly have laid myself open to the charge of having displayed too much haste. It may, therefore, be of interest to know the sequel of my case, more especially as those of Dr. Buzzard would appear to throw some doubt on the permanency of the relief obtained by nerve-stretching. The case, it may be remembered, was one of exceptional severity, the patient having suffered for upwards of ten years from excruciating paroxysms of neuralgia, which, for a year and a half of the time, had compelled her to keep her bed, and rendered her life a misery both to herself and to her friends. Relief after the operation was complete, and, at the date of the report, there had been no return. Mr. Anderson, to whom I was indebted for the case, tells me, in a letter dated December 11th of the present year, that he has not seen the patient now for some time, and is unable to discover her whereabouts, but that when last seen, about a year ago (three years after the operation), she had had no relapse, and considered herself cured.

I have recently had under my care three similar cases of great severity and long standing. In one I stretched the auriculo-temporal and inferior dental nerves, in another the inferior dental only, and in a third the inferior dental and infra-orbital. In two the stretching was done upwards of six months ago, but in the third within the last few weeks only. The cases present many points of considerable interest, and I hope to give a full report of them when sufficient time has elapsed to say whether the complete relief at present experienced may be fairly considered permanent.

Dr. Buzzard very pertinently raises the question whether, in the case of purely sensitive nerves, stretching would be found to have any important advantage over the old process of nerve-section. My own experience has led me to think that stretching is incomparably the superior operation. As far as I know, the benefit obtained from nerve-section is of a most evanescent character. For example, in one of my unpublished cases of stretching, in which no pain has returned for now more than six months, nerve-section had previously been performed three times with only the most temporary relief; and, on the last occasion, the patient even experienced pain from the moment of his recovery from the anæsthetic. Trousseau, it will be remembered, in his article on epileptiform neuralgia, regards nerve-section as useful in producing only very temporary cessation of the neuralgia.

It does not appear, from Dr. Buzzard's report, whether traction was made on the distal as well as on the proximal end of the nerves, a point insisted upon by Dr. Grainger Stewart as important.

CLINICAL MEMORANDA.

ACUTE URTICARIA, AS AN OCCASIONAL COMPLICATION OF RÖTHELN.

I TRUST Dr. Kingsbury will not be in any way offended at my suggesting the possibility of the interesting case reported in the JOURNAL of December 8th, as an example of "acute urticaria," being really a case of "rötheln" complicated with urticaria. It has happened to me three or four times to see a severe attack of urticaria precede, by a few hours, the development of the characteristic rash of "rötheln." Such an occurrence is exceedingly apt to throw one off one's guard; and indeed, notwithstanding my previous experience, I was so far misled, in the very last instance that came under my observation, as to pronounce the case on first seeing it to be probably one of simple urticaria, causing thereby some delay in the adoption of precautionary measures against infection. On the following day, however, the patient exhibited the typical scarlet rash of "rötheln" with redness of, and increased secretion from, the mucous membrane of the soft palate and pharynx, and other characteristic symptoms. The urticaria was still present, but disappeared towards the close of the day. The diagnosis was confirmed by other members of the family becoming affected with uncomplicated "rötheln." The dates may be of some interest as bearing upon the question as to the period of incubation. The patient, who had returned home with his family from the seaside on October 8th, 1883, had symptoms of coryza, with nausea and loss of appetite, on October 21st; the urticaria appeared on the 24th, and the diffused scarlet rash on the 25th. After the 24th, no member of the family came into contact with the patient, except his wife, who nursed him, and remained with him in isolation until they left home together on November 4th. On November 5th the rash made its appearance on the wife, and, on the same day, also on her

sister, who had left the house on October 25th. Of the three children, two became infected, and one escaped. On the elder of the two, aged five, the rash appeared on November 10th, and on the younger, aged three, on November 13th. In none of the four cases was there any sign of urticaria.

The marked constitutional symptoms in Dr. Kingsbury's case (high temperature, furred tongue, violent headache, sore throat, pains all over, thirst and constipation), coupled with the fact that the duration of the symptoms and of the rash exactly corresponds with that found in ordinary uncomplicated rötheln, lead me to think it not improbable that the case was analogous to the one I have described.

I am quite aware how very unsafe it is to venture on an opinion when one has not actually seen the case, and I merely offer these remarks of suggestion by the way, and in order to call attention to the occasional occurrence, at the outset of an attack of rötheln, of a very misleading symptom not alluded to in the ordinary text-books.

With regard to the period of incubation, I should be glad to know if the impression I have derived from my own observation be in accordance with the experience of other medical men; namely, that it is usually fourteen days to the commencement of the premonitory symptoms, where these are present, and seventeen to the appearance of the rash.

CHARLES J. CULLINGWORTH, M.D., Manchester.

METASTASIS.

ON November 15th I was sent for to see J. W., aged 14, a boy of thin stature and of excitable temperament, who had been ailing for about a week previously, suffering, according to the mother's account, from a bad cold and sore throat. Upon seeing the boy at 4.30 P.M., I found him unconscious (which symptom had only shown itself since the morning), with flushing of the face, pupils contracted to about the size of a pin's head, temperature 105.5°, and pulse very weak and running, 160. There was also severe right orchitis. Upon inquiry, I learnt that he had, undoubtedly, been suffering from a slight attack of mumps, although there was not the slightest sign of swelling of the parotid gland; and now I considered it a case of metastatic meningitis and orchitis, which I treated accordingly.

On November 16th, at 9 A.M., he was quite unconscious, in a semi-comatose condition, and lying very quiet; the teeth were firmly clenched, and with difficulty any nourishment was given him. Temperature, 105.2°; pulse, 150. As the bowels had not acted of late, I gave him a calomel purge. At 4.30 P.M. the bowels had acted freely; temperature, 103°, and pulse, 140. I applied three leeches on each temple, which caused profuse bleeding, and I was sent for in great haste at night, to stop the hæmorrhage.

On November 17th, at 8.30 A.M., he was to a great extent conscious, answering questions rationally, and wanting to get up. The temperature had fallen to 98.5°, and the pulse to 100; and the pupils were considerably dilated. About 11.30 he again relapsed into an unconscious state, and had hysterical fits of crying at intervals. At 5.30 P.M. there was busy delirium, and sordes had appeared on the teeth and lips. Temperature, 97.5°; and pulse, 100. I applied artificial heat to the extremities, and ordered one teaspoonful of brandy every hour.

On November 18th, at 8.30 A.M., he had passed a very restless night, but was now drowsy. Temperature, 98°, and pulse, 96.

On November 19th, at 10.30 A.M., he had again passed a restless night, and was still delirious, but quieter. Temperature, 97.4°; pulse, 88. He afterwards had a quieter day, and slept at intervals. Temperature, 97.6°; pulse, 84.

On November 20th he passed a quiet night, and had some refreshing sleep. The delirium appeared to have left him, but he was still unconscious. On the previous evening I gave him five grains of calomel, which had not yet operated. I therefore gave a hot-water enema with good effect, and a few hours afterwards, when I saw him, he was conscious and talked quite sensibly. Since this time he has gradually improved, and is now (December 10th) as well as ever; excepting, of course, that he has not regained his former strength.

REMARKS.—The above case I think interesting both pathologically as well as clinically. I have often seen metastatic orchitis in connection with mumps and a few cases of meningitis (metastatic), but I have neither heard of, nor have I seen recorded, the two occurring together from the same cause. At the onset, I treated him with antimony, acetate of ammonia with digitalis, and, after the depressing effects of the leeches, with bromide of potassium and carbonate of ammonia, with an occasional dose of chloral-hydrate. I may mention that, when I was called to this case, I had, only a day or two previously, paid my farewell visit to a sister of the patient, whom I attended for meningitis, and who, at the onset of her illness, complained of stiffness about the neck and jaws. Again, since this boy was ill, I have attended a brother in the same house for a severe typical case of mumps, which clearly proves to my mind the etiology of the disease.

WM. HENRY WALTER, L.R.C.P., M.R.C.S., etc.
South Petherton.

SURGICAL MEMORANDA.

A MEANS OF ASCERTAINING THE COURSE OF THE SMALL BOWEL IN THE OPERATION OF ABDOMINAL SECTION.

IT is confessedly difficult to distinguish the upper from the lower end of a knuckle of small intestine presenting at an abdominal wound; yet it is often desirable to know this, *e.g.*, when practising abdominal section for the relief of internal intestinal obstruction, or in attempting duodenostomy, so called. Operators have ere this passed feet of intestine through their hands, uncertain as to whether they were proceeding upwards or downwards in the direction of the tube.

The jejunum and ileum, loosely moored to the spine by the mesentery, are the districts of the bowel usually in question. The mesentery, at its free border, follows the windings of this portion of the gut, and is correspondingly complex; but, on approaching the spine, it rapidly narrows, until, at its attachment along the front of the column, its root is but about six inches in extent. This attachment of the root, extending, it will be remembered, from the left side of the body of the second lumbar vertebra to the right sacro-iliac synchondrosis, follows roughly the middle line of the body, its two surfaces facing nearly right and left.

The relation of the bowel to the root of the mesentery furnishes a sure guide to the direction of the bowel; for, if the piece of bowel which presents at the abdominal wound be held in a line with the body, and the bowel be in its true direction—*i.e.*, the apparently upper end be really so—the hand, passed along the side of the bowel and backwards towards the spine, will be guided by the mesentery—if this last be held out taut from the spine—to the same side of the spinal column. Thus, passed to the right side of the bowel, the hand will be conducted by the mesentery to the right side of the column; to its left side, if passed to the left of the bowel. Here, at the mesenteric root, the hand may be passed upwards and downwards, without hindrance, along its attachment. But, should the apparently upper end not be really so, the hand, passed to the right of the bowel, will be guided by the mesentery over to the left side of the spine; passed to the left of it, it will be guided over to the right side. In explanation, we may look upon the mesentery as a partition dividing the abdominal cavity into two compartments, having a simple arrangement of right and left posteriorly at the spine, but completely arranged towards the free intestinal border.

The above method has been tried, always with correct results, by several of my friends, and by myself, when making *post mortem* examinations. It seems to me to be worthy of trial on the living, and will, I hope, in some cases, clear away doubt.

R. FRANK RAND, M.B., F.R.C.S., Liverpool.

GANGRENE OF ARM FOLLOWING INJURY TO THUMB: DEATH.

ON September 27th in the present year, I was called to see a gentleman aged 53, well nourished and fairly healthy, with the exception of occasional gastric disturbances. On my visit, he gave the following history, On the Tuesday previous he was engaged with some gentlemen playing at bowls, and on the day following he noticed a small blister at the extremity of the right thumb, which he thought must have been occasioned in some way during the progress of the game. He sent for me on the Thursday. I then found a small punctured wound at the tip of the thumb, from which oozed an ichorous discharge. There was no inflammatory areola, nor any tenderness of the forearm, nor any constitutional symptoms. I ordered the application of a poultice, and put him on a mixture of iron, potash, and ether. On Friday the condition was unchanged, save that he had spent a sleepless night, and felt tired and unrefreshed. Saturday brought no alteration locally, but he felt ill, having spent another bad night. His tongue was furred, pulse

100, and the bowels confined. He had no appetite, and considerable thirst. I ordered a mixture of quinine and ammonia, and a free purge. In the evening my assistant found him exceedingly restless, and complaining of pain at the seat of injury. The thumb was swollen somewhat, and was hot and throbbing. A draught of chloral and bromide of potassium was ordered, and a poultice to extend up to the bend of the elbow, to be changed every three hours.

On Sunday the 30th I visited him at 10 A.M., and found the arm enormously œdematous; the wrist, the back of the hand, and the ball of the thumb much puffed. From the great tension, the pain was very severe. The tongue was now much furred, the pulse 120, and the temperature 101.8° Fahr. I at once made six free incisions in the limb, from which serum flowed copiously, re-applied the large poultices, and ordered him to continually lie down. In three hours the swelling had subsided, with the exception of that of the hand and thumb, which, however, was reduced. The pulse was still 120, but the temperature had fallen to 99°. In the evening he was irritable and restless. I gave him a draught of bromide of ammonium and henbane at 9 P.M., followed by a second at 10 P.M., with but little effect; he only dozed, and at times was slightly delirious. The bowels had been freely open during the day, and he had taken a quantity of nourishment at 10.30 P.M. The limb was unchanged in condition; the discharge was still going on, and all pain had ceased.

On October 1st, at 8 A.M., he was free from pain; temperature 99°; pulse 120, small and wiry; his facial expression was anxious. On removing the poultices, the limb presented the following appearances. The swelling had returned somewhat. All discharge, except from the lowest incisions, had ceased. The back of the hand, fingers, and thumb was of a mottled dusky hue; sensation, however, remained in all these parts. Mr. James Adams, of the London Hospital, saw the case with me at 12.30; and, in the four hours which had elapsed since my last visit, the entire limb had become gangrenous. We discussed the probabilities of success attending amputation at the shoulder-joint; but Mr. Adams was against it, on account of extensive brawny infiltration of the cellular tissue, and enlargement of the axillary and pectoral glands, also from the great depression of the patient, who now presented all the constitutional phenomena of this grave disease; and, in addition, the cardiac first sound was very weak. The patient died on the same night.

REMARKS.—This case is probably unique, and stands out differently from the historical cases quoted by Mr. Harrison Cripps on gangrene, notably from the absence of any exciting cause sufficiently definite to account for the entrance of germs from without, or plugging from within, and again from the extraordinary rapidity of the onset and termination of the gangrene.

R. C. STUDDERT, B.A., M.D., B.Ch., L.M.K.Q.C.P.I.,
Medical Officer of Health, Erith, S.E.

OBSTETRIC MEMORANDA.

THE USE OF HOT FLUIDS IN POST PARTUM HÆMORRHAGE.

MR. WESTON'S memorandum on this subject, in the JOURNAL of November 24th, brings up to me very vividly an experience I had ten years ago when in large midwifery practice. On a cold wintry night, in a comfortless house, I attended a multipara, who had for some days been losing blood from partial placenta prævia. This loss became so profuse on the night in question, complicated, too, with prolapse of the funis, that I had to detach the placenta almost entirely with my fingers. A pain or two brought away the placenta, and the bleeding then ceased. But, after waiting a reasonable time, and giving ergot, I found that the head did not advance in the least, the vertex only being able to to be made out at the brim. With considerable difficulty I applied the long forceps, and delivered the woman of a dead child; but so great was the exhaustion that the uterus made no attempt to contract, and very soon frightfully profuse flooding again set in. Clearing out the uterus of clots, pressure, and the application of cold to the abdomen, were of no avail. I had no syringe at hand, and I saw clearly that, before one could be procured, the chances were that death would occur. On the spur of the moment I got the neighbour present to make about a pint of milk and water and oatmeal gruel. This I forced my almost pulseless patient to swallow, while nearly hot enough to scald the mouth; in a few minutes, the flooding ceased, the pulse could again be felt, and a faint colour returned to the cheeks. This shows, *pro tanto*, that hot fluid, when the parturient is not too far gone to be able to swallow in quantity, acts quite as powerfully from the stomach as when injected into the uterus, in stimulating the heart and the uterine sympathetic nerves either primarily or secondarily. In the sequel, the patient made a good recovery,

J. FARQUHAR, M.D., Harrogate.

REPORTS
OF
HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

NORTHERN HOSPITAL, LIVERPOOL.

CASE OF GASTROSTOMY.

(Under the care of Dr. DICKINSON and Mr. PUZEY.)

[From notes by WILLIAM Y. ORR, M.B., House-Surgeon.]

THE notes of the following case may be of some interest by way of comparison with those somewhat similar ones recorded recently by Mr. Herbert Page of London and Mr. Page of Newcastle.

D. D., a soldier, aged 43, was admitted to the Northern Hospital on January 23rd, 1883, under the care of Dr. Dickinson. He complained of being unable to swallow his food. This difficulty, he stated, began about two months before admission. One day, while sitting at dinner, he suddenly felt his food stick in his throat, and a few minutes afterwards he had to vomit it up. Before this illness he had enjoyed perfect health; and he denied altogether having had any syphilitic history.

On admission, the physical examination revealed nothing abnormal, except a slight systolic *bruit* at the apex of the heart. In the recumbent position this *bruit* was audible, but in the erect it disappeared. The œsophageal bougie passed down nine inches without resistance, but, further, it was with considerable difficulty the very smallest size passed.

Treatment consisted in passing dilating bougies, giving liquid nourishment by mouth, and, when that failed, nutritive enemata.

On admission he weighed eight stones two pounds, and, on July 8th, his weight was practically the same; that is to say, for five months he lost no ground whatever. After this date he went steadily down, and by July 10th he only weighed six stones thirteen pounds. At this date he was seen by Mr. Puzey, who decided to operate at once.

On July 11th, therefore, the patient was put under ether. An incision, about three inches long, was made one inch below and parallel with the margin of the left costal cartilages. The abdominal wall was then divided down to the peritoneum. All bleeding points were secured, and the cavity opened. The transverse colon first presented, but the anterior wall of the stomach was secured without much difficulty. Two stout silk sutures were passed through the gastric wall, by which the stomach was steadied and brought well forwards. The parietal layer of peritoneum round the abdominal opening was then stitched by fourteen interrupted silk sutures to the anterior wall of the stomach, about three inches above the pyloric end. The wound was subsequently dressed with antiseptic gauze soaked in carbolic oil. After operation he was fed, by the rectum, by peptonised extract of meat, etc.; but, notwithstanding, he never rallied from the shock of the operation, and died the following evening.

The *post mortem* examination showed that the stricture in the œsophagus was due to a thickened band of scirrhous cancer about two inches wide, involving the entire circumference of the gullet. The adhesion between the two layers of peritoneum round the abdominal aperture was complete, and there was no peritonitis. An interesting point to observe was the position of the sutures. All the fourteen had passed through the submucous layer, and none had penetrated the entire thickness of the stomach-wall. The descending colon and rectum were found distended by the enemata which he had been receiving, so that evidently there had not been much absorption going on for a day or two before death.

REMARKS.—The case seems to present several points worthy of notice. In the first place, the patient gave no history of gradually increasing difficulty of swallowing. He gave a clear account of being able to swallow his food without the slightest difficulty, until the day his dinner was suddenly ejected. It is quite possible the difficulty may have been coming on without the patient noticing it, but the fact remains that the œsophagus became gradually so narrow, that even milk was passed with some straining and discomfort, be-

fore he noticed that anything was wrong. In one of the former two cases reported, the same phenomenon presented itself. A second point of interest in the symptoms was an entire absence of hæmatemesis during the somewhat prolonged treatment. Bougies were frequently passed, sometimes with a good deal of friction, and causing violent spasm and straining, but yet no blood followed. This, as a rule, is one of the symptoms laid down in the books as peculiarly diagnostic of malignant disease. Judging from the *post mortem* appearances, we are justified in saying that the operation, as such, was quite successful. Thirteen hours after it was performed, the adhesions round the abdominal aperture were tolerably firm and quite complete. There was no peritonitis, and nothing in the nature of the wound which would have prevented a favourable termination to the case. The patient at the time was in an extremely feeble and emaciated condition, and the case furnishes another proof that the danger is not so much in the operation itself as in submitting the patient to a somewhat severe shock, from which, on account of extreme feebleness, he is unlikely to rally.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

MONDAY, DECEMBER 17TH, 1883.

Sir JOSEPH FAYRER, M.D., K.C.S.I., F.R.S., President, in the Chair.

CATHETER-FEVER.

SIR ANDREW CLARK read a paper on this subject, which is printed at page 1221.

Sir HENRY THOMPSON said: I received a very courteous invitation to take upon myself the responsible task of opening the discussion after Sir Andrew Clark's paper. I may, perhaps, be permitted to premise that, in common with the rest of you, I hear this paper for the first time. You must not suppose that the acceptance of the position I have taken has carried with it the slightest information as to the line that Sir Andrew Clark would follow, or of any facts that he has brought before us to-night. Had I had the advantage, I might perhaps have been able to offer you a better summary of what I might desire to say respecting it. You find me, therefore, rising with an enormous mass of matter in my mind which I hear for the first time, admirably arranged, and resulting from the diligence of Sir Andrew Clark, with that careful power of organising what he has to deal with, which he so manifestly possesses. I desire, in the first place, if I can, to see how I may divide this large amount of matter in an orderly way, so as to deal with it in detail. I must thank Sir Andrew Clark, in the meantime, for the opportunity he has given us of discussing this question. A more important question can scarcely come before us in connection with the subject, and it is one which, having seen a good deal of, I should be glad to refer to on one or two points, and to endeavour to throw any light I can upon it. First of all I must object, *in limine*, to the term used in the paper. I do not think Sir Andrew Clark holds very keenly to it, for he said: "What we may call catheterism." I must object at present to the term, and I think we shall see before I have finished the grounds upon which that objection is made. There is a great deal of information floating in the minds of many of us, without, perhaps, being distinctly formulated, in relation to this matter, and it is precisely those formulæ which Sir Andrew Clark asks for to-night. He has given us the terms of many writers, commencing with Velpeau's, but I think we should do better to adopt the term with which we are more familiar, that is, urinary fever, and afterwards discuss how much of that may belong to the catheter, and may have any right to be called catheter-fever. I think it will suffice for us to inquire what catheter-fever may be. Sir Andrew Clark has proposed for us only one form in which that fever occurs for discussion; he has asked us to discuss one particular point connected with it, evidently suggested to his mind by the two cases which he saw—one in the year 1850, which made a great impression upon him, and the other in 1865, which he saw with Mr. Peter Marshall. These two cases I take to be types of the fever that he desires us to discuss to-night. But first, in order that there may be no mistake or confusion as to what it is we are discussing, let me say that in my experience—and I believe I am now formularising the views of us all who have had any experience in the matter—there are three distinct forms of urinary fever. The first, perhaps, should scarcely be called urinary fever; it is a simple febrile attack; all observers agree that it is what may be called an acute transient attack, the first and most common thing we observe in connection with urinary organs, the urethra particularly, when disturbed. We are all familiar with what occurs sooner or later after certain provocation, which is not always catheterism; it may happen equally after other conditions; but, inasmuch as the catheter or the bougie is the implement in ninety-nine cases out of a hundred which affects the urethra, for manifest reasons it may be called, under the circumstances, catheter-fever. But it is really a form of urinary fever, a single paroxysm occurring after provocation. We are all familiar with it as occurring within four or five hours after the provocation, commonly after the first passing of the urine. Supposing the instrument has been passed at a certain hour, and again in three or four hours, shortly afterwards, not invariably, a severe rigor occurs, followed by dry heat and pains in the back, and that again followed by sweating. These symptoms pass away slowly, no recurrence takes place, and the patient is, after two or three days, as well as ever. That I would call the acute transient attack. The temperature rises rapidly, and very often highly, during the cold stage; it continues during part of the hot stage, and it gradually falls and ceases to be elevated through the sweating attack. The whole series may occupy four or six hours—anything up to twenty-four or thirty-six hours, and it may manifest very different degrees of severity. Generally, I believe, it is a thing which occurs in persons who have not the most healthy renal organs; whether it occurs always from one cause, I think, is very doubtful. Certainly, I think it occurs occasionally from a simple absorption into the blood-vessels of some small portion of the urine; and the attack I have described is simply nature's effort, or rather, the storm created in the system while nature is getting rid of the poison. I think it is another kind of attack, in some degree, which occurs solely as a a nervous attack; and that such phenomena may be caused by the two conditions, there can be no doubt. I think that is the first, the typical form in which urinary fever is presented, the acute transient attack. The second distinct form we meet with is the acute recurring form. We will suppose that the patient, who has had such an attack as I have described, having become nearly, if not quite, well, two or three days afterwards has another attack. This second attack always gives rise to a certain amount of suspicion or anxiety on the part of the attendants. In two or three days, by no means after any regular interval, perhaps he has another, and one's anxieties are increased; but by no means necessarily should there be any alarm in such cases, because one finds that they often recover with rest and care, and in connection with treatment of the local disease with which they are most associated, probably stricture. This will cause, perhaps, nothing more than anxiety. After a short time, with a good deal of lowered health, it comes to an end; after four or five attacks, it disappears. Such cases are also quite familiar to us, and I think we must regard them as the second ordinary type, that of acute recurring fever. Both of these are, I conceive, excluded from the special consideration of the cases which we are considering. The form of case on which Sir Andrew Clark has laid most stress this evening, and out of which this discussion originally arose, is the third form, entirely distinct from these, and it may be called the chronic or continuous urinary fever. I can scarcely, perhaps, describe it better than it was described by Sir Andrew Clark in reference to those two cases. It comes on very insidiously, not necessarily by any smart rigor with perhaps a little chilliness in an old man who has had defective power of passing urine for a very long time; soon after commencing catheterism, he begins to feel out of sorts, chilly, then warm, the temperature not much interfered with necessarily, and sometimes not at all. As an illustration of this, I may say that I have been called to two cases of the kind during the last week, the second of which I saw to-day. All possible precautions were taken, and now, on the fifth or sixth day of catheterism, he is somewhat delirious, and in a not very hopeful state. He has a temperature slightly under 98°, taken by myself to-day. The marked difference in the character of this third form is what I call your attention to—sometimes increased temperature, sometimes a wavy line of temperature from day to day, at others, rather below the average; and this is a condition which, I may remark, is by no means a hopeful one. Now I have not mentioned one class of cases which has been referred to by Sir Andrew Clark, and which I think we have no right to call fever at all—I mean those cases in which death will occur from twenty-four to thirty-six or forty-eight hours after the attack. I have referred to such cases, although Sir Andrew Clark possibly has not seen such, somewhere in my writings, but purposely have not classified them with fever, because I thought that these phenomena did not come

in connection with any feverish condition. This is clearly a case of shock of some kind; and when we know that a simple passing of a bougie upon a young man who has never had an instrument passed before in his life very often produces a rapid fainting fit, and then a fit of convulsions, more or less looking very frightful for a few minutes, but invariably disappearing before long—when we see the mere passage of a bougie in a perfectly healthy man, upon whom some exploration has been necessary, cause him to go down scarcely with a moment's notice, turn pale, or perhaps fall almost at once; then the mouth is drawn aside presenting a terrible aspect, almost epileptiform; then he gradually comes to himself, and, in the course of a quarter of an hour or half an hour, the matter is almost forgotten—when we see the close sympathy that is established between the urethra, the urinary organs, and the nervous system, it is not surprising that in a very few and exceptional cases, with urinary disease existing in the organs, the passage of the catheter sometimes may bring about a fatal result in twenty-four hours, no special lesions being found to account for it. I think these have no right to be included in any discussion under the name of fever, and especially of catheter-fever. I will now ask you just to consider what I may call the typical form in which this third condition of continuous or chronic fever reaches us who are surgeons. But, perhaps, before I do that, I may just advert to one thing which I desire particularly not to forget. Sir Andrew Clark expressed surprise that I should have said that, in these fatal cases of catheter-fever, the necropsy revealed invariably advanced disease of the kidneys and ureters. Now I have never said anywhere in any part of my writings that such is the case, but only in relation to the chronic continuous form of which I am now speaking, associated with long standing neglected disease. I have especially limited that remark of mine, and it occupies the last three lines of one of my lectures. I cannot tell, which I there state, that in no case have I ever seen a fatal event in the circumstances which I am now describing in any other than advanced disease of the kidneys and ureters. Happily a great many cases do not require necropsy, as in the case so well referred to by Sir Andrew Clark, of the nobleman whom he and I saw together. That occurred nine years ago, and I believe that gentleman was then sixty-five years of age. I do not agree with Sir Andrew Clark as to the nature of the attack. I remember the case well. It was that of a nobleman who had not too much self-command and not too much disposition to listen even to the commands of Sir Andrew and myself, not knowing why he should be doomed from time to time henceforward to use a catheter on every occasion on which he desired to pass urine. He was then sixty-five; he is now seventy-four, and the catheter has added that number of years to his existence. May I say what else has happened during that time? [Sir ANDREW CLARK: Certainly. He has married.] So much, gentlemen, for his catheter-fever. Well, now, that was a very severe and long standing urinary fever, and I was anxious about the result of it for some time, but the patient has done well, as many others have done; hence to a certain extent my inability to supply you with necropsy-remarks. Then there is another reason which is more to the point, that is that we can very seldom get necropsies. It is not as in hospital-cases. How I miss the enjoyment and the advantage of hospital-experience, which I had for twenty-five years, but was compelled to give up! You can imagine that it is not always by any means easy to get the *post mortem* examinations we require; nor is it always easy, under a very great pressure of business, to find time to make them, but whenever I can make them I always do so. I repeat, however, what I said in the three lines at the end of my lecture, that I have never seen this continuous chronic form appearing in elderly men only after long-standing obstruction of the urethra without advanced renal and uræmic disease. Lastly, let me refer to the case which I said was typically the case as it reaches the surgeon. The cases which reach the surgeon have such a history as this: a man of sixty-four or sixty-five sits down in my chair and tells me that he has been passing urine, for a long time, five or six times or more in the night, and every hour and a half or two hours in the day. I ask him to pass some, and he does so with difficulty. I see a dribbling stream of pale urine, and he assures me he has passed all he can. Then I see that he has obviously a protuberance, and before I do anything further I get his history more completely. He tells me that he has been in this way for a year. "How much more?" I ask; and then, perhaps, it may be two. Then, when I ask him "How long have you been rising two or three times in the night?" he replies, "Well, it might be six or seven years." Then I know full well that I have a case of advanced obstructive disease of the urethra, and I have to convince him that such is the fact; because, if I simply contented myself with telling him that he had a distended bladder, and that it was necessary to use the catheter, he would not believe me; he would tell me that he wanted no catheter, and would say, "You must stop me from making water, I am already making it too fast." I tell him that his bladder—to use a popular term—is like a cask with the tap at the top instead of at the bottom, and that the reason why he passes urine so fast is that he can only pass half an ounce or so at the top, while the vessel is filled below. It is very necessary that patients should understand this. I introduce the catheter, and draw off, to his great astonishment, a certain number of ounces of urine, and, if the quantity be large, leave some still there. It is necessary to tell him what is the matter, and to make him see it for himself. I ask him, "How is this? Have you been neglecting these symptoms?" He then tells me that he has had medical advice for a long time; that he has taken a great deal of medicine; that he has done this, that, and the other; that he has possibly been to Vichy, or somewhere else, without any benefit; that he has undergone a considerable amount of treatment before he has come to me. Then he says, "Sir, I have the greatest possible objection to the catheter. I have been told, over and over again, that if I once adopted the catheter, I should be in a worse condition than ever I was; that I should not only be enduring the complaints I have, but should get another in addition." This is the condition in which the patient comes to me for relief, already damaged irretrievably. Then what I say is this—I did not do it formerly, but having found great advantage in it during the last few years, as I have especially mentioned in a recent edition of my lectures, I say to the patient, "I will have nothing to do with you if I cannot arrange carefully for your well-being somewhere without any exercise, in a warm room, perfectly quiet, with gentle, careful catheterism as often in the day as may be necessary." I tell him that it is a great change in his life from a distended bladder to one that has been nearly empty, and that change to new life is one that requires a sort of apprenticeship and the closest supervision. I never did this at first, and I never heard of its being done. Why? Because, after all, it must be evident that a great number of these cases do exceedingly well without any precautions; if the quantity be not too large, no care is necessary. I have even seen a man with five pints of urine withdrawn from his bladder, and living what Sir Andrew Clark terms his catheter-life in future without any precautions, without a single rigor or uneasiness being occasioned by it. The reflection, then, which I cannot help making, is this:—that it is not catheter-fever, but the want of the catheter at an earlier stage which has placed these individuals in this condition. In these cases where the patients have been so long swallowing medicine and travelling from place to place in search of relief, had the catheter been used when there were only six or eight ounces behind at an earlier stage, we should have heard nothing of the catheter-fever. So that you will see the ground of my objection to the term, and will understand my belief that the only association that the word has for this fever is from the important fact that the catheter was wanted and was not used. Perhaps I hear that a fatal event takes place some two or three or four weeks afterwards—I ask what was found, and I am told that it was surgical fever. Then I reflect, and I say in equal justice, "Surgical fever!—surgical fever only in the sense that there was no surgery in it." Surgical fever and catheter-fever are two terms that I do not accept in connection with this matter. I think we had better, if we we can do so, call it urinary fever; and carry out the plan so far as I have ventured to intimate in connection with it. I hope and think we shall find that there are less of these fatal results than unfortunately have before obtained. Instruments, perhaps too hard or too carelessly passed, have spoiled the results of our experience. I trust that you will forgive me for having taken up so much of your time. I have endeavoured to survey the ground fully. I have no doubt left out one or two points that I should be glad to refer to hereafter; but I have endeavoured to refer to all the points that I thought of importance.

Mr. BERKELEY HILL: After the admirable remarks that have been made by Sir Henry Thompson on the excellent paper of Sir Andrew Clark, I shall not occupy the time of the meeting at any great length; but there are one or two points that I think might be usefully adverted to. In the first place, as to the presence or absence of kidney-disease, I certainly heard with considerable surprise Sir Andrew Clark tell us that in two cases where he had made a *post mortem* examination he did not find disease of the kidneys. I have never met with a case of the third form of urinary fever, which Sir Henry Thompson so well distinguished from the other

two, where kidney-disease has not been present, and present—at all events, to my mind—in a satisfactory form to account for death. In the *post mortem* details which Sir Andrew Clark gave us, he told us that the bladder was thickened, that the walls were thick, and, if I recollect rightly, he said that the muscular coats were hypertrophied. What does that mean? Does it not mean that the disease which has been working in the urinary tract was not of short duration? There must have been an impediment to the outflow of urine somewhere for some long time to produce that change in the natural structure of the bladder. When the walls of the bladder are thickened, and the muscular bands hypertrophied, then comes the difficulty in the extrusion of the urine from the ureter. Then comes on (which we have heard was not the case in the instance Sir Andrew Clark has related to us) dilatation of the ureters, and, consequently, dilatation of the renal pelves; then strain upon the kidneys which results from, or rather induces, chronic interstitial nephritis. In the case which he first narrated, where he had not the opportunity of examining the kidneys after death, he described a condition of the urine which, I should say, was admirably indicative of chronic interstitial nephritis. He tells us that the patient passed too much urine; that it was of too low specific gravity; and that, when the bladder came to be examined, there was a considerable quantity, which Sir Benjamin Brodie drew off. He does not say that the urine was turbid, which it usually is—I suppose, always is, perhaps only to a slight degree, but always in a case of chronic interstitial nephritis—somewhat turbid from any excessive secretion of mucus. He did not say that that was the case in the instance in which he was able to examine the urinary apparatus after death; therefore I must say I have heard with extreme surprise of his having had a case of this slow insidious urinary or catheter-fever, whichever term may be applied, without finding disease in the kidneys. I cannot think that the passage of the catheter had any specific influence in this long-delayed case of urinary fever. When it comes on within a few hours or days after the passing of the instrument, no doubt the actual instrument which is passed produces the effect; and, as Sir Henry Thompson has explained, in two forms. It is distinctly traceable to the influence ot the catheter through the nervous connection between the kidneys and the urethra; that can be evidenced in the condition of the urine secreted during the first few hours after the passage of the instrument, so clearly narrated by Mr. Marcus Beck in the paper to which Sir Andrew Clark has referred. But such a change in the urine does not come on in the insidious form of urinary fever; it is nothing more than an exaggeration of the condition which was present, I maintain, at the outset, before the catheter was passed. It was the product of a long neglect of the indication of nature, both by changing the condition of the urine and by giving rise to symptoms which, had they been properly interpreted, as Sir Henry Thompson has interpreted them, would have indicated that the catheter was needed long before it was actually applied. I was not aware of the scope which Sir Andrew Clark's admirable paper was intended to take.

Sir ANDREW CLARK: May I be allowed to give an explanation? I purposely narrowed the scope of the paper, in as clear and distinct and emphatic language as it was possible for me to use, to four propositions.

Mr. BERKELEY HILL: I will only deal with one proposition, which I think is included in these four, viz., the second. Sir Henry Thompson told us that, owing to his having no longer access to the hospital-wards and dead-houses, he was not able to get *post mortem* examination of cases that came under his own observation as he wished to do. Yesterday, therefore, I examined the records of the surgical register of the University College Hospital for eleven years. With regard only to the cases that were admitted with enlarged prostate, I find that there were fifty-nine such cases admitted and treated in the hospital, and, of those, forty-four recovered, and were discharged, not cured, but having been well set going in their catheter-life; thirteen died, and of eleven it is recorded that chronic interstitial nephritis had been the condition of the kidneys, sometimes with acute nephritis superinduced; in two others, bronchitis is put down as the cause of death; but unfortunately no particular description is given of the state of the kidneys in those two cases. I think that is a tolerably strong proof that interstitial nephritis is the cause of death in these cases of insidious urinary fever which we have to deal with in discussing this question.

Mr. SAVORY: Allow me to express the pleasure I have experienced in hearing Sir Andrew Clark's paper on this subject, calling attention to a fact of considerable importance to all surgeons, and one well worn, like many others which are familiar to us, but likely to be overlooked in the multitude of new subjects that come before us day by day. Seeing how constantly catheters and all kinds of instruments are passed into the urethra, and how comparatively seldom it is that any serious consequences follow, even when catheters and other instruments are somewhat roughly used, I think it follows that there must be something peculiar in those persons who suffer from the use of them. And of these persons, I think we may say that one class consists of those who have mischief in the kidney. With a large number of persons who experience serious evil from the passage of the instrument, whether it be in the form of fever or something still worse, even to a vital issue, I cannot doubt that in many of these cases the kidneys are seriously affected. I am also sure that in many of these cases the kidneys are not affected in the ordinary way, that is to say, in ways corresponding to the description which we get in works on certain diseases of the kidney. They are not characterised after death by very striking changes, but that they are affected, I think, is evident from certain facts which often came before us on careful inquiry during life. I have been accustomed for many years past, previous to performing operations, as I suppose all surgeons would be careful to do, to examine into the state of the kidneys; and what I would look to particularly in these cases is not whether the kidneys yield a large quantity of albumen, or even a small quantity of albumen, or whether there be in the urine certain forms indicating advanced degeneration, but what I think of more importance is the estimate of the quantity of urea which the kidneys are separating from the blood. In many cases I am convinced that the kidneys are in this respect weak; and of all disasters which can happen to the surgeon, I think the worst comes from these cases where this condition of the kidneys has been overlooked. In many respects the heart and lungs are organs more immediately vital than the kidneys, but I think with regard to serious operations or any considerable shock to the patient, I would rather have thoroughly sound kidneys on my side than even a sound heart or lungs, and I think it is in this respect that the kidneys often fail. Therefore I should take it that in some of these cases which were said to show no appearance of mischief after death, the kidneys have still been at fault. I was struck during the reading of Sir Andrew Clark's paper with the statement that the urine was low in density. The urine being low in density I think often suggests to surgeons that such mischief as this may lurk behind; therefore I would exclude this class of cases by saying that they form a large proportion of those in which catheterism is likely to be attended with disastrous results. Then, where the kidneys may be perfectly sound, we come to a class which I should think are very rare in which, after the use of instruments, we get undoubtedly blood-poisoning, septic inoculation; and I take it that such cases as those which Sir Andrew Clark mentioned, of suppression in the interior of joints, would be cases more or less of this kind. This subject of blood-poisoning is a very wide one, and it presents various phases, and we all know that we can distinguish certain classes of cases of blood-poisoning in this regard. Well, setting this aside for the present, I will only say there is a class of cases. We come now to cases to which I suppose Sir Andrew Clark more particularly alludes—those cases in which very severe fever (for I would accept the term "fever" without the objection which Sir Henry Thompson takes to it), or even a fatal issue, occurs, and in which there is neither renal degeneration nor any form of blood-poisoning. I for one think that there are two distinct sources of fever, or, as I would call it to avoid objection, constitutional disturbance. Fifty years ago, there was only one source of constitutional disturbance recognised, and that was the nervous system. Then, as our knowledge of blood-poisoning increased, the interest and importance of this so overshadowed the other, that, for some years past, it seems completely to have shut it out of view, and no surgeon now talks about the nervous system as a source of constitutional disturbance consequent on local irritation. By the way, the term, "local irritation" is an uncommonly good one, and I was glad to hear Sir Andrew Clark use it to-night. We all remember that classical work of Mr. Travers on *Constitutional Irritation*. When he wrote that book, one source only of constitutional irritation was understood, and that source was the nervous system; but so true and faithful are his descriptions of the cases which he gives, that, by the further light which we now possess, it is quite easy for surgeons to read those cases through, and separate them into their two distinct classes, to say that one class of these cases belongs to the nervous system and the other belongs to blood-poisoning. I take it that in these cases to which Sir Andrew Clark has more particularly alluded to-

night, we have a most conspicuous and very striking example of constitutional disturbance produced through the nervous system, in fact, what I venture to call,—using the term in a broad and large sense, to which I see no objection—cases of shock in which the effect of a shock has lingered on towards recovery, or in some cases has terminated in death. And there is this remarkable fact, that of all parts of the body no part seems in so close and intimate association with certain nerve-centres as is the urinary apparatus. There are many facts bearing upon this. Every surgeon must be familiar with the fact, which is confirmed by physiology, that during the administration of anæsthetics after the power of reflex action has ceased in all other parts of the body, it can still be provoked by irritation about the urinary organs. If you decapitate a turtle and wait for some hours, the power of evoking reflex action dies out part by part, but the last part in which you can evoke it is by irritating the region of the chorea. And with regard to the urethra and the organs in connection with it, all surgeons have for a long time past been quite familiar with the fact that certain "accidents," as the expression goes, occur when these parts are dealt with in various surgical ways. It is not merely the passage of the instrument into an elderly person, or a person who has been for some time the subject of disease; but I suppose it must be in the experience of every surgeon that occasionally, even in the very young and healthy, a considerable amount of shock is caused by the introduction of the instrument. I suppose it must have occurred to all of us to see in some cases, even after sounding children for stone, that a decided shock is produced by the operation, I have seen death follow the amputation of the penis, and after death not a trace of injury has been discovered in any part of the body. I repeat it is, surely, familiar knowledge to us all that of all parts of the body in this relation the urinary organs are the most delicate tests of reflex action of what one must call a morbid kind. There is another fact which bears very strongly upon this, and that is the effect of catheterism, to which Sir Henry Thompson has alluded. We occasionally get faints, perhaps more often rigors. Now, this subject of rigor is itself one of great importance. We all know that there are rigors and rigors. First of all there are physiological and and pathological rigors, there are rigors from mental emotion, from fear, from chills, not attended by a rise of temperature—and these I would call physiological. Then we come distinctly to rigors which are attended by a rise of temperature, and there we have what we may call pathological rigors. Now, although it is perfectly clear that, in a great majority of cases, severe and prolonged rigors, especially those which are attended or followed by sweating, indicate absorption; yet it must be clear also that we have rigors which indicate nothing of the kind, and if I were asked to defend this position I should say that there is no case we could take which would seem to be stronger in its support than these rigors which immediately or soon afterwards follow the introduction of an instrument; therefore, as the sum of all these, if I were called upon to attempt to answer the question which Sir Andrew Clark has placed before you to-night, I should say that these cases to which he had particularly alluded are cases in which constitutional disturbance, or fever, or pyrexia, are produced by local irritation through the nervous system.

Mr. HARRISON: The observations I would make have reference to the severer and more continued form of urinary fever to which Sir Andrew Clark has referred. I think the fact should not be lost sight of, that the persons in whom these forms of urinary fever occur are elderly people, with bladders ill-shapen and without any power, or very little power, of collapsing. When the residual urine is drawn off, the vacuum or space created by the sudden withdrawal of the fluid that has been there for a long time, is exceedingly liable to be occupied with a septic compound, composed chiefly of urine, of blood, and other materials which are likely to produce a condition of septicæmia. I had the opportunity of preparing two cases, both of which terminated fatally, with symptoms in correspondence with those which have led to this discussion. One was a case of psoas abscess, where the contents had been evacuated with a trochar, but without septic precautions; the other was a prostatic case where the bladder had been emptied by a catheter. In both, fluid was rapidly withdrawn from spaces mechanically incapable of collapse, and as the symptoms that supervened in each of these cases were alike, the conclusion, to me, seemed irresistible that the conditions under which the contents of the cavities were in both instances removed, probably determined the results. Since that observation, I have been particularly careful in noting what followed the systematic withdrawal of residuary urine by the catheter: and when changes were observed, indicating the presence of some degree of cystitis, or altered condition of the urine, I have been careful to substitute an antiseptic fluid for the urine thus withdrawn. The antiseptics I have employed under these circumstances have been warm salt and water and a solution of sanitas. Having withdrawn the urine from the bladder, under these circumstances I have substituted one of the fluids to which I have referred. I cannot say that since adopting this practice I have seen any ill effect such has been referred to as catheter-fever. I have, to a certain extent, treated cases which looked at all likely to generate urinary fever, on antiseptic principles. It may be objected that, if my theory were correct, then, considering the frequency with which catheterism is practised in elderly people, such cases as Sir Andrew Clark has described should be of far more frequent occurrence; and that the risk of catheterism, instead of being very trifling, would be overwhelming. To meet this remark, I would observe that the power of absorption possessed by the bladder, as demonstrated by Sir Henry Thompson, is providentially very small. I have introduced into the bladder for therapeutic purposes a variety of drugs, and I have been much disappointed with the results obtained. I have been satisfied that it is only under highly exceptional circumstances, and where the influences are exceedingly potent, that the bladder does absorb to any appreciable extent. When such absorption does take place, I am not surprised at the consequences being disastrous, and out of proportion to the simple act of passing the catheter. I think, as the amount of comfort and benefit conferred on elderly people by the proper employment of the catheter is so great, and obtainable at so little risk, it is very desirable that nothing like prejudice should be excited against the use of this instrument. On the other hand, a candid consideration of cases such as those which Sir Andrew Clark has brought before us, I think will show us that surgery is not only cognisant of them, but is perfectly prepared to meet them.

After some remarks by Mr. BENNETT MAY, Dr. ALTHAUS, and Dr. MACLAGAN.

The PRESIDENT said: Sir Andrew Clark has alluded to a time when he and I were messmates in Her Majesty's Service; but, about that period, he appears to have come into contact with some cases of interest that excited his attention, and that developed into the inquiry the results of which you have heard this evening. We separated shortly afterwards. You know his distinguished career; mine went further a-field, but it has brought us together this evening: I to be instructed by my valued old friend, and to find that his great experience is somewhat like my lesser experience; and I can hardly tell you the gratification I feel in finding that such is the case. I have been particularly interested. I knew I should be beforehand, for the subject is one to which I have paid, in times gone by, considerable attention. Sir Andrew Clark has alluded to some observations of my own that were made many years ago. Those were made in my surgical days, which I am sorry to say have passed; but the record of them remains in what I wrote, and the memory of them remains still stronger in myself. I have often wondered that a subject of this great importance has not attracted more than it has done the attention of surgeons and physicians alike, because unquestionably it is one of the greatest importance. I have been exceedingly pleased to hear the remarks that have been made; and, if I might venture to express approval of one more than the other, where all are good, I should say that Sir Henry Thompson's and Mr. Savory's have especially delighted and instructed me, because they seem to fill up a vacuum—a want of information that I have long felt. I was thinking, as I sat here listening to them, how great would have been the benefit to me in the year 1867, some years before it, and a good many after it, if I could have had the advantage of talking to them, consulting them, and of getting their opinions upon the cases that caused me so much interest. And I venture to say that, if those distinguished surgeons had seen those cases, and had watched them as I did, under the circumstances in which I saw and watched them, they would have probably spoken even more emphatically than they have done with reference to their etiology and pathology. I would ask your attention to my experience of this disease—and, if I may be permitted to do so, I will retain the term "urethral fever," preferring it to "catheter-fever," because "catheter" indicates only one particular agent; and preferring it to "urinary fever," because it frequently has nothing whatever to do with urine at all, and much to do with the urethra. My first observation of it in any marked degree was made under conditions which you are not altogether without in this country, but which you could not see and cannot see to the extent that I saw them. But there are my old friends and colleagues in this room who, I dare say, to a certain extent, will confirm what I say, when I tell

you that this condition is infinitely more severe, more probable to occur, in malarious climates than in our comparatively temperate one. When I wrote upon the subject of urethral fever, I began, if I remember rightly, by saying that, the general health being seriously compromised in many ways, this was one evidence of the constitution of the persons suffering from that which, in our ignorance, we called *malaise*. Whether the persons might have been subject to paroxysmal fevers, neuralgia, or any of the other forms in which this manifests itself, is beside the question. If they have been under the influence of malaria, and have lived in a malarious climate, then I am as certain as I can be of anything that they are more liable to suffer from this condition than others. You shall pass a catheter in the same man in London, and excite a certain amount of constitutional disturbance. I am glad that Mr. Savory has returned to those valuable old terms, "constitutional disturbance" and "constitutional irritation"; and if he will do me the honour of looking at what I have written on the subject, he will find I have there said it was about as good an example of the condition to which former surgeons, Travers and others, referred, as any one could procure. The effect, then, of passing a catheter, bougie, or any other instrument into the bladder, whether it be in a stricture or a non-strictured urethra, whether there be disease of the kidneys (and I believe there very frequently is, but I am quite certain that there very frequently is not), is that you are liable to bring on this condition of paroxysmal fever with its pathological rigors, increase of temperature, followed by sweating, precisely in the same way, and of the same type, as ordinary typhoid and intermittent fever. There can be no doubt that this condition is not always the consequence of, or the result of, injury to the urethra. I have had the opportunity of verifying this after death. I have seen in a case where a most flagrant urethral fever has followed the passage of the instrument, where no mechanical injury has been done, and where a person has yet died, that such were the conditions, and I have said that frequently those conditions, and death, were conditions analogous to the effects produced by shock. And, after all, what is the position of a person who dies from some of the worst forms of poison or shock, or, indeed, of a great many other diseases—certainly tropical diseases? Whether or not this is called fever, and probably the term "constitutional disturbance" might be better, we see that there is very frequently pyrexia, that there is a sweating, and that there are all the phenomena of malarial paroxysmal fever cannot be doubted. I do not in the least mean to imply that urethral fever, as I am speaking of it, is simply a malarial disease. I have said nothing of the kind, nor do I think so. I am perfectly aware—I have seen it over and over again—that this condition shall follow the passage of the instrument down the urethra of any person quite irrespective of the influence of the malaria. But what I did say, and what I repeat, is this: that, given a malarious climate, given that condition in which there is malaria-poison, not of necessity fever, that that person is more prone to suffer from it than another; therefore, I think that these cases are much more severe in the damp and malarial climates of the tropics than ever they are in this country. In confirmation of this I may say that, indeed only recently, I have seen the same thing repeated in the country in the case of a person who was suffering from malarial poison, and I have seen it more than once. As to the causes of death, I am very glad of the description given of them; they have exactly corresponded to what my own experience has suggested, but they have been far better formulated, and therefore much more clear and more intelligible than any words by which I could describe them. I am glad to find that it is recognised that the disease may occur and may prove fatal without any interstitial nephritis, without any structural disease of the kidneys, although I am quite ready to admit that in cases of chronic disease, of what is called surgical kidney, interstitial nephritis, that condition would be more dangerous. Then again, that it may occur in the form of a shock, there is no doubt; and many cases unhappily do illustrate this. I have recorded several. Of course I cannot carry dates and the details of all these cases in my recollection, but they have all been recorded, and if you are interested in the subject and care to look at the book, you will find that these cases show that death will follow after these simpler diseases, and that in some cases without the occurrence of any previous disease at all. I will now conclude by expressing my grateful thanks to Sir Andrew Clark for his most valuable paper, and to you, gentlemen, for listening to my imperfect remarks upon it. May I also be allowed to supplement what I have said, and to rectify an omission, by also thanking Sir Henry Thompson and Mr. Savory most cordially for the remarks that they have made.

Sir Andrew Clark, in reply, said: I beg to thank you, in the first place, for having so patiently listened to a physician who has been treading upon doubtful ground. The usual formula upon such occasions is that "the author having replied, the Society adjourned." I think that is an indication of the expectations and the wishes of the auditors, and at this hour it would be impossible for me, without taxing your patience very greatly, to reply to each individual speaker in this debate. But I can assure the speakers who have done me the honour to criticise my paper, that they shall be answered in due time. To-night I will satisfy myself with referring to one or two of the principal objections that have been made. The first objection has been to the title of the paper. Before I answer that, let me say that on a previous occasion I was misapprehended, because I spoke without previous preparation, and I determined to-night to speak as clearly as it was in my power to do, feeling assured that there could be no longer any misconception of my meaning. But I regret to say—as a body of Englishmen you will forgive me for saying it—I have been as much misunderstood as ever. With regard to the objection to the term catheter-fever, I purposely said, and I repeat it, that I used the term for the moment simply for provisional use, to indicate the variety of urinary fever, or whatever fever you like to call it, which I had in my mind. The second statement which I have to make is that the debate, interesting as it has been, has been in a great measure beside the paper. The paper was meant to call attention to a certain form of fever occurring after catheterisation, without reference to the reason for catheterisation, and attention was fixed on a certain series of propositions which I read as slowly and clearly as it was possible for me to do. Next, it has been alleged, or if not alleged clearly implied, that, after all, a great deal of fuss has been made about this, that catheterism is a very frequent affair, and that death from it cannot be so common, or we should hear more about it. One of the most careful observers that I know, who deliberately uses his words, estimates the percentage of death at three or four per cent. It cannot surely be that English surgeons have lost their respect for the value of human life. What does three or four per cent. mean? Surely a great deal, if it involves the life of heads of families; and I should be sorry to think, indeed I do not think, notwithstanding what has been said, that there is on the part of English surgeons any want of due reverence for the safety of human life. The next objection is one that has been made by Mr. Berkeley Hill, who is surprised that I should have examined cases—and I have examined more than I have stated—of fever following the use of the catheter, and found no evidence of disease, for he, except in two cases, has invariably found it, and it has been invariably found. Will he forgive me for saying that I am equally surprised that a gentleman of his position should have had to make such a remark? How does he make it? Upon his own experience, and the experience of his hospital. But what is the nature of hospital-experience? Cases that come to the hospital come to it when they can no longer stop out of it, old, worn-out diseased people. Surely the same reason which makes the prognosis of hospital-physicians so untrustworthy makes the statement of the surgeon not tenable. When you hear people putting the duration of kidney-disease at about eighteen months, you may be quite sure that it is a hospital-physician who has said it. And why? Because our active hospital-physicians, at a comparatively early age, when their experience of private practice, which differs from hospital-practice, is not large, meet with cases in the hospital at the end of their journey in life. The poor man with renal disease has kept at work, and has never thought himself ill, however much he might suffer, until he has been obliged to take to his bed, and the young hospital-physician usually dates the duration of the disease from the time when the man felt so ill that he was obliged to take to his bed, whereas in all probability the disease may have been going on for twenty years before. Mr. Berkeley Hill finds as his experience that in all such feeble worn-out cases, there has always been renal disease. I do not doubt it for a moment, but he makes this upon his own and his hospital's experience, and forgets, or does not allude to, the experience of other people in the world, there really are, and they too have had experiences, and their experiences have been collected in the presence of other people. I am ashamed that I should have to call the attention of a surgeon practising in this department to the literature of the subject, but let me recall his attention to that literature. Let me tell him that Velpeau gives several cases in which no lesion has been found in this sort of fever that I have been describing, and his *post mortem* examinations were made in the public theatre, not by himself. Then, secondly, Marx, in the very able monograph to which I have alluded, gives six or seven cases

in which, with the sort of fever that I have described, and after the utmost care in the examination, no structural lesion could be found. Then I may pass on to Malherbe, who also gives a very fair and complete *resumé* of what is known on the subject, and who himself is an advocate of the opposite theory. Like an honest man, he confesses at once that there are several cases in which, with the utmost care, no structural lesion could be found in this fever, and he gets out of it by saying, "Well, you know, I am sure there was some functional disorder." Now, after that statement of Mr. Berkeley Hill's and my reply—my reply being that many such cases are on record, and placed beyond question or doubt—I repeat that I am much surprised that Mr. Berkeley Hill should have made that statement. Then there is another objection which has been made, indirectly indeed, but still with sufficient force, implying that I was objecting to the use of the catheter. On the contrary, I think the reason why such evils, not as I have been describing, but many other evils that I enumerate in cases following catheterisation, have existed, has been because the patient has been unwilling, owing, perhaps, to bad advice, to begin with catheter-assistance at once. That is my feeling; and if it is supposed by any of the Fellows of the Society that I have any objection to the use of the catheter, I must beg to tell them that they are mistaken. On the contrary, the difficulties which I have seen as a physician being occasionally called in to these cases, have plainly arisen, as Sir Henry Thompson has said, from the catheterism not being early enough. Let me next refer to the very important observation—and all his observations are both interesting and important—of Mr. Savory. He mentions a point which, I think, if no other point had been brought out this evening, would remain a memorial of an useful meeting. It is that he himself attaches, and he believes that every wise surgeon will attach, more importance to the condition of the kidney than to almost any other organ of the body in approaching the performance of an operation. Sir, it is twenty-eight years since I said that. I am not thinking of priority, but I am only wishing to show that the subject has been in my mind. I do not pretend that I was the first to say it, but I said it at least twenty-eight years ago, and on various occasions since, under the term of renal inadequacy, I have pointed out the great peril which exists in all such cases in performing surgical operations. It is only another illustration that those who are faithful observers can come independently to the same conclusion. I do not think that, at this late hour, I should encroach further upon the time of this Society. I repeat, humbly but believingly, that the subject has not been exhausted. There are most important points embodied in my propositions which have not been met in this discussion. I hope that some time, soon, we may be able, under another if not under this aspect, to reconsider this question, and keep closer than we have done to-night to the ground which has been laid open for discussion.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 18TH, 1883.

J. W. HULKE, F.R.S., F.R.C.S., President, in the Chair.

Quiet Necrosis.—Dr. F. C. TURNER exhibited a preparation of a tibia removed from the body of a woman, aged 67, who died in the London Hospital, after concussion of the brain. The tibia shown was greatly enlarged, and its curves altered; it had been divided longitudinally, and in its upper part, where the enlargement was greatest, there was a central sequestrum in a smooth walled cavity; at the lower end of the cavity was an opening communicating with the surface of the bone on its inner side. This channel was not visible until the periosteum was removed. There had been no adhesion between the bone and the skin at this part, and no scar was seen. The bone consisted almost wholly of cancellous tissue, and was bowed forwards by a backward bend just above the middle of the shaft; bony outgrowths from the surface of the shaft were present at the upper part and along the internal aspect. Dr. Turner looked upon the specimen as an instance of latent necrosis without inflammation of external parts, a condition which had been described by Sir James Paget, in the *Transactions of the Clinical Society*, vol. iii.; and as illustrating the views of Mr. Morrant Baker, in vol. lx. of the *Medico-Chirurgical Transactions*, as to the occurrence of necrosis without suppuration consecutively to osteo-sclerosis in bones enlarged by a general osteitis.—Mr. BOWLBY referred to a case of osteitis deformans affecting a single bone, which he had shown at the recent meeting of the Society. The curvature of the tibia in Dr. Turner's case, could only have been brought about by long standing disease, this, together with the absence of periostitis, and the great extent of the thickening, brought the case into relation with osteitis deformans. He thought central necrosis was a rare condition and, moreover, would not account for the great amount of thickening, enlargement and curvation present, unless it had occurred in very early life, before the growth of the bone had advanced for.—Mr. MORRIS could not agree that such a case as Dr. Turner's ought to be classed or brought into relation with osteitis deformans; further, in his experience, central necrosis, without sinus or other signs of external inflammation was not extremely uncommon. He mentioned one marked instance of long standing central necrosis.—Mr. SYMONDS pointed out that the bone was not uniformly enlarged, and differed in other respects materially from cases of osteitis deformans. He thought all the changes might be due solely to a condensing osteitis, occurring perhaps even thirty years earlier; that a central necrosis might remain, giving no signs of its existence for even a longer period, he felt no doubt. In one case he had good reason to suppose that two hard dense sequestra he saw removed from a cavity in the tibia had been in existence for sixty years, and had given rise to no symptoms until shortly before their removal was necessitated by pain.—The PRESIDENT looked upon such cases as these as differing essentially from osteitis deformans. It was of some clinical importance to note that these cases of central necrosis were apt to simulate tumours of bone, and had in more than one instance led to a very mistaken treatment.—Dr. TURNER said, in reply, that he believed this condition of osteo-sclerosis to be essentially an atrophic condition. The difficulty he had in regarding the necrosis as the primary lesion was the size of the necrosed portion, which seemed to be too large to have been carved out of the bone originally; he thought it must have been formed in osteo-porotic tissue produced by some antecedent change, and subsequently have become necrosed, owing to the occurrence of a osteo-sclerotic process. He confessed that he was inclined to agree with Mr. Bowlby, that the case was related to osteitis deformans.—In reply to questions from Mr. BOWLBY and Mr. SILCOCK, Dr. TURNER said that no history of the case had been obtained; he had not seen the woman during life.

Melanosis after Melanotic Sarcoma of the Choroid.—Drawings of a remarkable case of melanosis were shown by Dr. WICKHAM LEGG, who stated that the patient had been under the care of Mr. Streatfeild, at the Royal London Ophthalmic Hospital, Moorfields, and that that surgeon had excised the eye for melanotic sarcoma. When he came under Dr. Legg's care, there was marked melanosis. This had first been noticed by his friends about six months before the time at which he eventually died. At the time that Dr. Legg first saw him, the colour of the face and neck was very dark; the hands were less deeply stained, and the rest of his body was hardly at all affected. The pigmentation was quite uniform in the areas affected, but the mucous membranes were not in the least involved. The colouration was exactly the tint produced by chronic poisoning by nitrate of silver, but careful inquiry made it, in the highest degree, improbable that he had ever taken or used that drug; he had never applied it externally; he had never suffered from any disease for which it was likely to be administered. Mr. Streatfeild stated that it had not been prescribed for him at Moorfields, and Mr. Taynton, the gentleman under whose care he had formerly been, had informed Dr. Legg that there could be little doubt that the patient had never taken or used nitrate of silver. Dr. Wickham Legg further observed that, in the microscopical specimens which he also exhibited, it was easy to see that the young cells in the lower portions of the rete mucosum, were pigmented in patches. There were no pigment-granules to be discovered by the highest powers he had used, but the cells were brown. At the necropsy it was ascertained that the supra-renal capsules were free from disease. Careful examination of the blood and the urine had failed to reveal any of these pigmentary granules which had been described as commonly present in melanosis. The blood, however, presented some peculiarities: the number of the white blood-corpuscles was increased, and some of the individual corpuscles were very much larger than natural, and these had not the biconcave form, but were biconvex. In addition, some bodies resembling the so-called "intermediary corpuscles" were seen. Was such a condition as this a rare one? For himself, he had never before seen such a case, and had only seen one similar case even referred to in literature.—The PRESIDENT considered the case at once remarkable and rare; though he saw a large number of cases of melanotic sarcoma, he had never seen one similar to this. It was especially remarkable that, in cases of multiple melanotic sarcoma of the skin, the colour of the skin between the nodules of sarcoma was generally lighter than natural—indeed quite pale. Further, in many cases of melanotic sarcoma,

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the pigment was observed to fade from the eyelashes and hair, so that the great increase in the amount of cutaneous pigmentation, in this case, was very curious.—Mr. BUTLIN also thought the case exceedingly rare. He had never seen a case of the kind. It was a noteworthy fact that pigmentary molecules were not found in the urine, the blood, or the vomit, where, it had been said, these molecules were always present in melanosis. It would seem as if, in this case, the pigment, instead of being excreted by the kidneys, had been taken up by the skin, which was also a great excretory apparatus.—Dr. STEPHEN MACKENZIE referred to a case he had observed of general melanosis, in which every organ of the body became studded with the pigmentary masses. It seemed to be clear that the pigment was always distributed, by the circulation, throughout the body, and that it was, in such a case as this, taken up by the skin and retained, instead of finding its way, as usual, into the urine.

Tubercular Ulceration of the Tongue.—An interesting series of papers upon tubercular ulceration of the tongue, a subject which has hitherto attracted little attention, was read.—Mr. R. J. GODLEE gave an account of three cases and exhibited a patient. The first case was that of a man aged about 35, of a delicate and obviously tubercular aspect; he had suffered from fistula *in ano*, and was subject to very troublesome asthma and frequent attacks of pleurisy. Both testicles were tubercular. He had a round ulcer at the tip of his tongue, with raised and hard edges and a grey surface, very painful and much irritated by the teeth. The teeth were first attended to, and then iodoform and stimulant applications were applied to the ulcer. The stick of nitrate of silver applied once a week gave the most satisfactory results. The patient was sent to New Zealand, and returned with the ulcer healed and the asthma gone. Soon after his return, however, the ulcer broke out again, and became worse than ever, and the patient died, of rapid pneumonic phthisis, about eighteen months after he was first seen. There was evidence that the patient had not suffered from syphilis. When first seen there were no physical signs of consolidation of the lungs. The second case was seen at the Brompton Hospital during last summer. The patient was a man 33 years old, who had suffered from phthisis, now far advanced, for two years. He had also disease of the right sacro-iliac articulation. The tongue was much swollen on the anterior half of the right side, the swelling being soft and elastic, and the surface of the swollen part covered with a superficial ulceration. Here, again, there was no history of syphilis, still antisyphilitic remedies were given without any result except the production of salivation. Boracic acid and chlorate of potash gave some relief. Thinking there might be some deep-seated pus, Mr. Godlee punctured the tongue with a needle, and afterwards made a free incision into the mass, but the knife only passed into the thickened tongue-tissue. The incision healed rapidly. The man seemed somewhat relieved by the incision, but soon died of his pulmonary condition. At the necropsy, there were advanced old and recent pneumonia, and suppuration of the sacro-iliac joint. The nodule in the tongue was quite diffuse, and seemed made up of pale and thickened tongue-tissue. Under the microscope, the deep parts showed more or less distinct tubules, with giant-cells, and a few of what are known as the bacilli of tubercle; on the surface of the floor of the ulcer, a large number of these bacilli were to be found. The third case was that of a delicate young man, aged 22, who had had a cough for four or five years, and had had several slight attacks of hæmoptysis. He began to suffer from an ulcer of the tongue in February of last year, and consulted Mr. Christopher Heath. There was first a pimple and then a crack; these "ran together," and then began to be irritated by the teeth. A gutta-percha shield was applied to the teeth, and chromic acid and nitrate of silver were employed. The condition of things had much improved, but the ulceration had destroyed the tip of the tongue. He was in fairly good health, and there was no active mischief in the lungs at the present time. Mr. Godlee, in commenting on the cases, expressed the opinion that these tubercular affections of the tongue had probably till recently been taken for syphilitic lesions. The cases he had described illustrated two conditions: an infiltration amongst the muscular fibres of the organ, accompanied by more or less ulceration; and an ulcer of the tongue accompanied by a slight amount of underlying infiltration. He thought it probable that these did not complete the tubercular diseases of the tongue, for others presenting a good many differences as to site and appearances had been enumerated. Possibly, the extensive ulceration about the soft palate and back of the tongue in strumous children would have to be included in the category. For the present, he thought that the members of the Society ought to record carefully all cases coming under observation, giving, as far as possible, the evidence for the tubercular nature of the disease, and leaving any wide generalisation until a larger mass of facts had been accumulated.—Mr. CHARTERS SYMONDS related a case, and exhibited a specimen and sections of a tubercular ulcer of the tongue. It occurred in a man, aged 50, the father of seven healthy children, who had been in good health up to nine weeks before he was first seen. Then he caught cold, and had since been ailing. He complained chiefly of difficulty in swallowing, having for some weeks been unable to swallow solids. He had lost flesh to the amount of two stone. The ulcer was situated in the centre of the left half of the tongue. In shape, it resembled a leech-bite, being composed of three fissures running from a common centre; the edges were sharp and but slightly hard, the sides vertical and deep. On separating the edges a considerable cavity was exposed, with undermining of the sides; the colour was grey. It was not painful. No induration existed around the ulcer, and there was no glandular enlargement. He was placed upon an abundant fluid diet, and given iodide of potassium. Laryngoscopic examination showed that the epiglottis, as well as the vocal cords, was healthy, though the voice had of late become deeper than usual. A bougie could be passed into the stomach, encountering a little obstruction half way down. He improved at once in appearance and felt stronger, although his weight remained stationary. He was able in a week to eat chicken finely minced, and at the end of a fortnight to take solids in the ordinary way. A cough, which had been causing him trouble, now became serious, and grave symptoms appeared, gradually becoming worse, till September 8th (one month after admission) when he was drowsy and had difficulty in breathing, the temperature rose to 103.4°, and the pulse to 132, while mucous *râles* were heard over the left base; the signs and symptoms of acute pulmonary disease gradually increased, and he died on the 10th, having been seriously ill only a few days. At the necropsy, acute tuberculosis of the lungs was found to be the cause of death. The œsophagus was pouched and dilated, but not strictured; the larynx was healthy. The appearance of the ulcer was recognised as peculiar, and belonging neither to the syphilitic nor to the epitheliomatous class. Mr. Bryant, who saw the case, at once pronounced it to be tubercular. The œsophageal obstruction, taken in connection with the tongue-affection, supported the syphilitic view, as did the rapid improvement in swallowing, which followed the administration of antisyphilitic remedies. The ulcer, however, underwent no improvement, nor did the man increase in weight, though he was able to take large quantities of food. The ulcer probably preceded the pulmonary affection by two or three weeks, for the man said that when first noticed, the ulcer was large enough to admit his thumb. This he noticed a week after he caught cold. Microscopical examination of the ulcer showed its tubercular nature. Many nodules of small cells were scattered round the ulcer, the compressed wasted muscle forming a definite boundary. The cells showed the appearances usually seen in tubercle. Giant-cells were present, but were scarce. The microscopical appearances indicated rapid growth and early caseation, and in these respects differed from those seen in the case published by Mr. Bryant in the *Guy's Hospital Reports*, for 1882.—Mr. JESSETT read notes of a case of ulceration of the tongue, which he had observed in a man aged 54, who had suffered from syphilis. In November, 1882, the patient began to be troubled by cough and slight hæmoptysis; he smoked a short clay-pipe, and in May, 1883, he began to find a small ulcer on his tongue. He was admitted into hospital, with an ulcer at the anterior part of the tongue three-quarters of an inch in diameter, with undermined edges; the lymphatic glands were not enlarged, and the patient was suffering from phthisis. The patient was shown to the Society in an improved condition. The ulcer in this case was, Mr. Jessett thought, clearly secondary to the tubercular disease of the lung.—Dr. THIN had examined microscopical sections from Mr. Barker's case of tubercular ulceration. In this case, bacilli tuberculosis were found abundantly near the surface of the ulcer; in certain parts they were crowded together, whereas in the deeper parts, where the disease was more recent, the bacilli could not be seen. The bacilli in many cases were contained in cells, some small (white blood-corpuscles), others larger (epithelioid walls). He believed that as a rule the bacilli, both of tuberculosis and of leprosy, were contained in cells. The giant-cell of tubercle, could, he thought, be usually resolved into a blood-vessel with diseased walls and granular deposits; in one specimen from this case he had distinctly seen a double-walled vessel rending away from this so-called giant-cell. Now, in some of these giant-cells he had found many bacilli, which might afford an explanation of the way is

which the bacilli were carried to or from the infective centre. The diagnosis of these cases was difficult, but he thought that scrapings from the tongue, in this particular case, would have afforded evidence of the existence of the bacillus. The evidence of the pathognomonic importance of these bacilli was becoming daily stronger.—Mr. BOWLBY reported two cases. The first patient was aboy, aged 19, who had had "a bad mouth" for two years, and had suffered from ulceration for two or three months. On the dorsum of the tongue was a large ulcerated surface, of varying depth, with undermined ragged edges; the soft palate was ulcerated, the aryteno-epiglottidean folds were thickened, and the lungs were affected. The necropsy showed that the apex of the right lung contained several cavities, while at the apex of the left lung was a large caseating mass, and some fibroid induration. The second case was that of man, aged 37, who had had, when he came under observation, an ulcer of the tongue for eight months, and lung-disease for a good deal longer. The ulcer in this case was smaller and shallower; it extended down to the muscular tissue at one spot only; it showed at one time an inclination to heal. Mr. Bowlby proceeded to observe that Billroth had recorded two cases; one of these died three weeks after removal of a tubercular nodule of the tongue; and a second, in which the ulcer showed at one time a tendency to heal.—The PRESIDENT observed that the tubercular disease of the tongue was a disorder which had been little observed, though doubtless the cases were not few. It would appear that the disease occurred in the tongue in two forms, namely, a gumma with thickening of the surrounding tissue, and an ulcer without such gummatous swelling. This was similar to what was seen in tubercular ulceration in other situations. The extreme chronicity appeared to be the principal clinical feature upon which reliance could be placed for diagnosis. The localisation of the bacilli near the free surface was a remarkable fact; he was surprised to hear that they were not found in the deeper and growing parts of the mass. He recalled that Heuter, of Greifswald, had stated that he had seen bacilli inside, and crowding small colourless cells, in cases of scrofulous disease of joints.—Dr. ORMEROD desired to contribute a few additional facts to the history of the lad whose case had been related by Mr. Bowlby. The patient had at first been under Dr. Ormerod's care at the City of London Hospital for Diseases of the Chest; he then had a V-shaped ulcer rather far back on the tongue, which was then deeper and more sloughy than was shown in the drawings exhibited. Together with his colleague, Dr. Vincent Harris, he had made a careful examination of the lungs, but had failed to discover any signs of phthisis.—Mr. BUTLIN thought that the diagnosis of tubercular ulceration was not by any ordinary means possible in many cases. He thought that Dr. Thin's suggestion as to the examination of scrapings for bacilli was an excellent one. He had been in the habit of examining scrapings from other forms of ulceration, and had intended to apply the same method to the first case of tubercular ulceration he met with.—Mr. A. E. BARKER had only been able to find fifteen cases of tubercular ulceration of the tongue recorded in literature. It was noteworthy that eleven of these were males; and another remarkable point was the comparatively advanced age of all the patients; the youngest patient was eighteen years old. In four, if not five cases, out of these fifteen, no lung-disease was discoverable at the time the ulcer appeared. Two of these four cases died of tuberculosis; but in two others, in whom the tumour was promptly excised, the patients recovered. He suggested that the ulcer took up the bacilli from the sputa. In this way a simple ulcer might become infected.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 14TH, 1883.

Sir ANDREW CLARK, Bart., M.D., LL.D., F.R.C.P., President, in the Chair.

Myxœdema.—The President announced that the time had arrived when, in the opinion of the Society, a formal investigation into the subject of myxœdema should be entered on, especially since many important facts bearing on the disease had been communicated to the Society at its last meeting. He, therefore, nominated a committee to consider the whole question, the members of which were as follows:—Sir W. Gull, Dr. Ord, Dr. Semon, Dr. Cavafy, Dr. Goodhart, Dr. Hadden, Dr. Mahomed, Mr. Durham, Mr. S. Jones, Mr. Godlee, and Mr. Pugin Thornton.

Pneumothorax occurring during Typhoid Fever.—Dr. CAYLEY read notes of this case. The patient, a girl, aged 14, was admitted into the London Fever Hospital April 26th, on the eighth day of a severe attack of typhoid fever, characterised by great prostration, muttering delirium, muscular twitchings, pulmonary congestion, and severe diarrhœa. She was treated by cold baths, and occasional large doses of quinine. On May 9th, when she was apparently convalescing, signs of pleurisy of the right side appeared, and on May 13th pneumothorax, with very severe dyspnœa and symptoms of collapse. The chest was twice punctured, and air escaped with a hissing sound. The second time a few drops of pus also came through the trocar. She gradually improved, and by June 20th the signs of pneumothorax had disappeared. The author mentioned a case which had been reported by Dr. Gairdner, and said that the probable cause was the breaking down of an embolism of the lung.

Complete Recovery from Idiopathic Pneumothorax, without Effusion.—Dr. S. WEST related this case. A. B., male, aged 24, had right pneumothorax, probably due to influx of a small phthisical cavity. He was aspirated and relieved. Amphoric breathing and bell-sounds were audible over the whole side, but slowly disappeared, the bell-sound going first, and the patient recovered. In one month the bell-sound had disappeared, and in six weeks all trace of amphoric breathing. Healthy respiratory sounds were audible over the whole side, and the patient was discharged well. He had continued well for a year since. Points of interest were discussed:—1. The question whether the hole was patent for some time or no; 2. The cause; 3. The occurrence of subcutaneous emphysema after paracentesis. Why did pneumothorax not occur often after fractured rib? 4. Records of twenty-four other cases of complete recovery, with short analysis of them.—Dr. MAHOMED observed that he had seen cases of typhoid fever, in which the condition of the lung was such as to render the production of pneumothorax imminent. In this the lung was in a peculiar spleen-like state not found in any other condition but that resulting from prolonged fever. On several occasions he had found the bronchial tubes remarkably dilated, and in these pneumothorax was only averted by death of the patients, collections of pus being visible in them through an exceedingly thin pleura, the rupture of which might very readily have occurred. He had himself watched the progress of Dr. Cayley's case, and could testify that it was in just such a condition as would most favour the production of pneumothorax; and the complete recovery it underwent had greatly astonished him. The rapid improvement was due, probably, to absence of previous severe inflammation of the pleura, and to the short time during which the lung was compressed, and it tended to illustrate the importance of speedy evacuation of air contained in a chest under such circumstances. Nevertheless, the puncture should not be made too early in the case.—Mr. JONATHAN HUTCHINSON said he had seen many cases of pneumothorax following fracture of the ribs. In some, life had been preserved by puncture of the chest, performed for the relief of urgent dyspnœa. As a rule, however, in these surgical cases, absorption of air proceeded very satisfactorily, so that it was not wise to resort too speedily to puncture for its evacuation.—Mr. PAGE narrated a case in which the first rib had been fractured by a cart-wheel, and urgent symptoms quickly set in. The patient was seen by Mr. Page four hours after the accident, and was in a state of extreme prostration. The chest was aspirated, and a quantity of air withdrawn; the lung immediately expanded, and the displaced heart and liver resumed their normal position. Within a quarter of an hour, the patient was easy and comfortable, and thenceforth progressed to complete convalescence, having been two or three times subsequently aspirated with advantageous results. A small quantity of blood was withdrawn at the end of the first operation; no harm whatever arose from it.—Mr. PEARCE GOULD said he had, last year, under his care at Westminster Hospital, a boy who had been run over, but who had not suffered fracture of any rib, although the lung had been ruptured. His dyspnœa was extreme, and necessitated aspiration of the thorax, after which the lung expanded, and breathing became easy, and recovery was complete. No air remained within the pleura, which was emptied by elastic recoil. A few drops of blood escaped at the end of the operation, and were accepted as an indication for its cessation.—Dr. MACLAGAN described the case of a gentleman who had been thrown from his horse against the trunk of a tree. There were no fractured ribs in this case, but the left pleural cavity contained a large quantity of air; the symptoms, however, not being urgent in character, tapping, though considered, was not performed; and the case gradually and completely recovered, the contained air having been entirely absorbed. Dr. Maclagan observed that the distressing symptoms of pneumothorax were inversely proportionate to the dimensions of the chest.—Mr. SYMONDS referred to the case of a cachectic intemperate man, suffering from cellulitis

of the foot, who was one night attacked with severe dyspnœa and right pneumothorax, his condition being so urgent as to demand immediate aspiration. Air was forcibly expelled, and great relief ensued; but the patient subsequently died. The chest contained fluid and pus, but the lung was healthy. Dr. Goodhart, by whom the *post mortem* examination was made, suggested that a pulmonary vesicle had ruptured, and so caused the pneumothorax observed during life.—Dr. J. K. FOWLER observed that displacement of the heart was due to dragging over of the lung on the opposite side, and that it was interesting to consider the explanation together with that which ascribed the result to increased pleural tension.—Dr. F. TAYLOR said that, in a case of acute pneumonia under his care some years ago, pneumothorax had followed the acute disease, and he would like to know if any similar instances had been observed. In his own case, some fluid existed in the pleura also; there was no severe dyspnœa; and the air was gradually absorbed. The patient remained well for twelve months, when slight hæmoptysis occurred, and tuberculous symptoms supervened. It became a question whether the pneumothorax had been set up by the pneumonia, or whether it was a result of the individual's phthisical tendency.—Mr. GODLEE remarked that wounds of the lung did not take long to heal, and that early evacuation of air contained in the pleura was desirable, so that the lung might not be too long under compression. It was of interest to learn that absorption of the pus in Dr. Cayley's case had taken place, and he wished to know how this would influence the advice given as to treatment.—Dr. ANGEL MONEY referred to the occurrence of a distinctly tympanitic note in a case of pneumonia under Dr. Wilson Fox's care in University College Hospital, three years ago. This note, according to Walshe, was found in acute pneumonia. Had Dr. Taylor noticed it?—Sir ANDREW CLARK said he had found that, in certain forms of acute pneumonia, a tympanitic note could always be evoked from the upper part of the chest.—Dr. TAYLOR was quite certain that a bell-like sound was produced in the case he referred to. He could not speak positively as to succussion. Dr. Habershon had also seen the case, and he, too, had observed the phenomena described.—Dr. MONEY added that he, too, had obtained a bell-sound in his own case.—Dr. SEMON requested the President to recapitulate the history of a case, the outline facts of which he had already communicated to Dr. Semon.—Sir ANDREW CLARK, complying with the request, said that, some years ago, he had under his care in the London Hospital, a case of pneumothorax in a phthisical man, in whom the phthisis made no progress in presence of the pneumothorax, which latter condition had, therefore, been allowed to persist during eighteen months. During Sir Andrew's absence, however, in the summer, a new house-physician was appointed, and to him it appeared desirable that the patient should be relieved from the pneumothorax under which he laboured. Accordingly, an operation was performed, and on the return of Sir Andrew to the hospital he found that his patient, being cured of pneumothorax, was rapidly succumbing to phthisis, which disease, indeed, speedily ended his life.—Dr. CAYLEY said that the symptoms of pneumothorax in his case resulted from embolism. Pus had not collected in any large amount.—Dr. WEST reaffirmed his conviction that pneumothorax was of comparatively rare occurrence in case of fractured ribs, but he would be glad to know in what percentage of cases it had been noticed. Displacement of organs was the surest means of diagnosing pneumothorax, to produce which pressure was not required in the way described by Dr. Mahomed. Respecting treatment, he thought cases did fairly well if let alone, and tapping was unnecessary if the first attack were overcome. Sometimes, however, it was absolutely called for, as a relief to symptoms.—The PRESIDENT said that he had observed pneumothorax occurring in cases of disseminated caseous pneumonia, when it was caused by melting down of the deposits on the lung.

The Relation Between Labial Herpes and Rigor.—Mr. C. J. SYMONDS read notes of a case. His attention was first called to the connection between the phenomena by a personal experience in 1880. After unusual exercise in the open air, a severe rigor lasting five hours, followed by profuse sweating, ensued. The temperature reached 105° Fahr. The next day no ill effects were experienced, and the health was as good as usual. Two days after the attack an abundant crop of herpes appeared on the lips and tongue, unaccompanied by any other symptom. The factors considered to be acting in producing this attack were fatigue, exposure to the sun, the air, however, being only moderately warm; a sensation of dread experienced when about to plunge into the water from a boat, followed by undue chilliness. Other cases in which a rigor preceded herpes were given, viz., ague, operations on the urethra, erysipelas, *i.e.*, to show that there was nothing peculiar to the form of disease, and that, therefore, the eruption had no special connection, as seemed to be thought, with pneumonia, but indicated that this disease had come on suddenly and severely with a rigor. From these facts it was considered that labial herpes was directly due to the rigor. It was also pointed out that the accompanying pyrexia was not alone sufficient to produce the herpes, as the latter was absent in many well known febrile affections. Again, herpes did not appear after every rigor. Some other factor, therefore, appeared to exist, but what this was remained in doubt. It seemed equally difficult to explain why the second and third divisions of the fifth nerve should be specially selected, its occurrence over the distribution of the first being rare. It was pointed out that with a common "cold" there was always some chilliness, and that, perhaps, in those cases where the herpes existed without catarrh, some unrecognised cause, such as fatigue, might have acted, or that this eruption might be a disease of itself, attended with its own fever and rigor. Verneuil was referred to as describing a traumatic herpes. It was suggested in conclusion that a rigor was a necessary percursor of labial herpes, but that some factor other than pyrexia was associated with it. The author also inquired as to how far simple fatigue might be considered to be a cause of rigor, or of more severe affections.—Dr. LONGHURST suggested the desirability of being informed concerning the particular diet indulged in by Mr. Symonds on the memorable day he had described. Pneumonia and ague might occur without the accompaniment of herpes, and he declined to associate the latter condition with deficient activity of the biliary functions.—Dr. HALE WHITE thought the connection between rigor and herpes interesting, as bearing on the question of a heat-centre. All physiologists were agreed that in the dog there was an area in the region of the sulcus cruceatus which in some way, whether vasomotor or trophic, presided over the heat of the body. Now, the herpes was obviously a trophic lesion, and we had only to suppose that there was some close anatomical relationship for the fifth nerve and heat-centres; and it would be possible that, owing to the hard mental application from which Mr. Symonds had suffered, there had been a withdrawal of some controlling influence, and hence the rigor and herpes. This was, in fact, an analogous case to that of hysterical hyperpyrexia. The other alternative was to suppose that it was the unusual exercise which preceded the rigor that had been instrumental in producing it. It was well known that this was a cause of hyperpyrexia.—Dr. CROCKER pointed out that Mr. Hutchinson had long since written on the connection between herpes and rigor. It was seen in typical acute pneumonia, and in acute gastritis. It was not confined to the lips, but might be found on any part of the face and ears. An epidemic occurred seven years ago in a school, where the eruption appeared on the legs of those afflicted.—Dr. FELIX SEMON said he wished to make only a short observation bearing upon the question of the proportion between rigors and herpes. When he was clinical clerk to the late Professor Traube in the Charité Hospital of Berlin, he had had the opportunity of watching an epidemic of relapsing fever, and this had formed the subject of his inaugural thesis. Thus he could vouch for the accuracy of the facts to be related. It was well known that in hardly any other febrile disease were rigors of so constant an occurrence, and at the same time so frequent, severe, and long-lasting, as in relapsing fever. Now, in this epidemic, 160 cases had been observed, and, assuming that in each case but one of the characteristic relapses had taken place, and that there had been but one rigor in every attack (though in reality there had been much more), this would amount to 320 rigors. At the same time, but in four instances, and in by no means very severe cases, had herpes labialis been noted.—Dr. F. TAYLOR mentioned a case in point.—The PRESIDENT remarked that the state of the nervous system was an important factor in these cases.—Dr. MACLAGAN said that severe, rigors occurred from slight causes in children, and that Mr. Symonds had reduced his nervous system below par by hard work, previously to undergoing the severe exercise which was indulged in before the rigors commenced.—Mr. HUTCHINSON was much interested in the paper, with every word of which he fully agreed; he was only surprised that any part of it should be new to members of the Society. For twenty years past he had taught that herpes of the lips was symptomatic of rigors. He regarded them as being caused by universal tension and partial closure of the arteries, as shown by Brown-Séquard. Surgeons possessed an advantage in being able to make careful study of rigors, the extent of which proportioned the amount of herpes on the lips. There was undoubted truth in the general doctrine that herpes was symptomatic of shivering.—Sir ANDREW CLARK corrected an error committed by Mr. Hutchinson in quoting

Brown-Séquard instead of Cullen, as the author of the explanation given.—Mr. SYMONDS said he had no intention to bring forward as a novelty the connection between herpes and rigors. He could not remember what he ate on the day in question. He was not hysterical.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

THURSDAY, DECEMBER 13TH, 1883.

JONATHAN HUTCHINSON, F.R.S., F.R.C.S., President, in the Chair.

Improved Microtome.—Mr. J. MILLES said that the method he recommended was to harden the whole eye in Müller's fluid, to cut when frozen, and embed the sections in celloidin. The microscopical sections were cut into alcohol by a new variety of microtome; excellent sections of the whole eye could thus be cut, without disturbance of the mutual relations of its various structures. The microtome was made by Katsch of Munich.

Case of Orbital Tumour.—Dr. EMRYS JONES exhibited a woman, aged 50, who was the subject of an orbital tumour of a sarcomatous nature; the tumour had twice been removed, but had recurred.

Papilloma.—Mr. G. ANDERSON CRITCHETT and Mr. JULER exhibited a case of papilloma of the conjunctiva. It had been first noticed when the patient was nine years old; the patient was fourteen years old when exhibited. The papilloma gave rise to little discomfort.

Peculiar Conjunctival Affection.—Messrs. CRITCHETT and JULER also showed a woman, aged 50, in whom a peculiar thickening of the conjunctiva, causing almost total obliteration of both culs-de-sac, had occurred after an attack of conjunctival inflammation nine months earlier.

Paralysis of Right Facial Nerve, with Herpes Zoster of Second Division of the Fifth Nerve.—Mr. WAREN TAY said that the patient he exhibited had at first been under the care of Dr. Stephen Mackenzie. About three weeks earlier, the patient, a man aged 58, found the right side of his face swollen on awaking one morning, and his right eye was sore and red; the following day, an eruption came out on the swollen cheek. The zoster occupied the area of distribution of the second, and to a slighter extent of the first, division of the fifth nerve; the cornea was ulcerated; there was well-marked paralysis of the right facial nerve; the faradic contractility was retained; there was slight diminution of sensibility over the part of the face supplied by the second division of the fifth nerve.—Dr. STEPHEN MACKENZIE said that the disease of the eye came on contemporaneously with the facial paralysis, so that it clearly could not be due to exposure of the eye. The association of paralysis of a motor nerve with herpes zoster was unusual. The electrical condition also of the facial nerve was peculiar.—The PRESIDENT said that it seemed pretty clear that, in a certain number of cases, paralysis of motor nerves followed herpes zoster. He had seen paralysis of the third nerve, the facial nerve, and certain muscles of the arm, following on herpes zoster.

Great Tortuosity of Retinal Vessels.—Dr. STEPHEN MACKENZIE showed a girl aged 12, who had come under treatment for headache, from which she had suffered for four or five years. The headache was frontal in position, and was not affected by attitude. There was no thoracic disease, and sight and hearing had always been good. Ophthalmoscopic examination showed extreme tortuosity of the vessels, arteries, and veins of the left retina, and moderate tortuosity of the vessels in the right. Dr. Mackenzie did not feel, as yet, prepared to draw any inference from the existence of retinal tortuosity in this case; but he thought that such cases ought to be recorded, in order that, in time, some conclusion might be arrived at.

Loss of Vision and Hearing after Head-Injury.—Mr. WAREN TAY showed a patient who, seven weeks earlier, had fallen down a ship's hold on to his head. He was picked up unconscious. On admission shortly afterwards, he was conscious. Blood was oozing from the left nostril and right ear; the left pupil was insensitive to light; there was no paralysis of the facial or any other nerve. There were fracture of the right lower jaw, and a laceration of the soft parts in the left fronto-temporal region. There was no subconjunctival hæmorrhage, and no serous discharge. Two days later, it was ascertained that he could not see the light of a lamp with the left eye. On the eighteenth day after the injury, the left optic disc was thought to be paler than the right. On the twenty-fourth day, the left optic disc was certainly pale. At the time of the meeting (seven weeks after the injury), the left disc was uniformly white, from commencing atrophy. He was markedly deaf on the right side. Mr. Tay proceeded to observe that statistics published by Hölder showed that injury to the optic nerve was very common in fracture of the base of the skull. Out of eighty-eight cases, the roof of the orbit was fractured in eighty cases, the optic foramen was injured in fifty-four cases, and blood was effused in the sheath in forty-two cases. The mode of production of the nerve-atrophy was, as yet, by no means well understood, since the statistics just quoted could not be considered as throwing much light on this part of the question.

The Bacilli of Jequirity.—Dr. W. A. BRAILEY said that, in conjunction with Mr. Pigeon, he had made some observations on the bacilli of jequirity. The bacilli began to develop about twenty-four hours after the infusion was first made; they became abundant on the next day, and this abundance was maintained for about fifteen days.

On Anæmia as a Cause of Retinal Hæmorrhage.—Dr. STEPHEN MACKENZIE commenced a paper on this subject by narrating the following series of cases. CASE I. A female, aged 29, suffered from marked anæmia, due to repeated profuse hæmatemesis, caused by ulcer of the stomach. The corpuscular richness of the blood fell to 42.9 per cent. Hæmorrhages were seen in the retina, disappearing with improvement in the quality of the blood. CASE II. A female, aged 36, also suffered from ulcer of the stomach. Severe attacks of hæmatemesis, resulting in marked anæmia, occurred, and the corpuscular richness fell to 44 per cent. Linear and flame-shaped hæmorrhages, with white patches, were seen in both retinæ, disappearing with the subsidence of anæmia. CASE III. A female, aged 29, was also the subject of ulcer of the stomach, which caused severe and repeated hæmatemesis, and extreme anæmia. The corpuscular richness fell to 30.2 per cent., and the hæmaglobin to 23 per cent. Several hæmorrhages were seen in the left retina, and a white patch, possibly due to hæmorrhage, in the right. The hæmorrhages disappeared with the subsidence of the anæmia. CASE IV. A male, aged 35, suffered from cancer of the stomach and progressive anæmia. No hæmatemesis occurred, but the corpuscular richness fell to 20.30 per cent, and the hæmaglobin to 30.15 per cent. Hæmorrhages occurred in both retinæ, and the man died. CASE V. A female, aged 61, was the subject of abdominal cancer; profound anæmia supervened, and the corpuscular richness fell to 46.28 per cent., the hæmaglobin to 30.20 per cent. Hæmorrhages were seen in both retinæ. CASE VI. A male was suffering from scurvy; marked anæmia supervened, and the corpuscular richness fell to 40.5 per cent., the hæmaglobin to 20 per cent. Recovery from the scurvy and anæmia was followed by disappearance of the retinal hæmorrhage. The author thought that this series of cases justified the conclusion that the tendency to retinal hæmorrhage occurred when the corpuscular richness fell below 50 per cent., whatever were the cause of the anæmia. The fact that retinal hæmorrhage was so frequent in the form of anæmia, designated by Addison "idiopathic," and which others called "progressive pernicious anæmia," was due, in his opinion, to the high degree of anæmia present in such cases (always below 50 per cent.), and not to its kind. The corpuscular richness might fall below 50 per cent. without retinal hæmorrhage taking place; but, when this point was reached, there occurred the tendency to hæmorrhages.—Dr. ANGEL MONEY said that he had recently found flame-shaped hæmorrhages in both retinæ at the necropsy of a female child, aged 4. The condition during life was one of intense anæmia. The red discs numbered about 30 per cent. of the normal. The heart and other viscera were in a state of marked fatty degeneration.

Sympathetic Inflammation after Excision—Mr. NETTLESHIP read notes of a case of iritis, probably sympathetic, coming on about a month after immediate excision of the other eye. The patient, a man aged 41, received severe contused wounds of the right eye and orbital parts, in a railway accident. The injured eyeball was removed within forty-eight hours, by Dr. C. W. Philpot; a good deal of suppuration occurred in the orbit afterwards. About a month later the remaining eye inflamed and became dim; and when the patient was seen by Mr. Nettleship, six months after the accident, there was moderately severe plastic iritis with much membrane. A month later the eye was much better, and the man was then lost sight of. The author thought it most probable that the iritis was sympathetic, but that it was excited by the inflammation of the damaged orbital tissues, rather than by the wounded eyeball itself. Mr. Nettleship also read notes of a case of destructive sympathetic inflammation, in which all the eyelashes of the sympathising eye became white, those of the exciting eye not being altered. The patient, a woman aged 23 years, ruptured the right eye by a fall; it was excised three months later. The other eye passed into a

severe subacute condition of irido-choroiditis, ending in softening and almost complete blindness; all the lashes of both its lids became white. The exact date of onset, in relation to the excision of the other eye, could not be determined. The author compared the case with one which Mr. Hutchinson had described, where both eyes were lost by spontaneous irido-choroiditis, and many of the lashes became white. He thought that the cases favoured the theory, of late somewhat discredited, that the fifth nerve, or at least the ciliary nerves, formed the channel for communication of sympathetic inflammation from one eye to the other.—The PRESIDENT thought that the blanching of the eyelashes, and of the hair elsewhere, depended on a neurotic affection. He mentioned the case of a girl, aged 12 years, in whom, as the result of a severe illness, which he believed to be of a neurotic nature, the skin exhibited a condition of well-marked pityriasis rubra, and the whole hair of the scalp, as well as a small patch in each eyelid, became white.—Mr. W. ADAMS FROST mentioned a similar case, recorded by Jacobi, in *Zehender's Klin. Monatsbl.* 1874, p. 153.

The Mode of Transmission of Sympathetic Ophthalmia. — Dr. BRAILEY read a paper on the various sympathetic affections of the eye, and their bearing on the mode of transmission of sympathetic inflammation from one eye to the other. He defined the microscopic characters of sympathetic inflammation of the iris, ciliary body, and choroid; the first being involved, he believed, in every case, either alone or in association with one or both of the others. In the iris, there were either clusters of cells in its middle layers, or a continuous infiltration of its thickened substance with cell-elements. There was also, in all but the milder cases, a thick exudation over all its posterior surface. Cells were formed also, either in clusters or in a continuous layer, on the lower part of the posterior surface of the cornea. The affection of the ciliary body and choroid was similar, only there was no exudation on the surface of the latter, while, in the former, it occurred on the internal aspect of the pars ciliaris retinæ. The inflammatory cells were situated in the middle choroidal layers, and in the connective tissue-layer of the ciliary body internal to the ciliary muscle. There were also cells round the blood-vessels of the papilla, extending thence along the central vessels of the optic nerve. He recognised, also, a pure sympathetic keratitis, and a pure sympathetic papillitis, both these being not uncommon, though difficult to identify. He also attributed certain uncomplicated cases of atrophy of the disc, of vitreous opacities, and even of retinal detachments, to sympathetic disease. He found the same diversity in the first eye. For, whereas the primary affection was a pure iritis or irido-cyclitis, or irido-cyclo-choroiditis, in more than half the cases, it was a kerato-iritis in about twenty per cent., and a distinct iritis, with keratitis punctata, in about thirty per cent. He thought that this last form was really more common than these figures would indicate, as dots were, in some cases, found early, but not later, and, conversely, sometimes at the later stages only of the inflammation. The exciting condition might be also an eye shrunken after panophthalmitis, or even a choroidal sarcoma. Perforating wounds produced it in about eighty per cent. of the cases, and spontaneous inflammations in about fifteen per cent. He found no relationship as regards the precise position of the disease in the two eyes, and argued from that, as well as from numerous cases in which the outbreak had been delayed, even for one year after excision, against the theory of direct transmission, either by the sheath of the optic nerve, or by the optic or ciliary nerves themselves. He thought that sympathetic irritation, whether producing pain or congestion only, might, owing to the unique relationship between the two eyes, so alter the nutrition of the second eye as to render it liable to spontaneous inflammations of any kind; and that such liability persisted after excision of the first eye, whether through the state of the sympathising eye itself, or of the centre of the fifth nerve. He thought that glaucoma could be produced sympathetically by glaucoma in the first eye, and that it was a neurosis of the secretory nerves of the eyeball. He drew attention to the similarity between the pathological changes he had previously pointed out in this disease, and those found by Levascheff in the lower limbs of animals after long continued irritation of the sciatic nerve.—Mr. G. A. CRITCHETT referred to the case of a young man under his care, in whom sympathetic inflammation came on three weeks after excision of the other eye, which had been lost in childhood from ophthalmia neonatorum.—The PRESIDENT said that the hour was too advanced to permit discussion of this important subject, but it would arise at the next meeting on another paper.

Cerebral Hæmorrhage, with Passage of Blood into both Optic Nerves.—Mr. PRIESTLEY SMITH said that he was indebted to Dr. Leslie Phillips for the opportunity of recording this case. Dr. Phillips had had charge of the patient during life, and had made the *post mortem* examination. A man, aged 38, had a fall on March 8th; the next day, he had a fit, but showed no decisive symptoms until March 18th, when headache began. On March 20th, he vomited, his mind became clouded, and he was brought to hospital, with symptoms of intracranial pressure; the optic discs were examined with the ophthalmoscope, and found healthy; insensibility increased, and, at 4 A.M. on March 21st, he had a fit and died. *Post mortem* examination showed a large quantity of blood beneath the dura mater on the left side, proceeding from a recent hæmorrhagic cavity in the left frontal lobe, opening through a clean rupture of the cortex in the inferior frontal convolution. The optic nerves were distended; one was opened at once, and found to contain blood; the other was hardened in Müller's fluid. On longitudinal section, it was found to contain a blood-clot, the situation of which appeared to demonstrate the existence of two distinct spaces around the nerve — a subdural and a subarachnoid—as described by Schwalbe. The blood lay entirely in the subdural space, the space which, from its situation beneath the dura mater, it would naturally enter. The subarachnoidal space of the nerve was distended with colourless fluid, probably cerebro-spinal fluid forced into it from the subarachnoid space of the meninges, by the increased pressure within the skull. The case, unfortunately, gave no evidence as to the ophthalmoscopic changes and visual impairments which might be caused by hæmorrhage into the nerve-sheath. The discs were examined eighteen hours before death, and then appeared healthy, but it was by no means certain whether the blood had, at that time, found its way into the nerves. One-half of the nerve in longitudinal section, and an enlarged drawing of the same, were exhibited.

Model illustrating Conjugate Movements of the Eyes.—In this model, designed by Mr. PRIESTLEY SMITH, the eyes were represented by two discs of wood, covered with paper, and painted so as to represent horizontal sections of the globe; these rotated about their centres upon screws fixed into a black board. The motor apparatus, so far as horizontal movements of the eyes were concerned, was represented by silk threads attached to the sides of the wooden discs, like the tendons of the recti to the eye-balls; these passed backwards, as the nerves passed to the brain, each of the four nerve-trunks being represented by a double thread. Each thread then separated from the other thread of its own nerve, so as to represent the co-ordination in the brain, by means of which all motor impulses to the eyes were made bilateral. The brain-centres were represented by four brass weights hung upon the threads; one of these combined the threads coming from the two third nerves, and produced movements of convergence; another combined the threads coming from the two sixth nerves, and produced movements of divergence; the two others combined, in each case, a thread from the third nerve of one eye with a thread from the sixth nerve of the other eye, and produced conjugate movements to the right and to the left respectively. The model being placed in a vertical position, it was easy, by pressing upon one or other weight, or upon two simultaneously, to imitate any compound movement of the eyes in the horizontal plane. Mr. Priestley Smith said that the model had been found useful in demonstration to classes. It served to explain the occurrence of conjugate deviations in hemiplegia. It showed how one and the same muscle might be paralysed for conjugate lateral movement, and at the same time active for convergence, or *vice versâ*. It illustrated how it was that an ordinary convergent squint, though a bilateral affection, was transferred at will from one eye to the other, and thus manifested in one eye only at time.

REVIEWS AND NOTICES.

1. VICHY AND ITS THERAPEUTICAL RESOURCES. By PROSSER JAMES, M.D., etc. 5th edit., pp. 84. London: Baillière, Tindall, and Cox.
2. THE MINERAL WATERS OF AIX-LES-BAINS, etc. By LEON BLANC, M.D. Pp. 60. London: J. and A. Churchill. 1883.
3. ROYAT: ITS MINERAL WATERS, etc. By G. H. BRANDT, M.D. 2nd edit., pp. 50. London: H. K. Lewis. 1883.
4. HAMMAN RIHRA, ALGIERS. By G. H. BRANDT, M.D. Pp. 84. London: H. K. Lewis. 1883.

THESE are four compact, useful little guide-books. Two of them are to the old well-known baths of Vichy, and of Aix-les-Bains,

about which it it is difficult for an author to find anything new to say. Dr. PROSSER JAMES, however, appears to have done his work carefully and well.

The other two, by Dr. BRANDT, are devoted, the one to an account of Royat, with which place the English have only of late years become acquainted; and the other to the thermal waters of Hamman Rihra, in Algiers.

The latter are of undoubted efficacy, especially in rheumatism; and, owing to the comparative mildness of the climate, notwithstanding its elevation, its waters can be used with advantage during the winter season, a period of the year in which few European baths are available. Hamman Rihra is beautifully situated among pine-clad hills, and has now an excellent hotel, with a resident English physician.

NOTES ON BOOKS.

St. John Ambulance Association. The sixth report of this association is before us, and to those interested in the movement it must be a matter of congratulation and comfort to peruse the details of the work. It is unnecessary at the present day to explain this association, as it has made itself so well known, not only by the published records of its classes, etc., but by the good practical work which we can see going on around us daily in our streets. Not a hospital in London, where accidents are admitted, is ignorant of the St. John's litter and stretcher, where it is to be seen carrying, in comparative comfort and safety, cases of street-accidents. Trained hands, too, are for the most part employed in wheeling the litter or carrying the stretcher, as many of the London police have been taught, and hardly a crowd collects anywhere in the metropolis, but there are to be found amongst its numbers several who owe their power of help and readiness to save to the training granted by this association. Not in London only, however, must it be thought is this good work going on. The length and breadth of Great Britain and Ireland, know this Association as a household word. On the continent of Europe the distinguished surgeons and the royal personages who have enlisted as teachers and pupils, are showing an example to all and sundry. India, America, Egypt, and the Australian colonies, have been inoculated with the spirit of the work, and are pushing the useful knowledge into every corner. In fact, the world now knows of the objects and aims of the Association, and honours and succours those who have devotedly worked to establish this great practical work. To a few of the present staff at St. John's Gate is to be ascribed all honour. To Colonel Duncan, Mr. John Furley, Captain Perrott, and Mr. Easterbrook, and to others of the working members, whose names do not come before us so often, is all honour due, for the excellent taste and good feeling with which everything, in business and professional relations, is administered by the executive staff. The numbers of certificates granted, 70,000, speak for themselves; but this number, owing to candidates failing to come up for examination, and failing to pass the examination at the end of each course, represents not more than half the number trained. No class of society can afford to neglect this association and the training it bestows. The knowledge gained by its pupils will be found useful at the fire-side and on the field of battle, at the bottom of a coal-mine and on the ship at sea. Medical men are now proud to be enlisted as teachers, and Professor Esmarch, only the other day, opened his class-room in the university-buildings for all comers, and himself gave a course of ambulance-lectures. It is a matter for congratulation that all the countries in which the work has been started, have followed the letter and spirit of the work commenced in this country. In fact, the building at St. John's Gate has become a world-wide hospital, carrying "First Aid" to the injured to the ends of the earth; and, if we mistake not, the modern representatives of the Knights Templar have done more in five years than did their predecessors in the hundreds of years during which they flourished. We cordially wish the Association long continued vitality to carry on the good work.

Blackwood's Diaries for 1884 are again before the public, some of them having been started twenty years ago. They now number over thirty varieties, so as to meet the wants of every person using so useful a companion as a diary. Most of these diaries contain three maps, an almanack with events of dates for 1884, and calendars for 1884 and 1885. All information is officially corrected. The prices range from 1d. to 12s., and the sale is very large, in one case, it is stated, 50,000 yearly.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 22nd, 1883.

SIR ANDREW CLARK ON CATHETER-FEVER.

No very remarkable gift of prophecy was required to foretell that Sir Andrew Clark's paper on catheter-fever would attract a good deal of attention, and be listened to by a large and distinguished audience. The large new room of the Medical Society of London was, in fact, inconveniently crowded on Monday night, and the discussion which arose was of quite unusual importance. The subject is one of such wide interest, that it has attractions alike for the surgeon, the physician, and for, if such there be, the pure pathologist. We understand Sir Andrew Clark to desire to designate, by the term "catheter-fever," a variety of the so-called urethral, or urinary, fever, which closely agrees with certain other varieties in its symptoms, but differs in at least one important pathological particular. Urethral fever, in the wide sense of the term, is a condition well known to the surgeon, described with more or less detail in the text-books, and a common subject for clinical instruction and remark. The term certainly embraces several different sets of symptoms; the cases vary extremely in gravity, and in truth the only thing that is common to the whole class of cases would seem to be the fact that the determining cause is some interference with, or irritation of, the urethra or bladder. From the frequency with which the catheter is the first instrument used by the surgeon who has to deal with a case of urethral or vesical disease, the condition has come to be associated in the minds of most people with the passage of a catheter.

If we inquire what are the phenomena which follow the passage of an instrument into the bladder in health, we shall find that in the vast majority of instances there are none of the smallest importance; but, as Sir Henry Thompson observed towards the close of his very thoughtful speech, in a few cases the passage of an instrument in even a healthy young man is followed immediately by a fainting fit, or an epileptiform fit, very alarming to witness, but not entailing any serious consequences. The urinary organs, as Mr. Savory subsequently said, are very delicate tests of reflex action, especially if there be present any morbid condition or predisposition involving the reflex apparatus. Further, the passage of an instrument may be followed by a rigor, and a rigor, according to Mr. Savory, of one of two kinds, a "physiological rigor" analogous to the shiver of emotion, or a "pathological rigor" which is accompanied by a rise of temperature. This latter condition is the first form of urinary fever, defined by Sir Henry Thompson as the "acute transient attack;" a single febrile movement which occurs commonly not at the time the instrument is passed, but soon after the urine is next passed, commonly, therefore, four or five hours after the use of the instrument; there is a rigor, the temperature rises rapidly, the skin becomes hot and dry, but in a few hours perspiration ensues, the temperature gradually falls, and the man is shortly restored to health. Such a set of symptoms are distinctly pathological, even though their causation be not very clearly trace-

able; we may set them down to urinary absorption, or speak of them as instances of constitutional disturbance produced through the nervous system by the action of the local irritation, or they may be, as Mr. Savory also hinted, instances of septic absorption where one single dose of the septic material has been absorbed, and has given rise to the symptoms characteristic of such an occurrence. Then there is another set of cases where the symptoms, after running this course, do not cease, but the patient after an interval of uncertain duration, but probably not prolonged, has another similar febrile attack, and after its subsidence, several others, perhaps four or five altogether, and ultimately recovers. This may be conveniently designated as the acute recurrent urinary fever. But there is another class of cases which may be classed as continuous urinary fever. The patients are old or middle aged men who have for long periods been suffering from some obstruction to the urinary outflow, and have been unable to empty the bladder completely, though probably quite unaware of this inability. It is in such cases especially that the passage of a catheter is liable to be followed by a peculiar low form of fever, or it may be more proper to say by a peculiar form of constitutional disturbance, for elevation of temperature is often almost absent, or at least not marked. In these cases the bladder is commonly hypertrophied and the kidneys in a state of chronic interstitial nephritis, owing to the long standing obstruction. The instrumental interference, too long delayed, is apt in these cases to light up an acute interstitial nephritis, or in some way to cause serious embarrassment of the action of kidneys already diseased. The symptoms in such cases closely resemble those described by Sir Andrew Clark; the onset is insidious, and the patient passes commonly into a so-called typhoidal condition, and not infrequently dies. Here the death may fairly be attributed to the disease of the bladder, ureters, or kidneys, and that whether we are inclined to assign the most importance to the kidney-disease, or to decomposition of urine.

To none of these conditions does Sir Andrew Clark seek to apply the term "catheter-fever." There are, he says, or at least has been generally understood to say, cases where, in a person apparently, with the exception of the local condition which has given rise to the necessity for the catheterisation, in the enjoyment of excellent health, the passage of a catheter into the bladder is followed by a continuous fever, or a state of constitutional irritation of the gravest kind, frequently terminated, in some two or three weeks, by death. The symptoms supervene after an interval of some days, or even a week. The urine in these cases is of low specific gravity, somewhat deficient in urea, and contains micro-organisms and some albumen, but no casts. The symptoms, therefore, closely resemble those of chronic interstitial nephritis from obstruction, but the examination of the body after death reveals no structural disease of the kidneys. It is this absence of structural disease which is so remarkable; the cases are admittedly rare, and Sir Andrew Clark was only able to give the results of one necropsy observed by himself, though he quoted evidence from Velpeau and from the monograph by Marx in favour of his position. The constitutional condition is not one of uræmia, or is, at least, not distinctly uræmic; it begins by some change in the nervous system, which reacts on the general metabolism of the body, and results in some interference with the functional activity of the kidneys, together with perhaps some change in the constitution of the blood as it circulates in the kidneys. This theory brings us to a position very nearly resembling that involved in the acceptance of the doctrine of renal inadequacy; but a renal inadequacy either caused or intensified by some nervous disturbance starting in the bladder or urethra. There is diminished excretion of urea; this is the index of the diminished metabolism of the organs generally, and the diminished metabolism is brought about by a profound nervous disturbance called into existence by the local irritation produced by the 'entrance on catheter-life." The theory as it stands is complete enough, and not wanting in a certain fascination for the mind, but it must be confessed that the evidence is at present small in quantity the recorded instances of "urinary fever" without structural changes in the kidneys are, Sir Andrew Clark admits, few in number, and it would seem that a good many surgeons, even among those who have devoted special attention to urinary diseases, have never met with an undoubted case; it may be hoped that the pathological outcome of the discussion may be a more careful examination of all cases of death after catheterisation or other instrumental interference with the urinary passages. A complete clinical and *post mortem* record of such cases, including a thorough and careful microscopical examination of the kidneys, would be an important contribution to pathology.

If we turn from the theoretical consideration of the pathology and etiology of these conditions to the practical subject of the clinical significance of urethral fever, we believe that the discussion raised by Sir Andrew Clark may be judged to have been productive, in this way also, of much good. As Sir Henry Thompson justly contended, it was want of the proper and timely use of the catheter which placed these patients in the condition which led to the "catheter-fever." The fever is due not to the catheter being used—sooner or later its use is a necessity—but to its being used too late. Mr. Berkeley Hill said that, out of thirteen necropsies made on men dying after relief of retention due to enlarged prostate, in eleven cases there was interstitial nephritis, and in the other two the condition of the kidneys was not clearly stated; this is a striking instance of the mischief worked with almost mathematical certainty by obstruction to the free outflow of urine, and ought alone to teach the necessity for the early establishment of "catheter-life" before the obstruction has been of sufficiently long standing to determine the nephritis. If to these cases we add those described by Sir Andrew Clark, where, in the absence of structural disease of the kidney, a similar fatal result follows on catheterisation, we may see the extreme necessity of the warning, given both by Sir Andrew Clark and Sir Henry Thompson, that the establishment of habitual catheterisation is a serious step, surrounded by dangers, and only to be undertaken with proper precautions, and with the patient in as favourable a condition as possible. He must become an invalid for the nonce, avoid chills, or excitement, or fatigue, resort to a low diet, and in order to diminish the nervous disturbance which may be caused by the first catheterisation, be placed at that time under the influence of an anæsthetic or a narcotic.

One other point to be noted is the influence of septic decomposition of the urine on the course of these cases. "Surgical kidney," acute interstitial nephritis with abscesses, is it due to direct transmission of septic action? Whatever be the answer, it must at least be clear that the presence of foul septic matter in the bladder must, as Sir Andrew Clark said, "reinforce" other processes in the production of the continuous fever, whether it be due to the conditions described by him, or to interstitial nephritis, or to any other cause. The prevention of any such decomposition ought surely to be accomplished by the powers of surgery.

THE LAW AS TO TENEMENT-HOUSES.

THERE is always a good deal of thoughtless clamour for more legislation on any given subject that excites the public mind. The passing of new Acts of Parliament is the favourite specific of the shallower of reformers, who have not time or patience to examine whether an adequate and sustained exercise of powers that already exist might not much better achieve the object desired. An excellent example of this is afforded by the recent discussions on the housing of the poor; one of the humours of which has been the recommendation by a cabinet minister, in a contribution to one of the reviews, of a variety of legislative reforms, every one of which has been already provided for by existing Acts of Parliament. A provision of high importance for the prevention of the scandalous

neglect of overcrowding in the homes of the poor, about which so much has of late been written and spoken, has lain fallow in our Public Health Laws for something like seventeen years. Probably to the great majority of readers of Sir Charles Dilke's excellent speech at Birmingham, on Monday, it will come as a surprise that powers for the regulation of tenement-houses exist at all; and Sir Charles is quite justified in his implied condemnation of his predecessors in not exercising those powers.

It may be worth while, at the present moment, briefly to examine the nature of the law which the President of the Local Government Board has expressed his intention of putting into force. Section 19 of the Sanitary Act of 1866 authorised the Secretary of State to empower local authorities to make by-laws for fixing the number of persons who may occupy a house or part of a house which is let in lodgings, or occupied by members of more than one family; for the registration of houses so let and occupied and for their inspection; for enforcing the provision of privy-accommodation; for promoting cleanliness; and for cleansing and limewashing of the premises at stated times. The power to put this section in force could at first only be exercised on the application to the Secretary of State of the local authority. This was, however, remedied in 1874 by the passing of the Sanitary Law Amendment Act of that year, which gave power to the Local Government Board (who had meanwhile taken over the sanitary duties and powers of the Secretary of State) to declare the enactment to be in force in any part of the metropolis or the provinces *at their discretion*, by notice to be published in the *London Gazette*. It is this discretion of which Sir Charles Dilke announced Birmingham his intention of availing himself. The same Act extended the power to make by-laws, so as to include regulations affecting the ventilation of rooms, paving and drainage of premises, the separation of the sexes, and notices to be given and precautions to be taken in case of any dangerously infectious or contagious disease. The Acts of 1866 and 1874 are still in force in the metropolis; though, as regards the rest of the country, they have been superseded by the Consolidation Act of 1875.

It is to be observed that the only absolute power in the matter which the Local Government Board possess, is the putting in force of the enactment authorising the local authority to make by-laws. They have no power to compel the local authority to frame by-laws, or to exercise them when framed, though all such by-laws must be submitted for their sanction. In this, perhaps, lies the weakness of the clause; but it is a weakness inherent in our system of local government, and might, with equal propriety, be urged against half a dozen other functions of sanitary authorities. A more serious objection is the somewhat roundabout way of putting the Act in force.

It was stated at a conference on this subject, which was held under the presidency of Mr. Stansfeld in the spring of this year, that, immediately after the passing of each of the Acts of 1866, 1874, and 1875, local authorities who took the trouble to look into the new powers of duties imposed upon them, applied in some numbers for authority to have the clause as to the regulation of tenement-houses declared in force in their districts. Nothing further seems to have been done, however, and the Act has, in this respect, practically remained a dead letter. There are a few fossil by-laws, extant in some metropolitan districts, of the existence of which the present generation of health-officers are dimly conscious; but the initial difficulties of enforcing the by-laws seem to have too easily daunted sanitary officials; and, as a consequence, the by-laws and the powers which they represent have been alike forgotten.

It might have been expected that the promulgation by the Local Government Board, in December 1880, of a model series of by-laws dealing with this subject, would have stimulated the more general acceptance by sanitary authorities of their responsibility for the regulation of the houses of the poor. These model by-laws are, in their way, most excellent; and they take special cognisance of the difficulty which health-officers have expressed as to the exemption from the provisions of the Section of houses of the more decent sort. The phraseology of the Act and of the model by-laws is "houses let in lodgings," though it is abundantly clear that what are commonly known as "tenement-houses" are alone aimed at. But, in the absence of any express limitation as to their scope, by-laws under the Act might be regarded as applying to every house or part of a house which, not being a common lodging-house, is let in lodgings, or occupied by members of more than one family. Evidently, this would include many houses which are of such a character as to make it inexpedient, if not altogether unnecessary, to bring them within the range of by-laws, having for their primary object the regulation of premises where neglect of sanitary requirements might otherwise ensue.

The model series contains, therefore, a clause providing for the exemption of lodging-houses, as to which it may be reasonably inferred that such supervision as elsewhere a local authority alone can efficiently exercise will, in fact, be exercised by the lodgers themselves. The exemption-clause assumes that all houses below a certain ratable value will, if let in lodgings or occupied by members of more than one family, be within the scope of the by-laws. In the case of houses of higher rateable value, the clause confers exemption if the rent of each lodger exceed a certain minimum; the amounts in each being left for the decision of the local authority in view of the circumstances of their district.

Into the details of the model by-laws, it is hardly necessary now to go. They provide for the provision of a minimum amount of air-space for each occupant, for the registration, with the local authority, of the necessary particulars as to the house; for free access to the sanitary officers; for the provision of proper privy-accommodation; for the cleansing of the courtyards, areas, privies, water-closets, ashpits, floors, landings, passages, cisterns, and other parts of the houses; for the prevention of the keeping of animals in a filthy or unwholesome manner; for the notification to the sanitary authority of cases of infectious disease, and other obvious matters. Looking to the difficulty, if not impossibility, of enforcing the due separation of the sexes, in view of the ordinary conditions of life in the tenements of the lower classes, the model by-laws wisely ignore the part of the Act referring to this matter; but, in other respects, they seem eminently useful and practical; and if a steady and determined effort were made to enforce them, probably the necessity for a good deal of the undigested legislation that is now being urged upon us, would vanish.

VACCINIA AND VARIOLA.

SOME of our readers may remember how, in April 1881, Dr. Leonhard Voigt, the Superintendent of the Vaccine Institute at Hamburg, experimentally solved the vexed question of the origin and nature of cow-pox, and vindicated triumphantly the reputation of our immortal countryman Jenner. The subject, however, is of such mportance that, before stating the conclusions at which he has arrived after two years' constant and laborious observation and experiment, it may be as well shortly to recapitulate his earlier proceedings.

Two views had hitherto been, and, notwithstanding Dr. Voigt's absolute demonstration of the erroneous character of one, are still, held on the relation between cow-pox and small-pox. Jenner believed that horse- and cow-pox were originally derived from man, and were, in fact, modified forms of small-pox, altered by their transmission through the bodies of the lower animals. Ceely and Badcock in England, and Thiele in Russia, held the same views, and believed that they had successfully effected the transformation. The former, in 1840, sent some of his lymph to Schneemann in Germany, where it was long used with the best results. But Dr. Martin, of Boston, a strong advocate of animal vaccination, on

trying to repeat the experiments of Ceely, set up an epidemic of small-pox, the disease spreading from his vaccinated subjects by ordinary contagion; and the like unfortunate consequence followed other attempts of the same kind, and put a check to further enterprise in the same direction.

The second opinion is that of the French school, represented in this country by the veterinary surgeon Fleming, and shared by many of less note. It may be briefly stated as follows. Small-pox, sheep-pox, and goat-pox, are acute specific diseases, highly infectious, attended by general febrile disturbance, and extremely fatal; in fact, bearing a close resemblance one to the other, but not mutually protective. Horse-pox, cow-pox, and camel-pox, on the contrary, are merely local diseases, with little fever, and no danger to life, communicable only by actual contact or inoculation; and yet, strange to say, each of them is antagonistic to, and protective against, small-pox. Small-pox, they say, if inoculated into the cow, is unaltered; the local manifestation is merely a blind boil in most cases, but, if any fluid can be obtained from it, it is still small-pox virus pure and simple. They thus account for Martin's unlucky experience, and explain away Ceely's seeming success by urging that his supposed vaccinations were, in fact, mild and favourable examples of inoculation of small-pox itself, though they find it best to ignore the subsequent successes of Schneemann.

This was the position of parties when, in the winter of 1880-1, Voigt resolved on investigating the whole question afresh. His first attempts to inoculate the calf with human small-pox were, as usual, unsuccessful; indeed, the difficulty is such that Reiter failed in fifty trials, extending over ten years, though he succeeded in the fifty-first. On the fourth occasion, using pus from a virulent case of unmodified small-pox, Voigt was rewarded by the production of a *bouton*, on which a small vesicle appeared for a few hours. He found what he deemed a *corpus vile*, in an ill-nourished scrofulous child, not previously vaccinated, and under treatment for itch, in a ward in which small-pox had just broken out. Somewhat rashly, he vaccinated the child with the fluid from his vesicle; the results were alarming, intense fever, axillary buboes, etc.; but, fortunately for all parties, the child survived. He then vaccinated a calf with the same lymph, and a third from the second, and so on. From the fourth in succession he vaccinated four children; of these, one failed to take, but the others were rather severely affected. From the thirteenth and fourteenth calves he again vaccinated children, with excellent results. Indeed, from and after the ninth in the series of calves, the pustules were indistinguishable from the best Beaugency stock, both in themselves and in their results on the human subject. Voigt therefore concludes, not only that Jenner was right in his idea of the origin of cow-pox, but that Martin's untoward results were due to his having, like himself, used variolous matter of a virulent type, and neglected the precaution of mitigating it by successive transmissions, or, as Pasteur would say, cultivations, in the calf. All cases of cow-pox supposed to be spontaneous are, he believes, cases of unintentional variolation, or retrovaccination, as when a woman milks a cow after handling her recently vaccinated infant. Thus, too, he explains the usual seats of the disease in the horse and the cow, the ankles of the former and the udders of the latter being the parts most frequently handled; and the exemption of the males, bulls or oxen, is easily intelligible on the same hypothesis, for in retrovaccination bull-calves are found to be quite as susceptible as the other sex. The various sources of the so-called spontaneous cow-pox in vaccine, in modified and mild variola, or in variola of a severer kind, equally account for the varying intensity of the results obtained in the first vaccination performed therewith.

During the past eighteen months, Dr. Voigt and his colleagues have used the "new lymph" on a large scale, both for retrovaccination of the calf and for vaccinations and revaccinations of the human subject of all ages, and prefer it to ordinary humanised or to Beaugency lymph. Unlike the older stocks of animal lymph, it keeps remarkably well in tubes, with or without glycerine. An unavoidable change of quarters, leading to a temporary deterioration, brought out the fact that dry and well-ventilated stalls were essential to success in bovine inoculations, whether with variolous o- with vaccinal matter, as he had already been led to consider a moder ately low temperature more favourable than a higher.

In his most recently published report, he sums up the results of his observations under nine heads, which may be looked on as an epitome of the whole question.

1. It is possible to create vaccine by the inoculation of the calf with lymph from the pustules of human beings the subjects of small-pox, but success must not be expected in every case.

2 The energy of variola-vaccine obtained in this way is such, that it is not fit for the purpose of vaccinating human beings until it has been several times transmitted from calf to calf, or from ox to ox, and its intensity has been thus diminished.

3. In the first year, this new lymph has a greater protective power than animal lymph of older stocks.

4. Vaccinia and variola are derived originally from the same contagium, and give to those affected by them an immunity one against the other.

5. The duration of this immunity depends on the intensity of the pathological process.

6. After the lapse of twelve years, persons who have been attacked with small-pox show the same susceptibility to vaccination as those who have been vaccinated at an equally remote period; consequently, children of 12 years of age, vaccinated in infancy, present a moderately favourable soil for the poison of small-pox.

7. Therefore, revaccination of all children at or even after the age of 12 is highly to be recommended.

8. Animal lymph, originally very active, diminishes in efficacy, when transmitted from calf to calf, sooner than humanised lymph transmitted from arm to arm. On the whole, *i.e.*, after a long time, humanised lymph gives better results both in man and beast; whence it follows that animal lymph from old stocks gives less success than retrovaccine of the first generation.

9. Carefully generated, and in well ventilated and regulated stalls, variola-vaccine is the most energetic of all, not only when taken direct from the calf, but especially in its humanised form. Consequently, if we would obtain the most powerfully protective lymph we should, when occasion offers, from time to time, reproduce a stock of variola-vaccine.

WE have reason to believe that the post of Superintendent of the National Natural History Collection of the Zoological Museum, South Kensington, vacated by the resignation of Professor Owen, has been offered to, and will probably be accepted by Professor Flower, Conservator of the Royal College of Surgeons. Professor Owen had held the latter post for a long period of years before holding the appointment which he now vacates, and in which Mr. Flower will, it is anticipated, succeed him.

QUARANTINE on arrivals at Gibraltar from Egypt and Turkish ports in the Red Sea has been reduced to ten days.

AT a Council meeting of the Lancashire and Cheshire Branch, held at Liverpool on the 13th instant, Dr. Lloyd Roberts of Manchester was appointed President of the Branch until the annual meeting in June next, in the room of the late Dr. Borchardt.

SIR SPENCER WELLS has been elected on the consulting staff of the Chelsea Hospital for Women, in conjunction with Mr. Jonathan Hutchinson, Sir Andrew Clark, and Dr. Robert Barnes. The hospital has now its full complement of 63 beds.

It is stated that cholera has disappeared from Mecca. The sanitary condition of the caravans returning from that place is now excellent.

A NEW INDIAN BRANCH OF THE ASSOCIATION.

We learn with much pleasure that a new Branch of the Association has been formed in Madras, under the title of the South Indian Branch. Twenty-five members have already joined. The Secretaries are Messrs. C. Sibthorpe and A. M. Branfoot, both of the Medical Department of the Madras Army.

AN OBSTETRICAL SOCIETY FOR PARIS.

The difficulties which have for a long time prevented the formation of an obstetrical society in Paris have at length disappeared. The new society was founded a few weeks ago. The title is the Gynæcological and Obstetrical Society. The inaugural meeting will be held in January, and will be followed by monthly sittings.

AN OPHTHALMOLOGICAL REFERENCE LIBRARY.

The Ophthalmological Society of the United Kingdom have determined to found a library and a museum of apparatus and drawings for the use of its members. A committee has been formed for the purpose of carrying out the necessary arrangements, and gentlemen who may wish to present books, drawings, instruments, or appliances relating to ophthalmic medicine or surgery to the society, are requested to communicate with one or other of the honorary secretaries, Dr. Abercrombie, 39, Welbeck Street, or Dr. Brailey, 16, Orchard Street, Portman Square.

ST. BARTHOLOMEW'S HOSPITAL.

On Thursday, December 20th, at a meeting of the Governors of St. Bartholomew's Hospital, convened for the purpose, Mr. W. Bruce Clarke, Demonstrator of Anatomy to the Medical School of that institution, was elected Assistant-Surgeon to the Hospital, to fill the vacancy caused by the death of Mr. Shuter. Of the various candidates, all of whom retired excepting the surgeon who has been elected and Mr. Macready, we have already spoken in the JOURNAL of November 10th, page 933.

THE ST. JOHN AMBULANCE SOCIETY IN HASTINGS.

At a public ceremony in Hastings, under the presidency of the Mayor, an ambulance-car was this week presented by Mr. Furley to the municipal body for the use of the town. Satisfactory statements were made as to the progress of the St. John Ambulance Society in Hastings and St. Leonard's. Since the formation of the branch, 680 persons had received instruction.

MR. JOHN GAY.

The profession will hear with regret that the state of this surgeon's health has rendered it necessary for him to resign his seat as a member of the Council of the Royal College of Surgeons, to which he was re-elected in 1878. Mr. Gay is still a valued contributor to surgical science. The vacancy caused by his retirement will not be filled up until the annual meeting of the Fellows in July next.

MEMORIAL TO THE LATE MR. JAMES SHUTER.

It has been decided that a memorial, of some suitable kind, to be afterwards determined by the subscribers, shall be raised to the late Mr. James Shuter, by past and present students of St. Bartholomew's Hospital, and other friends. Dr. Robert Martin and Mr. Luther Holden (who is at present absent from England) have consented to act as treasurers. Cheques, payable to the "Shuter Memorial Fund," and crossed to "Coutts and Co."; or postal orders, also crossed to Messrs. Coutts and Co., should be sent to either of the honorary secretaries, Mr. W. Bruce Clarke, 46 Harley Street, W., or Mr. Alfred Chune Fletcher, 12A, Charterhouse Square, E.C.

THE JACKSONIAN PRIZE.

Intending competitors for the Jacksonian Prize of the Royal College of Surgeons are reminded that the essays for it must be sent to the Secretary before 4 o'clock on Monday, the 31st instant. The subject for this prize for the ensuing year is "The Surgical Treatment of Uterine Tumours, both Innocent and Malignant." The pecuniary value of this prize is the amount of the dividend—between twelve and thirteen pounds—received from the trust. Mr. Samuel Jackson, an old member of the College, was the founder of it.

ATROPHY OF PERIPHERAL NERVES IN LOCOMOTOR ATAXY.

M. Déjerine has communicated to the Académie des Sciences in Paris, the result of his researches on the pathological condition of the nervous system which accompanies locomotor ataxy, and is named by him *nervo-tabes péripherique*. It has hitherto been believed that this lesion is one of atrophy and sclerosis of the posterior columns and roots of the spinal cord. M. Déjerine believes that this opinion is erroneous. He cites two cases of locomotor ataxy which presented atrophy of the peripheral sensory nerves; while the posterior columns of the spinal cord were intact. This interesting observation must inevitably attract the attention of pathologists. If its accuracy be established, it will lead to a system of treatment widely different from that based on a lesion of the spinal cord.

CRUELTY TO HORSES.

The Society for the Prevention of Cruelty to Animals, summoned, last week, Mr. Saddington, a horse-dealer, for docking a horse's tail. It was stated in evidence that the operation had been done in a cruel and unscientific manner; the tail not having been divided at a joint, but haphazard, thus causing the animal great suffering. It was also urged that docking was unnecessary, painful to the horse, and subsequently harmful to driver and rider, and had been discontinued in the Army, by order of the Duke of Cambridge. The charge of intentional brutality was not, however, sustained in this case, and only a nominal fine was imposed. We are glad, nevertheless, that the case has attracted public attention, for a law which forbids the puncture of a frog for scientific experiment, for the purposes of research and of adding to medical knowledge and to the power of the healing art, I cannot surely allow the lopping of horses' tails for a fashionable freak, and we must urge the Home Secretary to take under his protection the most faithful servant of mankind, equally with the timid mouse and the voracious rabbit, and to make fashionable experiments on domestic animals, the docking of horses' tails, cutting of dogs' ears, etc., as illegal and punishable as an unauthorised experiment to determine the value of a therapeutic agent.

INFANTILE MORTALITY.

The more frequent holding of inquests in cases of suspicious deaths among infants would undoubtedly do much to check the massacre of the innocents, which many medical officers of health deplore in their reports. Commenting on the subject in a recent report to the Nottingham Town Council, Dr. Edward Seaton goes so far as to say that, generally speaking, the causes of infantile mortality may be summed up as the results of maternal neglect. Deaths may be entered in the death register as "debility from birth," "atrophy," "marasmus," "convulsions;" but in a very large proportion of cases the deeper causes are neglect, improper feeding, starvation, overdosing with opiates, and suffocation. What proportions this infantile mortality might reach if it were not for certain controlling influences, it is impossible to say. It is terrible that Dr. Seaton should have to state, as indeed many others have stated, that the fear of the publicity which may attend the circumstances of its death is, with some mothers, the consideration which determines the fate of their infant. With a view of supporting the coroner in his practice of holding inquests in cases of suspicious deaths, the Town Council have passed a resolution approving his action in so doing, adding

that they will be prepared to authorise legal proceedings in such cases as he may report for prosecution. The authority is to be congratulated on their action, for it seems that nothing but such measures will check the growing habit of maternal neglect.

PERILS OF PRACTICE.

AN inquest has been held at Manchester touching the death of Mr. R B. Carruthers, surgeon, aged 32, who died in the infirmary from injuries received while attending a sufferer from the terrible gale the previous week. The deceased was called in to the wife of Mr. Unsworth, of Moss Side, who had her leg broken by the fall of a chimney-stack through the roof while she was in bed. Mr. Carruthers was accompanied by his wife, and, as they were standing by the patient's bedside, another chimney-stack fell in on them. At midnight the surgeon and his patient were conveyed to the infirmary, where he died afterwards of gangrene, following on a double compound fracture of the right femur too high for amputation. The verdict was "Accidental death." The public sympathy with the widow and children of the deceased, who has recently qualified himself as a medical practitioner under circumstances of difficulty, and was very much respected, finds expression in a subscription under the auspices of the Mayor of Manchester, the Vice-Chancellor of Victoria University, and an influential committee; and the profession in Manchester are much impressed with the sad facts of the case.

HOSPITAL SATURDAY FUND.

AT the last meeting of the board of delegates of the Hospital Saturday Fund, it was reported by the secretary that twenty-three of the London medical charities had agreed to receive life governors appointed by the board, and admit them to a share in the management of the institutions. On the motion of Mr. N. Hamilton Hoare, the honorary treasurer, it was decided that in no case should the fund be represented at any hospital or dispensary to which it contributed by more than three life governors, unless with the consent of the authorities of the institutions. It was resolved to distribute £8,250, or £1,000 more than the fund was enabled to disburse last year, to sixty-eight hospitals, thirty-eight dispensaries, five cottage hospitals, eleven convalescent and other homes, and to two surgical aid and appliance societies. The awards were determined by the amount of relief afforded, the economy practised, and efficiency attained by the institutions applying to participate in the fund, of which only four were deemed ineligible.

A CORONER ON MEDICAL EVIDENCE.

WE read the following story in the *Times* of the 10th instant. Mr. Wyatt, the newly appointed coroner for Camberwell, held an inquest on the body of a child six weeks old. The father stated that on the 5th instant, at 5 A.M., the deceased was found lying dead by the side of his mother. A medical man who was called in pronounced the child dead. No medical evidence was called, but the coroner said that from the evidence he thought it was clear that death was due to suffocation in bed, and that there was no neglect on the part of the parents. In this view all the jurymen, except one, agreed. This juryman most pertinently asked how they could come to such a conclusion without medical evidence. Why was not the medical man who had seen the corpse called? The coroner replied that in cases like these, there was no necessity for medical evidence. The medical man could tell the jury nothing more than what they had already heard. If medical men were called in all these cases, it would be a great expense to the country. A verdict of "Accidental death from asphyxia" was then returned. This did not satisfy the dissentient juryman, who asked the coroner to add to the verdict, that he (the juryman) was of opinion that medical evidence should have been called. The coroner refused to make this addendum, and the juryman declined to sign the inquisition; but as thirteen jurymen had been sworn, and as twelve concurred in the coroner's view, the inquiry was concluded. The above is only a slight variation of an oft-repeated occurrence in the courts of English coroners. It is true that, although the object of an inquest is to arrive at a determination of the cause of death, a coroner is not obliged, in order to do this, to call medical evidence; but it is equally true that where, as in the above case, a previously healthy person is found dead, medical evidence alone can clear up the cause of death. If in such cases as the one we have related, medical evidence be superfluous, an inquest is unnecessary. The profession is convinced, and the public is becoming alive to the fact, that in all cases where medical evidence is dispensed with, an unnecessary burden is thrown on the rates by the holding of an inquest.

PHYSICAL EDUCATION OF WOMEN.

ON Saturday last, December 15th, Miss Chreiman gave a demonstration in the Vestry Hall, Hampstead, of her system of "gymnastic exercises" for young girls. Although the application of the term is quite correct, the word "gymnastic" will probably convey to most readers an erroneous idea of the nature of the exercises taught. They are intended, we are told, to develop the strength of every part of the body; to correct defects of carriage; to provide regulated and enjoyable exercise; and therefore, as a consequence, to impart flexibility and grace in movement and attitude, and a healthier growth of the body. The exercises are executed at the word of command, rhythmically, to music. There are exercises for the muscles moving the fingers, the wrists, the arms, and for the trunk. Light wooden dumb-bells are used in these exercises; and, in other exercises, long so-called bar-bells, about four feet in length, are carried by the pupils, who go through a variety of manœuvres with these instruments. For other exercises, light Indian clubs are employed. On the occasion to which we refer, the performance concluded by the execution of a number of evolutions of the most complicated and various kinds, reminding the spectator alternately of the manœuvres of a squad of volunteers and of a country dance. The young pupils went through the exercises with wonderful steadiness, and with evident enjoyment. We have no doubt that the system elaborated by Miss Chreiman is of great use in developing the muscular and respiratory systems of growing children; and not only so, but in encouraging a grace of pose and movement which the art of the *costumière* can never impart. We were forcibly reminded of the well-known words of Pope, as we watched the evolutions of the class. "True ease," he says,

> "Comes from art, not chance,
> As those move easiest who have learnt to dance."

In the days of Queen Anne, dancing was perhaps the nearest obtainable approach to "scientific gymnastic exercises." Dancing then did not consist in turning round on the tips of the toes a greater or less number of times in the minute, but was an exercise for the public performance of which much serious and private practice of complex manœuvres and attitudes, calling into play a great variety of muscles, was necessary.

WESTON'S WALK.

ON his nineteenth day, Weston had an unusually perilous walk during the great storm of last week. Shortly after four o'clock in the morning, he started on his daily task of 50 miles amid a regular hurricane, having to pick his way with considerable caution through the streets of the generally extremely quiet cathedral city of Lincoln, to avoid the *débris* of broken glass and falling chimneys. Though impeded for a time, he quickened his pace on reaching the open country, and halted at the end of 11 miles to partake of coffee and whipped eggs. At ten minutes to one o'clock he stopped for an hour and a half at a little village for dinner, which meal was procured with considerable difficulty. The last 6 miles Weston walked in the Temperance Hall at Great Grimsby. Next morning he did

not start till shortly before five o'clock, reaching the hall at half past five, where he walked during the whole day. The limited size of the track, involving frequent turning, and the confinement, combined to induce so much drowsiness that, on the expiry of the first 6 miles, he had to stop and take 40 minutes' sleep. At 1.45 P.M. Weston again rested, but this time for dinner. In an hour and a half he resumed the track, and, without further stoppage, finished his first 1,000 miles amidst the loud and enthusiastic cheering of a large company of spectators. As usual, the pedestrian immediately delivered a spirited and most amusing lecture on the benefits, from a sanitary point of view, of total abstinence. Next morning Weston left Great Grimsby, in miserably wet weather, shortly after four o'clock, having to walk, for a considerable distance, encumbered by his overalls. With one interval of 40 minutes for sleep, he pushed on to Spilsby, where he dined at half-past one. Stopping at Sibsey just long enough to drink a cup of tea, Weston pursued his course to Boston, which he reached at a quarter to eight o'clock. On a bright and frosty morning Weston left Boston at twenty minutes before five o'clock, halted 15 minutes for coffee at the end of 16 miles, and rested from shortly after noon till two, in which interval he had dinner. He then walked to Lynn, where he finished the last 6 miles. Next day the pedestrian was in excellent form in the music-hall, where he did his 50 miles in 12½ hours exclusive of rest. On the twenty-fourth day Weston, on extremely soft roads, walked from Lynn to Ely, with two hours' rest for dinner; the meadows, on all sides, being covered with water. At night, the chairman at his lecture was Canon Hopkins. On Wednesday the course was to Bedford. At the end of his ten hundred and seventy-fifth mile, on being weighed, Weston was found to have lost 15½ lbs. since leaving London.

DEATH OF A PENINSULAR WAR VETERAN.

MR. MOSES GRIFFITH, a Member of the Royal College of Surgeons, and a Peninsular War veteran, has recently died, at his residence, Manorowen, Pembrokeshire, at the patriarchal age of ninety-four years. The following extract from his autobiography may be of interest, showing as it does how the army medical officer of his day was trained. "I was born at Poyntz Castle on the 30th April, 1789, and was educated at the grammar-school, Haverfordwest. On the 23rd of July, 1806, I went to St. David's as an apprentice to Mr. J. Morgan, surgeon. On the 4th January: 1808, I left, by his permission, to go to my brother at Shrewsbury. On the 21st of January, 1809, I commenced my studies in London. On the 18th of the following August, I was examined at Surgeons' Hall by Sir James Earle, and admitted a Member of the Royal College of Surgeons. I continued attending lectures until the 27th of September, when I got a temporary hospital-appointment at Portsmouth. On the 29th of October, I volunteered to go to Walcheren, passed my medical examinations on the 4th of November, and became a permanent hospital-mate. On the 20th of December, 1809, I received orders to hold myself in readiness to embark for Portugal. We sailed from Portsmouth on January 14th, 1810, and, on the evening of the 29th, as the clock of Fort St. Julian was striking six, we crossed the bar of Lisbon." From this time until the close of the war, Mr. Griffith served in the Peninsula. He was attached to the 29th Regiment, which formed part of the celebrated Light Division commanded by the Pembrokeshire General Sir Thomas Picton, and was present at the battles of Busaco, Fuentes d'Onor; siege and assault of Ciudad Rodrigo, 1812; siege and assault of Badajoz, April 1812; battles of Salamanca, Vittoria, Pyrenees, Nivelle, Nive, Orthes, and Toulouse; wounded at the affair of Vic Bigorre, January 19th, 1814. The ball passed through Mr. Griffith's arm and killed Colonel Keane's horse. When Lord Keane was appointed commander-in-chief in India, Mr. Griffith was attached to his staff. At the conclusion of the Peninsular War, Mr. Griffith applied for active service, and was posted to the 47th Regiment, with which he went to India. He served in India, Arabia, and the Burmese Empire until 1837, when he returned home. He was present at the sieges of Asserghur, Ras-el-Viqma, and Tiaia; siege and assault of Dwarka; affair of Benaiaboo-Ali; assault of a fortress on the banks of the Pegu river; assault on Pagoda; siege of Donaben; and battle near Prome. After serving at home with the 20th, or East Devonshire, Regiment, he finally retired on half-pay in October 1840. Having secured by purchase a beautiful little estate in Pembrokeshire, Mr. Griffith then devoted himself to the duties of a country life. He was for years Chairman of Petty Sessions and of the Highway Board for his district, was a deputy-lieutenant for Pembrokeshire, and was selected for high sheriff, but got himself excused on the plea of advanced years and length of service (thirty-one years). He held the Peninsular medal with nine clasps, the Burmese medal, 1825-26, and bronze medal from the King of Portugal. He died on November 28th, 1883, except being blind, in the full possession of his faculties.

FEEDING AND LEARNING.

HOWEVER we may approve of the Education Act of 1870 and its subsequent amending Acts, there is no doubt a fair case to be made out against the over-stringency of the revised code. We may take as evidence of this the letter of the National Union of Elementary Teachers to their lordships of the Education Department, lately published in the *Times*. The overtaxed child learns like a parrot; the overtaxed child, who is also very poorly fed, learns, we should be inclined to think, not at all. But to feed the unfed children on a large scale on charity would be a gigantic mistake. The struggling housewife would naturally, and, so to speak, rightly —as the choice is offered her—send her child to school unfed, and carry the difference to the credit of the week's account for expenditure in some other, perhaps more harmful, purpose. The drunken, feckless, and weak would let their children get what they could of others and be thankful. And there are many other reasons. The question is whether, by less stringency in the educational requirements, the children would not learn more, be educated more, though, perhaps, instructed less; and then, whether simultaneously some plan of feeding those that require food is not possible on an ordinary self-supporting plan. This has succeeded (less cost of plant and management) out of London; why should it not be tried here on an entirely self-supporting basis? At Rousdon, Devon, Sir Henry Peek has arranged, since October 1876, to provide for a school of 79 children. The average of solid food per child was almost 8 ounces. Ten dinners have cost, on an average, 1s., including cooking expenses and wear and tear. The girls assisted in the cooking, which was part of the curriculum of the school. The result is reported to have been most satisfactory, physically and educationally. At Farnell, also, a country parish near Brechin, with a population of 600, a hot mid-day meal of pea or potato soup, or Scotch broth, has been provided for six winters. The "plant" was purchased by voluntary subscriptions. The charge is ½d. a child, or 1d. for two. The supply is not restricted to a single bowlful. There was, at the end of last winter, a balance of 5s. 3½d.; but gifts of vegetables, value £10, were given, and the School Board paid the cost, £3 5s. The results, too, in this experiment, are said to have been very satisfactory. In London the numbers would be larger. The demand for so many scholars' meals daily would be regular. The bill-of-fare need not be very often altered. A cocoa-house in a by-way, close to the school, might supply the breakfast of hot drink and a slice of bread. If other meals have to be provided, other similar arrangements might be made. Children often take their mid-day meal with them. The most shiftless parents give their offspring a penny or twopence, when to provide the breakfast regularly in comfort and at an early hour would be a moral effort beyond them. Many pennies are wasted in sweets—and worse—that might go in cheap meals, if there were a supply. At least, the ex-

periment is worth trying. If it fail, it does not follow that the meals must be given in charity. The desired result might follow from indirect methods. The establishment of day industrial schools would provide for a certain class of children, not now touched. More stringent laws against habitual drunkards who neglect their families might provide for another class, by their admission to Poor-law schools; penalties and payment might be enforced against the parent, or he might be shut up in an inebriates' workhouse or other institution. To give the School Board powers to have additional infant-schools, with arrangements by which the younger children could be cared for during the day, and the money earned by father and mother thus expended directly on their maintenance, would reach another class. If the School Management Committees of the Board were a reality in all poor localities, their influence might do something. There is a real evil. The children are over-instructed and often underfed. The Educational Department can remedy the former by itself; the latter is no business of any educational authority. The social reformer should fix his attention on its difficulties, study, and solve them.

THE METROPOLITAN ASYLUMS BOARD AND THE LITIGANTS AT HAMPSTEAD AND FULHAM.

THE Metropolitan Asylums Board and the litigants at Hampstead and Fulham have come to terms, by which the inhabitants of London will be spared from further costs at law, and will have the advantage of both the Northern and Western hospitals secured for the isolation of the sick in epidemics of fever and small-pox. The Asylums Board will pay £22,000, for which they will receive about 3½ acres of land, including 2 freehold houses, for the sum of £13,000, and for costs and damages, £9,500, including altogether £22,500. The terms in respect to Hampstead have been submitted unofficially to Sir Charles Dilke, the President of the Local Government Board, after unanimous approval at an extraordinary meeting of the managers, and his consent was obtained to the terms. The Fulham Asylum will be assured to the metropolis on the payment of the damages which were proved, in all amounting to about £6,000. The Hampstead settlement is regarded as the most important, for the litigation, taken at the instance of the late Sir Rowland Hill, not only lasted for years, but was the leading cause of the Royal Commissions on Hospitals for Infectious Diseases, and was ripe for renewal.

THE PERSECUTION OF MEDICAL MEN.

WE publish in another column a special report of the case which led to the unhappy death of Dr. Haffenden, and also a letter from the medical man concerned in promoting the charge. A similar letter from Mr. Nockolds to that which he has addressed to us, appeared in the daily papers; and the solicitors to the late Mr. Haffenden have published a letter which we append, and in which it will be seen that some of Mr. Nockolds's statements are directly traversed. In such distressing circumstances, we hesitate to anticipate the general opinion of the profession. The judgment has, however, too long been suspended in the case of the late Mr. Haffenden, owing to the judicial delays involved in the consequent trial, which we publish to-day in our special report. It will be seen that the verdict of the jury, promptly given, has wholly cleared the memory of the deceased surgeon from the fearful aspersions which were cast upon it, thus adding a double pang of intensity to the regret and indignation with which the charge must be regarded, and greatly adding also to the gravity of the feelings which Mr. Nockolds's conduct, as explained by himself, must be viewed. In his anxiety to clear himself, Mr. Nockolds takes but little account of the tragic consequences of what, at least, he must admit to have been an error in judgment, whatever might have been the motives which dictated the course that he pursued. It is sad, indeed, to find in such a case as this, that the chief actor in the incidents which have led to so terrible a result have been a professional neighbour. The police appear to have been set in motion by Mr. Nockolds, and the Public Prosecutor to have acted upon the *primâ facie* evidence supplied by him. The memory of Mr. Haffenden has been cleared only too tardily; and, after the last debt of nature has been prematurely paid, it is acknowledged that he died a victim to a fearful calumny, innocent, but overwhelmed by grief and shame at the blot ineffaceably inflicted upon his name by criminal proceedings of which he was the helpless and guileless victim. The high standard of honour which had made him respected and beloved in his neighbourhood, is evidenced by the conduct of all its leading inhabitants. The delicate responsibility, the chivalrous and gentle nature which had distinguished him through life, contributed to inspire him with such invincible horror of the stain of such a charge, however transient and causeless, that his moral nature and mental strength gave way. It is a memory which will long remain with all who have considered the circumstances. The acquittal of the unhappy woman who was made a party to the charge is but a slight and most inadequate reparation to her for the wrong which she also has suffered. To the family of Mr. Haffenden what reparation can avail, deprived as they are of their prop, and of the beloved head of the household, father and husband, under circumstances of such horror? Sympathy, however deep, and sincere acquittal, however complete and unequivocal, can do little to relieve their grief or to lessen their suffering. Mr. Nockolds's conduct we leave without judgment and without comment, to the opinion of the profession and the public. His evidence, his letter, speak for themselves. He has done his worst and his best. Let him have the benefit of all that can be admitted in the way of the purest motives, and then let every man judge for himself of the character and the consequence of the acts which he avows and defends.

NEW ISOLATION-WARDS FOR INFECTIOUS CASES AT THE LONDON FEVER HOSPITAL.

THE London Fever Hospital, though it still remains essentially a charitable institution, has, since the duty of providing means of isolation for the pauper class has become vested in the Metropolitan Asylums Board, altered the sphere of its activity and usefulness to some extent; its patients are now drawn chiefly from those classes who are able to make some contribution towards the expenses of their maintenance and treatment. The spread of knowledge with regard to the nature of contagion, also, has tended to make the public more anxious to obtain the advantages of isolation, not only in typhus and scarlet fever, but also in measles, diphtheria, and some other diseases; thus the number of different infectious fevers, under treatment at the same time, has become greater. Not unfrequently, at the present time, as many as five different infectious diseases have to be dealt with in such a way as to avoid any risk of the spread of infection from ward to ward. It is interesting also to be told that the public are becoming so fully alive to the importance of early isolation, that cases are now sometimes received at the hospital before a diagnosis has been made. Owing to the operation of these various causes, the necessity for providing additional isolation-wards has forced itself upon the Committee; they have, therefore, commenced the erection of a new pavilion, and, on December 15th, the first three wards furnished and ready for occupation, were inspected by a number of gentlemen, among whom we noticed Dr. F. J. Mouat, Dr. Thorne-Thorne, Mr. Shirley Murphy, Mr. Rogers Field, and many architects and sanitarians. The new building has, we understand, been erected under the advice of Mr. Percival Gordon Smith, architect to the Local Government Board, from designs by Mr. Keith D. Young, architect to the hospital. The building will ultimately comprise twelve wards and two administrative rooms. So far as it is yet completed, this pavilion may be said to be "the last word" on hospital-construction, and reflects the greatest credit, not only on the skill of the architect, but on the

committee of the hospital, who have had the courage to face the large expense which the perfecting of every detail must have entailed. The ground-floor is raised about 3 ft. 6 in. above the level of the ground, and stands on an open-arched half-sunk basement story 6 ft. high, and extending beneath the entire building. The floor of the basement is formed of concrete, and the earth around the building is sloped upwards at an angle of 30°. By this special arrangement, a constant movement of air beneath and around all parts of the building will be insured; so also, the air entering the wards by the ventilating openings at the floor-level will be, at all times, fresh and sweet, instead of being derived, as is usually the case, from a comparatively stagnant angle at the junction of the surface-soil with the walls. A corridor, open on one side to the external air, gives access to the three ward-rooms; the centre room is fitted up, for the present, as a nurse's room, and a small window, with fixed sash, is provided in each side wall, to afford means of overlooking the adjoining wards. The dimensions of one ward containing two beds are 18ft. 6in. by 17ft., and of the other ward-room, containing three beds, 30ft. by 18ft., all three being about 12ft. 6in. high. The patients will thus have from 150 to 180 square feet of floor-space, and about 2,000 cubic feet each. It must be admitted that this amount of cubic space is not too large, and might even have been exceeded with advantage, but probably all the beds will seldom be occupied at the same time, and the ventilation will be very efficient. The wards are warmed by means of Boyd's ventilating grates, which possess large air-chambers with inlet flues, and provide a constant in-flow of fresh warmed air. Large ventilating apertures, fitted with Ellison's "radiator" ventilators, are provided in the external walls of the wards at the floor-level. The gas-brackets are fitted throughout with extraction-pipes to convey away the products of combustion. The glazing in all the windows is of stout sheet glass in two thicknesses, with an interspace of three quarters of an inch, an arrangement which will tend to preserve uniformity of temperature in the interior. The lower sash in each window is so constructed as to allow it to be raised sufficiently to admit of an inlet of air between the sashes, without involving an opening at the sill; in the upper part of the window is a fanlight hung to a transome, to fall inwards. It is claimed also for the windows that they have no recessed or projected mouldings to catch dust and dirt; the architect has no doubt endeavoured to attain this desirable end, but we cannot help thinking that he has conspicuously failed; a topless cupboard, too, in the corridor, with a horizontal shelf inside, is not an arrangement to be recommended; if there is to be a cupboard at all, it ought to have a roof sloping at an acute angle from the wall. The walls of the wards, corridor, and offices are faced with glazed brick-work; in the wards the glazed bricks are of four different shades of colour, so arranged as to give a cheerful and harmonious effect. A special feature of the wards is, that all internal angles, both vertical and horizontal, have been formed with specially made curved bricks, in order to prevent, in one case, the stagnation of air which necessarily occurs in the corners of a room, and in the other, the accumulation of dust in the angles formed by the walls with the floor. The flooring is constructed of concrete in a framework of iron joists, which, besides being fireproof, has the distinct advantage of solidity. On the concrete is laid a flooring of oak blocks. The flooring of the upper story, constructed in the same way, forms the ceiling in the ward-rooms now completed. On the outer side of the open corridor, and opposite the smaller ward-room, is a projecting building containing a water-closet and sinks, both of which have efficient means of cross ventilation. Here also is a place for a movable bath, for use in the wards, with taps for hot and cold water, and a proper sink for emptying it. The furniture has been specially designed for the purpose, and is all easily removable, so as to promote cleanliness. It is simple, and of pleasing appearance. The erection of these wards is a matter of congratulation both to the public and to the profession.

SCOTLAND.

MEDICAL AND LAW EXHIBITION, ABERDEEN UNIVERSITY.

THE Edinburgh and Aberdeenshire Club has presented a balance of £250 to the University of Aberdeen, the interest of which is to be given to a medical or a law student. The medical faculty are to have the exhibition twice as often as the law faculty.

STIRLING ROYAL INFIRMARY.

THE annual meeting of the subscribers to the Stirling Royal Infirmary was held on Monday. The report submitted by the directors stated that the number of cases treated during the year was 2,012, 1,829 of these being out-patients, and 183 in-patients. The surgical cases numbered 1,227, and the medical 785. Of these, 327 were treated in the wards, and ten deaths occurred, including three from the effects of the boiler-explosion in April last. The income for the year amounted to over £1,250, and the ordinary expenditure to over £928, leaving a balance of £321 13s. 2d., as against £383 3s. 6d. last year. The additions which have been made to the Infirmary come to £1,685 1s. 11d., of which £34 18s. 7d. still remains to be paid, in addition to the architect's fee. The new wards have been furnished at a cost of £414 13s. 2d., which is £55 less than the sum subscribed for that purpose. It has been resolved to make a charge for pauper patients recommended by the parochial boards or their inspectors at the rate of 1s. 6d. per day, and private patients, who were able to pay for treatment, at the rate of 10s. 6d. per week.

THE REGISTRAR-GENERAL'S RETURNS.

THE returns of the Registrar-General for the week ending December 8th show that the death-rate in the eight principal towns was 21.7 per 1,000 of estimated population. This rate is 6.3 below that for the corresponding week of last year, and 1.0 below that for the previous week of the present year. The lowest mortality was recorded in Leith—viz., 13.6 per 1,000; and the highest in Aberdeen—viz., 24.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.0 per 1,000, or 0.3 below the rate for the previous week. An unvaccinated male died in Glasgow from small-pox. Acute diseases of the chest caused 115 deaths, or 14 less than the number recorded for the previous week. The mean temperature was 38.1°, being 7.8° below that for the week immediately preceding, and 4.6° above that for the corresponding week of last year.

THE HEALTH OF GLASGOW.

THE report of the medical officer of health shows that there were 500 deaths registered during the fortnight ending December 8th, representing a death-rate of 25 per 1,000 living. In the corresponding fortnight of last year the death-rate was 4.4 per 1,000 higher. In all the chief classes of disease excepting the pulmonary, the mortality is less than last year. The chief feature of the present report is the occurrence of three deaths from small-pox during the fortnight. There have not been so many deaths since May, 1877, when four occurred in one fortnight. As an indication of the immunity Glasgow has enjoyed from small-pox, it may be mentioned that from August, 1881, until now not a single inhabitant had died of this disease, and the only case registered in that interval, previous to those now reported, was in April last, the person having been removed to the hospital from the suburbs.

SANITARY WORK IN GLASGOW.

AT a recent social gathering of those connected with the sanitary department of the city of Glasgow, Dr. Russell gave an address, which possesses considerable interest at the present time, as not only

does it furnish us with some idea of the vast amount of labour involved in the sanitary care of a large city, but it gives us the views of a medical officer of health of no small experience on matters which are now attracting public attention. In full sympathy with the movement that is anxious to improve the dwellings of our city poor, Dr. Russell speaks a word of warning as to how improvement is to be carried out. He would deprecate any sudden and sweeping legislation, and would prefer rather to see existing regulations put in force with greater stringency, especially in insisting on the owners of property doing their duties towards their tenants. By these means, coupled with the powers granted under the City Improvement Acts, and a steady attention to details on the part of the sanitary officials in towns, Dr. Russell is of opinion that the material welfare of the labouring classes might be much improved in our large centres of industry.

ABERDEEN ROYAL INFIRMARY.

THE quarterly meeting of the managers took place on December 11th. Amongst other subscriptions intimated were a sum of £56 from the students of the University, and Her Majesty the Queen sent her annual subscription of £25. Dr. Struthers gave notice of motion for next meeting, viz., "That the resident assistants to the physicians and surgeons be in future elected by competitive examination, conducted respectively by the physicians and surgeons of the Infirmary." We hope this motion will be adopted, as it will make these positions to be sought after by a larger number of applicants than at present aspire to them. Many good students, with no local ties and connections, shrink from a canvass of several hundred electors; but this motion of Dr. Struthers will put all applicants on the same footing, and the Infirmary will get, by competition, the very best men to fill these important and highly valuable posts.

GLASGOW CHARITY ORGANISATION SOCIETY.

DURING the last ten years Glasgow has been working, by means of the above society, in the direction of preventing as far as possible imposture and fraud on the part of applicants for charitable relief. This is done by investigating thoroughly the cases brought under notice, and furnishing a report upon them. At the annual meeting held on the 13th instant, interesting statements were made as to the society's work during the last twelve months. Of the various applications for assistance submitted to it for inquiry, it was found that 1,116 were undeserving (and of this class 215 had given false addresses), 434 did not require relief or were withdrawn, 89 were ineligible, and 272 were referred to the parochial authorities. When it is remembered that these figures are out of a total of about 3,500 applicants, the necessity for such investigation as this society undertakes is apparent, and it is seen what a powerful agent it is in repressing mendicity. But this is not the only work of the association. It aims in other ways at improving the condition of the deserving poor; by forwarding them to the proper quarter for relief, by bringing existing charities into co-operation with one another and with the poor-law authorities, and by obtaining employment for those out of work. In this way the society is annually doing a vast amount of good work in Glasgow, and has already earned for itself the reputation of being one of the most useful of the local institutions. If its efforts in the direction of registration of the applicants for charitable assistance prove successful, and if it can inaugurate a scheme, such as now exists in Liverpool, for the collection of charitable subscriptions through a central office, it will still further entitle itself to the support and confidence of the public, and be a still more powerful agent in diminishing that indiscriminate charity which is such a fruitful source of mischief.

THOMSON LECTURES ON NATURAL SCIENCE.

DR. CARRUTHERS delivered the second half of the present course at the Free Church College during the week ending December 15th. Referring to the fossil-history of the *Coniferæ* as a group, from the very beginning they have played a most important part in the vegetation of the globe, and they are amongst the oldest recognisable elements in old palæozoic flora. The *Cycadaceæ* have not as yet been found in the primary rocks, although they are abundant in the secondary strata. Amongst monocotyledons, the first distinct evidence we possess of their existence does not occur until the oolite; while the first undoubted evidence of dicotyledons occurs in the upper cretaceous rocks, where they represented the types of dicotyledons that exist at present. In the closing lectures, Dr. Carruthers referred to the theories of Lamarck and Darwin, and the gist of his remarks tended to show that the evolution-hypothesis was not supported by the facts of fossil-botany. He admitted that there had been "development" and progress from lower to higher types, as we pass from the lower palæozoic strata up to the present formations, but not genetic evolution; in fact, according to Dr. Carruthers, the whole evidence of fossil-plants is opposed to the hypothesis of genetic evolution, and especially the sudden and simultaneous appearance of the most highly organised plants at particular stages in the past history of the globe, and the entire absence amongst fossil-plants of any forms intermediate between existing classes or families. The earliest forms of cellular plants, cryptogams, gymnosperons, mono- and dicotyledons, were not generalised forms, but as highly organised as recent forms. As yet, the rocks have disclosed nothing as to how the forms of extinct life which they contain originated.

IRELAND.

DR. J. WATT, resident medical officer of the Belfast Workhouse, having accepted an appointment in South Africa, has resigned, and has been succeeded by Dr. Malcomson.

HER Excellency the Countess Spencer visited the National Orthopædic and Children's Hospital in Dublin last Saturday, and expressed her satisfaction with its arrangements and management.

COOMBE LYING-IN HOSPITAL.

DR. SAMUEL R. MASON has been elected master of this hospital, under the provisions of its Charter, for the ensuing seven years, *vice* Dr. G. H. Kidd, whose period of office has expired. Dr. Mason is Lecturer on Midwifery and Diseases of Women in the Ledwich School of Medicine.

CARLOW UNION.

AT a meeting of the guardians held on the 13th instant, a resolution was adopted amalgamating the office of medical officer of the Fever Hospital and Dispensary, and reducing the salary for the two appointments to £150 *per annum*.

CORK SOUTH CHARITABLE INFIRMARY.

A SPECIAL meeting of the trustees was held recently for the purpose of electing a house-surgeon, when Dr. Adams was unanimously elected from four candidates. A point arose as to whether the rules required that the person selected should be qualified as an apothecary, and was decided in the affirmative. Of the four candidates, Dr. Adams was the only one who possessed a qualification of the required kind.

COST OF MEDICINES IN THE CORK WORKHOUSE.

AT a meeting of the Cork Board of Guardians last week, the following resolution was unanimously adopted:—"That, having before us the explanation of the medical officers relative to the enormously increased cost of medicines used in the workhouse within the last three years, wherein they attribute the increase to the late marked

improvement in the administration of the infirmaries, whereby a superior class of patients seek admission and obtain treatment of a kind different from that afforded to ordinary pauper-patients, we deem the explanation neither explicit nor satisfactory; and we request the medical officers to inform us: (1) Whether the alleged marked improvement in the hospital occurred simultaneously with the appointment, three years ago, of the present apothecary, Dr. Magner, as we observe, from the return laid before us, that it is within that period the increase took place; the average annual cost of medicines for the previous eight years being £584, and for the past three years £820; and the cost for the last year, to March 25th, 1880, of Dr. Magner's predecessor, being £600; while for last year, ending March 25th, it is £984; the average daily number in the hospitals having fallen from 1,169 in 1880 to 1,088 in 1883, and the same prescribing physicians and staff of nurses being in office during both periods. (2) Whether the medical officers have within the past three years adopted for their patients a specifically different mode of treatment by medical prescription, involving the administering of a higher and more expensive class of medicine. (3) Whether the patients above the class of paupers, said to have recently sought treatment in the workhouse-hospitals, brought a more complex class of ailments, requiring a higher order of treatment than that of ordinary paupers; seeing that no epidemic of small-pox, cholera, or other highly contagious disease, occurred within the past three years, as there did previously. (4) Whether the medical officers, upon whom Dr. Magner casts the responsibility of the increased expenditure, have at any time required medicines not contained in the printed requisition-list of the Local Government Board, to which they are ordinarily bound to confine themselves; and, if so, have they made a special request to the guardians for same, explaining the grounds of their demand, as required by the regulations? (5) And as the workhouse, with its hospitals, are by law intended solely for the reception of the destitute poor, the master be directed to lay a statement before the board of the number of patients above the class of paupers admitted during the past three years, and the sums paid by this class in each year for hospital-treatment, since they are required by law to pay if they are admitted otherwise than as ordinary paupers of the destitute poor class."

THE BOWER AND KEATES CASE.

AT a meeting of the committee held on Wednesday evening, December 19th, Sir William Jenner, Bart., in the chair. It was agreed:

1. That a copy of the appeal should be sent to every member of the profession in the United Kingdom whose name appears in Messrs. Churchill's *Directory*.

2. That the honorary secretaries be requested to communicate with the honorary secretaries of the various Branches of the British Medical Association, with a view to obtain their valuable co-operation in this matter.

The following subscriptions have been received or promised, in addition to those already announced:—Sir W. Gull, Bart., £10 10s.; Mr. John Marshall, F.R.S., £10 10s.; Mr. Jonathan Hutchinson, F.R.S., £10 10s.; Dr. Russell Reynolds, F.R.S., £10 10s.; Dr. C. T. Williams, £5 5s.: Mr. J. W. Hulke, £5 5s.; Messrs. Merriman, Kensington, £5 5s.; Mr. W. Pitt Palmer, £5 5s.; Dr. R. Barnes, £5 5s.; Dr. Gervis, £5 5s.; Dr. Kershaw (Surbiton), £5 5s.; Mr. T. J. Jackson (Highbury), £5 5s.; Dr. Matthews Duncan, £3 3s.; Dr. Gibbings (Dalston), £3 3s.; Mr. Lumsden Propert, £2 2s.; Mr. James Adams, £2 2s.; Dr. Philpot (South Eaton Place), £1 1s.; Mr. Spencer Watson, £1 1s.; Dr. Heywood (East Dulwich), £1 1s.; Mr. C. Ballance, £1 1s.; Dr. Corbett Blades (Kennington), £1 1s.; Mr. Lawrence Read (South Kensington), £1 1s.; Dr. H. G. Swan, £1 1s.; Dr. Garskill, £1 1s.; Dr. Stanley Haynes (Malvern), £1 1s.; Dr. R. W. Burnet, £1 1s.; Mr. C. Ballance, £1 1s.; Messrs. Wakley, £25; Dr. R. Neale, £5 5s.; Mr. Lennox Browne, £2 2s.; Mr. Francis Mason, £1 1s.; Mr. J. W. Barnes, £1 1s.

HYDRASTIS IN GONORRHŒA.—Dr. A. W. Bixbey reports (*Southern Clinic*) several cases of gonorrhœa treated chiefly by hydrastis. One of the injections suggested is: ℞. Hydrastiæ sulphatis, gr. x.; glycerinæ, ℥i.; aquæ destillatæ, ℥iij. M. Used by injection every three hours.

MORE CHOLERA IN EGYPT.

(FROM OUR CORRESPONDENT IN ALEXANDRIA.)

CHOLERA still keeps its hold in Alexandria. Scarcely a day passes without one death, sometimes two deaths from it being officially reported. The milder cases have now the form of diarrhœa, and if fatal are often, no doubt, returned as gastro-enteritis. Recoveries are not officially reported, so the number of attacks is not known.

THE Board of Health of Cairo officially notified, on December 12th, that cholera had reappeared in Upper Egypt—chiefly in the province of Assiout. The notification stated that the barber of one village had officially reported fourteen deaths in three days, while the doctor of another district had notified three deaths.

THE health of the return pilgrims undergoing quarantine at Isbel Tor is reported satisfactory, only a few cases of cholera having occurred amongst them.

FROM information received up to the present it would appear that cholera made its first appearance this year amongst the pilgrims when collected in the Valley of Muna the night before the feast of Courham Bairam; precisely what happened in 1881, when the valley was crowded by thousands of pilgrims and poisoned by *débris* of thousands of slaughtered sheep.

CHOLERA seems to be slowly making itself felt higher and higher up the banks of the Nile, and has now been heard of half way to the first cataract. While the disease was epidemic in Cairo, it was stated that cholera seldom occurred in Upper Egypt, and it was confidently prophesied that it would extend no further. But it has now broken out in Siout, and in the adjacent villages. It remains, then, to be shown, by an immediate scientific investigation, whether the outbreak is a local one, isolated, and dependent upon local conditions only, or an epidemic manifestation of the disease that was thought to have been stamped out. A trustworthy account of the beginning and end of a single local outbreak of cholera, of its apparent origin and mode of diffusion, would be of considerable scientific value; and it is to be hoped that the English Government will institute an impartial inquiry. With respect to the recurrence of cholera in Alexandria since the 18th October, the eminent sanitarian, M. Fauvel, has recently expressed his belief, in the Académie des Sciences, that the epidemic had subsided before that date, and that the new outbreak was altogether a local one, produced by circumstances altogether local and individual. A like argument was employed by many to explain the original outbreak at Damietta. But this explanation was rejected by M. Fauvel, and he now states that, when a certain report by Dr. Mahé is published *in extenso*, it will be found that Damietta is not an insalubrious town, and was at least in its ordinary condition of health until June 21st, when the Indian merchants invaded its fair. Although M. Fauvel does not agree with those who maintain that the epidemic is not yet over, but is only sleeping through the winter, he will not admit, with Surgeon-General Hunter, that cholera is endemic in Egypt. For him, cholera never was, nor can be, endemic out of India and Indian ships. Yet, in some inexplicable way, he holds the late Alexandrian outbreak to be local and sterile. He says it did not spread, because the Egyptian population has now acquired temporary immunity from cholera. This he calls a verity, at present little known, but which he will shortly demonstrate. Observation has not yet shown that an individual who has had cholera is safe from a future attack. On the contrary, we have heard of persons having undergone two attacks of the disease.

It is doubtful, however, whether the comparative freedom of Alexandria from cholera can be explained by such a supposition. If the population had suffered severely during the epidemic, acquired immunity might have been the cause of the sterility of the second outbreak. But, in fact, the Alexandrians were almost exempt from the epidemic; and it is possible that their comparative immunity in both cases was rather due to the sanitary efforts of the European inhabitants, and perhaps, in part, to the conflagration at the beginning of the war, than to the cause assigned by M. Fauvel. It is even doubtful whether the docrine of acquired immunity fully accounts for the fact that, although the second outbreak in Alexandria was, like the first, true cholera, free intercommunication between the city and other parts of Egypt was permitted, and yet there was no spread of the disease. Under the old *régime* the cordon, with its attendant miseries, would have been invoked, and acquired immunity have been ignored.

Cholera being endemic in India, it might be thought the pilgrims would have acquired immunity in the same manner as the Egyptians. But, in his discussion of the cause of the annual reappearance of cholera at Mecca in October, when the pilgrims assemble for the ceremonies of Courban-baïram, M. Fauvel declines to admit the application of the law. The Arabian inhabitants of Mecca enjoy this immunity, but not the visitors. And although it has been recognised even in Constantinople that the Indian pilgrims have been free from the disease, yet to them is its introduction unhesitatingly ascribed. In Mecca it has been the Nubian and not the Indian pilgrims who have suffered, yet M. Fauvel denies that the Takrouris can have brought it. It was said that caravan-parties from Egypt might have carried it overland, but M. Fauvel quotes official information to show that cholera soon dies out in the desert. No doubt it does, but not so soon, nor so surely, as in a well-appointed ship. That cholera may be endemic in Mecca has yet to be proved. It is a hypothesis which has much in its favour, but information on this point is difficult to attain. The absence of the disease among Indian pilgrims during the past autumn goes a long way to disprove the allegation that it is brought to Mecca only by them.

THE ROGERS TESTIMONIAL.

THE following additional subscriptions to the fund for a testimonial to Dr. Joseph Rogers have been received. It should be understood that the subscription to this fund is not confined to Poor-law medical officers. The Treasurer is Mr. J. Wickham Barnes, 3, Bolt Court, Fleet Street, E.C.; and subscriptions are received by the Editor of the BRITISH MEDICAL JOURNAL.

Eighth List.—Dr. Farquharson, M.P., Aboyne, £1 1s.; Well Wisher, Camberwell, £1 1s.; James Somers, Esq., Broadclyst, Devon, £1 1s.; C. D. Waite, Esq., M.B., Old Burlington Street, £1 1s.; John Storr, Esq., King Street, Covent Garden, £1 1s.; H. Taylor, Esq., F.R.C.S., Guildford, £1 1s.; Messrs. Haynes, Evesham, £1 1s.; H. G. Sadler, Esq., Canterbury, £1 1s.; Dr. Bain, Blackwall, 10s. 6d.; J. W. Hayward, Esq., Whitstable, 10s. 6d.; R. Jeffreys, Esq., Chesterfield, 10s. 6d.; W. D. James, Esq., Sheffield, 10s. 6d.; John Ward, Esq., Tarrington, 10s.; T. J. Erwin, Esq., Openshaw, 5s.; H. A. Lawton, Esq., Poole, 5s.; R. Hickman, Esq., Newbury, 5s.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., December 27th, 1883, March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of Exeter Hall, Strand, London, on Wednesday, the 16th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, December 22nd, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
V. Syphilis, acquired.
Va. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed. Cards will be received until further notice.*

NOTICE.—The *Life-History Album* prepared by the Collective Investigation Committee is now ready, and can be ordered of all booksellers, price 3s. 6d.

Applications should be addressed to

The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETING TO BE HELD.

NORTH OF IRELAND BRANCH.—A meeting of this Branch will be held in the Bar Room of the County Court-house, Omagh, on Thursday, January 24th, at 1 P.M.—ALEXANDER DEMPSEY, M.D., Honorary Secretary, 26, Clifton Street, Belfast.

METROPOLITAN COUNTIES BRANCH: HERTFORDSHIRE DISTRICT.

THE second meeting of this district was held at the Town Hall, St. Alban's, in the evening of December 12th. Dr. C. J. HARE, President of the Branch, occupied the chair.

New Members.—Dr. M. Balding, Mr. F. R. Webster, and Mr. G. Mowat, all of St. Alban's, were elected members of the Branch.

Address.—An opening address was given by Dr. Hare.

Papers.—1. Mr. A. E. Durham of Guy's Hospital read a paper on a case of Traumatic Stricture of the Urethra, complicated with calculi in the prostate, and tape-worm in the urethra.

2. Dr. Brett (Watford) followed with a paper on Some Cases of Ovariotomy.

3. Mr. R. R. Lloyd read a paper for himself and Dr. Blake, on a case of Phimosis with Retention of Eleven Calculi in the Preputial Cavity.

Next Meeting.—It was arranged that the next meeting should be held at Hertford.

After votes of thanks had been passed to the readers of papers, and to the Chairman, the meeting separated.

CORRESPONDENCE.

PROSECUTIONS OF MEDICAL MEN.

SIR,—Your gentle intimation, in reference to the case of Bower and Keates, as to the value in such a matter of an appeal to the Council of the British Medical Association, coupled with the absence in the report published of any of the names of the leading officers of the Metropolitan Counties Branch, or any other branch, appears to indicate that the promoters of this movement, while appealing to the two colleges for the initiation of a movement for the defence of professional interests in cases of vexatious prosecution, had not thought it well to make any such appeal to the Executive Council, or to any Branches of the British Medical Association as such. That Association has on many occasions shown itself very active and highly influential in the defence of professional interests, notably when the experimental physiologists were attacked, and when the officers of the army, navy, or poor-law have needed professional support in defence of their just rights and interests. What may be the reason for not consulting the officers of the Association, or taking advantage of its organisation in this case—if reason there were—whether the omission has been purely accidental and is likely to be repaired, I cannot even guess, and have no materials for forming a judgment. I trust however, that where public interests of this kind are involved that nothing may interfere to prevent united action with all the force which the profession can command, and it seems obvious that, among the most powerful organisations for such a purpose is the British Medical Association, with its Central Council, its ten thousand members, and its highly organised Branches in all parts of the kingdom. I hope that no scruple of dignity on either side may prevent some step from being taken to bring about such a result; and if no communication have yet been received by the Executive Council from the organiser of the meeting, which you report as having taken place recently at Sir William Jenner's, I would venture to suggest that that question may well be raised independently in the Executive Council, and that the propriety of taking some steps within the Association, to afford assistance in cases such as that of Bower and Keates may be considered.

It is, of course, clear that great care would have to be taken to

prevent the abuse, either of the general funds of the Association, or of any special fund which might be raised for the purpose; and to avoid incurring the very considerable and unnecessary expenses which might easily be involved, were individuals feeling themselves aggrieved at liberty to employ any general fund for the purpose, either of offence or of defence, excepting where the case was plainly one of considerable hardship and palpable injustice. No doubt, however, some machinery might be devised for a preliminary inquiry, by the law-officers of the Association; and at any rate the whole subject is one which might, I think, profitably engage our attention.—I am, sir, your obedient servant,

AN OLD MEMBER OF THE ASSOCIATION.

*** Our correspondent will see, on reference to page 1258, that the Committee have decided to appeal for assistance to the Branches of the British Medical Association.

THE LATE MR. HAFFENDEN.

SIR,—With regard to the unfortunate death of the late Mr. Haffenden, there seems to be an impression, in some quarters, that I was somewhat hasty in communicating with the police; and I feel, therefore, that, in justice to myself, I ought to seek an opportunity of undeceiving the public on this point. Hitherto, beyond my statement to the Treasury, I have been compelled to remain silent on this material part of the case; but now my mouth is no longer sealed, and it is right that I should speak. Attention to the facts I briefly state here will show that I repeatedly sought Mr. Haffenden for an explanation, and that he had ample time and opportunity for giving one.

I was called to the case at one o'clock on Thursday morning, the 2nd August last. It would not become me now to enter into the particulars of my visit to the patient; suffice it to say that I waited during Thursday and Friday morning, expecting the patient's medical man (completely a stranger to me, even by name) would call upon me; and then, on Friday afternoon, as he did not come to me, I went to the police-station, and, for my own protection, gave certain information; but I gave that information (as can be ascertained) with the express condition that, before any action whatever was taken by the police, I should be allowed to seek an explanation of the affair, and, if I deemed the explanation satisfactory, that the police should not move in the matter at all. It was further arranged that I should have till seven o'clock on Saturday evening to pursue my inquiries. I then proceeded to seek an explanation from Mr. Haffenden, whose name had been given to me as the medical man concerned in the case. He was out when I reached his house, and I drove over the next morning, when he was again out. I left a note for him, and received a reply the same morning, saying that he would come and see me. As he did not come, I sent a telegram, to which he replied. I sent another telegram, and finally he came about seven o'clock in the evening. The details of my interview were communicated to the Treasury; here I will only state the result, which was, that Mr. Haffenden denied that he knew anything of the case. I told him that I was bound to accept his denial, but that I should certainly fulfil my duty and find out who did know about the case. He then left, and I found Inspector Jones waiting in my surgery. I communicated to him the result of my interview with Mr. Haffenden, and left the case in his hands for investigation. The deplorable occurrences which followed are sufficiently well known.

I am anxious only that it should be made clear that there was ample opportunity for explanation; and this, from the proprieties of the case, I have been unable to state publicly before.—I am, sir, your obedient servant,

STEPHEN NOCKOLDS.

THE following letter from the late Mr. Haffenden's solicitors appears in the papers of Thursday, in reply to the above communication published also in their columns.

SIR,—We are sorry to observe a letter in your issue of to-day from Mr. Stephen Nockolds relative to this melancholy case. We should have thought, after the verdict of the jury on Friday last, which completely vindicated the reputation of our late client, good taste would have prevented your correspondent from now addressing the public, and thus causing additional pain to the many relatives and friends of the deceased who mourn his loss. As, however, Mr. Nockolds has seen fit to do otherwise, we cannot allow his statements to pass unchallenged. We agree with him on one point—viz., in thinking that there is an impression abroad that he was hasty in communicating with the police; but here our agreement with that gentleman as to facts terminates. On the day after the charge was made, we took down, from Mr. Haffenden's own lips, his account of his correspondence and interview with Mr. Nockolds, and this differs materially from that of your correspondent. Mr. Haffenden said, "I wrote and thanked Dr. Nockolds for attending Mrs. Hardie, and said that she would pay his fee. Dr. Nockolds called on me twice, but I was out, and he left word that he particularly wished to see me, and I wrote to say that I would call on him on the Sunday, August 5th. He telegraphed back that he must see me at once, and therefore I called and saw him alone on the Saturday, August 4th." Mr. Nockolds, when writing "in justice to himself," has omitted to say that Mr. Haffenden wrote and thanked him for his attention to Mrs. Hardie, or that Mr. Haffenden appointed definitely to see him on the Sunday, and went on the Saturday, in consequence of the receipt of a telegram. To continue our client's words, "At the interview Mr. Nockolds told me that he had been called in to the patient, and found her dangerously ill, and asked me if I had used instruments to procure abortion. I said 'No; but simply to make an examination, as I thought she was suffering from tumour.' He said the case must be put into the hands of the police, and that if he did not do so, the woman (Mrs. Clarke) would. I said he must do as he thought proper, as I had done nothing but what was strictly professional. Then Mr. Nockolds and I shook hands, and I left." Mr. Nockolds now says that Mr. Haffenden denied that he knew anything of the case. We confidently leave the public to judge as to the probability of a man of Mr. Haffenden's standing making such a denial after he had openly attended Mrs. Hardie, going to her house in his carriage in the usual professional manner, and after having so recently written to Mr. Nockolds himself with reference to the very matter. The public will also, we think, be able to appreciate your correspondent's conduct, who admits that he went to the police before seeing Mr. Haffenden, and gave them certain information which was not to be used unless he (Mr. Nockolds) considered the explanation of Mr. Haffenden unsatisfactory, and thus constituted himself an arbiter as to the propriety of the treatment and conduct of a brother professional man of much longer standing than himself. We may add that, at the trial of Mrs. Hardie, the learned counsel for the crown, Mr. Poland, in his opening address, directly put in issue the question of the guilt or innocence of our client, stating that if the prisoner were guilty then the doctor was ten times more guilty. Having heard the evidence of Dr. Barnes, admittedly one of the highest authorities on obstetrics in the country, who was the only witness for the defence, the jury, after deliberating about three minutes, acquitted the prisoner, and thus effectually cleared the memory of Mr. Haffenden from all stigma.—We are, sir, your obedient servants,

THE SOLICITORS FOR THE LATE MR. HAFFENDEN.

December 19th, 1883.

MEDIASTINAL EMPHYSEMA AFTER TRACHEOTOMY.

SIR,—Your reporter has partly mistaken the drift of my remarks in the discussion on Dr. Champneys' paper at the Royal Medical and Chirurgical Society. I did not say that "the resisting force of the elasticity of the lung was lost after death." On the contrary, in some experiments related to the Society in 1876 ("On Some Effects of Lung-Elasticity in Health and Disease," *Transactions*, vol. lix), I demonstrated the persistence of this elastic resistance, even in the position of expiration, after death as during life. My remark was to the effect that, in the collapsed lungs of the still-born unbreathed subjects of Dr. Champneys' experiments, aspiration towards the chest-cavity, from lung-traction, had not as yet been developed. In reasoning upon the subject, one has to bear in mind two factors favourable to the occurrence of mediastinal emphysema, viz., (1) the above alluded to ever-present aspiration of air towards the chest-cavity, not dependent upon (though influenced by) respiratory movements; (2) the great increase of this aspiration during forcible efforts, be they dyspnœic or artificial, to expand the thorax. In the recession of soft parts during obstructive dyspnœa, one witnesses the effect of this strong air-suction towards the chest. Satisfy this by opening up the deep fascia which closes the chest-box, and, even if the obstruction in the trachea be afterwards removed, the lungs will no longer follow the chest-movements, or will gradually cease to do so.—I am, yours faithfully,

R. DOUGLAS POWELL.

62, Wimpole Street, December 15th, 1883.

THE CASE OF DR. JOSEPH ROGERS AND THE WESTMINSTER GUARDIANS.

SIR,—I learn that the Local Government Board has written to the Westminster Board of Guardians and to Dr. Rogers, removing that gentleman's suspension. I further learn that the tone of the

letter to Dr. Rogers is as offensive as it could well be, doubtless arising from the irritation existing at head-quarters at the marked feeling excited among the public and the profession in favour of Dr. Rogers, and the condemnation of the department for retaining in their service the master, J. D. Bliss, after the charges which had been proved against him.

I trust that the profession will see in this animus of the Department against Dr. Rogers increased reasons for supporting him; and that Sir Charles Dilke will be taught that we can be united in resisting injustice perpetrated against any of our brethren.—I am, sir, yours faithfully, FRANCIS WHITWELL.

Shrewsbury, December 17th, 1883.

NASAL OR FALSETTO.

SIR,—I am sorry to have taken so much of your space with a matter about which I was in error.

The misapprehension arose in this way. The example which Mr. Behnke gave of a falsetto tone struck me at the time (and I have not since altered my opinion) as not having the character of a true falsetto. Later, Mr. Brown spoke of the relaxed condition of the soft palate in singing "nasal or falsetto notes"—doubtless intending thereby to refer to either nasal or falsetto—but which I apprehended as synonymous for one and the same condition. When his paper was published, with cuts, etc., referring to the "nasal"—a distorted method of producing the voice, which has hitherto not been considered of sufficient importance to merit exact description—I fell into the error of thinking he must refer to the falsetto, a subject about which so many different theories have been advanced. Apologising for the trouble I have given, I remain, etc.,

Bournemouth. G. S. MAHOMED.

MYXŒDEMA AFTER REMOVAL OF THE THYROID GLAND.

SIR,—With your permission, I venture to offer a few remarks on the discussion that took place at the Clinical Society, respecting the relations between extirpation of the thyroid gland and myxœdema.

It seems to me that the supervention of myxœdema, after the operation for total extirpation, results rather from lesions to the sympathetic nerves, with which the gland is freely supplied, than from injury to, or absence of, the gland itself.

I believe that, in the operation for extirpation, the sympathetic nerves and the large ganglion-cells in connection with them are wounded, and that, possibly, these cells have to do with the nutrition of the cervical sympathetic ganglia, which hence become atrophic, just as the ganglia in the posterior roots of the spinal nerves perform a similar office. I think this supposition is borne out by the following facts: first, though complete atrophy of the gland follows division of the isthmus, myxœdema does not; and, secondly, neither does myxœdema follow extirpation of one-half of the gland, because nutrition of the cervical sympathetic ganglia is still carried on by the nerves and ganglion-cells of the opposite side. The presence of colloid and mucoid material in cystic and soft bronchocele is by no means uncommon. If the thyroid be employed in the elaboration of the higher products of the blood in a hypertrophied condition of the gland, one would rather expect to find a multiplication of the more highly organised elements; or if, on the other hand, one adopts the "hypertrophic perversion of function theory," then we have opposite hypotheses with the same result, that both the hypertrophy, equally with the entire absence of the gland, favour the formation of the mucoid and colloid material.—Your obedient servant, GEORGE STOKER, M.K.Q.C.P.

8, Cadogan Terrace, Sloane Street, S.W., December 17th.

BRITISH MEDICAL BENEVOLENT FUND.

SIR,—You have allowed me, on many previous occasions, to plead the cause of the British Medical Benevolent Fund in your columns; and the need was never more pressing than at the present moment. It is not that the liberality of the profession is failing us, but that the claims upon the charity increase as it becomes more widely known. The committee has held its last sitting for the year to-day, and has voted away the last farthing of the donation department, except a poor reserve of £150 on deposit. The amount distributed in grants during 1883 has exceeded £2,200, which is a large sum to be raised by voluntary unpaid agency. Little, if any, has reached undeserving objects, and scarcely a single case has received adequate relief.

Permit me to give a few extracts from to-day's proceedings.

Two sisters, aged 55 and 53, are struggling to maintain their brother, a medical man, who is half insane. They are voted £18, to be distributed in instalments of 30s. a month.

A medical man, with eleven children, partially disabled by disease of the tarsus, receives a similar amount.

Four pounds a month for six months have been voted to stave off an execution under a bill of sale upon the household furniture of an aged medical man, whose son is on the point of qualifying, and will then come to his rescue, and take up the family practice.

Twenty pounds have been voted immediately, on the simple recommendation of a zealous honorary local secretary, to an old subscriber ruined by the failure of some concern in which he had placed all his savings. Timely assistance will set him on his feet again.

Finally, let the following letter from a poor widow, aged 50, speak for itself. The writer is well known to several members of the committee as a simple-minded respectable woman, who would be called a lady, but for protracted grinding poverty.

"I am again obliged to ask you for your assistance. My work was over some weeks back; but since then, through ———'s (a member of the committee) kindness, I have been receiving 5s. per week. If I had not had that, I think I should have been dead, for I should not have been able to pay my rent; but, directly the money has come, I have paid 3s. 6d. for the rent, and with the 1s. 6d. I get some tea and sugar, and other little things. As for a dinner, I never think of such a thing; but I feel myself getting very weak and ill, and have got so very thin that people hardly know me. I do so often wish for something nice to eat, and I saw some little fowls at 2s. each. I should so like one at Christmas. If you gentlemen will give me my usual grant, I will try and get one. I have enclosed the last week's work out of my book. I made thirty-nine ulsters, nearly all at 2¾d., with the machine, twice hemmed, inside and out. I work from 9 in the morning till 8 at night."

The poor woman will, of course, have the coveted fowl, and, we hope other good things, for Christmas; and, if she reach the age of sixty, and thus become eligible for an annuity, she will probably soon be elected, and be made happy with £20 a year for the rest of her life.

The profession has, through this Fund, done much for the unfortunate among its members, and will, we trust, continue to aid the distressed in an increasing measure.

Contributions may be sent to Dr. Jonson, 16, South Eaton Place, Chairman of Committee; George Field, Esq., 31, Lower Seymour Street, Honorary Financial Secretary; E. East, Esq., 18, Clifton Gardens, Honorary Secretary for Cases; to any member of the committee; or to your obedient servant,

W. H. BROADBENT, Treasurer.

34, Seymour Street, December 18th, 1883.

VON GRÄFE'S OPINION OF SIR WILLIAM BOWMAN.

SIR,—In your article on the "New Baronets" in the current number of the JOURNAL, you remark that "the name of Bowman stands side by side in the annals of ophthalmology with that of von Gräfe," and this is exactly what Gräfe himself thought. A few years ago while attending his practice at Berlin, he observed to me that he could not understand why so many Englishmen attended his classes, as we had at home, in Mr. Bowman, the first ophthalmologist of the day.—Your obedient servant, C. ROBERTS.

Bolton Row, December 18th.

ON THE RELATION BETWEEN OSTEITIS DEFORMANS AND SCLEROSIS OF BONE.

SIR,—I shall be much obliged if you can find space for a few words in elaboration of some remarks of mine at the last meeting of the Pathological Society on a specimen, exhibited by Dr. Charlwood Turner, of a case of necrosis, with thickening of bone. The specimen is described in the report of the proceedings of the Society, so I will only here draw attention to two points: first, the tibia, which was the bone affected, was distinctly curved and lengthened; secondly, the thickening was not limited to the upper end where the sequestrum was, but extended over the whole length of the shaft to a less extent. In speaking of this case, I drew attention to the points of resemblance that this specimen offered with a femur containing a sequestrum and affected with osteitis deformans, which I exhibited at the same Society a year ago, an account of which is in the last volume of the Society's *Transactions*. In the discussion that followed, a very decided opinion was expressed that cases of sclerosis, with the presence of a sequestrum, must be clearly separated from those of osteitis deformans; and it is on this point that

I differ from the speakers; for I submit that the specimen of the femur already alluded to establishes the fact that necrosis may be present in osteitis deformans, and this I say on the grounds that, when I showed the specimen, no doubt whatever was expressed as to the real nature of the disease as described in my paper; and, further, that the femur was spoken of, by no less an authority than Sir James Paget, in his Bradshaw Lecture, as "a typical specimen of osteitis deformans" affecting a single bone. In discussing the case with him, he expressed his opinion that there could be no doubt whatever as to the nature of the disease, and regarded the presence of the sequestrum as additional evidence in favour of its inflammatory nature.

Now, there are only two known causes of curvature and increased length of bones, with sclerosis: first, inflammation at or about the epiphyses, occurring always in growing bones; and, secondly, osteitis deformans, which has hitherto been noticed solely in connection with adult bones.

In the specimen shown by Dr. Turner, I do not think that the necrosis was the cause of the sclerosis, for the latter had extended as far as the lower tibio-fibular articulation, the sequestrum being in the upper third of the tibia. It is, however, quite possible that the necrosis was only a part of a general inflammation, which owed its origin to some unknown cause; and, in either case, according to our present knowledge, the disease and curvature must have occurred more than forty years back (the patient being aged 67 years), that is, at a time when the bone was still growing. From the appearance of the bone, and in the absence of all history, either of these explanations may be correct.

But, on the other hand, seeing that necrosis may be present in cases of osteitis deformans, it seemed to me that, although the present specimen was evidently not itself a typical example of that disease, nevertheless it might form a most important link in the chain of pathology of chronic inflammation of bone. For, if this should prove to be a case in which the curvature was noticed late in life, then we have here an example of lengthening and curvature of a bone in an adult, caused by a disease similar to, though not identical with, osteitis deformans, a condition hitherto undescribed, and uniting this latter disease, on the one hand, with cases of simple sclerosis, without bending and lengthening, on the other. Which of these views of Dr. Turner's specimen is correct, a history of the patient alone can decide, and for the present this cannot be obtained. In conclusion, I may remark that one-half of the femur to which I have alluded is in the museum of St. Bartholomew's Hospital, the other half in that of the Royal College of Surgeons.—I remain, sir, yours truly, ANTHONY A. BOWLBY.

St. Bartholomew's Hospital.

SPECIAL CORRESPONDENCE.

MANCHESTER.

Wigan Hospital Fund.—Open Spaces.

THE returns this year show that the net proceeds from the last Hospital Saturday and Sunday collection amount to £564 13s. 3d.; from the Children's Hospital Sunday, £45 10s. 9d., and from weekly contributions and subscriptions £2,960 10s. 10d., an increase of £1,263 3s. 9d. over the previous year. The balance was handed over to the Wigan Infirmary.

In spite of the cool reception given to the recent deputation on open spaces by some of the Aldermen who supported the Mayor, the subject is not allowed to drop; for another deputation will shortly wait on the authorities of the sister borough of Salford, who have recently awakened to the sense of their responsibility. A member of that Town Council, in a recent address, stated that in Salford they had converted "all odd scraps and corners of land" into places of recreation, and he severely criticised the action of the Duchy of Lancaster, which has claimed for itself every piece of vacant unfenced land in the borough, and thus prevented their use and appropriation by the people. The chief rents of Salford are owned by about four large land-owners, one of whom receives at least £40,000 a year in ground rents; and yet we are assured that these lords of the soil do not contribute one farthing towards the help of the poor, in aid of education, sanitary improvement, street-lighting, or the police. Such facts as these, and the timely inquiry into sanitary improvements accomplished in the adjoining boroughs during the last five years, which is being conducted at present, must bear fruit in the immediate futur .

INDIAN AND COLONIAL NEWS.

VICTORIA.

Calf-lymph Vaccination.

ACTING upon a very favourable report by Dr. Penfold, of Sandhurst, of his experience as to the use of calf-lymph for vaccination-purposes, the Central Board of Health for Victoria have recommended to the Chief Secretary: 1. That a central office in Melbourne under their direct control should be procured, at which a medical man, who should also have charge of a calf-lymph depôt, should attend daily, and vaccinate, free of charge, from either humanised lymph or calf-lymph, as may be desired; 2. That this medical officer should take means to cultivate, at the depôt, a regular supply of calf-lymph vaccine, for distribution through this office (as at present in the case of humanised lymph), to the general body of public vaccinators and the medical profession throughout Victoria. The services of this medical officer would also be occasionally required to inspect the vaccination throughout the colony when specially ordered by the board; 3. That the present Vaccination Act should be so altered as to require private medical practitioners to produce at least three vesicles, and that deputy registrars shall refuse to register any certificate of vaccination which does not affirm that at least three vesicles with distinct areolas have been produced. Dr. Penfold's report is interesting, but his experience only bears out what is now common knowledge as to the efficacy of calf-lymph. As a rule, he has vaccinated direct from the calf, so that he is unable to speak with certainty as to the keeping powers of calf-lymph. He appears, however, to have sometimes used dried vesicles which have been preserved in glycerine. This is at best a very unsatisfactory source of lymph, and is only permissible in exceptional circumstances, such as do not exist in the case of Dr. Penfold. It would be wise, therefore, at once to abandon the practice.

MEDICO-LEGAL NOTES AND QUERIES.

CHARGE OF ABORTION.

(*Specially Reported.*)

REG. *v.* HAFFENDEN AND HARDIE.—This case was tried on December 14th, 1883, at the Central Criminal Court, before Mr. Justice A. L. Smith. For the prosecution (by the Treasury, moved by the Public Prosecutor), Messrs. Poland and Montague Williams; for the defence, Messrs. Ed. Clarke, Q.C., and Avory.

Mr. POLAND, in opening the case, said he was responsible for advising that the late Mr. Haffenden be included in the charge, which was that of procuring abortion in one of the defendants, Mrs. Julia Hardie, a married woman, by means of an instrument or instruments, and the use of drugs, the use of which Mrs. Hardie had got Mr. Haffenden, a surgeon, to undertake, on the instigation of her husband. Mr. Haffenden, between the adjournments of the case when before the magistrate, had taken poison, and died, and the jury had returned an open verdict.

Mrs. CLARKE, wife of a surveyor, said that, on Monday, July 30th, 1883, she spoke to the prisoner in her garden for the first time, though she had known her since March last by sight. The prisoner said she expected a miscarriage. Later in the day, the prisoner said she still felt very poorly. Next day, she saw the prisoner in bed, very poorly indeed. The prisoner said she felt worse, and said: "I've been a very wicked woman; I've been in the habit of taking poisonous stuff every month. I omitted doing so one month, till it was too late; and then I've had to have operations. I've had an operation yesterday. I've had several. My husband doesn't like children, and he asked me to do it." She said that she first felt the child about a fortnight ago. Nothing was said as to who did the operations. On August 1st, the witness saw the prisoner in bed at 8 or 9 P.M. in labour. She had a dose of medicine, which she said had been prescribed for her by Mr. Haffenden that afternoon, when he had seen her. She objected to send for her medical man, as he was too distant. The servant-girl was sent for a medical man, whom the witness named. He refused to come. The witness sent for Mr. Nockolds, saying it was a premature labour and he came. The fœtus came away before he came; and hæmorrhage followed. The doctor left her shortly before. The witness saw the prisoner on August 2nd, at 10 A.M., in bed. She said: "Don't mention it" (the operations) "to anyone. I shall never do it any more." The prisoner said her medical men were Messrs. Haffenden and Parr; and she said that two instruments found in the drawer were those that had been used. [Witness identified similar instruments in a speculum and uterine-sound.] In cross-examination, she was shaken as to her previous ac-

counts as to when she found these instruments. Mr. Haffenden came shortly after 11 A.M. She had seen his carriage often at the prisoner's door since March last. When she told him that they had been obliged to send for another medical man, he said, "Pooh! pooh! it would have been all right when I came." Witness showed him the fœtus. The fœtus was dead, and was buried in the garden. Next day the witness saw Mr. Nockolds in his chemist's shop [he keeps a chemist's shop away from his house], and made a communication to him. [This communication, not being evidence, was not given]. On August 3rd Mr. Haffenden called, and saw the prisoner alone. Later in the day she was distressed, and said that Mr. Nockolds had asked her so many questions, she was sure he suspected something. The prisoner said, "Don't betray me." On August 4th the witness saw the prisoner, who accused her wrongly of having set the detectives on her track. She said the baby had been taken up and burnt [a fact], and that her medical man had taken the instruments away. The witness had previously taken the prescription away accidentally on August 2nd [as the judge remarked, and never returned it, and she had shown it to Mr. Nockolds], and she gave it to the police-inspector on August 4th. She did not see the prisoner again till she was in custody. She never saw the prisoner's husband in her house. When she saw the prisoner on August 4th, she said, "If you say anything to the magistrate, I'll swear against you." Witness said at the police-station that she had seen prisoner only once, on Monday, July 30th. At one time she said her doctor lived at the West End; at another time, at Earl's Court; at another, at Kensington [witness was not satisfactory as to this]. She had corrected her evidence at the police-court as to the date of finding the instruments.

[Mr. Clarke, in his speech, treated this witness as a liar and perjurer, animated by spite, because, after the delivery, the prisoner had, as it was proved, wrongfully accused her of stealing a sheet. The judge, in summing up, virtually told the jury they could not safely rely on some of her evidence, and so it was best to disregard it].

ANN PEPIOTT, the prisoner's servant, said that Mr. Haffenden came, on July 30th, and was taken to the prisoner's bedroom. The prisoner then had her dress on. In a short time, the prisoner asked for water, which the witness took to her at the bedroom-door. The prisoner was in her petticoat. Afterwards, the prisoner told her she had undergone an operation—the last one she would have. The prisoner took two instruments out of a drawer in her bedroom [identified as a speculum and an uterine sound]. Next day, Tuesday, July 31st the prisoner had pains in the lower part of her body, and told the witness she thought the baby would soon come. She was in bed all day, and Mr. Haffenden did not come. On August 1st, Mr. Haffenden came at 11 A.M. Afterwards, the prisoner gave her a prescription [admitted to be a prescription in Mr. Haffenden's handwriting for an ergot mixture]; and sent her to the chemist's, where it was made up. The prisoner at once took a dose; and, later on in the evening, she became very bad, and the witness fetched Mrs. Clarke. The prisoner told her that her husband was cruel, had deserted her six times, and made her take poison, as he did not like children. The witness and Mrs. Clarke buried the baby; but, on August 2nd, after Mrs. Clarke had had a talk with Mr. Haffenden, at the suggestion of the prisoner, she took it up and burnt it. On the night of August 4th, the prisoner said some letters had better be out of the way. She took some out of a drawer, and a powder in paper, tore them up, and the witness burnt them. She told her to throw the medicine away (the ergot mixture), but not to throw it on the dust-heap. Her mother took her away on August 10th, when the prisoner was still in bed. The prisoner asked her to say nothing against her. The prisoner's husband stayed at the house from August 4th to August 10th, sleeping there, but away all day (he is a traveller).

[This was an excellent modest witness; very clear and quiet. No *animus* was visible. No attempt was made to impeach her *bona fides* and veracity, and Mr. Clarke disclaimed any such intention. The judge treated her as a reliable witness.]

Mrs. PEPIOTT, wife of a builder, mother of the last witness, said that the prisoner had told her that she had a tumour in her side and that she had had five or six operations for this. She subsequently told the witness, some days later, that she had had a miscarriage; that her husband was very cruel to her. She had not had her own doctor, as it would not have been nice to send witness's daughter for him. They would have had to come in a cab, and he was a very rude man. (The witness declined to repeat the conversation, but clearly intimated that the prisoner feared that the doctor would have carnal intercourse with the girl in the cab.) The prisoner said she had had five or six operations and several doctors; the tumour felt cold in her stomach; that Mr. Haffenden was not that a fit man to be in a cab with witness's daughter. [No attempt was made to treat this witness as other than a *bonâ fide* one, which she evidently was, and was so treated by the Judge.]

Mr. STEPHEN NOCKOLDS, a surgeon, and L.R.C.P., resides at 117, Goldhawk Road, and keeps also a chemist's shop at No. 148 in the same road. Early on August 2nd, he was called to the prisoner. She was in an excited state, and had just miscarried; and the fœtus was on the bed—apparently a four months' one. The witness examined her several times; divided the cord; and, as the placenta was a little attached, removed it in about twenty minutes; and, as hæmorrhage threatened, he gave a dose of ergot out of his pocket-case. There was no tumour, and no malformation. He could discover no reason for the miscarriage. Seeing a bottle on the dressing-table, he examined it, and asked for, and was shown by Mrs. Clarke, the prescription. It contained ergot, as appeared from the prescription. Mrs. Hardie told him her medical man had written the prescription, and that he lived at Kensington. Witness said, "It is a curious thing that he should have given you this, and left you," and asked her if she was married. She replied "Yes, I have three children." She said, "I asked my doctor to do it because my husband dislikes children." Before witness left, she offered him a fee, which he refused. She said she should not have sent for him had she not thought she was about to die. Witness sent a message through her to her medical man, whose name she did not mention, that he should like to see him the next morning. The etiquette of the profession was that the witness should take no fee, and that the patient's own medical attendant should call and thank him for attending to his patient. A sound would be a suitable instrument to procure a miscarriage, and ergot would assist. The prescription (ergot) was not a proper one to give to a woman four months' pregnant. Mr. Haffenden did not call on witness that day (August 2nd); and on the 3rd he received a note from prisoner, asking him to see her. He saw her in her bedroom. She said, "I saw my doctor this morning, and he said there was no necessity to see you, and that I was to give you a fee." Witness said, "I've had quite enough of this, show me the instruments that were used." He found in a drawer a speculum and uterine sound. He subsequently went and saw Inspector Jones at the police-station. She agreed that witness should see Mr. Haffenden; and he saw him at his house on the evening of August 4th, and had a conversation with him. After this he saw Inspector Jones. [To understand this it is requisite to give the evidence against Mr. Haffenden at the police-court, as it could not be tendered against the prisoner. It was this:—When Mr. Nockolds first attended prisoner, he declined a fee and sent a message to Mr. Haffenden, through her, he not knowing his name. Mr. Haffenden did not call on him that day. In the evening, August 2nd, Mr. Nockolds met Mrs. Clarke, who asked him if he had seen the instruments, and told him it was not a straightforward case. Mr. Nockolds replied, "How dare you speak to me like this. I've no doubt she has been attended by a qualified man." She replied, "Yes." Next day he saw prisoner at her request and demanded Mr. Haffenden's name, which was then given up. Mr. Nockolds then sought the advice of the police. Having obtained it, he went to see Mr. Haffenden, waited three-quarters of an hour, and left his card with the dispenser, saying that he wished to see Mr. Haffenden very particularly, and gave the hours at which he could be seen at home in the evening. Mr. Haffenden did not call, and next evening Mr. Nockolds went again to see Mr. Haffenden, who had just gone out. The same evening he received a note of thanks, dated the previous day (3rd), but with post-mark of the 4th, saying, also, "Mrs. Hardie will be glad to pay you any charge you may make." Mr. Nockolds wired acknowledging the letter, and asking to make an appointment at Mr. Haffenden's house, as he wished to see him particularly. Mr. Haffenden replied by wiring next day. Mr. Nockolds wired again, "I must see you to-night;" and at 7 P.M. Mr. Haffenden drove up. Mr. Nockolds told him that abortion had been procured, whether criminally or not he could not say, and told him what Mrs. Clarke had said about instruments, and it not being a straightforward case. Mr. Haffenden denied any knowledge of the instruments. [See above as to his taking them away.] He said that he had not written the prescription of ergot for the prisoner, and declared that he knew nothing of the case. He subsequently admitted that he had treated the prisoner for a tumour, and given her a prescription, but not that of August 1st. Later, he said, "I might have written one."]

Mr. NOCKOLDS also gave this further evidence at the trial, when he was recalled and cross-examined: Uterine sounds and specula are often used, the former for fibroid tumours of the womb. A

fibroid tumour might make a woman irregular and stop her courses. It is not frequent for a woman six months' pregnant to go on so far and not know. Such cases have occurred very exceptionally. More commonly a married woman thinks herself pregnant when she is not. I know nothing myself of gossypium. Ergot is used in the procuring of abortion. It is the proper thing to give, as I did, to prevent hæmorrhage after delivery. The chloroform is used in the prescriptions to make the medicines sweet. The aloetic medicine ordered is a mild purgative. I do not think an elastic catheter is the most usual instrument used by the profession for inducing abortion.

Mr. EVAN HUGHES, of Shepherd's Bush, produced several prescriptions written for Mrs. Hardie by Mr. Haffenden.

Dr. THOMAS STEVENSON, Lecturer on Medical Jurisprudence at Guy's Hospital, deposed that if an operation with a sound had been performed on July 30th, the subsequent use of ergot would intensify any uterine contraction set up. The medical profession was not agreed as to whether ergot would of itself set up uterine contractions so as to induce a miscarriage. He had himself no personal knowledge of gossypium (which was in two of the prescriptions); but it was a reputed abortifacient, and said to act just like ergot, except that it did not produce the unpleasant general effects of ergot. He had studied criminal abortion. He did not practise obstetrics. He had occasionally attended a woman since 1864; previously to that he had seen much obstetric practice. In the event of a fœtus being in such a state by operation or otherwise that there was no expectation of its going on to maturity, and uterine contractions had begun, ergot would be the proper medicine to give to secure its expulsion. Ergot might be legitimately given to expel a fibroid tumour. The doses of ergot here given were fairly full doses—each dose not large, but ordered so frequently as to constitute full doses. It was not a proper medicine to give to an ordinarily pregnant woman. A sound might be the instrument used for procuring a miscarriage, and if contractions of the womb were thus brought about, ergot might then be given to increase them. A woman who was pregnant four to five months would generally know the fact; she would feel the child—have quickened in fact; and, although it was doubtful as to the cause of this sensation, a married woman was much guided by it. Quickening occurred about the seventeenth week, but the period varied a little.

Mr. THOMAS POND, Surgeon to Westminster Hospital, agreed with the evidence of Dr. Stevenson.

JANE SCOTT formerly lived two doors off Mr. Haffenden, when the prisoner lodged in her house, and was then attended in her confinement by Mr. Haffenden.

Inspector JONES said that when he took the prisoner into custody, she asked if her husband was locked up; and, when told that he was not, asked if Mr. Haffenden was locked up, and was told he was.

This closed the evidence for the prosecution.

For the defence, the only witness called was Dr. ROBERT BARNES, Lecturer on Obstetrics at St. George's Hospital, who said: The uterine sound is the instrument used for exploring the womb. At four months, a woman may be very doubtful as to her pregnancy, and, exceptionally, women go to their full term without knowing that they are pregnant. A medical man is very much guided by the statements of a woman as to her pregnancy. If a medical man had arrived at a reasonable certainty that a woman was not pregnant, he might then be permitted to use an uterine sound. If a sound were passed in a case of fibroid tumour, it might set up discharge and pain, and ergot would then be the right medicine to give. In a proper examination in pregnancy the uterine sound might set up irritation, and I have known such cases. I have known the uterine sound, when passed during pregnancy, not set up abortion. In these cases (fibroids) a woman would suffer from pain in the lower part of the abdomen and in the back, and in these cases ergot is the proper medicine to give. The doses of ergot here given are, as Dr. Stevenson said, fairly full doses, not enough to set up, but to accelerate abortion. I have, myself, known a woman go to the full term, and not know that she was pregnant till labour set in. This is a rare case, but it is not so rare for a woman not to know till she is four or five months' pregnant. I have tried gossypium three or four times, instead of ergot, and given it up as useless. Aqueous extract of aloes is the proper purgative for a pregnant woman. Scarcely a month passes without a woman being brought to me to see whether she is pregnant; in doubtful cases, I have had to suspend my judgment. The sound would be used to solve some doubtful cases. I should use the sound to solve the doubt whether pregnancy was complicated with tumour. The use of the sound does not always set up uterine contraction in pregnancy. If a woman were pregnant, and, at the same time, had a fibroid tumour, ergot would be a proper medicine to give. Twice recently I have passed the sound at the sixth month of pregnancy, and have given ergot where there was a tumour and pregnancy co-existent, in the case of the wife of a medical man.

Mr. E. Clarke, Q.C., M.P., spoke for the defence. Mrs. Clarke was, he said, perjured.

Mr. Poland replied. He relied upon the evidence of the Pepiotts, and not on Mrs. Clarke's evidence.

The judge summed up, and advised the jury to discard Clarke's evidence. The sole question was, was the operation of Monday, July 30th, justifiable?

The jury retired for six minutes. Verdict, "Not Guilty."

THE RECENT POISONING CASE AT PARTICK.

AN action for £1,000, which had been raised in the Glasgow Sheriff Court in connection with the recent poisoning case at Partick, has just been settled.

The pursuer, William M'Kay, was the father of the young man who lost his life, while the defender was Mr. Rait, chemist, Partick. M'Kay stated that his son was an apprentice fitter, earning about £3 per week. On June 4th last, having contracted a bad cold, he called upon Dr. Young, who prescribed certain medicine, consisting of, *inter alia*, tincture of actea racemosa, and for which the doctor wrote out a prescription. The ingredients of that prescription were quite harmless, and the order was taken by pursuer's daughter to defender's premises in Partick. A mixture representing to be what was asked for was made up by a salesman in defender's shop and handed to the girl. The mixture, however, instead of being according to order, is alleged to have contained a quantity of tincture of aconite, a virulent poison, and pursuer's son, having partaken of the medicine in the belief that it was what had been prescribed by his medical adviser, died on June 6th.

The defender explained that he was from home at the time, and that his shop was in charge of a manager of long experience as a chemist and druggist. One of the ingredients in the prescription presented to the salesman was tincture of actea racemosa, a liquid extracted from an American root seldom prescribed by medical men. Defender further stated that the tincture had not been prepared by himself, but was obtained from a wholesale druggist in the same state that he dispensed it, and it was not ascertained till after the medicine had been supplied to the girl that it contained a strong preparation of aconite. He further mentioned that when he became satisfied that the death of George M'Kay had been caused by poison, he expressed great regret at the loss pursuer had sustained, and offered, before the raising of the action, to pay the sum of £150 in full of all claims.

When the case was called before Sheriff Lees, on Wednesday, the 5th instant, for adjustment, the parties presented a joint minute, setting forth that the defender, having paid the pursuer the sum of £200 and expenses, the latter had accepted that sum in full of all claims.

His Lordship, in terms of this arrangement, issued an interlocutor dismissing the action without expenses.

STRANGE MEDICAL EVIDENCE.

SIR,—My attention has been drawn to your remarks under the above heading in the JOURNAL for December 1st. Had you heard my evidence, I think you would have agreed with me in ascribing the cause of the vomiting to some other cause than the pregnancy. As regards my evidence about aloes and iron, it is not correctly reported. I did not say that I never knew aloes and iron given together, and was careful to explain how it was that aloes sometimes acted as an abortive.

Want of time prevents me giving you a full report of the case, and I can only express surprise that you should have animadverted on my evidence from the very imperfect report of the case in a lay paper. Acting on my advice, the lawyer instructed by the Public Prosecutor withdrew the major charge.—I am, yours truly,

B. JONES, Medical Officer to the Leigh Workhouse,
late Honorary Surgeon to the Holloway and North Islington Dispensary.
December 11th, 1883.

*** Our remarks, were made primarily upon the quasi-medical evidence of an analytical chemist, followed by a quotation from the *Manchester Courier*, reporting Dr. Jones's evidence in the case. We are glad to learn that he repudiates the accuracy of a part of the report. We were careful to point out that probably Dr. Jones had been misrepresented, and did not say what is attributed to him in the newspaper report. It was important that the matter should be cleared up, and that some criticism or correction should be made of the published reports which necessarily formed the basis of public judgment, and were of a character to produce mischief.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE WESTMINSTER UNION AND DR. ROGERS.

THE manner in which the affairs of the Westminster Union are conducted has before now been a matter of comment in our columns, and also in those of several of the leading daily papers. At one time the conduct of the matron, and subsequently that of the master, of the workhouse was called into question; and lately the dispute between the guardians and Dr. Joseph Rogers, the medical officer of the union, has culminated in their suspending him from fulfilling the duties of his office. The way in which the affairs of the union are conducted is a matter of importance not only to the parties immediately concerned, but also to the public at large. The guardians are elected by the ratepayers for a twofold purpose—namely, to attend to the necessary expenditure of public money, and also to see that the requirements of the law with regard, among other things, to the relief of paupers, are properly carried out. The executive duties in a large union are necessarily left to various officials, who, each in his own department, have to carry out the work of providing for the wants of the persons who are entitled to public relief. Their duties are prescribed by a minute code of regulations, which lay down generally what is to be done by each particular officer. It is the business of the guardians to supervise and control their officials, and above all to control and regulate the expenditure of the ratepayers' money, as well as the treatment of the paupers; and they in their turn are subject to the supervision and control of the Local Government Board.

Prominent among the officials of an union, and occupying one of the most important and responsible positions, is the medical officer. He is appointed by the guardians, subject to the approval of the Local Government Board; and, when appointed, he cannot be removed without the sanction of that Board. His position is thus to some extent secured; so that he is able, if he think it necessary, to act more or less independently. Sometimes it is highly desirable that he should so act; and though, as a rule, things will not go on properly anywhere if the responsible officials do not work in harmony with those who have to supervise their conduct, still there are occasions when a man who can dare to be independent has an opportunity of being very useful. The present dispute in the Westminster Union is a case in point, and shows how, if the position of the medical officer were not secured, guardians might hinder, if not altogether prevent, the proper performance of his duties. They are inclined to take an exaggerated view of their own importance, and to be impatient of any contradiction, and even of criticism of their conduct. As in the present case, they, no doubt, often would like to get rid of medical officers who are, as they think, too independent or too outspoken; but, fortunately for the paupers and the public, their powers in this respect are limited.

Dr. Rogers has been medical officer of health of the Westminster Union for a good many years, and, as far as we know, has till recently worked in harmony with the guardians, though, for reasons proved to be good, not entirely so with some other officers of the union. About the beginning of this year the vexed question of the paupers' beer caused discord in Westminster, as it has done in many other places. The guardians seem to have been of opinion that too many inmates of the workhouse were getting beer, and passed a resolution that the regulations laid down in respect to it by the Local Government Board should be strictly adhered to. Dr. Rogers quite agreed that beer ought not to be given, but was apparently under the impression that the guardians required him to order it in the way in which it was given. There were other differences, and neither party was inclined to be conciliatory to the other. The guardians found that they did not get on with Dr. Rogers, and in July last passed a resolution calling on him to resign; he declined to do so, and in September they suspended him as medical officer. They could not carry this out without obtaining the sanction of the Local Government Board. They accordingly wrote a formal letter to the Board, in which they formulated several specific charges against Dr. Rogers, which they themselves summed up by saying that the grounds which had led them to take the step of suspending him, "nearly all resolve themselves into contempt of the guardians, a disposition to ignore or thwart them in their work, an infirmity of temper, a constant tattling outside, by talk, letters, and publications, all tending to bring them into odium and disrepute." The Local Government Board, after hearing Dr. Rogers's answer to these charges, have decided that he was wrong in one or two minor matters, but have not confirmed his suspension, and he consequently remains medical officer of the Westminster Union, to carry on his duties as best he may with a board of guardians which is hostile to him.

His conduct, as narrated by the guardians, was no doubt very displeasing to them; but they seem also to have been under a misapprehension as to the position occupied by their medical officer. Because he is paid out of the rates of which they are custodians, they seem to consider that he is their servant in the sense that he is bound, like a domestic servant, to obey their orders implicitly. The idea that any one who is paid by the union should venture to let the outside public into the secrets of workhouse-management, especially if the information so imparted have a tendency to bring the guardians into "odium and disrepute," is too much for them. It is fair to Dr. Rogers to say that he denies having done this; but from the guardians' letter it seems as if the real reason why they wish to get rid of Dr. Rogers, is that they find him too independent. Whether they are conscious of anything in the internal management of their union which will not bear investigation, can only be guessed. But it is eminently undesirable that those who fill such positions as those of guardians of the poor or vestrymen, should be able to close the mouths of the only people who can, when necessary, make public facts which ought to be known.

Dr. Joseph Rogers's conduct has throughout been completely dictated by a high sense of duty; and the circumstances under which he rendered himself obnoxious to the guardians, by the manly evidence which he gave when summoned by the central authorities, ought to have secured for him their respect and confidence. The charges brought by the guardians we have already analysed; they were frivolous, and in substance absurd. We wish we could say that the letter from the Local Government Board, in which they reinstated Dr. Rogers, was conceived in a satisfactory tone. It appears, however, as if it had been written by some official who retained a grudge against the medical officer for his independent bearing, and for the absence of any officialism, which is one of his honourable characteristics. It would seem as if some old grudge among the secondary officials of the Board had been gratified, by laying stress on petty charges of omission to perform formal official duties in the formal official manner. It would have been more dignified and wiser had all this been omitted; and the officials of the Poor-law Board ought by this time very distinctly to understand that the great public mind is directed not towards the little details of officialism, but towards the broad principles of compassion, justice, good discipline, and order, in the conduct of the infirmaries in which sick poor are treated.

In the future, let us hope that Dr. Rogers will magnanimously forget and forgive, and will re-enter upon his office with no grudge in his mind against those who have treated him ill and with so little sense of gratitude or appreciation; and that, on the other hand, the guardians and their public officers will understand that the medical officer of their union is a man who enjoys the respect and affection of his professional brethren; who has earned, by long years of bold, outspoken, and courageous conduct, the esteem of the public; and who deserves the gratitude of the weak for the incidents of his past career, and for his continuous devotion, and the humane labours which have been the chief anxiety of his life.

QUALIFICATIONS OF MEDICAL OFFICERS OF HEALTH.

SIR,—Will you kindly inform me, if a person possessed of one qualification only, viz., L.S.A., and registered, be elected medical officer of health by the sanitary committee of the town, and that election afterwards confirmed by the Council, is there anything to prevent the Local Government Board sanctioning such an appointment?—I am, dear sir, yours respectfully,

West House, Batley, December 15th, 1883. R. D. KEIGHLEY.

*** By Article 1 of the Orders of the Local Government Board of March 1880, it is necessary that every medical officer of health should be qualified by law to practise both medicine and surgery in England and Wales. It is true that the Local Government Board may, on the application of the sanitary authority, dispense with the double qualification, if the candidate be registered to practise either medicine or surgery; but this discretionary power is intended to provide only for scattered or out-of-the-way districts, where the authority's choice is practically limited to one man, who possesses but a single qualification. In a populous district like our correspondent's, where there are doubtless a sufficiency of doubly-qualified men willing to accept the office of medical officer of health, there is reason to fear the Local Government Board would refuse their approval of the appointment of a gentleman with but one diploma.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE HOSPITALS ASSOCIATION.

THE fourth meeting of the Provisional Committee was held last week at No. 1, Adam Street; Major Ross, M.P., in the chair. The constitution of the Association was finally adopted, and steps were taken for still further enlarging the committee, in order to give it as representative a character as possible. The Lord Mayor has shown his sympathy with the movement by placing at the disposal of the Committee the use of the Egyptian Hall for a meeting to be held in January, when the objects of the proposed Association will be brought before the public. Meanwhile, as a result of an inquiry of a wide-spread character, instituted in the metropolis and the provinces, there is now no doubt that the hospitals of the Association will shortly be in full working order. Offers of individual help and support are being daily received; and, with a fully representative Council, the new Association will be launched under circumstances which augur well for its future usefulness and success. If it can be the means of bringing about concerted action, with a view to the satisfactory settlement of important questions of administration on which discussions are continually taking place, it will not have been founded in vain. The objects of the Association, as set forth in its constitution, are to be (1) to facilitate the consideration and discussion of matters connected with hospital management, and, where advisable, to take measures to further the decisions arrived at; and (2) to afford opportunities for the acquisition of a knowledge of hospital administration, both lay and medical. It is intended that the Association shall afford facilities for the reading, discussion, and publication of approved papers; for the delivery of lectures, and for the holding of conferences on Hospital Administration, Hospital Management, Medical Relief, Medical Education in relation to Hospitals, Free and Provident Dispensaries, and other kindred subjects; and it is proposed to found a library, consisting of works on Hospital Administration, Construction, Finance and Statistics. Mr. J. L. Clifford-Smith has been appointed secretary of the Association.

CENTRAL HOSPITAL FOR NORTH LONDON.

WE are informed, by a circular letter, that the negotiations for the amalgamation of the Central Hospital for North London and the "Great Northern," consequent upon the proposals made to the Executive Committee after the public meeting in April last, have resulted in a satisfactory arrangement, based upon the constitution and principles approved by that meeting. The following is the scheme of amalgamation then drawn up. 1. The name of the new hospital shall be "The Great Northern Central Hospital." 2. It shall be a general and free hospital, with pay-wards, or a pay-wing. 3. The governing body shall consist of: a president, vice-presidents, a general council, composed of (1) the existing life-governors of the Great Northern Hospital, (2) life-members, being donors of thirty guineas and upwards, (3) members annually subscribing three guineas and upwards, (4) members representative of congregations, corporations, companies, firms and workshops, with similar qualifications. The said council is to appoint from their number a committee of management, consisting of twenty-five members; also trustees, treasurers, and honorary secretaries. 4. The present medical staff of the Great Northern Hospital shall be the nucleus of the staff of the new hospital, with such additions as may be necessary; and the qualifications of the staff shall not be less than those laid down in the by-laws and regulations relating to the medical staff at present in force in the Great Northern Hospital.

The Joint Committee of the two hospitals have decided to convene, on January 19th next, a meeting, in the Highbury Athenæum, at which His Grace the Duke of Westminster, K.G., has consented to occupy the chair, when the amalgamation will be formally submitted to the public, and a fresh impetus given to the work of hospital-extension for the district.

The Executive Committee felt that while the negotiations above referred to were pending, it was desirable to suspend the solicitation of contributions for their individual scheme; but they have now decided to resume that work in the interest of the United Hospital, being specially desirous that the names of all who took so warm an interest in founding the "Central Hospital for North London," with its special features, shall appear in the list of subscribers to the "Great Northern Central," which list shall be communicated to the proposed meeting. The "Great Northern" Hospital has already £4,000 in hand for building, and it is hoped that the first list of subscriptions may amount, including that sum, to at least £10,000. It has been decided that all subscriptions to the Building Fund may be paid by five annual instalments, if so desired by the donors.

The following noblemen and gentlemen are expected to attend the public meeting and speak to its objects: the Marquis of Salisbury, the Duke of Westminster, *Chairman*, Earl Cowper, the Lord Mayor, M.P., the Hon. Reginald Capel, Lord George Hamilton, Mr. W. Burdett Coutts, Sir A. Lusk, M.P., Mr. Wm. M'Cullagh Torrens, M.P., Mr. S. D. Waddy, Q.C., M.P., Captain Penton, Mr. O. E. Coope, and others.

It is hoped that this appeal will meet with a liberal and prompt response, so that a work of much importance to the neighbourhood, and which will now be carried out with redoubled energy, may be completed with the least possible delay.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—M.D. Examination.—Entire Examination.

E. L. Adeney, (Gold Medal), Guy's Hospital.
G. F. Barnes, St. Bartholomew's Hospital.
D. W. Buxton, *B.S.*, University College.
W. Chisholm, *B.A.Sydney*, University College.
D. Collingwood, *B.S.*, University College.
W. R. Dakin, *B.S.*, Guy's Hospital.
E. A. Dingley, University College.
J. T. Faulkner, Owens College and Manchester Royal Infirmary.
W. E. Fielden, Guy's Hospital.
J. Harper, St. Bartholomew's Hospital.
T. Harris, Owens College and Manchester Royal Infirmary.
J. D. Hayward, University College.
J. E. Hine, University College.
R. Jones, St. Bartholomew's Hospital
H. Maudsley, *B.S.*, University College.
W. H. Neale, *B.S.*, University College.
A. E. Permewan, University College.
W. Sellers, University of Edinburgh and London Hospital.
L. E. Shaw, Guy's Hospital.
S. W. Sutton, *B.S.*, St. Thomas's Hospital.
H. G. Taylor, King's College.
R. S. Wainewright, Guy's Hospital.
F. R. Walters, *B.S.*, St. Thomas's Hospital.
¶A. E. Wells, St. Thomas's Hospital.

Logic and Psychology only.

D. S. Davies, St. Thomas's Hospital.
H. Hoole, Charing Cross Hospital.
H. M. Murray, University College.
R. Pratt, University College.
T. H. Sawtell, St. Bartholomew's Hospital.
H. Smith, St. Bartholomew's Hospital.

¶ Obtained the number of marks qualifying for the Medal.

M.S. Examination.

W. A. Lane, Guy's Hospital.

Examination in subjects relating to Public Health.

L. C. Parkes, *M.D.*, University College.

UNIVERSITY OF CAMBRIDGE.—Second Examination for the degree of M.B. Examined and approved.

Class I.—Ds Andrews, Joh.; Ds Holloway, Sidney; Mag. Lister, Joh.; Milnes, Down; Mag. Perry, King's; Ds. Sidebotham, Caius.

Class II.—Ds Beard, Cav.; Mag. Bryceson, Christ's; Ds Copeman, Corpus; Ds Emerson, Clare; Ds Facey, Joh.; Ds Fox, Cav.; Going, Sidney; Ds Harris, Christ's; Ds Hinnell, Pemb.; Lynch, Caius; Nason, Down; Ds Nichol, Caius; Percival, Trin.: Ds Sympson, Caius; Ds Tebb, Pet.; Turner; C. H. Walker, Jesus.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At a Special Examination for the Licence in Midwifery, held on Monday, December 3rd, 1883, the following candidate was successful:

R. H. Dowse, M.B.Univ.Dub., Enniscorthy.

At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, December 10th, 11th, 12th, and 13th, the following candidates were successful:

For the Licences to practise Medicine and Midwifery.—J. C. Aldred, Sheffield; J. Bernal, Limerick; H. J. Butler, Dublin; H. W. Carr, Kilburn, London; R. H. Clement, Glenageary, co. Dublin; Q. R. Darling, Kinsale, co. Cork; J Greenhalgh, Northenden, Manchester; J. M. P. Kennedy, Dublin; W. Nolan, Dublin; W. S. Sprent, Gargrave, near Shipton, Yorks.

For the Licence to practise Medicine only.—F. W. Allwright, Sydney Parade, Dublin; C. Daly, Charleville, co. Cork; P. T. Dillon, Listowel, co. Kerry; W. B. Hanbidge, Ogdensburg, New York; W. H. Oliphant, Toronto, Ontario, Canada; F. H Prideaux, London.

For the Licence to practise Midwifery only.—E. C. Bigger, M.D.R.U.I., Belfast; W. Calwell, M.D.R.U.I., Belfast; W. Courtney, M.D.R.U.I., Killane, co. Clare; A. A. G. Dickey, M.D.R.U.I., Raphoe, co. Donegal; D. P. Gaussen, M.D.R.U.I., Holywood, co. Down; A. J. Stiles, M.B.Edin., Spalding, Lincolnshire; E. C. Ward, M.D.R.U.I., Charleville, co. Cork.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to membership, pursuant to the provisions of the Supplemental Charter of December 12th, 1878, have been duly enrolled Members of the College, viz.:

R. F. Buchanan, Lic. Med. 1864, Surgeon-major A.M.D.; R. J. Sweetnam, Lic. Med. 1864, Staff-surgeon R.N.

UNIVERSITY OF DUBLIN: SCHOOL OF PHYSIC IN IRELAND.—At the Michaelmas Term Examination for the Degree of Bachelor in Medicine (M.B.), held on Monday, December 3rd and subsequent days, the successful candidates were arranged in the following order of merit:

C. H. Thompson, H. H. Fleming, R. Miller, C. C. De Burgh Daly, R. Kilkelly, W. N. Denning and G. H. Symes (equal), V. E. Smith, R. Nunn.

At the Michaelmas Term Examination for the Bachelor of Surgery (B.Ch.) Degree, held on Monday, December 10th and following days, the successful candidates were placed in order of merit as under:

A. F. Geoghegan, R. Miller, 1. G. M. Dobson, 2. W. Fenton, 3. G. Symes (equal), C. C. De B. Daly, R. Nunn, H. McQuade, W. N. Denning, R. H. Fleming, R. E. Sproule, H. E. Blandford.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 13th, 1883.

Bradbrook, William, Green Street, E.
Walton, Francis Fielder, Mason Street, Hull.

The following gentlemen also on the same day passed their Primary Professional Examination.

Bennett, Edwin Alfred, Cornwall Road, Bayswater.
Ward, John Smallwood, Lisburn.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum. Applications by January 15th.

COSFORD UNION, Boxford District.—Medical Officer. Salary, £50 per annum. Applications by December 22nd.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications by January 14th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by January 5th.

LEEDS FEVER HOSPITAL.—Resident Medical Officer and Secretary. Salary, £150 per annum. Applications by December 24th.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer. Salary, £120 per annum. Applications by January 14th.

OLDCASTLE UNION.—Medical Officer, Workhouse. Salary, £110 per annum, and £10 as Consulting Sanitary Officer. Election on December 31st.

UNIVERSITY OF EDINBURGH.—Additional Examiner in Medicine in the Department of Medical Jurisprudence. Applications to J. Christison, by January 14th.

WESTERN INFIRMARY, Glasgow.—Apothecary. Applications by December 31st.

YORK DISPENSARY.—Resident Medical Officer. Salary, £130 per annum. Applications to S. W. North, Esq., 84, Micklegate, York, by December 26th.

MEDICAL APPOINTMENTS.

BEALES, T. W. L., M.R.C.S., appointed Resident House-Surgeon and Dispenser to the Great Yarmouth Hospital, *vice* P. H. Kidd, M.B., resigned.

BUCKBY, R. G., jun., M.R.C.S.I., appointed Medical Officer of Health to the Basford Rural Sanitary Authority.

CANTON, Frederick, M.R.C.S., L.R.C P.Lond., L.S.A., L.D.S.Eng., appointed Dental Surgeon to the Dental Hospital of London, *vice* A. Hill, M.R.C.S.,Eng., resigned.

CLARK, Annie E., M.D., appointed Extra Acting-Physician to the Birmingham and Midland Free Hospital for Sick Children, *vice* R. J. Drury, M.D., resigned.

CLARKE, W. Bruce, M.B., F.R.C.S., appointed Assistant-Surgeon to St. Bartholomew's Hospital, *vice* J. Shuter, M.B., deceased.

CUMMINS, W. A., M.D., appointed Assistant-Surgeon to the County and City of Cork Hospital for Diseases of Women and Children.

DOWNIE, J. Walker, M.B., appointed Surgeon to the Throat Department, Anderson's College Dispensary, Glasgow.

DRURY, R., M.D., appointed Acting-Physician to the Birmingham and Midland Free Hospital for Sick Children, *vice* R. C. R. Jordan, M.D., resigned.

ELLIOTT, W. T., L.D.S.Edin.&Dub., F.C.S., appointed House-Surgeon to the Birmingham Dental Hospital.

EVANS, William George, M.R.C.S., L.R.C.P., reappointed Sambrooke Surgical Registrar at King's College Hospital.

EVE, F. S., F.R.C.S., appointed Assistant-Surgeon to the Royal Free Hospital, *vice* J. Shuter, M.B., deceased.

GARDNER, P., M.R.C.S., appointed House-Surgeon to the Royal Portsmouth, Portsea, and Gosport Hospital, *vice* W. Beevor, M.B., resigned.

GIDDINGS, R. R., M.B., appointed Junior Resident Surgeon to the Nottingham Dispensary, *vice* W. Dickson, L.R.C.P., resigned.

GRANT, H. L., M.B., appointed Second Medical Assistant to the Counties Asylum, Garlands, Carlisle.

HANRAHAN, J. P., M.D., appointed Assistant House-Surgeon to the Liverpool Dispensaries, *vice* R. W. Barrow, L.R.C.P., resigned.

HEWSON, R. W., L.R.C.P.&S.Edin., appointed Medical Superintendent of the Coton Hill Hospital for the Insane, Stafford.

JAKINS, P. S., M.R.C.S., appointed Surgeon to the Western Ophthalmic Hospital, *vice* W. Charnley, M.D., resigned.

LANTRY, T. S., M.B., appointed Resident Assistant House-Surgeon to the General Infirmary, Leeds.

LINES, T. H., M.D., appointed Medical Superintendent to the Borough of Birmingham Hospital for Infectious Diseases, *vice* W. Bates, M.R.C.S., resigned.

MCINTYRE, J., M.B., appointed Surgeon to the Throat Department, Anderson's College Dispensary, Glasgow.

MYLES, H. George, L.A.H., appointed Medical Officer of the Abbeyshrule Dispensary District, Ballymahon Union, *vice* J. T. Myles, L.R.C.P.Edin., deceased.

NAYLOR, J. Holliday, M.R.C.S.Eng., L.R.C.P.Ed. (late of the Leeds General Infirmary), appointed House-Surgeon to the Clayton Hospital, and Wakefield General Dispensary, *vice* A. W. Loveridge, M.R.C.S.Eng., resigned.

OAKES, A., M.D., appointed Honorary Physician to the Kilburn, Maida Vale, and St. John's Wood General Dispensary.

OWEN, E., M.B., appointed Surgeon to the Hospital for Sick Children, Great Ormond Street, *vice* T. Smith, F.R.C.S., resigned.

PITTS, B., M.B., appointed Assistant-Surgeon to the Hospital for Sick Children, 49, Great Ormond Street, *vice* E. Owen, M.B.

POWER, Charles J., M.A.Cantab., L.R.C.P.Lond., M.R.C.S., appointed Senior House-Surgeon to the Metropolitan Free Hospital, *vice* J. Orford, resigned.

PRYCE, T. D., M.R.C.S., appointed Junior Resident Surgeon to the Nottingham Dispensary, *vice* F. Bowe, M.R.C.S., resigned.

PULLIN, F. B., L.F.P.&S., appointed Medical Officer to the New Wortley District of the Leeds Amalgamated Friendly Societies Medical Association, *vice* J. McCutcheon, L.F.P.&S., resigned.

RAKE, Beaven Neave, M.D.Lond., appointed Government Medical Officer of the Diego Martin District, and Superintendent of the Leper Asylum, Trinidad.

RICHARDS, Thomas, M.B., appointed Senior Extra Acting-Physician to the Children's Hospital, Birmingham, *vice* A. H. Carter, M.D., M.R.C.P., resigned.

RICHARDSON, William, M.B., C.M.Edin,, Senior Assistant-Physician, Crichton Royal Institution, Dumfries, appointed Medical Superintendent of the Isle of Man General Lunatic Asylum, Douglas.

SALTER, F. J., L.R.C.P., appointed Visiting Surgeon to the Chester General Infirmary.

SILK, John Frederick William, M.B., appointed Sambrooke Medical Registrar at King's College Hospital.

STEPHENS, W., M.D., appointed Medical Officer to the Belleck Dispensary of the Ballyshannon Union, *vice* W. Irwin, M.D., deceased.

SUCKLING, C. W., M.D., appointed Honorary Physician to the Queen's Hospital, Birmingham, *vice* B. Hurst, M.D., deceased.

THOMSON, Alex., M.B., C.M.Edin., appointed one of the Medical Officers to the Parochial Board of Huntly, Aberdeenshire, *vice* William Lawson, M.B., resigned.

WALFORD, R., M.B., appointed Visitiug Physician to the Infirmary for Consumption and Diseases of the Chest and Throat.

WALKER, W. H. Stoney, L.K.Q.C.P.I., L.R.C.S.I., etc., reappointed Resident Medical Officer to the Hospital for Sick Children, Glasgow.

WILSON, J., M.D., appointed Assistant Medical Officer and Dispenser to the Wandsworth and Clapham Union.

WILSON, J. G., M.R.C.S., appointed Senior Resident Surgeon to the Nottingham Dispensary, *vice* M. Collins, M.D., resigned.

YOUNG, J., M.B., appointed House-Surgeon to the Scarborough Hospital and Dispensary, *vice* W. Howells, M.B., resigned.

YOUNG, W., M.B., appointed Medical Practitioner to Addiewell District of Young's Paraffin Light and Mineral Oil Company (Limited).

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

THIELE.—At Warwick, Bermuda, on November 1st, 1883, the wife of C. W. Thiele, M.B., Army Medical Department, of a daughter.

MARRIAGES.

HURST—MACCULLOCH.—On June 6th, 1883, at the Wesleyan Church, New Town, Sydney, New South Wales, by the father of the bridegroom, assisted by the Rev. J. A. Nolan, George Hurst, M.B.Lond.&Edin., eldest surviving son of the Rev. George Hurst, Rossleigh, Burwood, to Lilie, second daughter of Thomas MacCulloch, Esq., the Pines, New Town.

WHITE—GIBBS. On October 29th, at St. Saviour's, Mount Aboo, Rajputana, India, by the Rev. E. Jenkins-Bowree, M.A., Chaplain, Surgeon-Major Charles White, member of British Medical Association, A.M.D., to Constance May, third daughter of the Honourable James Gibbs, C.S.I., C.I.E., acting President of His Excellency the Viceroy's Council, and formerly senior member of Council, Bombay.

DEATHS.

PRETTY.—On the 16th instant, at Fressingfield, Suffolk, Mr. George Willson Pretty, M.R.C.S., etc., aged 65.

THIELE.—At Warwick, Bermuda, on November 28th, 1883, Marion Peel, wife of Surgeon Thiele, M.B., Army Medical Department, aged 24 years.

OPERATION DAYS AT THE HOSPITALS.

MONDAY......St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY......St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY......St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY......St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S , 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F. 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu. 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

EXCESSIVE SNEEZING.

SEVERAL correspondents have sent replies to Mr. C. M. Maxwell's letter in the JOURNAL of December 8th (p. 1165).

Mr. ERSKINE STUART (Staincliffe, Dewsbury) advises a trial of Dr. Dunbar's Alkaram. He has used it for several patients suffering from post nasal catarrh with the best results, and he is acquainted with a medical man who uses it successfully for himself for hay-fever. The composition is supposed to be (as lately stated by Mr. Jeffries, of Chesterfield) carbolic acid, iodine, carbonate of ammonia, and powdered acacia. If it does not succeed, perhaps Professor Helmholtz's prescription of quinine-powder applied as snuff, or in the form of a strong solution (one grain to an ounce) might answer.

Mr. W. PROWSE (Clifton) sends his own experience and success in a similar case, the subject of which was a lady forty years of age. She had seen many physicians during several years without avail. Change of air and residence at the seaside or on the mountain-top had been useless. When Mr. Prowse first saw her, in the early spring of this year, all the symptoms were exactly the same as in the case related by Mr. Maxwell; all sense of smell was gone. The special remedies used were the following; internally, one-tenth of a grain of the subchloride of mercury, in combination with one hundredth of a grain of tartarised antimony, was taken three times a day for about a month, afterwards less frequently; locally, lotions of salicylic and the boracic acids, and a saturated solution of the former; two drachms to the pint of water of the latter were freely applied, in alternation according to the pleasure and feelings of the patient. No other remedies were used during the four months the patient was under treatment, except some quinine towards the end of the time. The general health was very carefully attended to. The patient remained well and free from the sneezing in August.

Dr. F. J. B. QUINLAN (Dublin) suggests the following remedy: ℞ Morphiæ hydrochloratis gr. iv; bismuthi oxynitratis et pulveris tragacanthi, ana ʒss. Let a little of this powder be taken up on the end of a small paper-knife (or other convenient implement), and sniffed up into one nostril and then into the other; and let this process be continued until the bitter flavour is thoroughly felt descending the pharynx from the back of the nares. In most cases, the sneezing will then cease; but, if not, the process should be repeated every five minutes until this distressing symptom be mastered. Many years ago, Dr. Quinlan was subject to chronic coryza, accompanied by very distressing sneezing; and was thus cured. He has never known this remedy to fail; but, in some very refractory cases, he has had to increase the morphia-salt to five or even six grains to the ounce of powder. It does not render the patient dull, or in any way interfere with mental work.

"A MEMBER" also recommends the use as snuff of subnitrate of bismuth (to which a little morphia may be added), two or three times daily. He also advises that, when the attacks of sneezing come on, firm pressure should be made on the bridge of the nose or the centre of the upper lip; if these fail, a mustard-poultice to the back of the neck may prove serviceable.

MEDICAL PEERAGES.

SIR,—The remarks already made, in more than one quarter, by the press respecting the inadequate recognition ever shown by the State of the services of the medical profession, in contrast with honours conferred with lavish liberality on far less eminent services, would tend to show that the inequality attending such dispensations is becoming more clearly patent to the public. As the editor of the *Student's Journal* very pithily puts it: "Why is a peerage and a seat in the Upper House this week conferred on a poet, while a baronetcy is thought quite good enough for the most distinguished and hard-working physicians or surgeons? The original theory, that elevation to the peerage is a distinction and reward specially reserved for services rendered to the State, would in no way be violated by its conferment on so able and deserving a public benefactor as Sir Joseph Lister, the inventor of antiseptic surgery, or Sir James Paget, the leader of contemporaneous pathologists, or others too numerous to name, whose inventions, discoveries, and untiring exertions in the cause of suffering humanity, may well entitle them to the consideration of being classed as "having done the State some service."

Moreover, exaltation to the peerage implies a share in the hereditary legislation of the country. Public hygiene plays no unimportant part now-a-days in the consideration of the senator and political administrator; and who among the noble lords would be more fitted to give an opinion on matters where the health of the army, navy, or civil community might be concerned, than a medical lord? Some persons have expressed alarm lest conferment of such a peerage would entail further charge upon the already burdened State by necessitating an endowment to meet its support with appropriate dignity; but it may be pointed out that the high emoluments attained by such distinguished luminaries of the profession as might be held worthy of such honour, would ensure their maintenance of their new exalted station with credit to themselves and the peerage. We have no wish to disparage, however faintly, the claims of the Poet Laureate to the dignity which he has just attained, but we venture to ask: Where are *his* services to the State? And how is it that far greater poets were never made peers? Was there ever a Baron Shakespeare, or a Baron Wordsworth, or a Viscount Pope? Surely they were quite as deserving. That peerages should be conferred on men of letters like Macaulay, who are statesmen and senators as well, is logical enough; but, if poets are to be peers, why not eminent artists? Why not have a Lord Irving, or Lord Toole, in honour of the stage? or Lord Benedict in honour of music? Why not make peers of Mr. Du Maurier, *Punch's* admirable artist; or of Mr. John Thomas, the Queen's Welsh harpist? Seriously, the men who, like Jenner, give us vaccination; who, like Simpson, give us chloroform; or, like Sir W. Fergusson, conservative surgery; or ovariotomy, as Sir Spencer Wells—these men may be held to have done service to the State as well as to humanity at large by the discoveries, which will preserve their memories in the grateful immortality of thousands of their fellow-beings.—I am, etc.,

J. BRINDLEY JAMES.

HYPOSULPHITE OF SODA AS A DISINFECTANT IN CARCINOMA UTERI.

DR. W. E. BUCK recently reported in our columns that hyposulphite of soda would destroy the horrible odour of a cancerous womb. The *Medical News* writes: "We have put it to the practical test, and find that it answers the purpose well. One pound of the hyposulphite (costing fifteen cents a pound at retail) to a pint of water, applied to the womb on absorbent cotton, after daily cleansing the parts with water containing the salt, answers the purpose. The patient is made more comfortable, and the air of the room nearly pure."

Portraits of Dr. Edward Jenner.

Sir,—I possess two portraits of Dr. Jenner; both mezzotint engravings. One represents him standing under a tree, his right arm resting on a branch, and holding his hat in his left hand; cows and a milkmaid in the background. A copy of this hangs on the walls of the Medical Society's rooms in Chandos Street.

The other is a proof before letters, in a fine state; and perhaps my old friend Dr. Diamond, who is so great an authority in these matters, could tell me if it is that to which he alludes (in his letter, page 1103, British Medical Journal), as engraved and published by J. R. Smith. Dr. Jenner is sitting on a chair, with his legs crossed. An open book lies on a table by his side; his right arm rests on one page, while the other page contains illustrations of vaccine-inoculation in different stages of development. His head is turned to the (spectator's) left.

There is also a whole-length portrait of Jenner in the National Portrait Gallery at South Kensington, painted by Northcote. The figure is seated; the right hand holds a pen, while the left, with the forefinger extended, supports the head. A table on his left is covered with manuscript, the title-page of which stands upright, and has a rough representation of a cow enclosed in a border, underneath which is written, "Origin of the vaccine-inoculation by Edward Jenner, M.D., 1801." How does this correspond with the portrait by Northcote, which Dr. Bampton says the Plymouth Society has still in its possession, and which seems to be the original of Medicus's engraving? Is one a replica? or are they two distinct and different portraits, both being by Northcote? Dr. Diamond could most likely explain this.—I am, sir, obediently yours,

Ed. Hart Vinen.

Chepstow Villas, Bayswater.

Rationale of Fees.

Sir,—I saw in the Journal the other week some remarks on medical fees. There is not the slightest doubt that the present rates, if the attendance be long continued, as in the case of typhoid fever occurring in the family of a working-man, are so oppressive as in these instances to dissuade one from adding anything to the fees. In constituting a new or amended scale of fees, therefore, it should never be the object, in the case of long attendances, to increase the aggregate amount. This applies more especially to the working classes, but may very often apply to the class above them in the social scale.

What is required in charging is that the medical man should get the best possible remuneration for his services at the least possible sacrifice to his patients. I think this object is to be attained by a gradually decreasing rate in proportion to the means of the patient; the best test of this being rental.

The majority of patients in all classes require the services of the medical man but seldom, and these, when they should require his aid, are more able to pay well for the few visits they may require during the year than are those of a smaller number who may require his services much more frequently. I would, therefore, suggest that, without raising the fee appreciably in the latter cases, the former should pay more than they do at present. I suggest, accordingly, that the first three visits should be at a greater rate than the subsequent ones, to all except those who belong to the first of each class. After the third visit, I would make a subdivision according to rental, but at a considerable reduction. I inclose a scale formed on the above principle, which, however, might be altered, if necessary, in its details.

Decreasing Scale of Fees.

Visits.	From £100 (and upwards) to £60.			£60 to £30.			£30 to £7.		
Nos. 1, 2, 3	10s. (per visit).			5s.			2s. 6d.		
	£100 and upwards.	£100-£70.	£70-£60.	£60-£50.	£50-£40.	£40-£30.	£30-£20.	£20-£15.	£15-£7.
No. 4, and after	10s.	7s. 6d.	5s.	5s.	3s. 6d.	2s. 6d.	2s. 6d.	2s.	1s. 6d.

In the scale, I have only suggested three primary charges for the first three visits, but these are so subdivided that, in the case of numerous visits, little or no addition is made in the amount of a large account to what it would be at present. Inasmuch, however, as the number of short attendances, comparatively, are to long ones as one to five or six, the income of a practitioner is more easily made up, charging more in proportion to those patients who employ him but seldom, and who are, for that very reason, in a much more favourable capacity for paying him an increased fee. The stronger by this method assists the weaker. I act on this principle so far at present; but I hold that, to carry out satisfactorily a system of this kind, there should be co-operation on the part of members of the profession, and I know of no organisation by which this could be so simply and easily effected as by the British Medical Association through their Journal. There should first be discussion of the subject, and afterwards a medical tariff drawn up in accordance with the views of the Association.—I am, etc.,

X. Y. Z.

Frequent Pregnancies.

Sir,—You may think the following case worth publishing, as one can but hope it is rather an unusual one.

A patient of mine gives me the following history. She was married when 26 years of age, and ceased menstruating when 39, after the birth of her last child, having had sixteen children born alive and one miscarriage in fourteen years. She nursed each of her children, but found that the nursing did not prevent her from becoming pregnant. The dates of the births were: 1845, July, a son; 1846, November, a son; 1848, February, a son; 1849, November, twin daughters; 1851, September, twins, son and daughter; 1852, November, a daughter; 1853, twins; 1854, July, twins, son and daughter; 1855, July, twin sons; 1856, miscarriage; 1857, May, a daughter; 1858, June, a son. She is a tall spare woman. At the present time, she is in very fair health, and aged 63. Out of all these children, there are only six living.—Yours truly,

H. Algernon Hodson.

23, Brunswick Square, Brighton, December 8th, 1883.

The Treatment of Stammering.

Sir,—With reference to the query of Dr. T. Lane (p. 1103), I have to inform him that no institution for the treatment of stammerers exists, to my knowledge, in London; but in Paris there is such an institution at 10, Avenue Victor Hugo. For some time past, I have obtained very satisfactory results from the adoption of the following method, which combines efficacy with extreme simplicity of application. For a period of about three weeks, the patient is kept under observation. The irregularity in breathing, which forms an important factor in causing the complaint, is corrected during the first week by showing the pupil how the physiological act of respiration is performed normally, making him imitate the instructor slowly at first, and afterwards more quickly. The breathing now being restored to its normal standard, I begin, as recommended by Dr. Chervin of Paris, the study of the elements of speech, first of the vowels, then of the consonants. Exercises in syllables follow, then words, and finally sentences. By this means, the stutterer will be taught systematically to master difficulties which at first might have appeared insurmountable.

In conclusion, to use the words of Dr. Chervin (*Periodical International Congress of Medical Sciences*): "The treatment lasts three weeks; the first is given to bringing the vocal instrument back to its physiological condition; the second to acquiring an easy and natural, though slightly rhythmical, mode of speech; the third to strengthening this new mode of speech, acquired rather from practical and daily imitation than from theories and instructions."—Yours, etc.,

Charles J. Barry.

70, Wimpole Street, W., December 4th, 1883.

Mr. W. C. Steele (Dorchester).—We shall hope to bring the subject and the communication from the College under the early and especial notice of the Government, in connection with proposed legislation.

The Weaver or Sting-fish.

Sir,—Having come across several cases of fishermen suffering severely from the effects of wounds received from a small fish they call a sting-fish (the weaver is its proper name), I am anxious to know what is the best treatment for the relief of this severe pain. Has the nature of the poison which these fish introduce into the human system ever been investigated? The usual treatment adopted by the fishermen here is to fasten a piece of string securely round the finger above the place of injury, and to plunge the hand in cold water. Any information on the above subject will greatly oblige, yours faithfully,

Abberley Villa, Hoylake. Samuel Warren, M.D.

Unattached Member.—The Council will not meet for a month; and no representation has, we believe, been made to them by the promoters of this movement.

The Use of the Title "Doctor."

Sir,—Hitherto, the point at issue has been whether those holding a medical diploma from one of the examining bodies (for some undefined reason, that of the Royal College of Physicians, Edinburgh, especially) have the right of using the above title equally with those who possess the degree of Doctor of Medicine from some university whose degree is registrable. Your leading article under the above heading presents a new phase of this vexed question. In order to register, one must produce evidence of holding one of the qualifications, subsequently enumerated in the *Register*, entitling to registration, not "of having satisfactorily passed the examinations held by some one or other of the examining bodies who are authorised to confer medical degrees in this country." Under the heading "Who are entitled to Register?" distinction is made throughout of "diploma or degree," but your leading article states that "no one can now become entitled to practise medicine in the United Kingdom except by obtaining the requisite degrees here."

The recent decision in the case of Mr. Empy shows that, in the opinion of the Bench, the fact of his name not appearing on the *Register* precludes him from using the title of "Doctor," while your leading article, by making no distinction between diploma and degree, would seem to confer the title on all registered practitioners.

They manage these things better in Germany, where "the law forbids anyone to call himself 'Doctor' unless he have passed the examinations at some university, and thereby acquired the degree," as distinct from the qualification entitling him to style himself "Physician."—I am, sir, your obedient servant,

B. Faraday Giles, M.D.

Wem, Salop, December 4th, 1883.

Fides.—We cannot consider that "Fides" was in any way called upon, even indirectly, to assist in promoting a form of treatment which he would consider to be delusive.

Temperance-Hysterics.

Dr. Norman Kerr, speaking to the Open-Air Temperance Mission Society, at Exeter Hall, deprecated the "temperance-hysterics and sensationalism" at present so much in fashion, which was characterised by inflated boasting of fabulous numbers, and a most reprehensible self-righteousness, which looked askant upon the so-called irreligious and "low" advocacy of temperance by the early pioneers. This accusation was most unjust. The early reformers, however they might be scorned by modern fashionable temperance-cant, were men of high resolve, devout spirit, Christ-like self-denial, and of thorough consistency. At present, there was in fashion, not a raising of the temperance-platform, but a lowering. The only true temperance-doctrine was that taught by Grindrod, Lees, Richmond, Livesey, and other noble-hearted godly men, who taught that intoxicating drinks were dangerous articles of man's manufacture, and that total abstinence was consistent with the purest patriotism and highest duty. Dr. Kerr pointed out, by diagrams, several popular temperance physiological errors, as that alcohol hardened living brain, the very opposite being the fact. Dr. Kerr deprecated exaggeration and overstatement, and strongly urged the necessity of always keeping within the truth, which was terrible enough, God knew, to warrant the most uncompromising measures of abstinence and prohibition.—*Daily Chronicle*, December 15th, 1883.

O.—Under the circumstances stated, X. ought certainly to have communicated with you before proceeding to visit and examine your patient.

Facing Tea.

J. Wharton asks: Does "Caper" tea undergo any kind of special artificial process or flavouring, or is it only another genus of tea? Is it more deleterious than good black tea?

Determination of Sex.

SIR,—In your issue of December 8th, "R. S.," while agreeing with the view I expressed in your pages some time ago, that post-menstrual impregnation would be followed by the birth of a female child (I maintaining also that pre-menstrual fertilisation is the explanation of a male birth), says: "When contact has been deferred to within a short time—say a week—before menstruation, no impregnation takes place." I hold that, in cases of pre-menstrual fertilisation, the menstruation then due will not, of course, occur. If menstruation does occur after contact (pre-menstrually), there has been no impregnation. I have the firmest faith in my theory—a faith substantiated by facts I have been able to ascertain from human histories—that the difference in sex is due simply to the greatest or least power of development exhibited by the ovum, according as it is pre-menstrually or post-menstrually fertilised.—Yours truly,

ANDREW WILSON.

Edinburgh Medical School, December 12th, 1883.

Caution: Guy's Man: Impostor.

SIR,—I see by a letter in your JOURNAL that a man calling himself Wilford has been imposing on Guy's men. Some months back, a man called on me, stating that his name was Wilford, and that he knew a brother of mine practising in New Zealand. He said he had been sent by a friend, and that he had some young children in Liverpool, etc. My brother came home on a visit during the summer, and has now returned to New Zealand. While here, he found that someone had been personating him in London; and, since he has left, I have had several letters informing me that someone has been going about the country, representing himself to be my brother, and seeking assistance. I think it probable that this is the man calling himself Wilford. Whether this be the real Wilford, I cannot tell; but there was a man of that name practising in New Zealand, although my brother did not know him personally.—Yours faithfully,

HENEAGE GIBBES.

94, Gower Street, W.C., December 16th, 1883.

Z.—We do not know.

Royal College of Surgeons of England.

THE name of Mr. McCarthy, of the London Hospital, was accidentally omitted from the list of Examiners in Physiology, published at page 1210 of last week's JOURNAL.

ERRATA.—In the JOURNAL of December 8th, page 1144, column 2, line 12, *for* "transitory and varying isolated paralysis of the abductors," *read* "transitory and varying paralysis of the adductors." Dr. Semon holds that paralysis of the *ab*ductors of the vocal cords is almost always characteristic of *organic* disease of the motor nerves of the larynx; whilst isolated neuropathic paralysis of the *ad*ductors is always characteristic of *functional* disorder.—In the list of members of the Royal College of Surgeons admitted Fellows of the same on December 13th, published in the JOURNAL last week, the first name was incorrectly written as "Marshall." It should have been: "F. Marsh, L.R.C.P.Lond. and L.S.A., Stafford."—In our report of the meeting of the Royal Medical and Chirurgical Society on November 27th, we omitted to state that Dr. Harrington Sainsbury was the joint author with Dr. Sydney Ringer of the paper entitled "Investigations into the Action of the Digitalis Group.'

The Gold Coast Colony.

SIR,—I beg that you will afford me space for a few words descriptive of medical service under the Colonial Office in the Gold Coast Colony. By placing in contrast the conditions under which the African army medical officers, and those under which the colonial surgeons serve, a fair estimate of the liberality or otherwise of these services may be made.

1. The African army medical officers serve twelve months on the west coast of Africa, at the expiration of which period they are entitled to twelve months' leave of absence; and any detention beyond the year of residential service is compensated by a commensurate extension of leave. The colonial medical officers also serve nominally for twelve months on the coast; but, as their leave depends practically on the will or caprice of the Governor, they are frequently detained beyond that term of service without adequate exigency. After their tour of residential service, they are entitled to six months' leave of absence, which means about four months in Europe, for two months are occupied in the wearisome and uncomfortable voyages to and from the colony, nor can they claim any extension for detention. I have no hesitation in asserting that this period of leave is too short to recruit the health of officers after twelve to eighteen months' residence in this climate.

2. The African army medical officer is sure of promotion in due time. The colonial medical officer is nearly equally sure not to obtain promotion.

3. The African army medical officer can claim a fair pension after fourteen years of nominal service, for seven years of the fourteen are spent on leave. The colonial medical officer cannot claim a pension until he is fifty-five years of age, an utterly hopeless prospect, except in cases in which he has served seven years or more, and is so incapacitated by ruined health as to be unfit for further work. In such cases, a miserable annuity is granted, of so mean amount, that his physical sufferings are rendered still more intolerable by poverty.

4. The work of the colonial medical officer necessitates far more exposure than that of his military colleague. He can never lay up in sickness with an easy mind or without inconvenience to the public service; for almost invariably he is the only medical man at, or near to, his station, whereas there are always two or more army surgeons at their stations.

5. The army medical officer is fairly well supplied with drugs, appliances, and instruments. The colonial medical officer is always stinted in, and often without, the most essential *armamenta* of his profession, and never finds his station adequately furnished.

It is, then, not to be wondered at, that the Colonial Office finds it difficult to secure capable men, nor that those in its service should be disgusted and disheartened.

Reform in the following directions is urgently called for, both in justice to the men already in the service, and in order to obtain, in future, a good class of medical officers:

a. Eight months' leave of absence after twelve months' residential service. This would mean six months in Europe.

b. Salaries to increase by triennial increments to £600 *per annum*.

c. The certainty of a fair pension after twelve years' service if desirous of retirement, or of a proportionately large pension if willing to serve for a longer period.—I am, sir, your obedient servant,

GOLD COAST.

Kleptomania.

MR. J. T. GOBAT, of Overton, Ruabon, desires to know if there be any school or establishment where young persons affected with kleptomania are taken in.

Medical Practice in the Colonies.

SIR,—Can any of your readers inform me which of the three colonies, Australia, New Zealand, and South Africa, would be most advisable for a medical man to start practice in, with a large family of boys? Any information on either or all of these colonies will be most acceptable.—I am, sir, yours,

A PRACTITIONER.

APPELLANT has omitted to forward his name.

COMMUNICATIONS, LETTERS, etc., have been received from:

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REMARKS ON NUTRITION AND GROWTH.

By D. J. HAMILTON, M.B., F.R.C.S.E.,
Professor of Pathological Anatomy (Sir Erasmus Wilson Chair), Aberdeen University.

WHAT is meant by the terms "nutrition and growth?" How are we to define them in strictly scientific language, and what is the relationship of the one to the other? Such are questions which have often puzzled the biologist, and have led some (Sachs, *Text-Book of Botany*, translated by Bennett and Dyer, p. 693) to suppose that it is impossible to define the meaning of growth in strict terms, which will be applicable to all cases. I am far from taking this view of the matter, and would look upon the growth of an animal or vegetable organism as a definite process, limited in extent by certain recognisable laws, and due to specific properties inherent in the tissues.

In this paper I have endeavoured to trace the processes of growth and nutrition as far back as it seems to me our present knowledge will permit of. In doing so I have been chiefly actuated by a desire to form some sort of a basis for the rational definition of the conditions of hypertrophy or atrophy. Properly speaking, these ought to be considered along with any work on growth; but, as this method of treatment might, in the present instance, complicate matters, I have considered it better to limit the scope of the paper to the subjects of nutrition and growth alone.

Healthy Nutrition.—The requirements for the maintenance of a healthy state of nutrition, I hold, are twofold: 1, essential, 2, accessory.

1. *Essentials of Nutrition.*—Man, and the higher vertebrates, are far too complex organisms to study the essentials of nutrition in. In order to understand what the bare necessaries for the proper nourishment of an animal or vegetable are, we must go much lower in the scale. It is in the lowest members of each kingdom that we can best perceive what the rudiments of a nutritive apparatus are. In the animal kingdom the protozoa, and more especially the class of naked rhizopoda, are specially suited for this purpose. The most of these are simple masses of protoplasm, sometimes surrounded by a slightly differentiated covering, sometimes not. The amœba is one of the best examples. So far as we know, this organism possesses neither formed channels for the conveyance of nutrition, nor anything comparable to even the most elementary nervous system. Yet its nourishment seems to proceed with perfect regularity. The nutritive pabulum is simply brought in contact with its protoplasm as minute particles of organic matter. These are taken into its substance by a process of invagination, and the materials suited for the nourishment of the animal are extracted from them, the refuse non-assimilable substances being rejected by a reversal of the process by which they were absorbed.

The same primitive means of obtaining nourishment prevail in the lowest members of the vegetable kingdom. Like the protozoa, they are essentially masses of protoplasm, and they obtain their food in the same way, namely, by the ingestion of organic fragments of various bodies which may lie in their neighbourhood. These are digested and assimilated, and the refuse material rejected. It is hardly necessary to say that, like the amœba, they do not possess any definite channels for the conveyance of nutrition, nor is there anything to represent a nervous system.

Some of the best examples of these low vegetable organisms are to be found in the myxomycetes. They consist, in a certain stage of development, of an amœba-like mass of protoplasm or plasmodium, which has the power of locomotion by alternately shooting outwards and retracting lobes of its protoplasmic substance. These masses of vegetable protoplasm nourish themselves in the same manner as the protamœba. According to De Bary ("Morphologie und Physiologie der Pilze," in Hofmeister's *Physiologische Botanik*; and "Die Myxomycetes," Leipzig, 1874), one often observes foreign bodies in the interior of the plasmodia, consisting of fragments of dead plant-cells, spores of fungi or of myxomycetes, granular matter, or particles of coloured substance, when such have been placed near them. These fragments of foreign matter are laid hold of by quite a well-defined movement. The surface of the plasmodium raises itself upwards into a little tumour-like mass beneath the body which is resting upon it. The edges of this tumour-like projection then gradually flow over, and finally enclose, the little nutritious particle. It is not to be supposed, however, that the foreign bodies lie naked and simply imbedded in the plasmodium. Around them there forms a little vacuole or cavity similar to that which surrounds the ingesta of infusoria—the so-called "stomach-vesicle." The materials, if of the proper composition, are gradually dissolved, and the indigestible refuse is thrown out of the plasmodium by a reversal of the means by which the particles were absorbed. The organism contains, according to Kühne, a powerful pepsin-like ferment, by means of which the particles are dissolved, and rendered capable of being assimilated.

These two groups of organisms—the amœbæ and the myxomycetes—may be looked upon as among the lowest members of their respective kingdoms. Their means of nourishment are alike, namely, that the organic material is brought in contact with them, they surround it, and bring it into a state of solution. The higher, or, as we may call them, the compound organisms, I look upon, like the original propounders of the cellular theory of the tissues, as aggregations or colonies of such simple structures. The primitive vertebrate, in the first part of its embryonic existence, consists essentially of a mass of nucleated cells. There is no differentiation of these as yet into tissues. They all closely resemble each other. Soon, however, the specific properties inherent in each begin to assert themselves. They begin to undergo certain transformations. From those which are destined to form fibrous tissue, a substance is thrown out which in course of time becomes fibrillated, and converted into a bundle of fibrous tissue. The original cell is flatly applied to this bundle, and continues during its lifetime to throw out this same substance, and so to retain the integrity of the fibre. In bone, a similar fibrous basis is produced from the bone-corpuscle, between the fibrils of which calcareous salts are deposited. The bone-corpuscles meanwhile remain in the same relationship to the bone-matrix as the connective tissue-corpuscle bears to the bundle of fibrous tissue. In cartilage, there is the same arrangement; a series of lamellæ, consisting in reality of fibrous bundles, are closely applied to each other (Thin, *Quarterly Journal of Medical Science*, vol. xvi.), while the so-called cartilage-corpuscle is nothing more than the protoplasmic centre from which this fibrous matrix, infiltrated with chondrigen, is derived. The very essence of the cartilage-cell is, that it has the power of producing this peculiar matrix. Similarly, muscle is formed in the embryo from certain cells, which at first are rounded nucleated masses of protoplasm. From these, there is thrown out (Zielonk, Virch. *Archiv*, Band lxii, s. 29) a quantity of granular substance, which is soon prolonged at each end into a tapering extremity forming a spindle. This spindle becomes striated, and constitutes a muscular fibril, the original cell remaining flatly applied to the fibril, in the same manner as a connective-tissue-corpuscle remains adherent to the bundle of fibrous tissue. (Thin, *Proceedings of the Royal Society*, No. 155, and *Edinburgh Medical Journal*, September, 1874.)

In all these tissues, there is a community of design. The origin of them all is a mass of nucleated protoplasm. Each of them is to be regarded as a product or secretion manufactured, so to speak, by the machinery of the respective protoplasmic centres of the various tissues. Certain nutritive elements are supplied to these different protoplasmic factories, if we may so represent it, and out of the raw material there is produced a manufactured article corresponding to the special molecular machinery contained in each. This substance gives to the parts in which the protoplasmic units are contained the particular character by which the tissue as a whole is known. Thus, when myosin is the substance formed, we call that muscle; when a calcified fibrous matrix, the fabric is known as bone, and so on.[1]

It is therefore clear that the formed material is a product of the nucleated protoplasm in its neighbourhood. It does not arise independently, but has its *raison d'être* in the amœba-like protoplasmic colonies of the part. The formed tissues of the higher animals, in fact, are to be regarded in the same light as the slightly organised exterior of some of the rhizopoda, such as the test-like covering surround-

[1] Goodsir, in his paper on "Centres of Nutrition" (*Anatomical Memoirs*, edited by Turner, vol. ii, p. 389), regarded the nuclei, or, as he then called them, the germinal spots, of the tissues, as acting individually as a means by which nutriment could be extracted from the capillary vessels or from other sources. In the development of a tissue or organ, he looked upon the primitive cells out of which it grew as the rudiments of a colony, which colony, in course of time, would evolve itself into a special organ or tissue. He, therefore, named these primitive cells centres of germination. "As the entire organism," he writes, "is formed at first, not by simultaneous formation of its parts, but by the successive development of these from one centre, so the various parts arise each from its own centre, this being the original source of all the centres with which the part is ultimately supplied."

ing the protoplasm of the foraminifera. The compound organism is, in reality, an aggregation of colonies of amœboid structures, each leading an existence of its own, and each throwing out a special secretion.

We can even go so far as to separate some of the individuls of such a colony, and, by supplying the necessary nourishment artificially, can keep them alive quite apart from any influence exerted upon them by the nervous system or circulating blood. A leucocyte, if removed, and kept in a proper nutritive medium at a body-temperature, will live for several days, and will show active movements. Other cells, such as those derived from the endothelium in peritonitis, will also live under the same conditions, and, in some cases, become partially organised. The embryonic mulberry-mass of cells nourishes itself quite irrespective of any differentiated mechanism for this purpose, each cell assimilating, by contact, the substances which are necessary for the maintenance of its integrity and growth.

The pabulum which is essential for the support of a simple organism is similar to that which is requisite for one much more complicated. It contains the elements carbon, hydrogen, oxygen, and nitrogen, with various salts.

So long as the animal or vegetable is a simple organism, its nourishment can reach it by mere contact or by imbibition. Indeed, there are certain compound animals, such as the flat entozoa, in which imbibition is the only means of conveying nourishment to central parts. They are immersed in the materials which serve as their food, and they simply absorb these, being in this way enabled to live and grow rapidly without the intervention of any accessory in the shape of a nervous system, and without any special blood-vessels for conveying nourishment to, and refuse material from, their central parts.

All, therefore, which can be said to be essential for the nourishment of an organism is, that it should be composed of what we know as living, and usually, if not invariably, nucleated, protoplasm, and that it should be placed in contact with a suitable pabulum.

II. *Accessories to Nutrition:* (*a.*) *Digestive System.*—It can easily be understood, however, that the system of nourishment by simple imbibition must always be confined to such animals as live under circumstances where their food is specially prepared for assimilation.

The cestoid worms before mentioned are, perhaps, the best examples of nutrition carried on in this way. Being destined to have their *habitat* in the intestine of other animals, the digestion of their food is done by the stomach and intestine of the host, and hence any such arrangement for preparing the food in the tenant would be superfluous and useless.

The greater number of compound animals, however, are not placed in circumstances so favourable for obtaining a specially selected and prepared food-supply at first hand, and hence one of the accessories most commonly found in compound animals is a digestive apparatus. This, in different classes, is more or less complicated according to the amount of transformation which the ingesta have to undergo.

(*b.*) *Blood-Vascular Apparatus.*—The food, having been thus prepared, requires to be circulated through the body by special channels, because it is evident that, in an animal of large bulk, mere imbibition would be totally inefficient for this purpose. The means by which this is accomplished is, of course, by a blood-vascular system. The food, in a state of solution or minute subdivision, is absorbed by a special set of vessels which carry it into the blood-channels, to be distributed by them throughout the body. In plants, the spiral vessels perform the same function in distributing nourishment among their dense cellular parts.

Such blood-channels are, however, mere accessories to nutrition. They are not, strictly speaking, essential. A mass of protoplasm could be nourished by mere contact of the nutritive fluid in other ways, quite irrespective of the blood-vessels, provided that the materials, which it assimilates, could reach it readily by other paths. In the human body, we have actual evidence that the blood-vessels are not essential, in the fact of their being absent from such parts as the cornea, cartilage, and the inner coat of the arteries. In the first two of these their presence would be inconvenient, while in the last, the immediate contact of the membrane with the circulating blood, obviates the necessity for any further means of transmitting nourishment. In all these tissues, the method of nourishing the protoplasmic units of the colony closely approaches that of the lowest organisms. It is a system by which the nutritious substances are imbibed by them, each selecting the necessary constituents to nourish itself, and to elaborate its particular secretion.

Although, however, blood-vessels may be mere accessories to nutrition, yet their presence in all parts which have to withstand much tear and wear, or in which metabolic changes are particularly active, is absolutely necessary. There must be a full supply of organic substances in order to afford such a part the means of deriving energy. Parts which perform a mere passive action, such as bone or cartilage, are meagrely provided with nourishing channels, while in those, such as muscle or brain, in which the transformation of energy into work done is much greater, the supply of nourishment is commensurately larger.

(*c.*) *An Influence of the Nervous System.*—It may be asked, however, whether an influence of the nervous system is not an essential for nutrition. There is still considerable doubt as to whether it is. The lower classes of animals seem to nourish themselves quite independently of such; and, in the vegetable kingdom, if anything of the kind does exist, it is of the most rudimentary nature. The experiment which seems to support the idea, that the nerves exert a direct trophic influence upon the tissues, is that of division of the trigeminus (Magendie, 1824). If this nerve be divided in a rabbit, the nutrition of the eye and face is seriously interfered with. There is at first loss of sensibility on the corresponding side of the face. Within twenty-four hours, the cornea looks cloudy. The whole eye then becomes inflamed, and this is followed by total disintegration of the eyeball.

It has been asserted, however, that these effects are not due to loss of the supposed trophic action of the nerves, but are mechanically produced by the irritation caused by foreign bodies, which, on account of the loss of sensibility, readily impinge upon the conjunctiva without being perceived. The evidence in regard to this assertion is somewhat contradictory. Snellen (*De invloed der Zenuwen op de Ontsteking.* Utrecht, 1857. Paget's *Surgical Pathology*), for instance, states that, if the eyeball be protected from external injuries, as by tying a pad of cotton over it, the destructive phenomena are not induced, or are rendered feebler. Senftleben (Virchow's *Archiv*, Band. lxv, s. 69, 1875) has arrived at much the same conclusions—namely:

1. That the cornea-affection, after division of the trigeminus, is independent of any trophic action possessed by the nerve.

2. That it is a necrosis, brought about by the traumatic operations which follow on its anæsthesia.

3. That the circumscribed necrosis acts as an inflammatory irritation, and calls forth a secondary inflammation, spreading from the periphery of the cornea.

Other experimenters have not been so successful in preventing the destruction of the eyeball by protecting it from external agencies; and hence, as yet, it may be said that the matter of the trophic action of the fifth nerve upon the eyeball and tissues of the face is undecided.

Another instance, often quoted, of the supposed trophic influence of nerves upon tissues, is the fact of bedsores following paralysis of the lower extremities. These are more liable to occur in paralysis due to disease of the spinal cord than in that which owes its origin to cerebral causes. It seems, however, that the occurrence of bedsores on such paralysed parts may also be explained on the supposition of vaso-motor nervous disturbance interfering with the circulation, and not on the ground of a direct trophic action of the nerves upon the tissues themselves. This appears to be the more likely explanation, because it is on those parts which are subjected to pressure—the buttocks, heels, or shoulders—that the slough takes place. If such bedsores be due to a vaso-motor nerve-disturbance, it can easily be seen how pressure would act injuriously. The arteries having lost their means of regulating the amount of blood passing through them, or this action having become enfeebled, congestions of such parts, with all their accompanying evils, would be very liable to occur. Were the sloughs caused, on the other hand, by the loss of a direct trophic action of the nerves upon the tissues, there is not any reason why they should not occur upon the parts which are free from pressure, as well as those which are subject to it.

Another cause which may predispose to such sloughs, especially in paralysis of the lower extremities, is that there is frequently loss of sensation, as well as motion, particularly in such cases as owe their origin to spinal lesions. In such circumstances, the patient does not experience any discomfort from lying constantly in the one position. Hence pressure may be exerted continuously, for hours or days, on one spot, and may consequently induce a slough. We all know that, in such cases, the formation of bedsores may often be postponed temporarily or indefinitely by frequently changing the position of the patient. Continuous pressure on a part, even in a healthy subject, will cause sloughing in a very short time. The pressure of a splint will, in a few days, induce a slough of the skin.

Cellular tissue sloughs, again, take place in persons lying in bed for a lengthened period, if they are in a weakly state of body, even although they are not the subject of a paralysis. This tends to support the simple malnutrition theory, independent of any direct trophic action of the nervous system, by showing that similar effects may supervene, even where there is not any paralysis, simply from continuous pressure on a part in a weakly subject.

The wasting of the paralysed muscles in persons suffering from hemi-, or para-plegia is often quoted as additional evidence of a direct trophic action. The mere disuse of the muscles, however, would bring about the same effect. Faradic excitation, to a certain extent, prevents it. Besides, if the vaso-motor nerve-action is impaired, it is possible that the nutrition of these muscles would also suffer indirectly through the deleterious action on the blood-vessels. Cerebral paralysis of the lower extremities is not nearly so liable to induce bed-sores as a paralysis due to destruction of the nerve-cells of the spinal cord. On the supposition of a loss of the regulating action, exerted by the vaso-motor nerves on the vessels, being the indirect cause of the bed-sores, this might be explained by the injury which the branches of the sympathetic issuing from the cord would receive in primary disease of that organ, and the comparative immunity that they would preserve, were the lesion situated, for instance, in the cerebral cortex.

It is only right to mention, however, that many cases have been recorded which, apparently, seem to point to a direct trophic action of nerves upon the tissues. Sir James Paget (*Surgical Pathology*) states the case of a man who had fractured the lower end of the radius. The amount of callus which was thrown out was so great that the median nerve was compressed. Apparently, as a consequence of this, ulceration of the thumb, fore, and middle fingers ensued. The ulceration was stopped by so binding the wrist as to relieve the pressure upon the nerve. When this treatment ceased, the ulceration returned. It is also a well known fact that fractured bones in paralysed parts do not tend to unite, and that wounds of paralysed limbs have little inclination to heal. Mr. Travers (*Further Inquiry Concerning Constitutional Irritation*, p. 436) mentions the case of a man who fractured his humerus and tibia, and who at the same time was rendered paraplegic by a fracture of his lumbar vertebræ. The fracture of the humerus united in the course of time, while that of the tibia remain ununited.

Whether cases such as these are to be explained on the theory of a deprivation of a direct trophic action of the nervous system upon the tissues is doubtful. For so long as we know comparatively little about the effect of vasor-motor nerves on nutrition, indirectly, through the blood-supply, it would be unwise to come to any definite conclusions. In locomotor ataxia, not only muscles, but bones degenerate, yet we cannot say what the agent is which directly brings this about. It may also here be simply a vaso-motor disturbance. There is, therefore, not any conclusive proof, as yet, that nerves are actually necessary for the nutrition of other tissues in compound animals. They may be essential for regulating the machinery for transmission of nourishment, but there is doubt whether they actually control its assimilation.

There is not, however, any doubt that nerve-fibres are subject to the trophic influence of the nerve-cells with which they are connected. Waller's experiments (*Philosophical Transactions*, 1850, Part II, p. 423) have demonstrated this beyond doubt. If a nerve-fibre be divided at a certain spot, the peripheral portion degenerates, even although its blood-supply continues as before, while the proximal portion remains unaltered. That this should be so is easily enough comprehended when we take into consideration the intimate connection between the axis-cylinder and nerve-cell. The axis-cylinder may be looked upon simply as a process of the nerve-cell from which it arises. It is, in all likelihood, possessed of protoplasmic properties, much greater than is generally supposed, and hence the nucleus of the cell is probably necessary for its vitality. When, therefore, we divide an axis-cylinder, we in reality are separating a portion of the protoplasm of the cell from its nucleus, and thus it is only to be expected that the separated portion would die.

Some very curious and, if trustworthy, valuable experiments, referred to by Dr. James (*Edinburgh Medical Journal*, August, 1883) in his paper on nutrition, have been made of late by Rumpf (Pflüger's *Archiv*, 1881, p. 415), tending to show that not only is there a trophic influence propagated from the nerve-centres to peripheral parts, but that a similar trophic action, or, as he calls it, a "retrotonus," is exerted from peripheral parts upon the spinal cord. If the spinal cord, in a frog, be transversely divided in the cervical and lumbar enlargements, and if the intervening portion of the cord be separated from all its attachments by cutting through the anterior and posterior nerve-roots, the portion of cord so isolated undergoes absorption in from five to eight days. This does not follow, however, unless the nerve-roots are also divided. The result is not due, he states, to interference with the blood-supply, on account of injury to vessels entering the cord through the intervertebral foramina; but, apparently, is owing to what the author and Kühne formerly described (*Arch. f. Anat. u. Phys. v.* Reichert and Du Bois-Reymond, 1860) as a trophic action propagated from the end organs in the tissues in a centripetal direction. Both roots of the nerves seem to convey such centripetal trophic influences, but chiefly the motor branches. If one doubly divide the cord as above, then cut across the motor roots, leaving the sensitive untouched, degeneration and absorption follow as before, but not so completely, strands of the cord being still retained. Whether there be not some influence at work in these experiments, other than that referred to, is hard to say. It certainly seems somewhat curious that peripheral parts of nerves themselves should degenerate when the nerve-trunk is divided, and yet the cord, if similarly divided, retains its integrity if this retro-trophic action is propagated from the end organs in the tissues.

Growth.—By growth of a living organism I understand the following: *The increase in bulk of a tissue or organ by addition to the number of its cellular elements without the production of structural abnormality or differentiation into unlike tissues.* The process, therefore, is quite a different thing from mere increase in size. Increase in size may be brought about by many different agents. Thus an organ or tissue may become loaded with a foreign substance, and increase even symmetrically in bulk. The liver may become infiltrated with the "wax-like" substance, and its proportions may be increased equally in all directions. The form of the liver is thus kept up, the bulk it occupies apparently is greater than natural; and yet, when we come to examine it minutely, hardly a vestige of true liver-tissue may be found. The liver-parenchyma has been supplanted by a new and foreign substance. The organ has not grown; it has, in reality, suffered extreme atrophy.

Again, the same organ may have the protoplasm of its cells distended with oil; and likewise in this case may increase in bulk equally all over. The cause of the increase here, as in the former case, is the loading of the organ with a foreign substance. This produces, certainly, increase of size; but the process is not that of growth. A muscle, similarly, may increase in bulk from the interposition of fat and fibrous tissue between its bundles. This, however, as in the waxy liver, may bring about absolute atrophy of the muscular fibre, although apparently the bulk of the muscle has been augmented.

Nor is development to be placed in the same category with growth. The maturated ovum, when fertilised, divides, and very soon numbers of new cells result. These cells, however, in course of time begin to differentiate into unlike tissues, that is to say, they develop into muscle, bone, epidermis, fibrous tissue, liver-tissue, and so on, these tissues being unlike the original cells from which they have arisen. This is progressive increase, or the increase of a tissue accompanied by its evolution into one of a higher standard of organisation. It is, in a word, development, not growth. In a part which is veritably growing, each cell produces its like. There is no differentiation of one cell or tissue of low organisation into that of a higher. Muscle-cell remains as muscle-cell, liver-cell as liver-cell, without these undergoing any further evolution. Growth, in fact, commences when development is complete. If, in the increase of bulk of a tissue, there is any differentiation of a lowly organised tissue into a higher, then that tissue is still developing; growth has not yet commenced. The rudiments of all the organs and tissues are first laid down before the latter commence to grow.[2]

What, therefore, are the characteristics of a growing part in a living organism? How is it that the increase of bulk is brought about?

When we examine a piece of growing epidermis, the one feature which immediately arrests the attention is the active division of the cells composing it. In a young salamander, for instance, the nuclei of the cells are all very large. The majority of them are in the resting condition; but, in a great number, the nucleus is beset with an intranuclear plexus. Transformation of this is actively taking place, the nucleus divides, and a division of the cell-protoplasm follows. The large proportional size of the nucleus, and its rapid

[2] Paget evidently held a somewhat similar view when he wrote (*Surgical Pathology*, p. 2): "We must carefully distinguish development from mere increase; it is the acquiring, not of greater bulk, but of new forms and structure which are adapted to higher conditions of existence."

division, are two of the most characteristic features of this growing epidermis. There is no loading of the cells with a foreign substance. The whole of their energy seems to be occupied in multiplying by segmentation.

Muscle, according to Zielonko (Virchow's *Archiv*, Band lxii, s. 29), grows in the same way. Numbers of oval or round cells are always to be seen among the fully-formed muscular fibres. These, by a process of division, give rise to a new progeny of cells, which, in course of time, are converted into spindle-shaped bodies, showing transverse striation, subsequently culminating in the production of complete striated muscular fibre.

The endothelium covering a serous membrane in a young animal always shows certain of its cells to be germinating and dividing, so as to produce new cells. The single layer of epithelium covering the air-vesicles in the lung of a growing animal similarly shows the most distinct evidence of germination and division. Young fibrous tissue, young liver-cells—all show, when they are growing, active and unequivocal signs of nuclear multiplication and cell-division.

In growing plants, the great characteristic feature is the division of their cells. This, in thallogens, is particularly evident; and at the parts of phanerogams where growth is proceeding the cells are highly protoplasmic, and are all engaged more or less actively in dividing. A mushroom may in a single night grow truly enormously by a process of cellular increase.

Viewing this matter from a different stand-point, the disparity in growth of two such animals as a mouse and a whale, it may be noticed, is owing to a numerical superiority of the cells of the one over the other, not to an increase in the size of each cell. Certain of the cells in the tissues of the whale are absolutely smaller than those of some of the most insignificant vertebrates. Further, as a rule, it may be said that the fœtal cells are larger than those of the adult. We have, on these various grounds, conclusive evidence showing that, in a growing part, the most characteristic phenomenon is numerical increase of its tissue-units by a process of cell-division.

A tissue sometimes gains bulk, however, by the increase in the size of its constituent elements, one of the best examples of this being muscular tissue. Is not this also true growth? According to Zielonko (*loc. cit.*), the muscular fibres of the fœtus not only increase in number with age, but at seven months are smaller in bulk than those of the fœtus at eight. They are larger in the child of one year than in the fœtus, and very considerably larger in the adult than in the child. The increase in bulk here, however, is owing to the greater quantity of the sarcous substance or myosin. A striated muscular fibre, as Thin (*loc. cit.*) has shown, is composed of a series of flat endothelium-like corpuscles lying on the side or within a mass of striated sarcous substance, just as the connective tissue-corpuscle lies upon a bundle of white fibrous tissue. Similarly, cartilage is made up of laminated sets of bundles of fibres formed from the cartilage-corpuscles. They constitute what is called the hyaline matrix. The cornea also is a laminated fibrous tissue produced from the connective tissue-corpuscles lying upon its bundles. The matrix of bone is a calcified fibrous tissue thrown out from the bone-corpuscles. In each of these cases—and the same may be said of all other formed tissues throughout the body—the special substance thrown out by the particular corpuscle is a *secretion* from it. The muscle-cell secretes myosin; the connective tissue-corpuscle, collagen; the cartilage-corpuscle, chondrigen; the bone-cell, calcified fibrous tissue. The quantity of these respective secretions varies with circumstances, just as the secretion from the liver, salivary, or peptic cells does. Thus, in a cartilage-tumour, small masses of matrix may be seen round each cartilage-cell, or a group of these; in a myeloid tumour, little abortive portions of bone-matrix are also formed; while in a young growing muscle there are many cells around which the sarcous substance is in very small quantity. On the other hand, in articular cartilage, the matrix is abundant; in an ordinary bone, the bulk is chiefly made up of this; while in the muscle of a well-nourished individual the sarcous substance is more abundant than in one poorly nourished. (Auerbach, Virchow's *Archiv*, Band liii, s. 234.) The amount of these secretions comes and goes according to different conditions of nutrition; it is no constant quantity. Either the amount of pabulum going to the part is decreased, or the corpuscles of the tissue have lost their power of readily assimilating and of converting it into their respective peculiar products. In plants, similarly, increase in bulk may be caused by the varying amount of cellulose secreted by the plant-cells, or by the quantity of starch they accumulate. As a rule, it may be said that, where cell-division is active, the amount of these various formed substances either in an animal or plant is small. Thus, in a truly growing part, in the "punctum vegetationis" of a plant, for instance, or in growing muscle, the cellulose and sarcous substance respectively are much less than in parts of the plant or animal where cellular increase is not so rapidly progressing.

Granted, therefore, that the substances referred to above as constituting part of animal and vegetable tissues are to be looked upon as secretions from animal and plant-cells, can we, with any show of argument, call the increase in their amounts growth? Can we include the process of their elaboration along with that which is a characteristic of all truly growing tissues—namely, numerical increase of cells? To me, the two things seem utterly incongruous; and I believe we shall never arrive at any correct idea of what growth and hypertrophy mean until we distinguish between them. If we are to call an exalted secretion of a connective tissue muscle or bone-cell growth, then there is just as good reason for calling the hypersecretion of bile, saliva, or pancreatic juice, by the same designation. The muscle may store up myosin, and increase in bulk; but this is quite a different attribute from that of giving birth to a new progeny. In fact, the two things—growth and the secretion of a matrix—are, to a certain extent, in an inverse ratio; for it is not in the actively growing part that the latter is abundant, but rather in that in which a period of comparative quiescence, or state of equilibrium, has been reached. Any tissue, when it has reached this state of equilibrium, may increase in size by the accumulation of a matrix. It has not, however, necessarily grown.

Both methods of increase in the bulk of an organ or tissue, that is to say, by multiplication of its fibres or cells, or by increase in the size of these, however, sometimes go on together. In the growth of muscle this is probably the case, the number of muscle-fibres increasing *pari passu* with their bulk. Whatever the manner, however, in which the growth takes place, there is always this to be said, that the newly formed tissue is similar in its nature to that which preceded it. There is no differentiation into a tissue of a higher standard. Each cell has the power of selecting certain constituents of the blood, and of elaborating these into its own particular texture. Muscle selects those which will form muscle, white fibrous tissue those which can be transformed into its fabric, and bone-cells calcareous salts.

It is, therefore, evident that mere increase in size is not growth. Increase in size is one of the attributes of a growing part. There are others which must be taken into account in its definition, and it seems to me that, the more one comes to think on the matter, the only definition which, strictly speaking, will include all cases, is that of numerical increase of the tissue-units, with the restrictions which I have previously given.

On the Limits of Growth.—In discussing the subject of the cause of the limits of growth, there are two divisions under which it must be considered. First, the cause of the limitation of growth to a certain time in the existence of the animal or plant; and secondly, the cause of the limitation of growth to a certain bulk.

Growth commences, as before mentioned, with the completion of development, and ceases in all the metazoa at a certain period. The time of this cessation varies in different animals, and generally is proportional to the whole average length of existence. In plants the same holds good, although not so markedly as in animals. What is the cause of this limitation in time?

Mr. Spencer (*Principles of Biology*) explains it in the following manner. He takes it for granted, to begin with, that in the infant the nourishment absorbed is much in excess of the requirements of the system. It is also to be inferred from his argument that he holds the cause of growth to be excessive nutrition. Starting with these two data as a hypothesis, he maintains that the animal ceases to grow when the requirements of the tissues and the amount of nourishment supplied are exactly balanced. The surplus nourishment, which he holds there is in the infant, is neutralised, he says as the animal gets older, in the following ways.

In similarly shaped bodies their bulk increases as the cube of their dimensions, while their surfaces only as the square of the same. In childhood, he says, the amount of nourishment capable of being absorbed by the gastro-intestinal tract is greatly in excess of that required by the tissues for their maintenance. In youth, as the bulk of the organism has increased more than the absorbing surface, the excess diminishes, and when the ultimatum of growth is reached the amount absorbed is just sufficient for the wants of the system. Now, in order to employ this argument, we must be perfectly certain of two points. In the first place, that the absorbing power of the gastro-intestinal tract is the same in childhood and in

adult life. In the second place, that the ratio of the nutritious quality of the food consumed and absorbed at each period of life is alike. Before we have settled these premisses, it is of no use arguing the matter. Were the living organism like a crystal, around which there is precipitated so much new matter in a given time with perfect regularity, there might be some sort of solid basis to found an argument of this kind upon, but seeing that the conditions are so entirely different in the case of the growth of an animal or plant, any conclusions founded on the supposition that they are similar must necessarily be fallacious. In the economy of the living organism, there are so many side-issues that have to be taken into account, so many modifying circumstances to be allowed for, and which as yet we cannot calculate with accuracy, that it seems to me the whole system of the argument, as employed by Mr. Spencer to the explanation of the limitation of growth, is premature, and the problem is so complicated that it is questionable whether we shall ever be able to reduce it to a mathematical formula. Were the conditions constant, there might be some hope of success, but seeing that the slightest alteration in the external surroundings, the circulation, nervous system, etc., may be reflected upon and influence the absorbing power and general nutrition of the organism, it seems an almost Herculean labour to attempt to allow for all these.

Quite apart from this, however, I hold that we have direct evidence that the limitation of growth is not regulated by the balance of expenditure over demand. Growing animals do not fatten. It is when growth ceases that an animal puts on flesh. The areolar fibrous tissues then become loaded with fat, the muscles increase in bulk, and an augmentation in the weight of the animal follows. This excess of energy-evolving material might have been utilised in growth, but apparently has not been required. It has nevertheless been absorbed, has been offered to the cells of the tissues; they have assimilated it, and have had the opportunity of growing from it, yet it has been rejected by them for growing purposes, and has been stored up in various parts of the body, as utilisable but unused nourishment. There is, therefore, when growth ceases, no lack of nutritious pabulum, but rather an excess. In fact, what has occurred is that the absorbing surface has taken up actually more nutriment than can be consumed, and the excess of this is deposited in certain tissues until required by the system. I cannot, therefore, see that the view taken by Mr. Spencer, in regard to the period of growth being limited by the amount of pabulum sent to the tissues, is actually supported by fact. I am inclined to question the whole theory of growth advanced by him, when he looks upon it as a mere accretion of particles, and compares it to the accumulation of carbon on the wick of a burning candle, or the crystallisation of a saturated solution of a salt. No physiologist at the present day would for a moment think of comparing the formation of a crystal with the process of growth of a living tissue. The one is an accumulation of like particles round a centre in a definite order; the other the calling into existence of a new life from the old, the formation of a new progeny, consisting of cells possessing certain hereditary impressions, and capable of giving birth to an offspring. Mere accretion of particles, as in the carbon resulting from the burning of the wick of a candle, may be due to agencies quite apart from the internal economy of the particles, while growth of an organism represents work done by the particles themselves.

Animals differ in size. In the mammalia the greatest variation in bulk occurs; yet all arise from an ovum, a single nucleated cell, which does not present any difference in size at all commensurate with the bulk of the future beings into which such ova ultimately become evolved. Not only this, but different species of the same genus, both in plants and animals, arrive at different degrees of bulk and stature. And even when we come to a single species of a certain genus, variation in bulk and stature is a well-marked feature. How is this to be accounted for? What is it that causes the animal, as a whole, and its individual organs and tissues as parts, to grow to a certain size during the early period of its extrauterine existence, and afterwards to retain this bulk, with little alteration, until the time of death?

Mr. Spencer again (*loc. cit.*) explains this by a calculation based upon the difference in the initial amount of tissue with which each individual begins life. For example, he says, a mouse at the time of birth has much less initial tissue-capital, as it were, than an elephant or a whale. Consequently, as the parts of the tissue grow in the same ratio, and as nourishment is proportional in each, the one reaches a much larger bulk than the other. This, to some extent, certainly holds good. Given, to start with, say five thousand cells in the liver of one animal, and five hundred in the other, the first will, *ceteris paribus*, continue to exceed the bulk of the second. It, however, does not explain all cases. How, in view of this, are we to account for two infants, equal in bulk and weight at time of birth, reaching respectively four feet ten inches and eight feet? Giants are not always remarkably large infants. In fact, nothing remarkable is noticed in their bulk and stature until some time after growth has commenced. Two embryos of equal size of the same genus of a plant, but different species, do not necessarily grow to the same size; nor do the embryos of the same species always reach to like dimensions.

All vertebrates arise from a single cell, the ovum; yet the fœtus, in one case, may reach a ton in weight, while that of another may be reckoned in grains. The fact that the ovum, from which all animals spring, may, practically speaking, be said to be of the same size, is an additional argument against Mr. Spencer's initial tissue-capital theory. There is evidently, in the one ovum, some property inherent, in virtue of which the tendency to division is vastly greater than in the other. Both begin to divide in the same way, and there is evidence to show that in each a single spermatozooid is sufficient for fructification. Very soon, however, the cells which form the rudiments of the organs and tissues in the one become much more numerous than in the other. They are not necessarily larger, but the ovum of the progeny resulting from division in the first case, very soon overreaches that of the second.

Growth proceeds actively during the youth of the animal, and the period at which it ceases does not culminate abruptly, but by almost imperceptible degrees. During the remainder of the life of the organism, division of its cells is not entirely abolished, but takes place to such an extent that the newly-formed units are just sufficient to repair waste. Finally, in old age, even although expenditure may be less than in youth, the number of new cells generated in the organs and tissues is absolutely smaller than is required, and some amount of shrinking occurs. It seems to me that the disparity in bulk arrived at in various animals and plants can be explained only by the molecular differences existing primarily or after impregnation in the ovum. It might be argued that the difference in bulk of one animal or plant over another is a question of the amount of nourishment supplied. Does not an animal when fully fed gain a greater bulk than one which is underfed? Does not the cock's spur, when transplanted to the neighbourhood of the cock's comb, grow inordinately, from the extra quantity of nourishment supplied to it by the increased vascularity of the part? Does not a grain of wheat, when placed in particularly rich soil, grow to a greater height than one placed in poor soil? True, that is so, but no amount of extra nourishment would enable the tissues of a mouse to grow even to the size of those of a rat, nor would any amount of richness of soil ensure that a plant of wheat would grow beyond a particular limit. Even the growth of the cock's spur has its limit when placed under peculiarly favourable conditions for growing. The bulk gained by an animal or plant, when it is nourished as highly as possible, has a definite terminus, and no amount of increased pabulum would enable it to grow beyond this. That is to say, over and above the minor differences which may be caused by the amount or qualities of the nutrition supplied, there is something inherent in the cells of the one animal or plant which enables them to multiply out of all proportion to those of another. It may happen that the cells of a part do not multiply as much as they are capable of, owing to insufficient food-supply, and were the food-supply increased, growth would proceed to its full extent. That, no doubt, frequently takes place both in the animal and vegetable kingdom, and hence the disparity in the size of beings of the same species of a particular genus. Yet, quite irrespective of this, each individual has its limits of growth, and nourish that individual as much as we choose, it will never grow beyond it. There is an ultimatum of growth attainable by all organisms; it is not always attained, but cannot be surpassed.

There seems little doubt that the coalescence of the male and female pronuclei in the ovum has the power of causing great molecular disturbance in its protoplasm. The natural equilibrium of the cell is upset. It is possible that the peculiar radiating arrangement of the granules of the protoplasm, known as a "sun," around the pronuclei and permanent conjoined nucleus is evidence of this increased molecular disturbance. The result apparently is, that there is a tendency to cleavage. The particles of the protoplasm tend to accumulate at the poles of the cell. There is, evidently, some sort of repulsion between the molecules of the one half of the cell and those of the other, or an undue attraction towards either pole.

Now we can easily conceive that in ova there may be varying degrees of this molecular instability, just as the molecules of two gases may be vibrating with different velocities, producing different

degrees of tension. The tendency to split in the one ovum, we may say, might thus be a thousandfold greater than in the other. And not only in the ovum, but in the cells which result from it, there would be imparted the same ratio of cleavage-capability. The daughter-cells would divide in very much the same manner as the parent. The tendency to cleavage would thus be propagated from progeny to progeny; with this difference, however, that, apparently, the disruptive capabilities of the cell become less and less powerful in each successive generation. Thus, when the animal is young, there would be a much greater liability to reparative reaction in its tissues than when it grew older. We all know that this is the case. We know that the tissues of a young animal, if stimulated, react, by division and multiplication, more readily than when the animal is older; the reason being, of course, that they are still possessed of a greater residuum of that instability derived from the original ovular cell.

We can in this way, I think, account for the difference in the limits of growth in time and bulk. Ovular cells are possessed of unequal degrees of instability. Thus the impregnated ovum of a mouse would be the subject of much less disturbance in its molecular economy than that of a dog; and the latter, again, much less than that of a whale or elephant. The one ovum, if I may so express it, is wound up to go on dividing, say fifty-fold, the other five thousand-fold, and the third to the five millionth degree. They resemble, in fact, so many charged electric receivers. To outward appearance they are alike, but the one may be possessed of an amount of potentiality far exceeding that of the other. In virtue of this unequal potentiality each ovum would be calculated to produce so much of a progeny before its germinal activity became exhausted, but the extent of this would vary in different cases. The resulting difference in bulk of the animal that each ovum is destined to evolve itself into, would thus be accounted for. It is very much as when we dilute equal quantities of, say, three solutions of a colouring matter of different strengths with successive equal quantities of water. There comes a time when the colour of the weakest solution may be almost imperceptible, while that of the medium and strongest are still distinctly visible. On continuing the dilution, the medium solution will next become imperceptible, while the third may yet be evident. Continue it still further, and the coloration of the whole three may become so weak as to be invisible. So it is, I hold, with different ovular cells. The divisional energy of the one progeny becomes exhausted long before this happens in another, and hence there ensues as a consequence an animal of greater or less bulk. We may, by supplying abundant reparative pabulum, carry the proliferative powers of each to the uttermost multiple, and by undernourishing we may render this abortive, but we cannot by any known means cause individual ova to proliferate beyond a certain predestined limit. The organism resulting from each ovum resembles a tree. The stem is represented by the ovum, the branches by the progeny of cells set free from it, and the greater or less bulk of the animal corresponds to the number of branches and their subdivisions. The exhaustion which takes place in the power of proliferating resembles similarly the decreasing thickness of the branches and twigs.

When we consider what has been the original cause of this difference in the amount of disturbed equilibrium in the ovular cells in different animals, it surely is quite in keeping with what we at the present day regard as the origin of all peculiarities in animated nature to suppose that the laws of variation and heredity might account for it. Given a primitive ovum capable of dividing up to a certain extent, it is quite likely that, out of a great number of instances, some variation in this limit would take place. This, on recognised grounds, becoming hereditary, would be propagated to future generations, and so a peculiarity at first accidental may become a permanent feature in course of time, giving rise to certain characteristics in the being the ovum is destined to form. And if we further consider how it is that such peculiarities are impressed upon the ovum, it surely is not unreasonable to seek an explanation in the arrangement of its molecules. It is possible that although two ova may contain the same number of molecules, the arrangement of these, or of the constituent atoms of these, may be such as to endow each with different physical properties. We could even imagine, were the constituent molecules so arranged that they were more easily set into vibration by heat-radiations, that this might have something to do with the great instability in certain instances, the less in others; and seeing that all cells are in reality derivatives of segments of the original ovum, there is no reason why the same arrangement should not prevail in the segments as primarily existed in the ovum itself, but less marked. We call the ovum a small body, little thinking that, molecularly considered, it is truly enormous. Sir W. Thomson gives this graphic illustration of what is meant by the size of a molecule. "Imagine," he says, "a drop of rain, or a glass sphere, the size of a pea, magnified the size of the earth, the molecules in it being increased in the same proportion. The structure of the mass would then be coarser than that of a heap of fine shot, but probably not so coarse as that of a heap of cricket-balls." Surely, if this be the case, there is plenty of room in a vertebrate ovum for variations in the arrangement of its molecules of an inexhaustible character. By such variations we can imagine how hereditary peculiarities are transmitted. A very slight deviation from the usual molecular grouping of the ovular cell would, in course of time, produce the most marked effect in the resulting individual.

Turning now to the subject of neoplasms, how is it that they are to be accounted for on the theory just stated? How is it that a tissue, at an advanced period of life, should commence growing to a degree quite incompatible with that of the other tissues of the body? It seems to me that these abnormalities in growth can be explained only on one of two possible conditions; first, that, as Cohnheim supposes, they are derived from embryonic remnants; or, secondly, that some condition of the part locally, or of the system generally, is capable of generating in the tissues new embryonic energy and instability. Cohnheim (*Allgemeine Pathologie*, Band I, s. 623), argues thus:—We have evidence that, in the normal growth of the body, there are periods in which tissues remain in a latent condition, and others at which they suddenly take on excessive growing activity. Before puberty, the generative organs, mammæ, and hair of various parts of the body are ill developed, but when the age of puberty is reached, these suddenly begin to enlarge, to grow more rapidly than they did in previous years. In the same manner, he says, it is quite possible that there may be parts of certain tissues whose cells remain latent for a certain number of years, but which burst into embryonic activity as soon as proper physiological conditions are established. Such tissues growing more actively than their surroundings would constitute neoplasms. There is transmitted, from intrauterine life to adult age, the capability of growing to an excessive degree; it only requires the advent of certain circumstances to render this potentiality kinetic. This certainly seems a very feasible view when we come to think on it with due attention, and is quite in keeping with the general theory of growth I have discussed. That is to say, every embryonic cell has the power of dividing up to a given multiple. It is possible, however, that its power of dividing may have been arrested or suspended at a certain stage, and that it may lie imbedded in the other tissues for a length of time before completing its full compass of divisibility. I do not believe, and Cohnheim confirms this, that cells or tissues possessed of this peculiarity would have anything in their external histological characters by which they could be distinguished. We cannot tell, on looking at an epidermic cell, how far it is removed in genealogy from the original cells of the epiblast. So far, this theory of Cohnheim is comprehensible, but it must not be supposed that there are no facts which militate against it. When we examine the state of the epidermis in a commencing epithelioma, it is not a few cells of the rete Malpighii which are affected; but, for a considerable distance all round, the epidermis is pushing columns of epithelial cells into the underlying connective tissue, and, as this goos on, other parts of the epidermis assume the same germinal activity as that of the original site of the tumour. Indeed, the original tumour may slough or ulcerate out, leaving a large granulating surface, while the epidermis at the edge of the tumour shows the same tendency as the original piece of germinating epidermis to push long columns of actively growing cells down into the adjacent subcutaneous parts. Hence the induration of the edge of such a cancerous ulcer. A young growing sarcoma shows the same property of contagion, if I may so express it. A sarcoma originates, say, out of a small piece of fibrous tissue by the enlargement and germination of its connective tissue-corpuscles. As the tumour grows, I have frequently seen the fibrous tissues of parts, which are being encroached upon by it, take on the same action as the tumour-tissue itself. Their corpuscles begin to enlarge and to germinate, and, in course of time, they contribute their quota to the general bulk of the growth. In fact, Virchow holds that the primary focus of the tumour becomes exhausted in its activity, and that new foci of germination arise in the neighbourhood, which keep adding to the growth. Examine any sarcoma or cancer we choose, there are always parts of it in which growth is progressing more actively than in others, those parts whose activity has ceased being frequently discovered to be in a state of fatty

degeneration. In this way, if new accessions of germinating foci are added to the tumour, we can understand how it continues to grow even when the energy of its original cells is exhausted.

Now, if this be true, I think Cohnheim's theory will not bear criticism; for, if we hold by it, the tumour ought not to influence the parts which are not the subject of this embryonal peculiarity. We should expect that the embryonic tissue would exhaust itself in time, and that a period of quiescence would at last be reached. This, although true of some tumours, does certainly not hold good of all. There are certain sarcomata and cancers whose virulence seems even to increase as they get older.

The other theory on which the neoplasms might be accounted for is that of a local or general stimulant, acting on the cells of a particular part, and causing them to germinate. We have a parallel to this in the evolution of the uterus and mamma in pregnancy. Both of these organs are evidently in a more unstable condition than the other tissues of the body, from the frequency with which tumours of their respective tissues form. The myoma of the uterus, occurring in one of every ten women, clearly shows that there is a tendency to undue proliferation of the muscular tissue of that organ, and the frequency of cancer of the mamma shows that the epithelium of that gland is also in a similarly unstable state. The stimulation of pregnancy, whatever that may be, is sufficient to cause the increased activity of each. Causes other than pregnancy have a similar, although minor, effect. Cohnheim's theory will not explain this. There is evidently something influencing the uterus or mamma, respectively or collectively, which acts as a stimulant. Whether this be chemical or not, we do not know.

On the whole, although it may be said that the matter is as yet almost purely theoretical, I would be inclined to believe that the tissues generally are capable, under certain circumstances, of deriving new embryonic activity, and that some local influence is the cause of this; that, in some cases, this influence is withdrawn after a time, and that then the tumour becomes benign, but that, in others, it is continuous, and is capable of being propagated to adjacent parts; that, in this way, new germinal material is added to the tumour-mass, and so its growth is progressive in some parts, stable or retrogressive in others. I believe that more experimental evidence is required before the pathogeny of the neoplasmata can be settled.

THE RELATIONS OF PHTHISIS AND ALBUMINURIA.

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(*Concluded from page* 1228.)

CASE XII.—Catherine T., aged 38, mother of eleven children, a laundry-maid, was admitted March 6th, 1879. Her mother died of bronchitis. She stated that she had suffered from cough for two years, and that nine months ago she was attacked with shivering and fever, and confined to bed for three weeks; since that date she had been unable to follow her occupation. Cough had persisted and gradually increased. She had had hæmoptysis to a pint and a half two weeks ago, and a week later the expectoration was streaked. She had been steadily losing flesh for the last six weeks. On admission, her cough was hard, expectoration moderate; the catamenia had been absent four months, and irregular before that date. She complained of interscapular pain.

Physical Signs.—Cracked-pot sound was heard as far as the fourth rib on the left side. Cavernous croak was audible from the first to the third rib. The line of resonance of the right lung extended across the sternum to the left sternal margin. The heart's apex was raised; the impulse was between the fourth and fifth ribs. Posteriorly, cavernous sounds were audible above the right scapula; crepitation was heard at lower left base; the respiration was very harsh on the right side. Her weight was 6 stone 2 lbs.; urine normal. The patient suffered from night-sweats, and the temperature rose, in the afternoon, to 100° Fahr. on March 27th. In the beginning of April she complained of great thirst, and on the 16th albumen was detected in the urine, which was of specific gravity 1012. The temperature was then taken five times daily, and the averages were, at 8 A.M., 97.7°; at 11 A.M., 98.3°; at 2 P.M., 98.8°; at 5 P.M., 99.5°; at 8 P.M., 100.9°; maximum, 102.4°; minimum, 96.4°.

April 21st. Albumen had been detected in the urine every day, and the patient was rapidly becoming worse. There was now, in addition to the above physical signs, crepitation over the whole left posterior chest; also crepitation over the whole right lung.

April 22nd. Pulse, 120, small; respirations, 30. The patient was wandering in her mind. The pupils were unequal, the right one being the larger. The tongue was protruded straight. She complained of dizziness and drowsiness, and died at 10.30 P.M.

The *necropsy* showed the right lung adherent at the apex and base, especially so to the diaphragm. The lung contained large pigmented patches, two inches in diameter, of transparent tubercle, with caseating centres. The patches were peripheral in the upper and lower axilla. The left lung was adherent at the apex and base; the upper lobe contained several communicating cavities; the lower, some pigmented tubercle. The spleen weighed 11 ozs., and was lardaceous. The liver weighed 5 lbs.; it was not lardaceous. The kidneys weighed 14 ozs., and were rather large. The capsules were adherent; the cortex was not diminished; the right kidney had a cyst of the size of a walnut on its convex surface. The kidneys gave no reaction with iodine, and presented the appearance of interstitial disease with nephritis.

REMARKS.—This case is given more fully, because it was evidently not one of lardaceous disease of the kidneys, though the spleen was lardaceous, a by no means rare occurrence. The history showed phthisis of old standing, manifesting a fresh tubercular outbreak in the opposite lung. The albuminuria seems to have been noted first in the hospital, but probably existed, in some degree, at an earlier date; and the renal lesions, which evidently terminated life by uræmic poisoning, were very acute.

CASE XIII.—Eliza Ann T., aged 46, married, had lost seven children from various chest-complaints. She had pleurisy and congestion of the lungs seven years before admission, and thirteen months ago cough, a sharp pain in the left side, with shortness of breath, and streaked expectoration, which had continued up to the time of admission, and were accompanied by night-sweats, and great loss of flesh. Lately, diarrhœa had come on. On admission, cough was troublesome. She could not sleep at night. She complained of dyspnœa and night-sweats. The urine was of specific gravity 1016, clear, containing one-twentieth of albumen. Crepitation was audible over both lungs, most marked and coarsest over the upper left part of the chest.

The patient remained about the same till April 7th, when the temperature-observations were commenced, and carried on till April 26th inclusive, a period of twenty days. The urine varied in amount from 46 ounces to 52 ounces; the specific gravity from 1008 to 1012; the albumen from one-twelfth to one-sixth of the test-tube. She had some phlebitis of the veins of the left upper extremity, and on April 9th complained of intense pain in the abdomen, of a dragging character; a swelling was discovered to the right of the umbilicus, which was tender and dull on percussion. Vomiting followed, and persisted for some days. She grew rapidly worse; the extremities became anasarcous; the physical signs showed evidence of cavities having formed in both lungs, with extensive consolidations at the bases. She sank and died April 21st.

The temperature-averages for twenty days, *i.e.*, till five days before death, were as follows: At 8 A.M., 98.4°; at 11 A.M., 99.2°; at 2 P.M., 99.7°; at 5 P.M., 100°: at 8 P.M., 100°; maximum 102.4°; minimum, 95°.

The *necropsy* showed a curious hæmatoma or blood-cyst, of the size of a small orange, in the transverse meso-colon, but the source of the blood was not traced. The liver weighed 2 lbs. 10 ozs.; it was nutmeggy, and soft. The spleen had hæmorrhagic patches. The kidneys weighed 8½ ozs.; they were pale and granular, the appearance being due to interstitial dtsease, with chronic superadded tubal inflammation. The lungs had both pleuræ loosely adherent by œdematous areolar tissue. The lungs themselves were very œdematous, and contained patches of broncho-pneumonia, with emphysema at their borders. The right lung contained a large tuberculated cavity at the apex, and the left, three small ones in the upper lobe, surrounded by a deeply pigmented zone. The intestines were healthy.

REMARKS.—This is another instance of granular disease of the kidneys, supervening on old phthisis, as shown by the character of the cavities, and inducing pulmonary œdema. The thermic chart was, on the whole, low. The complication of hæmatoma was a curious one.

CASE XIV.—Mary P., aged 18, was admitted November 25th, 1879. She had cough, expectoration, and night-sweats, two years. During the last two months she had had diarrhœa, and was greatly wasted. In December, the ankles were noted to be puffy. Diarrhœa ceased after admission, but recurred in January 1880. The urine was found to be of specific gravity 1025, containing one-twentieth albumen.

Physical Signs.—On the right side there was crepitation to the third rib. On the left, distant cavernous sounds were heard from

the clavicle to the fourth rib. There was crepitation below, at the front and back. Observations on the temperature and urine were carried on from February 17th, 1880, to March 4th, a period of sixteen days, when the patient left the hospital and was lost sight of.

She suffered from diarrhœa to a slight extent during this period, the number of motions not exceeding two or three a day. Once, on March 1st, she vomited, and the vomited material was tested for urea, but none was found.

During this period the temperature gave the following averages: At 8 A.M., 97.8°; at 11 A.M., 98.2°; at 2 P.M., 99.2°; at 5 P.M., 100°; at 8 P.M., 99.7°; maximum, 101.4°; minimum, 97.2°.

The urine varied in quantity from twenty ounces down to two and a half ounces, the average being as low as seven ounces; the specific gravity varied from 1032 to 1047, the average being 1039. The amount of albumen was very large, being at least two-thirds of the test-tube, and on two occasions the urine became almost solid on boiling. The urea varied in quantity from seventy-four to ninety-three grains in the twenty-four hours, a very low rate of excretion. Crystals of oxalate of lime and urate of soda were present in the urine on more than one occasion.

REMARKS.—This was a case of chronic phthisis, with a certain degree of activity, as evidenced by the physical signs. The kidney-disease was most marked, and the condition of the urine pointed to very great obstruction in the Malpighian tubes. The reason that, with so small an amount of urea excreted by the kidneys, no symptoms of coma supervened is, I think, to be found in the diarrhœa, which probably carried of some of the urea and urinary salts. The large amount of albumen, and the reduced quantity of water, point more to nephritis than to any other form of kidney-disease.

CASE XV.—Mr. B., aged 29, man-cook, came under my care for renal symptoms on December 1876. His father died of cancer. The patient had erysipelas eight years ago; not recurring. Cough and hæmoptysis commenced seven years ago; the latter was repeated on several occasions, but was never copious. The last was one month ago, to the extent of a drachm. Cough had ceased four years, but returned three years ago, accompanied by expectoration, occasionally streaked with blood. There had been gradual emaciation for two and a half years, most marked during last year. In August, he had dry pleurisy of the right side, with considerable pyrexia, subsiding in ten days, but recurring three weeks later with great pain in the side. In June, an abscess formed in the right axilla, and discharged, with diminution of cough and expectoration, and considerable temporary relief. In November his breath became shorter, and after a chill, when coming out of a club-kitchen, drowsiness and œdema of the feet supervened. The urine was found (December 2nd) to be of specific gravity 1016; it contained one-eighth of albumen, but no casts. Diarrhœa commenced December 4th, and continued more or less up to the patient's death.

The physical signs in December were:—fluttering and defective breath in both sides; in the right side, dulness, coarse crepitation over the upper third, front and back; fine crepitation at both bases. Observations were taken six times a day, at 8 and 11 A.M., 2, 5, 8, and 11 P.M., during the last four weeks of life. The urine was examined daily, and always found albuminuric, of a specific gravity varying from 1010 to 1014. The diarrhœa was to some extent checked by medicine, but œdema of the lower extremities supervened, and the patient died January 9th, 1877. Unfortunately no *post mortem* examination could be obtained. The averages of temperature were as follows: at 8 A.M., 97.6°; at 11 A.M., 97.3°; at 2 P.M., 98.0°; at 5 P.M., 98.9°; at 8 P.M., 99.8°; at 11 P.M., 101.1°; maximum, 94°; minimum, 102.3°.

REMARKS.—Here the history began with syphilis, which predisposed to the subsequent lung-mischief; though the general course of the symptoms separated it from the specific forms of the disease, and specially the diarrhœa, which came on with the renal symptoms. The temperatures, compared with the active lung-mischief, were decidedly low.

CASE XVI.—Reuben B., aged 28, was admitted, January 1880, under the care of Dr. Tatham, who kindly allowed me to make observations on his temperature and urine. He had suffered from cough and copious expectoration, occasionally streaked with blood, for eleven weeks. He had occasional night-sweats, and, lately, marked dyspnœa; œdema of the lower extremities had appeared in the last two weeks. The physical signs showed the existence of a cavity in the left lung, and active tuberculisation proceeding in the upper lobe of the right lung.

Observations were made on the temperature and urine for twenty-three days, up to March 14th, when the patient left the hospital, with the subjoined averages: at 8 A.M., 98.6°; at 11 A.M., 98.96° at 2 P.M., 99.3°; at 5 P.M., 98.4°; at 8 A.M., 100°.

The urine was slightly alkaline, varying in quantity from 31 to 70 ozs., with an average of 38 ozs.; with a specific gravity ranging from 1014 to 1024, as a rule about 1019. The albumen occupied generally half the test-tube, and small granular and hyaline casts were discovered under the microscope. The urea varied from 197.5 grains to 292.74 grains, this latter amount being excreted after a hot-air bath, which relieved the breathing temporarily.

REMARKS.—This case showed the same lowered temperatures as some of the preceding cases, the averages being almost normal. The state of the lungs, and the comparatively short period elapsing between the date of attack and admission into the hospital, point to a tolerably acute form of disease. As the patient passed from observation, no opportunity was afforded for ascertaining the exact condition of the kidneys. They were probably lardaceous, with a considerable amount of nephritis, set up, as Dr. Dickinson says, by the irritation of the extruded lardaceous material.

GENERAL REMARKS.—In order to place the *temperatures* on a broader basis, the averages of the sixteen patients (including one to be given hereafter) are taken as a whole, and embodied in Table I. In this, in connection with the temperatures of each case, is entered a short account of the condition of the lungs, which will show, at a glance, the amount involved, and the degree of severity of the disease.

All appear to be active third-stage cases; in eight, cavities had formed, or were forming, in both lungs. In the rest, excavation had taken place in one lung, and tuberculisation was proceeding in the same or the opposite lung. In six, at least, there was ulceration of the intestines, and probably this was the case in two more. Ulceration of the larynx occurred in five.

It will be seen that the total averages of the temperature are: at 8 A.M., 97.7°; at 11 A.M., 98.5°; at 2 P.M., 99.1°; at 5 P.M., 99.4°; at 8 P.M., 99.8°. These figures show a gradual rise from 2 P.M. to 8 P.M., as is usual in phthisis, but the temperatures are below the febrile standard.

For comparison, I have placed on Diagram II the curve (continuous)

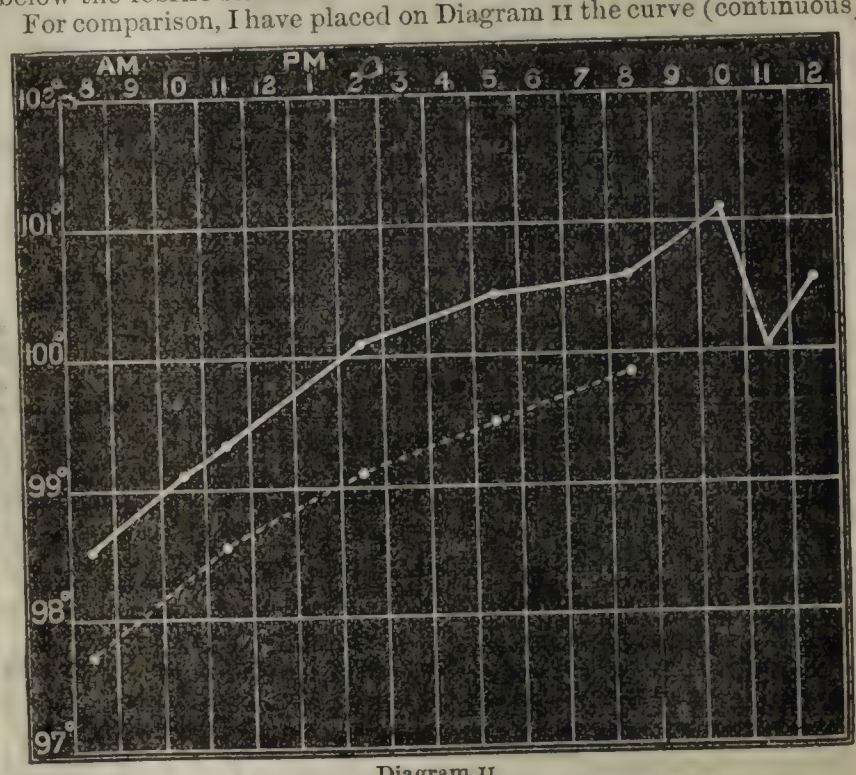


Diagram II.

of the averages of temperature of acute third-stage phthisis, founded on forty-three cases without albuminuria. Below it is the curve (broken line) of the albuminuria third-stage cases. This demonstrates a steady lowering of about one degree at each period of observation.

It will be noted that the temperature-curve of the albuminous cases is exactly the same as that of the other; only, owing to the cooling influence of the blood-poisoning, it is carried on one degree lower.

The maxima and minima also show the tendency to extremes common to active third-stage cases, the range varying from 94° Fahr. to 104.2° Fahr.; the average maximum of the sixteen cases being 100.7° Fahr., and the average minimum being 96.5° Fahr.

Dr. Whipham communicated to the Medical Society, January 29th, 1883, a case of acute tuberculosis, where lardaceous disease of the liver, spleen, and kidneys had supervened, in which the temperature-course was normal or subnormal. The case was interesting as

TABLE I.—*Shewing Extent of Disease and Lowering of Temperature of Phthisis in the third stage, active, complicated with Albuminuria.*

Case.	Name.	Stage and Extent of Disease.	Temperature. Means. 8 a.m.	11 a.m	2 p.m.	5 p.m.	8 p.m.	Max.	Min.
1	E. G.	Phthisis III, active. Diarrhœa. Excavation and Tuberculisation in both lungs	97.4	98.8	99.0	98.7	98.6	102.4	96.0
2	W. W.	Phthisis III, active. Diarrhœa. Cavities in right lung. Tuberculisation. Intestinal Ulceration	98.4	99.0	99.8	99.5	100.0	102.0	98.0
3	Alfred B.	Phthisis III, active. Cavities in both lungs. Tuberculisation.	97.9	97.9	98.3	98.9	99.9	101.2	97.0
4	Mary A. P.	Phthisis III. Cavities in both lungs. Caseous Pneumonia. Intestinal Ulceration. Peritonitis.	97.3	97.4	97.2	97.8	98.2	99.2	96.0
5	Thomas T.	Phthisis III, active. Cavity in right lung. Tuberculisation proceeding in both lungs. ...	98.6	99.1	99.2	99.6	100.1	102.4	98.0
6	John B.	Phthisis III, active. Cavities in both lungs. Tuberculisation in right lung. Intestinal Ulceration	97.4	98.8	99.5	99.1	98.2	100.0	97.0
7	George M.	Phthisis III, active. Cavities in both lungs. Syphilis. Ulceration of Larynx and Intestines	97.4	97.8	98.1	98.5	98.9	100.8	96.4
8	Frederick G.... ...	Phthisis III, active. Cavities in both lungs. Tuberculisation. Ulceration of Larynx and Intestines	97.7	98.4	99.1	99.4	99.9	101.8	96.8
9	James R.	Phthisis III, active. Cavity in left lung. Tuberculisation of both lungs	100.2	101.6	101.8	102.0	102.4	104.2	98.2
10	J. T....	Phthisis III. Cavities in both lungs. Recent Tuberculisation. Pleurisy	98.1	98.6	99.4	100.0	100.2	101.6	96.0
11	J. M. W....	Phthisis III, active. Cavities forming in both lungs. Tuberculisation	100.6	99.3	100.3	101.0	101.3	103.8	94.0
12	Catherine T.	Phthisis III, active. Cavities in left lung. Tuberculisation of right lung	97.7	99.3	98.8	99.5	100.9	102.4	96.4
13	Eliza Ann T.	Phthisis III, active. Cavities forming in right lung. Fresh Tuberculisation in left lung. Œdema and Emphysema of lungs	98.4	99.2	99.7	100.0	100.0	102.4	95.0
14	Mary P.	Phthisis III, active. Cavity in left lung. Tuberculisation of right lung	97.8	98.2	99.2	100.0	99.7	101.4	97.0
15	Mr. B.	Phthisis III, after Syphilis. Pleurisy with fresh Tuberculisation	97.6	97.3	98.0	98.9	99.8	102.3	94.0
16	Reuben B.	Phthisis III, active. Cavity in left lung. Tuberculisation in right lung	98.6	98.9	99.3	98.4	100.0	100.4	98.2
		Averages of Means of 16 cases.....	97.7	98.5	99.1	99.4	99.8	101.7	96.5

TABLE II.—*Illustrating Condition of Urine and Morbid Anatomy of Kidneys.*

Case.	Name.	Age.	Urine. Average Quantity.	Average Specific Gravity.	Albumen.	Urea.	Rate per lb. body weight.	Morbid Anatomy. Kidneys.	Other Organs.
			ozs.			grains.	grains.		
1	E. G.	18	23	1021	$\frac{2}{3}$	236.8	2.27	Lardaceous (incipient)	
2	W. W.	16	17	1014 rising to 1040	$\frac{1}{4}$ to solidity.	201 to 54		Lardaceous, nephritis	Liver fatty, fibroid and lardaceous. Spleen lardaceous.
3	A. B.	26	21	1031	$\frac{1}{2}$	169	1.37	Lardaceous, large white	
4	M. A. P.	46	36	1026	$\frac{1}{2}$	180	1.63	Lardaceous	Liver and intestines lardaceous.
5	T. T.	35	40	1018	$\frac{1}{2}$	216		Lardaceous	Spleen lardaceous.
6	J. B.	29	40	1015	$\frac{1}{2}$	228	2.03	Lardaceous, large white	Liver fatty and lardaceous. Spleen and pancreas lardaceous.
7	G. M.	38	27	1012	$\frac{1}{2}$			Large white and mottled. Nephritis. Weight 22 ozs.	
8	F. G.	19	17		$\frac{2}{3}$	166		Lardaceous	Liver and spleen lardaceous.
9	J. R.	27	30		abundant.			Left hospital	
10	J. T.....	30	30	1027	abundant.			Large mottled	
11	J. M. W.... ...	28	44					Chronic nephritis, probably lardaceous	
12	C. T.	38		1012				Not lardaceous, interstitial disease (cyst), and nephritis. Weight, 14 ozs.	Spleen lardaceous.
13	E. T.	48	48	1011	$\frac{1}{10}$			Interstitial disease with tubal inflammation (granular). Weight, $8\frac{1}{2}$ ozs.	
14	Mary P.	18	7	1039	$\frac{3}{4}$	82	.98	Left hospital. Nephritis	
15	Mr. B.	29		1014	$\frac{1}{2}$			Died. No *post mortem* examination	
16	R. B....	28	38	1019	$\frac{1}{2}$	207.9		Left hospital	

confirming the above conclusion, and also for the diagnosis of the case, from the presence of bacilli in the system, when the physical signs were obscure.

The principal facts relating to the *urine* of these patients has been summarised in Table II, in which some of the results of the *post mortem* examinations are also entered, and it will considerably facilitate our comprehension of the urinary phenomena if we turn to this first. Of the sixteen patients, thirteen died while under observation, and in twelve necropsies were obtained; but we need not here go into the state of the lungs in each case, but will proceed at once to the consideration of the kidneys.

The kidneys in seven of these twelve cases were undoubtedly lardaceous; in three more instances they were described as either large white kidney, or mottled kidney, or chronic nephritis, and it is not improbable that all these cases might, after more careful examination, have been classed as lardaceous. In the remaining two cases, the kidneys were, in one, in a state of interstitial nephritis, and in the other they were granular, with some tubal inflammation. In five of the seven cases of undoubted lardaceous kidney, there was similar disease of other organs, namely, of the intestines, liver, spleen, or pancreas, the spleen being most frequently involved. This gives a preponderance of probable lardaceous disease—viz., ten out of twelve, *i.e.*, five-sixths of the cases; but even taking the undoubted cases only, more than half were affected with this form of the disease.

In the fatal case in which no necropsy could be obtained, the character of the urine, and the presence of diarrhœa and œdema, pointed to lardaceous disease; and of the survivors, Case XVI was probably lardaceous; while, in Case XIV, the large reduction of the urine and of the urea pointed rather to nephritis, and it is possible that Case IX belonged to the same category. It was only by very careful examination that lardaceous disease was detected; and often, in doubtful cases, microscopic examination settled the question. According to Ecorchét, quoted in Hanot's article in the *Nouveau Dictionaire de Médecine et de Chirurgie Pratiques*, phthisis is present in sixty per cent. of the lardaceous kidneys. Dr. Southey, in his Lumleian lectures at the College of Physicians, gives, as the result of his hospital experience, that phthisis was associated with 8.9 per cent. of the granular kidney, with 12.9 per cent. of the large white kidney, and with 37 per cent. of the lardaceous kidney.

Professor Bamberger, in a valuable contribution based on 2,430 cases of Bright's disease, from the records of the Allgemeine Krankenhaus in Vienna, gives a list of the various diseases to which 1,623 of his cases of Bright's disease were secondary; and in this it appears that in 15.7 per cent. of the whole number, it was secondary to tuberculosis, phthisis, and scrofula.

Bamberger finds that, while lardaceous disease of the kidney and other organs was a tolerably frequent attendant on chronic phthisis, the parenchymatous and tubular forms of nephritis were most common. Wishing to investigate this subject from the other standpoint, I endeavoured to ascertain the number of cases of phthisis in which lardaceous disease of the kidney was found after death, and for this purpose examined the records of the Brompton Hospital for one year and a half, during which period Dr. Ewart had been curator, and had examined most of the kidneys microscopically.

In 133 necropsies in cases of phthisis, the kidneys gave a marked reaction with iodine in 50, or in 37 per cent. In 19 more a slight reaction was obtained, chiefly confined to the Malpighian tufts, giving a total of 69, or 52 per cent. This is a higher percentage of lardaceous disease in phthisis than any previously given; but it must be remembered that the Brompton Hospital has special advantages in point of numbers for investigations of this sort.

The microscopic observations confirm the admirable ones of Dr. Dickinson, demonstrating that the vessels of the Malpighian tufts were those first attacked, and that, later on, the epithelium of the tubuli contorti was involved in the staining. In many instances, fatty changes were also taking place in the epithelium.

Urine.—Having ascertained the pathological conditions of the kidneys, we can better consider the urine secreted by each form. In the lardaceous cases, the average quantity varied from 17 to 40 ozs. in the 24 hours. In Case XIV, of which the diagnosis was chronic nephritis, it at one time fell to 2½oz., the specific gravity rising to 1047. In this case the urea fell to between 74 and 93 grains, and the patient nevertheless showed no head-symptoms. The specific gravity averages of the lardaceous cases varied from 1012 to 1031, a much higher estimate then Dr. Dickinson's, who gives it as 1006 to 1015. In Case III, where great obstruction occurred in the tubes, it rose gradually from 1014 to 1040, with such an enormous increase of albumen, that the urine appeared to be a mere solution of serum. In Case XIII, one of granular kidneys, it fell to 1011.

The albumen was very abundant, and seldom amounted to less than half the test-tube. In Case II, the urine eventually became solid on boiling, and prevented further investigations.

In the "granular case," it averaged one-tenth, but never exceeded one-sixth. In Case VII, one of large white kidney, presenting no lardaceous reaction, the albumen was one-half the test-tube, the specific gravity being only 1012, and the kidneys, after death, weighing 22 oz. Casts were found in six cases, granular in two, granular and hyaline in one, hyaline with oil-globules in one, simple hyaline in one, and blood-casts in one.

The urea was determined by Russell and West's method. The maximum in the cases of lardaceous kidney was 337 grains in the 24 hours, which occurred in Case I, the minimum was 54 grains, which occurred in Case II, the normal amount being about 500 grains *per diem*, showing a great decrease from the ordinary standard.

The most remarkable diminution occurred in Case III, where, in one month, the urea diminished from 201 to 54 grains, the quantity of urine remaining the same, and the dietary not greatly varying. In this case, diarrhœa was present, and increased somewhat towards the end of the period; but the increase was not sufficient to reduce the quantity of the urine passed, though probably some of the urea was excreted by the bowels. Our lardaceous cases, therefore, show a decided diminution of water and urea, but the presence of a very large amount of albumen. Unfortunately, time did not allow of the quantitative analysis of the other constituents of the urine in these cases. In column 7 of the Table II, I have entered the rate of urea-excretion per pound of the patient's weight, according to Parkes' plan, who estimated that a healthy man should excrete daily 3½ grains for every pound of his weight. This shows that the highest rate was 2¼ grains, and two of the patients excreted 1.6 grains and 1.3 grains per pound respectively, and one rather less than 1 grain per pound—a very small quantity.

The question arises as to the cause of the lowering of the temperature in the above cases, and we naturally turn to the state of the blood for an explanation. In albuminuria, generally, there is a marked decrease in the number of red corpuscles and of albumen, with a relative increase in the water, fibrin, and leucocytes; hence the great pallor and the tendency to dropsy. As the red corpuscles are the carriers of ozygen to the tissues, it would appear that the diminution in their number, which, according to Dickinson, amounts to one-fifth, may considerably interfere with perfect oxidation; but in many cases of disease, pallor is combined with high temperature, and so this will not afford a complete explanation. Nor will the presence of an increased amount of urea alone do so; for it has been shown by Hammond's[1] important experiments that, provided the kidneys remain intact, a considerable quantity of urea can be injected into the blood of dogs without greatly disturbing the circulation, and that, when symptoms of uræmia appeared, they disappear under the degenerating action of the kidneys. Even when the kidneys have been removed, or the renal arteries tied, and thus the urinary constituents retained within the blood, uræmia does not take place, if, as has been pointed out by Bernard and Barreswil, the urea or the products of its metamorphosis can be discharged by the stomach and intestines. The state of the kidneys in Case II, blocked by tubal nephritis, and the small quantity of urea and water excreted by them, without any symptoms of coma, with the obstinate, but doubtless necessary diarrhœa, present a remarkable similarity to this set of experiments. Hammond, however, shows that urea, injected into the blood in quantities beyond such an amount as can be excreted, produces toxic effects.

It is probable, however, that the condition known as uræmia is due to the retention within the blood, not of one urinary constituent alone but of many; and an experiment of Stolnikoff (*Centralblatt für die Med. Wiss.*, April 24th, 1880) bears on this. He found, in experimenting on rabbits, that if, before injecting putrid material into the blood and setting up septicæmia, the renal arteries were compressed, and thus the conditions of nephritis reproduced, no pyrexia followed, but rather a lowering of the temperature. He also found that, when nephrectomy was performed on animals in a feverish state, the fever sank.

The temperature of chronic Bright's disease, whether nephritic or granular, is usually low, and often subnormal; and so it is not surprising that the state of blood which lowers the temperature in this form of disease should reduce the high temperatures of pyrexial phthisis. We may conclude, therefore, that the lowering of the temperature in cases of phthisis associated with albuminuria is due—partly, at least—to the retention within the blood of the constituents of the urine. This gives rise to uræmia, which is not sufficiently intense to cause coma.

Prognosis.—A careful study of our cases will disclose a very unfavourable outlook for the complication of albuminuria with phthisis. The patients died generally within a few months of the appearance of the first symptoms—one after a few weeks; and the longest case lasted but three months. Private patients, however, appear to live longer, and I know of some cases where life has been prolonged even for years. In the discussion on Dr. Sparks and Dr. Bruce's paper read before the Royal Medical and Chirurgical Society on January 14th, 1879, on the Effect of Diet and Rest in Chronic Nephritis, Dr. Quain cited a case of phthisis of fifteen years' standing, with albuminuria of five years' duration; and one of extreme albuminuria and extensive chronic phthisis, with but little influence on the general health. In one of my patients, who has had phthisis for fifteen years, and a considerable-sized cavity for ten years, albuminuria supervened six years ago, and he still survives, although in a very precarious condition. Another patient, of twelve years' duration, has had slight albuminuria for one year, and is still able to travel, though living the life of an invalid. These are the longest cases I can recall; and they must be regarded as the exception, and not the rule. Many others whom I have seen have sunk a few months after the albuminuria set in; so that this symptom must, in all cases of phthisis, be regarded as of very serious import.

The treatment of these cases, and the results of various dietetic experiments, are reserved for another communication.

ELECTROLYSIS IN THE TREATMENT OF DRACUNCULUS.

By ALEXANDER S. FAULKNER, M.R.C.S.Eng., I.M.D.,
Civil Surgeon, Aden.

O. L., a Hindu goldsmith from Kattyawar, aged 28, was admitted into the Civil Hospital, Aden, on July 25th last, suffering from the effects of the presence of four Guinea-worms in different parts of his body.

The patient, though a slight man, was fairly nourished, and his general constitution and functions did not seem much impaired. The different positions of the several worms were as follows. About the upper third of the outer aspect of the right leg, a worm had protruded about three inches; on the lower third of the outer side of the left thigh, another had also protruded to the extent of about two inches; on the dorsum of the left foot, he had a fistulous open-

[1] "Uræmic Intoxication," *American Journal of Medical Sciences*, 1861.

ing, indicating the site where a worm appeared, but was broken off in the patient's endeavours to extract it, but the remaining portion of the worm could be distinctly felt in the surrounding subcutaneous tissues; and, on the back of the left hand, especially between the little and ring fingers, another worm could not only be felt, but its tortuous course was distinctly visible, but, so far, its presence had caused no inflammation, and, consequently, there was no apparent indication of the site of its intended exit.

The patient had only been in Aden for three months, having previously resided in Kattyawar, in India (a district where this disease is of very common occurrence). The first indication he noticed of his present condition was a "swelling" on the outer aspect of the left thigh, which resulted in an abscess, and subsequently burst, discharging a good deal of pus, and the head of a Guinea-worm. In trying, by forcible traction, to extract the latter, the worm naturally broke, its greater portion remaining within. Subsequently, other abscesses formed, in like manner, in different parts of his body, caused in each case by the presence of a Guinea-worm, all of which were treated by the patient by extracting only portions of a worm at a time. In this way, he stated, he had been suffering for the last five years.

On presenting himself for treatment at the Civil Hospital I determined to try the experiment of applying galvanism to the protruded worms, an idea I have for some time wished to test practically. The result in this case was most encouraging and satisfactory. The patient held one pole of the battery in one of his hands, and the other I applied to the head of the worm which protruded from the patient's right leg; he at once distinctly felt the sensation of the worm "wriggling" within, which caused him slight pain. I left him for about an hour with my hospital-assistant, with instructions that slight and gradual traction should be applied on the worm, and by these means, and in this short space of time, the whole worm was extracted entire. Afterwards, I applied the battery, as before, to the worm protruding from the patient's thigh, and, although the effects on this worm were not quite so satisfactory, still the result was very encouraging, as the entire worm was successfully extracted next day. Poultices were applied over the fistulous opening on the foot and the patient's left hand—the situations of the two other worms. On July 30th four inches of a worm were extracted from the foot after the battery, and subsequently a poultice, had been applied. No other worm reappeared here, and the inflammation soon subsided. I therefore concluded that the whole of the remaining portion of the worm, which the patient had previously broken, had now come away.

On August 3rd, about two inches of the worm on the patient's left hand appeared after the bursting of a small abscess. Galvanism was applied to this worm as in the former instances, and a poultice ordered. Galvanism was again applied on August 5th. The worm had protruded four inches, and was now six inches long. On August 6th the protruded portion of the worm was about twelve inches in length. The battery and a poultice were applied, and in the evening the entire worm was extracted whole. There being now no signs of the presence of any other worms, the patient was discharged from the hospital.

REMARKS.—The usual routine-method of treatment in these cases is the application of poultices over any inflammation caused by the presence of a Guinea-worm, and, when once the worm has appeared, means to prevent its re-entry into the body are resorted to, such as twisting the protruded worm round a small quill or other convenient substance, and gradually twisting the worm more and more each day till the whole is extracted, a decidedly lengthened and tedious procedure in most cases, and usually unsatisfactory in its results, as the worm is very apt to be broken, and, if so, the general constitution of the patient suffers. The idea of applying counter-irritation to the worm itself to expedite its safe extraction in these cases, first struck me when perusing some notes (*Annual Medical Reports of the British Army*) by Surgeon Stewart, Bombay Medical Department, in which he stated he had tried the experiment of applying the sting of a scorpion to protruded worms; and my object in recording the above brief notes of my case is to bring to notice the very satisfactory results I obtained by far simpler and more convenient means of counter-irritation, viz., the application of galvanism to the worm. This no doubt has the effect of paralysing the worm to such an extent that practically there is no resistance to its extraction so far as the worm itself is concerned, and its rapid and entire extraction is consequently made easy if only ordinary care be taken in handling the worm.

Although this mode of treatment is a novel one (so far as I am personally aware), still I feel that the successful result of the above case, obtained by its means, is sufficient in itself to warrant the hope that others, more favourably situated than myself for meeting this disease, will give it a fair trial and record their results.

CLINICAL MEMORANDA.

A CASE OF ELEPHANTIASIS.

DURING a holiday, my attention was drawn to the following case in a country village. Several medical men have seen it, and have all been struck with the growth of the legs. A short description of the state of this poor woman may be interesting.

Sarah W., aged 43, was a healthy woman when young. Her family history is good. Fifteen years ago, she was confined of her first child. Labour was natural. All went on right for a few days, when she had a rigor, and the left leg began to swell. The swelling began in the thigh, and spread down to the foot. The skin was erysipelatous. As this limb recovered, the right leg began to be affected in the same way. Both were raised into large blisters below the knee, which discharged a large quantity of serum. The secretion of milk failed for thirteen weeks after the confinement, when the child refused it. She had a large abscess in the left breast, and one in the calf of the left leg. After this, the right leg began to enlarge slowly, and has continued to grow larger for fifteen years. Treatment at first seemed to check it, but only for a time. The left leg soon followed, though it has not attained such a size as the right. There was a miscarriage six months after the confinement. The catamenia have been regular, though scanty. Leucorrhœa is generally present. There is some dysuria, and difficulty in passing urine. The bowels act regularly. She is subject to dyspnœa and palpitation. The face looks healthy and natural. The body is very large, but only from adipose tissue. The right leg measures round it, just above the ankle, 35½ inches; half-way to the knee it is 39 inches in circumference; while at the top of the calf it is 45 inches. Round the knee-joint it measures 33 inches, and at the middle of the thigh 35 inches. The mass of hypertrophy is divided into lobes by deep fissures, which are smooth at the bottom. The deepest fissure is where the mass overhangs the foot, almost concealing it. It is over three inches in depth, and extends all round the leg. The next is about three inches deep, and almost encircles the limb. A third, 2¼ inches deep, goes about half-way round the leg. One large lobule, just below the knee on the fibular side, grows out some inches. The latest growth is on the inner surface of the thigh. The fissures have frequently been cracked and ulcerated, with an offensive discharge. The back and lower parts of the leg are rough, like bark, this also partly spreading to the front. Other parts are smooth and glazed. The lobes are firm and dense. The foot is swollen from œdema alone. The left leg is 12 inches round above the ankle, and overhangs the foot; at the calf, it is 26 inches. Save the pain from the cracks when present, and frequent shooting pains in the bowels and legs, the principal suffering is from the size and weight. Mrs. W. can walk about slowly, dragging the right leg. Fuller's earth and liquor carbonis detergens keep it clean and free from smell. She would not allow amputation some years ago, when the left leg was not much affected. Now, nothing but palliative treatment could be carried out. The mass is kept up fairly well by several stockings sewed together. This immense hypertrophy following the puerperal difficulties seems to be worthy of record.

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THERAPEUTIC MEMORANDA.

UNUSUAL SYMPTOMS FOLLOWING APPLICATIONS OF UNGUENTUM HYDRARGYRI AMMONIATI.

NOTICING a paper, by Mr. Green, with the above heading, among the agenda of the Isle of Wight district meeting for October 25th, I send you a brief note of two cases where the application of a precipitated mercury ointment of 30 grains to the ounce, for chronic eczema of the insteps, probably of fungoid origin, was followed by severe and acute symptoms.

CASE I.—Mrs. Z., Eurasian, aged 55, a full-bodied person, applied to me suffering from chronic eczema, over both insteps, of many months' duration. The skin was hypertrophied and discoloured, and the itching caused much annoyance. I prescribed an ointment of 30 grains of hydrargyrum ammoniatum, and 15 minims of compound tincture of lavender, with vaseline, to

the ounce. In two days, the previously dry eczema was converted into an acute form, with copious weeping, followed by the formation of small vesicles, which became pustules, round the skin in the vicinity of the original patches. The patient, by constantly scratching herself, managed to inoculate her eyebrows and cheeks. A month elapsed before the application of poultices, oil-dressings, milk-washings, and the internal administration of alkalies, with ergot, opium, and liquor arsenicalis, effected a decided improvement in her condition.

CASE II.—A Mahommedan, aged 50, applied to me with a similar parasitic eczema over both insteps, and I ordered him 30 grains of ammoniated mercury, to the ounce of simple ointment. Here, again, an acute eczema, with copious discharge, was produced after two applications, and the whole surface of the trunk and limbs was covered with a papular eruption of slightly raised vascular papules, flat, diffluent, and about one-fifth of an inch across. The occurrence of both cases within a few days surprised me, since I had never before seen any objectionable results follow the use of ammoniated mercury. I inquired of the patients, and found that both had obtained their ointments from the same druggist's shop. I inspected the bottle which was said to contain the drug used in dispensing the ointments, and found it nearly empty. The bottle in question had been in use some time, and no complaints of the drug had been made before. I was, at first, doubtful about the female patient's condition being due to the white precipitate, since I learnt that she was very fond of applying native remedies in addition to those prescribed. I believe that it is the practice with many druggists to prepare the drug fresh as required for use; but, although grey powder is very liable to become oxydised in hot climates, and is, therefore, rarely prescribed by careful men in India, I have never heard of any poisonous results following the use of white precipitate before.

SHIRLEY DEAKIN, F.R.C.S.Eng., Surgeon Bengal Service.

REPORTS

OF

HOSPITAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

NEWCASTLE-ON-TYNE INFIRMARY.

REMOVAL OF THE UTERUS AND APPENDAGES.

(Under the care of Mr. F. PAGE.)

NURSE C., aged 40, was admitted into the Newcastle-upon-Tyne Infirmary, August 1883, suffering from too frequent and exceedingly painful menstruation. She stated she had been more or less under medical care for the last nine years. Twice she submitted to incision of the cervix, once by Professor Simpson, of Edinburgh, and once by Dr. W. Murray, of Newcastle; but the relief afforded her was only temporary. At the date of admission she was, and had been for some time, entirely prevented from following her calling—that of a monthly nurse; and her resources were exhausted, so that she was most anxious to undergo any operation which afforded her a chance of cure. Beyond a small uterine fibroid, there was nothing abnormal to be discovered in the pelvis. A few days after admission, both ovaries and Fallopian tubes were removed by abdominal incision, with the object of putting a stop to ovulation and menstruation, and in the hope that a cessation of those functions would check the growth of the fibroid, relieve her pain, and enable her to return to her ordinary occupation. The wound healed, under antiseptic precautions, without any constitutional disturbance, and the patient is now nursing, and has ceased to complain. The right ovary and tube were in a healthy condition; attached to the left were a number of small cysts containing clear fluid.

THE ALEXANDER PRIZE.—We desire to correct an error in our statement regarding the above prize in the JOURNAL of December 15th. Dr. Porter was at Netley when he gained the prize in 1875 for his surgical essay. But none of the professors of the Netley School were assessors for that year.

THE PORTSMOUTH HOSPITAL.—This excellent institution has just received a legacy of £2,000, under the will of Mr. J. K. Ford, a solicitor formerly in extensive practice in that borough.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, DECEMBER 5TH, 1883.

H. GERVIS, M.D., President, in the Chair.

The Effect of the Forces and Resistances of Labour in Producing Lateral Flexion of the Fœtal Head.—Dr. GALABIN showed three diagrams, to illustrate the view as to this subject which he had formerly brought before the Society, viz., that whenever the head was so shaped, by prominence of the parietal tubera, that the biparietal diameter was greater than oblique diameters slightly inclined to it, so that a lateral obliquity secured a mechanical advantage by bringing into any diameter of the pelvis opposed to the head a smaller diameter than the biparietal, and when also there was any notable pressure upon the head at the ends of its transverse diameters, then the effect of this pressure upon the head was to promote lateral obliquity up to the point at which mechanical advantage was gained, and beyond that point to counteract it.

The Mechanism of Labour, more especially with reference to Naegelé's Obliquity, and the Influence of the Lumbo-sacral Curve.—This paper, by Dr. ROBERT BARNES, was then read. The author quoted Naegelé's description of the obliquity of the head as it presents at the pelvic brim. He next examined the theory of those who held that the axes of the pelvic brim, uterus, and fœtus, coincided. He showed that while Naegelé held the same view as to the inclination of the pelvis to the horizon as his opponents, he did not deduce from it that the uterus and fœtus presented with their axes coincident with that of the pelvic brim. The author examined this view, and, appealing to the frozen sections of Braune and Chiara, showed that the uterine axis formed a considerable angle with the axis of the pelvic brim. He demonstrated the difference between the heart-shaped brim of the pelvis, and the circular cavity of greater capacity than the brim; and, therefore, that the head passing the brim must, under the law of accommodation, and of movement in the direction of least resistance, rotate under the promontory. He then described the lumbo-sacral curve, the influence of which upon labour had received inadequate attention. This curve was represented by a line drawn from the promontory as a centre with a radius intersecting the middle of the plane of the brim. This he proposed to call Barnes's curve. It was the counterpart for the brim of Carus's curve for the outlet. The resultant of the two formed a sigmoid curve, beginning at the fundus of the uterus, and ending at the outlet of the pelvis. He called it the parturient curve. He showed that the driving force acted in a line forming an angle behind the axis of the brim, and that therefore, under the combined action of the convex lumbo-sacral curve, of the relation of the uterine and fœtal axes by an angle behind the brim-axis, the head could not enter synclitically, that is, with its base or transverse section parallel with the brim-place. He showed that, from the curve of the parturient canal, the irregular shape of the head, and the non-coincidence of the three axes, all the conditions of true synclitism were wanting. He then referred to the part borne by the planes of the uterus; the first, resting on the lumbo-sacral curve, helped to guide the head to the brim in obliquity; the second guided the head backwards into the sacral cavity and under the promontory, completing the lower course of Barnes's curve; the third, or perineal plane, threw the head forwards to the outlet in Carus's curve. He next demonstrated, from Dr. Galabin's and his own measurements, that there was a distinct gain in presenting the oblique diameter, instead of the biparietal, to the brim, the point especially insisted upon by Naegelé. He illustrated the theory of normal obliquity by comparison with that of labour with brim-contraction, showing that the importance of the lumbo-sacral curve increased with the degree of contraction, but that the same law prevailed throughout all labours. He concluded by submitting that the objections urged against Naegelé's obliquity were vitiated by erroneous assumptions that there was an adequate reason for this obliquity, and an adequate mechanism to produce it; and that it was a real and necessary result of the combined action of the factors working in the mechanism of labour. The paper was illustrated by several diagrams.—The PRESIDENT thanked Dr. Barnes for his erudite and interesting paper. He (the President) had in his earlier years, influenced much by Dr. Tyler Smith, accepted Naegelé's view as to the brim-obliquity. Subsequently, the writings of Duncan and others had led him to doubt it. After studying Dr. Galabin's paper on the

subject, he had come to the conclusion that, while, in the case of a well formed pelvis and head of average size, the head entered the brim perpendicularly to the brim-plane, yet, when the brim was even slightly contracted, new conditions prevailed, and there was a gain in the obliquity of Naegelé. He expressed the gratification of the Fellows present in seeing Dr. Wiltshire again among them.—Dr. MATTHEWS DUNCAN said that the mechanism of natural and unnatural labour had very little in common with a view to Naegelé's obliquity. The "curve of the false promontory," or "Barnes's curve," had no importance in natural parturition. In the flat pelvis, the head followed this curve. The question could not be settled with mathematical exactness. It was one for simple observation, not for ingenious argument. As a matter of fact, he did not find the right parietal bone enter the pelvis first. Nor did he find the caput succedaneum of early labour form upon that bone, but upon the vertex. It was only in late labour that it was formed on the right parietal bone. He held that the axes of the pelvis, uterus, and fœtus, were practically coincident. The frozen sections, appealed to by Dr. Barnes, were not faithful representations of the state during life. The uterus, during the contractions of labour, erected itself, bringing its axis into coincidence with that of the brim. It was not pushed back towards the spine, but became more prominent. In the "bearing down" action accompanying labour, the recti muscles were not the only ones which acted; the diaphragm and its crura acted as well, forming a dome which supported and assisted the uterus.—Dr. GALABIN had frequently observed Naegelé's obliquity, not in easy labours, but in cases in which there was no deformity, but the head met with considerable resistance. He ascribed it chiefly to the lateral pressures on the head in the pelvis, as shown in the diagrams he had exhibited. A head with a large biparietal diameter thrown directly across the canal was in a position of unstable equilibrium, like a head in a position of brow-presentation. He could not understand how Dr. Barnes considered that the posterior obliquity of the uterus helped to produce Naegelé's obliquity. Such uterine obliquity would, until the resistances came into play, tend to produce the opposite of Naegelé's obliquity. But he did not think that posterior obliquity of the uterus was nearly so great as might appear from frozen sections. He could not accept Dr. Barnes's account of the action of the anterior uterine valve, for he did not think that displacement of the os uteri backwards was a regular occurrence. The effect of uterine obliquity in producing obliquity of the head was only in operation while the force was transmitted through the condyles. While the liquor amnii was retained, the force acted in the axis of the pelvis, and had no tendency to produce obliquity.—Dr. CHAMPNEYS agreed with Dr. Galabin, that the first effect of posterior obliquity of the uterus would be to produce the opposite of Naegelé's obliquity. He pointed out that the condition known as "pendulous belly" was generally recognised as a cause of exaggerated Naegelé's obliquity. How could these two opposite conditions produce the same effect? — Dr. ROPER remarked that, although a slight advantage was gained by Naegelé's obliquity, yet its practical importance, even in contracted pelvis, was very small, the other obliquities, *e.g.*, flexion and extension, were of infinitely greater importance.—Dr. BARNES held that the curve of the promontory was important, both in natural and unnatural labour, the difference being simply one of degree. It was necessary, for synclitism, that the axes of the uterus, fœtus, and pelvic brim, should be absolutely, not merely practically, coincident, for the slightest deviation would be enough to cause obliquity of the head. He thought that the frozen sections were essentially true representations of nature. There was no evidence that the crura of the diaphragm contracted in such a way, or that the diaphragm had the power to drive the uterus forward, against the abdominal muscles. If, during turning, the direction of the force were observed, it would be found to be behind the axis of the pelvic brim. He had observed cases of labour very carefully, and had observed the presence of Naegelé's obliquity from the beginning of labour.

ALDERSHOT MILITARY MEDICAL SOCIETY.

THURSDAY, NOVEMBER 1ST, 1883.

Deputy Surgeon-General J. J. THOMPSON, A.M.D., in the Chair.

Micro-organisms in relation to Disease.—Surgeon-major FRANKLIN GILLESPIE read a paper on this subject. Having referred to the great importance of the subject, and the part which, if further investigations realised present anticipations, it was likely to play in the future of clinical and preventive medicine, he deprecated the attitude of mind which persistently refused to entertain a doctrine necessarily subversive of long-established notions. This obstinate scepticism had its use in promoting accuracy in scientific research; but, carried to an extreme, it retarded advancement. The doctrine of germ-influence in the production of disease was no more susceptible of direct proof than was that of evolution, now widely accepted by educated men. The necessity of technical knowledge in dealing with the subject was strongly insisted upon. A summary was then given of the results which, up to the present, had attended the labours of Pasteur, Koch, and other investigators, and a tentative classification of pathological micro-organisms proposed. In conclusion, the writer urged army medical officers to make use of their opportunities, and not to be behindhand in furthering a line of inquiry which might be pregnant with great results to our common profession. The paper was illustrated microscopically by specimens of the bacillus tuberculosis of Koch, and other micro-organisms.—Surgeon STEVENSON agreed with the views enunciated in the paper. To his mind, the results of Koch's experiments on the infective properties of certain inflammations artificially induced (in which micro-organisms played an essential part) were quite conclusive. He also exhibited some familiar experiments illustrative of the action of plugs of cotton-wool in preventing putrefaction in organic solutions contained in test-tubes.—Surgeon RYAN, while fully recognising the possible importance of micro-organisms in relation to disease, would hesitate to admit that, except, perhaps, in one or two instances, their causal connection with disease-conditions had been conclusively proved. No amount of association of micro-organisms with pathological states was, in itself, a proof of a causal relation. As well might we attribute the occurrence of putrefaction to the swarm of flies which, under favouring conditions, always collected round a decomposing carcase. The *modus operandi* of micro-organisms in producing disease had been far from satisfactorily explained. Indeed, their exact relation to the analogous process of fermentation was still, notwithstanding all plausible theories on the subject, an unsolved mystery. There were many of the clinical features of diseases (such as tubercular phthisis) attributed to micro-organisms, which could with extreme difficulty be reconciled with such a view of their causation. In the study of disease-causation, it was an essentially vicious method to start, as apparently in some instances had been done, with the assumption that certain affections depended on the action of micro-organisms, and then to devote all efforts to proving the connection, to the exclusion of all other possible causative conditions. — Surgeon-major CUFFE considered the whole subject so little advanced, and in so vague and unsatisfactory a state, that it could hardly be profitably discussed in a society of practical men. In recent years, great expectations had from time to time been raised by the announcement of the discovery of the germ-causes of different diseases. Further investigations had almost invariably discredited the conclusions founded on hasty and insufficient observations. As army-surgeons, their sphere of activity and usefulness lay chiefly in the region of palpable facts, and they should be content to await the further development of the present doctrine before allowing it to materially influence their practical views.—After some observations from other members of the Society, Surgeon-major GILLESPIE replied to the various opinions expressed.

REVIEWS AND NOTICES.

ON THE PATHOLOGY OF BRONCHITIS, CATARRHAL PNEUMONIA, TUBERCLE, AND ALLIED LESIONS OF THE HUMAN LUNG. By D. J. HAMILTON, M.B., F.R.C.S.E., F.R.S.E. London: Macmillan and Co. 1883.

THIS book is by the Erasmus Wilson Professor of Pathology at Aberdeen, and it is gracefully dedicated to the munificent founder of that chair, Sir Erasmus Wilson. It could have been wished that it had been the veritable first-fruits of work done at Aberdeen, for the workmanship is unmistakably excellent; but we suppose, being a republication of papers which appeared previously in the *Practitioner*, that this is not so. At any rate it is a work that, as far as pathology at Aberdeen is concerned, casts its shadows before, and this in a remarkably cheering way; and for this reason, the Erasmus Wilson Professor of Pathology at Aberdeen is a professor of pathology and of nothing else. He is not allowed to practise his profession, and he has, or until recently had, no beds. Under such circumstances, pathology, though having many similar examples to show in its favour, is to some extent divorced from its natural application; and the pathologist in such circumstances tends to be a specialist working for the future rather than for the present. It is, there-

fore, of extreme importance to have a man to fill such a post who has his eye on the practical application of his work; else his teaching will fall dead upon the student. The feature of this book is that it brings pathology to the door of treatment, and few books that we know have done it more so in such an admirable manner. It is the taunt of the man who is ignorant of pathology, that it gives no aid to treatment; yet there is no study which is more fertile in suggestions for treatment than a thoughtful study of pathology; and let anyone who thinks otherwise read, mark, learn, and inwardly digest Dr. Hamilton's opinions on bronchitis, bronchiectasis, blood-pressure, as applied suddenly and slowly, and its effects upon the pulmonary parenchyma in each case, etc. Naturally enough, there is plenty of scope for criticism. For instance, we think he is too mechanical in parts, where, for instance, acute pneumonia is attributed to the local rise of blood-pressure dependent upon fat-embolism; he is too dogmatic in others, where, for instance, he insists on "isolated tubercular meningitis" being invariably associated with some cheesy deposit, either in the brain-substance, the bone, or the encephalic membrane. But originality will perforce excite discussion. All the more merit that it does so. But what strikes the reader throughout the book is that the author has thoroughly mastered his subject; we may not altogether agree with him, but he gives the impression, no easy one to produce, that his view, where we differ, is quite as well worth consideration as our own. Moreover, there is a refreshing width of grasp, his practical experience is apt and telling; his experiments abound in point and suggestion, and thus all through his work there is full interest and full instruction. Without doubt it is a book of great value; and we hope that, in his present position, Dr. Hamilton will turn his attention to other branches of pathology with like success.

ON MALPOSITIONS OF THE KIDNEY. By DAVID NEWMAN, M.B., C.M. Graduation Thesis. Reprinted from the *Glasgow Medical Journal*, August 1883.

THIS is a valuable compilation of statistical information on malpositions of the kidney and the operations of nephrectomy and nephroraphy; it also contains an excellent bibliography. The author gives details of four cases of renal ectopia which had been under his own care. In one case, both kidneys were displaced, and the right was finally fixed by nephroraphy, the left being kept in position by bandages. In the other cases, no operation was performed.

Among the principal causes of this condition, the author reckons loss of fat, a relaxed state of the abdominal walls, and displacements of the pelvic organs. He does not admit the justice of the current opinion that tight lacing is an important factor in its production. Dr. NEWMAN thinks the diagnosis easy, when once the surgeon has his attention directed to the condition in question; but there are good grounds for doubting this. It is probable that, were exploratory incisions made in all cases of tumours called displaced kidney, our knowledge of floating abdominal tumours would become much more precise. In the *Revue de Médecine* for the present year, reference is made to a case, diagnosed as floating kidney, which turned out, on *post mortem* examination, to be a gall-bladder full of calculi. Mr. Lawson Tait has recorded a similar case, where the discovery was made by an exploratory incision, and the patient cured. On the other hand, Dr. Lindsay Steven has recently reported two cases from the *post mortem* room of the Glasgow Western Infirmary, in neither of which was the condition suspected during life.

The treatment recommended is a broad well-fitting elastic bandage, extending from the sixth or seventh rib to Poupart's ligament, and a hair-pad; abstinence from violent exertion, and even long-continued walking or standing, being enjoined. The operative treatment, which is only justified when the above means fail, the pain is severe, and the patient confined to bed, may be either extirpation of the displaced organ, which the author only mentions to condemn, or nephroraphy—*i.e.*, stitching the kidney to the abdominal wall. Of eight cases of the latter operation reported at the date of this essay, all had been successful.

In an appendix, the author describes his cases in detail, and also explains the method of catheterising the ureters by means of the electric lamp introduced into the bladder.

We may congratulate Dr. Newman on having produced a thesis which will be duly appreciated by all who are interested in the surgery of the kidney.

BRITISH MEDICAL ASSOCIATION.

SUBSCRIPTIONS FOR 1883.

SUBSCRIPTIONS to the Association for 1883 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 29th, 1883.

RETROSPECT: 1883.

WITH the concluding number of the BRITISH MEDICAL JOURNAL for the year 1883, we give a summary of the principal events of interest to the medical profession which have occurred during that time.

THE BRITISH MEDICAL ASSOCIATION.

THE year now ending has again been one of prosperity for the British Medical Association. Its numbers have greatly increased, and its financial position has gained additional stability.

The annual meeting, held in Liverpool in the beginning of August, was an interesting and successful one. Several matters of importance were discussed in the general meetings; in the sections, which were well attended, various subjects of interest in the practice of medicine were discussed, and instructive papers read, many of which have already appeared in the JOURNAL. For the first time, a separate section was devoted to Diseases of Children, with a very fair amount of success. The address of the President, Dr. A. T. H. Waters; that on Surgery, by Mr. Reginald Harrison; and that on Pathology, by Dr. Creighton, were of the usual high standard, which has for many years characterised similar productions presented to the Association; and the addresses of the Presidents of Sections were very interesting and instructive.

At the annual meeting, an important change in the constitution of the executive body of the Association was decided on; and the decision was confirmed at a special general meeting held in London on August 17th. Hitherto, there had been a general Council, composed of certain *ex officio* members, and of members chosen by the Branches in the proportion of one for every twenty, together with a Secretary from each Branch; and a Committee of Council, consisting of a President and other officers of the Association, a Secretary from each Branch, and twenty members elected by the Council from among themselves. The Committee of Council managed the affairs of the Association in the intervals between the annual meetings; an annual report being presented by the General Council. Under the new regulations, the General Council and the Committee of Council cease to exist as such; and the affairs of the Association are placed under the management of a Council, consisting of the President and other officers of the Association, a representative from each Branch, and additional representatives chosen by the Branches in the proportion of one for each two hundred members of a Branch. The new system will come completely into force at the next annual meeting; until which time, the Council consists of those members who were chosen to form the Committee of Council at the last annual meeting.

The Branches of the Association continue to prosper and do useful work. Their proceedings have been from time to time recorded in the JOURNAL. An addition has been made to the Colonial Branches by the formation and recognition of one in British Guiana; and, last week, notice was received of the formation in Madras of a "South Indian Branch," which will, there is little doubt, be recognised by the Council at its next meeting.

The Parliamentary Bills Committee of the Association has continued to pursue its useful labours. A meeting was held on March 14th; the subject of notification of infectious diseases was discussed, with special reference to the Bill introduced into the House of Commons by Mr. G. W. Hastings, in which it was proposed to make notification of disease compulsory on the medical attendant. A memorial

against such compulsion was unanimously agreed to. At a subsequent meeting on June 19th, the subject was again brought forward, and a deputation was appointed to wait on Sir Charles Dilke, President of the Local Government Board, and explain to him the views of the Committee on the subject. On July 20th, a deputation, consisting of Dr. Alfred Carpenter, Dr. William Carter (Liverpool), Mr. Nelson Hardy, and Mr. Ernest Hart, Chairman of the Committee, had an interview with Sir Charles Dilke. The deputation explained the objections to notification being made compulsory on medical men, and urged the advisability of a general inquiry into the whole subject of notification of infectious diseases. Sir Charles expressed his willingness to refer local Bills bearing on the subject to a Committee of the House, before which medical evidence might be taken; and, with regard to Mr. Hastings's Bill (which had, in the meantime, been dropped) he said that, if it should again come before Parliament, he would be willing to have it referred to a Select Committee. On March 14th, the Chairman of the Committee presented an elaborate report, supplementary to one already presented, on local legislation, with reference to infectious diseases.

At the same meeting, Dr. Irwin presented a memorial to the President of the Board of Trade, praying for a reform in the regulation and administration of the medical service of Atlantic steamships. The memorial was duly presented and acknowledged.

In May, in consequence of a report that Sir Charles Dilke had stated, to a deputation of a board of guardians, that a consolidated order would be issued giving to guardians unlimited power of dismissal of officers, the Chairman of the Committee communicated with Sir Charles, and received a reply to the effect that it was not intended to confer such powers on guardians.

At a meeting of the Committee on June 18th, the Chairman reported that the case of the militia-surgeons, which had for some time engaged the attention of the Committee, had been brought before the House of Commons by Sir Eardley Wilmot and Dr. Farquharson; but that the result had not been successful, although the smallness of the majority afforded ground for encouragement to future effort. At the same meeting, the Chairman presented a memorandum on the influence of vaccination in the prevention and diminution of mortality from small-pox. It was adopted; and it was resolved that a copy should be sent to every member of Parliament.

A report of the proceedings of the Committee was presented at the meeting of the Association in Liverpool (see pages 181 and 275 of the present volume).

The Scientific Grants Committee has continued its labour of apportioning to candidates the sum of £300 placed at its disposal for the purpose of encouraging experimental research in matters relating to the science of medicine. Lists of the subjects in respect of which grants have been made have been published in the JOURNAL. At the annual meeting in Liverpool it was resolved, on the recommendation of the Committee, that, in addition to the £300 expended in grants, two research scholarships, each of the annual value of £150, should be instituted, and should be tenable, at the discretion of the Scientific Grants Committee, for three years. One of the scholarships has been awarded to Mr. Watson Cheyne, who undertakes investigations on the relationship of micro-organisms to disease; and the other to Mr. John Priestley of Manchester, who will study the physiological actions of some of the most important drugs.

The proceedings of other Committees of the Association are referred to in other sections of this retrospect.

THE GENERAL MEDICAL COUNCIL: AND THE COLLEGES AND UNIVERSITIES.

THE General Medical Council held a meeting of seven days' duration in April last. In the course of the proceedings, Dr. J. Matthews Duncan took his seat as one of the Crown members, in place of Sir William Gull, who had retired.

With regard to the Medical Acts Amendment Bill then before Parliament, it appeared as if the President and the majority of the members were prepared to yield to inevitable fate, and, wrapping the mantle of conscious innocence around them, to die a dignified death. Mr. Rawdon Macnamara, however, and some other members, placed several notices of motion relating to the subject on the agenda paper, and the last day of meeting was devoted to their discussion. In the end, however, they were withdrawn; so that no distinct expression of opinion went forth from the Council respecting the Medical Acts Amendment Bill, on which, indeed, their opinion had not been desired by the Government.

The employment of unqualified assistants was the subject of a report presented by a special committee, appointed in the session of 1882 to investigate the subject. In accordance with the suggestion of the Committee, the Council adopted resolutions disapproving of the employment of unqualified assistants, except as pupils and dispensers acting under the direct superintendence and control of the principal.

The Pharmacopœia Committee reported that arrangements had been made with Messrs. Redwood, Bentley, and Attfield, for the preparation of a new edition of the *British Pharmacopœia*. The report was approved by the Council.

The question of recognising attendance on evening lectures by persons engaged during the day in other occupations than medical study, was discussed, in consequence of a letter from Dr. Jacob of Dublin, in which he alleged that such a practice was common in that city. Ultimately, it was resolved to send Dr. Jacob's letter to the Branch Council for Ireland, for inquiry and report.

The investigation of several charges of professional misconduct on the part of registered practitioners occupied a considerable share of the time of the last session of the Council. After careful investigation, the names of Mr. William Hoar and Mr. A. O. Sadgrove were removed from the *Register*, for reasons which have been given in our report of the proceedings; and those of Messrs. T. Gray and W. H. Day, accused of having signed certificates of death in cases which had been seen only by their unqualified assistants, were retained, on their promise to desist from such conduct.

The following are the chief events in which the colleges and universities have been concerned.

The Royal Colleges of Physicians and Surgeons, early in the year, brought forward a proposal for the establishment of a conjoint examining board formed from the two colleges. The scheme, however, has fallen into abeyance; and, in the prospect of the passing of a Medical Bill, under which a central licensing body would be formed, there is no probability that such a scheme can meet with success.

In the University of Oxford, the Lichfield clinical professorship of medicine, vacant by the resignation of Dr. Acland, has been divided into clinical lectureships on medicine and on surgery; Dr. E. B. Gray, senior physician to the Radcliffe Infirmary, being appointed to the former, and Mr. A. Winkfield, senior surgeon to the same institution, to the latter.

In the Royal College of Surgeons of England, perhaps the most important event of the year has been the settlement of an agitation which had been carried on at intervals for the last twenty years, in favour of allowing the Fellows residing in the country to vote at the election of members of Council by means of voting papers, instead of being obliged to attend in person at the election.

In the University of Cambridge, there have been some important changes in the direction of increasing the efficiency of its medical school. A chair of physiology has been established, the first occupant of which is Dr. Michael Foster, who has for some years filled the position of prælector in physiology with much credit to himself and to the University; and a new professorship of surgery has been founded, to which Dr. Humphry, many years the able Professor of Anatomy in the University, has been appointed. The vacancy in the Chair of Anatomy caused by Professor Humphry's retirement has been filled by the appointment of Dr. A. Macalister, a distinguished anatomist, and professor in the University of Dublin. It is also intended to establish a chair of pathology. An amended code of regulations for the guidance of candidates for degrees in medicine and surgery has been adopted by the University, and will come into force on January 1st, 1884. They will be found in the JOURNAL of December 1st.

The Victoria University in Manchester has obtained a supplementary charter, authorising it to grant degrees in medicine and surgery; and has lately issued a series of regulations to be observed by candidates for such degrees. These were published a few weeks ago in the BRITISH MEDICAL JOURNAL.

SCIENTIFIC PAPERS IN THE BRITISH MEDICAL JOURNAL.

SUBJOINED is a classified list of several of the original papers and original communications on various scientific and practical subjects which have appeared in the JOURNAL during the year. A further notice of many of these communications will be found under the special departments of this retrospect.

Lectures and Addresses.—Of these, the JOURNAL has contained the following:—Mr. Eve's Lectures on Cystic Tumours of the Jaws

delivered at the Royal College of Surgeons; Dr. Sansom's Lettsomian Lectures (abstract), at the Medical Society of London, on the Treatment of some forms of Valvular Disease of the Heart; Dr. Matthews Duncan's Gulstonian Lectures on Sterility in Women; Dr. Garrod's Lumleian Lectures on Uric Acid; the two Bradshaw Lectures, one on Cardiac Aneurysm, delivered at the Royal College of Physicians by Dr. Wickham Legg (published in abstract), and the other on Nerve-Stretching, at the Royal College of Surgeons, by Mr. Marshall; Dr. Wiltshire's Lectures on the Comparative Physiology of Menstruation; abstracts of Dr. McKendrick's Lectures at the Royal Institution, on Physiological Discovery; abstracts of Mr. Parker's Lectures at the Royal College of Surgeons, on the Metamorphosis of Suctorial Fishes and Batrachia; abstract of a lecture by Dr. G. A. Heron, on the Bacillus of Tubercle; lectures by Dr. T. H. Green on the Tubercle-Bacillus and Phthisis; by Dr. Byrom Bramwell on the Functional Cardiac Murmurs of Anæmia; by Dr. A. H. Bennett, on Diseases of the Nervous System; by Dr. G. Oliver, on Myxœdema; by Dr. Sawyer, on Accentuation of the Pulmonary Second Sound of the Heart; by Mr. R. Davy, on Excision of an Osseous Wedge in Intractible Club-foot, and on Tibio-femoral Impaction; by Dr. McCall Anderson, on Peliosis Rheumatica, and on Nettle-rash; by Mr. T. Holmes, on Primary Ligature of the Femoral Artery in Popliteal Aneurysm; by Mr, Hulke, on Dislocation of the Knee and of the Hip; by Dr. Morell Mackenzie, on Catarrh of the Naso-Pharynx; by Dr. Macalister, on the Province of Anatomy; by Mr. Anderson Critchett, on Eclecticism in Operations for Cataract; by Dr. G. Johnson, on the Modes of Testing for Albumen in Urine; by Mr. T. N. Fitzgerald, on the Radical Cure of Hernia.

The following special orations and addresses have also appeared:—Sir Spencer Wells's Hunterian Oration at the Royal College of Surgeons; Dr. Habershon's Harveian Oration at the Royal College of Physicians; addresses on the Collective Investigation of Disease, by Sir William Gull, Sir James Paget, Professor Humphry, Sir Andrew Clark, Dr. W. Roberts, Mr. Jonathan Hutchinson, and Dr. S. Wilks; an address on Renal Inadequacy, by Sir Andrew Clark; an address to the Harveian Society on Free and Provident Dispensaries, by Dr. Hickman; addresses at the Parkes Museum, by Dr. de Chaumont, on the Origin and Development of the Science of Hygiene, and by Mr. Rawlinson, on the Hygiene of Armies in the Field; Introductory, at the Leeds School of Medicine, by Dr. Clifford Allbutt, at Owen's College, by Dr. A. Gamgee, and at the London Hospital, by Professor Huxley; address to the Ophthalmological Society, by Mr. J. Hutchinson, on the Rapid Diffusion of a Knowledge of Advances in Ophthalmic Therapeutics; an address to the Royal Medical and Chirurgical Society, by Dr. Ferrier, on the Progress of Knowledge regarding the Nervous System; addresses to the Medical Society of London, by Professor Lister, on the Treatment of Fractures of the Patella, and by Sir Andrew Clark on Catheter Fever; the addresses delivered at the Annual Meeting of the British Medical Association, namely, Dr. A. T. H. Waters's Presidential Address; Mr. Reginald Harrison's Address in Surgery, on Recent Advances in the Surgery of the Urinary Organs; Dr. Creighton's address in Pathology, on the Autonomous Life of the Specific Infections; Dr. Graily Hewitt's Address to the Section of Obstetric Medicine, on the Questions of Food in Obstetric and Gynæcological Practice; Mr. Schäfer's Address to the Section of Physiology, on the Structure of the Animal Cell; Dr. T. H. Green's address to the Section of Pathology; Dr. T. L. Rogers's address to the Section of Psychology, on General Hospitals and Hospitals for the Insane; Dr. Gee's address to the Section of Diseases of Children, on the Literature of the Diseases of Childhood; Mr. Field's address to the Section of Otology, on Recent Progress in Otology; also the following addresses by the Presidents of Branches:—Dr. Banks's address to the Dublin Branch, on Medical Reform; Dr. Strange's address to the Gloucestershire and the Worcestershire and Herefordshire Branches, on the Privileges and Duties of Branches of the British Medical Association; Mr. W. M. Crowfoot's address to the East Anglian and the Cambridge and Huntingdon Branches, on the Medical Act Amendment Bill; Dr. B. Foster's address to the Birmingham and Midland Counties Branch, on the Political Powerlessness of the Medical Profession; Dr. W. Webb's address to the Midland Branch, on Changes in Medical Practice; Dr. J. Lowe's address to the East Anglian Branch, on the Germ-theory of Disease; Dr. Keeling's address to the Yorkshire Branch on Modern Obstetrics; Mr. Crossman's address to the Bath and Bristol Branch, on the Maintenance of the Honour and Respectability of the Medical Profession; Mr. Kinsey's address to the South Midland Branch, on Alcohol and Drainage; Dr. Hare's address to the Metropolitan Counties Branch, on Good Remedies out of Fashion; and Dr. Bagshawe's address to the South-Eastern Branch, on the Climatic Treatment of Consumption.

There have also been published, the Report of a Committee of the Harveian Society on the Mortality Referable to Alcohol; also a report by Dr. Lauder Brunton on Arsenical Poisoning by Wall-papers, with a Report of a Committee of the National Health Society on Arsenic in Domestic Fabrics, and a note by Dr. Stevenson on the Behaviour of Arsenic in contact with Putrefying Organic Substances.

Action of Medicine: Therapeutics.—Under this head, Dr. W. Carter has commented on the use of gelseminum in tetanus; and Mr. C. H. W. Parkinson has described a case of ptosis and diplopia from the use of this drug. The action of hyoscyamine has been noticed by Dr. F. Churton. The mullein plant has been recommended in the treatment of consumption, by Dr. Quinlan. Dr. K. N. Macdonald has advocated the use of sulphurous acid in scarlet fever; and Mr. C. M. Jessop has commented on the same subject. Dr. Sawyer has described the uses of the oleates. The subject of hæmorrhage in enteric fever, with regard to the use of the salicylates, has been discussed by Mr. J. Fergusson and Dr. H. Tomkins. Mr. J. B. James has advocated the hypodermic injection of sulphuric ether in sciatica. Dr. E. Holland has commented on the use of Chian turpentine in cancer. The use of nitrite of amyl in uræmic asthma has been the subject of notes by Dr. A. Sheen, Dr. Saundby, Dr. J. Ringwood, and Dr. Solomon C. Smith. The action of cannabis Indica has been commented on by Dr. T. Oliver, Mr. J. Brown, Dr. R. Batho, Dr. J. Beddoe, Mr. Cripps Lawrence, Dr. Wallich, Dr. W. M. Kelly, and Dr. Strange. Apomorphia has been recommended as an emetic by Mr. John Brown. The use of paraldehyde has been also commented on by Mr. Brown. Dr. Mortimer Granville has recommended prescriptions for constipation and acute rheumatism. Mr. F. Churchill has described the preparation of palatable drugs for children. Dr. Quinlan has recommended the galium aparine in the treatment of chronic ulcers; and its use for the relief of cancer has been advocated by Mr. C. Bryce. Cascara sagrada has been recommended as a remedy in constipation by Mr. J. F. Horne and Dr. Douglas Lithgow. Dr. Henry Bennet has commented on modern therapeutical tendencies. Dr. Sydney Ringer and Dr. Harrington Sainsbury have investigated the action of chloral, opium, and bromide of potassium; also the action of barium chloride. Mr. C. Coppinger has described a method of bleeding by means of aspiration. Mr. Malcolm Morris has commented on the use of antimony in certain skin-diseases. Dr. Spender has published a note on the use of the barium salts for abdominal neuroses. Mr. T. Raven has called attention to the cumulative action of digitalis. Dr. H. Ashby has described the action of the new remedy, kairin. Mr. W. J. Meharry and Mr. Brindley James have commented on the use of salicylate of soda in acute rheumatism.

Endemic and Epidemic Diseases.—Under this heading the first article is a paper by Dr. R. H. Quill, surgeon in the Indian army, on enteric fever in India; and Sir Joseph Fayrer has described a new type of fever in India. Dr. Manson Fraser has discussed the relative liability to enteric fever at different ages. The statistics of typhoid fever in Paris for several years have formed the subject of an interesting paper from Dr. de Pietra Santa, of that city. Mr. W. C. Beevor has described a case of typhoid fever, with morbillar rash. Dr. R. Vacy Ash has compared the epidemics of enteric fever in the Transvaal, Zulu, and Egyptian wars. Dr. Paget, of Cambridge, has described a case in which diphtheria and typhoid fever were coexistent. The incubation-period of typhus fever has been discussed by Dr. E. G. Hull. The distribution of typhus fever in Liverpool has been the subject of a paper by Dr. E. W. Hope, assistant medical officer of health for that city. Dr. Henry Tomkins has described the clinical features of typhus fever in children. A memorandum on the influence of vaccination in the prevention and diminution of mortality from small-pox, by Mr. Ernest Hart, chairman of the Parliamentary Bills Committee of the Association, has been published in the JOURNAL. The incubation-period of scarlet fever has been the subject of remarks by Dr. Tonge-Smith and Mr. T. Tinley; and Dr. F. T. Bond has commented on the spread of the disease. Mr. C. Mercier has described an epidemic of delirium, occurring in connection with an outbreak of scarlet fever, among the boys of the training-ship *Worcester*. Mr. W. E. Green and Mr. Vacher have commented on the incubation-period of measles. Mr. W. H. Folker has described, with comments, a case of diphtheria, in which tracheotomy was performed. Mr. J. H. Salter has directed attention to the mode of transmission and period of incubation of diphtheria. Surgeon-General James Irving has commented on the conveyance of

cholera in India; Surgeon-Major F. R. Welch has described the epidemics of that disease in Malta; the recent epidemic of cholera in Egypt has been described in letters from our special correspondents in that country. Contagious or epidemic pneumonia has been the subject of papers by Dr. W. Bruce, of Dingwall, and Mr. T. Raven; and Mr. G. B. Longstaff has contributed a curious old record of an outbreak of this malady. Dr. Edward Bullard has contributed a paper on the etiology and pathology of summer diarrhœa; and Mr. B. G. Morison one on infantile diarrhœa and its treatment. Both these papers were read and discussed at the last annual meeting of the Association. Mr. M. D. Makuna has commented on the medico-meteorology of epidemic diarrhœa in London in 1876-82.

Diseases of the Brain and Nervous System.—In this department, there have been several interesting papers. Dr. Robert Lee has commented on infantile paralysis; and Dr. James Ross has published an elaborate article on pseudo-hypertrophic paralysis. Dr. R. Kirkland has described a case of disseminated sclerosis occurring early in life. Vertigo with Menière's disease has been the subject of communications by Dr. E. Woakes and Mr. W. Alexander. Cases of congestion of the brain treated by venesection have been discussed by Mr. A. C. Shout and Mr. W. L. Chester. Hydrophobia has been the subject of a valuable clinical communication by Dr. Bristowe. A paper on aphasia, read at the annual meeting of the Association, by Dr. W. T. Gairdner, with the discussion thereon, has been published in the JOURNAL. The subject has also been commented on by Dr. A. Robertson. Dr. Althaus has contributed a paper on some postepileptic phenomena. Chemical disease of the brain and spinal cord, as determined by the chemical constitutions of these organs, has been described in a paper by Dr. Thudichum. Dr. Hughes Bennett has described a case of hysterical malingering. Dr. Glynn has described a case of complete paraplegia with rigidity, terminating in recovery. An unusual case of locomotor ataxy has been described by Dr. D. Drummond. Mr. W. Bevan Lewis has contributed a paper on cerebral localisation in its relationship to psychological medicine. The performance of some acts during temporary epileptic mental disorders has been the subject of a joint paper by Mr. J. H. Baker and Dr. W. J. Mickle. Dr. Saundby has described the change in the renal ganglia in Bright's disease. Dr. D. Drummond has furnished a note on the diagnosis and nature of so-called peforating tumours of the dura mater. Mr. H. W. Page has described a case of suture of the ulnar nerve.

Diseases of the Lungs.—The infection of phthisis has been the subject of communications from Dr. Quinlan, Dr. C. P. Coombs, and Dr. W. Dale. Dr. Thorowgood has written on sea-voyages in phthisis. Pulse-breath and pulsatile respiration have formed the subject of communications from Dr. James Finlayson and Dr. S. C. Smith. Dr. D. C. McVail has described the cause of the wavy breath-sound of incipient phthisis. Dr. A. H. Hassall has commented on inhalation, especially antiseptic, in diseases of the lungs. Dr. Quinlan has described a case of remarkable increase of weight in pretubercular phthisis, under the use of mullein. Dr. Theodore Williams has investigated the relations of phthisis and albuminuria. Mr. R. W. Parker has advocated the treatment of certain cases of empyema by thoracentesis and injection of purified air. Dr. Ward Cousins has recommended free incision in empyema. Dr. Eddison has given the results of forty cases of incision of the chest for empyema, treated by the physicians of the Leeds Infirmary. Dr. T. Robinson has described a case in which pleuritic effusion was rapidly absorbed under the use of common salt and deprivation of liquids. Mr. G. M. Giles has commented on the pathogenesis of pneumonia. Dr. W. H. Day has described a case of croupous pneumonia in a child, treated successfully by the cold bath; and Mr. O. Bowen has described a case of croupous pneumonia treated by cold sponging. Dr. Eade has described a case of asthma cured by galvanising the neck after the failure of other remedies.

Diseases and Injuries of the Heart and Blood-Vessels.—Dr. T. J. Maclagan has commented on rheumatic endocarditis. Mr. A. D. Williams has commented on the formation of intracardial and pulmonary casts. Deputy Surgeon-General Cullen has published a valuable paper on the liability of soldiers to diseases of the circulatory system. The cardiac murmurs of debility and anæmia have been the subjects of papers by Dr. W. Russell and Dr. Byrom Bramwell. Dr. J. W. Martin has described a case of pericarditis with effusion, treated by blisters. Dr. J. W. Macdonald has described a case treated by paracentesis of the pericardium. The treatment of increased arterial tension has been described by Dr. Solomon Smith, and its causes and consequences by Dr. Broadbent and others. The division of large arteries between two ligatures has been discussed by Mr. Walsham, Mr. T. Holmes, and Mr. James Black. Dr. S. Gordon has described a case of aneurysm of both popliteal arteries, in which the femoral arteries were tied, with a long interval. Mr. A. E. Barker has described a case of aneurysm of the popliteal artery treated by compression. Mr. C. B. Lockwood has described a mode of operation for ligature of the occipital artery. Mr. F. A. Southam has described a case of femoral aneurysm treated first by injection of fibrin-ferment, and afterwards by ligature of the external iliac. Dr. G. E. Fenwick has described a case of ligature of the axillary artery on account of injury after fracture of the surgical neck of the humerus. Mr. Fielden Howard has described a case of laceration of the popliteal artery. The treatment of nævus has been the subject of communications by Mr. Martin Coates, Mr. Edmund Owen, and Mr. W. J. Beatty. Mr. W. H. Folker has described the subcutaneous ligature of varicose veins.

Diseases of the Eye.—In this department, the following have been the chief contributions. The treatment of ulcer of the cornea has been the subject of communications by Mr. S. Snell, who advocates the actual cautery; by Mr. C. Higgens, who recommends warmth and eserine; and by Mr. T. Pridgin Teale. The last two papers were the subject of discussion at the annual meeting of the Association. The removal of pieces of steel from the eye by the electro-magnet has been the subject of a case described by Mr. Wherry. The use of the magnet and electro-magnet in ophthalmic surgery was discussed at the annual meeting of the Association, the subject being introduced by Mr. Snell, whose paper, with the discussion thereon, has been published in the JOURNAL. Extraction of cataract has also been discussed in several papers. Dr. Edwyn Andrew has described the excision of senile cataract in its capsule. Mr. Snell has advocated the extraction of cataract by means of a shallow lower flap; and Mr. G. Cowell has described a modification of von Gräfe's operation. Fleet-Surgeon Hadlow has commented on the prevalence of short sight among the boys in Greenwich Hospital School. Dr. Brailey has described the treatment of granular lids. Mr. E. D. Bowes has described a case of sympathetic ophthalmia occurring seventeen years after excision of the other eye. Mr. Higgens has called attention to ocular headache. Mr. Kendall has described a case of suppuration of the eyes occurring in the course of scarlet fever. Dr. J. C. Uhthoff has commented on the use of very dilute solutions of eserine in the treatment of weakness of the ciliary muscle. Dr. T. Sinclair has described a case of cysticercus in the vitreous body. The tests of vision and colour-sense to be applied to sailors have been discussed by Professor Snellen and Dr. Brailey. Mr. C. G. Lee has called atrention to the ophthalmic condition of deaf-mutes. Dr. Edwyn Andrew has discussed the treatment of lacrymal obstruction. Sympathetic ophthalmia was the subject of papers read at the annual meeting of the Association by Dr. Bell Taylor and Mr. G. E. Walker, and published, with discussion, in this JOURNAL.

Diseases of the Ear.—A case of foreign body in the ear has been described by Dr. T. Holland. The use of artificial tympanic membranes has been the subject of papers by Dr. F. M. Pierce and Dr. Thomas Barr, which have been published, with the discussions on them at the annual meeting of the Association. Mr. Litton Forbes has described the indications for myringodectomy and its therapeutic value. Mr. G. P. Field has described a case of ivory exostosis of the external meatus removed by the American dental engine.

Diseases and Injuries of the Intestines, including Hernia.—Dr. J. S. Morris has called attention to cerebral dyspepsia. Dr. W. L. Cane has described a case of cancer of the pancreas, complicated with phlegmasia dolens. Dr. Sanctuary has discussed some cases of dilatation of the stomach, treated by washing out the organ. Cases of ulceration of the stomach have been described by Mr. Battams and Surgeon-Major Gore; and Dr. W. H. Packer has described a case of gastric ulcer with unusually severe hæmorrhage, followed by recovery. Mr. T. R. Fendick and Dr. Mortimer Granville have sent communications on the treatment of constipation. Dr. Austin Flint, of New York, has, in an able paper, advocated early tapping in ascites. Intestinal obstruction has been the subject of several communications. It was the subject of a discussion at the annual meeting of the Association, and papers on its treatment, by Mr. Rushton Parker and Mr. J. H. Morgan, have been published in the JOURNAL, with the discussion thereon. In connection with this subject, Mr. E. Bishop has published some remarks on the method of occlusion in enterectomy, and has described a new clamp for the purpose. Dr. James Sawyer has commented on some points in the treatment of the severe forms of constipation and intestinal obstruction. Mr. Alder Smith has presented a successful case of gastrostomy for intestinal obstruction; Mr. G. R. Fraser, a case of recovery from obstruction; Dr. John Waugh, a case

of intestinal obstruction; Mr. R. Kirkland, one of invagination of the bowel, presenting difficulties in diagnosis; and Mr. M. G. Biggs, one of intussusception, treated by injection of air and inversion. Mr. R. F. Rand has pointed out a means of ascertaining the course of the small bowel in performing abdominal section. Dr. A. S. Myrtle has called attention to certain often neglected conditions of the anus. Excision of the rectum has been the subject of a paper by Mr. A. E. Barker; and Mr. Harrison Cripps has described four cases of advanced fibrous stricture of the rectum, treated by proctotomy. Hernia has been the subject of several papers. Dr. J. W. Browne has published some practical remarks on strangulated hernia. Dr. J. H. Warren and Mr. R. N. Pughe have advocated the performance of operations for the radical cure of hernia, the latter in children. Mr. Lawson Tait has described an operation for the radical cure of umbilical hernia or exomphalos. Mr. A. F. McGill has commented on the treatment of the sac in herniotomy.

Diseases of the Kidney.—Mr. E. C. Baines has described a case of movable kidneys. Mr. J. W. Anderson advocates the performance of an exploratory incision in cases of floating kidney. Fatty transformation of the kidney has been the subject of a paper by Dr. E. Rickards. Operation for the relief of surgical diseases of the kidney was the subject of papers read at the annual meeting of the Association by Mr. Clement Lucas and Dr. W. Walter. Mr. T. Wilmot has described a case of sacculated nephritic abscess in a patient with only one kidney.

Diseases and Injuries of the Bladder and Urethra.—Dr. Althaus has described a case of nocturnal enuresis treated by voltaic alternatives. Dr. Tom Robinson has called attention to discharges of pus from the urethra which are not of gonorrhœal origin. Mr. Hubbard has commented on the choice of a catheter in cases of hypertrophied prostate. Dr. J. S. Main has described the local treatment of gleet. The treatment of hydrocele by the injection of iodine has been the subject of communications from Mr. G. E. Walker; and Mr. W. Jones Morris has described a case of recurrent hæmaturia. Dr. H. C. Taylor has commented on the treatment of spermatorrhœa. Dr. G. Hunter has described a case of foreign body in the urethra. Mr. Reginald Harrison has described a method of cystotomy by lateral incision in enlarged prostate. Surgeon-major J. B. Hamilton has described a case of rupture of the bladder. The detection of stone in children has been the subject of remarks by Mr. T. Sansome, Mr. F. S. Edwards, Dr. E. E. Meeres, and Mr. Clement Lucas. The influence of position during micturition in the production of stone has been commented on by Surgeon-major Nicholson and Mr. R. W. Barnes. Mr. F. B. Jessett has described and commented on two cases of urinary abscess followed by fistulæ in perinæo treated by perineal section. Dr. Gee has commented on some kinds of albuminous and purulent urine in children. The occurrence of purulent urine after catheterisation has been the subject of comments by Dr. J. S. Holden and Mr. Bennett May. Mr. T. Annandale has described a case of encysted vesical calculus. Mr. James Taylor has described a case of hairs in the urine.

Diseases and Injuries of the Head and adjacent parts of the Spine.—Dr. Clifford Drew has called attention to injuries of the head in their relation to crimes of violence. Mr. W. Stokes has described a case of excision of a tumour having its origin at the base of the skull. Dr. H. W. King has described a case of salivary calculus. Mr. W. E. C. Nourse has described a case of calculus in the nostril. Mr. William Rose has described a case of double hare-lip in a man. Dr. H. G. Rawdon has commented on the operation for hare-lip in children. Mr. A. T. Martin has described a case of excision of the upper jaw, for melanotic sarcoma of the antrum. Mr. T. M. Watt has described a rare form of fracture of the lower jaw. Mr. Morrant Baker has described a case of removal of the tongue by median division; and Mr. Martin Coates a case of excision of that organ with part of the lower jaw. Mr. Lennox Browne has commented on photography of the larynx and soft-palate. The treatment of spinal disease has been the subject of communications by Mr. Freer, Mr. Nelson Hardy, Mr. Noble Smith, and Mr. Lund. Mr. Mayo Robson has described a new operation for spina bifida.

Diseases of the Skin.—Dr. J. K. Spender has described a case of lichen psoriasis treated by Bath mineral waters. Mr. Malcolm Morris has contributed an article on the comparative advantages of scraping and scarification in the treatment of lupus vulgaris.

Diseases and Injuries of Bones and Joints..—Mr. Morrant Baker has commented, in a paper read at the annual meeting of the Association, on epiphysal necrosis and its consequences; and Mr. J. H. Morgan has described a case of epiphysal necrosis of the humerus, followed by shortening of the arm. Mr. Charters J. Symonds has commented on chronic inflammation of bone, in a paper read at the annual meeting of the Association; and Mr. C. Macnamara has published some remarks on tuberculous disease of bone. Dr. J. Wiglesworth has described degeneration of bones occurring in the insane. The use of plaster-of-Paris bandages in fractures has been the subject of papers by Mr. Christopher Heath and Mr. James Croft. Dr. A. Q. Silcock has directed attention to some points in the repair of fractures. Dr. M. R. O'Connor has commented on the treatment of fracture of the clavicle. Mr. Stanmore Bishop has recommended the combined use of Thomas's and Furneaux Jordan's laminated splints in hip-disease and fracture of the neck of the femur. Fracture of the patella and other injuries of the knee have been the subject of communications from Mr. Henry Parsons, Dr. M. R. O'Connor, Dr. A. G. Thomas, Dr. Johnston, Mr. W. Gem, and Mr. R. Jones. Mr. A. Barker has described a case of complicated compound fracture of the femur; and Mr. F. Treves has commented on fractures of the lower part of that bone. Mr. C. H. W. Parkinson has described a case of comminuted fracture of the tibia, from indirect violence, without fracture of the fibula.

Several papers on diseases of the joints, read at the annual meeting of the Association, have appeared in the JOURNAL. Mr. William Stokes has made some remarks on excision of the knee-joint. Dr. H. C. March has described resection of the ankle by an artificial Pott's fracture, and Dr. J. Mulvany has described a case of a similar operation. Mr. Thomas Jones has described cases of resection of the ankle-joint for injury and disease. Mr. Richardson Cross has recommended incision in arthritis. Dr. Rabagliati has made some remarks on osteotomy for deformity of the lower limbs. Dr. G. A. Wright has called attention to the value of determining the primary lesions in joint-disease, as an instruction for treatment. Mr. C. Mansell-Moullin has commented on cases of multiple synovitis, following injuries to joints. Mr. James Fagan has called attention to the nature, diagnosis, and treatment of hæmarthrosis of the knee. Mr. F. A. Southam has commented on perforating ulcer of the foot, and its connection with the nervous system. Lameness from abnormal conditions of the foot has been the subject of a paper by Mr. Noble Smith.

Obstetric Medicine and Diseases of Women.—In this department, Mr. Gentles has described a case of rupture of the female bladder in abortion. Mr. J. Stack has described a case of hydatidiform disease of the chorion. The operation of transfusion in *post partum* hæmorrhage has been the subject of papers by Mr. J. F. Le Page. A statistical report of the British Lying-in Hospital has been published by Dr. Fancourt Barnes and Dr. Heywood Smith; and one of the Military Lying-in Hospital at Colchester by Dr. Forbes Dick. Cases of extra-uterine pregnancy have been described and commented on by Dr. Habgood and Mr. H. J. K. Vines. Various forms of presentation of the fœtus have been recorded and commented on: occipito-posterior, by Mr. P. Sheehy, Mr. Wyllys, Dr. A. D. L. Napier, and Mr. C. R. Thompson; face, by Mr. B. Strachan; compound, by Mr. Harrison Coates; and transverse, by Mr. A. D. Macdonald. Cases of labour complicated with spina bifida have been recorded by Mr. C. Penruddocke and Mr. G. H. Elliott. Cases of labour complicated with vaginal obstruction have been described by Mr. J. A. Mansell-Moullin and Mr. Padley; with cystocele, by Mr. J. H. Whetham; with imperforate hymen, by Mr. H. G. Edwards. Mr. J. E. Looker has called attention to the management of the placenta in breech-presentation. Mr. Erskine Stuart has described a case of placenta prævia complicated with arm-presentation. Cases of missed labour have been described by Mr. Erskine Stuart; and cases of placenta prævia by Mr. J. Mackenzie Booth and Mr. A. Mickle. Mr. B. Clarke has commented on knots in the umbilical cord. Dr. K. N. Macdonald has described a case of protracted gestation in which the child was unusually heavy; Mr. S. W. Buckle, a case of spontaneous version; Dr. Halliday Croom, a case of basilysis; Mr. Clement Gray, a case of Cæsarean section in a dwarf, performed under circumstances of remarkable difficulty, and successful; and Mr. J. L. Stretton, a case in which the uterus was displaced after labour by a distended bladder. Cases of sudden death after labour have been described by Dr. E. P. Thurstan, Mr. H. Hastings, and Surgeon-major H. R. Greene. Dr. Leonard Cane has described a case of forcible removal of the uterus during pregnancy. The prevention of laceration of the perinæum has been discussed by Dr. Alexander Duke, Mr. Trestrail, and Mr. A. Carr. The use of hot water-injections in delivery has been commented on by Dr. D. L. Beckingsale, Dr. R. Boxall, Mr. W. Bain, Mr. H. D. Pullan, Mr. S. T. D. Weston and Dr. Farquhar. The oxytoxic action of quinine has been the subject of papers by Dr. N. Macleod and Mr. Hartigan. The use of

anæsthetics in labour has been the subject of a paper by Dr. T. Savill. Axis-traction in delivery with forceps was the subject of a paper read at the annual meeting of the Association by Mr. Le Page, and discussed; and the same subject has been commented on by Dr. Robert Barnes. The nephritis of pregnancy, and its effect on vision, has been commented on by Mr. F. Salter, Dr. Emrys-Jones, and Dr. Ryerson. Mr. C. O. Rowley has described a case of puerperal convulsions, in which blood-letting was used. Mr. A. D. Macdonald has described the sequel to a case of albuminuria during gestation, reported in July 1882. Dr. C. H. Carter has described a case of mesenteric cyst simulating ovarian disease. Cases of ovarian disease have been described by Mr. Spanton; and Mr. C. J. Sells has described a case of ovariotomy performed after abortion. Mr. Nevitt has described a new intra-uterine pessary. Removal of the uterine appendages has been the subject of a communication from Mr. Spanton; and series of cases of abdominal section in gynæcological practice have been given and commented on by Mr. Lawson Tait and Dr. T. Savage. Dr. H. Gervis has commented on chronic ovaritis. Mr. J. Hodges has described a case of abdominal section for puerperal peritonitis. Dr. Arthur Edis has described a case in which an inverted uterus was replaced, after five years. Dr. Montrose Pallen has contributed a paper on the reparative surgery of the generative organs. Mr. W. Bain has described a peculiar symptom in retroversion of the uterus. Dr. Percy Boulton has described and commented on some cases of vesico-vaginal fistula. Metria, or puerperal fever, was the subject of a discussion at the annual meeting; and papers on the subject by Dr. L. Atthill, Dr. Thorburn, and Dr. More Madden, with discussion thereon, have been published. Dr. Strange has commented on the etiology and pathology of sporadic puerperal septicæmia. Another subject of discussion was the treatment of uterine cancer; regarding which, papers by Dr. J. Wallace, Professor Schroeder of Berlin, Dr. Wynn Williams, and Mr. J. E. Barton, have been published. Dr. Edis has commented on the treatment of chronic metritis associated with retroflexion. Dr. Wynn Williams has published remarks on displacements of the uterus and their treatment. The operative treatment of fibro-myomata of the uterus has been discussed in papers by Mr. Knowsley Thornton and Professor Schroeder; and the differential diagnosis of the various forms of fibroid tumours of the uterus has been the subject of a paper by Dr. Meadows. A case of hysterectomy for uterine fibromata has also been described by Dr. W. Walter. In connection with this subject, Dr. Thomas Keith has contributed a paper on supravaginal hysterectomy. Dr. More Madden has contributed a paper on certain cerebro-nervous disorders peculiar to women. Mr. Robert J. W. Oswald has described a case in which menstruation continued until the fifty-seventh year.

Pathology.—The detection of the tubercle of bacillus in breath has been the subject of a communication by Dr. R. C. Smith, who has also described a case of abscess near the anus, in which bacilli were present; and Dr. Dreschfeld has commented on the diagnostic value of the bacillus. Mr. Watson Cheyne has reported on the relation of micro-organisms to tubercle. Dr. Dreschfeld has also contributed a valuable paper, read before the British Medical Association, on micro-organisms in their relation to disease; and Messrs. F. W. Mott and J. Blore have commented on micro-organisms in typhus fever. Mr. Reeves has made some researches on the use of dyes, etc., in practical pathological work. Mr. Jonathan Hutchinson has commented on the local origin of malignant growths; and Mr. H. P. Dunn has made remarks on the causes and prevalence of cancer. Mr. Hathaway and Mr. G. Parker have described cases of sarcoma occurring in the common fowl. Dr. Mickle has described a case of transposition of the viscera. Dr. MacMunn has commented on the excretion of urohæmatin in acute rheumatism and in so-called idiopathic pericarditis.

Diseases of Children.—Dr. Ashby has commented on the use of condensed milk as food for infants. A series of papers on rheumatism and allied disorders of childhood, read at the annual meeting by Dr. T. Barlow, Dr. Oxley, Dr. H. Ashby, Dr. E. Rickards, and Dr. J. S. Bury, have been published, with the discussions thereon.

Chemistry.—Mr. Alleyne Cook has contributed papers on the production and excretion of uric acid, and the effect of drugs, etc., thereon. Dr. Pavy has commented on ferrocyanic pellets as a test for albumen in urine; and the use of picric acid as an urinary test has been the subject of communications by Dr. G. Johnson, Dr. Ralfe, and Dr. G. Oliver. Dr. W. G. Smith has described the conditions affecting the precipitation of phosphate of lime from urine by heat. Mr. Kingzett and Dr. P. Frankland have commented on the chemical analysis of water. Mr. Fearnley has described a method of applying air-pressure to Wolfe's bottles for the purpose of injection.

Toxicology.—Several cases of poisoning have been briefly described in the JOURNAL: namely, with laburnum, by Mr. M. G. Biggs, Mr. C. A. Lane, Dr. A. J. Sinclair, Dr. A. R. Hamilton; tartar emetic, by Mr. C. M. Jessop; white precipitate, by Dr. R. C. Smith; carbolic acid, by Mr. J. Barrow; strychnine, by Mr. E T. Burton; chloral, by Mr. A. Meehan; chloride of zinc and hydrochloric acid, by Mr. W. H. Cross; aconite, by Mr. H. W. Sanger; and bryony, by Mr. S. B. Mason. Dr. J. Milward has commented on poisonous ambiliferæ. Mr. C. H. W. Parkinson has referred to hydrocyanic acid as an antidote to strychnia. Mr. John Reid has recommended sulphate of soda in poisoning by carbolic acid. Dr. W. Murrell has commented on the abrus precatorius and "sui" poisoning.

Miscellaneous Surgical Papers.—Mr. D. J. Hamilton, and Mr. P. W. P. Case, have commented on sponge-grafting.

The performance of surgical operations in advanced age has been the subject of remarks by Mr. Wyke Smith, Dr. W. C. Arnison, and Mr. J. Rhys. Mr. Treves has commented on the entrance of air into veins during operations. Surgeon-Major F. P. Staples has described a method of performing paracentesis without pain. Mr. N. Stevenson, and Mr. S. J. Hutchinson, have expressed disapproval of the extraction and replantation of teeth.

Of gunshot-injury, several cases have been reported; of the abdomen, by Mr. J. Lloyd, Professor G. Buchanan, Mr. A. S. Mallins, and Dr. A. H. Robinson; of the neck, by Dr. D. A. Charles; of the knee, by Dr. A. M. Finlay; and Mr. D. G. Crawford, of the Indian Medical Department, has described a case of gunshot-wound of various parts of the body.

Mr. William Robertson has recommended mercuric chloride as a surgical dressing.

Miscellaneous Papers.—Among papers which cannot be conveniently classed under the preceding divisions, the following have appeared. Dr. T. Oliver and Mr. J. B. Payne have described the illumination of internal cavities by electric light; and Mr. E. C. Baber has described an electric lamp for surgical purposes. The mortality from anæsthetics has been the subject of communications from Mr. W. Roger Williams, Dr. E. H. Jacob, Mr. G. H. Patterson, Mr. G. W. Isaac, Mr. J. H. L. Mackenzie, Mr. R. Marcus Gunn, Mr. T. G. D. Kerr. Dr. Junker and Dr. R. Kirk have commented on chloride of methylene as an anæsthetic. Sea-sickness, its prevention and treatment, has been the subject of articles by Mr. T. M. Kendall, Dr. Henry Bennet, and Mr. P. Vincent. Purpura has been the subject of communications from Dr. Stephen Mackenzie and Dr. William Russell. Dr. G. H. Younge has described a case of Addison's disease closely resembling idiopathic anæmia; and Mr. Chauncey Puzey a case of malignant goître. The pathology of diabetes, and its attendant coma, have been the subject of communications by Dr. Stephen Mackenzie, Dr. Shingleton Smith, and Mr. Birch. Dr. A. Ransome has commented on progressive pernicious anæmia. Dr. Dawson Williams has made some observations on the prevention and treatment of chilblains. Dr. Marion Sims has described Dr. McDade's method of treating syphilis. Cases of monstrosity and malformation have been described and commented on by Mr. H. Sells, Dr. Mulvany, Dr. C. Firth, Mr. Doran, Mr. G. A. Raverty, Dr. C. F. Pollock, and Mr. A. Graham. Mr. Herbert Sieveking has described the Victoria Hospital at Cairo. Captain Douglas Galton has commented on some points of hospital-construction. Dr. W. B. Mushet has discussed the subject of professional remuneration.

EDITORIAL ARTICLES.

THE JOURNAL for the year has contained a considerable number of articles having a bearing on professional and public interests. As in former years, they have been, in nearly every instance, written by contributors specially selected throughout Great Britain as having expert knowledge of the subjects. The staff of editorial writers in the BRITISH MEDICAL JOURNAL numbers more than eighty, most of them being persons of recognised eminence, and the greater number extra-metropolitan. Among these articles are the following:

Mortality at Sea; the Peltzer Trial; the Leeds General Infirmary; Life and Death in England; the Medical and Sanitary Department of Ocean Steamships; the Financial Crisis at the London Hospitals; Army Surgeons and their Hospital Practice in Egypt; the Influence of Alcohol on Mortality; Medical Certificates, Coroners, and Death-Registration; the Navy and Army Medical Services; the Medical Officers of Atlantic Steamers as Government Officials; Sir Spencer Wells's Hunterian Oration; the Leicester Guardians and Compulsory Vaccination; Superannuation of Poor-Law Medical Officers; the Government Medical Reform Bill; Hospital-Colleges for Medical

Students; Medical Faculties of Oxford and Cambridge; the Proposed Conjoint Scheme of the Colleges of Physicians and Surgeons; Yellow Fever and Quarantine; the Small-pox Death-rate among Children as Influenced by Vaccination; Indian Medical Service; Abuse of Lunacy Law; the Regulation of Tenement-Houses; the General Medical Council; the Contagious Diseases Acts; Unqualified Assistants; the Vaccination Question in Parliament; the University of Cambridge and Salaries of Professors; Weather-Forecasts; the Increasing Fatality of Cancer; Coroners; Report of the Committee on the Army Medical Service; the Development of Myopia in Education; the Ismailia Hospital during the Egyptian Campaign; Compulsory Revaccination; the Annual Meeting of the Association in Liverpool; Examinations, Present and Future; Old Prescriptions; Official Self-sacrifice in Vaccinal Research; Notification of Infectious Diseases; New Regulations of the University of Cambridge; Lord Wolseley and the Army Medical Officers; Typhus Fever at Nazareth House; the Surgical Arrangements at the Battle of Tel-el-Kebir; the Elections of Members of the Council of the Royal College of Surgeons; Laws in Germany regarding Poisonous Pigments; Preliminary Education for the Medical Profession; Combatant and Medical Officers of the Army; Revaccination in Foreign Armies; Outbreak of Diphtheria due to Infected Milk; Honorary Queen's Cadetships; Servants of the Sick Poor; Gambling in Life-Assurance; the Addresses at the Annual Meeting in Liverpool; Cholera and Quarantine; the Closing of Schools as a Sanitary Measure; the Metropolitan Diseases Prevention Bill; the New By-laws of the British Medical Association; the Medical Work of the Session; Registration of Nurses in Philadelphia; Advice to Medical Students; New Conference on Cholera; the Southall Park Catastrophe; Overcrowding and Crime; the Walthamstow Murder; Hospital-Accommodation for Infectious Diseases in Liverpool; Intemperance and Cholera; the Relation of Drugs to Medicine; Medical Study and Practice; the Introductory Addresses at the Medical Schools; Educational Over-pressure; Professor Huxley on Medical Reform and Education; Railway Unpunctuality and Public Health; Health-matters in Liverpool; the Public and Life-Assurance; the Thornton Heath Murder; the Remains of Harvey; the Doctor's Holiday; Class-Mortality and Stratified Statistics; the Sale of Poisons; Canvassing for Hospital-Appointments; the Clinical uses of Nitrite of Sodium; Legislation for Inebriates; Quarantine in Australia; Poisonous Pigments in Austria; the Use of the Title "Doctor"; the Annual Meeting in 1884; Foundation of Medical Sick, Annuity, and Life-Assurance Society; the International Health-Exhibition; the Irish Lunacy Bill; the Results of the Franco-Egyptian Cholera-Commission; Cholera and Small-pox in India.

Several articles relating to topics of scientific and practical interest in relation to medicine have been published. Among the subjects thus treated, have been the following: The Communicability of Phthisis; Collective Investigation of Disease; the Pathological Society's *Supplement;* the Artificial Feeding of Infants; the Treatment of Cough and Expectoration; the Vaso-dilator Function of the Sympathetic; Dipsomania; the Carbolic Acid Treatment of Typhoid Fever; Medicine as practised by Animals; Cardiac Therapeutic Agents; Sir Andrew Clark's address to the Clinical Society; Fallacies of Analysis of Water; M. Pasteur's "Vaccine" Theory; Pathogenesis of Pneumonia; New Method of Water-Testing; Renal Inadequacy; Natural History of Bacteria; A Remarkable Outbreak of Intermittent Fever; Friedreich's Disease; Acute Pneumonia; Dr. Manson's Researches on Filarial Disease; Hernia of the Ovary; Condensed Milk as Food; the Chemical Pathology of Diabetes; the Predetermination of Sex; the Influence of the Nervous System in the Production of Disease of the Blood-vessels; the Present Position of Therapeutics; Recent Researches on Bacilli and Tuberculosis; the Etiology and Pathology of Summer Diarrhœa; Removal of the Thyroid Gland; Milk-Sickness; Intestinal Worms; Revived Therapeutic Agents; the Specific Organism of Cholera; Myxœdema; Acute Pneumonia; Histology of Nerves; the Nutritive Value of the Food-Stuffs; Nerve-stretching; Catheter-Fever; Vaccinia and Variola.

In the department of "the Week," numerous records of and comments on subjects of professional interest have appeared.

MEDICAL SOCIETIES.

At the meeting of the *Royal Medical and Chirurgical Society*, on January 9th, Dr. Colcott Fox described two cases of so-called erythema gangrænosum which had been under his notice; and Dr. Percy Kidd read a paper in support of the view of the dependence of diphtheritic paralysis on an anatomical lesion of the spinal cord. On January 23rd, Sir Henry Thompson gave an account of four cases of tumour of the bladder removed by operation, and then described an operation for exploring the bladder by perineal section of the urethra, and for removing vesical tumours, impacted calculi, etc. On February 13th, a discussion was held on the treatment by ligature of large arteries. Cases of aneurysm treated by ligature were described by Mr. Christopher Heath, Mr. Howard Marsh, and Mr. Henry Morris. Specimens of aneurysms and of materials used for the ligature of arteries were shown, and also microscopic preparations showing the condition of silk and catgut ligatures some time after application. An interesting discussion followed the reading of the papers. The next meeting, on February 27th, was devoted to the subject of scurvy. Mr. W. H. Neale, who had accompanied the *Eira* Arctic expedition, presented a paper on the etiology of the disease; and Dr. Hale White, of the Dreadnought Hospital, described a case of scurvy with dilatation of the heart and retinal hæmorrhages. Several medical officers of the public services, who had had opportunities of observing the disease, took part in the discussion. At the meeting on March 13th, Dr. Percy Kidd described a case of syphilis of the larynx; and Mr. A. Willett and Mr. W. J. Walsham described a case of malformation of the shoulder-girdle, and made some remarks on the probable nature of the deformity. On March 27th, Dr. Thomas Barlow presented a paper on cases known as "acute rickets;" and Mr. H. W. Page described a case of subperiosteal hæmorrhage, probably scorbutic, of three long bones in a rickety infant. The reading of the papers was followed by a discussion on the etiology and treatment of scurvy and rickets. On April 10th, Mr. A. E. Barker described a case of nævus of the rectum in the adult, proving fatal from hæmorrhage; and Mr. Harrison Cripps called attention to some points connected with the local recurrence of malignant disease. On April 24th, Dr. Percy Kidd discussed two cases of congenital syphilis of the larynx, first developed at the ages of 14 and 13 respectively; after which, a discussion on paracentesis of the pericardium, originating in two communications by Dr. S. West, took place. On May 8th, Dr. Barlow showed a child who was the subject of congenital absence of both clavicles, and of malformation of the cranium. Dr. Angel Money read a paper in which attention was directed to gliomatous enlargement of the pons Varolii; and Dr. Sharkey described and commented on a case of asymmetry of the brain, presenting peculiarities bearing upon the question of the connection between the optic nerves and certain definite areæ of the cortex of the brain. On May 22nd, Mr. Knowsley Thornton described a case in which cysts connected with both kidneys were opened and drained, and a tumour of the right ovary removed. Dr. H. G. Rawdon, of Liverpool, gave the history of a case of nephrectomy for rupture of the kidney, followed by cystotomy, for the removal of blood-clots. Sir Spencer Wells narrated a case of excision of an enlarged cancerous kidney; and the president, Mr. John Marshall, described a case of hæmatoma of the kidney, in which recovery took place after removal of the fluid by aspiration. On June 12th, Dr. F. Warner showed an apparatus for graphic records of movement; Dr. Thin described the bacillus of leprosy; Dr. Colcott Fox read a paper on urticaria pigmentosa; and Sir Henry Thompson gave an account of seven cases in which he had operated for the removal of tumours of the bladder, in addition to five described by him at the meeting on January 23rd. At the first meeting of the present session of the Society, on October 23rd, Professor Ferrier read a very interesting address (which was published in the JOURNAL of October 27th) on the progress of knowledge in the physiology and pathology of the nervous system. On November 13th, Mr. R. W. Parker described a case of spontaneous inguinal aneurysm in a boy aged 12, in which the external iliac artery was tied; and gave a summary of all the recorded cases (fifteen in number) of external aneurysm in persons under 20 years of age. On November 27th, Dr. Sydney Ringer described the results of experiments made by himself and Dr. Harrington Sainsbury on the action of the digitalis-group; and Mr. G. Cowell showed and commented on four cases of congenital dislocations of both femora. On December 11th, Mr. Jonathan Hutchinson read a paper on high amputation for senile gangrene; and Dr. F. H. Champneys made a communication (in continuation of those presented in previous years) on artificial respiration in still-born children, treating especially of mediastinal emphysema and pneumothorax in connection with tracheotomy.

At the *Medical Society of London* the three annual Lettsomian lectures were delivered by Dr. A. E. Sansom, who chose as his subject the treatment of some forms of valvular disease of the heart. Full abstracts of these lectures were published in the JOURNAL soon after the meeting. At the meeting on January 15th, Dr. Kingston Fowler described a case of intestinal obstruction from volvulus of

the ileum, treated by abdominal section; and Dr. Wiltshire read a paper on abdominal pulsation. On January 29th, Dr. Whipham described a case of acute pulmonary tuberculosis, which was followed by a discussion on tuberculosis and bacilli. On February 26th, Mr. Fisher showed a case of Dupuytren's contraction of the fingers in a woman; Dr. Day related a case of ascites in a child. On March 5th, Dr. Broadbent described two cases, illustrating the use of the cold *douche* in delirium tremens. On March 12th, Dr. A. Routh read a paper on a case of poisoning by citrate of caffeine; and Dr. R. Lee one on the antiseptic treatment of pulmonary disease. On March 19th, Mr. Hugh Smith described a case of Bigelow's operation; and Dr. Manson, of Amoy, read a paper on distoma Ringeri and endemic hæmoptysis. On April 2nd, Dr. Symes Thompson read a paper on Alpine winter health-resorts. On April 9th, Dr. Cullimore made some remarks on the use of the moxa in chronic affections of the spinal cord; Dr. Gilbart Smith read a paper on disease of the pancreas; and Dr. de Watteville described a method of obtaining light for medical purposes. On April 16th, a paper by Dr. Baddalone, of Nocera, on permanganate of potash and viper-poison was read. On April 23rd, Dr. R. Lee read a paper on progressive spinal deformity and fragility of bones in insanity; Mr. Hugh Smith described a case of a foreign body in the pterygoid fossa; and Dr. Day a case of fatal pyæmia in a child, associated with extensive changes in the kidneys and bladder. On April 30th, Sir Joseph Fayrer (the President of the Society) described a case of dysentery and hepatic abscess, in which recovery took place after the spontaneous discharge of the abscess through the lung; and Dr. Cros, of Paris, contributed a paper on plessimetry.

The present session commenced, on November 5th, with an address by Professor Lister on the treatment of fractures of the patella, which, with the discussion thereon (extending over two evenings), has been published in the JOURNAL. On November 19th, Dr. F. Warner read a paper on posture as expressing the condition of the mind; and Dr. Milner Fothergill one on some nervous derangements of the heart. On November 26th, Mr. Francis Mason showed a case illustrating the treatment of the præmaxillary bone in hare-lip; and Mr. John Gay read a paper on the anatomy of the venous system; Mr Spencer Watson described a mirror for rhinoscopy. On December 3rd, Mr. Clutton described a plastic operation for penile fistula; and Mr. W. Rose gave an account of a case of recurrent femoral aneurysm, treated by excision of the sac. On December 10th, Dr. Munroe described a case of foreign body (piece of a vulcanite watch-chain) in the larynx; Mr. Royes Bell, a case of pulpy degeneration of the synovial membrane of the knee-joint; and Dr. B. W. Richardson read a paper on the morphia-habit and its treatment. At the last meeting of the present month, Sir Andrew Clark read a paper on catheter-fever, which, with the discussion that followed, was published in full in last week's JOURNAL.

The meetings of the *Clinical Society* have, as usual, been well attended during the year, and the subjects discussed have been of much value. Physicians and surgeons have had their nights; and, sometimes, the cases have interested both classes of members. Not a little of the success of the gatherings has been due to the able conduct in the chair of the popular President of the Society, who, notwithstanding the many calls upon his time, has at every meeting throughout the year presided; and, by his well-timed remarks and suggestions, has assisted in eliciting from each paper and discussion its special points of interest. Sir Andrew Clark has further contributed to strict clinical investigation by his inspiriting address on assuming the presidential chair in January, and by his allusions to catheter-fever made at the first meeting of the present session in October, and further elaborated by him before the Medical Society, as described in the BRITISH MEDICAL JOURNAL of last week. Following our plan of last year, we will divide the papers into two classes—those read by physicians, and those by surgeons—giving precedence to the former. The first paper in January was one on the case of a child which presented symptoms resembling those of myxœdema, read by Dr. Coxwell. One of the last papers read last month had reference also to the same subject, when Dr. Drewitt exhibited a typical case of myxœdema, and described it. On this occasion, possibly, the chief interest of the evening lay in the contribution made to the Society, by Dr. F. Semon, concerning the important consequences which Dr. Kocher of Berne had discovered to result from the extirpation of goître. The same discussion was further assisted by Sir William Gull, Dr. Ord, and other able physicians; and, at the next meeting of the Society, the President announced that the Council had decided to appoint an influential committee to inquire into the whole subject. The report of the committee will be awaited with much interest. In February, a short paper was read by Dr. Longhurst, in which he advocated the unusually received opinion that scarlet fever is infective during the pre-eruptive stage of the disease. Dr. Pavy, Dr. Oliver, and Dr. G. Johnson, have all exhibited before the Society their special methods of testing for albumen and sugar in urine. Dr. Broadbent, in February, read a paper on cases of supposed hydrophobia treated by chloral, one of which recovered; and at the same meeting Dr. J. K. Fowler exhibited two cases of pseudo-hypertrophic paralysis in adults. In March, Dr. Pearson read, for himself and Dr. Broadbent, notes of a case of acute necrosis of the right orbital plate of the frontal bone, producing thrombosis in the frontal end of the longitudinal sinus, and in the cavernous sinus, and ophthalmic vein. In April, Dr. Whipham related particulars of two cases of enteric fever in which an erythematous eruption, resembling that of scarlet fever, had occurred. Dr. W. J. Tyson read notes of a case of lepra tuberculosa, as to which a committee of the Society, specially appointed for the purpose, reported that they had found bacilli in plenty in the skin. Dr. Southey read notes of a case of "tachetée" symmetrical gangrene in a boy, aged 9, in whom there subsequently occurred intermittent true hæmaturia. Dr. S. Mackenzie contributed a paper on subcutaneous nodules, occuring in a patient the subject of syphilis, with very indefinite connection with rheumatism; and Dr. Duckworth, one on rheumatismal cutaneous, subcutaneous, and periosteal nodules. In June, Dr. Crocker read notes of a case of nodes from congenital syphilis, occurring in a girl aged 12. In May, Dr. R. J. Lee read a paper on cases of nystagmus infantilis. Dr. Habershon contributed, also, a case of ulceration of the pylorus, situated at the valve, the floor of the ulcer being formed by the neck of the gall-bladder. Dr. F. Taylor described a case of infantile hemiplegia with unusual reflex phenomena. At the first meeting of the Society in October, Dr. Goodhart read notes of three cases of peritoneal abscess in children; and Dr. Bastian contributed particulars of an anomalous case of cerebro-spinal sclerosis. At the next meeting, Dr. Bastian furnished a report of another cerebral case, in which the rupture of a large aneurysm in the right corpus striatum. with intraventricular hæmorrhage, had been accompanied by extreme lowering of the rectal temperature. The same physician read notes of another case, in which there was apoplexy in a boy aged 15, with intraventricular hæmorrhage, convulsions, and death in four hours. Dr. Althaus furnished notes of a case in which there were tumours of the cerebral membranes, supposed by himself to be of syphilitic nature. In November, Dr. Thin gave an account of cases of thickened epidermis treated by salicylic plaster. Dr. Cayley, in December, read notes of a case of pneumothorax, occuring during typhoid fever, from which recovery ensued; and Dr. S. West related a case in which there was also complete recovery from idiopathic pneumothorax, without effusion. Mr. Symonds noted a case which brought into prominence the supposed relationship existing between labial herpes and rigor.

The papers of surgical interest have been numerous. In January, Mr. Davies-Colley noted a case of enormous enlargement of the lower lip cured by operation; and in April Mr. Barwell described a case, in which he had removed a large portion of the upper lip without deforming the face. Mr. Golding Bird, in January, gave an account of a case of transpatellar excision of the knee; and at a full meeting of the Society, in November, Mr. G. R. Turner contributed particulars of a case of ununited fracture of the patella treated by suture of the fragments. In the subsequent discussion, Professor Lister, Mr. Holmes, Mr. Bryant, and several other hospital-surgeons took part. In February, the late Mr. Shuter exhibited a patient upon whom he had performed subperiosteal amputation at the hip-joint, with the result that bone had formed in the stump, so that the patient was able to wear an artificial limb satisfactorily. Mr. Bennett May, at the same meeting, read notes of a successful case of nephro-lithotomy, and exhibited the calculus, which was three inches long, and weighed 473 grains. In March, Mr. Godlee contributed a case in which, with fracture of the radius, it was found necessary to excise the lower end of the ulna, in order to effect the reduction of the consequent dislocation. Mr. Parker read a paper on a case of contused wound of the thigh and leg in a child, in which gangrene of the limb and death ensued. Mr. Spencer Watson contributed notes of a case of tetanus; and Mr. Howard Marsh related particulars of another case in which tetanus followed laceration of the toes, lasted forty-two days, and was followed by recovery. In April, Dr. Semon detailed notes of a case in which, by internal operation, he had removed a pin from the larynx of a boy, aged 13, in which it had been impacted thirteen months, and had caused temporary fixation of the left crico-arytænoid articulation. Mr. B. Roth brought forward a case of lateral curvature of

the spine, illustrating its treatment without the use of mechanical supports. Mr. Howard Page read an account of a case of tabetic arthropathy, in which the tarsal bones of both feet were involved. In this case, there was paroxysmal hæmatinuria. In May, Mr. Dalby read notes of eight cases in which suppuration within the tympanum had ended fatally, as examples of two classes of cases in which cerebral abscess, meningitis, or pyæmia, originated in disease of the ear. Mr. Nettleship read, for himself and Mr. C. Higgens, notes of a case of morphœa in the region of the fifth nerve, with paralysis of the intra-ocular branches of the third. In May also, Mr. Barker read particulars of a case in which he had successfully removed a small goître which, on the patient's exertion, had produced great difficulty of breathing. The operation was followed by complete relief. At the extra meeting in June, the following papers were contributed, viz.: a case of large sebaceous or dermoid cyst in the tongue, removed by operation, with cure, by Mr. Barker; stretching of the facial nerve for *tic convulsif*, by Mr. R. J. Godlee; spondylitis deformans, by Mr. H. H. Clutton; spondylitis deformans and osteitis deformans, by Dr. Lediard; and two cases of epithelioma occurring on old cicatrices, with removal, by Mr. G. Lawson. In October, Mr. Golding-Bird gave particulars of a case of dislocation of the jaw, reduced after eighteen weeks; and, in November, Mr. G. R. Turner read notes of a case of wound of the plantar arch, in which there was secondary hæmorrhage on the thirteenth and sixteenth days following the injury, with eventual recovery. In addition also to these papers and discussions, a subcommittee has been inquiring into the results of the treatment of spina bifida by injection. Many living specimens, too, have been exhibited at the various meetings of the Society throughout the year.

The *Pathological Society of London* has being doing good work during the year, and the volume of its *Transactions* recently issued to its members contains much valuable matter; if we may judge by the papers already read at the meetings this session, the next volume, will be one of equal interest. The meetings of this Society are always well attended, but discussion is generally brief. The criticism which we ventured to make last year, that the mass of material attempted to be dealt with is too large and scattered, still holds good to a great extent, but there has been a notable improvement in this direction; as a proof of this, we may instance the interesting and important series of papers on tubercular ulceration of the tongue, which has occupied much of the time of the Society at its last two meetings. The mass of facts bearing on the subject brought forward by the various speakers must have come almost as a revelation to a great many surgeons, this diseased condition not having been very generally recognised in England; the attention of the profession will be forcibly attracted to the subject by this focussing, as it were, of the scattered beams of pathological light, far more than by an even larger number of disconnected records made at long intervals. While on this subject, we would ask whether it might not be possible to give a little longer notice of the subjects likely to be raised at the meetings. By most members, the announcement is first read in our own columns on the Saturday before the meeting of the Society, and there may then be no leisure to look up cases bearing on the subjects set down. Would it not be possible to suspend a list at the one meeting of the papers already received for the next? The list need not necessarily comprise all the papers to be read, and might be in other points subject to amendment; it seems probable that some such system would increase the value of the discussions. Among papers of special interest which have been read during the past year, we recall Mr. Sutton's papers on animal rickets, and on tubercle in birds, in which these novel subjects were treated with much thoroughness; an excellent set of papers by Drs. Cavafy, Money, and Drewitt, on rheumatic nodules; a case of phlegmonous inflammation of the stomach after gastrotomy, in which the appearances after death were thoroughly recorded by Mr. Silcock, who found innumerable micrococci infesting the inflamed tissues; and an able paper by Messrs. R. W. Parker and Shattock, on the pathology of club-foot, in which the theory that the deformity was due to some error in fœtal position, or rather some persistence of an early fœtal position until birth, was maintained against the nervous theory. The discussion on diabetes, which took up two meetings last spring, cannot be said to have contributed very largely to the settling of the pathology of that formidable disease; the Committee appointed to examine the microscopical specimens has reported in a sense unfavourable to the theory of Dr. Dickinson with regard to vacuolation, and the chemical views put forward by Dr. Pavy have not, it is understood, met with general acceptance among physiologists. At the first meeting of the Society this year, on January 2nd, Mr. J. Whitaker Hulke was elected president in succession to Dr. Samuel Wilks, and has presided over the deliberations of the Society with assiduity, and with a tact and judgment which has left nothing to be desired.

The *Obstetrical Society* has produced some excellent work this year, in the form of carefully prepared monographs; a large number of specimens have also been exhibited. In January, Mr. C. E. Jennings read a paper on transfusion, the aim of which communication was to recommend the intravenous injection of a large quantity of saline fluid, by a special apparatus, in preference to blood. In February, Dr. Godson described a successful case of removal of an epitheliomatous growth of the cervix during pregnancy, without subsequent abortion; a month later, an active discussion followed the exhibition of some specimens of uterine fibroids and uterine appendages removed by Dr. Bantock; but observations on the progress of these operations will be found under the obstetrical department of this retrospect. An interesting case of labour with atresia vaginæ was described by Dr. Fancourt Barnes at the April meeting. In May, Dr. Braxton Hicks read a communication on the behaviour of the uterus in puerperal eclampsia. He showed that the powerful uterine contractions which then occur, as well as the carbonic acid poisoning of the mother's blood, of necessity endangered the life of the fœtus, so that the hastening of delivery was imperative, unless in any special case such a course were perilous to the mother. At four meetings, but more especially in July and November, Mr. Lawson Tait showed specimens, and read communications of signal interest, illustrating diseases of the Fallopian tube, and tumours of the uterus, and their treatment by operation; on the former, as well as on the latter subject, more will be said elsewhere. In June, Dr. Herman read a paper on the clinical records of gangrene of the vulva in adults, based on a case in his own practice. In October, Dr. Henry Bennet contributed a monograph on the anatomy, physiology, and pathology of the os uteri internum; the author held that easy passage of the sound was a sign of disease, rather than an indication of a normal condition of the uterus. At the December meeting, Dr. Barnes, in a most complete and laborious monograph, made a valuable contribution on the much disputed question of cranial obliquity. The weight of his experience was entirely in favour of Naegelé's original proposition, and new light was thrown upon the mechanism of labour in head-presentation. As was pointed out by Dr. Matthews Duncan, who took an active share in the discussion which followed on the reading of Dr. Barnes' monograph, it is much to be desired that more of such papers were contributed to the archives of the Obstetrical Society, the principal business of which should of necessity be obstetrics, especially some of the most important questions connected with the physiology and mechanism of labour. Another paper of a similar, but more theoretical, type, read at the April meeting of the Society, was Dr. Champneys' contribution on the pressure of the femora and its influence on the shape of the pelvis. Fehling had already shown that many characters attributed to the operation of mechanical influences after birth were congenital, and therefore established before the skeleton was exposed to these influences. After eliminating all sources of fallacy, Dr. Champneys concluded that the action of the muscles that run between the femur and pelvis is a true cause of the inward pressure of the femora, and is aided by the muscles favouring inversion of the foot. The use of the lower limbs increases this inward pressure. In the discussion that followed, Dr. Barnes attributed pelvic deformities acquired before birth rather to pressure from the attitude of the fœtus in the uterus than to muscular action; nor could Dr. Matthews Duncan agree that the muscles play more than a very trifling part in moulding the fœtal skeleton. Science may yet prove that muscular action has some share in the phenomena of development. In July, the same obstetrician read another paper, on the obstetrics of the kyphotic pelvis. Want of space prevents us from dwelling any longer on the results of recent obstetric labour displayed at the meetings of the Obstetrical Society during the past year; but the tendency of that society to give prominence to scientific papers and discussions on the questions which more immediately concern it, must be a source of congratulation to the entire medical profession of this country.

The *Ophthalmological Society* has had a successful year, and has now well vindicated its right to a notable place among those bodies which contribute to the general sum of knowledge. It has lost the services of its first President, the distinguished ophthalmic surgeon who has recently received a mark of the high esteem in which he is held, not only by the profession, but by the world at large. Sir William Bowman has been succeeded by Mr. Jonathan Hutchinson;

and the new President inaugurated his term of office by an address, in which he propounded a scheme for making the stores of special knowledge in the possession of the Society available speedily for the use of the profession at large; we wish every success to the scheme, and hope to see some steps shortly taken towards carrying it out. The Society has determined to found a collection of instruments used in ophthalmic surgery, of drawings properly authenticated and accompanied by clinical and pathological details, and a reference-library of works on ophthalmic medicine and surgery. The most important event in the Society's annals during the past year was undoubtedly the discussion on eye-symptoms in disease of the spinal cord, to which Dr. Gowers, Dr. Hughlings Jackson, and Mr. Bevan Lewis contributed important papers; if it did no more, the discussion at least sufficed to show the exceeding complexity of the subject, and the need for more extended observations, as well as the care which must be exercised in drawing conclusions. But many isolated papers were of great merit and importance: we may instance Mr. Priestley Smith's original paper on the growth of the crystalline lens; the paper by Mr. Arthur Benson (of Dublin) on diphtheritic paralysis; that by Dr. Walter Edmunds and Mr. Lawford on the causation of optic neuritis in intracranial disease; Dr. Sharkey's careful analysis of the cerebral lesions in homonymous hemianopia; and Dr. Stephen Mackenzie's paper, at the last meeting, on anæmia in retinal hæmorrhage, in which he showed, as it appeared to us very clearly, that the hæmorrhage is due, not to the species of anæmia but to the degree, and that hæmorrhage is liable to occur, whenever, whether owing to hæmatemesis due to gastric ulcer, to abdominal cancer, to scurvy, or to "idiopathic anæmia," the number of red blood-corpuscles present in the blood falls below 50 per cent. The surgical subjects dealt with had great interest for surgeons practising in this special department; but, with the exception of a number of valuable papers on sympathetic ophthalmitis, among which those by Dr. Brailey and Mr. Nettleship were conspicuous, the subjects were not, as a rule, of general interest.

At the meeting of the *Epidemiological Society* on January 3rd, Mr. P. Gordon Smith read a paper on the planning and construction of hospitals for infectious diseases. On February 7th, a paper was read by Deputy Surgeon-General De Renzy, on the sanitary state of the British troops in Northern India. On March 7th, Dr. John Murray described the Delhi or oriental sore. At the meeting on April 4th, Dr. G. B. Longstaffe directed attention to the question as to the epidemic nature of phthisis, bronchitis, and pneumonia. On May 2nd, Dr. Joseph Ewart commented on the causes of the excessive mortality among the women and children of European soldiers serving in India.

The proceedings of the following extra-metropolitan societies have also been regularly reported: the Cambridge Medical Society; the Medical Society of Manchester; the Midland Medical Society; the Leeds and West Riding Medico-Chirurgical Society; the Sheffield Medico-Chirurgical Society; the Pathological and Clinical Society of Glasgow; and the Medical, Surgical, Obstetrical, and Pathological Sections of the Academy of Medicine in Ireland.

HOSPITALS AND MEDICAL SCHOOLS.

THE financial condltion of the metropolitan hospitals has long been a source of much anxiety to those entrusted with their management, and it has been felt by many that a more extended application of the principle of requiring some payment from the patients, either an universal small payment or payments on a sliding scale, would be the only possible solution of the difficulty. There is a growing feeling that a vast number of people take advantage of the hospitals, of the out-patient departments especially, who are well able to pay for medical attendance. Such people not only deprive practitioners in the neighbourhood of their fair share of emolument, but put the charitable funds of the hospitals to grave expense. At the London Hospital, it has recently become necessary to take steps to limit the number of patients by carefully excluding those who are able to pay. At Guy's Hospital, where the financial depression has been severely felt, we understand that a charge of one penny is made to every out-patient. This sum, small as it is, will, it may be anticipated, result in a considerable contribution towards the drug-bill. For the purpose of facilitating the discussion of questions connected with hospital-management, and the accumulation of facts or statistics, an association, called "the Hospitals Association," is in process of formation. If managed on broad principles, and made really representative, such an association may be of much use. We note also with gratification that the new hospital for the north of London, with which we were threatened, has taken the wise and judicious form of a proposal to enlarge, and generally to increase the usefulness of, the Great Northern Hospital.

The improvements made during the year in medical school buildings attached to several hospitals were duly chronicled in our pages on October 6th. St. Mary's Hospital, Paddington, and Owens College, Manchester, have taken the lead in this respect. A new preparatory school of medicine has been started at the West London Hospital, and may have an useful career before it, since it is able to offer to young students some of the advantages of the old system of apprenticeship, combined with facilities for the study of the natural sciences. We recall with pleasure that we have now probably heard the last of the unhappy difficulties with regard to the nursing of King's College Hospital. The whole story is a lamentable instance of the evils which may arise from divided authority, and from, to put it in the mildest way, mistaken ideas of duty. In the matter of the number of students and of beds available for teaching, the position of the metropolitan medical schools has not materially altered during the year, but there is a growing tendency to make more use of the out-patient departments for teaching and training students in the management of common ailments. Guy's Hospital lost one of its brightest ornaments when death removed Dr. Hilton Fagge; the London Hospital has lost its senior surgeon by the retirement of Mr. Jonathan Hutchinson; and the unhappy death of Mr. Shuter has deprived St. Bartholomew's Hospital of the services of a rising surgeon. The growth of the medical school at Cambridge is one of the most striking facts of medical education during the last few years; and the new arrangement which has brought in Professor Macalister, who has already won his way to the high esteem and admiration of his pupils, to teach anatomy, and set free Professor Humphry to teach systematic surgery, will certainly strengthen the school. The appointment of a professor of pathology, which is shortly to be made, will be a further advantage to the school, though it must be confessed that these changes bring it more directly into rivalry with the London schools than has previously been the case. The outlook at Oxford is, as yet, less promising. The Waynflete Professor of Physiology has been appointed, but the development of the school is hindered by a bitter opposition.

Our columns have contained week by week, with few exceptions, reports of medical and surgical practice in the hospitals and asylums of Great Britian and Ireland. Among the surgical cases of special importance which have been reported during the year, we may refer to the series of cases of removal of uterine fibroids reported from Dr. Keith's wards in the Edinburgh Royal Infirmary; cases of successful excision of the rectum for malignant disease, by Mr. Bellamy and Mr. Walsham; cases of gastrostomy, by Mr. Howard Marsh and Mr. Butlin; a series of cases of herniotomy, with ligature of the sac high up, and another series of cases of stricture of the rectum, illustrating a line of treatment advocated by him, from the pen of Mr. Rushton Parker of Liverpool; and a series of cases of bone-suturing reported by Dr. Whitson of Glasgow, by Mr. Ward from the Leeds General Infirmary, and by Mr. Walsh of Worcester.

Among that large class of cases which surgery is beginning to win from the wider field of medicine, we may note Mr. Bark's case of excision of the facial and infraorbital nerves, and Dr. Buzzard's cases of nerve-stretching, for epileptiform neuralgia; also Mr. Howard Marsh's remarks on the propriety of operating in phthisis, with illustrative cases, and the case of recovery from tetanus reported by Mr. C. J. Bond. Dr. Suckling of Birmingham has reported a series of cases of pneumonia of the upper lobe; and we may recall also Dr. Stephen Mackenzie's cases of disease of the medulla oblongata; Dr. George Johnson's case of disease of the same part, with remarks by Dr. Ferrier; and Dr. Ridge Jones's curious case of hyperpyrexia in tubercular tumour of the cerebellum.

ANATOMY.

ANATOMISTS are too apt, at the present day, to look on human osteology as a somewhat worked-out department of science. During the past year, however, much good osteological work has been done. We will first notice the publication, in the *Journal of Anatomy and Physiology*, of two papers on the carpal bones. Man normally possesses the typical scaphoid, semilunar, and cuneiform bones in the first row, and the typical trapezium, trapezoid, os magnum and unciform in the second. No radial sesamoid bone exists, although such a bone is found in many monkeys, articulating with the scaphoid and trapezium, and connected with the tendon of the flexor carpi radialis; but there is a large ulnar sesamoid, known as the pisiform bone. The os centrale is, normally, absent, although it exists in all the quadrumana excepting the gorilla, chimpanzee, and some of the

lemurs. The coalescence of the scaphoid and semilunar, constant in the carnivora, is not met with in the typical human carpus. These facts must be borne in mind before considering the contributions of Professor Turner, and Dr. R. J. Anderson of Belfast, to the periodical above mentioned. Struthers and Wenzel Gruber have already published observations on anomalies of the human carpus. After careful examination of a large number of specimens, Professor Turner was enabled to record some remarkable discoveries. Many of the anomalies which he describes must, however, be considered as accidental aberrations of the process of ossification, rather than reversions to an original type. Thus the coalescence of the scaphoid and trapezium, the complete division of the semilunar into two bones, and a remarkable division of the trapezoid into a distinct dorsal and palmar segment, all come under this category, as must a case where the styloid process of the third metacarpal bone formed a distinct ossicle. Gruber had previously distinguished instances of this anomaly from cases of simple non-union of the ephiphysis of the third metacarpal bone. Dr. R. J. Anderson describes anomalies in the human carpus which resemble conditions normally observed in some of the lower mammalia, such as the union of the os magnum and trapezoid, as in the three-toed sloth, the true ruminants and the chevrotains or tragulina, and the coalescence of the semilunar and cuneiform, which approaches a condition found in the frugivorous bats. In our opinion, one great argument that these conditions are purely anomalies of ossification, and not reversions to original type, is the rareness of fusion of the scaphoid and semilunar bones in man, although coalescence of these carpal bones is very frequent in the mammalia. But the most interesting anomaly of all is the occasional discovery of a bone which clearly appears to be a representative of the os centrale, an ossicle well developed in the orang-utan. Both Turner and Anderson describe a division of the scaphoid bone into two parts, the latter maintaining that one of these parts is the homologue of the os centrale. With regard to Professor Turner's three specimens, that anatomist has little or no doubt that one represents almost precisely the condition seen in the orang, whilst the second and third are cases of simple division of the scaphoid. In the *Beobachtungen aus der Menschlichen und Vergleichenden Anatomie*, Part 4, 1883, Professor Gruber states that, after examining 5,129 human hands, he has found the os centrale in thirteen specimens, eight in right wrists, five in left. The presence of the bone as an independent element represents an early condition of the human carpus, which, as a rule, becomes greatly modified as development advances. The same authority continues the subject in Virchow's *Archiv*, in a contribution adorned with some good illustrations, which would have been very desirable in the other papers to which we have referred.

In the *Journal of Anatomy and Physiology*, Professor Turner describes a first dorsal vertebra, which had a foramen through the root of one transverse process, sufficiently large to admit an ordinary-sized steel knitting-needle; it was situated in the pedicle of the vertebra, which was unusually wide. It could not be regarded as homologous with the vertebrarterial foramen in a cervical vertebra, but was looked upon by Professor Turner as a local and individual peculiarity. The anatomy and development of the vertebral column are intricate subjects that cannot be satisfactorily introduced into a summary; we must not, however, omit to mention Dr. Froriep's very valuable contribution to the *Archiv für Anatomie und Physiologie* on its development, and Dr. R. J. Anderson's Observations on the Diameters of Human Vertebræ in different Regions, in the April number of the *Journal of Anatomy and Physiology*.

That complicated question, the ossification of the sphenoid and of the temporal bone, has formed the subject of papers in the *Dublin Journal of Medical Science*, where Professor Hannover's researches on the sphenoid bone will be found, and in the *Journal of Anatomy and Physiology*, where Mr. Sutton has written on the development and homologies of the different parts of the temporal bone.

Messrs. Willett and Walsham have contributed to the *Medico-Chirurgical Transactions* a second case of malformation of the shoulder-girdle, similar to a previous example, exhibited before the Royal Medical and Chirurgical Society by the same surgeons a few years since, where a triangular bridge of bone connected the spinal column and the scapula. The reversion-theory is not strongly maintained by the authors of the papers on these cases; and to us the bony process appears to be a purely individual abnormality. In the first case, a cervical rib existed. Professor Turner, in the *Journal of Anatomy and Physiology*, comes to the conclusion that the presence of such a rib, or of the bicipital form of the first rib, is also only an individual peculiarity, not to be regarded as affording any evidence of either specific or generic difference.

Mr. J. B. Sutton has supplied anatomists with one more theory concerning that very popular bone, or rather sinew, of contention, the ligamentum teres of the hip-joint. In a contribution to the *Journal of Anatomy and Physiology*, he endeavours to show that this singular ligament is nothing more than the tendon of the pectineus muscle, separated from it in consequence of skeletal modifications. In the tuatera lizard (*Sphenodon*), the tendon of the ambiens or pectineus passes inside the capsule of the hip-joint to the head of the femur. In the ostrich, the ligamentum teres is continuous with the pectineus or ambiens across the cotyloid cavity. In the horse, the ligamentum teres consists of two parts; one is hidden within the joint, as in man, the second passes out of the cavity to join the linea alba at its junction with the pubes. From this second division the pectineus partly arises. In man, the ligamentum teres is a fibrous band, carrying blood-vessels to the head of the femur, and it has been the subject of many a learned paper. Mr. Sutton's theory is certainly based on highly scientific grounds.

Mr. S. G. Shattock describes a muscle arising from the middle of the outer surface of the greater cornu of the hyoid bone, in a line with the middle constrictor of the pharynx, and inserted into the posterior margin of the lesser cornu of that bone, which it must, when in action, depress. It does not appear to have been previously observed in man, and it corresponds to a muscle known to comparative anatomists; a second intrinsic muscle of the hyoid bone was found in the same specimen. Dr. W. Stirling, who writes, like Mr. Shattock, in the *Journal of Anatomy and Physiology*, has examined the trachealis muscle in man, and compared it with the same muscle in some of the higher mammalia. The structure in question completes the trachea behind; it encroaches for some distance upon the inner surface of the rings, where it is firmly attached to the perichondrium. The acini of many of the mucous glands lie outside the trachealis muscle, so that their ducts pass through it on their way to the free surface of the mucous membrane of the trachea. In the pig, sheep, and ox, the muscle is also attached to the internal surfaces of the tracheal rings, and the ducts of the glands pass between the muscular fibres. In the cat, dog, rabbit, and rat, the trachealis is attached to the external surfaces of the rings at a considerable distance from their free posterior extremities, so that they can thus exert considerable action. The mucous glands lie entirely within the muscle. It would be interesting to determine the physiological significance of the different methods of insertion of the trachealis in different animals.

Drs. G. and F. Hoggan, in a paper "On the Lymphatics of Periosteum," published in the same journal, conclude that no lymphatics exist on the surface of the great cavities in bone, where the marrow lies directly in contact with the bone. There is every reason to believe that the lymphatics never come into contact with the bone itself, and that bone possesses no lymphatics apart from those which may be found within the periosteum, which may be physiologically considered, therefore, as the lymphatics of bone. These vessels are confined to the outer and fibrous stratum of the periosteum. They never reach nor ramify over the inner or bone-surface of that membrane.

Turning to the organs of digestion, a valuable monograph by Professor Sappey on accessory portal veins has appeared in the September number of Robin and Pouchet's *Journal de l'Anatomie et de la Physiologie*. It dwells on the very important question of the anastomoses between the veins of the portal and the general systemic circulation. Sappey concludes that the blood, on leaving the portal circulation, partly enters the general circulation through veins which ramify over the entire extent of the suspensory ligament. No authentic case of persistence of the umbilical vein in the adult, Professor Sappey declares, can be found in the archives of anatomical science, although the venules in the round ligament may, and often do, become much dilated. When the veins that communicate between the portal and general venous trunks become dilated and hypertrophied, the same condition soon involves the veins with which they anastomose, and thus a great highway for collateral circulation is established between the liver and the principal veins of the lower extremity. The blood circulates from above downwards, entering the internal saphenous or the common femoral and external iliac, and thus finding its way to the right ventricle; it is not true, Sappey insists, that the blood-current ever passes the same track in the opposite direction, that is, from the leg into the superficial abdominal veins, and thence into the veins in the neighbourhood of the liver. This track, which plays so important a share in the relief of portal congestion, includes sometimes the subcutaneous abdominal veins, whilst in other cases it is the veins accompanying the deep epigastric artery that thus relieve the portal system. In the

latter case, when dilatation of the entire track takes place, no varicosities are formed, since, from the manner in which the veins open into the external iliac trunk, the blood meets with little or no obstruction. On the other hand, from the nature of the confluence of the subcutaneous abdominal veins with the internal saphenous, varicosity is almost always produced by portal congestion, when the stress of collateral circulation is laid on these veins.

A few notes, in the *Journal of Anatomy and Physiology*, on abnormalities of the renal arteries, by Dr. A. Macalister of Dublin, should be read with interest by surgeons who meditate the operation of nephrectomy.

Mr. Le Gros Clark has written, in the *Journal of Anatomy and Physiology*, an useful paper on the bladder and the anal sphincters, but it is physiological rather than anatomical. Lastly, turning to the female organs, mention must be made of Dr. Ambrose L. Ranney's valuable Topographical Relations, published this year in the *American Journal of Obstetrics*, a useful summary of a series of subjects intricate in themselves, and still requiring more attention and research of a purely anatomical kind than they have hitherto received. The results of the labours of anatomists, brought to light during the year 1883, prove how much can be done, and yet remains to be done, in the field of human anatomy, exclusive of all subjects appertaining to histology and to work which essentially requires the aid of the microscope.

PHYSIOLOGY.

THE report of progress in Physiology, which, according to our custom, we lay before our readers, must necessarily be brief and imperfect. Our space allows us to give little more than titles and names suggestive of what is going on, of what questions are asked, and, in a few instances, of what answers have been given.

Indeed, it is rarely at the end of one year that progress in that year can be reported, nor can we pretend to give verdicts on assertions that have not stood the test of time, and upon each of which a jury of experts would hardly agree. Nor do we pretend to give even a bird's eye view of so extensive a field, but only here and there a glimpse or a quotation, out of which some one or two may chance to excite the attention or interest of some of our readers, and invite them to search matters for themselves. There have been abundant signs during the past year that the profession at large does interest itself in these matters of the study and laboratory; and perhaps the time is not far distant when every practitioner even, or perhaps especially the busiest, may find relaxation, support, and mental refreshment, and take not only interest but practical share in studies that are too lightly abandoned to "pure" physiologists. The recognition during the past year that the scientific labourer is worthy of his hire, which has expressed itself formally and practically in the establishment of several research scholarships, and the recent appointment of Dr. Burdon Sanderson as Professor of Physiology at Oxford, are two most distinct signs of progress and promise of progress as regards the future of "pure" science, and we may now confidently re-echo the words of Professor Sharpey, spoken twenty-one years ago. Speaking of the progress of physiology, he said:—"The older universities have followed in the same line, and in Oxford a chair of physiology has been liberally endowed, and all requisite advantages have been afforded for study, both general and practical; and we may confidently anticipate that under the guidance of the accomplished and distinguished professor, who has already begun his labours, the ingenious youth who resort to that great city of learning, untrammelled by the calls of professional study, will powerfully aid in the advancement of the science." To this we would add that we anticipate, with and by the welfare of pure science "untrammelled by professional calls," the welfare of practical medicine.

The list of papers which we are anxious to mention is long; our space will allow us to give but a few words to each.

This year's *Journal of Physiology* contains, among others, papers by Gaskell (p. 43), descriptive of experiments upon the heart of the tortoise, in prosecution of his previous work on the frog's heart; by Ringer (pp. 29 and 222), on the influence of the inorganic constituents of the blood on the ventricular contraction; by Langley and Eves (p. 18) on the amylolytic influence of saliva; by Brunton and Cash (p. 1) on the contraction of veratrinised muscle; by Wooldridge (p. 226) on the coagulation of the blood. The last-named observer finds that the destruction of leucocytes in shed blood is due to the agency of the plasma, that lecithin can bring about coagulation, and that leucocytes owe their coagulant property to the lecithin, which is one of the products of their *post mortem* disintegration. He concludes further that the plasma contains not formed fibrinogen, but a body antecedent to fibrinogen.

The papers by Du Bois-Reymond's pupils, published this year as the "Festschrift" of the Berlin physiologist and philosopher, form a goodly volume. We can only mention some of them. One of the most interesting is by Heidenhain, on "Pseudo-Motor Nerve-Action." Under this title, the author gives an account of his investigation of a strange phenomena recorded just twenty years ago by Philippeaux and Vulpian (*Comptes Rendus*, 1863, p. 1009). They observed that, some months after the evulsion of the hypoglossal, mechanical excitation of the normally non-motor lingual branch of the trigeminus caused movement of the paralysed half of the tongue. The observation was not at that time credited, but has since been confirmed by Cyon and by Schiff, and quite lately by Heidenhain. The last-named author concludes that the movement is attributable to fibres of the chorda tympani acting upon the lingual arterioles. He finds that its latent period and duration are incomparably greater than those of a normal contraction provoked by excitation of the hypoglossal nerve; he observes also that, whereas section of the hypoglossal entails degeneration of the motor end-plates, section of the chorda tympani has no such consequence. Senator contributes a paper upon the effect of heat upon circulation, respiration, and renal secretion. He finds that in general increased blood-pressure follows increased body-temperature, and that albuminuria and hæmaturia are also its common consequences. Cyon draws up a vehement indictment of Paul Bert's work on barometric pressure, and attacks without mercy many weak points in that work (to which, by the way, was awarded the triennial prize of the Institute). We recommend the perusal of it to those who may have allowed themselves to feel bewildered by the sometimes curious logic of the late minister of education in France. Ewald has sought whether the synthetic action of the intestinal epithelium in the formation of fat, demonstrated by Munk (Virchow's *Archiv*, Band lxxx, p. 10) can also be demonstrated in exsected intestine. Does the mucous membrane possess for any period after death an activity comparable to the *post mortem* activity known to be manifested by various glands? Ewald's experiments lead him to the conclusion that the "after living" mucous membrane does, to some extent, possess the power of converting soap and glycerine into fat.

Franc and Pitres (*Archives de Physiologie*, 1883, No. 11, pp. 1 and 101) find in the course of their study of epileptiform convulsions provoked by cortical excitation, that the attacks are never caused by excitations outside the motor area, nor in that area by excitation of the subjacent white matter. They find, further, that the epileptic attack can generalise itself in spite of previous destruction of the motor area on one side, or of complete longitudinal section of the corpus callosum; and they conclude therefrom that it is not in the cortex, but in subjacent parts that epileptic diffusion occurs, the part played by the cortex being simply epileptogenic.

Couty (*Arch. de Phys.*, 1883, No. ii, p. 257) contributes a memoir in support of the thesis that the medulla oblongata and spinal cord only are in direct functional relation with muscles, the brain not being directly motor, *i.e.*, not joined to muscles by uninterrupted nerve-fibres.

Orschansky (Du Bois-Reymond's *Arch.*, 1883, p. 289), from experiments on the influence of anæmia on the electrical excitability of the brain, found that loss of blood to the extent of one-seventh had no effect; that, to the extent of one-fifth, it caused increased excitability; that, beyond this, excitability is diminished, being quite absent when three-fifths to two-thirds of the blood is lost.

Beevor's preparations of the cerebellum (Du Bois-Reymond's *Arch.*, 1883) go to show that each one of Purkinje's cells receives one medullated nerve-fibre.

Löwenthal (Pflüger's *Arch.*, Band xxxi, p. 350) finds that the descending degeneration in the lateral column, consequent upon extensive superficial destruction of the experimentally excitable area of the cortex (motor area), is much smaller and much more quickly dwindles than the similar degeneration resulting from section of the spinal cord.

Déjerine (*Arch. de Physiol.*, 1883, No. 2, p. 180) records observations in support of the localisation of the lesion of glosso-labio-laryngeal palsy, and of the view (opposed to that of Duchenne) that it is, in the medulla oblongata and pyramid, a lesion similar in nature to descending lateral sclerosis. The same author (*Comptes Rend. de l'Acad. des Sciences*) mentions two cases of locomotor ataxy in which, *post mortem*, no lesions of the spinal cord were found, but only atrophy of peripheral nerves. Pitres and Vaillard (*Arch. de Neurologie*, 1883, p. 191) describe peripheral nerve-degenerations due to various causes, which are of

great interest; we refer our readers to the original, which contains drawings and descriptions deserving of careful study.

Mendelssohn (Du Bois-Reymond's *Arch.*, 1883, p. 281, and *Comptes Rend. de la Soc. de Biol.*, 1883, p. 96), finds that the contraction caused by excitation of the anterior columns of the spinal cord has a shorter latent period (.01 to .025) than that caused by excitation of the posterior columns, and considers that his experiments afford proof of the direct excitability of the anterior columns.

Biedermann (*Sitzungsber Wien.*, 1883, p. 210), upon different grounds, comes to a similar conclusion, viz., that the anterior columns are excitable. The doubt that rests on most proofs hitherto given is due to the possibility of the effects being due to current diffusion. Biedermann's experiments seem to turn this difficulty, inasmuch as he finds that the excitability of the cord, like that of a nerve, is greater in the vicinity of a transverse section (*i.e.*, remote from anterior root-fibres), than remote from the transverse section (*i.e.*, in the vicinity of anterior root-fibres.) Schiff on the other hand (Pflüger's *Arch.*, Band xxxi, p. 357) retracts a former statement of his own to the effect that the anterior columns are excitable, and now says that excitability is confined to the posterior columns.

Brown-Séquard communicates several notes to the *Societé de Biologie*, descriptive of his observations on anæsthesia by insufflation of carbonic acid, and among other "varia" relates the following experiments. A pigeon, decapitated so that the cerebro-spinal centre was divided at the calamus scriptori, turned sommersaults with great rapidity, and thereafter presented a most notable peculiarity in its muscular condition; for more than an hour its limbs presented the rigiditas cerea, characteristic of the cataleptic state in man, and could be placed and left in the most various positions; this state persisted, and merged into cadaveric rigidity.

The electro-physiology of the peripheral nerves continues to receive its usual share of attention. The mechanism of the opening contraction is at present under debate. Tigerstedt (*Mitth. Physiol. Labor. Stockholm*, 1882) and Grützner (*Breslau Artz. Zeitsch*, 1882, No. 23) independently advanced the thesis that it is in reality a closure-contraction due to the polarisation current. Hermann (Pflüger's *Arch.*, Band xxxi, p. 99) now opposes this, and subscribes to Pflüger's law. Pflüger himself breaks silence (Band xxxi, p. 380), but only to vindicate his own claim as the sole discoverer of the law to which his name is attached, and to disallow Chauveau's participation in the discovery. Grützner, by the way, remarks that different muscles of a frog's limb contract at closure and at opening of the galvanic current; he further remarks that a similar difference obtains in man, and thinks he is the first to have witnessed the fact.

Zederbaum (Du Bois-Reymond's *Arch.*, 1883, p. 161) shows that, by compression of a nerve, the transmission of centripetal and centrifugal impulses may be temporarily obstructed, the former more easily than the latter. Nerve-compression permanently abolishes the knee-phenomenon. Wedenskii (Du Bois-Reymond's *Arch.*, 1883, p. 313) concludes that we are at liberty not to believe that natural tetanus is compounded by 18 to 20 impulses per second. Workers in this department will be grateful to Du Bois-Reymond for the paper (*Sitzungsber*, Berlin, 1883, p. 343), in which he gives a summary of results relating to the secondary phenomena as regards current and resistance that come into play when the galvanic current is applied to various tissues and substances.

Schrüber (Pflüger's *Arch.*, Band xxx, p. 577), by observing the effect on the blood-pressure of excitation of the central end of the trunk of the phrenic, concludes that it contains centripetal fibres. Henocque and Eloy (*Comptes Rend. de la Soc. de Biol.*, 1882, p. 578), observed last year that any injury of its superior root is "very painful."

To the question "Is the lung impermeable to air?" (Pflüger's *Arch.*, Band xxxi, p. 16), Ewald and Kobert make the somewhat startling answer that the lung is not impermeable to air at normal maximal pressures, and that in fact the air can pass into the blood-vessels or into the pleural cavity without rupture of membrane. The reassurance is consoling that this does not happen whenever we cough or make an effort, because the time during which the intrapulmonary pressure lasts is too short. They find that under such conditions air can be forced through the vessels into the heart, giving rise to its distension. In this state the heart's beat of rabbits outlasts arrest of the circulation for an unusual period. Ewald had previously observed that the mere rhythmic distension with air of an exsected and bloodless rabbit's heart will maintain its spontaneous contraction for as long as two hours. The conditions are in this case very different from those under which the mammalian heart has continued to beat for long periods after death—*e.g.*, on the rabbit as long as fifteen hours (Panun). In these cases the heart is in its natural relations and filled with blood.

Dastre and Morat (*Journ. de Physiol.*, 1883, No. i, p. 549), have pursued on the inferior extremity their search for vaso-dilatator nerves, which they have found in the cervical sympathetic. They come to the conclusion that the sciatic, although containing constrictor fibres in preponderance, contains also dilatator fibres, and state that excitation of the inferior portion of the thoracic sympathetic determines simultaneously constriction of the vessels of the greater part of the limb and dilatation of the vessels of the digital pulp.

Kroneker (Du Bois-Reymond's *Arch.*, 1883, p. 263) relates experiments and gives tracings which show the possibility of exceptions to the law that excited contractions of the heart are always maximal contractions.

Franc (*Comptes Rend. de la Soc. de Biol.*, 1883, p. 32) says that the pulse-delay in aortic disease is below the normal, because there is free communication between the aorta and ventricle, so that the impulse is not, as in the normal, delayed until the semilunar valves are opened.

De Jäger (Pflüger's *Arch.*, Band xxxi, p. 215) has studied afresh the effect on the blood-pressure of sudden insufficiency of the aortic valves. He reconciles some discrepant assertions in the statement that the pressure may or may not fall, that if it do, it often rises again, that it falls in the rabbit and does not fall in the dog.

A. Schmidt (*Jour. de Physiol.*, 1883, No. i, p. 112) continues the exposition of his and his pupils' researches in the physiology of the blood. In the paper referred to he gives the results of observations in experimental fever to the following effect. The red corpuscles vary rapidly and considerably; the leucocytes diminish rapidly to as low as 5 to 10 per cent. of their original number; fibrin diminishes often to zero; the fibrin-ferment increases in living blood, but shed blood is incapable of producing it *post mortem*.

Cohnheim and Roy have this year published the complete account of their plethysmographic investigation of the renal circulation. Their results are summed up in the following statements. Normally, the usual event is diminution of kidney-volume, with increased blood-pressure; after enervation volume increases with increased blood-pressure. Asphyxia, or sensory stimuli, or strychnia, cause sudden and marked diminution in the size of the kidney; arrest of the circulation in one kidney had no effect on the volume of the opposite kidney. No evidence was obtained of any vascular tone maintained by the channel of the splanchnic nerves.

Abeles (*Sitzungsber. Wien.*, 1883, p. 187), from experiments on exsected kidneys through which artificial circulation was maintained, concludes that the after-living kidney can furnish a secretion in which crystalloids are more abundant than in the blood which is being sent through the organ.

As regards the physiology of digestion, Zuntz and von Mering (Pflüger's *Arch.*, Band xxxii, p. 173) state, in answer to the question, "to what extent does alimentation influence animal oxidations," that, injected into the blood, non-nitrogenous substances (lactic acid, butyric acid, glycerine, sugar), as well as nitrogenous (egg-albumin, pure peptones), have no appreciable effect on the quantity of oxygen consumed, and that the increased consumption of oxygen, consequent on the giving of food by the mouth, is in the main due to the increased activity of the digestive apparatus.

Wolfers (Pflüger's *Arch.*, Band xxxii, p. 222) concludes similarly that carbohydrates (grape-sugar and cane-sugar) can be injected in large quantities into the blood of an animal without increasing its requirement of oxygen. Under these circumstances, the production of carbonic acid is increased, so that the respiratory quotient approaches unity. Dextrin injected into the blood appears to be strongly excitatory of the kidneys and digestive canal, so that their tissue-exchanges are heightened. Alcohol injected into the blood, or given by the mouth, is partially oxydised in the blood, and causes the respiratory quotient to approach unity. The oxygen-consumption is considerably increased by alcohol, and we are not justified in regarding alcohol as an agent that diminishes oxidation. The repeatedly observed fall of temperature by alcohol is due to increased expenditure of heat, which over-compensates increased production.

Potthast (Pflüger's *Archiv*, Band xxxii, p. 280) finds that, while raw peptone increases the tissue-changes when injected into the blood, pure peptone and asparagin have no effect; therefore, by exclusion, the effect must be due to the digestive ferment.

Lilienfeld (Pflüger's *Archiv*, Band xxxii, p. 293) finds that in the

febrile state the quantities of carbonic acid given off and of oxygen taken in are increased, the respiratory quotient remaining unaltered. This is a cause rather than a consequence of increased temperature, but it cannot be the exclusive cause; the effect is more probably due chiefly to increased chemical tonus of muscle.

Nencki and Sieber (Pflüger's *Archiv*, Band xxxi, p. 319), starting from the fact that benzol is in the body oxydised to phenol and other substances, propose to use it with certain precautions as a test of oxidation in the body in health and disease. They find that, in diabetes, leucocythemia, and acute phosphorus-poisoning, and as a consequence of anæsthetics, the quantity of phenol recovered in the urine after a dose of two grammes of benzol is much less than normal; they find that this is not the case in poisoning by arsenic.

Loew (Pflüger's *Archiv*, Band xxxii, p. 111) remarks that arsenic, in the form of a neutral salt, does not act as poison towards the protoplasm of lowly organisms, animal or vegetable, and that it is interesting to reflect that its poisonous effects on animals must be due to special action on differentiated protoplasm.

Ogata (Du Bois-Reymond's *Archiv*, 1883, p. 89) finds that dogs can live in perfect health after removal of the stomach; he had the opportunity of making observations on a dog, from whom Czerny had removed the stomach in 1876; the dog was quite healthy, and with good digestion; *post mortem*, only a small portion of the cardiac end of the stomach was found to have been left.

Zawarykin (Pflüger's *Arch.*, Band xxxi, p. 231) sees in the lymphoid cells of the adenoid tissue of the villi the sole agents of fat-absorption, because, during digestion of fat, he finds such cells laden with fatty particles in and between the epithelial cells, and in blood-vessels as well as in lymph-vessels; he finds that the lymphoid-tissue of Peyer's glands is at the same time particularly active, and crowded with fat-laden leucocytes.

Munk (Du Bois-Reymond's *Arch.*, 1883, p. 273) brings fresh and, in his estimation, convincing proof of the synthesis of fat from fatty acid given by the mouth.

Lebedeff (Pflüger's *Arch.*, Band xxxi, p. 11) has doubts concerning the formation of fat from proteid, but taking two cases, viz., fatty degeneration of the liver in phosphorus-poisoning and the formation of fat in lactation, comes to the conclusion that fat is formed from proteid, and that in the case of phosphorus-poisoning fat is contained in the blood thence infiltrating into the liver.

Paul Bert (*Comptes Rend. de la Soc. de Biol.*, 1883, p. 193) relates that a goat, by ablation of its mammæ after parturition, was rendered mellituric. De Sinéty (*Comptes Rend. de la Soc. de Biol.*, 1883, p. 229) gives experiments of his own which go to show that such an effect is not produced by complete removal of the mammæ, but only when the removal is incomplete and the milk-issue blocked.

Maly and Emich (*Sitzungsber. Wien.*, 1883, p. 10) state that only albumen and syntonin, and not peptones, are precipitated by the bile-acids.

Bodländer (Pflüger's *Arch.*, Band xxxii, p. 426) studies carefully the elimination of alcohol by the kidney, lung, and intestine, and concludes that very little alcohol leaves the body unconsumed, that it is therefore valuable as a "respiratory" food. He agrees with the prevalent notion that it is a luxury to the healthy, a necessity to the sick.

Arntz (Pflüger's *Arch.*, Band xxxi, p. 531) investigates the antipyretic action of quinine, and severely criticises Wood's calorimetric experiments. Arntz uses a surface-thermometer of special construction, with the indications of which he is satisfied, seeing that it promptly reacts to the effect of amyl nitrite on the cutaneous circulation. He finds that quinine does not increase loss of heat, and fully subscribes to the belief that quinine is an internal antiseptic, and that it cures fever by diminishing the fermentative activity of its agent. He remarks that quinine brings down temperature, while loss of heat is prevented by a bath at body-temperature.

PATHOLOGY.

UNDOUBTEDLY, the main pathological interest of the year has centred in the cholera-epidemic which proved so fatal in Egypt, and at one time threatened to invade western Europe.

Two scientific expeditions, charged to investigate the pathology of cholera, were despatched by the governments of France and Germany; while England sent out a band of volunteer civil surgeons to take charge of the sick, create hospital-accommodation, and organise some sort of system of sanitation. The practical objects of the English expedition were satisfactorily accomplished; the disease subsided, and, we may hope, will shortly disappear; but the reported condition of the Egyptian towns, and the indifference of the local authorities, afford little security for the future.

The Berlin Commission, headed by Dr. Robert Koch, has announced the discovery of the specific micro-organism of cholera, but, admitting the need for further proof, has sought and obtained leave to proceed to India to continue its research there.

The French Commission had the misfortune to lose one of its number, M. Thuillier, who fell a victim to the epidemic. Its valuable report contains an excellent account of the lesions found in numerous necropsies; but, while various forms of parasitic organisms were observed, including that described by Koch, this Commission has declined to regard any of them as the cause of the disease.

As at least a dozen different organisms have been described as the cause of cholera by numerous authorities, from Pouchet, in 1849, to Lewis and Cunningham in recent times, we may very properly wait for further evidence before we attempt to determine the value of the alleged discoveries made by the German Commission. But we know enough of Dr. Koch, and of his special skill in this kind of research, to justify our hope of important results from the investigation now being carried on in India.

During the height of the epidemic, Mr. Ernest Hart delivered an important address at a meeting of the National Health Society on the Powers and Duties of Individuals and Communities for the Prevention of Cholera and Diarrhœa, in which he insisted upon the possibility of preventing and controlling the disease by proper precautions, and the obligation that rests on heads of households and public bodies to make themselves acquainted with what has to be done, and to see that it is carried out.

Of late years the doctrine has crept into the official mind in India, and now determines official action, that cholera is not a communicable disease. This opinion has been recently maintained by Surgeon-General Cunningham, and also by Dr. Norman Chevers. It is true that all recent experiments to convey the disease by making animals swallow cholera-stools, portions of cholera-intestine, etc., have failed; but there is very strong clinical evidence to support the belief that it is communicated from one human being to another through drinking-water contaminated with cholera-dejections, and this opinion is still held by the great majority of the profession here and in India. It is, therefore, to be regretted that the Government of India should accept, as a basis for official action, a doctrine which tends to depreciate the value of those sanitary measures which experience has proved to be so useful.

The interest aroused by the announcement, last year, of the discovery of the bacillus tuberculosis, has by no means abated. Among many important contributions to the inquiry, one of the most valuable is the report of Mr. Watson Cheyne, who was sent to Germany by the Association for the Promotion of Medicine by Scientific Research. His independent investigations in Koch's laboratory have enabled him to confirm Koch's statements in all essential particulars. He has shown that the injection of the tubercle bacillus is followed rapidly and invariably by tuberculosis; that the micrococci, said by Toussaint to be the cause of the disease, do not produce it; that in the tuberculosis obtained by Roussault Koch's bacilli are always present, and that inoculation of inert substances and the induction of severe inflammations in rodents are not followed by tuberculosis. He has further described the structure and nature of tubercle in a new light, pointing out the relation of the bacilli to the cells of the part.

Important clinical evidence of the constancy of the bacillus in phthisical sputa has been afforded by Heron, Dreschfeld, West, Prudden of New York, Dettweiler and Meissen of Berlin, and others. Dr. Charnley Smith has confirmed Dr. Ransome's discovery of the bacilli in the expired air of consumptives, and has ingeniously demonstrated this by making his patient breathe through gun-cotton in a metallic respirator, the cotton being subsequently converted into collodion, run on to slides, and stained by one of the ordinary methods.

But critics of Koch's assertions have been neither few nor feeble. In America, Schmidt and Formad have attacked him from the histological point of view, without much success. Formad holds that the essential lesion in tubercle is narrowing of the lymph-spaces from accumulation of round cells.

In Germany, Eichler and Finkler have pointed out that the staining tests are not absolutely trustworthy. Feltz has failed, following Koch's methods, to cultivate the bacillus. Spina attacks Koch, not only on the ground that the staining tests are fallacious, but because, as he asserts, the bacilli cannot be found in tubercles exam-

ined in the earliest stages of their formation, as they may be seen in the omentum. Other observers have failed to find the bacillus in some cases of acute tuberculosis. Klebs maintains that the bacillus is not the only organism, there being, also, a micrococcus, the existence of which Koch has overlooked.

Lichtheim and Crämer state that they have found bacilli, resembling in appearance and behaviour the bacillus tuberculosis, in the fæces of healthy persons.

It is not without historical interest that Dr. Wilson Fox has formally confessed his belief in the fallacies of his former experiments, and, basing this opinion upon the results of a careful series of similar investigations, carried out, at his request, by Dr. Dawson Williams, in Dr. Burdon Sanderson's laboratory, he has expressed his belief in the specific nature of the tubercular virus. Dr. Fox has found, on repetition of his former experiments, that any injury to rodents does not cause tubercle, but that it is only produced by the inoculation of tubercular material.

Additional clinical evidence of the communicability of phthisis has been obtained, notably by means of the Collective Investigation Committee. Cases have also been published by Dr. Quinlan of Dublin, Dr. Janeway of New York, and Dr. Rodionoff. Lindmann has recorded two cases of tubercle communicated by a consumptive operator in performing the rite of circumcision, in which the parts are sucked to arrest hæmorrhage. The experiments of Tappeiner and Bertheau on the production of tubercle in dogs, by the inhalation of tubercular sputum, have been repeated and confirmed by Weichselbaum.

The bacillus has been found in a variety of tubercular lesions apart from pulmonary phthisis, as in the urine in tuberculosis of the urinary tract (Rosenstein, Babès, and Cornil), in the uterus (Lindsay Steven), in the mouth and soft palate (Guttmann, Finger), in the skin (Cornil), in a rectal abscess (Smith), and in lupus vulgaris (Demme).

The research for micro-organisms in other diseases has been prosecuted with enthusiasm. Attention has been drawn to cases of "infective pleurisy," in which the effusion contains micro-organisms; and cases of this kind have been described by Dr. George Buchanan of Glasgow and Dr. Russell of Carlisle.

A bacillus has been found by Dr. Morison of Baltimore in hard chancres, condylomata, and other syphilitic lesions. This organism is apparently not identical with that described last year by Birch-Hirschfeld. Professor Neumann has completely failed to convey syphilis by inoculation to the lower animals. Burckhart has cultivated a micrococcus found in gonorrhœa, and has successfully inoculated the fourth generation of artificial culture.

The beautiful experiments of Fehleisen, on erysipelas, have definitely established the fact that this disease is due to the growth of micrococci in the lymphatic vessels of the skin. He succeeded in cultivating these organisms in gelatinised meat-infusion, and in inducing the disease by the cultivated micrococcus in rabbits, and also in man. Giles, Salvioli, Zäslein, and Friedländer, have demonstrated the presence of a definite form of micrococcus in pneumonia; he has also cultivated these germs, and produced the disease in mice, by injection into the pleura, and also by inhalation. Striech has discovered a special germ of osteomyelitis, the injected organisms causing that disease when the bones of the animal had been previously bruised and broken. Pasteur has introduced a new method of attenuating virus. In inoculating organisms obtained from pig-typhoid into fowls, he found that their virulence was much increased, while, after passing them through a series of rabbits, the virulence was so much diminished that pigs were no longer killed by the organisms; and after inoculation with this attenuated virus, the pigs were found to be protected from the virulent disease. Koch has shown how the strength of the virus of anthrax may be definitely ascertained. He found that the virulent bacilli killed rabbits, guinea-pigs, and mice; that when the poison was somewhat attenuated only guinea-pigs and mice died: whilst, on further attenuation, only mice died, and a still further stage of dilution may be obtained where the poison becomes no longer fatal even to mice. The strength of a virus may therefore be obtained by ascertaining how it affects these animals.

Friedländer, in the *Fortschritte der Medicin*, November 15th, 1883, published an account of a very complete and most carefully conducted series of experiments, which supplemented his previous researches, to which we alluded in the JOURNAL of March 3rd, in several points. He now describes the micrococcus of pneumonia to have, under certain conditions and and at certain stages, a distinct capsule. He succeeded in cultivating the micrococcus on gelatine, and inoculating animals with the pure cultivation, or allowing animals to inhale air impregnated with the pure cultivation; and he found that, in certain mammals (mice, guinea-pigs, and dogs) he obtained positive results, whilst rabbits proved quite immune against the pneumococcus. This does not accord with the experience of Giles, Salvioli and Zäslein. The capsule of the micrococcus, which is made easily visible by using, as staining agent, a solution of gentian-violet in aniline water (Ehrlich's staining fluid for tubercle-bacilli), seems, according to its micro-chemical reactions, to consist of mucin; it is not present in the cultivated micrococcus, but appears again in the tissues of the animal experimented upon with the pure cultivation. Of the animals experimented upon, mice seemed most susceptible. All the inoculated animals—thirty-two in number—died, and the *post mortem* lesions were constant; namely, turbid reddish exudation in both pleuræ, and patches of red infiltration in the lungs, which organs were reddened and devoid of air.

The claims of Dr. Giles (JOURNAL, July 7th, p. 10) seem to have been entirely overlooked by Friedländer and others. Giles made his observations at the commencement of the year 1882, under exceptionally favourable circumstances, namely, during an epidemic of a very virulent form of pneumonia; and this probably accounts for the abundance of the micro-organisms in the blood of the pneumonic patients, where Friedländer failed to see them. He stained and cultivated the organisms according to Koch's methods; and though his inoculation-experiments were few in number, they seem conclusive enough. Whilst stating this, we wish in no way to depreciate the great value of Friedländer's researches, which were a continuation of his previous observations, and which were made with a scientific accuracy, skill, and completeness which characterise all the other contributions which we owe to this eminent pathologist.

Leyden asserts that he has discovered a micrococcus in cerebro-spinal meningitis.

The interest awakened in infective pneumonia has directed special attention to the occasional outbreaks of pneumonia as an epidemic disease, an example of which has been recorded during the year by Mr. Harold Palmer, of Newtown.

The bacillus of whooping-cough has been discovered, not for the first time, by Burger. Maragliano believes he can confirm the assertions of Klebs and Eberth, as to the presence of a micro-organism in the blood of the spleen in typhoid fever.

Israel, and certain French observers, have detected a bacillus in farcy, and have successfully inoculated the cultivated organism. The bacillus of Koch's "malignant œdema" has been seen by Brieger and Ehrlich in the œdema following the hypodermic injection of musk in two cases of typhoid fever. An organism has been seen in the blood of typhus patients by Messrs. Blore and Mott, of Liverpool.

Professor Burtzeff has recorded two cases of bacterial nephritis; and Dr. Zemblinoff has proved, experimentally, that bacteria may ascend from the bladder to the kidney.

A micrococcus has been found in the coats of the intestine, and in the stools, of dysentery, by Dr. Prior.

Colomiatti professes to have discovered a specific bacillus in the fluid of the vesicles of herpes labialis.

An organism has been described as the cause of yellow fever. Dr. Carmona del Valle proposes to call it "peronosperma lutea." Dr. Domingos Freire, of Rio de Janeiro, has proved experimentally, that a drop of blood from a person dead of yellow fever causes rapid death of guinea-pigs and rabbits inoculated with it, and that the blood of these animals is capable of producing similar effects. He regards the disease as due to a cryptococcus, which he calls *c. xanthogenicus*, and which he has detected in the earth in many parts of a city. He has devised a prophylactic to the fever in the shape of inoculation with an organism which is antagonistic to that of yellow fever. Mr. Willoughby Miller has found bacilli deep in the bony structure of carious teeth.

The Address in Pathology, at the meeting of this Association in Liverpool, very justly attracted much attention. The view which found so able and eloquent an exponent in Dr. Creighton, that specific diseases are developed, under favourable conditions, from some simple malady, is not a new one, and is a necessary corollary from the acceptance of the germ-theory of disease and the doctrine of evolution in the development of plants or animals. Dr. Creighton succeeded in explaining this theory with much force and clearness, and suggested with great ingenuity the modes in which it is conceivable that certain specific diseases may have arisen.

In discussing the origin of cancer, Mr. Jonathan Huchinson has followed out the same line of thought. According to this eminent investigator, there is always a precancerous stage, in which the local

changes are simply irritative or inflammatory, and in which surgical interference would effect a radical cure.

The *Journal of Anatomy and Physiology* has, within the last few years, devoted a good deal of its space to pathological papers, many of which have been of very considerable merit.

Mr. R. Greenish has contributed an excellent paper on sarcoma of the pleura, containing a report of an additional case, and a bibliography of all previously reported; Dr. W. J. Hamilton has a well-illustrated paper on lardaceous disease of the heart; Mr. H. G. Barling has described and figured an example of infiltrating carcinoma of the mamma; and Dr. Saundby, in a paper on endarteritis, has depicted various inflammatory changes met with in the small arteries.

A few important additions have been made to the interesting subject of animal parasites. Professor Braun has succeeded in tracing the origin of *Bothriocephalus latus* to scolices inhabiting the muscles of pike caught in certain lakes near Dorpat, and has proved this relation by the development of the parasitic worm in the intestines of certain of his pupils who submitted to the experiment.

Dr. Manson of Amoy has described a new form of endemic hæmoptysis due to the presence of a pulmonary parasite, a species of distoma, to which he has given the name *D. Ringeri*. The same observer has also suggested that the true cause of the plugging of the lymphatics in filarial disease is not simply the presence of filariæ, which are so common as to be almost normal in dogs and crows in China, but to some disease of the mother-filaria causing her to abort. The ova are too wide in both diameters to pass through the lymphatics; but the young filaria, born at full time, is so slender, that it can readily make its way through the smallest vessel.

Among numerous other observations, we may recal Riegel's experiments on the importance of spasm of the diaphragm in the production of the asthmatic paroxysm; the observations of Edmunds and Lawford on the production of secondary optic neuritis; the important paper of Vallat on hyaline degeneration; and Cornil's description of the histology of elephantiasis Arabum.

The study of pathology in this country has received important assistance from the publication, during the year, of four valuable text-books: Dr. Coats's *Manual of Pathology*; Dr. Sims Woodhead's *Practical Pathology*, illustrated in the most brilliant manner; Mr. Pepper's *Surgical Pathology*; and Dr. Macalister's excellent translation of Ziegler's *General Pathological Anatomy*. To this list may be added Mrs. Ernest Hart's translation of the first volume of Cornil and Ranvier's *Manual of Pathological Histology*. We trust that the concluding portions of both these translations will appear before long.

MEDICINE.

WHEN we reflect upon the vast field which is embraced by the term "medicine," and, casting a retrospective eye over that field, seek out some salient points which shall prove to us beyond cavil that, in this year which is now expiring, the great art has notably advanced, we feel somewhat at a loss where to begin. So much that was, not long ago, tacitly admitted to be within the domain of medicine has now been tacity appropriated by some other department; sanitary science has claimed a large, and not the least important area; for pathology is demanded the right to take a retrospective glance from a special standpoint, and the science of mycological pathology claims also a separate consideration. In yet another direction surgery steps in, and, where medicine has prepared the ground, claims to reap the harvest of therapeutic successes. Medicine is indeed the pioneer of the whole congery of medical sciences; and no sooner has she thoroughly explored a new territory, than some one of her handmaids steps in to carry on her work. To quit metaphor, however, it must be confessed that, leaving aside the still much disputed questions raised by recent investigations into the pathogenic activity of micro-organisms, a subject fully treated on in another column, the past year has not been marked by any very notable novelty which can be claimed as belonging strictly to medicine as distinguished from pathology; yet there has been a steady growth in accuracy, and a rapid accretion of facts which probably mark, more surely than novelty, a steady progress. Thus, to take an instance; though, in diseases of the nervous system, the year that has passed has brought us no wide generalisation, has opened up no new field of research, has given us no new method of diagnosis, yet a great deal of useful work has been done; it has chiefly tended towards increased precision of diagnosis, and, therefore, towards increased sureness of prognosis. The Marshall Hall Lecture, delivered by Professor Ferrier in October, was rather a summary of work done than a statement of new facts; the fundamental doctrine of localisation has gained strength, and has been, in a striking manner, confirmed by a number of clinical observations made by many observers, among whom we may signalise our own countryman, Dr. Seymour Sharkey of St. Thomas's Hospital. The practical application of the doctrine to therapeutics, however, has not advanced to any great degree; but we may look with a certain chastened hope to a future, when physicians may dare to advise surgeons to attempt operations on the brain in a systematic way. The dura mater and the brain are, perhaps, at the present moment, sacred and inviolable from the touch of the surgeon; but experimental pathology has taught that these organs will bear, with unfailing safety, formidable and repeated operations, and we are encouraged to believe that, though portions of healthy brain may be injured and destroyed in the attempt to treat localised forms of brain-disease by the trephine and the knife, yet this destruction will not necessarily endanger the health of body or of mind. In the chronic diseases of the spinal cord, the tendency has been towards subdivision and further refinement of diagnosis. Thus, we have been called upon to recognise at least three different varieties of locomotor ataxy; that is to say, the true or Duchenne's ataxy, presenting the classical symptoms, and dependent on a lesion of the columns of Burdach; a second variety which has been called "family ataxy," and also "Friedrich's disease," due to a diffuse sclerosis of various parts of the spinal cord and medulla oblongata, though limited chiefly to the posterior column of the cord, and differing clinically from Duchenne's ataxy in that it begins during the period of puberty, that the gait is staggering like that of a drunken man, though the inco-ordination is not increased by shutting the eyes, that sensibility does not suffer until the very last, and that the Argyll-Robertson phenomenon is not produced; and a third, or peripheric variety of ataxy, described by M. Déjerine, and ascribed by him to atrophy of the peripheral sensory nerves In the same way, but to a much greater degree, does there appear to be a pressing necessity to recognise that, in the term "general paralysis of the insane," are included several distinct conditions, some having relations with locomotor ataxy, others with lateral sclerosis; and a still larger class not yet divisible. We may expect, in the immediate future, some notable advance in the precision of ideas with regard to this condition. We hear frequently of new investigations and new theories having regard to that large class of diseases roughly classed together as hysteria; but it must be confessed that the difficulty is so great of distinguishing the true from the false, the genuine phenomena from the feigned, that but little can as yet be positively asserted as gained for science from these investigations and theories; only we may mention, in passing, the extraordinary series of experiments made by Professor Brown-Séquard on the production of anæsthesia in the lower animals by the application of chloroform to the skin, and of chloroform, carbonic acid, and other bodies to the larynx; the peculiar state of profound anæsthesia produced seems to have at least a strong superficial resemblance to catalepsy.

We have to chronicle no fact of very striking novelty with regard to the acute specific diseases. The occurrence of an epidemic of typhoid fever in Paris, has given our French brethren the opportunity of testing the antiseptic treatment of that disease in its various stages. Carbolic acid, quinine, salicylic salts, and other antiseptic and antipyretic remedies have been tried on a large scale and in a systematic manner; but the result has been far from encouraging, as indeed might have been anticipated. Recent knowledge tends, however, to bring two acute diseases not generally recognised as specific within the range of that class; the evidence in favour of the specific nature of acute croupous pneumonia is now very strong, and has a two-fold basis; on the one hand, we have the evidence afforded by experiental pathology, that there is present in the blood and in the inflammatory products a specific organism, which can be separated, and cultivated in the laboratory, and will produce acute pneumonia in animals when inoculated; and on the other hand we have a growing mass of evidence supplied by clinical observation, and the study of statistics, and the occurrence of the groups of cases, which point strongly in the same direction. With regard to acute yellow atrophy of the liver, there is also some evidence pointing in this direction; but its amount is as yet much less, and the theory has not passed beyond the stage in which it may be regarded as a possibility.

Diseases of the lungs form so important a department of medicine, and destructive disease of the lungs, phthisis pulmonalis, is so large a factor in the death-rate of this country, that any gleam of light which may serve to illumine the dark places of pulmonary therapeutics is sure to be seized on with avidity, and quickly and widely tested. A few years ago, we heard a great deal about the inflammatory theory of phthisis, and many taught and held that

"tubercle" played a very secondary part. The brilliant research of Koch did much to shake this position, and, during the last eighteen months, a mass of evidence has been accumulating, which goes a long way towards proving that phthisis pulmonalis, if not always a tubercular lesion, is seldom or never uncomplicated by the tubercular process. In the first place, it has been shown that the inoculation of phthisical products produces phthisis in the rodents; further, it has been shown that the inoculation of healthy pus, or morbid products other than tubercular, does not, as was formerly thought, produce tuberculosis in the rodents; in the next place, a host of observers have shown that the sputa of all but a very small minority of patients suffering from phthisis contain the bacillus tuberculosis, and that this parasite is present also in the breath of phthisical patients, and frequently in the pus from anal abscesses, the connection between which and phthisis has long been known. We may, perhaps, gain some insight into the way in which tubercle may be inoculated, by studying the condition under which tubercular ulceration of the tongue occurs; it would appear that the specific ulceration is preceded by some simple aphthous ulceration, and that the passage over it of the sputa infected by the bacillus tuberculosis infects the simple ulcer, and leads to the specific spreading tubercular ulceration. The conclusion to be drawn from these facts would seem to be that the bacillus tuberculosis requires for its development some altered condition in the pulmonary structure; otherwise, we are landed in an untenable, and indeed absurd, position. As Cohnheim says, it has become highly probable that the bacillus reaches the atmosphere chiefly from the rejected sputum of phthisical patients. The bacilli, even when dried, retain their vitality, and therefore their virulency, for several weeks, as has been shown by Vignal; it therefore follows that the atmosphere must contain, at any rate in all European communities, the bacillus tuberculosis in a condition of vitality, and perhaps little less widely spread than the various other components of dust; together with these other components of dust, it must constantly be inspired by every one of us at every breath. As a corollary of all this it follows, that the individual who becomes infected with tuberculosis, must differ from others in some fault of structure or function; hence the significance of the facts having reference to the inheritance of the tubercular diathesis, and its striking physiognomy is by no means minimised by the acceptance of the contagious theory of tuberculosis. To put the matter in another light, we may say that the contagium of tuberculosis is not a virulent contagion; it cannot easily establish itself, if at all, in the healthy organism, but requires for its development some pre-existing disease. Dr. Wilson Fox, speaking at the Pathological Society, reminded us that Villemin had been led, by a scientific use of the imagination, to conclude that as the structural lesions of glanders, syphilis, and tuberculosis, had so much in common, and as glanders and syphilis were certainly contagious and inoculable, so would tuberculosis turn out to be. We may now perceive that these three diseases, though all inoculable, differ enormously in their virulence, and that syphilis occupies an intermediate position in this respect between the two other diseases. Now, it may be questioned in what way all these researches and arguments have directly benefited medicine; and it must be admitted that at present our power of dealing with phthisis pulmonalis even has not been greatly increased; but we can congratulate ourselves that we are on the right track, and though much result has not as yet accrued from the well meaning, but not always very well directed, efforts to apply antiseptic remedies to the lungs by way of inhalation, yet we have in the discovery of the bacillus in the sputum, or in the breath of a doubtful case, a valuable means of diagnosis, and may hope, by thus with certainty discovering the disease at an early stage, to be able to deal with it more effectively, and probably with better hopes of cure. We are told by many, and those often in conspicuous positions in the profession, that this theory of the importance of the bacillus tuberculosis is but a wave of opinion which is passing over the medical world, and will soon subside. This may be true; in the above remarks we have not claimed for the bacillus the all-important share which some of its warmest admirers claim for it; we have indicated that the tendency of recent investigation and thought has been towards the position that, in phthisis pulmonalis at least, the bacillus may be an important part of the process, though a comparatively unimportant part of the disease; but it is incredible that this wave of knowledge can leave us exactly where we were a few years ago. Facts are stubborn things, and the sooner our authorities bring their theories into line with the facts, the better for the continuance of their influence. All other topics in connection with diseases of the lungs sink into insignificance when compared with this one of the etiology, the prevention, and the cure of phthisis—the most lethal of all European diseases.

We may remark in passing, that the more extended use of antiseptic inhalations, and of antiseptics applied on respirators constantly worn, as a treatment for chronic bronchitis, has been attended, as a rule, with excellent results. The treatment also of empyema by early incision and antiseptic dressing would appear to be steadily gaining ground, and indeed to have become almost an established rule of practice.

The treatment of pericardial effusion, when the effusion is large, has heretofore been far from satisfactory, but of recent years the operation of tapping the pericardium has been introduced, and has been attended with a considerable amount of success. Rosenstein, in a case of purulent pericarditis, laid open the pericardium and treated the case antiseptically in the same way as empyema is, as we have said, now commonly treated, and with complete success. This operation was performed two years ago, but attention has been drawn to the matter afresh by the very able paper by Dr. Samuel West, founded on another successful case under his own care. The facts and statistics, brought together by Dr. West, seem to show very clearly that paracentesis pericardii is not only a justifiable operation, but one which may be performed with considerable confidence, inasmuch as in only one case out of seventy-nine was the operation in itself fatal, and that in purulent pericarditis the best treatment, and, indeed, the only one which offers hope of recovery, is free incision and drainage. In Dr. West's case, the patient, a van-boy, aged 16, was operated on, on September 7th, 1882, and he was shown at the Pathological Society on November 20th, 1883, apparently in robust health, and without any cardiac lesion to be discovered on physical examination. Moreover, he professed himself "quite well," and was able to follow his arduous employment. An interesting case published in our columns by Dr. Macdonald of Nova Scotia, in which thirty-two ounces of serous fluid was withdrawn from the pericardium of a woman, aged 30, suffering from rheumatism, is worthy of note here, owing to the immediate relief and the ultimate complete success which followed the operation; the rapidity of the recovery is not the least remarkable point in the case.

Another direction in which surgery has been invading what has been generally considered a province of medicine, but with a result as unfortunate as it was unexpected, has been the treatment of bronchocele. Until recently, this had been left to the physician, but now, in a considerable number of cases, the enlarged gland has been excised in part, or in whole. From facts published by Professor Kocher, of Berne, and by MM. Reverdin, it would appear that complete excision of the gland has been followed by a peculiar cachexia, which, if not identical with myxœdema, very closely resembled it. It was known that, in this disease, atrophy of the thyroid gland occurred; but the cases published by Kocher and the MM. Reverdin go far to show that there is a causal relation between the atrophy and the myxœdema. Still more important was the further fact brought out by Kocher's observations, namely, that the removal of the gland in children was followed by an arrest of the growth of the body. This fact may, perhaps, serve to give some explanation of the obscure disease, or cachexia, or arrest of development, which we call cretinism. The late Dr. Fagge suggested that there was an inverse ratio between goître and cretinism; and Sir William Gull originally described myxœdema as a cretinoid state. It is, as yet, too early to speculate upon the influence of the thyroid gland upon nutrition, and as to the mode by which such influence is brought about; but this, at least, seems clear, that the importance of the functions of the gland have been underrated, and that, in the atrophy of the gland, we may yet find an explanation of the etiology of cretinism.

Among the series of lectures annually delivered before the College of Physicians, we must specially recall attention to the Lumleian Lectures given by Dr. Garrod; they dealt with the subject of uric acid in its physiological and pathological relations in a very masterly manner. Dr. Garrod dwelt especially on the difficulties which beset the theory that the kidneys acted merely as strainers of uric acid, and said that they were so great as to seem to him insuperable. He adopted the view that uric acid was most probably formed in the kidneys, where it appeared in combination with ammonia; and that, when absorbed into the blood or excreted in the urine, it was transformed into urate of soda, the salt which is found in the blood and is deposited from it in gout, and the salt of which the greater part of the urate found in the urine is composed. Dr. Garrod sees, however, very clearly that difficulties beset this theory also; and the most commonly received opinion would seem to be

that uric acid is produced in all the organs of the body to a greater or less degree, but especially in the spleen and kidneys. Dr. Garrod states that hippuric acid and benzoic acid in an alkaline solution have the power of changing and removing uric acid; and though this statement has been disputed, the fact that he has derived great advantage, clinically, from the administration of benzoate of soda, is one which will not be neglected by the profession; the more, perhaps, as he was able to report some experiments in which the administration of benzoate was followed by a fall in the amount of uric acid to one-tenth of that previously passed.

The address delivered by Dr. Broadbent in the Section of Medicine at the annual meeting of the Association, on the causes and consequences of undue arterial tension, was a thoughtful contribution to a subject of no little difficulty and obscurity. In it, he insisted upon the part played by the capillary network in the production of increased tension; the normal flow of blood through this network might be disturbed by changes either in the tissues or in the blood; and he contended very forcibly for the importance in this relation of the changes in the blood. In the increased tension of renal disease and of gout, he saw the effect, not of changes in the vessels, but of alterations in the blood due to imperfect elimination of nitrogenised waste; and lead-poisoning, he contended, brought about the same result, owing to the formation of compounds of organic matter with lead-salts, albuminates of lead, too stable to undergo readily dissociation and oxidation.

Sir Andrew Clark dealt with a similar subject in his now well-known address on renal inadequacy. His position in this address was that there are a certain number of people in apparent health whose kidneys, though not altered in any way that can be determined by physical investigation, are yet incapable of producing urine sufficiently rich in the ordinary waste matters—a condition, in fact, in which, without perhaps diminution in the quantity of urine, there is an extreme deficiency in the quantity of urea. Since it is not clear whether this deficiency is due to some functional derangement of the kidneys or to some general imperfection in the metabolic processes, the term anazoturia, originally applied to this condition by Willis, though more clumsy, is perhaps on the whole more convenient than that employed by Sir Andrew Clark.

The occurrence of peptones in urine has been a good deal discussed recently, and some observers have supposed that their presence was of some special clinical importance, as indicating a morbid state analogous to, or possibly an early stage of, granular contracted kidney; a very elaborate investigation, however, conducted by Dr. R. W. Jaksch, has tended to discredit this view. This excellent observer found that peptone appeared in the urine with great frequency in cases where there was a considerable amount of suppuration from whatever cause, or where there was a large amount of exudation; thus, he found it in every one of twenty cases of phthisis with purulent expectoration, and of five cases of epidemic cerebro-spinal meningitis, and twelve cases of acute rheumatism, as well as in twenty-four out of twenty-nine cases of croupous pneumonia. He believes that the peptonuria is due to the re-absorption of the inflammatory products, and does not depend in any way on the condition of the kidneys.

The methods of testing for the presence of albumen in urine have received a good deal of attention during the year. It has been pointed out that a saturated aqueous solution of picric acid is an exceedingly delicate test for albumen, giving, according to Dr. George Johnson, indications of minute traces not discoverable by the ordinary methods with nitric acid and heat. Dr. Oliver, of Harrogate, has recommended the use of potassio-mercuric iodide, potassium ferrocyanide, and tungstate of soda. The advantages claimed for these substances are, first that they are very delicate tests, and that, secondly, they can, by means of the test-papers prepared at his suggestion, be applied with ease at the bedside. These three salts have all been, for some time, used, in physiological inquiry, as tests for albuminous bodies, but how far they are really applicable to clinical method remains to be proved. Picric acid has also been recommended as a test for sugar in the urine; and Dr. Johnson has devised a method of quantitative analysis founded on the change of colour produced; it seems doubtful, however, whether it will ever replace to any notable extent the copper process, which is known to be thoroughly trustworthy. In some cases of diabetes, shortly before the onset of one form of diabetic coma, a very peculiar odour is exhaled by the breath, and a body having the same odour is secreted in the urine. The exact chemical nature of this body is still a matter of dispute, but it is probably either acetone, or a body from which it is very easily derived; the body, whatever it is, is probably itself derived from some metamorphosis of the sugar in the blood. Dr. Ralfe, who has done much to elucidate this question, believes that the body actually occurring in the blood, is aceto-acetic acid, and that the hypothesis would account for the high acidity of the urine in diabetes, the lactescent condition of the blood, and the fatty degeneration of organs, seen in some cases of diabetic coma; in fact, he compares acetonæmia to phosphorus poisoning, and would confine the term to the acute cases of diabetic coma.

The influence of the habitual use of an excessive quantity of alcohol was the subject of an inquiry conducted by a Committee of the Harveian Society, which presented its report in the first month of this year. The Committee obtained ten thousand records of death from all causes from the profession in London; of this number, alcohol accelerated death in 1,005, and caused it in 397 cases; from the study of the statistics thus furnished, and a comparison with the Registrar-General's returns, the Committee came to the conclusion that the mortality among intemperate persons showed a fourfold increase in deaths from disease of the chylopoietic viscera (including the liver), a twofold increase in deaths from renal disease; an increase under pneumonia and pleurisy, under diseases of the central nervous system, and under diseases attributed to atrophy and debility. On the other hand, intemperate people did not appear to die of phthisis in the same large proportion, or at the same early age as the temperate, neither did they die so often of heart-disease, of bronchitis, or of emphysema; further, it is not surprising to learn that, among the causes of death registered among the intemperate, the percentage shown by the diseases of old age is very low; since they do not often attain old age, they seldom suffer from the diseases of old age. This appears to be a truism.

SURGERY.

THE record of surgical progress during 1883 is one rather of steady working on old lines than of rapid or brilliant advance in any branch. The efforts of surgeons, both at home and abroad, seem to have been directed mainly to testing the value and determining the indications and limits of operations on large serous cavities and important viscera. Much attention has been paid to the operative treatment of disease and injury of the contents of the peritoneal cavity; and the discussions on nephrectomy and laparotomy at the annual meeting of the Association, and papers elsewhere communicated by Sir Spencer Wells, by Credé of Dresden, and by Bouilly and Assaky of Paris, indicate that a decided advance is being made in the department of abdominal surgery.

In reference to the all-important subject of antiseptic surgery, much interest has of late been excited by two papers: one by Sir Joseph Lister, the other by Mr. G. R. Turner, on the operative treatment of fractures of the patella. At the first meeting of the session of the Medical Society, Sir Joseph Lister delivered an address on this subject, and brought before the members six patients to prove that both recent and ununited fractures of the patella could be treated by direct incision and the application of wire sutures, under proper antiseptic precautions, with complete and undoubted success. In Mr. Turner's paper, communicated to the Clinical Society, an analysis of fifty cases, most of them previously unpublished, in which a like treatment had been attempted, showed that equally good results had not, as a rule, been attained in the practice of other English surgeons, and pointed out the necessity of a more careful study of the details of the Listerian method, not only by the operating surgeon, but by each of his assistants. In the course of the discussion on his interesting paper, Sir Joseph Lister urged that no surgeon should perform so serious an operation unless either prepared himself to dress the patient's wounds, or convinced of the ability of the assistant in charge to do so. The antiseptic method seems now to have gained some favour with French surgeons. It has been highly successful in the hands of M. Lucas-Championnière; and, in the opinion of so high an authority as Professor Ollier, has rendered necessary some important modifications in the relative indications for excision and amputation in the treatment of disease of the knee.

During the year, several papers have been published on the operative treatment of goître. The most important of these—indeed, one of the most important of recent contributions to surgical literature—is an address delivered by Professor Kocher of Berne, at the last congress of German surgeons, and published in the twenty-ninth volume of the *Archiv für Klinische Chirurgie*. An analysis of a great number of collected cases shows that the mortality of extirpation of goître, which before 1850 had been 41 per cent., fell in the course of the next seventeen years to 21.2 per cent., and, since 1877,

has still further diminished to 11.6 per cent. Of forty-three cases in which Kocher removed the enlarged thyroid body, during a period of seventeen months, three only were fatal. These good results are attributed, in the first place, to the use of antiseptic dressings; and, in the second place, to recent improvements in the mode of operating, by attention to which the surgeon may avoid the two main dangers in extirpation of goître—namely, hæmorrhage and division of the recurrent laryngeal nerve. The rough and rapid method of Greene is altogether rejected; and, in the method usually associated in this country with the name of Dr. Patrick H. Watson of Edinburgh, the recurrent nerve, Kocher asserts, is likely to be wounded unless special precautions be taken in applying a ligature to the inferior thyroid artery. Kocher's paper gives an elaborate account of the usual arrangements of vessels in and about the thyroid gland, and describes all the details of the complicated and necessarily prolonged operation which he himself has practised with much success. Other papers of value on extirpation of goître have been published by Julliard and Reverdin of Geneva. The former surgeon has recorded thirty-one cases, in which he had operated, with a mortality of about 16 per cent.

The chief interest in Kocher's paper on extirpation of goître consists in his investigations of the results of this operation, and his description of certain progressive morbid changes, both mental and bodily, which occur after total extirpation of the gland, and which present decided analogies to the symptoms of cretinism. This condition, which was called by Kocher *cachexia strumapriva*, has since been described by Dr. Felix Semon, at a very interesting discussion on a typical case of myxœdema, presented to the Clinical Society by Dr. Drewitt. There can be no doubt, as has been pointed out by Dr. Semon, and expressed by Kocher himself, that there is a close analogy between this so-called cachexia strumipriva and the condition known as myxœdema, although the extent of the actual connection between these two conditions has yet to be made out. Wölfler and Bardeleben, who have both had considerable experience in removing the diseased thyroid gland, have failed to observe any instances of cachexia; and the former surgeon has insisted on the necessity of thorough investigation of every patient before the operation, in order to guard against any preceding morbid condition being subsequently regarded as a consequence of the treatment.

The increasing tendency at the present day to deal with cancer by surgical proceedings of a heroic and radical character, was well shown at the meeting this year of the congress of German surgeons, where, in a discussion on a paper by Kuster, insisting on the importance of removing all the axillary glands, whether enlarged or not, in cases of mammary cancer, Gussenbauer advocated removal, also, of the glands above the clavicle; and Esmarch and Langenbeck recommended, in cases where the diseased axillary glands are closely united to the main vessels, amputation of the upper extremity.

But little, if any, advance has been made during the year in the surgical application to the treatment of cranial injuries of any of the results of recent investigations on cerebral localisation. Of many valuable contributions that have been lately published on nerve-stretching, the most important, from a practical point of view, are a paper by Cecherelli in *Lo Sperimentale*, and the recently delivered Bradshaw lecture, by Mr. John Marshall. The Italian surgeon has found, by an analysis of 252 collected cases, that the operation of nerve-stretching is very successful in cases of peripheral neuralgia and of contractures, unsatisfactory in cases of nervous affections of central origin, and most unsuccessful when applied in cases of locomotor ataxy. The Bradshaw lecture, recently published in this JOURNAL, cannot fail, from the high position of the lecturer and from the manner in which he has dealt with his subject, to recommend nerve-stretching to all practical surgeons as a legitimate and promising operation in the treatment of certain painful affections of peripheral nerves. In April, Mr. Stokes reported to the Academy of Medicine of Ireland two cases of tabes dorsalis, in which stretching of the sciatic nerve had been followed by marked relief of the darting pains and vesical irritability.

At a meeting of the Royal Medical and Chirurgical Society, held in February, papers read by Mr. C. Heath, Mr. H. Marsh, and Mr. H. Morris, gave rise to an interesting, though not very conclusive, discussion on deligation of the large arteries of the neck. Mr. Heath, in his paper, brought forward a case in support of the view that ligature of the common carotid alone is sufficient to cure some cases of aneurysm of the external carotid. In a case of aneurysm of the arch of the aorta, treated by deligation of the right subclavian and carotid arteries, and which proved fatal on the fifty-first day after the operation, by rupture of the sac, Mr. Marsh considered that he had found a clear illustration that the distal ligature in cases of aortic aneurysm may not only sometimes fail to do good, but may also do positive harm, by suddenly altering the distribution of the blood-pressure, and, by throwing it on some unsound portion of the arch, may lead to extension of the aneurysm in a new direction. Mr. Morris, in his paper, argued that the distal ligature afforded but little encouragement to the surgeon in cases of innominate aneurysm, and that, in aortic aneurysm, the distal ligature on the right side should be limited to desperate cases, and be then applied for the purpose, not of cure, but only of relief.

In the BRITISH MEDICAL JOURNAL for April 7th, Mr. Walsham advocated the old and long-neglected practice of arresting the current of blood through a large vessel, not by merely a single ligature, but by division of the vessel between two ligatures. This proposal to revive an old method was objected to by Mr. T. Holmes, in some clinical remarks contained in a later number of the JOURNAL. The main point of interest, however, in Mr. Holmes's paper was the expression of his very confident opinion, that the safest plan of treatment for all large, all rapidly growing, and all thin-walled popliteal aneurysms, is to tie the femoral artery at once. In April, Kümmell, of Hamburg, in a paper read at the twelfth Congress of German Surgeons, supplemented a record of a successful case of ligature of the common iliac artery, by an analysis of fifty-five collected cases in which this operation had been performed.

Of the very few additions that have been made in the course of the year to the subject of resection of joints, the most important probably are papers by Ollier and Nepveu, in the *Revue de Chirurgie;* the former surgeon dealing with resection of the knee, the latter with resection of the wrist.

The following are some of the more important contributions that have of late been made to the surgery of the chest: a paper in the *Nordiskt Medicinskt Arkiv*, by Dr. Bull, of Christiania, dealing with the subject of direct operative interference with tuberculous cavities in the lungs; an article on some points in connection with the treatment of empyema, contributed by Mr. R. J. Godlee to the *Annals of Anatomy;* a case reported by Dr. G. Buchanan, of Glasgow, of acute fœtid empyema treated by free incision into the pleural cavity, and copious ablution; a paper read at the meeting of the British Medical Association by Dr. Eddison, of Leeds, on forty cases of incision of the chest for empyema; two communications to the Royal Medical and Chirurgical Society, by Dr. Samuel West, one on a successful case of purulent pericarditis treated by paracentesis and free incision; the other dealing with the statistics of paracentesis pericardii, and including some remarks on the indications for the operation and the mode of its performance.

At the Liverpool meeting the attention of members of the Association was directed by Dr. E. Waters and Mr. J. H. Morgan to the operative treatment of intestinal obstruction, and an interesting discussion was started on this subject by Mr. Rushton Parker, whose argument in support of palliative treatment in preference to surgical interference in most cases, failed to meet with much support. In June, Prati reported (*Annali Univers. di Med. e Chir.*) a successful case of enterotomy in gangrenous crural hernia, and supported the claims of resection of the intestine as a rational operation, and as one indicated in certain cases of cancerous and other new growths, and in cases of fibrous and cicatricial stenosis, and of gangrene from strangulation. An elaborate review of the results obtained from resection and circular suture of intestine in cases of gangrenous hernia, and of artificial anus, has been recently communicated to the French *Revue de Chirurgie*, by Bouilly and Assaky.

Many additions have been made during the year to our knowledge of renal surgery. A discussion on this subject was opened at the meeting of the British Medical Association in Liverpool by Mr. Clement Lucas, with an instructive paper on surgical diseases of the kidney and the operations for their relief. On this occasion, a case of successful removal of a floating kidney, with cystic tumour, was put on record by Dr. Walter, of Manchester. Cases of nephrectomy and nephrotomy have been read at the Royal Medical and Chirurgical Society by Sir Spencer Wells, Mr. Marshall, Mr. Knowsley Thornton, and Dr. Rawdon; and at the Clinical Society the subject of nephrectomy has been brought under notice by Mr. James Adams; and that of nephro-lithotomy by Mr. Howse and Mr. Bennett May.

Sir Spencer Wells has this year enlarged the domain of abdominal surgery by the successful removal of two solid tumours, of seventeen and fifteen pounds respectively, formed in the circumrenal fat. The specimens form a valuable addition to the museum of the College of Surgeons; and we hope to publish, early in the new year, a full report of this very interesting and unprecedented case.

Early in the year there was brought under the notice of surgeons in this country a record of a case in which Credé, of Dresden, had removed the spleen, together with an attached cystic tumour of the size of a child's head. The patient recovered, but one month after the date of the operation became intensely anæmic, the proportion of white to red corpuscles having been as one to three or four. This condition lasted but for a short time, and at the end of the fifth month the blood had regained its normal state.

The most important of the contributions in 1883 to vesical surgery is, decidedly, the report of Sir Henry Thompson, to the Royal Medical and Chirurgical Society, of twelve cases of tumour of the bladder, in which an operation—perineal section—had been performed for the removal of the growth.

OBSTETRICS AND GYNÆCOLOGY.

In obstetric medicine, the two chief advances are the development of antiseptic midwifery, in hospital and private practice, and the evolution of that class of operations which may be grouped under the term Cæsarean. Passing over the subjects already discussed in our paragraph on the meetings of the Obstetrical Society, we turn to the meeting of the British Medical Association, in August last. The subject which there attracted most attention in the Obstetric Section, was the question of metria, as some now term conditions hitherto described under the name of puerperal fever. Three papers on puerperal fever were read to introduce the discussion. Dr. Lombe Atthill, the ex-Master of the Rotunda Hospital, divided metria into two varieties; the first being that form in which septic matter is conveyed to the patient from without; the second, that in which the patient inoculates herself by poisonous matters within her own body. This is, in fact, the classification laid down some years back by Dr. Barnes, as the autogenetic and heterogenetic forms of puerperal fever. This classification is now accepted by almost all gynæcologists. Drs. Thorburn and More Madden, who also read papers on the same subject, did not wholly accept the proposition that puerperal fever as an entity does not exist; that is, in the same sense as scarlet fever. The pathology of what, for want of a better term, we prefer to call puerperal fever, has not yet received a definite form; and it is only too clear, from the contradictory theories and statements advanced at Liverpool, that its somewhat amorphous shape still persists. As regards the more practical questions of prophylaxis and treatment, there was a far more general agreement among the speakers. Antisepsis is admitted to be the basis of prophylaxis, and to play, in addition, the chief part in treatment. In this connection, some interesting statistics were supplied by Dr. Fancourt Barnes. Out of a series of 450 deliveries in the British Lying-in Hospital, only two deaths had occurred. Dr. Halliday Croom read a case of "basilysis," the new operation designed by Professor Simpson. The conception of this operation is scientific. It is based upon the fact that, in contracted pelves, the chief obstacle to delivery is the difficulty, after craniotomy, in bringing the undiminished base of the skull through the pelvis. The basilyst of Simpson is, as its name implies, a kind of combined perforator and trephine. It is passed through the cranial vault into the base of the skull, which it bores through, and so breaks up. Dr. Croom has performed this operation with success in one case. Modifications of Tarnier's forceps abound on all sides, but none are improvements on the original, and many have faults not present in the grand instrument of Tarnier.

In the treatment of ectopic, or abdominal gestation, great advance has been made. Few obstetricians now hesitate to open the abdomen and remove the fœtus. The apostles of delay and expectance are no longer heard. Dr. Meadows lately showed, at the Obstetrical Society, a fœtus, which he had successfully removed from a suppurating extra-uterine cyst by abdominal section. The pregnancy had occurred about fifteen months previously. The cyst was stitched to the abdominal wall. Dr. Godson's successful case of Porro's operation is additional testimony to the statement that obstetric practitioners are among the foremost in the van of abdominal surgery.

In the debatable border between surgery and gynæcology, it is hysterectomy that has excited the most interest during the past twelve months. Vaginal gynæcology has recently lost one of its most brilliant advocates, Dr. Marion Sims; and an honour has been conferred on Sir Spencer Wells, one of the most worthy exponents of abdominal gynæcology. The generalisation of ovariotomy, the operation with which his name is identified, has been very marked in the course of the year, as a reference to our obstetric memoranda, reports of the practice of metropolitan and provincial general hospitals, and original contributions from country practitioners, will faithfully prove; and no fact can more surely indicate how thoroughly the dread of peritoneal operations has passed away, than the successful case of Cæsarean operation performed upon a dwarf, under the most unfavourable conditions, by Mr. Clement Gray of Newmarket, in July, and recorded at page 727 of the present volume.

No remarkable novelty has been introduced in our operation of ovariotomy, and the schism between the Listerian and the spray-rejecting ovariotomists remains in almost the same position as at the end of the year 1882. The interest in hysterectomy has increased greatly, as we have just remarked, during the past year, and our pages have been much taken up with the personal records of some of the most experienced authorities. The earlier part of the year was marked by a warm discussion on the subject at a meeting of a London society, and by the publication of an interesting paper by Mr. Skene Keith, son of Dr. Thomas Keith of Edinburgh. The further experiences of Dr. Keith in hysterectomy have been recorded in the JOURNAL at the beginning of this month.

Dr. Meadows and others have shown specimens and related several instructive cases of hysterectomy, during the past year, at the Obstetrical Society; and the operative treatment of uterine fibromata formed the subject of a discussion in the Obstetric Section of this year's annual meeting of the Association. The ethical aspect of hysterectomy cannot be considered to have been as yet thoroughly determined; and, though the extreme views of Dr. Matthews Duncan and others are not likely to be universally accepted, still all practical authorities are agreed that no operator should ever undertake the removal of a fibroid uterus until after far more deliberation than in a case of ovariotomy, where it is the rule that an early operation is an imperative duty.

The removal of normal ovaries for checking the increase of uterine myomata is strongly advocated by Mr. Lawson Tait and Mr. Knowsley Thornton, and justified by their statistics; but it finds little favour outside the ranks of specialists, as experience has taught that oöphorectomy is a much more difficult operation than it at first appeared to be; whilst the removal of a fibroid uterus is often an easier proceeding than a complicated ovariotomy. The stout wire *serre-nœud* of Kœberlé can readily secure the uterus below a myomatous growth, provided that the pedicle so formed be not unusually thick; and even then transfixion with stout pins will easily keep the tough mass of uterine tissue outside the uterine cavity. Among the experienced, Keith, Bantock, and others still prefer the use of the clamp to intraperitoneal treatment of the pedicle of large uterine fibroids; only the former surgeon observed in our columns, three weeks since, that the long convalescence is certainly a drawback to the extraperitoneal treatment in hysterectomy; and, in Dr. Keith's opinion, we must perfect the intraperitoneal method if we are to make progress and improvement. On the other hand, Schroeder's intraperitoneal method, described in that surgeon's contribution to the Liverpool meeting of the Association, is extremely difficult to all who have not had the advantage of considerable experience in abdominal operations, and never easy, nor free from great risk, even when undertaken by an expert. There is no such thing as finality in surgical science; but even if there were, the question of hysterectomy would at present be far from it. Meanwhile, many more of the operations and methods alluded to will be undertaken; and longer statistical tables of mortality and carefully collected after-histories will be needed before it can be shown that some improved method of extra- or intraperitoneal treatment of the uterine stump will ensure sufficient chance of success to define readily the rules of surgery in respect to hysterectomy, or before it can be proved that careful and complete removal of the uterine appendages is not only a safer operation than hysterectomy, but is also certain to effect its object within a reasonable time.

Mr. Lawson Tait and his followers have taken every advantage of gaining fresh experience in the removal of the uterine appendages for pyosalpinx and hydrosalpinx, nor have the statistics of this experience been withheld from the public. Not only have the results been remarkably satisfactory, but these new operations have shown the frequency of purulent inflammation of the Fallopian tube—a disease which, till recently, was held to be very rare. It remains to be seen, now that its frequent existence has been recognised, whether it may not be cured by less extreme measures than removal of the tube; but the credit of its detection as a definite and a very troublesome malady must be accorded to those surgeons who now treat it by the most radical resources of surgery.

THERAPEUTICS.

In the department of therapeutics and the allied sciences, considerable progress has been made during the past twelve months.

New remedies have been introduced, and old ones have been reinvestigated and applied to other diseases. The sodium salts have, in a great measure, replaced those of potassium; and we now find chlorate of sodium extensively used in throat affections, and iodide of sodium the popular remedy for the various forms of tertiary syphilis. This change in practice is based on sound physiological grounds, and is likely to be permanent. The investigations of Drs. Ringer and Sainsbury, on the salts of strontium, barium, and lime, have thrown light on the action of a number of valuable and interesting remedies. The paper by the same authors, on the digitalis group, recently read before the Royal Medical and Chirurgical Society, is also deserving of attention. Early in the year, the late Dr. Marion Sims published an interesting paper in the JOURNAL, on the so-called Indian treatment of syphilis. The remedy consisted of ten or a dozen indigenous roots—a handful of each—with certain quantities of salt, alum, and iron slugs, put into three gallons of water, and boiled down to one gallon. Dr. McDade, after careful investigation, eliminated the less active ingredients, and, by using the drugs in the form of fluid extract, placed the remedy on a more scientific basis. His formula, as it now stands, is: Fluid extract of smilax sarsaparilla, fluid extract of stillingia sylvatica (queen's delight) fluid extract of lappa minor (burdock), fluid extract of phytolacca decandra (poke weed) of each two ounces, and tincture of xanthoxylum carolinianum (prickly ash) one ounce. Of this a teaspoonful is to be taken in water three times a day, the dose being gradually increased to a tablespoonful. There can be no doubt that good results have been obtained by this mode of treatment.

Paraldehyde, a new hypnotic, resembling in physiological action chloral, for some time attracted attention, but appears not to have come into anything like general use. It is alleged of it, that it strengthens the heart's action and diminishes its frequency. It has been used with success in the treatment of mania, melancholia, and other nervous affections, as well as for the sleeplessness accompanying acute bronchitis, catarrhal pneumonia, and many forms of heart-disease.

Kairin, "the new febrifuge" discovered by Fischer of Munich, is chemically a hydrocholoride of oxyethyl-quinoline-hydride. It is prepared synthetically, and is said to effectually reduce the temperature in all febrile diseases. Dr. Paul Guttmann and other well known observers have recorded valuable evidence in its favour, and it is not unlikely to receive a more extended trial in this country. It should be given either in wafers, or better, in the gelatine capsules introduced by Parke, Davis and Co.

The Lettsomian lectures delivered by Dr. Sansom before the Medical Society of London served to redirect attention to the convallaria majalis, the lily of the valley, as a substitute for digitalis in certain forms of heart-disease. This remedy has long been employed by the Russian peasantry as a remedy for dropsy, and its properties and action had been investigated by Germain Sée and other observers.

Mr. Butlin's observations on chromic acid in certain affections of the tongue have already borne good fruit. As a local application, it is invaluable in glossitis, especially when due to excessive smoking or drinking, or both, combined with a syphilitic condition. The exact strength of the solution is probably not a matter of much importance; but one of ten grains to the ounce is found to answer well, especially if it be applied freely two or three times a day. In syphilitic ulceration of the tongue, the same mode of treatment yields excellent results.

Shoemaker's oleates are now largely used in the treatment of various skin-diseases, and have almost superseded the old fashioned oleates. They are not merely solutions of oxides in oleic acid, but are definite chemical compounds. The zinc salt, used freely as a dusting powder, is an excellent remedy for excessive sweating.

Rhamnus Purshiana, or cascara sagrada as it is now more commonly called, appears destined to take a permanent place in our list of laxatives. A large number of cases of constipation have been recorded, both in this country and in America, where the new remedy has afforded relief after the failure of other modes of treatment. The rhamnus itself is by no means an agreeable medicine to take, but the cascara cordial is sufficiently palatable.

The introduction by Drs. Ringer and Murrell of permanganate of potash and binoxide of manganese pills as a remedy for functional amenorrhœa affords a valuable addition to our list of emmenagogues. The success which has attended the administration of these remedies in their hands appears to have been very great, and considerable evidence has been adduced in support of the correctness of their views. The seeds of abrus pecatorius, or jumble beads, are now being largely used, in the form of infusion, as a remedy for granular lids. A paper, recently published by Professor C. J. H. Warden of Calcutta, has directed attention to their use by the skiner caste in India as a means of destroying cattle. They are introduced under the skin in the form of "suis," and give rise to blood-poisoning. There is only too much reason to fear that they are sometimes used for the purpose of assassination.

The value of certain nitric, nitrous, and nitro-compounds in angina pectoris has been warmly discussed, and particular attention has been directed to nitrite of sodium as a remedy for this and allied diseases. The recent discussion on the action of the last named drug has probably not been without its uses. Physostigma and the various salts of its alkaloid eserine have recently been recommended as remedies for the night-sweating of phthisis, but have not as yet come into general use. On the whole, the progress made during the past twelvemonths, both in pharmacology and therapeutics, has been very satisfactory.

MEDICAL REFORM.

THE prospects of a settlement of the long agitated question of medical reform were, for some time during the present year, very encouraging. In fulfilment of a promise made by the Lord President of the Privy Council to a deputation, representative, as far as possible, of the British Medical Association and of the profession, which waited on him in November 1882, his lordship, in March last, introduced a Medical Act Amendment Bill into the House of Lords. The Bill embodied, among other matters, three points which had always been regarded as cardinal by the Association, and had been recommended in the report of the Royal Commissioners on Medical Reform; namely: 1, the introduction of the principle of direct representation into the constitution of the General Medical Council; 2, the establishment of a minimum uniform qualifying examination for practice, by conjoint examining boards, one being formed in each division of the United Kingdom; 3, the strengthening of the penal clause of the Medical Act, so as to afford adequate protection against the false assumption of medical titles by unqualified and unexamined persons.

The Bill received careful consideration at the hands of the Medical Reform Committee of the Association; who, while generally approving it, suggested various amendments, several of which were accepted by the Government. Numerous petitions were also presented in favour of the Bill, which was read a third time in the House of Lords on April 27th. On May 2nd, the Bill was read a first time in the House of Commons, and was ordered to be read a second time in the following week. Owing, however, to the pressure of business in the House, and the length of the debates, the second reading was deferred from time to time until, the end of the session being close at hand, the Government were compelled to withdraw the Bill. Thus the hopes that had for some months been entertained were disappointed. It is to be trusted, however, that the delay will be only temporary; and that the steady perseverance which has throughout characterised the efforts of the Medical Reform Committee, under the judicious guidance of its able and energetic Chairman, Dr. Edward Waters, will next year be rewarded by the passing of a measure similar in character to that of last session.

PUBLIC MEDICINE.

PREVENTIVE medicine and local sanitary administration have had during the year an unusually large share of public attention. The announcement in the Queen's Speech that, amongst the Bills to which the attention of Parliament would be directed, was one for the reform of the local government of the metropolis, was hailed with welcome by the inhabitants of greater London, who are now without any practical municipal organisation whatever. Owing to the pressure of other matters, the Home Secretary's promised Bill on the subject was not introduced; but the question is one which the Government are pledged to take up early next session; and the meetings which have been held, and the opinions there expressed, leave no room for doubt that, by Londoners at least, the subject is regarded as one of the greatest importance and urgency.

A matter of wider interest and moment arose, however, in the early summer, through the epidemic of cholera in Egypt. In ordinary circumstances, an outbreak of this kind need have caused this country no special alarm; but, in view of the presence of large numbers of our troops in Egypt, and our specially intimate relations with it at the present time, it was properly decided to take prompt measures for warding off any threatened invasion of this country by cholera. The Local Government Board, acting upon the special inspiration of its energetic President, Sir Charles Dilke, at once

reissued the order promulgated during the last cholera-scare in 1873, and urged upon all local authorities the importance and necessity of taking all needful precautions, and clearing away all foul accumulations that might foster the disease. All rags arriving in this country from Egypt were, moreover, ordered to be disinfected on landing. As regards the metropolis, a special conference was held between Dr. Buchanan, on behalf of the Government, and the principal health-officers, to devise what measures should be adopted. Surgeon-General Hunter was selected to proceed to Egypt for the purpose of investigating and reporting on the outbreak; and similar commissions of inquiry were organised by France and Germany, under the direction of M. Pasteur and Dr. Koch respectively. The tenor of Surgeon-General Hunter's report was, that he had discovered (*a*) the existence of an epidemic of typhus prior to the outbreak of cholera, and (*b*) of cholera previous to the outbreak at Damietta; and he entertained grave suspicions of cholera having been endemic in Egypt since the epidemic of 1875. As a result of his inquiry, Dr. Koch announces the discovery of a new cholera-organism, the exact nature of which is as yet undefined. We published at the time detailed particulars concerning the outbreak, much of which was specially telegraphed to the JOURNAL; and we have since discussed in detail the reports of all these commissions.

Fortunately, the epidemic was confined almost exclusively to Egypt, though it made sad havoc there. Commencing at Damietta, it spread to the villages around, and eventually reached Cairo, and subsequently Alexandria. No trustworthy statistics have yet been published, nor is it likely, under the circumstances, that any will be forthcoming, showing the extent of the ravages of cholera; but, up to August 11th, the total number of deaths, as recorded by the Egyptian authorities, reached 22,146 for the whole country; 6,282 of which were registered in Cairo and 168 in Alexandria. There is little doubt, however, that these figures are far from correct—not, perhaps, from any fault of the officials, but from difficulty experienced in obtaining returns from outlying districts.

The housing of the poor, and the application of the Artisans' Dwellings Acts, have recently attracted an immense amount of public interest, and there has been quite a flood of literature on the subject. Politicians of the first rank, philanthropists, workers amongst the poor, descriptive writers, and others, have had much to say about the miseries and hardships of the poor, and the need for improvement in the conditions under which they are compelled to live. That the matter is urgent and important, cannot be denied; but much of the discussion and many of the remedies proposed are quite beside the question. The real point is, the housing of the very poor: not the decent artisans, but the peripatetic costermongers, street-sellers, dock-labourers, and the like, who are in no regular work, and whose habits are in the last degree vicious and degraded. Such people have no notions of decency. They do not want to be clean. They would irretrievably damage, defile, and destroy the best house in the world a week after they were placed in it. It is absurd to talk, in connection with the poorest of the poor, who are admittedly the people to be reached, of houses to be erected on commercial principles, by large companies, and to pay five per cent. to their philanthropic builders. What is to be done for these wretched creatures, short of putting them under rigid police-supervision, such as has been adopted with so great success as regards common lodging-houses, is not apparent. By-laws have, indeed, been framed by the Local Government Board for the regulation of tenement-houses, though the powers conferred by Section 90 of the Public Health Act, for imposing and enforcing such by-laws, seem to be practically a dead letter. It would be well if, in anticipation of any further legislation which Parliament may think necessary on this question, a serious attempt were made to test the efficacy of these model by-laws. The President of the Local Government Board has, with the praiseworthy object of seeing things with his own eyes, been most diligent of late in visiting some of the worst and most densely populated dens of "outcast London;" and we may expect that he will have struck out some useful directions for activity by the time that Parliament meets.

Perhaps no better example could be found of the difference between a firm stand on a question of principle and the *laissez faire* policy that appears to be now so much in vogue, than the debates of last session on the Contagious Diseases Acts and the Vaccination Acts respectively. The responsible minister in the former case, professedly leaving the question as an open one for the decision of Parliament, provoked a Government defeat, and the discontinuance of the arrangements which, according to those best qualified to judge, have worked a wonderful improvement in our garrison-towns, and in the health of our soldiers. In the latter case, the President of the Local Government Board set his face determinedly against the sophistries of Mr. Peter Taylor, with the result that only fifteen members could be found to follow the latter into the lobby. It is probably only fair to claim a share of this satisfactory result for a memorandum on vaccination, in its medical and statistical relations, which was prepared at the request of several influential members of Parliament, by the Chairman of the Parliamentary Bills Committee of our Association, and copies of which were forwarded, on the eve of the debate, to each member of the House. In the JOURNAL of the 1st September last (page 434), the medical work of the session of 1883 was summed up somewhat in detail. Leaving out of consideration the Diseases Prevention (Metropolis) Act, as being a temporary measure, made necessary by the cholera-outbreak in Egypt, there was no new Act of Parliament passed during the year that much affected medical principles.

A variety of questions touching the compulsory notification of infectious diseases have been argued at great length in our columns by medical officers of health and independent practitioners. As to the usefulness or result of compulsory notification in any particular one of the places which have been written about, we are evidently not in a position to judge. But on the question whether or not the medical attendant shall be made responsible for giving the notification, the profession has spoken with no uncertain sound. On the renewed introduction of Mr. Hastings' Bill, making notification by medical men compulsory, a memorial to the House of Commons against the granting of this power was drafted by the Parliamentary Bills Committee, and signed by many of the Branches. Mr. Hastings' Bill was counted out, and the opinion of the House could not therefore be taken on it; but Sir Charles Dilke has promised the Parliamentary Bills Committee that should the Bill be re-introduced next year, and reach the stage of second reading, he will support its being referred to a Select Committee, with instructions to take evidence on the subject of the notification of infectious diseases generally, and the best method of making it.

Some interesting points as regards the practice of vaccination have arisen during the year, though at present no new light has been thrown on the subject.

The results of an inquiry made by Dr. Barry, of the Local Government Board, into an alleged death from vaccination at Derby, appeared to show a strong probability that the child in question had suffered from septic disease. While there was no evidence of the way in which the septic infection was communicated, there was little doubt that it was inoculated from some dirty instruments and appliances used by the vaccinator, whose resignation was accordingly insisted upon by the Local Government Board. At various times during the year, cases of alleged injury and death from vaccination have occupied the attention of coroners' courts, and sometimes of the Central Medical Department. In that which happened at St. Pancras Workhouse, the operator was properly absolved from all blame; while an inquiry at Deptford again demonstrated the groundlessness of the charges brought by unscrupulous persons, when death, from whatever cause arising, has occurred some time after vaccination. Dr. Airy has been investigating an alleged case of this kind at Sudbury, but his report has not yet appeared.

A remarkable instance of self-sacrifice in the cause of science occurred in connection with some experiments made upon himself by Dr. Cory, the Chief Vaccinator of the Local Government Board. Dr. Cory, believing that, although syphilis had very rarely indeed been communicated in any of the operations of vaccination, nevertheless could, under some circumstances, be so communicated, was desirous of learning the conditions under which such a transmission was possible; and as the investigation required experiments to be made on the human body, he proceeded to make these on his own person, with the result of eventually infecting himself. It is right to say, however, that this result was not attained without departure in essential respects from the recognised practice of all vaccinators. Dr. Cory's case has been under the examination of a scientific commission, consisting of Professor Humphry, Dr. Bristowe, and Mr. Jonathan Hutchinson, with Dr. Ballard, of the Local Goverment Board, as reporter. The report of this Commission has been promised for some time, in the Blue-book of the medical officers of the Local Government Board for 1882, which is, as usual, very late in making its appearance.

Amongst other matters of medico-sanitary interest which have arisen during the year, may be noticed the promulgation of the scheme of the Grocers' Company for the Encouragement of Original Research in Sanitary Science (see vol. I, p. 590), the remarkable and extensive propagation of syphilis at Sheffield by a midwife

(vol. I., p. 335), and the curious outbreak of typhus fever at Nazareth House, Hammersmith (vol. I, 1190). It is to be hoped that the great International Health-Exhibition, which is to be held in London next year, may serve to popularise and disseminate the great truths of public hygiene, and to enlist the sympathies of the nation at large in the noble work of sanitary reform.

THE POOR-LAW MEDICAL SERVICE.

THE following are the most important events in relation to the Poor-law Medical Service which have been related and commented on during the year.

In January, reference was made to the overcrowding in workhouses, and suggestions for its mitigation were offered. We also commented on school-certificates, and an answer was given to a correspondent thereon at page 232.

In February, we called attention to the refusal of a gentleman-farmer to pay for attendance on his groom's son, for which he had specially requested the services of the medical attendant, without an order.

In March, an answer was given respecting payment for midwifery, and the law on the subject was stated. In the same month, we called attention to the unfair way in which Mr. Manby, of the Freebridge Lynn Union, had been treated in the refusal of the Board of Guardians to pay for the vaccination of some children by his *locum tenens* during his temporary and unavoidable absence from home. We referred also to the case of Dr. Dunlop, medical officer St. Pancras Workhouse, who was prosecuted for manslaughter of a child, which died some weeks after vaccination. The case before the magistrate occupied the greater part of two days, and was eventually dismissed.

In April, we answered a question relating to parish orders, to whom they could be legally given, and, on the same page, pointed out that, in many districts, there existed great laxity in this respect. In the same month, attention was drawn to the request of the Gainsborough Board, that simpler language should be used in describing the nature of the diseases entered on the medical officer's relief-book. The replies of the medical officers were, after much discussion, considered satisfactory; but only by a small majority of the board; and no alteration was made. At the same time, attention was drawn to the question of superannuation-allowance in the Atcham Union, where, it will be remembered, an official inquiry was recently held, with the result that the master, matron, and medical officer, were, by the central department, called on to resign. Application was subsequently made by the master, etc., for superannuation. In his case, it was given, but it was refused to the medical officer, whose only fault had been that he had been the author of the inquiry into the misconduct of the master.

In May, advice was given to a correspondent, who wrote to ask to whom he was to apply for payment for certain attendances for which he had only received an overseer's order. We pointed out the law on the subject; also in the case of an union surgeon who applied for information as to the payment for certifying for pauper lunatics. In the same month, we commented on the letter of a correspondent, who had intimated his belief that the case of Grubb *v.* the Chesterton Board of Guardians had led to the statement by Sir C. Dilke, that he intended to sanction an arrangement whereby boards of guardians would be able to determine the appointment of their medical officers. Subsequently, Sir C. Dilke took an opportunity of explaining his meaning; had it been otherwise, steps would have been immediately taken to organise an agitation against such procedure by his department.

At the same time we called attention to the case of Mr. Biddle, the Medical Officer of the Merthyr Tydfil Union, who had been exposed to much annoyance by the action of a member of his Board. In the same month, we also drew attention to the employment of unqualified assistants, and suggested that, as, in many minor cases, their services might fairly be available, such unqualified assistants should be required to pass some sort of minor examination. In the same issue, we advised a correspondent, and the service generally, what should be the course adopted by them in drawing-up their income-tax returns, and what exemptions they might legally claim.

In June, we again showed what were the obligations and what were the rights of medical men called to certify cases of pauper insanity, and showed how desirable it was, in their own interests, that Poor-law medical officers should make themselves acquainted with the law thereon. In the same month we gave the decision of the Poor-law auditor, on the charges made in the defence of Dr. Dunlop; when we pointed out that the solicitor's charges were disallowed, but the shorthand writer's charges were not; neither the shilling, the fee for vaccinating the mother.

In July, we drew attention to the action of the Westminster Board of Guardians in retaining in their employ the master of the workhouse, who had been found guilty of most serious charges at an official inquiry into his conduct. The Guardians had turned on their medical officer, Dr. J. Rogers, who had given evidence against the master, and had called on him to resign; and on his refusal, as will later on be seen, had suspended him from his office.

In August, we published a very able letter from Surgeon-Major Evatt, on the condition and prospects of the Poor-law medical service.

In September, we reprinted an article from the *Standard* on the conduct of the Westminster Board of Guardians in regard to the master.

In October, we called attention to an inquiry into the cause of death of John Simmonds, in the workhouse of St. George's-in-the-East, when we pointed out how scant was the consideration shown to the opinion of the medical officer by the resident officers and guardians. In the same month, on various occasions, we gave insertion to sundry letters and resolutions regarding the suspension of Dr. Rogers by the Guardians of the Westminster Union, consequent upon the evidence he had given at the official inquiry into the conduct of the master. These manifestations of sympathy and respect for Dr. Rogers are a creditable evidence of the brotherhood of our Association, and must have been a source of much satisfaction to that gentleman in his unmerited persecution.

In November, we called attention to the proceedings of the Preston Board of Guardians, who, after much discussion, had eventually agreed to pay for the services of a substitute to one of their medical officers who had been compelled to be absent for some time from his duty; and we showed that the precedent thus established should be remembered, and acted on by Poor-law medical officers under similar circumstances. We also again drew attention to the conduct of the Westminster Board of Guardians, who, it would appear, had given what was called a reprimand to their master, whilst they had suspended their medical officer. In the same issue, we gave advice to a medical officer who had written to ask whether he might send his articled pupil into the workhouse, when we pointed out the law in the matter. Similarly we showed what were the powers, etc., of a medical officer in recommending food and stimulants, and what were the duties of a relieving officer in giving and withholding the same. In the same month we called attention to the official inquiry into the cause of death of John Simmonds, St. George's-in-the-East, as to whom a coroner's jury had found that his death had been accelerated by oakum-picking. This finding was traversed on the inquiry conducted by Dr. Bridges, and the sole blame was thrown, in this case, on the assistant medical officer.

During the past year no legislation has taken place affecting the interests of the Poor-law medical service, though a gallant effort was made by Mr. Herbert Gladstone to amend the provisions of the Dispensary Medical Officers (Ireland) Superannuation Act—by causing it to be a compulsory enactment, instead of a permissive one as at present. The Bill reached its second reading, Sir C. Dilke voting in its favour; but, though put down repeatedly to be considered in Committee, it was, owing to the pressure of other business, never brought on. Let us trust a better fate is in store next session, especially as it was intended to be the forerunner of a similar measure for England and Wales.

THE ARMY AND INDIAN MEDICAL SERVICES.

THE year 1883 has carried with it important issues to the medical department of the army. The ordeal through which this branch of the service had to pass at the hands of the committee of inquiry of which the Earl of Morley was chairman, terminated in the beginning of the year; and one outcome of it seems likely to be that the year 1883 will become the starting-point of changes in the internal economy of the Military Medical Service, and, to some extent, in its organisation, which will not improbably exert a material influence on its position and functions in the future. At the conclusion of 1882, Lord Morley's Committee had only held about half its number of formal sittings. The Committee, it may be remembered, was originally appointed to inquire into certain matters connected with the Army Hospital Corps, but afterwards, enlarged and reconstituted, had its scope extended into a general inquiry on the subject of military hospitals in the field and their organisation. Although, however, the task assigned to the enlarged committee was nominally of a general character, and independent in its nature, from its first meeting at the beginning of November 1882,

and throughout its later sittings, the questions asked and the evidence given sufficiently showed it to be practically a committee of inquiry into the medical arrangements of the recently concluded Egyptian campaign, as well as an investigation of the manner in which the army-surgeons had discharged their duties during the war.

The last sitting of the Committee for receiving evidence took place on February 9th, but the Committee's report was not distributed to members of Parliament, nor made public, until May 29th. Ten days previously to its public appearance, a copy of the report had been furnished to the *Times* newspaper, and a series of articles appeared in that journal, purporting to be a digest of it. The general tone of the articles displayed a strongly hostile feeling against the Army Medical Department. The public were informed that the evidence which had been laid before the Committee had proved that the medical service during the Egyptian campaign had been eminently unsatisfactory. The publication of the portions of the evidence and report which were quoted in the articles referred to, and the comments which were made on them, led to various questions in Parliament, and elicited from the Marquis of Hartington an expression of surprise at the improper and premature publication of the extracts from the Committee's report, and of regret at the misleading character of the remarks which had accompanied them. The one-sided nature and disparaging effects of the articles in the leading journal, also caused Sir William Mac Cormac, one of the members of Lord Morley's Committee, to come forward in defence of the army medical officers, and to make known the substance of a memorandum which he had written, and appended to the Committee's report. In this memorandum, Sir William reviewed the evidence which had been placed before the Committee, and stated his opinion, as the result of it, that the medical officers engaged in the campaign had throughout displayed the most self-denying devotion to the sick and wounded. "The duties and responsibilities imposed on them," he wrote, "probably exceeded those of any other branch of the service, and the duties were most ably carried out under very trying circumstances, and in a manner which, if we may judge by accomplished results, could scarcely have been better." He added, referring to the professional work of the executive surgeons, that "the results of the campaign were, perhaps, better than those of any previous war, and probably at least as good as in our civil hospitals, with all their means and appliances." An impartial examination of the evidence, and, indeed, the report itself of the Committee—a document occupying nearly fifty-three folio pages—as soon as the Blue-book in which they appeared was available for reference, were found completely to justify the statements made by Sir William Mac Cormac, and quite confirmed the conclusions on the subject at which we had previously arrived, by personal investigation, as early as the month of October of last year. These conclusions were published in the JOURNAL for October 21st, 1882; and, in full accord with them, Lord Morley's Committee, in their report, have declared that the medical and surgical supplies provided by the Army Medical Department for the campaign were complete in amount, as well as appropriate in kind; and, further, that at no period of the expedition was there anything that could justify the complaints that some persons had made of a "break-down" having occurred in the medical service. With respect to the principal battle of the war in Egypt, that of Tel-el-Kebir, it was proved, by an overwhelming preponderance of personal testimony throughout the inquiry, that the relief afforded to the wounded had been speedy and complete; and that, on a comparison of the surgical assistance afforded on the occasion with that which had been rendered at previous actions of similar importance, the wounded in Egypt had been placed under more favourable conditions, as regarded surgical care and attention, than wounded men had ever been before in any action in which British soldiers had been engaged. The Committee, in short, not merely exonerated the Army Medical Department and its arrangements for the Egyptian expedition from blame, but declared that the assertions which had been made of there having been deficiencies of necessary medical and surgical supplies, had been made without any basis of truth; that the accusations of indifference and neglect of the sick were equally unjustifiable; and, from various points of view, accorded to the department very strong commendation for what it had accomplished. While, however, the Committee were unanimous in their declaration that the medical officers had acted throughout with great zeal and devotion to their duties, they found fault, in several particulars, with the medical organisation as established by the existing regulations of the army, and various recommendations for ensuring its future amendment accompanied their report. There was a difference of views between three of the military members of the Committee, General Hawley, Sir R. Loyd Lindsay, and Sir Redvers Buller, and the other members, with regard to the manner in which authority ought to be exercised in military hospitals; and their views they expressed in a separate note. The report of the Committee, and the evidence upon which it was founded, together form a large folio Blue-book, containing nearly eight hundred pages, printed in double columns; and an analysis of the contents of this volume may be found at pp. 1087-89 and 1147-50 of the JOURNAL for June 2nd, and June 9th of the present year.

Steps were taken by the Chairman of the Parliamentary Bills Committee of the British Medical Association to secure the co-operation of certain influential members of Parliament, in defending the army medical officers from the unjust indignation which had been excited against them by the publication of selected portions of the evidence given to Lord Morley's Committee, and from the unfair deductions drawn from them, at the time when the vote for the medical establishments should be brought forward for discussion in the House of Commons. But, notwithstanding a promise had been given early in the session, that the vote should be taken when the members who wished to refute the charges against the medical officers would have full opportunity of doing so, the vote was not introduced until a late hour of Saturday, August 18th, at the close of the session, when a great part of the members had left London. Under these circumstances, there was no opportunity of making the intended vindication. But the Marquis of Hartington undertook that no important alterations of the medical arrangements for the army should be made, without an opportunity being given to the House of Commons to discuss them previously; while he also stated that, early in the session of 1884, the Government would be prepared to explain the action which they proposed to take with reference to the recommendations of Lord Morley's Committee. While speaking on the subject, Lord Hartington observed that "never had a campaign been carried out in which the medical results had been attained with greater success than in the campaign in Egypt." Although, however, assertions to the same effect have been officially made on many occasions, there can be no doubt about there still existing, in the public mind, a strong impression that the medical service during the campaign was not what it ought to have been; and it will be scarcely possible to remove this impression until the matter has been thoroughly ventilated in the House of Commons. It is a strange fact, too, notwithstanding the strongly expressed opinion of the Secretary of State for War that the hospital-results of the campaign in Egypt were so successful, that the Director-General of the Army Medical Department, who was responsible for the medical arrangements for the war, has remained without any honour being conferred on him, although the Director-General of the Medical Department of the Navy (Dr. Reid), who was similarly responsible for the medical arrangements of his branch of the service, was summoned to Windsor, shortly after the conclusion of the campaign, to have the dignity of K.C.B. conferred on him. It is naturally felt to be very difficult to reconcile this dissimilar treatment of the two Directors-General of the Army and Navy Medical Departments with the reiterated statements of approval, by the Heads of the War Department, of the manner in which the medical arrangements for supplying the wants of the sick troops in Egypt were made by the Chief of the Army Medical Service.

The principal recommendations made by Lord Morley's Committee, which the Government has now to consider, and which, as far as may be found practicable, it is presumed will eventually be carried into effect, all have an important bearing on the administration and working of the Army Medical Department. As the Committee laid down the principle that individual control and exclusive responsibility are essential to the satisfactory and smooth working of all military hospitals, and that these functions should be vested in the medical officers, there is no reason for supposing that any change of the existing regulations will be made in these respects. But the following recommendations, if carried into effect, will involve extensive changes: that the Army Hospital Corps should be merged in the Army Medical Department, and that the whole should be constituted as a Royal Corps, officers and men wearing the same uniform; that the employment of nursing sisters should be extended to all hospitals containing more than 100 beds; that the medical service of the Household troops should be assimilated to that of the army at large; that familiarity with the use of war-equipment, and with the working of field-hospitals, should be secured by occasional practice in time of peace; that improvements should be made in the way of working the present general hospital-system of administration, as well as in the acquirement of a better knowledge of cooking by th

Army Hospital Corps; and that separate hospital establishments should be organised and set apart for the reception and care of sick and wounded officers, from those appropriated to the non-commissioned officers and men of the army. It is obvious that changes, such as this list of recommendations implies, cannot be put into effect without very thorough consideration. They not only involve a recasting of the regulations of the Army Medical Department, but some of them trench in sundry ways upon the regulations of other parts of the military service. It is unavoidable, in a complicated machine like that of an army, composed of many various bodies having different functions, whose perfect co-operation is essential to prevent friction and difficulties in the working of the whole, that no change in the arrangements of any one of the parts can be made without interfering more or less with those of other parts. Prudence dictates, therefore, that full caution should be exercised when instituting changes of the kinds mentioned; and it may well be conceded in the present instance, that the period named by Lord Hartington to the House of Commons at which the Government will be ready to lay before the House the alterations in the army medical regulations, which the Government may decide to make in consequence of the recommendations of Lord Morley's committee, is not more than is reasonably required for completing the necessary preparations for the purpose.

It is understood that the consolidation of the men of the Army Hospital Corps and the officers of the Army Medical Department into a single establishment has been already determined upon. Whenever this is accomplished, the Army Medical Department will be assimilated in constitution to that of every other special corps of the army. The changes that have been gradually going on for some years past in the medical department have been remarkably similar to those which the corps of Royal Engineers underwent at one time; and there seems to be much reason for believing that, before long, the constitution of that scientific corps, and the constitution of the Army Medical Department, will both have as close a resemblance as their different functions will allow.

One omission among the recommendations of Lord Morley's committee has attracted much notice, namely, that no steps were taken to insure an adequate supply of proper means of transport for the Army Medical Department; for the want of transport equipment was shown to be the great source of difficulty and delay in the movements of the field-hospital and bearer-company establishments in Egypt, as it has been in all previous wars. The committee reported that they did not advise any change to be made in the existing regulations on the subject. It may be regarded as almost certain that the want of a special hospital transport, on the presence of which the Army Medical Department can place absolute reliance for the use of the sick, such as is allotted to the medical services in some Continental armies, will prove a source of trouble and vexation in the military operations of the future, as it has been in those of the past, unless some fresh provision be hereafter made to meet the urgent needs of the hospital service in this respect.

The exceptionally large number of surgeons of the Indian Medical Department retained on what is technically called "unemployed pay" has caused a great deal of discontent, and given rise to many expressions of dissatisfaction among the medical officers of that branch of the public service. The subject was brought to notice on several occasions during the last session of Parliament. The Under Secretary of State for India—Mr. Cross, M.P.—on May 28th, in the House of Commons, while not denying the grounds on which the complaints were made, referred to the subject of them as a difficulty of only a temporary nature. He explained it as the result of several concurrent circumstances, especially of the large number of medical officers admitted into the Indian Service at the time of the Afghan war, and the subsequent reduction of the native army by twenty-two regiments, which had of course led to a proportionate diminution in the number of surgeons drawing regimental pay and allowances. The difficulty is being met, he officially added, by largely decreasing the number of first appointments to the service, so that those who are supernumerary to the normal establishment may be gradually absorbed. As a fact, only ten appointments for the Indian Medical Service, as our columns have elsewhere already shown, have been offered for competition during the present year.

Mr. Cross stated that the published terms under which medical officers had accepted commissions in the Indian Medical Service had been accurately fulfilled; but there can be no doubt that the conditions of service were so worded, that many of those who read them were led into the mistake of supposing that, as soon as they had passed the lower standard examination in native languages, they would be no longer restricted to the lowest rate of unemployed pay. The liability of the wording to erroneous interpretation seems to have been tacitly admitted by the authorities, inasmuch as an amended statement regarding the position of medical officers receiving appointments in Her Majesty's Indian Service was issued by the India Office in October last. In this memorandum, the rates of pay and allowances to which medical officers become entitled on joining the Indian Service are plainly stated; and it is distinctly announced that the fact of passing the examination in Hindustani does not give any title to increase of pay, unless a medical officer be appointed to a substantive or officiating charge; while, on the other hand, unless the examination have been passed, although a medical officer may hold a charge of either of the kinds named, he will be debarred from receiving any portion of the special allowance to which the appointment would otherwise entitle him. The nature of what are designated "substantive and officiating charges" is explained in the memorandum; and the rates of pay attached to these charges respectively, as well as the circumstances under which either the whole or portions of the pay of officiating charges may be drawn, are also stated in it. The rules as set forth seem to be inconveniently complex, and they must occasion such discrepancies in the amounts of income received by different medical officers, although they are really all alike devoting their time and abilities to the needs of the public service, that we cannot but think an uniform system of adequate pay in relation to rank or length of service would not only have the advantage of being a simpler arrangement, but would also be a far more satisfactory plan to the great body of officers concerned.

Nothing has been published during the year regarding the long talked of amalgamation of the Indian and Army Medical Services; if any further move in the matter have been made, it has been kept officially secret. The military Surgeon-General in India, Sir A. D. Home, has reported in the recently published volume of the *Army Medical Reports*, that, at the close of the year 1881, to which the volume refers, the whole of the attendants in the Indian hospitals had been formed into a trained and disciplined Indian Hospital Corps, while the general hospital system had everywhere replaced the regimental system of administration, and had met with general approval on the part of the medical officers.

THE NAVAL MEDICAL SERVICE.

WE are pleased to observe the steadily growing popularity of the Naval Medical Service under the present administration, as displayed in the removal of all difficulties in the way of obtaining candidates for admission to its appointments. The number of candidates who have presented themselves for examination this year has amounted to four times the number of vacancies; this fact sufficiently indicates that the improved internal conditions within the service, which the JOURNAL and the Parliamentary Bills Committee of the Association did much to bring about, are becoming recognised by the profession. We understand that, as a result of a late Committee at the Admiralty, changes will be made in the nursing arrangements, by employing a certain number of female nurses at the naval hospitals.

COLLECTIVE INVESTIGATION OF DISEASE.

AT the beginning of this year, the Collective Investigation Committee had issued cards on pneumonia, chorea, rheumatism, diphtheria, and syphilis. To these, altogether, about three hundred and eighty returns have been received. The inquiry on phthisis had been already resolved on, and was commenced in the beginning of January, to be repeated a few weeks later. In the summer, an inquiry upon the treatment of acute gout was drafted, and cards and a memorandum issued. At the end of November, an inquiry was issued in the JOURNAL relating to puerperal pyrexia. The subject had been felt for some time to be of great importance, and well adapted to collective investigation; but the best method of asking information had been a matter of much doubt. Ultimately, a leaf was issued in the JOURNAL for November 24th, with an explanatory memorandum; and a card was at the same time prepared for those who would give fuller details of their cases. During the summer, an epidemic of enteric fever in the north of London had caused the Collective Investigation Committee of the Metropolitan Counties Branch to draw up and issue a card and memorandum on this disease, which have been, with slight modifications, adopted by the General Committee, and will be issued almost immediately.

Of these inquiries, all but that on the communicability of phthisis are still open. The phthisis question formed the subject of a report in the *Collective Investigation Record*, which showed that phthisis

ras, in all probability, communicable by close and prolonged contact. On pneumonia, over 700 cards; on chorea, nearly 300; on rheumatism, over 400; on diphtheria, 184 clinical, and 109 sanitary; on syphilis, about 50; and on gout, 1, have been returned.

In July was published the first number of the *Collective Investigation Record*. It contained the final report on the phthisis question, with all the affirmative answers, and a large number of the rest. It contained, also, provisional reports on pneumonia, chorea, rheumatism, and diphtheria, sketching briefly the lines which the final reports would follow. Several original papers and suggestions were embodied in it, and the principal addresses that had been delivered upon collective investigation, together with a short history of the movement, were also inserted. It is proposed to publish the second *Record* in July next, and to devote it almost entirely to a thorough consideration of pneumonia.

In addition to the inquiries on disease, the Committee have also drawn up, and Messrs. Macmillan are publishing, a *Life-History Album*, which is to be for the general public at once a diary, a medical history, an anthropometric record, and a photograph album. Each album belongs to and describes one particular individual.

At the beginning of the year, the organisation of the movement consisted of a supreme Committee of nine, appointed by the Council of the Association, and Local Committees appointed by each branch. The secretaries of the local committees, together with representatives of the London schools, and some other medical men who were interested in the movement, were invited by the Committee of Nine to form the General Committee, which is a deliberative assembly intended to elect and prepare subjects for inquiry.

In October the General Committee, feeling the work too heavy, appointed a Subcommittee to hold frequent meetings, and to carry out, as they found best, the measures broadly decreed by the General Committee. The work is, therefore, now carried on by the representative general assembly, working in detail through its Subcommittee, and subject to the approval of the Committee of Nine, who are themselves responsible to the Association.

In October, Dr. Mahomed resigned the office of secretary amid much regret, and Dr. Herringham was appointed. Since the beginning of the year, four new Local Committees have been formed, one for the Metropolitan Counties Branch of the Association, one for Perthshire, one for the N. W. Provinces in India, and one for Chester.

The movement begun by the British Medical Association has been taken up by other countries. In Germany, a committee (Comité für Sammelforschung) has been formed, and has issued a very comprehensive card on phthisis, embracing the cause of the disease, its course, its hereditary tendency, and its possible communication. They intend to take up the same diseases as we are investigating, and to work much on the same lines. The American Medical Association has also begun collective investigation, and intend to issue the same inquires as ourselves. Collective investigation of these diseases will therefore be carried on in three countries. The result cannot be prophesied, but it is at least an unequalled opportunity for the most valuable observations.

There is no doubt that, as regards the exact method in which collective investigation can best be carried on, much yet remains to be learnt. The first few cards issued by the Committee, on pneumonia, chorea, and rheumatism, seem to have commended themselves to all; the later inquiries have been considerably more elaborate, and have not been so largely answered. That this, however, is due, not to lack of interest, but to lack of time, seems quite clear; and in all probability the Committee will find it best to reconsider some of their later inquiries, with a view to rendering them rather simpler and shorter than they are at present.

Meetings specially devoted to the consideration of collective investigation have been held, and addresses delivered, in Birmingham by Mr. Macnamara, in London by Sir William Gull and Sir James Paget, in Bath by Dr. Mahomed, in Manchester by Mr. Jonathan Hutchinson, in the East London District of the Metropolitan Counties Branch, by Dr. Wilks; and, in the Northern District of the Metropolitan Counties Branch, by Dr. Dyce Duckworth. Several Branches have also adopted the custom of having a discussion at one of their regular meetings on a subject under collective investigation, such as chorea or pneumonia, opened by some member of the Collective Investigation Committee specially interested in it.

The year 1883 found the movement beginning amid a good deal of enthusiasm, a good deal of indifference, and a good deal of distrust. It leaves it established, not only here, but in Germany and America; the distrust is lessening; the indifference is, perhaps, about the same; and the enthusiasm born of novelty has given way to a steady approval and acceptance of collective investigation as a fact in the fixed order of things, which slowly, but surely, is and will be productive of great results.

THE PARKES MUSEUM.

THE past year has been an important epoch in the annals of the Parkes Museum of Hygiene. The council of the museum acquired new premises in Margaret Street, Regent Street, and the museum was formally re-opened to the public on May 26th, by the President, his Royal Highness the Duke of Albany. The summer course of lectures was inaugurated by an able and scholarly address by Professor de Chaumont, F.R.S., on the History of Hygiene, in which he traced the growth of the science from its earliest infancy down to the present day; a full abstract of this address appeared in our columns at the time. Professor Hayter Lewis, formerly Professor of Architecture in University College, gave an excellent address on the employment of sanitary materials in the construction of houses and institutions, and Mr. E. C. Robins delivered a lecture on "Hospital Construction;" Professor Corfield gave a very graphic address on "Common Sanitary Defects in Houses;" Dr. Ralfe lectured on "School Hygiene," and Sir Robert Rawlinson on the "Hygiene of Armies in the Field;" all these lectures have been reprinted in pamphlet form, and may be had, with the exception of Professor Corfield's lecture, of which the edition printed has been exhausted, at the museum. During the present winter season addresses have been given, among others, by Mr. Ernest Hart on the "Progress of Smoke Abatement," by Mr. George Murray on the "Potato Disease," and by Dr. Poore on "Coffee and Tea;" the last of these has been published, and contains an exceedingly readable account of the physiological properties and mode of preparation of coffee. A great step towards the consolidation efforts to contend with the great sanitary evils of the day, was taken when the Sanitary Institute determined so far to cast in its lot with the Parkes Museum, and to move its offices to the premises of the latter in Margaret Street; both institutions now work harmoniously under the same roof, and have the advantages of the faithful services of the same able secretary, Mr. White Wallis. It is a matter for congratulation also to learn that the National Smoke Abatement Institution has determined, owing to the initiative of its chairman, Mr. Ernest Hart, to take advantage of the facilities offered by the Parkes Museum, and that it is, we understand, about to establish its offices there, and to obtain control over space in the museum wherein to exhibit the various appliances which have been ascertained to be of use in bringing about that abatement of smoke nuisance which we all desire, without always knowing very clearly how to attain our desire.

MEDICAL EVENTS OF THE YEAR IN SCOTLAND.

THE year 1883 has not been productive of any very stirring event to the profession in Edinburgh. One of its most noteworthy features has been the opening of a considerable extent of the new university-buildings for teaching purposes; this has proceeded so far now, that only medical jurisprudence and natural history are still taught in the old university-buildings, and the first of these subjects will, in a spring course in 1884, be taught in the new premises. In connection with this, it is worthy of notice that, under the auspices of the Lord Provost of Edinburgh, a creditable effort was made by the citizens and those interested in the work to raise a large sum of money to enable the completion of the new university buildings; this effort was successful to the extent of raising over £30,000; a considerable sum, however, is yet required.

In connection with teaching in the university, it has to be congratulated on the addition of the lectureship on diseases of the eye, inaugurated in 1883, and presently held by Dr. Argyll Robertson, and in the appointment of one of the staff of its assistants to a professorship in Aberdeen. As to the attendance of students, the university continues in its prosperous career; at the graduation in August, 183 candidates received the degrees of M.B. and C.M., and 29 received the degree of M.D. Some additional scholarships have been founded, and in the spring the Murchison Scholarship was competed for. It has also to be congratulated on the provision which has been made for the foundation of a new chair, which is either to be of comparative anatomy or surgical anatomy, by Miss Dick, sister of the founder of the Royal Veterinary College in Edinburgh.

The Royal Infirmary has, by the wise action of its managers, been extended in its usefulness by the addition to its staff of an aural surgeon, Dr. Peter McBride, an assistant obstetric physician, Dr. Halliday Croom, and a fourth assistant-surgeon, Dr. J. M. Cotterill.

The hold it has on the generosity of the public has been evidenced by various legacies, the most noteworthy of these being one of £30,000 by the late Mr. Thomas Laing of West Calder, and one of about £50,000 by the late Mr. Duncan Vertue of Eton Terrace, Edinburgh. The total number of patients treated in the infirmary (according to the report submitted to the court of contributors in January) for the previous year having been 6,443, as compared with 5,746 the previous year, and 18,000 out-patients, as contrasted with 15,000 the previous year, while the average number of inmates per day was 537, as compared with 520. By this time the new infirmary building must be about free from debt, as at the commencement of the year only £7,500 was required to complete the building. The-Extra Mural Medical School has continued to flourish, and, by the variety of its subjects and the vigour of its teaching staff, has done much to augment the healthy tone of medical education in Edinburgh.

The Medico-Chirurgical and Obstetrical Societies have prospered during the year, the former having had a large accession of numbers to its membership, and its discussions having been entered into heartily. In October, a new medical paper, the *Weekly Clinical and Pathological Journal*, was commenced in Edinburgh under the joint editorship of Drs. Graham Brown, Hart, and Cathcart. The various dispensaries and medical charities have had sufficient alterations in their staffs and support from the public to encourage them in their work, and the provincial hospitals have also had considerable encouragement by legacies and donations. In Dundee Hospital a children's ward has been added, and a cottage-hospital and dispensary are to be started at Hawick, while elsewhere healthy signs of local activity in the same direction are being manifested. The profession has given valuable aid during the year to the Health-Society in its endeavours to educate the public.

In Scotland, the question of University reform has been a prominent matter under discussion, owing to the Universities (Scotland) Bill, which the Government proposed to bring forward. By this statute, the affairs of the Scotch Universities were to be placed under Commissioners with full powers to alter existing regulations, and exact any new ones thought necessary. Other features of the Bill were the abolition of St. Andrews as a separate University, and the establishment of a fixed annual grant of money, which was to be allocated among the different Universities in certain proportions. These changes were in no way acceptable to the University authorities themselves, nor indeed to the people of Scotland generally, and frequent meetings were held to consider the new schemes. At all of them resolutions were passed admitting the necessity for some reform, but regretting the scope of the new legislation, the effect of which would be to place in the hands of a few individuals the powers which had hitherto been wielded by Parliament itself. The new financial arrangements were also condemned as quite inadequate, and as pressing unfairly on certain of the Universities, such as Glasgow, which as yet had had no yearly State aid for keeping up its buildings. As is now known, in deference to public opinion, the clause abolishing St. Andrew's University was withdrawn, and this somewhat lessened the opposition to the measure. The Bill, however, did not pass through Parliament, and the position of matters remains as before. At the same time, the agitation carried on was productive of good, inasmuch as the Universities themselves have introduced certain reforms, the tendency of which is to raise the standard of education given by them, such as the establishment in Glasgow of an entrance examination for youths under seventeen years of age seeking admission to the arts classes; the result of which was seen recently in the fact that, out of seventy-nine who presented themselves, only fifty-six were allowed to matriculate. While this subject of University reform was before the public, some points of general interest were elicited, one of which was that, comparing the number of students attending the four Scotch Universities with those of the four English ones, the former are better patronised; and, on the basis of the population of the two countries, there are nearly eight times as many University students north of the Tweed as there are south of it. When speaking of educational matters, it may not be out of place to mention that the past year has seen the formal opening of the new College at Dundee, founded by the munificence of the late Mr. Baxter, and also the appointment of an Educational Endowments Commission to examine into the distribution of the various local educational bequests in Scotland, and if necessary devise schemes for their better attaining the objects for which they were given. The effects of education on health is another subject to which public attention has been directed within the last twelve months, and many facts were brought forward to show that under existing arrangements too much mental work is demanded from young and growing children. This seems to be favoured by the system of Government grants, teachers having a direct interest in pushing forward as rapidly as possible the children under their care. The matter was very ably and fully treated in a paper by Dr. Farquharson, M.P., at a meeting of the scholastic profession in Aberdeen, and so convinced is he of the evils that exist, that he advocates the periodical inspection of board-schools by qualified medical men.

By far the most important medico-political matter brought forward in 1883 was the Medical Act Amendment Bill; and, as was to be expected, it caused considerable excitement and variety of opinion in Scotland, where indeed it was anything but welcomed, there being a strong feeling throughout the country that the proposed legislation was unnecessary, and that it had been prompted by an envious feeling of the success and popularity of the Scotch University medical schools. These have all along been opposed to any change in the existing regulations; but, on the present occasion, when they saw that change was inevitable, they fell in with the new proposals to a large extent. Not so, however, with the Scotch corporations. To them the new arrangements seemed to imply their total extinction as teaching and licensing bodies, and they at once set on foot a series of meetings for making known their grievances. They accepted the principle of the new measure, approving, in the main, of the Conjoint Boards for the three divisions of the kingdom, but they insisted on increased representation on the board (as they held that the proportion of eight university delegates to three from the corporations was most unfair), on uniformity of examination fees, and on the granting of a fixed medicine title to those licensed by the Conjoint Board. Other minor points, such as the medical profession having direct representation on the board, were also urged, but the above were the main issues for which they contended. As was the case with the Universities' (Scotland) Bill, time did not allow of the measure being brought forward, and it was abandoned, so that the question of medical reform is where it stood before; but the agitation set on foot in the face of new legislation has done good, and has also had beneficial results in stirring up the Scotch medical corporations to consider carefully their position as licensing bodies. The outcome of this is apparent in the higher standards ofthe qualifying examinations for their licentiates, and, in the resolutions carried by some of them, to institute, in future, examinations for their fellowship degrees. It is quite certain that Parliament will, sooner or later, deal again with this matter of Medical Reform, and, in all probability, on the same lines as before, for the report of the Royal Commission was drawn up in too decided language to admit of anything but very material changes in the present system; and while the Scotch corporations need fear no loss of position or usefulness if their standards of teaching and examination are of a high character, they must be prepared for seeing a large amount of the control in matters of medical education placed in the hands of the Universities who have so far proved themselves worthy of the trust reposed in them.

No measures of any medico-sanitary importance affecting Scotland were carried in the last session of Parliament. At the same time, the many defects that exist in the Public Health (Scotland) Act have from time to time made themselves so apparent, that with the view of obtaining the necessary improvements, and directing the attention of the authorities to the subject, a Committee of the Glasgow Philosophical Society was appointed in the Sanitary and Social Economy Section to draw up a report and suggest needed reforms. This was done, and the report made public, a copy being also laid before the Lord Advocate. In the subject matter of the law, the Committee think that the chief changes called for are some form of compulsory notification of infectious disease, more stringent regulations in connection with the milk-supply of towns, and the necessity for every district in Scotland providing for itself proper hospital accommodation. But in the administrative or executive part of the law, which has so often proved futile and broken down, the report suggests very radical alterations, such as the establishment of an Imperial Local Government Board for England and Scotland, with members on it from both countries, while in Scotland there should be a resident sanitary inspector-general, in whom should rest all central authority, and to whom should be granted even more controlling powers than the present Board of Supervision. With such an arrangement, and the country divided into health districts, irrespective of county boundaries, the Committee are of opinion that considerable improvement would follow, and the Public Health Act be more efficient. The public we fear are scarcely yet prepared for

accepting such a complete rearrangement of the present system, but the authorities seem prepared to support the compulsory notification of infectious disease, if we are to judge from the draft of the Burgh Police and Health (Scotland) Bill, which was made public last summer. This measure aims at securing uniformity of the police and sanitary administration through Scotland, and the clauses of one part of it are devoted to sanitary provisions. Amongst them is the compulsory notification of infectious diseases, such notice to be given both by the occupier of the house and the medical man in attendance on the case. Notwithstanding the very decided opinion that has been given by the profession against such an arrangement (notably on the occasion of the Worcester meeting of this Association), we are decidedly in favour of seeing passed such a Bill as this Burgh Police and Health Act, as it will do much to control local legislation on health matters, which is apt a times to be at variance with the interests of the community at large, and not in keeping with the general statute law of the land. The returns of the state of the public health in Scotland during the past year have been favourable, and in that period there have occurred no epidemics of disease attracting special public attention; but we have had to record from time to time outbreaks of illness arising from contaminated milk and water-supply, as, notably, in Dundee; and these, had it not been for the promptitude and energy of the authorities, might easily have assumed large dimensions. A hopeful sign of the times is the effort that people are themselves making, without the aid of the law, for preventing disease, as seen in the general countenance given to the sanitary protection associations. Of these the most recent one established in Glasgow has received a very gratifying amount of public support, and the necessity for its existence is seen in the large number of defective houses that come under the notice of its officials. On this point, in conjunction with the town authorities, records are being kept as to the existence or not of disease in these unsanitary dwellings, and in this way it is hoped that some important conclusions may be obtained. Another instance of personal enterprise in the interests of the community is seen in the efforts made by Dr. Russell of Glasgow, to improve the working of the Vaccination Act, by enlisting the assistance of the registrars in the different districts of the city in following up those who by change of residence and other plans seek to evade the Act.

The sixth congress of the Sanitary Institute of Great Britain was held last autumn in Glasgow, and was very numerously attended. It was opened on September 24th, Professor Humphry, of Cambridge, delivering the inaugural address. Of the various topics touched on, the most important was his strong advocacy of the institution of a sanitary department in the Legislature, distinct from the Local Government Board, and under the direction of a minister of sanitary affairs. This he regarded as the most likely way of promoting the well-being of the people, and their success in everything they undertook, whether it were literary, scientific, commercial or military. Of the three sections into which the congress was divided, Professor W. T. Gairdner delivered the presidential address in that of Sanitary Science and Preventive Medicine, giving an account of the work carried out in Glasgow, while he was responsible for the sanitary administration of the city. In the section of Engineering and Architecture, Professor Rogers opened the proceedings with an interesting paper on London Dwellings; while Dr. R. Augus Smith, who presided over the section of Chemistry, Meteorology, and Geology, in choosing for his subject, "Air as a Sanitary agent," and in insisting on pure air as the central point in all sanitary reforms, delivered certainly one of the most notable of the addresses given during the meeting of the Congress. Several papers of great interest were read in the different sections; and with the view of practically illustrating the means and requirements necessary for ensuring healthy houses, and exemption from disease, an exhibition of sanitary and other appliances was also held. This last was in every way a success, and was most complete in all its details. It was decided to hold the next meeting of the Congress in Dublin.

In its medical faculty, the University of Glasgow continues to prosper, and the number of matriculated students in this department shows no signs of falling off. In fact, so great has been the increase, of late years, that the new buildings of the university have already been found too small, and how to remedy the deficient accommodation for the classes has been of late the difficulty with the authorities. To such an extent has this been felt, that it has been decided to make additions to the present university buildings, and as soon as the £18,000 necessary has been obtained, they will be proceeded with. Meanwhile, in other directions, steps are being taken to advance the interests of the medical school, by assimilating its arrangements in certain points with those of Edinburgh and Aberdeen, where relaxations have been granted to the students in the period of appearance for examinations, and in the subjects to be taken up, so that by allowing a little latitude in these matters, candidates preparing for examination can atttend, at the same time, the classes upon the subjects in which they are to be examined. As yet, the Chair of Pathology in the university has not been founded, though negotiations are still proceeding, and the subject is taught by Dr. Coats, the appearance of whose recent work on Pathology shows that this deficiency in the university staff of professors is well met from outside.

Various additions have been made to the hospital accommodation of different towns in Scotland during the past year, and amongst those in contemplation is a new southern hospital for Glasgow, with accommodation for 120 patients. Thanks to the liberality of the late Mr. Cowper, the building will soon be commenced. The Glasgow authorities have also resolved to bring up the city accommodation for fever cases to 600 beds, and 150 for small-pox. To Glasgow students has been granted the very valuable privilege of attending the practice of the city fever hospital. An unfortunate difference of opinion marked the history of the Glasgow Royal Infirmary, where the relations between the medical staff and the lay members of the committee became very strained. The question under dispute was, whether sufficient precautions existed as to ensure safety during the administration of anæsthetics in the hospital. Some of the lay members did not think so, and succeeded in passing some resolutions for the guidance of the medical staff in the matter which the members of it declined to accept, and contended very properly for the principle that, in the administration of the hospital, they were the best judges as to the medical arrangements necessary. By firmness and decision they carried their point, and were successful upon a question about which there should never have been a difference of opinion. The public discussion, however, which had taken place had one good effect, in that it directed attention to the very important matter of the safety of anæsthetics, and other hospitals were roused to consider as to whether their rules upon the administration of these substances were such as to ensure public confidence, and the result was seen in the drawing up of a special set of regulations for use in the Glasgow Western Infirmary, at a conference between the medical staff and the lay members of committee.

Notwithstanding the occurrence of some fatal cases during the year, chloroform still continues to be the anæsthetic chiefly used in Scotland. One of the deaths reported was that of a young lady who had administered the drug to herself by inhalation for the relief of toothache. In surgical matters, we have to chronicle the operation of nephroraphy for floating kidney, performed by Dr. David Newman, for the first time in this country. The result was, in all respects, a success. The Watson prize of the Faculty of Physicians and Surgeons of Glasgow was awarded to Dr. William Macewen, the subject of the essay being the best material for the ligature of arteries. There is still a very general adherence in Scotland to the theory and practice of antiseptic surgery as laid down by Lister; but there is a growing tendency to simplification of the details of the dressing, as seen in the omission of the spray during operations, and the changing of the dressing. This is perhaps specially marked in Edinburgh, and the brilliant results of Keith, in his operations on the abdomen in all classes of cases, and without the aid of the spray, have tended very much to strengthen that view.

To those interested in the spread of ambulance-work, it will be a satisfaction to know that the movement continues to make good progress in Scotland. This is apparent in the general interest shown in it by the public, and the warm support given to it by the medical profession, numerous courses of lectures having been delivered by the latter in different towns for the instruction of the volunteers, police, and civilians. Glasgow has perhaps been the most active in the work, and by means of its St. Andrew's Ambulance Association is helping materially to strengthen the movement and spread it through surrounding districts. Few of the large works on the Clyde are now without their "ambulance corps," trained to give efficient "first aid" in cases of accident and sudden illness; and Glasgow further possesses now an excellent and well-equipped city ambulance service for the transport of sick and injured persons, thereby rendering incalculable benefit to those suffering from accident, by doing away with the old rough and dangerous methods of removal by cabs and other conveyances. So efficient is this service, that we notice, in a recent health-lecture in Edinburgh by Professor Chiene, a warm encomium on it, and his advocacy in favour of establishing a similar service in that city.

Among miscellaneous events, we may mention the endowment of

a science-lectureship at Paisley by the liberality of Mr. Brough; and the death of Dr. Young of Kelly, originator of the paraffin industry of this country and America, and founder of the Technical Chemistry Chair in Anderson's College, Glasgow. Foot-and-mouth disease has been for some time very prevalent in Scotland. By means of the Contagious Diseases (Animals) Act, steps were taken to prevent the importation into the country of animals suffering from the disease, and in this way it was almost stamped out; but some irregularities on the part of some of the Irish officials led to its reintroduction, and it at present exists in various parts of the country. This epidemic has elicited one decision of importance; and that is, that the carcase of an animal suffering from the disease is unfit for food, and is not rendered safe by having only the diseased portions cut out, as was formerly the practice. Towards the elucidation of the problem of weather forecasts, Scotland has made an important contribution this year by the establishment on Ben Nevis of a permanent observatory, which, from its position in the middle track of the depressions of North-West Europe, is likely to prove of the utmost value in the further development of meteorology. The Scotch Fishery Board, which came into existence last year, has already begun its scientific investigations; the first line of inquiry being into the life-history of the herring, one of the most important of the fishing industries of the country; and the preliminary report, made public, has shown what good results must follow such investigations. The weather in Scotland during the past twelve months has been, on the whole, mild in character, though in the early winter there were some occasional heavy falls of snow and one or two violent gales of a cyclonic nature. The vital statistics of the country show that the condition of the industrial classes is good, and work plentiful. Owing to representations that were made in various quarters as to the grievances and poverty of the crofters in the Highlands and Western Islands, the Government appointed a Commission to inquire into the matter; and, though their report has not yet been issued, the public evidence brought forward revealed some hardships and injustice to tenants, but none of the misery and starvation that was represented.

THE year now closing is one which has been characterised by much good and successful work in the north of Scotland. Some changes have taken place, but they have not been so numerous as in some previous years. The *personnel* of the University of Aberdeen has undergone less change than usual, the only medical appointment being that of Dr. Matthew Hay, in place of Dr. Ogston, retired. This appointment is a great source of strength to the school, as we ventured to state it was sure to be. We wish Dr. Ogston many years of enjoyment of his well-won leisure. Another feature of the year was the institution of extramural classes for practical instruction in diseases of the ear, larynx, and skin, and for instruction in insanity and public health. These classes were well attended, and we hope that next year they may become still more pepular. No large sum, comparable to the Sir Erasmus Wilson gift, has fallen to the medical school; but small sums have been left for bursaries or exhibitions, and recently a sum of £600 was left by Dr. Henderson of Caskieben, the interest of which is to be given to certain students at the discretion of the Dean of the Medical Faculty. The one burning question was the pathological one, which may now be regarded as at an end, as it is clear that all along the examiners were primarily the body who should have been appealed to by the students, and who now must determine how the examination in general pathology shall be conducted; and we have no doubt that that will be done in a manner satisfactory to all parties. The staff of the infirmary is unchanged. Thanks to the energetic efforts of the Committee of Management, a debt of several thousand pounds was wiped off within the year. The Sick Children's Hospital is more popular than ever, and the number of beds has been greatly increased, and, indeed, is not, even now, equal to the demands upon them. Her Royal Highness Princess Beatrice opened a bazaar in aid of this most commendable and useful institution, and the success of the bazaar was thereby ensured. The sum realised was about £2,000, which was sufficient to enable the directors to continue their good work. At the same time, H.R.H. Princess Beatrice opened the Duthie Park, the gift of Miss Duthie, of Ruthriestone, to the city of Aberdeen, representing a money-value of sixty or seventy thousand pounds. In Dundee, a new college was opened in the autumn by the Earl of Dalhousie, the opening address being delivered by Professor Stuart, of Cambridge. It is a most hopeful sign of the times that these literary and technical colleges are springing up everywhere in our great centres of industry. Of lectures, during the year, there has been good store. The Burnett lectures, to show "that there is a Being all-wise powerful, and good," etc., were delivered by Professor Stokes, of Cambridge, on Light, especially with reference to the undulatory theory. The lectures, we believe, are to be published soon, and no doubt they will form a solid contribution to the question of the theory and nature of light. The Thomson lectures on Natural Science, in the Free Church College, were delivered by Dr. Carruthers, of the British Museum, the subject being Palæontological Botany. The chief medico-political subject, of course, was the Medical Bill, interest in which will soon again be revived at the opening of Parliament. There is far more need for a Universities Bill, and we trust that the Scottish Universities Bill will be reintroduced and passed next session, without any of the objectionaal features of the Bill of last year.

MEDICAL EVENTS OF THE YEAR IN IRELAND.

WITH the exception of the stir aroused by the introduction of the Medical Acts Amendment (1883) Bill, then by the alterations made in it in its passage through the House of Lords, and subsequently by its effectual blocking in the House of Commons, the past year has been one of unusual quietude in Irish medical circles. The hostility which the Irish universities and medical corporations exhibited towards the Bill, combined with the opposition offered the measure by the Scotch licensing bodies, sufficed, at the late period of the session at which it came on for second reading, to prove destructive to its progress. Previously to the introduction of the Bill, the Dublin Branch Council, in its report to the annual meeting of the Branch held in January, expressed its disagreement with several portions of the report of the Royal Commissioners on the Medical Acts, and consequently declined to recommend the Branch to petition the Government in favour of legislation based upon the lines of that report. This action of the council of the Branch, which was, however, by no means indicative of unanimity upon the subject among its members, was warmly combated at the Branch, annual general meeting, as being opposed to the true interests of the profession and of the public, and contrary to the policy of the parent Association. A debate extending over three meetings was opened by the proposal of an amendment to the resolution moving the adoption of the annual report, referring the debated point to the newly elected council for consideration, accompanied with the recommendation that the policy of the parent Association in reference to medical reform should be, in principle, adopted by the Branch. The amendment was carried, and, in consequence, five of the members of the council resigned their seats thereon. This regrettable secession did not, however, prevent the remaining members of council exerting themselves in favour of the main provisions of the Bill, while at the same time they endeavoured to use the influence of the Branch in suggesting desirable alterations in its details. Both the universities and both the colleges petitioned against the Bill, and, as before mentioned, were successful in again delaying a much needed piece of legislation. Similar tactics, on the part of some of the Home Rule members of Parliament, to those which caused the withdrawal of the Medical Bill, were also successful in throwing out the Union Officers' Superannuation (Ireland) Bill. This measure was amended in conformity with the recommendations of a select committee in the previous session of Parliament, and was supported by representatives of all parties in the House. But the committee-stage not having been arrived at until August 18th, the opposition of the few members above referred to forced the Government to withdraw a measure admittedly beneficial alike to the ratepayers and to the Poor-Law officers, both lay and medical.

The only measure at all affecting the interest of medical men that became law during the past session is the Labourers' (Ireland) Act. Under the provision of this measure, which passed rapidly through Parliament at the close of the session, and from its title excited no attention from medical bodies, a medical officer of health may, it would seen, be liable to be called upon by his sanitary authority to certify as to the sanitary condition of the dwellings of agricultural labourers and their families, without receiving any remuneration for his certificate required for the purposes of the Act. The Irish Medical Association, which has already done such yeoman work for the profession in Ireland, has signified that it is prepared to take up some good cases, with a view to testing the question before a legal tribunal, whether the medical officer of health can or cannot claim special remuneration for his services under the Act.

In the beginning of the year, and instigated clearly by the approach of impending legislation, and the example of the London colleges, a renewed attempt was made to establish a conjoint examining board for Ireland between the King and Queen's College of

Physicians and the Royal College of Surgeons in Ireland. Readers of the evidence given by the Rev. Dr. Haughton before the Royal Commissioners on the Medical Acts, will remember the amusing account he gave of former attempts and failures in the same direction. This attempt also speedily collapsed, the Council of the College of Surgeons declining to approve of a reciprocal clause in the granting of separate diplomas, which the College of Physicians looked upon as the essential part of the scheme. Undeterred by these repeated failures, another similar attempt is now being made —the College of Surgeons again taking the initiative—and is at the present time under the consideration of both Colleges. We have little doubt as to the result, or as to its effect upon legislation, whatever way a decision may be arrived at.

The new curriculum of the Royal College of Surgeons in Ireland has as yet been too short a time in operation to enable any definite opinion to be given as to its merits or demerits. At present, more perhaps is heard of the latter than of the former; but this probably is to be expected at first of all reforms. At the examinations for medical degrees of the new Royal University, a large number of candidates have presented themselves. But, judging from the pass-lists—swelled, as one at least notably was, by the all-powerful and kindly aid of the Senate—the graduates of the Royal cannot as yet claim any professional superiority over those of the University it succeeded. Eight of the examiners of the new University have been elected to discharge the same duties under the title of "Medical Fellows." These gentlemen are to hold office for seven years, at an annual salary of £100.

In the Royal College of Surgeons in Ireland, it has been arranged that professors and examiners are to be elected by the entire Council of twenty-one members, instead of, as formerly, by a limited number—seven—of that body having that duty and responsibility thrown upon them by the chances of a ballot. A resolution has also been adopted, that the President of the College elected in the year 1887 shall hold the office for two years, instead of one year, as at present.

Regarding the work done in Ireland as shown by professional literature, there is, unfortunately, very little to chronicle. The only publication, in fact, during the year that we have to notice is the first volume of the *Transactions* of the recently formed Academy of Medicine in Ireland; and which, as far as it goes, is a creditable production.

The bestowal of a knighthood on a well-known Dublin surgeon, when it was felt that, if Her Majesty's Government desired to confer an honour upon the profession in Ireland, a baronetcy, as on former occasions, should have been granted, gave rise to much dissatisfaction. Although the judiciousness of the steps that were taken by some members of the profession in approaching the Irish Government on this subject may have been open to dissent, still there can be little doubt that of late years the bestowal of hereditary honours on physicians and surgeons practising in Ireland has been allowed to lapse. It cannot be justly claimed that this neglect is due to a want of suitable men, in both branches of the profession, in every way worthy of such an honour. Among other honours, however, granted during the past year which the recipients may well be proud of, we may note the conferring, by the University of Dublin, of its degree of *Magister in Arte Obstetricâ, honoris causâ*, on Dr. George H. Kidd, the late Master of the Coombe Lying-in Hospital; and the award of the Cunningham Medal of the Royal Irish Academy to Dr. Edward Perceval Wright.

Our obituary notices for the past year contain the names of three well-known Dublin men:—Mr. B. Wills Richardson, Dr. Steele, and Dr. Loftie H. Stoney, all of whom had a local reputation, and left behind a wide circle of sorrowing friends.

Several changes have taken place in the Dublin medical schools and hospitals during the year. In the School of Physic, Trinity College, Professor Cunningham, from the Royal College of Surgeons' school, has succeeded Professor Alex. Macalister. Dr. Alex. Fraser, late of Owens College, has taken Professor Cunningham's place in the College of Surgeons; and, in the same school, Dr. A. Wynne Foot has been elected Professor of Medicine, *vice* Dr. James Little, resigned. In the Carmichael College, Dr. Heuston now fills the chair formerly occupied by the late Dr. Stoney; and Mr. A. H. Benson has succeeded him as Ophthalmic Surgeon to the City of Dublin Hospital. In the beginning of the year, Dr. W. J. Smyly became Gynæcologist to the hospital, *vice* Dr. Macan, appointed Master of the Rotunda Lying-in Hospital; and, quite recently, Dr. Samuel Mason has been elected Master of the Coombe Lying-in Hospital, in succession to Dr. Kidd, whose period of office had expired. Mr. Warren has succeeded the late Mr. Richardson as Surgeon to the Adelaide Hospital.

Now that the year 1883 is quickly drawing to a close, and its calendar almost complete, it may be of interest to the numerous members of the Association resident in the north of Ireland, as well as to those scattered over the globe who have either associations with the province or have received their education in Belfast, to briefly review the more important medical events which have taken place in Ulster during the past year.

In doing so, the centre of medical education in the province, the Belfast Queen's College, deserves first attention.

The disestablishment of the Queen's University, and the founding of the Royal University in its stead, exercised a considerable influence on the success of the Belfast Medical School.

In the first place, the change was not popular with the graduates of the Queen's University, who entertained a reasonable and sincere regret for the disestablishment of their *alma mater*, around which were centred so many pleasant memories, early associations, struggles, and successes. This same feeling was shared by the students and by some of the professors, who had laboured hard to build up the fame which it had certainly attained.

Besides, the Royal University made it compulsory on medical students before proceeding for degrees to pass the first University examination in arts, which necessitated the taking of an arts course of one year.

These several causes, and especially the latter, brought about a considerable decrease in the number of medical students attending the lectures, but the entries during the present session show that all this apparent depression has been passed over, and that the prospects of the College were never at any time since its foundation more hopeful and secure.

Previously to the opening of the present session, it was feared the College was about to lose the valuable services of Professor Redfern, who had done much to make its reputation. At the request of the authorities, however, he withdrew the resignation which he had tendered, and entered upon his duties as usual. At his first lecture he met with a most enthusiastic reception from the students who had assembled to hear him.

Dr. R. J. Anderson, who for some years held the appointment of demonstrator of anatomy to the College with great distinction, has, since the opening of the present session, been appointed to the Chair of Natural History in the Queen's College, Galway. He bears with him to his new office the good wishes of the students, and of all who had the pleasure of his acquaintance. Dr. Sinclair, who is Surgeon to the Ulster Hospital for Sick Children, and was the most distinguished student of his time at the College, has been appointed his successor.

The new departments for the eye and ear, and for diseases of women, established at the Royal Hospital in order to meet the requirements of the Royal University, and to render the clinical teaching more efficient and complete, have now fully realised all the expectations that were entertained for them.

The committee of the Royal Hospital are at present making arrangements to establish a hospital for consumption, in connection with their Children's Hospital and Convalescent Home, on the Throne Lands, and £6,000 have already been subscribed towards that object.

It is intended that the hospital should contain between thirty and forty beds, and it is hoped that about £25,000 will be raised towards its endowment.

In Lisburn, a beautiful memorial hospital to the late Dr. Thompson, who occupied a prominent position in medical practice in the north of Ireland, and enjoyed an extensive and lucrative practice, and died possessed of more wealth than usually falls to the lot of a toiling member of the profession, is being erected by his son-in-law, James Bruce, Esq., J.P., and will be fully endowed by him.

Another addition to the medical charities of Ulster is the establishment in Belfast of a new hospital, under the management of the Sisters of Mercy. Its wards are open to all without distinction of creed, and free of charge.

In the obituary of the year appear the names of several members of the profession, who occupied honourable positions, and exercised a considerable influence in society.

Among these may be mentioned Dr. James Moore, of Belfast, for many years one of the surgeons to the Royal Hospital; Dr. Gilmore, of Castleblayney; Dr. T. B. Barton, late surgeon to the Lifford County Infirmary, who was drowned in the Foyle while canoeing; Dr. Taylor, Downpatrick Dispensary District; and Dr. Irwin, Kilkeel Workhouse and Dispensary.

Dr. Barton has been succeeded by Dr. Boyd, of Strabane; Dr Taylor, by Dr. Olpherts, of Lurgan; and Dr. Irwin, by Dr. Wilson formerly of Fahan, Londonderry.

The North of Ireland Branch, which has now been six years in existence, has, during the past year, received a large accession of members. On January 1st, 1884, it will have a membership of 225, composed of the most respectable and representative members of the profession throughout the province.

The interest and attention of the profession have been, during the past year, much centred on the arrangements for the forthcoming annual meeting of the Association in Belfast. It is the desire of all that a cordial welcome be given to those of our professional brethren who may visit Belfast next July, and that the meeting may be made the occasion of uniting more closely, in one body, the members of the profession at home, and of forming and cementing a friendship with their professional brethren abroad.

OBITUARY FOR 1883.

DURING the year 1883, there has been a considerable number of deaths of members of the medical profession and of men eminent in sciences connected with medicine. Among those practising in the United Kingdom, or holding British diplomas, have been the following: Dr. Robert Elliot of Carlisle, an energetic physician and sanitarian; Dr. J. A. Wilson, formerly physician to St. George's Hospital; Dr. Francis Ker Fox, of Brislington, Bristol; Dr. James G. Lyon, Dispensary Surgeon to the Western Infirmary, Glasgow, and some time Secretary of the Glasgow and West of Scotland Branch of the British Medical Association; Dr. G. Gregory, of Bolton; Sir John Forsyth, late Principal Inspector-General Bengal Medical Department; Surgeon-General John Gibbons, Army Medical Department; Dr. T. C. Shinkwin, Surgeon to the North Infirmary, Cork; Deputy Surgeon-General J. E. Dickinson; Deputy Inspector-General Dr. Johnson Savage; Mr. T. Watkin Williams, of Birmingham, General Secretary for eight years of the British Medical Association; Mr. H. Clifford Gill, Superintendent of the York Lunatic Asylum; Dr. Wilkinson, Surgeon to the Limerick Infirmary; Dr. G. Mackenzie Bacon, Medical Superintendent of the Cambridge Lunatic Asylum at Fulbourn; Mr. John Wyer, formerly a surgeon in the army during the Peninsular war; Dr. J. Ligertwood Paterson, many years a leading practitioner in Bahia, Brazil; Dr. J. Kendall Burt, of Kendal, Honorary Secretary to the Border Counties Branch of the Association; Dr. J. M. Gully, a prominent hydropathic physician; Mr. P. F. De la Rue, many years Surgeon to the Devonport Workhouse Infirmary; Dr. Reynolds Peyton, Surgeon to the Roscommon Infirmary; Dr. James Reid, of Ellon, Aberdeenshire; Dr. James Palfrey, Obstetric Physician to the London Hospital; Mr. Alexander Milne, of Sunderland, author of manuals on midwifery and materia medica; Dr. William Farr, many years head of the Statistical Department of the Registrar-General's Office, and a most eminent authority on vital statistics; Deputy Inspector-General Archibald Alexander; Surgeon-General J. L. Holloway, Principal Medical Officer at Netley; Dr. W. E. Steele, Registrar to the Branch Medical Council for Ireland; Mr. B. Wills Richardson, Surgeon to the Adelaide Hospital, and Chairman of the Court of Examiners of the Royal College of Surgeons in Dublin; Mr. R. R. Robinson, of Newbury, formerly an army-surgeon, and present at the battle of Waterloo; Dr. Robert Druitt, author of the *Surgeon's Vade Mecum*, a highly popular work in the medical profession; Surgeon-General R. H. Renwick, and Surgeon-General A. A. Renton, late Madras Army; Mr. Peter Brendon, late of Highgate, one of the oldest members of the Royal College of Surgeons; Dr. C. J. R. Allatt, of Dover, the oldest Fellow of the Royal College of Physicians; Mr. James F. West, Surgeon to the Queen's Hospital, Birmingham; Mr. Benjamin Bell, an eminent and much esteemed surgeon in Edinburgh, and son of Mr. B. Bell, author of the well-known *System of Surgery*; Dr. George B. Whiteley, many years in practice at Cannes; Inspector-General J. Paynter, C.B.; Dr. A. P. Stewart, many years Secretary of the Metropolitan Counties Branch of the British Medical Association, and an earnest promoter of sanitary science. Dr. John McClelland, late principal Inspector-General Indian Army; Dr. Robert Boyd, Superintendent of the Southall Lunatic Asylum, and author of many valuable contributions to psychological medicine; Dr. James Arrott, many years a medical practitioner in Dundee, and half-brother of the late Professor Sharpey; Dr. J. H. Loftie Stoney, Lecturer on Anatomy in the Carmichael College of Medicine, Dublin; Dr. H. J. H. Bond, many years Regius Professor of Physic in the University of Cambridge; Dr. Benjamin Hunt, Physician to the Queen's Hospital, Birmingham; Dr. J. A. Smith, of Edinburgh, an able contributor to the sciences of archæology and zoology; Mr. P. Macpherson Grant, Surgeon Bengal Army; Mr. James Balding, many years in practice at Barkway, Herts; Dr. J. Edmondson, Medical Superintendent of the Enniscorthy Lunatic Asylum; Dr. Robert Moffat, of Falkirk; Dr. F. T. Twining, Assistant-Medical Officer of the Homerton Fever Hospital; Mr. James Shuter, Assistant-Surgeon to St. Bartholomew's Hospital; Dr. James Moore, Consulting-Surgeon to the Royal Hospital, Belfast; Dr. Robert S. Hudson, of Redruth; Mr. John Deighton, of Cambridge; Dr. J. Dale Hewson, thirty years Medical Superintendent of the Coton Hill Institution for the Insane, Stafford; Dr. C. Hilton Fagge, Physician to Guy's Hospital; Dr. Louis Borchardt, of Manchester, President of the Lancashire and Cheshire Branch of the Association, and many years Physician to the Children's Hospital at Pendlebury; Dr. John Macnaught, many years in practice in Jamaica, and afterwards in Liverpool; Mr. Moses Griffiths, of Manorowen, Pembrokeshire, formerly a surgeon in the army during the Peninsular war.

In foreign countries, and in the United States, the deaths of the following have been recorded:—Dr. Stannius, professor of physiology in the University of Rostock; Dr. von Schöller, formerly director of the obstetric department in the Charité Hospital, Berlin; Dr. von Sigmund, the celebrated syphilographist of Vienna; Dr. Sédillot, formerly professor in the University of Strasburg, and the author of many contributions to practical surgery; Dr. Bochdalek, emeritus professor of anatomy in the University of Prague; Dr. von Rinecker, professor and director of the syphilographic and psychiatric clinics, in the University of Würzburg; Dr. George M. Beard of New York, author of several essays on disorders of the nervous system; Dr. Basil Vladescu, professor of ophthalmic surgery in the University of Bucarest; M. Bertillon, an able contributor to vital statistics; Baron Jules Cloquet, the celebrated French surgeon (aged 94); Dr. Victor von Bruns, lately professor of surgery, and director of the surgical clinic, in the University of Tübingen; Dr. Andrejeff, professor of special pathology and therapeutics in the University of Warsaw; Dr. Lasègue, of Paris, editor of the *Archives Générales de Médecine*, and professor of clinical medicine in the Faculty of Medicine; Dr. Krishaber of Paris, an eminent authority on diseases of the larynx; Dr. Wilhelm Peters, professor of zoology and director of the zoological museum in the University of Berlin; Dr. K. F. von Heusinger, professor of pathology and therapeutics in the University of Marburg (aged 92); Dr. W. H. von Buren, professor of surgery in Bellevue Hospital Medical College, New York; Dr. G. G. Valentin, the eminent physiologist and professor of physiology in the University of Bern; Dr. Filippo Pacini, a celebrated anatomist and professor in the University of Padua; Dr. A. Wimmer, resident medical officer of the Royal Institute for the Blind in Munich; Dr. T. B. Wilbur, medical superintendent of the New York State Lunatic Asylum; Dr. A. Wernher, upwards of forty years a teacher of surgery in the University of Giessen; Dr. Parrot, professor of diseases of children in the Faculty of Medicine in Paris; Dr. Stockinger, emeritus professor of the theory of surgery in Buda-Pest; Dr. G. Ritter von Ritterhain, professor of surgery and obstetrics in the University of Prague, and for many years editor of the *Prager Medicinische Wochenschrift* and director of the lunatic asylum; Dr. Emilio Cipriani, for many years a leading surgeon in Florence; Dr. Wilhelm Baum, emeritus professor of surgery in the University of Göttingen; Dr. H. Rasch, professor of zoology in the University of Christiania; Dr. A. Plateau of Ghent, a distinguished contributor to the science of vision; Dr. Colomiatti, professor of pathological anatomy in the University of Turin; Dr. Louis Thuillier, a member of the commission sent by the French Government to investigate the cholera in Egypt; Surgeon-General Crane, head of the Army Medical Department of the United States; Dr. von Graf, a well known practitioner at Munich, and an able contributor to medical science; Dr. Marion Sims, the eminent American surgeon and gynæcologist; Professor Sven Nillson of Lund, in Sweden, an eminent naturalist (aged 97); Dr. J. M. Depaul, professor of clinical obstetrics in the Faculty of Medicine in Paris.

A TELEGRAM from Vienna states that it is reported from Trieste that cholera is again increasing in Upper Egypt.

THE Lacaze prize has been awarded to M. Balbiani, in consideration of his important researches on the anatomy and physiology of insects. The prize amounts to 10,000 francs (£400).

A TELEGRAM from Cape Town (*viâ* Plymouth) states that smallpox has broken out in Little Tugela, Natal, among some natives returned from the Diamond Fields.

THE Government, we are informed, has refused to renew the grant for Lady Strangford's hospital in Cairo; and, as the house now occupied by the patients has already been the subject of legal proceedings, culminating in an execution-judgment, which comes into force on January 1st, the future of the institution is extremely dubious.

WE are requested to state that the absence of the name of the President of the Royal College of Surgeons from the Committee appointed to carry out the measures deemed fit in regard to the case of Messrs. Bower and Keates is due entirely to his not having been made aware of the intention to hold a meeting upon the subject. Hence he, as President of the College, has been unable to add the sanction of his authority to a movement which has his entire sympathy and approval.

QUARANTINE AT CONSTANTINOPLE.

IT is specially announced in the *London Gazette* that the Board of Trade has received from the Foreign Secretary an intimation that a telegram has been received from Her Majesty's Ambassador at Constantinople to the effect that the Board of Health there has agreed to return to the cholera *réglement* of 1867, which involves a reduction of quarantine from twenty to ten days, pilgrims and pilgrim-laden ships being excepted.

MORTALITY IN PRISONS.

THE recently published report of the Prison Commissioners for the year ended March 31st last, shows that the total number of deaths from natural causes amongst prisoners of both sexes in the local prisons of England and Wales during 1882-83 was 141, representing a death-rate of 7.8 per 1,000 of the daily average population. This rate was 0.4 below that recorded in 1882, and was 2.2 less than the average of the previous 10½ years. Pulmonary phthisis was fatal in eighteen cases, but in twelve of these the disease was known to have originated before reception into prison.

RUSSIAN PRISONS AND SANITATION.

THE facts which come before us as to the unsanitary condition of Russian prisons, and the consequent large mortality, are of a startling nature; and their appearance seems to have little altered since the days when they were visited by Howard, and some of their horrors revealed. The official returns show that the prison at Tomsk, in which the persons condemned to exile in Siberia are lodged prior to setting out in gangs on their eastward journey, has of late proved a veritable pest-house. In the year 1882, no fewer than 1,268 of the prisoners there were treated for typhus fever. A still larger number suffered from attacks of dysentery and recurrent fever, while 1,311 others, mostly children, fell ill of diphtheria, small-pox, and measles; and, generally speaking, every inmate of the prison suffered from one or other of the above-mentioned diseases, and many from more than one. The number of deaths was very considerable.

MR. BRIGHT AND THE VACCINATION ACTS.

THE attention of Mr. Bright having been called to the manner in which the Vaccination Acts are enforced by the seizure of goods and imprisonment, Mr. Bright has replied as follows: "Dear sir,—I fear I cannot help you in your complaint against the Vaccination Laws. I think compulsory vaccination doubtful, and the repetition of penalties, as now practised, monstrous. The repetition of penalties creates or intensifies the agitation against the law, and, so long as they are inflicted, I suspect we shall see only a greater hatred of the law. As to compulsory vaccination, I am of opinion that, if it had never been insisted on or enforced, vaccination might have been as general as it now is, without the fierce opposition to it which now prevails in many quarters. The facts appear to me to be in favour of vaccination; but that it often fails of any good effect, and sometimes causes much evil, and even death, is admitted even by its warmest supporters. To me it is doubtful if persuasion and example would not have been more effective than compulsion; but to inflict incessant penalties upon parents, and to imprison them for refusing to subject their children to an operation which is not unfrequently injurious, and sometimes fatal, seems to me a needless and monstrous violation of the freedom of our homes and the rights of parents. The instances of harshness and cruelty which you mention shock me greatly. After so much contest for mildness in our laws, are such things still possible in our country?"

THE POET AND THE SWISS QUACK.

FROM a curious fact which has recently come to light at Chaux-de-Fonds, Turguénieff, the great novelist, did not put implicit confidence in the faculty; and, when medical men failed to relieve his sufferings, he sometimes applied to empirics. During the latter years of his life, he appears to have suffered much from a painful spinal complaint, for which he consulted many eminent physicians and tried innumerable remedies. According to *L'Impartial* of Chaux-de-Fonds, the police of that place took proceedings against a *medji*, or quack, whose supposed cures had won him a high reputation with the poor of the neighbourhood; and among the man's papers was found a letter from Turguénieff, written at Bougival, near Paris, describing his disease, and asking for a prescription. This fact, if true, proves that the patrons of the secret practisers of the healing art are not confined to the ignorant and obscure.

WESTON'S WALK.

AFTER the completion of his twenty-fourth day of fifty miles, Weston passed a very restless night at Ely. Next morning, he was unusually drowsy, and had to take an hour's sleep on walking about nine miles. His heel, too, was again painful and stiff; but, after the morning rest, he did mile after mile within the quarter of an hour. Invigorated by the usual two hours of rest in the afternoon, and by a substantial dinner, the pedestrian walked into Bedford at the rate of four and a half miles an hour—a pace he had kept up for nearly four hours. Thus pluckily did Weston complete a quarter of his entire task, or 1,250 miles. He was rewarded by a good night's rest, after which he set out on his twenty-sixth day's journey, in excellent form, at about half-past 4 o'clock A.M., reaching Northampton at seven minutes past 8 P.M., where he was escorted to the Town Hall by a band of music and an immense concourse of spectators. Next day, Weston's walk was from Northampton to Coventry; and his walking had been so fast, that he entered the latter town, at the close of forty-two miles, by twenty minutes past 4 in the afternoon, long before he was expected to arrive. The object of this ruse was to prevent the assembling of a great crowd, which might again have impeded his progress. The remaining eight miles were accomplished at the Corn Exchange. On the succeeding day (Saturday), the genial spring-like weather tempted a clergyman and another friend to accompany Weston, and they walked with him all the forty-one miles to Droitwich. "The wonderful wobbler's" heel was very sore after his rapid performance on the preceding day; but, after a few hours' walking, the stiffness wore off The last nine miles were covered at the Salters' Hall. In addition to Sundays, it was not thought right that Weston should walk on. Christmas Day; and the physician who drew up the conditions laid down that the fifty miles that would have fallen to Christmas Day were to be made up during the secular days in the same week Accordingly, Weston left Droitwich on Monday by five minutes past 3, completing the ten miles to Kidderminster in two hours and three-quarters. At the latter place, he walked, partly in a cricket-field and partly in the Drill Hall, till nearly midnight, by which time he had covered sixty-eight miles. On Christmas Day, he rested at Kidderminster, going thence to Birmingham on Wednesday.

SCOTLAND.

THE STUDENTS' CLUB "SOCIAL" IN EDINBURGH.

On Tuesday, December 18th, the "Students' Club" gave, in the Waterloo Hotel, Edinburgh, their annual "social" to a large and thoroughly appreciative audience of their teachers, friends, and colleagues. The chair was occupied by Professor Sir Herbert Oakeley, who opened the proceedings by some appropriate remarks. A principal feature in the entertainment was the appearance and performances of a good sized and well trained orchestra. On the possession of this orchestra, the University of Edinburgh is to be congratulated; and it is to be hoped that the tercentenary, in April next, will be graced by its appearance. Various songs, violin and violoncello solos were rendered with much taste; and a recitation, by Mr. Horsely, of "Clytemnestra" was a prominent feature in the evening's entertainment. The "social" was throughout a success, and the students' club has merited the greatest praise for its efforts.

COMPLIMENTARY SUPPER TO PROFESSOR HAY.

On Friday, December 14th, a complimentary supper was given to Professor Matthew Hay of Aberdeen, in the Waterloo Hotel, Edinburgh. Professor T. R. Fraser occupied the chair, and Mr. J. Murdoch Brown acted as croupier. A large number sat down to supper, and it was thoroughly representative of the profession in Edinburgh. Professors Maclagan, Simpson, Crum-Brown, Rutherford, Dickson, and Cossar Ewart were present, as were also a large number of Professor Hay's former colleagues in Edinburgh University, together with many members of the profession. The Chairman (with whom Dr. Hay was for many years assistant), after the usual loyal and patriotic toasts, in happy terms proposed the health of the guest of the evening, which was enthusiastically received, and appropriately replied to by Dr. Hay. The toast of the University of Aberdeen was proposed by the croupier, and responded to by Professor Cossar Ewart as a former official of that university. The other toasts were the "University of Edinbnrgh," proposed by Mr. C. W. Cathcart, M.B., and responded to by Professor Maclagan; the "Extramural School" in Edinburgh, proposed by Professor Rutherford, and replied to by Dr. D. Berry Hart; and "the Chairman," proposed by Mr. Johnston Symington, M.B. Songs were sung by Professors Maclagan and Rutherford, and by Messrs. Cathcart, Caird, Arthur Thomson, Hunter, James, etc. A very pleasant evening was spent; and it must have been highly gratifying to Professor Hay to have met so many old friends in such a pleasant fashion, and to have expressed to him their high appreciation of his worth.

THE GLASGOW MEDICAL MISSIONARY SOCIETY.

The sixteenth annual meeting of the Glasgow Medical Missionary Society has been recently held in the Christian Institute, Bothwell Street; Dr. Cameron, M.P., in the chair. The treasurer's statement showed that, at the close of the year, there was a balance against the Society of £122 10s. 1d. The income for the year amounted to £1,215 19s. 5d., and the expenditure to £1,242 8s. 11d., to which fall there was to be added the balance of last year, £96 0s. 7d. The building-fund now amounted to £2,459 0s. 7d. Dr. Henderson read the annual report, which showed that, although the income from all sources had exceeded that of last year, the balance against the Society had, to the extent of £36, increased. It had been decided to erect an additional building for mission-work, that the extra work of the mission might be efficiently carried on. The directors had secured a suitable site at the corner of Buchan and Oxford Streets, on the south side of the river; the building was well advanced; and they hoped to get entry to the same by Whitsunday. The estimates for the building were upwards of £2,000, and the ground had cost about £1,000. The amount at the credit of the building-fund account was £2,215, so that there would be a deficiency of about £700, which the directors trusted would soon be made up by generous friends. Dr. Cameron said he had long been convinced of the urgent necessity that prevailed in this city for the work in which the Society was engaged. The cases of fatal illness might be divided into three classes. The class which had attracted his attention consisted of many persons who had received no medical attention at all, and who, in this second city of the empire, had been permitted to die like vermin in their holes, without a single effort being made to relieve their sufferings or prolong their lives. He had ascertained that, in Edinburgh, a system of dispensaries had long prevailed, in connection with which there was a staff of physicians and students, who visited the sick poor, when requested, in their own homes. As a consequence, the number of uncertified deaths existed on a comparatively minor scale in Edinburgh. He had often advocated the adoption of a similar system in Glasgow, but for many years without success. He was glad to know that there were other institutions whose objects were to provide the sick poor with the services of skilled nurses; that must have considerably tended to diminish the number of uncertified deaths which took place in the city. He found that, in 1876, 22 per cent., or nearly one-fourth, of the entire number of deaths in Glasgow were uncertified; that was to say, persons who passed out of life without any medical attendance. Last year, he found that number had diminished to 9 per cent., or about one in every eleven persons. In any case, the proportion of one in eleven was far too large. Unfortunately, that did not even convey an adequate impression of the real misery of the case; for he found that the great apparent diminution in the number of uncertified deaths was attributed by Dr. Russell, the medical officer of health, from whose reports he had taken the figures, to the fact that the Friendly Societies' Act passed in 1876 required a certificate of the cause of death as a condition of the payment of burial-money in the case of a person insured in a benefit society. He could not help thinking that the decrease in the number of uncertified deaths was to be attributed, at least in considerable measure, to the operations of that and kindred societies; for he found that, through the agency of the Society alone, about 2,400 sick persons had within the last year been visited at their own homes. In order to comprehend how much still remained to be done, it was necessary to realise the very scant amount of medical attendance that was necessary in order to suffice to remove the cause of death from the uncertified category. Dr. Cameron agreed with the report, which stated that, in a number of cases, the misery brought under the notice of the officials of the mission was due to drink. But they should never lose sight of the fact that the entire families in these cases were not drunkards. The mother, it might be, or the father, and at least the children, were innocent sufferers. Now, when they saw the suffering of such dependants, caused and aggravated by the neglect of miscreants, who were bound to cherish and protect them, it seemed to him undesirable that any particular facility should be given in the recovery of burial-money; and he hoped that neither Dr. Laidlaw nor Mr. Laing would put themselves about to facilitate the recovery of insurance-money. In such cases, he thought the aid of the criminal law might with great propriety be invoked to discourage and punish the neglect that allowed helpless dependants to perish without putting forth the utmost effort to procure for them simple nutriment and medical attendance. In their interest, he considered that the law which permitted, and had for so many years permitted, such a scandalously large proportion of the deaths—for whether they took one-fourth or one-tenth, it was a scandalously large proportion—to occur without medical attendance, without medicine, and even without food, stood urgently in need of revision. It might be a matter of time; but in the interests of humanity, Christianity, and civilisa-

tion, it was their duty to do their utmost to encourage every voluntary effort which was made for the purpose of coping with so clamant and so ghastly an evil.

IRELAND.

BELFAST WORKHOUSE.

MR. HAMILTON, Local Government Board Inspector, in his recent half-yearly report on the condition of this institution, states that, on the occasion of his inspection, he found the several departments satisfactory, and that the general condition of the establishment was creditable to the guardians as well as to the officers in charge of it. The accommodation of the probationary wards has been improved; new bath-rooms in connection with them provided; a new laundry with drying-loft for the male infirmary; while two additional wards have been added to the children's infirmary, capable of containing forty beds each.

CORK WORKHOUSE.

A MEETING of the guardians was held last week for the purpose of electing a visiting physician to the workhouse in the vacancy created by the decease of Dr. John Wall. A preliminary objection was made to any appointment, but this was overruled, and the election proceeded with. There were three candidates, viz., Drs. T. Gelston Atkins, W. Ashley Cummins, and Magner. At the end of the second poll, Dr. Cummins received 45 votes, and Dr. Magner 30, the former being elected. Dr. Cummins has been attached to the South Charitable Infirmary, and his university career has been a very distinguished one.

LISBURN COUNTY INFIRMARY.

AT the Presentment Sessions for the Barony of Upper Belfast, held last week, on application for £500 for the County Infirmary at Lisburn, attention was directed to a resolution passed at the Upper Dunluce Presentment Sessions, held at Ballymoney on the 11th inst. The resolution was to the effect that the County Infirmary as situated at Lisburn had ceased to serve the purposes for which it was intended, and that, if such an institution were necessary, the funds of the county should be applied in connection with the Belfast Royal Hospital. The Chairman remarked that no money raised off the county could be applied to Belfast, which was now a separate barony, and, after some discussion, an amendment was proposed that the presentment be reduced to £300, which on being put was lost, and the presentment for £500 was then allowed.

NURSES FOR THE SICK POOR, BELFAST: BEDS FOR THE CONSUMPTIVE POOR.

THE Society for Providing Nurses for the Sick Poor, Belfast, accomplishes a wonderful amount of good by attending to the sick poor in their own homes, and supplying them with food, medical comforts, and various appliances when required. To those cases of consumption—a disease so prevalent in Belfast—which, in the advanced stages, are not admitted to the only general hospital in the town, it has been of great service; and during the ten years of its existence, the Society has attended in their own homes over 1,000 victims of this affection. Its operations, however, have been hampered by the want of beds, the Society's stock including stretchers, water-beds, etc., amounting to only thirty; but a very much larger number could be utilised, as it is desirable that each patient suffering from phthisis should occupy a separate bed. The matter has recently been taken up, and so far about twenty beds have been promised, but it is probable that this number will be more than doubled very shortly. Of course, there is the Throne Hospital, which, owing to the generous gift of Mr. Forster Green, will be at the disposal of consumptive patients; but there is a numerous class who do not care to enter a hospital, and prefer to end their days surrounded by their own families at home.

CHOLERA IN EGYPT.

[FROM A CORRESPONDENT.]

Cairo, Dec. 17th, 1883.

The Sanitary Commission, which was appointed some weeks ago to revise the constitution of the Sanitary Service of Egypt, has now nearly concluded its labours. The principal work of the Commission was done by a subcommittee, consisting of Mr. Clifford Lloyd, Dr. Murison of the Victoria Hospital, Dr. Ambrose (Italian), Dr. Salim Pasha, and five or six other members of the Sanitary Service. All that is yet certainly known as to the results of this Commission is that the Sanitary Board of Egypt is to be abolished, and replaced by a director attached to the Ministry of the Interior. This decision was only carried by the casting vote of the President, Tigrane Pasha, after Dr. Ambrose, a supporter of the Sanitary Board, had resigned his seat on the Commission. It is understood that the director will not necessarily be himself n medical man, but will be assisted by a medical sub-director. Of course many names are mentioned as probable occupants of these two posts, but as yet it is quite uncertain who will receive either appointment. The Medical Director, who will be Chief Sanitary Officer of Cairo, should be thoroughly and practically acquainted with sanitary science, and not ignorant of those national customs and geographical features of the country which are so hostile to sanitation in Egypt.

The public health of Cairo is, at present, cared for by twelve medical officers attached to separate divisions of the town, acting under a medical inspector and sub-inspector. The duties of these officers are to attend the poor in their districts, to take account of the births and deaths, to see that the streets, public baths, dairies, etc., are clean, and in a good sanitary condition, and generally to protect the public health. They must inspect the bodies of those who die without a qualified medical attendant; and this is the case with about one-third of the native population, even in Cairo. Of course, no one can tell what a person has died of from seeing the exterior of his body, and still less information can be gained from parents or relatives, whose medical terms are three in number only—diarrhœa, cough, and fever, and they will name whichever of them that they think the interlocutor desires; but if the dead person were either less than two or more than sixty years old, they consider that fact alone quite sufficient to account for death. It is thus seen of how little value is second-hand evidence in establishing the endemicity of cholera or any other disease. There is no doubt that one disease is endemic in Egypt, and that is enteric fever, which is specially prevalent just now. In this respect, Cairo does not differ from many old English towns, such as Oxford, in which, as in Cairo, the wells of water are in close proximity to the cesspools. In old Cairoan houses, the additional evil exists that both are situated in the ground floor of the house, causing fæcal emanations to ascend into the dwelling-rooms above.

Dr. Crookshank, who was appointed General Inspector of Prisons, not, as stated in my last letter, simply Medical Inspector, has already introduced great reforms, both in Cairo and in the provinces. I hope, in a future letter, to give some account of his work.

Mr. Armand Leslie, who, with Dr. Crookshank, is the only remaining "apostle" in Egypt, has been appointed Surgeon-General to General Baker's constabulary expedition to the Eastern Soudan.

We are now enjoying beautifully cool, bnt mild and sunny weather here; no fogs, no rain, and little wind.

THE BOWER AND KEATES CASE.

IN the letter recently addressed to the profession, the name of Professor John Marshall, F.R.S., President of the Royal College of Surgeons of England, was omitted from the list of the Committee, through a cause which is explained in a previous page.

From the number of letters received by the Committee indicating a wish that some steps may be taken to protect the profession from such ill-advised prosecutions in future, it is desirable to remember that a resolution was passed at the meeting held at Sir William Jenner's residence on December 10th, asking the Council of the Royal College of Physicians and the Council of the Royal College of Surgeons "to consider the propriety of representing to the Secretary of State for the Home Department that it is very desirable that there should be some arrangement by which the Public Prosecutor may obtain the assistance of skilled advisers when he is solicited to institute prosecutions of medical practitioners." It may be added that the Councils of both Colleges have already the matter under their consideration with a view to combined action. The memorial, if signed by the whole profession, will greatly strengthen any representation made to the Government by the two Colleges.

It may also be stated, in reply to other letters, that, although the memorial which members are asked to sign, refers only to the criminal prosecution, for the alleged manslaughter of the child, in which the Public Prosecutor was concerned, it is thought by the Committee that the profession will wish to defray the whole legal expenses incurred by Dr. Bower and Mr. Keates in connection with the matter, and these include the expenses of their defence in the civil action as well as in the criminal one.

Any gentlemen who have not received the letter and memorial issued by the Committee, are requested to communicate with the Honorary Secretaries.

The appeal was posted on Saturday, December 22nd, at midday; by 5 o'clock P.M. on the following Monday, 208 replies were received at the College of Physicians. A very large number has since been received, but it has been found impossible to acknowledge them in the present issue.

The following contributions to the Indemnity Fund (third list) were received before 5 o'clock P.M. on Monday, December 24th:

Sir Joseph Lister, Bart, F.R.S., London, £10 10s.; J. Hughlings Jackson, M.D., F.R.S., London, £10 10s.; W. Wood, M.D., Harley Street, £10 10s.; R. Quain, M.D., F.R.S. (Treasurer), Cavendish Square, £10 10s.; J. Blackstone, Esq., Regent's Park, £5 5s.; W. Adams, Esq., Regent's Park Road, £5 5s.; J. Cooper Forster, F.R.C.S., Upper Grosvenor Street, £5 5s.; Sydney Ringer, M.D., London, £5 5s.; W. C. Begley, M.D., London £5; W. Cadge, F.R.C.S., Norwich, £3 3s.; J. Sidney Turner, Esq., Upper Norwood, £3 3s.; Thos. Annandale, F.R.C.S., Edinburgh, £2 2s. 6d.

The following have sent Two Guineas each:

W. Cattlin, Esq., Highbury Place, N.; Walter Bryant, M.R.C.P., Sussex Square, W.; Vincent Ambler, Surgeon-Major, Bayswater, W.; C. A. Aikin, F.R.C.S., Hyde Park, W.; W. Bruce Clarke, M.B., Harley Street, W.; Sir Oscar Clayton, F.R.C.S., Harley Street, W.; G. Anderson Critchett, F.R.C.S., Harley Street, W.; John Easton, M.D., Hyde Park, W.; Berkeley Hill, M.B., F.R.C.S., Wimpole Street, W., Samuel Gee, M.D., Wimpole Street, W.; F. W. Towers, Esq., Brighton; Robert Liveing, M.D., Manchester Square, W.; Stephen Mackenzie, M.D., Finsbury Square; E. Nash, M.D., Notting Hill, W.; W. M. Ord, M.D., Brook Street, W.; R. J. Spitta, M.D., Clapham Common; Sigismund Sutro, M.D., Finsbury Square, E.C.; J. Thornton, Esq., Portman-square, W.; H. M. Tuckwell, M.D., Oxford; W. Allingham, F.R.C.S., Grosvenor Street, W. William Fuller, Esq., Piccadilly, £2.

The following One Guinea each:—

Edward Ablett, M.D., Whitehaven; C. H. Allfrey, M.D., St. Mary Cray; Julius Althaus, M.D., Harley Street, W.; Elizabeth Garrett-Anderson, M.D., Upper Berkeley Street; J. A. Ball, M.B., Stockport; Edgar Barker, Esq., Hyde Park Street, W.; Lionel Beale, M.B., F.R.S., Grosvenor Square, W.; Chas. E. Beevor, M.D., Harley Street: Henry Belcher, Esq., Brighton; F. M. Biggs, Esq., Child's Hill, N.W.; John Birkett, F.R.C.S., Green Street, W.; W. F. Blake, Esq., Campden Hill, W.; G. Fielding Blandford, M.D., Grosvenor Street, W.; Byrom Bramwell, M.D., Edinburgh; J. W. Bramwell, M.D., Tynemouth; J. Brisbane, M.D., Regent's Park, N.W.; Augustus Brown, M.D., Islington; H. Langley Browne, F.R.C.S., West Bromwich; Walter Buchanan, Esq., Chatham; Kyran T. Buggy, Esq., Framlingham; F. C. Bullmore, Esq., Falmouth; Henry T. Butlin, F.R.C.S., Queen Anne Street, W.; Thos. Buzzard, M.D., Grosvenor Street, W.; Jabez Carter, Esq., Bedford; A. W. N. Caudle, Esq., Henfield; W. Cock, Esq., Peckham, S.E.; J. A. Cooksey, Esq., Malvern; Sidney Coupland, M.D., Weymouth Street, W.; W. H. Crosse, Esq., Cubitt Town; Henry Curling, F.R.C.S., Ramsgate; Henry Dayman, F.R.C.S., Southampton; Benjamin Duke, Esq., Clapham Common; Clement Dukes, M.D., Rugby; W. J. Baily Eadon, Esq., Bristol; W. Eddowes, Esq., Shrewsbury; Alex. Forsyth, M.D., Greenwich; Robert Fowler, M.D., Old Burlington Street; John H. Galton, M.D., Upper Norwood, S.E.; James F. Goodhart, M.D., Weymouth Street, W.; Francis Goolden, Esq., Maidenhead; Edward B. Gray, M.D., Oxford; George Fox Grosvenor, M.D., Notting Hill, W.; F. B. Hallowes, Esq., Redhill; George Harley, M.D., Harley Street, W.; Robert Harris, M.B., Hackney; William Harris, F.R.C.S., Hellesdon; Wilmot Parker Herringham, M.B., Bedford Square, W.C.; Constantine Holman, M.D., Reigate; Geo. E. Jeaffreson, Esq., Framlingham; George Johnson, M.D., Savile Row; W. E. Ledgard, Esq., Kirkby Lonsdale; R. T. Leeming, F.R.C.S., Kendal; W. Liddon, M.B., Taunton; W. Withers Moore, M.D., Brighton; Edward J. Nix, M.D., Great Portland Street, W.; George Oliver, M.D., Harrogate; George Rice Ord, M.D., Streatham Hill, S.W.; William B. Page, F.R.C.S., Carlisle; G. E. Paget, M.D., Cambridge; Sidney Parsons, Esq., Notting Hill, W.; C. J. Pinching, Esq., Gravesend; Joseph Francis Porter, M.D., Bow Road, E.; William Price-Jones, M.D., Surbiton; R. Prosser, Esq., Broomsgrove; Smith Richards, Esq., Bedford Square, W.C.; E. Cuthbert Ring, Esq., St James's Square, S.W.; T. Morley Rooke, M.D., Cheltenham; Matthias Roth, M.D., Wimpole Street, W.; James Russell, M.D., Edgbaston; Felix Semon, M.D., Welbeck Street, W.; Malim Sharman, Esq., Birmingham; Thos. Sheldon, M.D., Notting Hill, W.; Ernest Barrett Smith, M.B., Twickenham; Wm. H. Spencer, M.D., Bristol; Henry Stilwell, M.D., Hillingdon; Joseph Harvey Sutcliff, Esq., Ripley; Horatio P. Symonds, F.R.C.S., Oxford; James Taylor, F.R.C.S., Chester; Thomas Taylor, Esq., Braintree; T. Pridgin Teale, F.R.C.S., Leeds; Frederic Thorne, Esq., Leamington; John Topham, M.D., Collingham Road; J. J. Tweed, F.R.C.S., Upper Brook Street, W.; John Underwood, M.D., Hastings; A. Law Wade, M.D., Wells; Thomas James Walker, M.D., Peterborough; Hermann Weber, M.D., Grosvenor Street, W.; Walter Whitehead, Esq., Manchester; G. Friend Whitely, Esq., J.P., Twickenham; Pugin Thornton, Esq., London; George May, Esq. Reading; C. Handfield Jones, M.B., London; W. Battershell Gill, M.D., London; J. Abernethy Kingdon, Esq., London.

W. Corbyn Finch, M.D., Salisbury, £1.

The following Half-a-Guinea each:

W. H. Barr, Esq., Bury; John Beddoe, M.D., Bristol; Cornelius Biddle, Esq., Merthyr Tydvil; C. H. Bloxsome, Esq., Fairford; Henry J. Buck, Esq., Clapham Common; James Cornwall, F.R.C.S., Fairford; John Gill, Esq., Welshpool; Joseph Harper, Esq., Barnstaple; Henry Jackson, Esq., Barnstaple; Albert Kisch, Esq., Maida Vale; J. Mulvany, Esq., Holloway Road; Geo. Robinson, Esq., Bedford; F. W. Salzman, Esq., Brighton; F. H. Spooner, M.D., Clapton; E. Symes Thompson, M.D., Cavendish Square, W.; J. N. Winter, Esq., Brighton; J. H. Wraith, Esq., Darwen; Otho F. Wyer, M.D., Leamington; James A. Rigby, M.D., Preston; Charles Rigby, M.B., Preston.

The following Ten Shillings each:

E. Adams, Esq., Liverpool; James Adams, M.D., Barnes; J. M. Appleton, Esq., Half-moon Street, W.; Robert Bruce, Esq., Old Street, E.C.; O. E. P. Chard, M.B., Eccleston Street; E. D. Doughty, Esq., Kensington, W.; D. Duke, Esq., Leicester; R. C. D. Durden, Esq., Leicester; R. S. Fowler, F.R.C.S., Bath; B. Lawrence Hawkins, Esq., Woburn; W. B. Hunter, M.D., Matlock; W. J. Qualtrough, Esq., Upper Holloway; Talfourd Jones, M.B., Brecon; W. Y. Veitch, Esq., Middlesborough; Leonard Williams, M.B.

The following Five Shillings each:

H. M. Baker, M.B., Leicester Asylum; R. W. F. Carter, Esq., Dulverton; J. Christian, Esq., Dulverton; F. W. Clarke, Esq., Bury St. Edmunds; W. Soltau Eccles, Esq., Upper Norwood; W. Moorman, Esq., St. Columb; Edmund Palmer, M.B., Thanet; D. W. Parsons, Esq., Liverpool; Frank Smith, Esq., Plumstead; E. A. Snell, M.B., City Road, E.C.; E. T. Tibbits, M.D., Bradford.

Other smaller sums:

Thos. Warner, Esq., Cirencester, 4s. 2d.; A. Haslewood, Esq., Buxton, 2s. 6d., T. Law Webb, Esq., Ironbridge, 2s. 6d.; A. Kebbell, Esq., Thaxton, 2s.; H. T. Wharton, M.A., Kilburn, 1s. 6d.; From a Poor Man, 1s. 4d.

ERRATA.—In last week's list, for Dr. Garskill read Gartskell, for Dr. Heywood read Heyward.

F. A. MAHOMED
R. W. BURNET } Honorary Secretaries.

Royal College of Physicians, Pall Mall East, S.W.

THE ROGERS TESTIMONIAL.

THE following additional subscriptions to the fund for a testimonial to Dr. Joseph Rogers have been received. It should be understood that the subscription to this fund is not confined to Poor-law medical officers. The Treasurer is Mr. J. Wickham Barnes, 3, Bolt Court, Fleet Street, E.C.; and subscriptions are received by the Editor of the BRITISH MEDICAL JOURNAL.

Ninth List.—Dr. Eyton-Jones, Wrexham, £1 1s.; Dr. A. Leachman, Petersfield, £1 1s.; Dr. Grime, Blackburn, £1; W. Powell, Esq., Cheltenham, 10s.; A. T. Moore, Esq., Reading, 10s.; E. R. Denton, Esq., Leicester, 5s.; M. R. Behrendt, Esq., Burrington, 5s.; Dr. B. Laverick, Staithes, 5s.; Ignotus, 5s.

MR. MORTON SMALE, who for several years has been the Medical Tutor at the Dental Hospital of London, Leicester Square, has been appointed Dean of the School in connection with that institution.

ASSOCIATION INTELLIGENCE.

COUNCIL.

NOTICE OF QUARTERLY MEETINGS FOR 1884: ELECTION OF MEMBERS.

MEETINGS of the Council will be held on Wednesday, January 16th, April 9th, July 9th, and October 15th, 1884. Gentlemen desirous of becoming members of the Association must send in their forms of application for election to the General Secretary not later than twenty-one days before each meeting, viz., March 20th, June 20th, and September 25th, 1884, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

FRANCIS FOWKE, *General Secretary.*

COUNCIL.

NOTICE OF MEETING.

A MEETING of the Council will be held in the Council Room of Exeter Hall, Strand, London, on Wednesday, the 16th day of January next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, December 22nd, 1883.

COLLECTIVE INVESTIGATION OF DISEASE.

CARDS for recording individual cases of the following diseases have been prepared by the Committee; they may be had on application to the Honorary Secretaries of the Local Committees in each Branch, or on application to the Secretary of the Collective Investigation Committee.

I. Acute Pneumonia.
II. Chorea.
III. Acute Rheumatism.
IV. Diphtheria, clinical.
V. Syphilis, acquired.
V*a*. „ inherited.
VI. Acute Gout.

URGENT.—*The Committee propose to publish a final report on Acute Pneumonia as soon as possible. Cases are therefore urgently needed. Cards will be received until further notice.*

NOTICE.—The *Life-History Album* prepared by the Collective Investigation Committee is now ready, and can be ordered of all booksellers, price 3s. 6d.

Applications should be addressed to

The Secretary of the Collective Investigation Committee,
September, 1883. 161A, Strand, W.C.

BRANCH MEETINGS TO BE HELD.

NORTH OF IRELAND BRANCH.—A meeting of this Branch will be held in the Bar Room of the County Court-house, Omagh, on Thursday, January 24th, at 1 P.M.—ALEXANDER DEMPSEY, M.D., Honorary Secretary, 26, Clifton Street, Belfast.

MIDLAND BRANCH.—A meeting of this Branch will be held in the Board Room of the Infirmary, Derby, on January 10th, to amend the rules of the Branch in accordance with the recent alteration of the laws of the Association.—L. W. MARSHALL, M,D., Honorary Secretary and Treasurer, Nottingham, December 24th, 1883.

CORRESPONDENCE.

URINARY FEVER.

SIR,—In the detailed report, which you were good enough to give, of my remarks on Urinary Fever, at the Medical Society of London, there is a slight verbal error, which is, however, of so much importance, that I cannot let it pass without requesting you to correct it.

Let me premise that I stated that the various febrile phenomena which occur in connection with disturbance of the urinary organs might be conveniently designated, for clinical purposes, as belonging to three distinct classes:

1. The transient attack of urinary fever;
2. The acute recurring form of urinary fever;
3. The continuous form of urinary fever, which may be either chronic or subacute.

It is respecting the first or "transient" form, that I am reported as saying, "it occurs in persons who have *not* the most healthy urinary organs." The word "not" is the error; the exact reverse is that which I desired to express. This transient attack may, and commonly does, happen in persons who have no sign whatever of renal disease, or of inadequate excreting power. It is thus unlike to the second or "recurring" form, which is associated, in many cases, with some affection of the kidney, but one which is not necessarily severe. On the other hand, the recurring attacks may prove to be the signs of a septicæmic infection, or a prelude to uræmic poisoning. It is unlike also to the third or "continuous" form, in which the renal organs are mostly considerably diseased.

The "transient" form arises at any age after puberty, often, probably, as the result of absorption of a minute quantity of urine after a very slight injury to the urethra. Possibly the attack may be due sometimes to a temporary disturbance of the nervous system, without local lesion; but inasmuch as there is reason to believe that the minutest recent lesion suffices to give occasion to absorption, when an act of micturition subsequently takes place, it is difficult to determine the cause of the phenomena in all cases.

The foregoing classification does not, of course, include the slight "shock" or fainting, which occurs to some individuals when a catheter is passed; nor the fatal "shock," which, in excessively rare instances, succeeds to simple catheterism, death occurring in twenty-four hours or so, with suppression of urine, the renal function appearing to be suddenly arrested. Such occurrences cannot be ranked as examples of "febrile" action.

I may be permitted to add that I have adopted the term "urinary" fever and not "urethral," because, although the urethra is generally the point of departure, the whole of the urinary organs are implicated in the pathological manifestation which results; moreover, the term corresponds with the *fièvre urineuse* of French authors.—I am, sir, yours obediently, HENRY THOMPSON.

Wimpole Street, December 22nd, 1883.

CATHETER-FEVER.

SIR,—No doubt there are such things as urethral fever, as well as fever due to vitiated urine, but I have a conviction that most of the cases to which Sir A. Clark refers are caused by the point of the catheter pressing against the apex of the bladder in a man of one of those types of constitution, whether due to age, intemperance, renal disease, or any other cause, in which a weak form of inflammation is easily set up. Imagine a patient of this sort going to a surgeon who passes, often with impetus, a catheter up to its hilt, or as far as it will go, *i.e.*, until it is pressed strongly against a lowly vitalised, if not diseased, mucous membrane; then, the urine being drawn off, the mucous membrane is still further compressed against the point of the instrument by all those forces (increased by the erect posture), which empty the organ—can one be at all surprised at evil consequences occasionally occurring, and if ending fatally to find, as in Sir A. Clark's second case, "the mucous lining congested, and in parts eroded, and everywhere covered with a greyish-white stinking mucus," in fact, sloughing? It is evident, too, that different degrees of injury, and different amounts of constitutional tendency to asthenic inflammation, might result in producing the varieties described by Velpeau, ranging from irritability of the bladder and early recovery, to low suppurative nephritis or pyæmia. For a long time past, and on this very account, I have been in the habit of putting two rings of paint around all my urethral instruments, one at six inches from the point, to mark the entrance through the triangular ligament, and the other at nine inches, to show when the bladder is reached. As these instruments are made of variable length, and never graduated, I have used this expedient so that I may know exactly where the point is; and I never, except in certain cases, as in using staff or sound, etc., push the catheter in more than half an inch or so beyond the second ring of paint, *i.e.*, just within the bladder, and nothing more. I have recently had under my care a gentleman, scarcely middle-aged, but of somewhat broken constitution, in whom unpleasant bladder-symptoms arise when he pushes on the bougie as far as it will readily go. I would strongly urge on the profession the advantage of using graduated urethral instruments, of only passing the point of a catheter or bougie just within the bladder, and, when giving a patient an instrument to use on himself, to put a ring of paint around it at the distance of nine inches from the point, and urge on him the importance of not pushing it onwards after the ring has disappeared within the meatus.—Yours sincerely, WILLIAM HARVEY, F.R.C.S., London.

Teignmouth, Devon, December 22nd, 1883.

BRITISH MEDICAL BENEVOLENT FUND.

SIR,—In the few days which have passed since the publication of my letter in the BRITISH MEDICAL JOURNAL, I have received the following donations and subscriptions, which I desire to acknowledge with warm and sincere thanks:—from John Colebrook, Esq., William Street, Lowndes Square, £10 10s. (making, with previous donations, a total of 50 guineas); Gerald Crécy Parnell, Esq., Forest Hill, 10s.; Frank Smith, Esq., Plumstead, £1 1s.; Dr. Turner, Finsbury Square, £5 5s.; Dr. Dukes, Sunnyside, Rugby, £1 1s.; Dr. Henry Castle, Newport, £1 1s.; W. Eddowes, Esq., Shrewsbury, £1 1s.; Mrs. Evans, Matron, City of London Lying-in Hospital (sub.), £1 1s.; don., £1; Dr. Sheldon, Wells, 5s.

Three shillings, for the purchase of the coveted fowl, have been sent by Mrs. Doubleday, and forwarded to the writer of the letter copied in my last communication, who has also been supplied with a ton of the best coal by Mrs. Coulson.

I should like to add that, besides the £2,200 given during the year in donations, more than £1,000 derived from investments has been distributed among fifty annuitants, most of whom receive £20 a year, which is augmented, in the case of a certain number of worn-out members of the profession, from a special fund, to £26, or 10s. a week.

The charity has no paid officers; so that, except a small percentage upon such subscriptions, etc., as are paid through the collector, and the expenses of printing and postage, all the money received goes to those for whom it is intended.

The committee meets once a month to receive applications, which must be supported by the testimony of medical men who vouch for the accuracy of the statements made. If, after careful sifting, and, when practicable, reference to an honorary local secretary or personal investigation by a member of the committee, a case be considered worthy of relief, a grant is at once made; but is usually distributed in weekly or monthly instalments.

Annuitants are elected twice a year. All applicants over the age of sixty are considered eligible, and a list of them is drawn up by the honorary secretary for cases; this is carefully gone over, with all the information which can be obtained, by a small subcommittee appointed *ad hoc*, which reports to the general committee, with whom the election rests. There are more than fifty eligible candidates; but, as they have no canvassing to do, and for the most part do not even know when their cases are under consideration, they have not the heart-sickness of hope deferred, and they are, moreover, relieved from the donation fund from time to time.

These are the characteristics of the fund which have commanded the increasing confidence and support of the profession, and will, we trust, continue to do so.—I remain, your obedient servant,

W. H. BROADBENT, M.D.

34, Seymour Street, Portman Square, Christmas Day, 1883.

MEDICO-LEGAL NOTES AND QUERIES.

MEDICAL SUPERINTENDENTS OF ASYLUMS AND GENERAL PRACTICE.

SIR,—When a medical man undertakes the duties of medical superintendent of a lunatic asylum, are the regulations so that he must give his services entirely to the asylum-work, or is he at liberty to cultivate a general practice outside? I shall feel much obliged for the information.—Faithfully yours,

MEDICUS.

*** The duties of medical superintendents of public lunatic asylums are defined by general rules, prepared by the committee of visitors, and submitted to the Home Secretary for his approval (16 and 17 Vict., c. 97, s. 53). These rules vary considerably in different asylums, but they almost without exception declare that the medical superintendent shall devote his whole time to the duties of his office, and shall not engage in any business or occupation save that of the asylum. In a few cases, medical superintendents have been permitted to act as consultants in cases of mental disease occurring in the neighbourhood of the asylum, but in no instance that we are aware of has a medical superintendent been allowed to engage in general practice. The Commissioners in Lunacy have always discountenanced extra-mural work of any kind on the part of medical superintendents of asylums, except when their special knowledge and skill may assist in the administration of justice; and, as the general rules of asylums, when they require revision, as they do from time to time, are, as a matter of practice, submitted to their judgment, it is certain that the restrictions in this matter will become more and more stringent. The policy of the Commissioners is certainly sound, as, considering the very large salaries now paid to medical superintendents, and the importance of constant supervision over the establishments under their care, there can be neither necessity nor justification for their entering into competition with their unsubsidised brethren. If the prestige and experience which are obtained by service in those large institutions for the insane which are maintained at the public expense, are to be used as passports to practice, then it is clear that their medical organisation must be altered and assimilated to that of a general hospital.

MEDICAL NEWS.

MEDICAL VACANCIES.

The following vacancies are announced:

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £150 per annum. Applications by January 15th.

BIRSAY, HARRAY, AND SANDWICK MEDICAL AID ASSOCIATION.—Medical Officer. Salary, £70 per annum. Applications to Mr. Moar, Quoyloo by Stromness.

CARLOW UNION.—Medical Officer for Workhouse and Fever Hospital. Salary, £150 per annum. Applications to January 3rd.

CITY OF DUBLIN HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications by January 12th.

DENTAL HOSPITAL OF LONDON, Leicester Square.—Assistant Dental Surgeon. Applications by January 14th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Resident Clinical Assistant. Applications by January 5th.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer. Salary, £120 per annum. Applications by January 14th.

OLDCASTLE UNION.—Medical Officer, Workhouse. Salary, £110 per annum, and £10 as Consulting Sanitary Officer. Election on December 31st.

PARISH OF ST. MARYLEBONE INFIRMARY, Rackham Street, Ladbroke Grove, Notting Hill.—Assistant Medical Officer. Salary, £130 per annum. Applications by January 2nd.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—House-Surgeon. Salary, £80 per annum. Applications by January 1st.

ST. THOMAS'S HOSPITAL.—Junior Anæsthetist. Applications to the Treasurer by January 10th.

UNIVERSITY OF EDINBURGH.—Additional Examiner in Medicine in the Department of Medical Jurisprudence. Applications to J. Christison, by January 14th.

WESTERN INFIRMARY, Glasgow.—Apothecary. Applications by December 31st.

MEDICAL APPOINTMENTS.

ADAMS, F. E., M.D., appointed House-Surgeon, Apothecary, and Secretary, to the South Charitable Infirmary and County Hospital, Cork, *vice* G. A. Rountree, M.D., resigned.

GRIFFIN, John, M.B., C.M. Edin., appointed Senior House-Surgeon to the Royal South Hants Infirmary, *vice* H. Wynter Shettle, M.R.C.S., etc., resigned.

HERON, G. A., M.D., appointed Physician to the City of London Hospital for Diseases of the Chest, *vice* E. L. Birkett, M.D., retired.

LIPSCOMB, A. A., M.R.C.S., L.S.A., appointed House-Physician to the London Hospital, *vice* C. M. Chadwick, M.B., etc.

ROBERTS, George A., appointed Assistant House-Surgeon to the Royal South Hants Infirmary, *vice* John Griffin.

SHAW, L. E., M.D., appointed House-Surgeon to the Victoria Hospital for Children, Queen's Road, Chelsea.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

HEATH.—On December 22nd, at 85, Gloucester Road, South Kensington, the wife of William Linton Heath, M.B., B.S., F.R.C.S., of a daughter.

ILLINGWORTH.—On the 25th instant, at Crowther Terrace, Clayton-le-Moors, the wife of C.R. Illingworth, M.D. (Ed.), M.R.C.S., of a son.

DEATHS.

COWAN.—On December 19th, at 27, Queen Square, Bath, Samuel Brice Cowan, F.R.C.S., in his 69th year.

PEARCE.—On December 19th, 1883, at Holy Cross House, Fulham, S.W., Anna Maria Gostwyck, relict of Thomas Pearce, M.R.C.S., and L.S.A., of Holsworthy, N. Devon, aged 76 years.

PRING.—On the 16th instant, at Pwllheli, Peter Burnett Pring, L.R.C.P.Ed., aged 33 years.

POISONING OF A LUNATIC.—An inquest has recently been held at the Cambridgeshire Lunatic Asylum at Fulbourne, before the County Coroner, on the body of William John Amps, an inmate of the asylum. It transpired from the evidence that on Wednesday, while the preparations for the Christmas decorations were being made in the asylum, the deceased was seen to chew some twigs of a yew tree, and he died a few hours afterwards. The medical witnesses were of opinion that sufficient narcotic poison had been taken by the deceased, who was apoplectic, to accelerate his death.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....St. Bartholomew's, 1.30 P.M.—Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.—Hospital for Women, 2 P.M.

TUESDAY.....St. Bartholomew's, 1.30 P.M.—Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY....St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY. .....St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women. 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.—Chelsea Hospital for Women, 2 P.M.

FRIDAY.....King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY. .....St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Tu. Th. F., 1.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., M. W. F., 12.30; Eye, M. Th. 1; Ophthalmic Department, W. 1; Ear, Th. 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily, exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S , 9.30; Skin, Th., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear, and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.45; Obstetric, Tu. F., 9.30; o.p., M. Th., 9.30; Eye, Tu. F. 9.30; Ear, W. S., 9.30; Throat, M. Th., 9.30; Skin, Tu. F., 9.30; Electrician, Tu. F., 9.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2, o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu. 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.30.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

THURSDAY.—Harveian Society, 8.30 P.M. Dr. T. Colcott Fox: On Urticaria in Infancy and Childhood. Mr. George Cowell: The Treatment of Purulent Ophthalmia of Infants.

FRIDAY.—Pathological Society, 8.30 P.M. Annual general meeting for election of officers and report of the Council. The following preparations will be shown. Dr. Norman Moore: Three Examples of Pancreatic Disease. Dr. Savage and Dr. Hale White: Further Specimens of Vacuolation of the Liver. Dr. Heneage Gibbes: Entozoon in the Lungs of an Animal. Mr. Bowlby: Epithelioma of the Ear. Mr. Jessett: Medullary Sarcoma of the Skull of a Child.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161A, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161A, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

SOUTH AFRICA AS A FIELD FOR MEDICAL PRACTITIONERS.

SIR,—Some time ago, I noticed a question asked in the medical papers regarding South Africa as a field for medical men. As a wellwisher of all my medical brethren, I think it is no more than my duty to give a warning word to those who come to South Africa in expectation of making their fortune.

When I came to this land, nothing was so discouraging to me as the tale from every medical man I met. His book-debts perhaps showed £1,000 *per annum*, and his actual income perhaps one-half of this sum.

For any one compelled to leave the home-country on account of health, I should certainly recommend South Africa if its climate be of a nature suited to him, as he may be fortunate in getting on a farm where his services will be recompensed by a sufficiency from his neighbours to enable him to live without much exertion. And then his life must be a muscular existence. The fact is, South Africa is overstocked with medical practitioners, and this has taken place within a few years. There is a town in the colony, near the Free State border, where one of three practitioners died lately. Six have come to take his place; and I may mention that two practitioners are almost sufficient for the town and its district.

A good "all round" man prepared to do work of all sorts and with a thorough experience, hospital and private, at home (for experience cannot be gained here very readily, owing to the few patients a medical man sees, and these few perhaps he sees only once in an illness) can do well, as he would most probably do well at home; but for any man whose practical knowledge of his profession is not ripened by years of experience, I should say that he had better remain in the mother-country, for he is much more likely to lose anything he has gained from practice than to gain anything he has not previously learned.

Practice out here is so entirely different from practice at home, that it is well perhaps that I should give some idea of it. Living as I am in the Free State, whose population of whites a year and a half ago was 62,000, I am amazed to hear of the number of qualified practitioners. At that time, the list of those licensed by the Free State (for which licence a man has to pay £20 yearly) amounted to forty. Licences are not required, except for the purpose of suing for fees, which many believe a bad policy; and the probability is that at that time there were as many or more practising without a licence as with it. Since that time, the population of the Free State cannot have increased more than 1,000 (I fear it has decreased, from collapse of diamond-fields), or one-sixtieth; while the medical practitioners have doubled their number. The natives have their own "doctors," and no amount of reasoning would persuade them to employ a white man.

If you get two or three patients, or say five patients, in a week in your district here you may consider yourself lucky, as these might be worth perhaps £10 to £12 (that is to say if they paid), as fees out here go. No doubt, if work were so plentiful as to give a man opportunity to live pretty much in the saddle, he would make his fortune; but a paying journey, especially now when the work is so much cut up, is a windfall to most men. Add to this the fact that it requires for this country a man who can accommodate himself to any circumstance, and your readers who are ambitious to seek their fortune here will, I think, pause ere they think of running the risk of a spoiled life, seeing what is before them.

However, if a man be prepared to rough it in many senses of that term, and to live absolutely wifhout any social advantages; if he have been engaged in all the branches of the profession, such as a country practice in a colliery district in England or Scotland affords; and if, besides having these recommendations, he be thoroughly sober and patient, and able to acquire the Dutch language (which is easy to a German or even a Scotchman, but difficult to an Englishman), then he will, in South Africa, do well. There are men here in South Africa making £2,000 annually, according to their books; while in the same town all the other practitioners, perhaps three or four in number—good men, too—are unable to get more than the bare necessaries of life by their profession alone.

A few years ago, when money was so plentiful, every one "got on," and many made small fortunes; but the rush of men here, even if the times were the same as formerly, has made a world of difference to many a well-established and good man. The total collapse of business over all South Africa, and the absence of rains for months, have reduced the land almost to one of famine at the present moment, for medicals as well as for others; and, should this fearful collapse be recovered from in a few years hence, and the population become wealthier and more numerous, the land will scarcely be sufficient decently to support the medical men already here who will manage to struggle through the awful times in store for everybody.—I am, sir, yours faithfully,

A SOUTH AFRICAN MEDICAL PRACTITIONER.

J. W. ELLIS.—Rumsey's book is published by Messrs. Smith, Elder, and Co., 15, Waterloo Place, London, S.W.

The Hind Fund.

The following additional subscriptions have been received and paid to the account of the "Hind Fund" at Messrs. Coutts' Bank:—

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Alcoholic Stimulants in Workhouses.

SIR,—I would esteem it a favour if some of your correspondents could favour me with information as to the amount expended in alcoholic stimulants in a few of the workhouses, having an average of 400 or 500 (sick) under the care of the medical officer.

The information is wanted in connection with the city parish poorhouse, Glasgow; some of the managers of the poor (myself among the number) being of opinion that some investigation is wanted.—I am, sir, yours truly,

371, Duke Street, December 21st, 1883. W. L. MUIR, L.R.C.P.

A Doubtful Experiment.

SIR,—I have just concluded an experiment which I think may be of service, or may lead to some observations which may be of use in the prevention and cure of disease. I have discontinued the use of flesh meat for nearly two years; but, on October 19th, I left off the use of all animal products, such as milk, butter, cheese, eggs, and honey. My weight was then 9 stones 8 ounces. In a month's time (the time my experiment lasted), my weight was 9 stones 3 pounds 12 ounces, or a gain of 3¼ pounds. The change was not pleasant at first, as I gave up the use of salt and pepper as well; my food tasted mawkish, and I was soon satisfied; but a week's practice soon made me relish my food, and now salt tastes distasteful. My usual exercise is from ten to fifteen miles a day, and I went on the same as ever, and I seemed none the worse for my change of diet. I even lost my bilious feelings which butter and cheese give rise to. I only broke my experiment once, and that was on November 14th, when I had a piece of cake which had an egg in it, but no butter. I calculated I took then a sixteenth of an egg.

My food was as follows: Breakfast, at 9 A.M., consisted of porridge made from equal parts of oatmeal and wheatmeal. This was followed by a cup of hot water, flavoured with fruit syrup and sweetened with sugar. At the same time, I had some bread fried in refined cotton-seed oil, or vegetable haggis fried in the same, the haggis being composed of oatmeal, wheatmeal, tapioca, mixed herbs, and Spanish onion, boiled in a cloth like a pudding. Dinner was taken at 2 or 3 P.M., and consisted of a thick vegetable soup eaten with wholemeal bread, or potato and onion pie, savoury pie, vegetarian pie, vegetable stew, stewed rice and tomatoes, etc. This was followed by a bread plum pudding, stewed figs, prunes, or raisins, and bread, or stewed rice and these fruits, etc. Tea meal, at 5.30 P.M., consisted of some fruit syrup and water, or a cup of cocoa. I had with it some bread and jam, stewed fruit, or green stuff, as celery, tomatoes, watercress, etc. Frequently I had only two meals a day, and a cup of cocoa and a biscuit at 8 P.M. The cost of my diet was a little over 6d. a day, and I could easily live for less. The quantity was not more than my usual amount. Now I have again returned to milk, butter, eggs, and cheese, when out visiting; but rarely are they seen on my own table.

I think the diet-cure will be found the philosopher's stone of medicine; by diet we can in a great measure prevent seven-tenths almost of our present diseases; or, if disease has set in, then simple food will allow the patient to recover most quickly. Most of our modern diseases can be traced to dietetic errors; excessive flesh-food, and want of active outdoor exercise and fresh air must be blamed for our diseases. All stomach-complaints, as indigestion, dyspepsia, gastric catarrh, biliousness, congestion of liver, jaundice, gastro-enteritis, hæmorrhoids, etc., are due to excess or wrong kinds of food; whilst biliary calculi, urinary calculi, rheumatism, gout, atheroma, Bright's disease, and apoplexy, all point to excess of nitrogenous material, which the system cannot get rid of, and so it remains and produces disease. The kidney being blocked up, more work is thrown on the heart, which then hypertrophies or becomes enlarged, the lungs share in the back-working, and thus the whole system becomes affected. Most of these diseases can be cured, or at least relieved, by a non-flesh diet. Epilepsy is often cured, and always relieved, by such a diet; and even cancer's wasting hand may be partially stopped. Most chronic cases can be relieved by our diet; and I have known some severe cases of general eczema cured by it alone.

The study is well worthy of the study of our scientists; and, if possible, I intend showing by experiment how urinary calculi may be dissolved by diet, and so the operation of lithotrity and lithotomy be avoided in many cases. The great secret of medicine must be, first, prevention; and, second, where disease already exists, its cure. If anyone would like to try this diet, I shall be glad to forward them a cookery-book containing over ninety recipes, on receipt of two stamps for postage, etc. It contains many dishes suitable for invalids, convalescents, those in delicate health, and others.—Yours truly,

T. R. ALLINSON, L.R.C.P.Ed.

31, Claremont Square, N., December 8th, 1883.

Tinea on the Eyebrows.

SIR,—Can any of your readers give me a hint in the treatment of an obstinate case of tinea on the eyebrows of a young lady? The disease has been treated, she tells me, by several doctors, with varying success, but she has never had more than temporary relief. I have tried most of the ordinary remedies, as described in the text-books, without any apparent benefit.—Yours truly,

M.D. (Edin.).

Ambulance-Carriages.

SIR,—It is desired to procure for this town an ambulance-carriage for the purpose of conveying patients to our nearest hospital, which is at a distance of some miles. What are the best carriages for the purpose? What are their relative advantages? Where can they be obtained, and what is the price in each instance?—Yours faithfully,

AMBULANCE.

An Annual Dinner for the Naval Medical Service.

SIR,—I beg to suggest that an annual dinner be held every year in London, in the month of May, of all past and present members of the Royal Naval Medical Service. It would be useful in many ways.—Yours, etc.,

ROYAL NAVAL DINNER.

Psoriasis Palmaris Syphilitica.

SIR,—I have a patient suffering from this skin-affection without any other perceptible indication of constitutional taint. I apply five per cent. of oleate of mercury locally, and internally give one-sixteenth of a grain of iodide of mercury in solution, four times a day. The psoriasis is confined to the left palm, and continues obstinate. I should be much obliged to any of the members of the British Medical Association who will give any suggestions as to treatment; also, I should like their opinion as to prognosis, and to the likelihood of visceral affection coexistent with the cutaneous manifestation.—I am, sir, yours faithfully,

M.B., C.M.

COMMUNICATIONS, LETTERS, etc., have been received from:

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BOOKS, ETC., RECEIVED.

The Book of Health. Edited by Malcolm Morris. London, Paris and New York Cassell and Company.

A Handbook of Hygiene and Sanitary Science. Fifth edition. London J. and A. Churchill. 1883.

The Laws Concerning Public Health. By W. R. Smith, assisted by Henry Smith, M.B. London: Sampson Low and Company. 1883.

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